

Sarah Wilhelm
Wellington County
74 Woolwich Street
Guelph, Ontario, N1H 3T9

Dear Ms. Wilhelm:

**Re: Functional Servicing and Stormwater Management Brief
Official Plan Amendment
6940 First Line – Skeoch Property
Township of Centre Wellington, County of Wellington**

SCS Consulting Group Ltd. has been retained by RBS & EJS Fergus G.P. Inc. to prepare a Functional Servicing and Stormwater Management Brief (FSSB) for a proposed development located at 6940 First Line (referenced as the “Subject Lands”), in the Township of Centre Wellington, County of Wellington. This servicing brief has been prepared to support the Official Plan Amendment (OPA) for the subject lands which are located northwest of the intersection of Garafraxa Street East and First Line, and are located immediately northeast of the Summerfields residential development (refer to **Figure 1**). The approximate site area is 39.0 ha (96.4 acres) with a net developable area of approximately 30.0 ha.

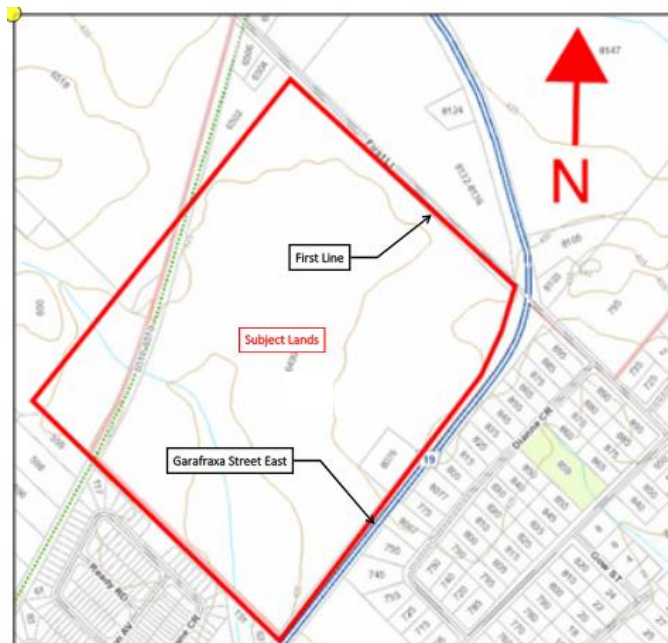


Figure 1 – Site Location (*Wellington County Interactive Maps, 2024*)

The Subject Lands consist primarily of agricultural lands with a treed area located on the west portion of the site. The western portion of the lands are within the area regulated by the Grand River Conservation Authority. The Elora-Cataract Trail runs through the northwest corner of the site.

Existing Topography and Drainage

The Subject Lands are located within the Grand River watershed. As shown in **Figure 2**, the site generally drains southwesterly towards Garafraxa Street East. An existing tributary of the Grand River traverses the western portion of the site, which conveys storm runoff southwest through the adjacent property, and continues south of Garafraxa Street East where flows are conveyed under the road via existing 1350 mm rise x 2200 mm span CSP arch culvert. Elevations throughout the site range from approximately 430 m to 417 m.



Figure 2 – Existing Topography
(Modified to illustrate drainage flow. Google Earth Pro, 2024)



Proposed Grading and Storm Drainage

In general, the proposed development will be graded in a manner which will satisfy the following goals:

- Satisfy the Township of Centre Wellington lot and road grading criteria;
- Provide continuous road grades for overland flow conveyance;
- Minimize the need for retaining walls;
- Minimize the volume of earth to be moved and minimize cut/fill differential;
- Minimize the need for rear lot catchbasins; and
- Achieve the stormwater management objectives required for the proposed development.

At the functional servicing design stage in support of Draft Plan of Subdivision, grading of the subject lands will be completed.

Stormwater conveyance will be provided through a combination of a municipal storm sewers sized to convey the 5 year storm runoff and an overland flow system within the municipal right-of-way (ROW) and easements, if necessary. The majority of the lands will drain to a proposed end-of-pipe Stormwater Management (SWM) facility as outlined below.

Stormwater Management

Stormwater management (SWM) will be provided for the site per the Ministry of Environment, Conservation, and Parks (MECP), Grand River Conservation Authority (GRCA), and the Township of Centre Wellington design criteria. This will include a treatment train of Low Impact Development (LID) measures and an end-of-pipe wet SWM facility. The LID measures will provide quality and erosion control, as well as water balance benefits and may include increased topsoil depth, roof drains to grassed areas and/or soak-away pits, infiltration trenches, bioretention areas, etc. More detailed investigation into the feasibility and the location of the proposed LID measures will be undertaken as part of the functional SWM design completed in support of a Draft Plan of Subdivision application for the subject lands.

Water quantity control will be required to control post-development flows to pre-development levels for the 2 through the 100 year storm events, which will be provided by a proposed wet SWM facility to be located in the southwest corner of the site. Erosion control and quality control (enhanced level protection - 80% Total Suspended Solids removal) will also be provided by the SWM facility which will outlet to the existing tributary of the Grand River in the southwest corner of the site. The tributary of the Grand River will provide a suitable storm outfall for the subject lands. The GRCA Regulation Mapping associated with this tributary has been shown in **Figure 3** below.



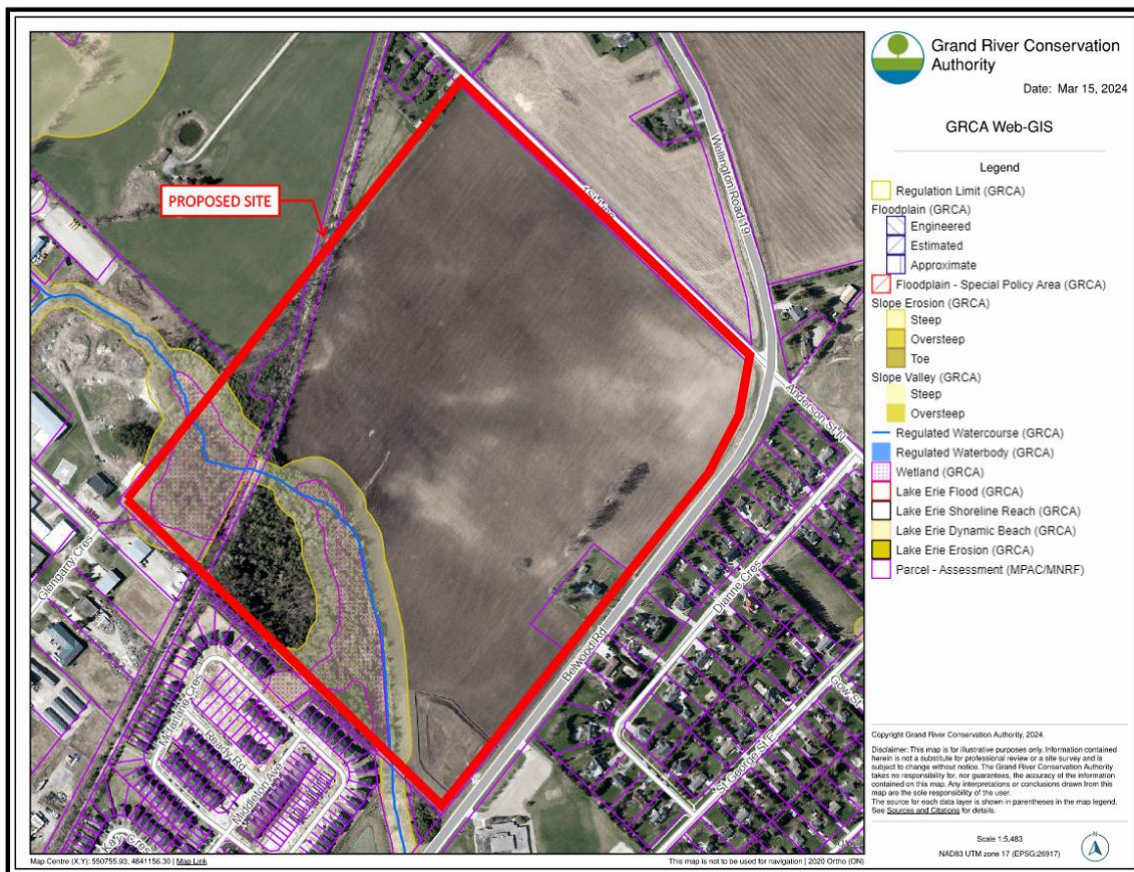


Figure 3 – O.Reg. 41/24 Regulation Limits (GRCA, 2024)

Proposed Sanitary Servicing

The Township pre-installed a 300 mm diameter sanitary sewer crossing below Garafraxa Street to facilitate the extension of the sanitary sewer to the Subject Lands. This 36 m crossing is situated just east of the unnamed tributary to the Grand River, approximately 50 m away from the corner of the Subject Lands (refer to **Figure 4** below). This sewer is approximately 4.5 m below the existing road on Garafraxa Street. Given that the Subject Lands and Garafraxa Street have significant grade dropping from east to west, the existing sanitary sewer will have sufficient depth to service the Subject Lands. Approximately 350 m of external gravity sanitary sewer will be required within Garafraxa Street to connect to this existing sewer as confirmed by the Township in the pre-consultation meeting notes dated November 13, 2024.

Downstream of this connection, drainage is conveyed to the existing trunk sewer running southerly on Tom Street to St. Andrew Street, where it continues westerly to the existing St. Andrew Street Pumping Station. Per the Servicing Memo prepared by RJ Burnside (dated May 30, 2016), the existing sanitary sewer system downstream of Garafraxa, which was constructed by the Township, was oversized to provide capacity for



the Subject Lands. This capacity (approximately 570 units) was initially accounted for by the Township in the St. Andrew Street Sewage Pumping Station (SPS), as discussed in the Functional Servicing and Preliminary Stormwater Management Report prepared by RJ Burnside (dated October 2010) for the Summerfields Development. The report indicates that the Township initially allocated an uncommitted capacity of 796 units. The Summerfields Development ultimately consisted of 231 units, which leaves a remaining capacity of 565 units. Per the pre-consultation meeting notes, an assessment of the St. Andrews SPS is required to confirm capacity, in addition to the impact of any increased flow from the subject lands on the downstream sanitary sewers. This analysis will be completed as part of the Functional Servicing and Stormwater Report (FSSR) to be completed in support of rezoning and Draft Plan of Subdivision applications. Sanitary treatment allocation will be requested from the Township to support this development.

As noted above, the subject lands are proposed to be serviced via gravity sanitary sewers that will convey wastewater drainage to the existing sanitary sewer on Garafraxa Street East. Sanitary sewers within the subject lands will be designed at a minimum cover of 3.0 m. The sewers will also be designed as per the following criteria, in line with the Township's Design Standards:

- Minimum pipe size: 200 mm diameter
- Minimum slope: 0.5%
- Minimum full-flow velocity: 0.8 m/s
- Maximum full-flow velocity: 3.0 m/s
- Average Daily Flow: 350 L/c/d
- Peaking factor as per the Harmon Formula
- Infiltration: 0.15 L/s/ha

Refer to **Figure 4** for the preliminary sanitary servicing concept.



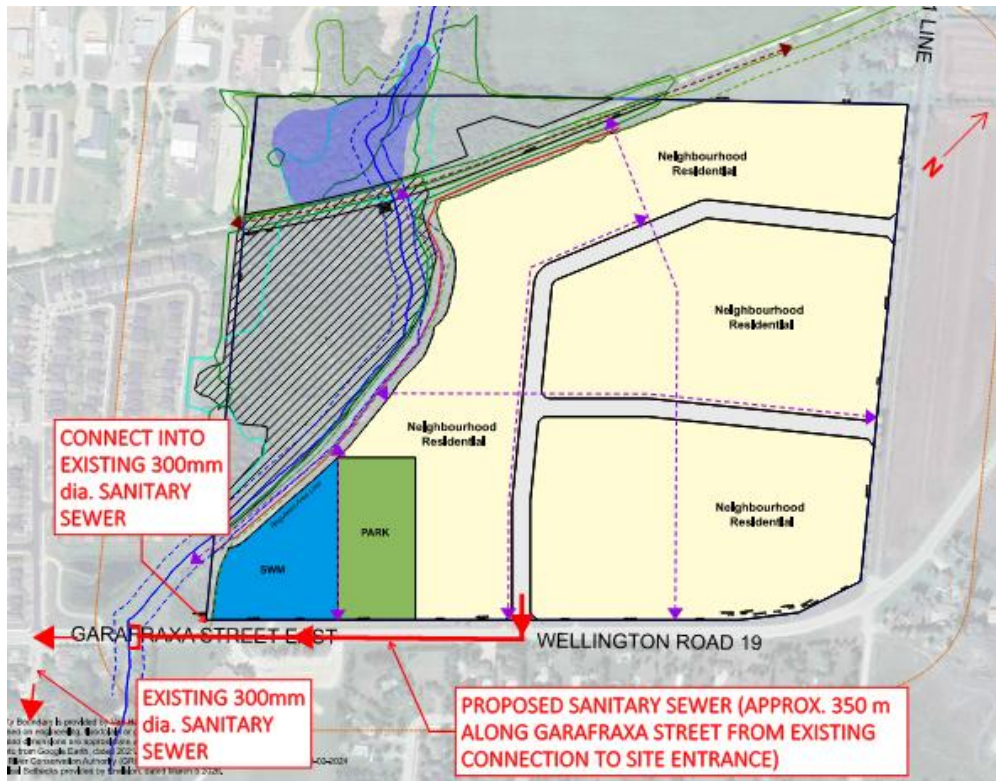


Figure 4 – Preliminary External Sanitary Servicing Layout

Proposed Water Servicing

As outlined in the Servicing Memo prepared by RJ Burnside (dated May 2016), the subject lands are situated within Pressure Zone 1 based on the existing site elevations. There is an existing 300 mm diameter watermain located on Garafraxa Street East, extending to approximately 70 m west of the southwest corner of the site, available for connection (refer to **Figure 5** below). The Servicing Memo also indicated that the subject lands have been accommodated for in the design of the existing municipal water infrastructure. As per the Functional Servicing and Preliminary Stormwater Management Report prepared by RJ Burnside (dated October 2010) for the Summerfields Development, the existing infrastructure contained reserve capacity for approximately 1,941 units, prior to the development of the Summerfields subdivision, which consisted of 231 units.

Additionally, as outlined in the pre-consultation meeting notes, a connection to the existing watermain on Dickson Drive on the north side of the Rail Trail will also be required. This will require extension of the local watermain approximately 175 m northwest across the Rail Trail to Dickson Drive. An analysis of the water system including field testing, as required, will be completed as part of the Functional Servicing and Stormwater Report (FSSR) to be completed in support of rezoning and Draft Plan of Subdivision applications to confirm the appropriate infrastructure sizing and configuration to provide adequate



supply and pressure to service the proposed development and to confirm that the existing water storage and supply infrastructure is adequate to service the subject lands. This will also include assessment of the required Pressure Reducing/Sustaining Valve and available fire flow. Once the assessment is completed, water supply allocation will be requested from the Township to support this development.

Watermain within the subject lands will also be designed as per the following criteria, in line with the Township's Design Standards:

- Minimum cover: 2.0 m
- Minimum pipe size: 150 mm diameter
- Average and Maximum Daily Demand: 350 kPa to 550 kPa
- Minimum Hour and Peak Hour Demand: 275 kPa to 700 kPa

Refer to **Figure 5** for the preliminary watermain layout.

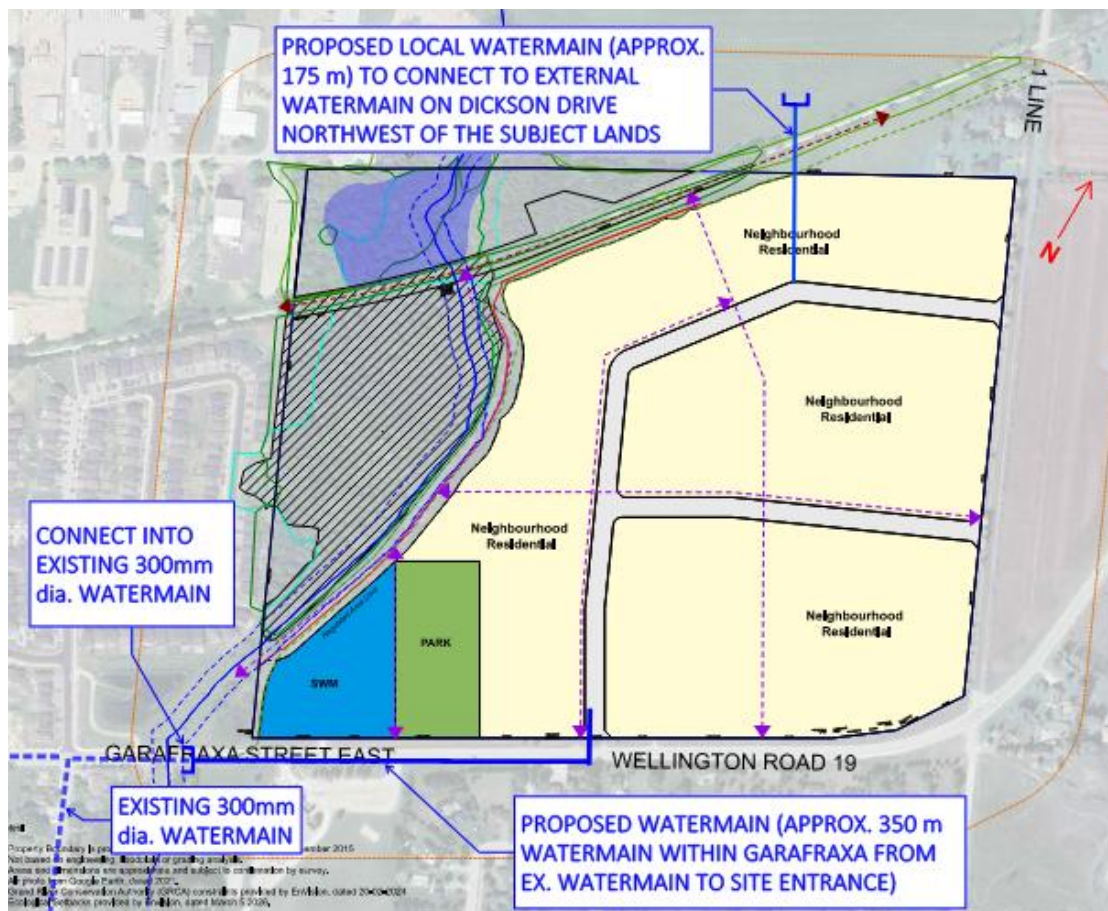


Figure 5 – Preliminary External Watermain Layout



Re: | **Functional Servicing and Stormwater Management Brief
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File #: 2718
March 30, 2026
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Summary

In summary, this FSSB has been prepared in support of the Official Plan Amendment application for the proposed residential development in the community of Fergus, in the Township of Centre Wellington. This letter brief outlines the means by which the proposed development can be graded and serviced in accordance with MECP, GRCA, and the Township of Centre Wellington design criteria and policies.

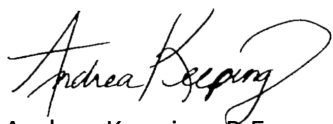
Minor and major system storm drainage from the Subject Lands will be directed by a storm sewer system and overland flow routes, respectively, towards a proposed wet SWM facility discharging to the tributary of the Grand River situated on the property. The proposed SWM strategy will include a treatment train of LID measures and an end-of-pipe SWM facility providing quantity, quality and erosion control, in addition to water balance benefits.

This FSSB has shown that existing municipal water and wastewater systems located on Garafraxa Street East and Dickson Drive are available to service the proposed development, subject to the assessment of capacity through the subsequent FSSR and confirmation of the Township of Centre Wellington's allocation.

We trust that this letter brief has provided sufficient level of detail on the proposed SWM and servicing infrastructure required for the proposed residential development to satisfactorily support the OPA application. Please contact the undersigned if you have any questions or require additional information

Sincerely,

SCS Consulting Group Ltd.



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