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Date December 1, 2020 **Report No.** 2020-204

To Chair and Members
Committee of the Whole – Operations and Administration

From Inderjit Hans, P. Eng., PMP
General Manager, Public Works Commission

1.0 Type of Report

Consent Item	<input checked="" type="checkbox"/>
Item For Consideration	<input type="checkbox"/>

2.0 Topic Wastewater Allocation Policy – Annual Report for 2020 [Financial Impact - None]

3.0 Recommendation

THAT Report No. 2020-204, titled “Wastewater Allocation Policy – Annual Report 2020” BE RECEIVED.

4.0 Purpose and Overview

This report is intended to provide Council with an update on the Wastewater Allocation Policy, as approved by Council in July 2018 through Council Report PW2018-040, that was implemented in early 2019 and the current status of City Wastewater Infrastructure.

5.0 Background

In April 2018, Council approved the following recommendations from the report PW2018-019 “Impact on Development due to Wastewater Pumping Station Capacity Limitations”:

- A. *THAT Report No. PW2018-019 titled “Impact on Development due to Wastewater Pumping Station Capacity Limitations” BE RECEIVED; and*
- B. *THAT Staff of the Community Development Commission BE DIRECTED to initiate an application to amend the Zoning By-law to address the regulations relating to servicing and report back by July 2018; and*
- C. *THAT Staff of the Public Works Commission and Community Development Commission BE DIRECTED to report back with a framework and process relating to the allocation of servicing capacity and report back by July 2018; and*
- D. *THAT Staff of the Public Works Commission continue to monitor the status of the City’s infrastructure, particularly the Pumping Stations and UPDATE Council as necessary.*

The July Report PW2018-040: “Wastewater Servicing Capacity Allocation Policy Framework” addressed Item C for servicing capacity allocation policy framework as well as an update on Pumping Station Capacity as requested in item D. Item B is addressed in Report CD2018-084, which was also presented at the July 10, 2018 Committee of the Whole – Operations and Administration Meeting. In July 2018, Council approved the following recommendations:

- A. *THAT the Report PW2018-040 Wastewater Servicing Capacity Allocation Policy Framework BE RECEIVED; and*
- B. *THAT Staff undertake the development of a Wastewater Servicing Allocation Policy and By-law based on the framework outlined in Report PW2018-040, which includes stakeholder consultation, and REPORT back to Council for approval prior to implementation; and*
- C. *THAT Council APPROVE the short term works to improve the Empey Street and Fifth Avenue pumping stations and Allocation Tool development as identified in Report PW2018-040 and estimated cost of \$500,000 for the work BE FUNDED from the Wastewater and Related Reserve (RF0540); and*
- D. *THAT the General Manager of Public Works and the Purchasing Officer BE AUTHORIZED to award the short term works to improve the Empey Street and Fifth Avenue pumping stations as a “Pre-Approved Solicitation” in accordance with the City’s Purchasing Policy.*
- E. *THAT the additional scope of work for the Allocation Tool and associated cost to GM BluePlan Engineering Limited’s Purchase Order (OS1241) BE APPROVED as a noncompetitive award to be funded from the Wastewater and Related Reserve pursuant to the City’s Purchasing Policy, s.8.03 c, part (i).*

The City's wastewater collection and treatment system has finite capacity and it is the City's responsibility to ensure that wastewater capacity is allocated in a sustainable and logical manner. An allocation policy, as approved in the July report PW2018-040, is required to ensure that servicing requirements of future developments can be adequately accommodated with the City's wastewater infrastructure.

There are nine (9) Wastewater Pumping Stations (WWPS) in the City of Brantford, each servicing a specific geographic area. Wastewater collects through gravity trunk mains without going through pumping stations in some areas in the City.

In the July 2018 Report (PW2018-040) it was reported that there is a need to undertake improvements at two (2) wastewater pumping stations to ensure that they will function at the required capacity to accommodate the needs. The first stage of these improvements is now completed at the Empey Street and Fifth Avenue pumping stations. Further information on these improvements was provided in Wastewater Pumping Station Report PW2019-010.

Since the inception of the Wastewater Allocation Policy, City staff have continued to monitor and track Wastewater Allocation as new development proposals are submitted to the City.

6.0 Corporate Policy Context

The City of Brantford's mission statement is as follows: "The City of Brantford is committed to responsible leadership through sound fiscal management and the delivery of quality programs and services for the Citizens of Brantford.". Our vision is to be a contemporary community, thriving in a modern economy which implores a progressive approach to embracing the future.

This annual report on the City's Wastewater allocation is supportive of the following Council priorities for 2020/21:

Desired Outcome # 5

Growth is successfully accommodated in expansion lands.

7.0 Input From Other Sources

Input for this Report was provided by several departments in Public Works Commission including Engineering Services, Environmental Services, as well as from the and Planning Department of the Community Development Commission.

8.0 Analysis

The Policy that has been implemented coordinates with Planning and Building processes and uses information that already needs to be submitted by applicants. It sets out the process to apply for wastewater allocation, approvals, and expiry of allocation if a development doesn't proceed. Information is submitted by Owners / Applicants and reviewed by the Development Engineering Division of the Engineering Services Department. If there is sufficient downstream wastewater capacity, the allocation is approved on a first come, first serve basis as applications are received.

The following sections describe the Wastewater Allocation Policy and provide initial estimates of the capacity that will be allocated to growth in each of the catchment areas.

8.1 Wastewater Allocation Policy

Many municipalities have allocation policies for wastewater and water supply recognizing that a City's wastewater collection and treatment system has finite capacity. Such policies are necessary in order for a municipality to support and protect its citizens and infrastructure. The Wastewater Allocation Policy developed for the City of Brantford will:

- ensure that servicing capacity is allocated in a sustainable and logical manner
- provide a clearly defined and transparent process

The following sections provide an outline of the key components of the policy and how it will be applied.

8.1.1 General Policy Overview

All development within the City of Brantford that requires approvals under the Planning Act, Building Code Act, Zoning By-Law 160-90 or amendments to existing approvals will be subject to this policy. Exemptions are listed under Section 3.3 for residential properties where renovations or additions are proposed that do not create an additional dwelling unit, for new or expanded building where wastewater generations is not required and finally where existing septic beds are utilized and are to remain.

It is the intent of this policy to coordinate with the application process used by the Planning and Building Departments as the information required, in most circumstances, will already be provided by the Applicant/Owner of the proposed development. Wastewater Allocation requests and approvals will run concurrently with development applications as issuance and expiration of wastewater allocation will be tied to development approvals.

8.1.2 Coordination with Development Planning

Pre-consultation with developers, which is coordinated by the Planning Department, for development applications, will continue to be required. The current process ensures that the development community is informed at the beginning of the process, by Public Works, in regard to the availability of storm water, water and/or wastewater treatment, distribution and collection system capacity, prior to submission of new development and re-development applications.

Public Works will complete a preliminary review and comment on any servicing capacity issues during the Planning process for developments such as draft plans of subdivision, severances, etc.

8.1.3 Responsibility for Allocations and Monitoring

The Owner / Applicant is responsible for providing specific data and other information confirming the wastewater demands associated with the proposed development and to identify the required wastewater allocation.

The City of Brantford Public Works Commission (Public W o r k s) i s responsible for reviewing the data and information provided by the owner / applicant. Public Works is also responsible for the calculation of municipal wastewater conveyance and treatment system capacity and the tracking of potential growth capacity. The General Manager of Public Works may choose to delegate responsibility for the management and administration of this Policy within the Commission.

Tracking wastewater capacity from development, along with flow monitoring and system performance data provides a comprehensive set of information to monitor the implementation of projects identified within the City's Master Servicing Plan to ensure wastewater capacity is keeping pace with forecasted demands.

As existing infrastructure has finite capacity, part of determining available servicing allocation will require determining and tracking where the last available capacity is to be assigned. Where the remaining maximum useable capacity of a pumping station is nearing the last available wastewater allocation, subsequent applications for servicing allocation will be considered in competition. The process will require Council approval to award the remaining wastewater capacity as set out in Section 5.0 of the Policy.

8.2 Pumping Station Capacities

Since the implementation of the Wastewater Allocation Policy, staff have undertaken additional measures to improve and monitor the capacity of the

two most critical pumping stations (Fifth Ave and Empey Pump Stations) in the network of nine pumping stations in the City. The Fifth Ave Pump Station is currently under reconstruction with a target completion date of May 2021 with an upgraded capacity of 130 L/s. The Empey Pump Station upgrades are currently in the tender stage with a target completion date of 2022. The upgraded capacity of this station would be 1600 L/s.

Table 1 summarizes the most recent findings from the investigations and testing of the nine pumping stations in the City. It also identifies the useable capacity and that there is potential capacity that would be allocated to growth in the catchment areas for each station.

Table 1: Summary of Current Wastewater Pumping Station (WWPS) Capacity to be Allocated to Growth

WWPS	2018 Observed Capacity (L/s)**	Municipal Importance Reserve Allocation (L/s)	Maximum Useable Capacity (L/s)	2020 Existing Flows (L/s)*	Potential Growth capacity (L/s)
Empey Street	1120***	10	1110	771	339
Woodlawn Road	47	2.4	44.6	23.8	20.8
Somerset Road	260	10	250	115.8	134.2
Fifth Avenue	71	Not Available Due to Station Improvements underway			
St. Andrews	24	1.2	22.8	10.1	12.7
Greenwich Street	342	10	332	262.7	69.3
Lawren Harris Drive	73	3.7	69.3	16.5	52.8
Johnson Road	54	2.7	51.3	43.5	7.8
Alexander Drive	10	0.5	9.5	2.8	6.7

* based on 5 year peak wet weather level of service

**onsite testing at each WWPS Feb/Mar 2018

***onsite testing after completion of works Nov/Dec 2018

The information provided in Table 1 has been updated to December 2020 conditions as part of this annual reporting process to Council as set out in

Section 4.2 of the Policy. Public reporting of this information was requested as part of the public and stakeholder consultation.

9.0 Financial Implications

There are no financial implications for the City in adopting the Policy. A fee is not currently proposed for the implementation of the Wastewater Allocation Policy. The associated administrative costs are not significant at this time as the Policy builds on existing processes. There are existing Development Engineering fees to recover administrative costs from applicants. These fees will be reviewed as part of the annual budget process and adjusted as required.

10.0 Conclusion

The Wastewater Allocation Policy assists in managing the demands on the City's wastewater infrastructure while the City continues to develop and grow. The policy ensures that wastewater servicing capacity is allocated in a sustainable and logical manner in a clearly defined and transparent form.



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Russ Loukes, P. Eng., PTOE
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Public Works Commission



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

By-law required	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Agreement(s) or other documents to be signed by Mayor and/or City Clerk	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no
Is the necessary by-law or agreement being sent concurrently to Council?	<input type="checkbox"/> yes <input checked="" type="checkbox"/> no