

Memorandum

PWC-C 3-2024

Subject: Update on Public Works Capital Projects

Date: May 7, 2023

To: Public Works Committee

From: Terry Ricketts, Commissioner of Public Works

The purpose of this memorandum is to provide an update on Public Works capital projects in response to a December Public Works Committee Councillor Information Request.

There are currently 483 active capital projects in various stages within the Public Works Department relating to Transportation Services, Waste Management Services and Water and Wastewater (WWW) Services.

Appendix 1 contains a status update for 65 capital projects. These projects have been selected because they are of public interest, are in construction now or will be in 2024, they have an effect on the community, or because they are large or strategic in nature.

Five (5) projects below are profiled in detail because they are of particular interest to the Region and community.

(1) Eastside Employment Lands Water and Wastewater Servicing (Capital Projects 20000711 and 20000623)

This project addresses issues that have been experienced by the Eastside Sewage Pumping Station forcemain and the need to improve the facility. The project also takes into account the future site servicing of the East Side Employment Lands and securing water supply to the east side of Port Colborne. Crossing the Welland Canal is a key component to this future site servicing and combining all possible services across the canal was a top consideration of the project.

Detailed design of a tunneled crossing of the Welland Canal is now underway. The crossing will house a new Barrick Road watermain, a new forcemain for the East Side Sewage Pumping Station and additional forcemains for servicing of the Eastside Employment Lands and east Port Colborne. The tender for construction is expected to

be ready for Spring 2025 with construction forecasted to be completed in 2027, subject to 2025 budget approvals. Field investigations for the project (Geotechnical investigations, topographic survey) have begun.

In parallel, the Region has been actively assisting the City of Port Colborne with their local water and wastewater servicing needs on the east side of the Welland Canal; the City project will include 5 km of local watermain and a 600 metre extension of the Region's transmission watermain.

Regional and City staff are working closely together to ensure that these connected infrastructure projects are aligned and being completed expeditiously.

Future funding strategies will be considered as part of regular budget deliberations.

(2) South Niagara WW Treatment Solutions – Wastewater Treatment Plant & Outfall (Capital Project 20000724)

The new 30 million litre per day (MLD) Wastewater Treatment Plant (the Plant) and associated wastewater system upgrades in South Niagara were originally recommended as part of the Region's 2016 Master Servicing Plan Update to accommodate future growth.

In 2018, the Region initiated the South Niagara Wastewater Treatment Solutions Environmental Assessment and conceptual design for the new South Niagara Wastewater Treatment Plant and Associated Collection and Conveyance Impacts Study. Through the Class EA the following projects were identified:

- South Niagara Wastewater Treatment Plant
- South Niagara Outfall
- South Niagara Trunk Sewer
- Brown Road Trunk Sewer
- Black Horse Sanitary Pump Station (SPS)
- Black Horse Forcemain
- Peel Street SPS Upgrades and Forcemain
- South Side High Lift SPS Decommissioning
- Garner, Grassy Brook SPS Decommissioning
- McLeod Road Overflow Diversion

Capacity from the new Plant will be made available to support growth in Thorold, St. Catharines, Niagara Falls, and Niagara-on-the Lake. In addition to diverting flows from the existing Niagara Falls and Thorold wastewater systems, the plant will accommodate

flows from existing and new developments as well as alleviate current and future demands on existing infrastructure.

This recommendation was adopted by the councils of both the Niagara Region and the City of Niagara Falls in 2017.

The new Plant and outfall RFP (2023-RFP-176) is anticipating award in April 2024 based on Council approved PW 10–2024.

The detailed design and construction services anticipated schedules for both projects are as follows:

- New South Niagara WWTP and Outfall (2023-RFP-176)
 - Detailed design – April 2024 to July 2026;
 - Tender and construction – July 2026 to December 2028
 - commissioning and in-service by July 2029;
- New South Niagara Trunk Sewer (2023-RFP-230)
 - includes trunk sewers along Montrose, Reixinger and Brown Roads;
 - Detailed design – May 2024 to January 2026;
 - Tender and construction – January 2026 to April 2028;

(3) Glenridge – Passive Gas System for Closed Landfill (Capital Project 20000167)

The Glenridge Quarry Naturalization Site (GQNS), formerly known as the Glenridge Quarry Landfill Site was operated as a quarry prior to 1976 when it began operating as a landfill. In December 2001, the landfill closed and was subsequently turned into a naturalization site.

Although the site has long been closed as a landfill, it still produces gases from the buried landfill material. Over the past couple of years, gas has been observed near the east and south property boundaries. This project involves upgrading the existing Passive Gas Venting System (the Gas System) on the east side of the property and installation of a new Gas System on the south side of the site. There will also be sheet pile/cut off walls added down gradient to mitigate the potential for any combustible gas to migrate beyond either property boundary.

Completion of these project tasks will mitigate gas migration beyond the site and address instructions by the Ministry of Environment Conservation and Parks to address issues related to the presence of the combustible gas.

The design work for this project was completed in 2023. Tendering of construction was initiated in February 2024. Work on this project is targeting completion through the spring and summer months of 2024.

Some accommodations will be implemented during construction but use of the site by the public will be maintained. Public access will be restricted during construction using fences and signs along with information and updates provided on the Region's website and through social media.

(4) Reconstruction of RR42 Ontario Street from Linwell Road to Lakeport Road (Capital Project 10RC1562)

The Municipal Class Environmental Assessment (EA) Study for Ontario Street was completed October 2016. The EA recommended improvements to this section of RR 42 Ontario Street including:

- Reconstructing the road to an urban cross-section
- Drainage improvements
- Cycling facilities
- Upgraded lighting
- Pedestrian facilities

The Region and the City of St. Catharines collaborated through the design process to ensure local requirements were included. Storm sewer construction, sanitary sewer rehabilitation, watermain replacement and sidewalk upgrades were all included in the reconstruction project on their behalf.

Detailed design was completed in May 2023. Preconstruction activities began in late 2022 with tree removal, water service extensions and utility relocation. In June 2023, the construction tender was awarded with construction starting in November 2023. A full road closure is now in place until May 2024 while the new storm sewer outfalls and retaining wall are constructed.

Construction activities will pause this summer to allow for uninterrupted traffic flow to accommodate the expected higher than seasonal traffic during the World Rowing Championship being held at Henley Island. Construction will resume in late summer and continue until its anticipated completion in summer of 2025.

(5) Capacity Improvements of RR98 Montrose Road from Lyon's Creek Road to Canadian Drive - Phase 1, Part A (Capital Project 20001191)

The Municipal Class Environmental Assessment (EA) Study for Montrose Road and Lyon's Creek Road / Biggar Road was completed in December 2021. To support the South Niagara Hospital Development and the related growth in the area, the EA recommended:

- Widening to a four-lane urban cross section with multi-use paths
- Intersection improvements at Montrose Road and Lyons Creek Rd/Biggar Road
- New traffic signals at the intersection of Reixinger Road and Montrose Road
- New signalized entrance to the proposed hospital from Montrose Road
- New signalized entrance to the proposed hospital from Biggar Road

The Region and the City of Niagara Falls collaborated through the design process to ensure local municipal requirements were included. Storm and sanitary sewer construction, watermain replacement, reconstruction of Biggar Road, and servicing to the future Reixinger Road extension were all included in the reconstruction project. Municipal servicing was also included in this contract to facilitate the future expansion of the urban boundary.

Parsons completed the detailed design in 2022. The construction tender was awarded to Beam-Rankin Joint Venture and construction began in March 2023. Municipal servicing, utility relocations, box culvert replacement/extension, road base, curb and gutters work and the intersection improvement at Montrose Rd and Lyon's Creek/Biggar Rd were completed.

Following a winter shut-down, construction resumed in April 2024 for the multi-use path, road and signal works, landscaping and site restoration and is expected to be completed by July 2024. The Region is working with the MTO and the City of Niagara Falls to design the next phase of the project that will include capacity improvements of Lyon's Creek Road at the QEW.

Information about capital projects can be found online on project webpages found on the Region's website or where a project webpage is not available, by contacting the listed Director (information is provided in Appendix 1). Councillors may also find additional information in CAPEX.

Staff will provide the next update on capital projects to Committee in September 2024.

Respectfully submitted and signed by

Terry Ricketts, P.Eng.
Commissioner of Public Works

Appendices

Appendix 1 Public Works Capital Projects Update Summary