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CITY OF BELLEVILLE

Deanna O'Leary, Manager of Engineering / Deputy Director
Engineering and Development Services
Report No. ENG-2023-22
December 6, 2023

To: Mayor and Members of Council

Subject: Capital Budget Item 24-1.001

Recommendation:

"THAT Report ENG-2023-22 providing background information on the construction budget for Avonlough Sewage Pumping Station and Conveyance System – Phase 1, Sidney Street Widening and Sidney Street / Bridge Street West Intersection Improvements, and Bridge Street West Reconstruction (Highland Avenue to Coleman Street) be referred to Capital Budget Item 24-1.001."

Strategic Plan Alignment:

Infrastructure: Plan for and invest in new or expanded infrastructure to establish sufficient capacity to provide for growth of our community.

Transportation and Mobility: Plan and develop a safe and efficient road and transportation system that addresses the needs of our residents and businesses

Background:

Capital Budget Item 24-1.001 is for the construction budget to build three major infrastructure projects:

- Avonlough Sewage Pumping Station and Conveyance System – Phase 1
- Sidney Street Widening and Sidney Street / Bridge Street West Intersection Improvements
- Bridge Street West Reconstruction (Highland Avenue to Coleman Street)

Loyalist West Belleville Secondary Plan

The Loyalist West Belleville Secondary Plan Area encompasses approximately 950 hectares (2347 acres) of land located east of Wallbridge Loyalist Road, south of Highway 401, and north of the Bay of Quinte. The Loyalist Secondary Plan was originally put in place in 2010 and is currently being updated to guide the growth and

development of this area. The Loyalist West Belleville Secondary Plan Update is expected to be presented to Council and the public for feedback and final approval in early 2024. The Loyalist West Belleville Secondary Plan will be a major growth area with future development of over 9000 residential dwelling units.

The 2010 Loyalist Secondary Plan Area Trunk Sewer Route Selection Master Plan identified the preferred wastewater servicing strategy for this area (see Attachment 1). This Master Plan divided the Loyalist West Secondary Plan Area into three sanitary drainage areas:

- Bell Boulevard Drainage Area
- Dundas / Palmer Drainage Area
- Potter Creek Drainage Area

Bell Boulevard Drainage Area was previously serviced in 2004 with sanitary sewer extensions connecting to the existing Fahey Trunk Sewer system.

Since the 2010 Master Plan, the City has implemented the recommended upgrades to the Dundas/Palmer Sewage Pumping Station and forcemain and has extended the trunk sewer westerly along Dundas Street West Plan to service the Dundas / Palmer Drainage Area. The Dundas Street Drainage Area has been rapidly developing (Potters Creek Subdivision, Village of Avonlea Subdivision, etc.) and is now nearing full buildout.

Currently, most of the remaining development lands in the Loyalist West Secondary Plan fall within the Potter Creek Drainage Area (from north of Potters Creek Subdivision to south of the Bell Boulevard corridor). The 2010 Master Plan recommended construction of a new Avonlough Sewage Pumping Station and related trunk sewers to service this Potter Creek Drainage Area.

The Avonlough Sewage Pumping Station and Conveyance System project is a key project in providing municipal wastewater servicing for the development of the Loyalist West Belleville Secondary Plan major growth area.

Avonlough Sewage Pumping Station and Conveyance System

Recognizing the need for “unlocking” the development potential of the Potter Creek Drainage Area, a Municipal Class Environmental Assessment was initiated to identify the preferred location for the new Avonlough Sewage Pumping Station (SPS) and the preferred route for the conveyance system to connect the new pumping station to the Belleville Wastewater Treatment Plant.

The Environmental Assessment was completed in February 2022 and recommended construction of a new sewage pumping station, a forcemain/gravity/pressure sewer from the new SPS to the west side of the Moira River, a pressure sewer crossing of the Moira River (across from City Hall), and a pressure sewer from the east side of the Moira River to the Wastewater Treatment Plant (see Attachment 2).

An accelerated detail design assignment was awarded in August 2022 and is scheduled to be completed in Summer 2024.

With the completion of the engineering design and construction contract documents for the new Avonlough Pumping Station and related sewers, construction of this critical infrastructure project can be tendered in late 2024. Construction will provide for development of the lands from the existing Potters Creek Subdivision northerly to the Bell Boulevard corridor. This large development area represents over 9000 residential dwelling units which corresponds to 20 to 25 years of residential development and growth potential (see Attachment 3).

Avonlough Sewage Pumping Station and Conveyance System – Phasing

The Loyalist West Belleville Secondary Plan will recommend an enhanced transportation network and municipal water and sanitary sewer extensions to service this currently undeveloped Potter Creek Drainage Area.

The Secondary Plan intends to include sequential growth policies. Logically, development would progress from south to north, with the construction of associated municipal infrastructure staged with development. As noted above, the Potter Creek Drainage Area represents 20 to 25 years of residential development potential. The detail design for the SPS has evaluated and recommended construction phasing so that assets are built over the next 20 to 25 years as needed. As a result, three phases of capital construction projects are recommended, each with associated upgrades to the SPS and conveyance system as development comes on-line and sanitary flows increase.

The Pumping Station design basis is summarized below:

Phase	Capital Construction Project at beginning of Phase	Projected Units by end of Phase (cumulative)	Peak Flow at Pumping Station
Phase 1 (2026 to 2034*)	Capital Budget Item 24-1.001 <ul style="list-style-type: none"> • SPS construction. Wet wells and process piping sized for ultimate buildout • Conveyance System (forcemain / gravity sewer) from SPS to west of Moira River (all pipes sized for ultimate buildout) • Interim Connection west of Moira River 	1,800	100 L/s
Phase 2 (2034 to 2045*)	Future Project <ul style="list-style-type: none"> • SPS upgrades. Replace smaller impellers on 2 pumps • Moira River Crossing (trenchless crossing) • Interim Connection east of Moira River 	5,600	380 L/s

Phase 3 (Beyond 2045*)	Future Project <ul style="list-style-type: none"> • SPS upgrades. Original pumps may be replaced, generator to be replaced • Pressure Sewer from east of Moira River to Wastewater Treatment Plant 	9,000	490 L/s (Ultimate Buildout)
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* Timing of future phases of the Avonlough Sewage Pumping Station and Conveyance System project will be dependent on the rate of development not only in the Loyalist West Secondary Plan Area, but also in the City's Northeast Industrial Park and other potential residential developments in the City's north end.

It is noted that construction of the pressure sewer from the west side of the Moira River to the Wastewater Treatment Plant is not required immediately. The Moira Pressure Sewer can become the temporary outlet for the new SPS until the flows from this new SPS increase substantially at which time it will become necessary to complete the connection of the pressure sewer all the way to the Wastewater Treatment Plant. The Moira Pressure Sewer is currently operating below its operational capacity, with the additional capacity being reserved for future development. These future developments include the Northeast Industrial Park and other potential residential developments.

Phase 1 is proceeding by initially tying into the City's existing Moira Pressure Sewer on the west side of the Moira River. Phase 2 will require a trenchless crossing of the Moira River and an interim connection into the City's existing Moira Pressure Sewer on the east side of the Moira River.

As development proceeds in all three of these areas, the final Phase 3 of the Avonlough Sewage Pumping Station and Conveyance System project will be required to complete the construction of a new pressure sewer from the east side of Moira River to the Wastewater Treatment Plant.

Capital Budget Item 24-1.001

Avonlough Sewage Pumping Station and Conveyance System – Phase 1

Capital Budget Item 24-1.001 for the infrastructure necessary to bring the new pumping station on-line includes:

- A new Sewage Pumping Station (SPS) with ultimate firm capacity of 490 litres/second. The new pump station will be located on the east side of Avonlough Road, south of Susanna Moodie School and north of Potter Creek. The new SPS is proposed to be provided with two wet wells, each with a self-cleaning trench design, and fitted with submersible pumps. The depth of the well below existing grade is approximately 13.5m. The SPS will include a building to house equipment, electrical controls, instrumentation, and alarms. Back-up

power will be provided by an on-site back-up generator and the site will be fenced for security.

- Twin 450mm diameter forcemain to connect the new SPS to the gravity sewer on Bridge Street West near Palmer Road. The forcemain installation will include watercourse crossings and installation through an ecologically sensitive area.
- A new 825mm diameter gravity sewer on Bridge Street West, from near Palmer Road easterly to near Isabel Street. The hydraulic capacity of this section of gravity sewer and all downstream components have been sized to convey full buildout flow from the SPS (490 L/s) plus an allowance of 200 L/s to accommodate flows from existing sewers that are currently connected to the sanitary sewer system on Bridge Street West and potential new sewers / service connections to facilitate growth and re-development, including the former Agricultural Fairgrounds site.
- A new 600mm diameter pressure sewer on Bridge Street West, from near Isabel Street to Coleman Street.
- An interim connection to the Moira Pressure Sewer on the west side of the Moira River. The interim connection will include new pressure sewer on Coleman Street from Bridge Street West northerly to an existing maintenance hole just south of Jane Street. The existing pipe crossing of the Moira River will be used until Phase 2 of the Avonlough Conveyance System project is required in the future. The existing Moira Pressure Sewer conveys sewage flow to the existing Wastewater Treatment Plant.
- Decommissioning and diversion of flow from the existing Avonlough SPS following the commissioning of the new station.

Sidney Street Widening and Sidney Street / Bridge Street West Intersection Improvements

The sewer outlet for the Avonlough SPS will run along Bridge Street West including through the Bridge Street West / Sidney Street intersection.

The City's 2014 Transportation Master Plan identified a series of recommended road network modifications including a project to "provide an additional northbound lane on Sidney Street between Bridge Street and south of Wilkins Street". A Municipal Class Environmental Assessment (MCEA) completed in May 2022 identified the preferred alternative for the Sidney Street Widening and Sidney Street/Bridge Street West Intersection Improvements (see Attachment 4).

For efficiency and economy, the detail design and construction of the Sidney Street Widening and Sidney Street / Bridge Street West Intersection Improvements project has been combined with the Avonlough Sewage Pumping Station and Conveyance System project.

Capital Budget Item 24-1.001 includes the road widening and intersection work at Bridge Street West / Sidney Street as follows:

- Widening Sidney Street to 5 lanes between Bridge Street West and Catharine Street (2- northbound lanes, 2-southbound lanes, one centre two-way left turn lane).
- Widening Sidney Street to 4 lanes between Catharine Street and Wilkins Street.
- Reconstructing and widening the Bridge Street West / Sidney Street intersection to include one dedicated left turn lane, one through lane, and one shared through / right turn lane on all approaches. Pedestrian crossings will be provided on each approach.
- Reconstructing the Sidney Street / Catharine Street intersection to become a 4-way intersection and making provisions for future traffic signals. This will accommodate the redevelopment of the former Agricultural Fairgrounds site on the west side of Sidney Street.
- Reconstructing the Bridge Street West / Yeomans Street / Wellington Street intersection to provide for future traffic signals.
- Reconstructing the Bridge Street West / Dunnet Boulevard intersection into a 4-way intersection and making provisions for future traffic signals to accommodate the redevelopment of the former Agricultural Fairgrounds site.
- Relocation of the multi-use trail along Bridge Street West to accommodate the improvements.
- Addition of landscape elements such as low level planter beds along Bridge Street West.

Bridge Street West Reconstruction (Highland Avenue to Coleman Street)

The sewer outlet for the Avonlough SPS will run along Bridge Street West including the section from Highland Avenue to Coleman Street (Lower Bridge).

This section of Bridge Street West is a concrete road built in the 1960's and is showing signs of deterioration. Located under this section of Bridge Street West is a 400mm diameter trunk watermain which City records indicate was installed in 1888 and has clearly reached the end of its service life. In addition to the proposed Avonlough PS conveyance system, there are other existing sewers within this section of road of varying ages, some of which require rehabilitation or replacement.

Capital budget for a Municipal Class Environmental Assessment (MCEA) and preliminary design project was approved in 2022 (22-1.004) to look at reconstruction options for this section of Bridge Street West, however, the project was placed on hold awaiting finalization of draft MCEA Amendments proposed to streamline and modernize the EA process. The Ontario Minister of Environment, Conservation, and Parks approved the MCEA Amendments in March 2023. This project is now exempt from an MCEA under the new MCEA Amendments.

AECOM Canada Ltd. is completing the detail design of the Avonlough Sewage Pumping Station and Conveyance System including Sidney Street Widening and Sidney Street / Bridge Street West Intersection Improvements. Design of conveyance sewers along this section of Bridge Street West are already included in AECOM's scope of work, however, the detail design for the full road reconstruction and watermain replacement

were not included in the initial procurement. A separate Report to Council is being prepared to recommend reallocating the Bridge Street West MCEA and preliminary design budget (22-1.004) for its detail design and adding the detail design work to AECOM's assignment as it qualifies as a Sole Source procurement in accordance with the City's Purchasing Policy.

For efficiency and economy, both the detail design and construction of the Bridge Street West Reconstruction (Highland Avenue to Coleman Street) should be combined with the Avonlough Sewage Pumping Station and Conveyance System project.

Therefore, Capital Budget Item 24-1.001 includes the road reconstruction work on Bridge Street West from Highland Avenue to Coleman Street. All details are not yet known but the construction estimate includes:

- Roadway reconstruction
- Watermain replacement
- Sewer repairs and replacements as necessary to address deficiencies

Future Commitments

Capital Budget Item 24-1.001 is the construction budget for:

- The (new) Avonlough Sewage Pumping Station and Conveyance System – Phase 1
- The Sidney Street Widening and Sidney Street / Bridge Street West Intersection Improvements
- The Bridge Street West Reconstruction (Highland Avenue to Coleman Street)

The combined project is a major, multi-year construction project and there is an urgency to bring this new pumping station on-line to support development in the Loyalist West Belleville Secondary Plan Area as soon as possible.

Scoping this construction project considered other associated capital projects that will be required in the future but are not proceeding to construction at this time.

- Bridge Street West and Marshall Road Watermain and Local Sanitary Sewer Extension (20-1.005)
 - Only the sanitary sewer trench will be reinstated along Bridge Street West under Capital Budget Item 24-1.001. Full road reconstruction and urbanization (storm sewer, curb and gutter, sidewalk) will be completed with future watermain and local sanitary sewer installations on Bridge Street west of Haslett Court.
- Moira River - Trunk Watermain Crossing (22-1.091)
 - The existing trunk watermain along Coleman Street and crossing the Moira River is original construction (circa 1950's). Capital Budget Item 24-1.001 is using an interim connection to the Moira Pressure Sewer on the west side of the Moira River. Phase 2 will require a Moira River Crossing for the Avonlough Pressure Sewer to connect on the east side of the Moira River. The new trunk watermain crossing is not necessarily fixed at

its existing location. With two river crossings being planned in proximity, it may be beneficial to combine both crossings into a single future construction contract if project timing can be aligned.

- Bridge Street West Extension (Marshall Road to Avonlough Road)
 - Only the sanitary sewer trench will be reinstated along Bridge Street West under Capital Budget Item 24-1.001. Intersection improvements at Bridge Street West and Marshall Road will be required in the future.
- Decommissioning of four pumping stations including local gravity sewers to Bridge Street West
 - Capital Budget Item 24-1.001 supports the retirement of four existing pump stations: Cascade Boulevard, West Moira Street, Roblin Place, and Centennial SPSs. Future local sanitary sewer installation and SPS decommissioning projects will be required.
- Avonlough Sewage Pumping Station and Conveyance System - Phase 2
 - Construction of a new pressure sewer from Bridge Street West / Coleman Street to the east side of the Moira River (parking lot across from City Hall) including trenchless crossing of the Moira River.
 - Construction of an interconnection chamber between the new pressure sewer and the existing Moira Pressure Sewer (located on the east side of the Moira River at City Hall).
 - Upgrades to impellers on sewage pumps at Avonlough SPS.
- Avonlough Sewage Pumping Station and Conveyance System - Phase 3
 - Pressure sewer connection to the Wastewater Treatment Plant via Dundas Street, St. John Street, St. Paul Street, and George Street.
 - Original 4 pumps and generator at Avonlough SPS may need to be replaced.

Financial / Analysis:

Capital Budget Item 24-1.001 supports:

- Development of up to **1,800** new residential units in the Loyalist West Secondary Plan Area with Phase 1 of the Avonlough Pumping Station and Conveyance System project and ultimately over 9,000 residential dwelling units with future Phases 2 and 3.
- Redevelopment of the former Agricultural Fairgrounds site on the northwest corner of Bridge Street West / Sidney Street intersection.
- Development of 40 Wilson Avenue.

Capital Budget Item 24-1.001 is in alignment with the endorsed growth strategies for the City, supports housing pledge commitments, aligns with provincial and strategic priorities and is in alignment with the budget prioritization guidelines prepared from community engagement feedback. The intent is to apply growth related grant funding as it may become available to this priority project.

Project Funding

Funding Breakdown	\$ (000s)
Water Reserve Fund	6,000.0
Non-User rate Reserve Funds	695.7
Development Charges	6,699.7
Grants	8,436.7
Canada Comm. Building Fund	3,800.0
Taxation Debt	2,643.9
User Rate Debt	26,724.0
Total Budget	55,000.0

The following key funding sources of this project are further detailed below:

Building Faster Fund (Grants)

The Province of Ontario launched the Building Faster Fund in August 2023. The Ontario Government has assigned the City of Belleville with a housing target of 3,100 new homes by 2031 to receive funding. Bonuses for achieving more than the targets are in place, as well as reductions for not hitting targets. Municipalities must reach at least 80% of their annual targets or will not receive any funding allocation for that year.

Currently \$826,700 of Building Faster Funding is being applied to this project, which is representative of the expected first year of funding for the program if targets are met.

Housing Accelerator Fund (HAF)

In August the City completed a Housing Action Plan which supports the \$22.3 million application submitted to the Housing Accelerator Fund. The Housing Action Plan included several initiatives to support housing growth, with any funds received outside of the direct initiative funding to be utilized to support growth activities.

This project will directly support the growth requirements and objectives set out in the Housing Action Plan. Currently there is no HAF funding being allocated to this project. HAF application decisions are expected to occur by year-end.

Development Charges (Non-User rate Reserve Fund)

Much of the work included in Capital Budget Item 24-1.001 is to support development. Infrastructure costs for the Avonlough Sewage Pumping Station and Conveyance

System and the Sidney Street Widening and Sidney Street / Bridge Street West Intersection Improvements were covered in the Development Charge Calculation in the 2021 Development Charges Background Study prepared in accordance with the Development Charges Act. Therefore, this Capital Budget Item 24-1.001 will be partially funded by Development Charges.

Based on current estimates, Development Charges totaling approximately \$6.7 million are being applied to this project to reflect the current growth benefit as outlined in the Development Charges Background Study.

Debt Funding

The debt issuance upon completion of this project is forecasted at \$29.4 million, yielding an estimated annual debt repayment of \$2.1 million. This debt primarily relates to wastewater infrastructure that will be primarily funded by development charges to be collected in the City's post planning period:

	Tax-funded	User-Rate Funded	Total
Forecasted issuance	\$2,643,900	\$26,724,000	\$29,367,900
Forecasted annual repayment	\$191,200	\$1,932,100	\$2,123,300
Post-period growth proportion	100%	75%	77%
Impacts	No tax impact \$483,000 Increase in wastewater user revenue		

Tax and User Rate Revenue

The expansion of this residential area will increase the assessment base and the user fees generated for this area. By the end of the build out period for the infrastructure put in place for Phase 1, the expected number of units will be 1,800 and is estimated to generate approximately \$7.2M of tax revenue (based on 2023 municipal tax rate)

Phase	Projected Units by end of Phase (cumulative)	Cumulative Municipal Tax Revenue	Cumulative Water Revenue	Cumulative Wastewater Revenue
Phase 1 (2026 to 2034*)	1,800	\$7,194,400	\$1,481,300	\$1,284,700
Phase 2 (2034 to 2045*)	5,600	\$22,382,400	\$4,608,600	\$3,996,900
Phase 3 (Beyond 2045*)	9,000	\$35,971,800	\$7,406,600	\$6,423,600

Summary

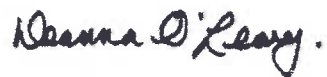
Three previously planned major infrastructure projects are now proposed for construction under one large project in Capital Budget Item 24-1.001.

Detail design is currently scheduled to be completed Summer 2024, allowing tendering and contract award(s) in late 2024 so that equipment shop drawings and product data can be reviewed and orders placed. Construction for this combined project is currently planned to progress under two contracts and construction duration will be dependent on construction and traffic staging plans currently being detailed as well as equipment and material lead times. Construction is envisioned to carry into 2027 for completion of road reconstruction.

Conclusion:

Staff is recommending that the issue be referred to Capital Budget Item 24-1.001.

Respectfully submitted,

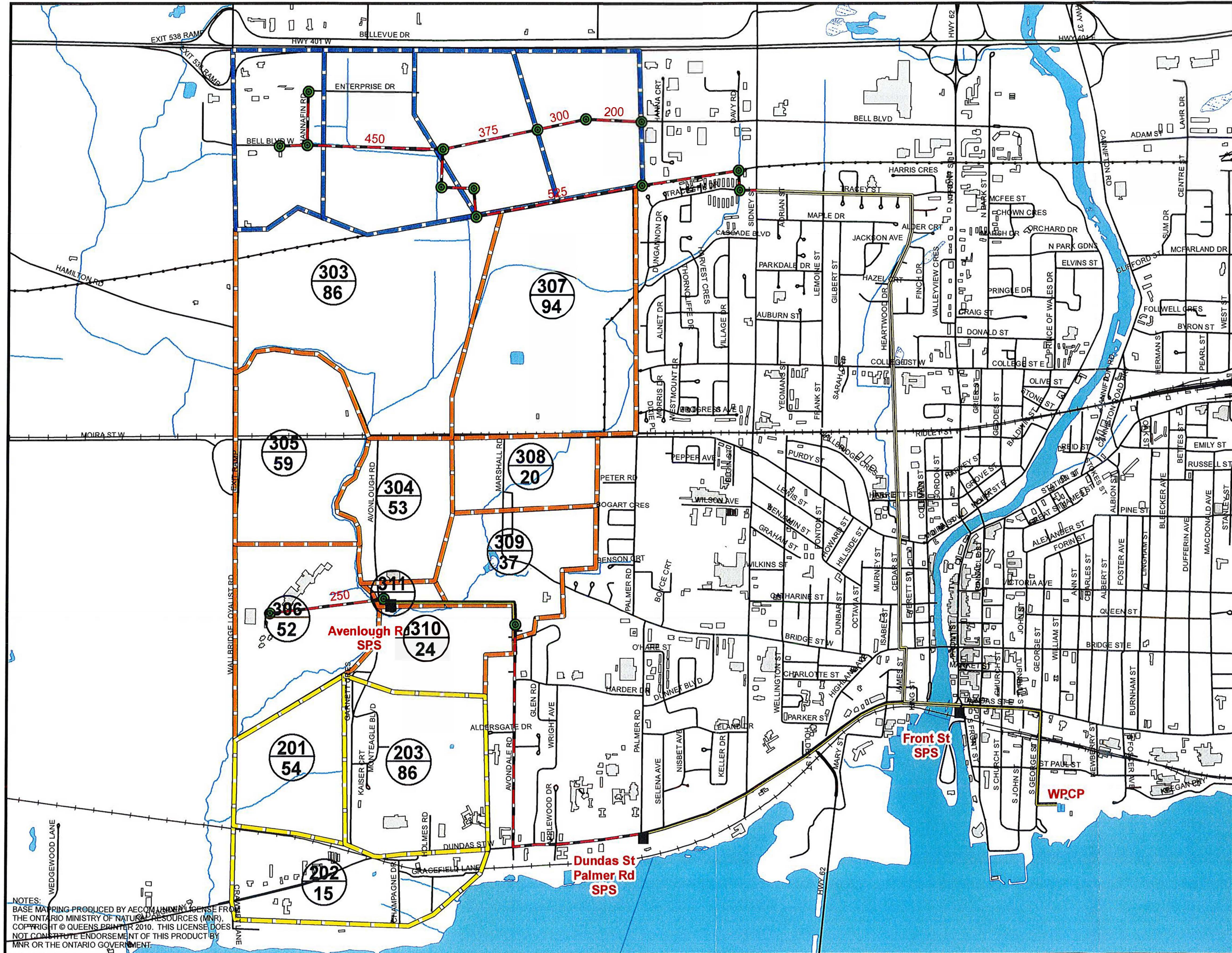


**Deanna O'Leary, Manager of Engineering / Deputy Director
Engineering and Development Services**

Attachments:

1. 2010 Loyalist Secondary Plan Area Trunk Sewer Route Selection Master Plan
2. Avonlough Sewage Pumping Station MCEA – Preferred Wastewater Servicing Strategy
3. Avonlough Pumping Station Catchments – Potter Creek Drainage Area
4. Sidney Street Widening and Sidney Street / Bridge Street West Intersection Improvements MCEA – Preferred Alternative

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Legend

	San Manholes		Roads
	Existing Focemain		Building
	Existing Trunk Sewer		Railway
	Sanitary Sewers		Transmission Line
	Bell Boulevard DA		Lakes and Ponds
	Dundas/Palmer DA		Wetlands
	Potter Creek DA		Water Course

SCALE: 1:20,000

Subdrainage Areas taken from Report on West Belleville Sanitary Sewer Master Plan by CH2MHill Nov. 2001

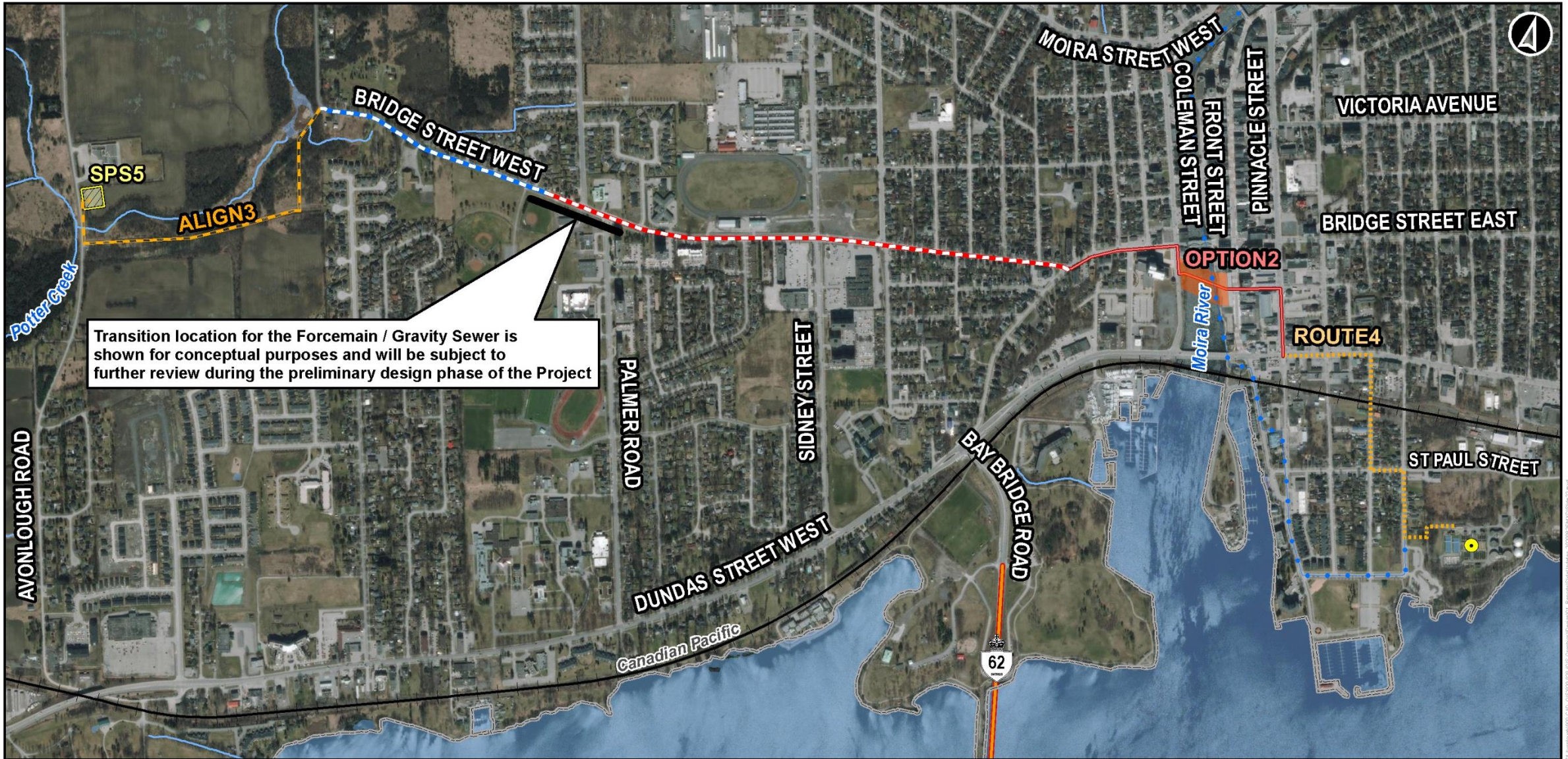
	300 Subcatchment Number
	58 Subcatchment Area (Ha.)

**City of Belleville
Loyalist
Secondary
Plan Area**

**Drainage Areas
Subdrainage Areas
& Existing Sewer
System**

Figure 3.2

NOTES:
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Transition location for the Forcemain / Gravity Sewer is shown for conceptual purposes and will be subject to further review during the preliminary design phase of the Project

Legend

- Belleville Wastewater Treatment Plant
- Freeway
- Existing Moira River Pressure Sewer
- Major Rail
- Watercourse
- Waterbody
- Municipal Boundary
- Avonlough SPS Siting Alternative
- Forcemain/Gravity Sewer Alignment**
- Forcemain (applies to all alignments)
- Gravity Sewer (applies to all alignments)
- Alignment 3 - Existing
- Forcemain Easement/ Bridge Street West
- Moira River Crossing Options - Pressure Sewer Section**
- Option 2 - Trenchless Market Street
- Option 2 - Potential Crossing Area
- Routes to Wastewater Treatment Plant**
- Route 4 - Dundas/St. John/St. Paul/George



City of Belleville
Avonlough Sewage Pumping Station Municipal
Class EA Study

Preferred Wastewater Servicing Strategy

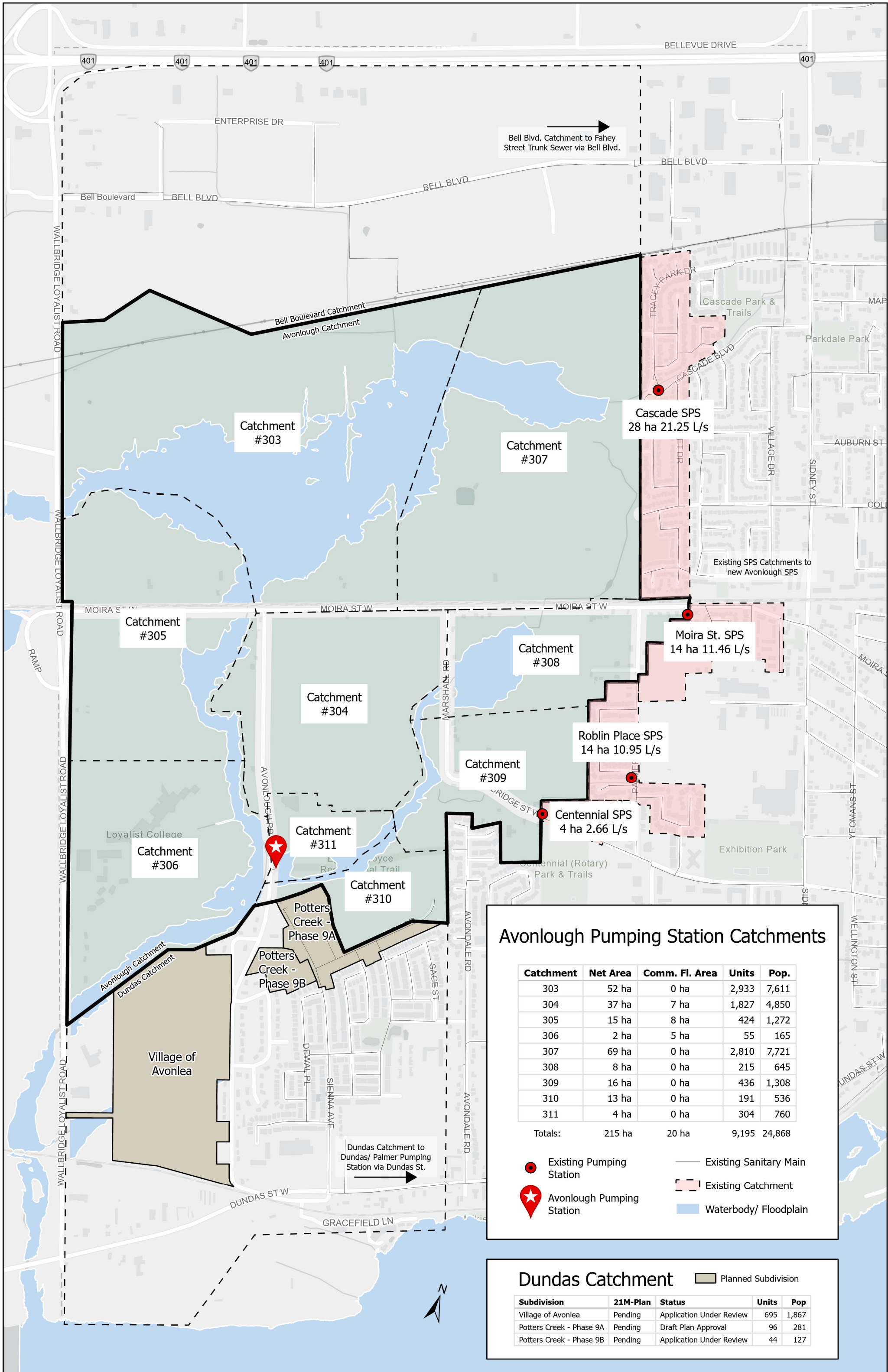
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Figure ES-2

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Bell Blvd. Catchment to Fahey Street Trunk Sewer via Bell Blvd.

Cascade SPS
28 ha 21.25 L/s

Moira St. SPS
14 ha 11.46 L/s

Roblin Place SPS
14 ha 10.95 L/s

Centennial SPS
4 ha 2.66 L/s

Avonlough Pumping Station Catchments

Catchment	Net Area	Comm. Fl. Area	Units	Pop.
303	52 ha	0 ha	2,933	7,611
304	37 ha	7 ha	1,827	4,850
305	15 ha	8 ha	424	1,272
306	2 ha	5 ha	55	165
307	69 ha	0 ha	2,810	7,721
308	8 ha	0 ha	215	645
309	16 ha	0 ha	436	1,308
310	13 ha	0 ha	191	536
311	4 ha	0 ha	304	760
Totals:	215 ha	20 ha	9,195	24,868

- Existing Pumping Station
- ★ Avonlough Pumping Station
- Existing Sanitary Main
- ▭ Existing Catchment
- Waterbody/ Floodplain

Dundas Catchment

▭ Planned Subdivision

Subdivision	21M-Plan	Status	Units	Pop
Village of Avonlea	Pending	Application Under Review	695	1,867
Potters Creek - Phase 9A	Pending	Draft Plan Approval	96	281
Potters Creek - Phase 9B	Pending	Application Under Review	44	127

PREFERRED ALTERNATIVE

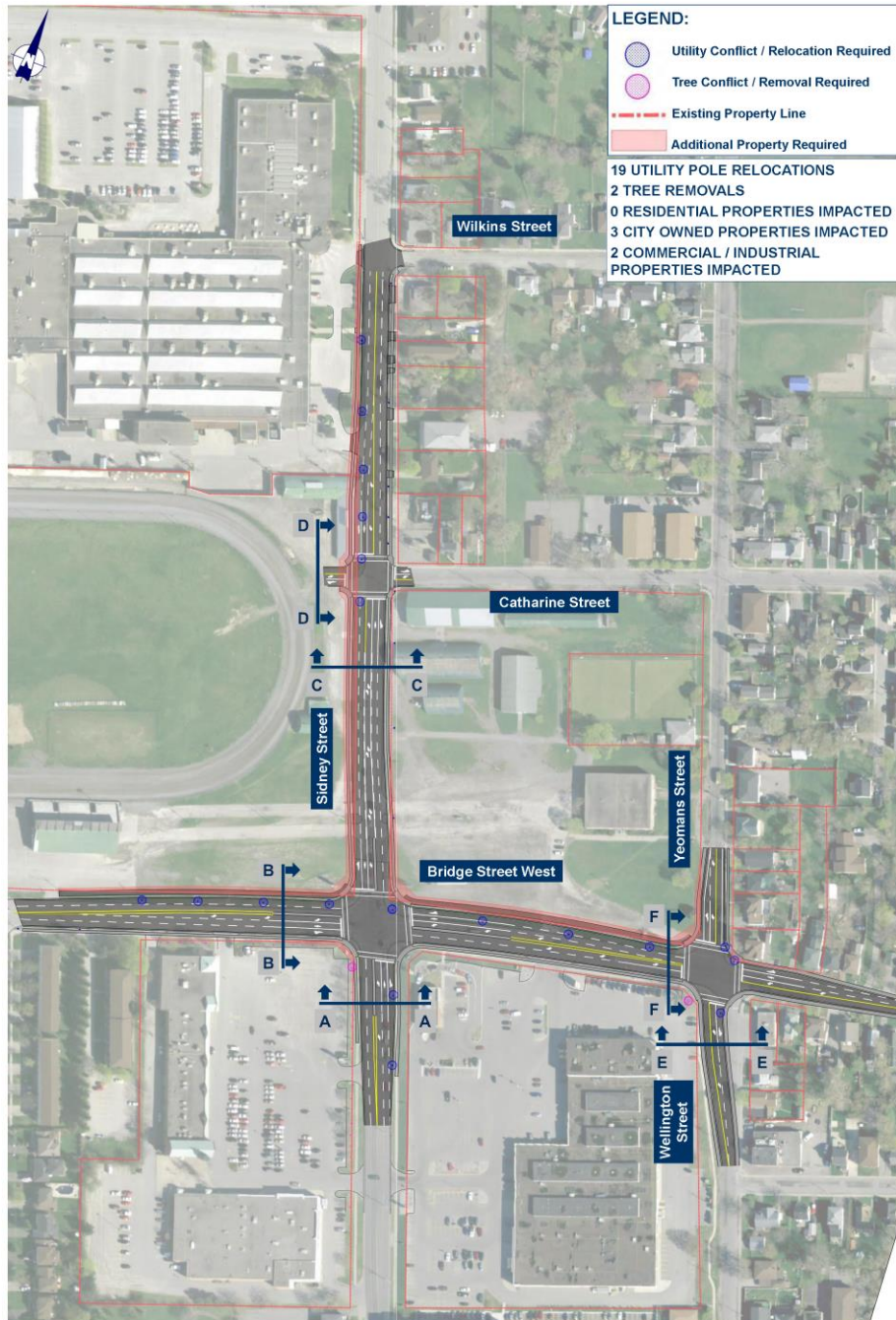


Figure 8 – Technically Preferred Alternative



APPROVAL BLOCK	
CAO	<u>RB</u>
DF	<u>BP</u>
DEDS	<u>SA</u>

CITY OF BELLEVILLE
Perry DeCola, General Manager of Environmental Services
Report No. GMES-2023-15
December 6, 2023

To: Mayor and Members of Council

Subject: Wastewater Treatment Systems - Past Budget Account Consolidation and 2024 Additional funding (Capital Budget Item 24-1.025)

Recommendation:

“THAT pursuant to the General Manager of Environmental Services Report No. GMES-2023-15, Council Approve that Capital Budget Items 19-1.092 – PCP Generator, 23-1.097 – Clarifier Rehabilitation, 23-1.098 – Solids Thickening, and 23-1.099 – Odour Remediation be combined into the Wastewater Treatment Systems Rehabilitation and EA project: and

THAT the Wastewater Treatment Systems Rehabilitation and Environmental Assessment (EA) project – Additional funding be referred to Capital budget item 24-1.025.”

Strategic Plan Alignment:

The City of Belleville’s Strategic Plan identifies nine strategic themes. This report aligns with the “Environment” strategic theme to “protect and enhance the quality of our natural environment to ensure there is clean water and air and a livable environment, for the benefit of current residents and future generations”.

Background:

The Belleville Wet Weather and Wastewater Master Plan recommends expansion of the Belleville Pollution Control Plant (PCP) to address peak flow issues and compliance concerns. The Master Plan notes that insufficient treatment capacity, operational limitations, solids management constraints, and wet weather management constraints are significant risks to achieving effluent requirements and maintaining compliance with our ECA. Completion of the Class EA process is required by the Ministry of the Environment, Conservation, and Parks for PCP expansions. Capital Budget Item 24-1.025 looks to add \$600,000 to past Capital budget items to create a consolidate pool of funding to allow design and construction economies of scale.

This Project will complete the Class EA process for a Schedule 'C' project using the findings and recommendations of the Master Plan. The Class EA will identify a preferred conceptual design concept to address these issues and summarize the findings in an Environmental Study Report which will be filed with the MECP. The EA is first step in the upcoming plant expansion/upgrade and will layout the best roadmap to future completions and provide the required cost estimates for future Grant applications and Federal and Provincial funding requests.

In addition to the class EA it is suggested to consolidate the following past budget items into a singular justification

- Item 19-1.092 Generator, electrical design and construction for \$2.2 million,
- Item 23-1.097 Primary Clarifier rehabilitation for \$5.0 million,
- Item 23-1.098 for Solids Thickeners for \$5.0 million,
- Item 23-1.099 for Odour Remediation for \$2.2 million.

This consolidation will allow funds to be spread across a wider pool to deal with project and construction works on a priority basis and deal with projects on an economy of scale for better bidding opportunities and when done in conjunction with the Class EA.

This grouping allows consolidated funds to be used in the highest need areas dealing with operational deficiencies in a systematic approach while providing financial backing in the event of critical system failures to insure the compliant and safe operation of the Corporations assets.

Financial/Analysis:

The consolidated Item 24-1.025 will be valued at a total valuation of \$15,000,000.00 less monies spent to date.

Item Number	Project Title	Original Valuation	Spent / Committed	Remaining Value
19-1.092	PCP Generator	\$2,200,000.00	\$ 408,778.40	\$ 1,791,221.60
23-1.097	Clarifier Rehabilitation	\$5,000,000.00	-	\$ 5,000,000.00
23-1.098	Solids Thickening	\$5,000,000.00	-	\$ 5,000,000.00
23-1.099	Odour Remediation	\$2,200,000.00	-	\$ 2,200,000.00
24-1.025	Class EA & Collection Systems Works	\$600,000.00	N/A	\$ 600,000.00

Future Commitments

Completion of the Class EA will provide fulsome cost estimates for needed future rehabilitation of the Wastewater Treatment Plant to meet our Compliance, Operational and Development/Growth needs for the Corporation of the City of Belleville for decades to come. This process will allow the Corporation to construct grant and funding applications for Federal and Provincial programs that will be competitive and hopefully successful in bringing tax dollars to offset the large anticipated costs and lessen the burden on the ratepayers.

Conclusion:

Staff is recommending that the Capital Budget items noted in the report be consolidated and referred to Capital Budget Item 24-1.025.

Respectfully submitted,



Perry DeCola
General Manager of Environmental Services