



The Regional Municipality of Durham

Committee of the Whole Agenda

Council Chambers
Regional Headquarters Building
605 Rossland Road East, Whitby

Wednesday, September 16, 2020

9:30 AM

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1. Roll Call

2. Declarations of Interest

3. Statutory Public Meetings

There are no statutory public meetings

4. Delegations

There are no delegations

5. Presentations

- 5.1 Simon Gill, Director, Economic Development & Tourism, and Gary Muller, Director, Planning, re: Regional Pre-servicing of Designated Employment Areas [Item 7. A] (2020-COW-23)

6. Correspondence

7. Reports

- A) Regional Pre-servicing of Designated Employment Areas (2020-COW-23) 3 - 51
- B) 2020 Corporate Asset Management Update Report (2020-COW-24) 52 - 86
- C) Report on the Organics Management Solution – Joint Venture/Co-ownership with EPCOR Power Development Corporation (2020-COW-25) 87 - 90

8. Confidential Matters

There are no confidential matters to be considered

9. Other Business

10. Adjournment

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The Regional Municipality of Durham Report

To: Committee of the Whole
From: Commissioner of Planning and Economic Development;
Commissioner of Finance; and
Commissioner of Works
Report: #2020-COW-23
Date: September 16, 2020

Subject:

Regional Pre-servicing of Designated Employment Areas

Recommendation:

That the Committee of the Whole recommends to Regional Council:

- A) That the environmental assessment, detailed design, and approvals for the following Regional water supply and sanitary sewerage infrastructure projects, be advanced at an estimated cost of \$2.35 million:
- i) \$500,000 to undertake detailed design, and secure necessary approvals for a future sanitary sewer and watermain on Concession Road 5 within the Beaver Avenue Employment Area A in the Township of Brock;
 - ii) \$500,000 to undertake a Class Environmental Assessment (EA) for a proposed sanitary sewage pumping station (SSPS) for the Beaver Avenue Employment Area B in the Township of Brock;
 - iii) \$750,000 to conduct a Class Environmental Assessment (EA) for a proposed Sanitary Sewer Pumping Station (SSPS) for the Port Perry Employment Area in the Township of Scugog; and
 - iv) \$600,000 to undertake detailed design of a sanitary sewer required to service the West Whitby Employment Area on the west side of Highway 412 in the Town of Whitby;

B) That the estimated cost of \$2.35 million be financed from the following sources:

Funding Source	Amount
Sewer Residential Development Charges Reserve Fund	\$1,044,000
Sewer Commercial Development Charges Reserve Fund	\$88,000
Servicing of Employment Lands Reserve Fund	<u>\$1,218,000</u>
Total	<u>\$2,350,000</u>

C) That staff consider prioritizing in the appropriate year for approval by Council through the Regional Business Plan and Budgeting process, the following Regional water supply and sanitary sewerage infrastructure projects, which are dependent on and must be constructed after or concurrently with local roads or other prerequisite project components under the control of Local Area Municipalities and other third-parties, as follows:

- i. Detailed design and construction of a sanitary sewer extension along the Hunt Street extension (conceptual estimate \$5.75 million), upon completion of the Central Ajax Intensification Servicing and Transportation Study and concurrent with the construction of the road extension by the Town of Ajax;
- ii. Construction of a sanitary sewer and watermain on Concession Road 5 to service the westerly portion of the Beaver Avenue Employment Area A in the Township of Brock (conceptual estimate up to \$5.83 million), after the extent of servicing to be constructed by local benefitting landowners and developers has been determined;
- iii. Detailed design and construction of an extension of the Zone 3 watermain and sanitary sewer north along Thornton Road from Conlin Road (conceptual estimate \$5.1 million) within the Northwood Employment Area, in the City of Oshawa, so that it occurs concurrently with the construction of the road;
- iv. Detailed design and construction of a watermain and sanitary sewer along Stevenson Road between Taunton Road and Conlin Road (conceptual estimate \$5.3 million), concurrent with the reconstruction and widening of Stevenson Road by the City of Oshawa;
- v. Detailed design and construction of a sanitary sewer and watermain along a new local road connecting Windfields Farm Drive and Winchester Road, in the City of

Oshawa (conceptual estimate \$1.0 million), concurrent with the construction of the new local road by the City of Oshawa, provided that the owners of the benefitting parcels are willing to proceed with employment-type development;

- vi. Reimbursement for Regional oversizing of a sanitary sewer for the South Brooklin Employment Area (conceptual estimate \$0.85 million), concurrent with the construction of the mid-block arterial road from Ashburn Road to east of Baldwin Street and sanitary sewer by a third party, in the Town of Whitby;
- vii. Reimbursement for Regional oversizing of a sanitary sewer along Thickson Road, from Glengowan Street to Conlin Road for the North-East Whitby Employment Area (conceptual estimate \$1.6 million), upon installation of the sanitary sewer by a third party; or, in the event that this third party does not proceed to construction in 2021, the completion of design and construction (additional \$1.6 million), recovering the non-Regional share of costs from end users, and that staff explore opportunities to coordinate these works with forecasted Regional road improvements for Thickson Road;
- viii. Detailed design and construction of sanitary sewers and watermains to service the North-East Whitby Employment Area, in the Town of Whitby, in coordination and concurrently with planned road works and other activities by the Town of Whitby and the area landowners group, along the preferred alignment, being:
 - a. along Thickson Road, from Conlin Road to the planned mid-block arterial;
 - b. east along this mid-block arterial road right-of-way to Garrard Road; and
 - c. north along Garrard Road;

And, alternatively if required, consider a possible alignment for servicing of this area along Conlin Road as detailed in this report;

- ix. The construction of the sanitary sewer and watermain along Dundas Street crossing Highway 412 for the West Whitby Employment Area, in the Town of Whitby (conceptual estimate \$3.0 Million); and
 - x. That Staff continue to expedite the terms of reference for the detailed design of the proposed sanitary sewer on Port Darlington Road and Simpson Avenue in the Municipality of Clarington, funded from the 2020 budget.
- D) That one new full-time permanent staff position as a project manager in the Environmental Services Branch of the Works Department for delivering Employment

Area servicing projects be approved-in-principle, and be included for consideration as part of the 2021 Business Planning and Budgeting process;

- E) That a promotional campaign to advertise the Market-Ready Employment Lands in the amount of \$500,000 as co-ordinated by the Commissioner of Planning and Economic Development be funded from the Economic Development Reserve Fund (see Report #2019-F-33);
 - F) That an annual update on the Pre-servicing and build-out of Employment Area lands be included in the Region's Annual Business Planning and Budgeting process; and
 - G) That a copy of this report be provided to Durham's area municipalities.
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Report:

1. Purpose

- 1.1 The purpose of this Report is to recommend to Committee and Council that:
 - a. Funding in the amount of \$2.35 million be approved to advance preliminary work on several water supply and sanitary sewerage infrastructure projects needed to support the servicing of employment lands in the Region.
 - b. A list of priority water and sewer infrastructure projects be identified for consideration in future Regional Business Plans and Budgets, to service identified Employment Areas; and
 - c. Funding be approved to actively promote the development of the existing inventory of Market-Ready Employment Lands and the newly serviced lands resulting from this initiative. This report is also being advanced as one component of the Region's broader COVID-19 Recovery Strategy.

2. Background

- 2.1 Many factors influence the attractiveness of land in Employment Areas for prospective investment. Servicing infrastructure such as the availability of municipal water and sanitary sewer, access to roads, highways and transit services, storm sewers, stormwater management facilities, electricity, natural gas, and telecommunication services is one major factor considered by end-users. Other factors include planning approvals, as well as the size, configuration and the asking price of the parcel itself. Other macro-economic factors, as well as the willingness of property owners to sell serviced employment land are other key factors influencing the ability to attract investment.

- 2.2 The supply of Market-Ready lands affects the Region's ability to attract new commercial and industrial investment, its associated competitiveness and its ability to enable job creation. For the purposes of this project, Market-Ready employment lands are:
- a. located within the "Employment Areas" designation of the Durham Regional Official Plan;
 - b. serviced with water and sanitary sewer services with sufficient capacity;
 - c. where other utilities such as natural gas and electricity are adjacent to the lands;
 - d. have arterial or internal roads and plans of subdivision (if required) that have been completed to support development; and
 - e. where the owner is a willing seller or industrial/commercial developer.
- 2.3 In February 2019, the Region released a Competitiveness Study. The Study provided a comprehensive assessment of Durham's current industrial and office market in key target industry sectors. The Study found that local market competitiveness is influenced by factors such as development costs (e.g. land costs, construction costs), operating costs (e.g. property taxes, utility costs), proximity and access to major transportation infrastructure, the local labour force, access to post-secondary institutions, availability of developable land, and quality of life.
- 2.4 The location preference of a prospective investor is also influenced by individual requirements (e.g. site size, configuration, access, zoning, surrounding land uses and future expansion potential, the quality and suitability of the vacant building inventory, the character of the Employment Area and compatibility with surrounding land uses).
- 2.5 The Region provides a variety of services, many of which enable development of Employment Areas. Major services include supplying Development Charge (DC) funded infrastructure including trunk water supply and sanitary sewerage services; the Regional transportation network; public transit; designating sites in appropriate locations; coordinating and expediting development approvals; and marketing. While the Region has a relatively large supply of vacant lands within designated Employment Areas, the supply of Market-Ready land is limited. The Region's Competitiveness Study has identified the limited supply of Market-Ready land as a potential barrier to attracting investment.

- 2.6 The supply of Market-Ready lands in Durham contributes to its competitiveness. Servicing projects have been identified to enhance the supply of Market-Ready lands, increase Regional competitiveness and facilitate future development.
- 2.7 The servicing of Employment Areas is a priority of Council. This pre-servicing project will inform future Regional business plans and budgets, and other Regional plans and programs, to enhance the competitive position of identified Employment Areas.
- 2.8 In September 2019, Regional Council approved preliminary criteria for the prioritization of projects to pre-service Employment Lands (Report #2019-EDT-15). These criteria included the cost of infrastructure, expected resulting development, the time required to reach Market-Readiness, and the availability of measures to protect against potential conversion to residential or land-banking.
- 2.9 Priority Employment Areas were identified through discussions with Economic Development representatives from Durham's local area municipalities (LAM). In November 2019, Regional Council received a list of priority areas being considered (Report #2019-INFO-86).
- 2.10 Candidate Regional sanitary sewerage and water supply projects were proposed by LAM Economic Development staff, including DC funded projects, as well as the smaller local sanitary sewer and water supply services which are normally constructed by developers or end users.
- 2.11 Other supportive projects or initiatives were also identified where applicable.
- 2.12 In October 2019, Regional Council approved Report #2019-F-33 (Long-term Financial Planning Framework for the Region of Durham) which established two separate reserve funds in support of the development of employment lands, including the Servicing of Employment Lands Reserve Fund (\$19.4 million) and the Economic Development Reserve Fund (\$3.8 million). These funds were approved by Regional Council to work in unison to support the construction of Regional infrastructure necessary to service new employment lands and the economic development strategic activities to promote Market-Ready Employment Lands (i.e. existing and future inventory).

3. Process

- 3.1 To initiate the process, discussions and information sharing took place between the Region and LAMs. A project kick-off meeting was held in the summer of 2019, and

an information kit was distributed to the LAMs, which included a Servicing Questionnaire and working map(s) applicable to each jurisdiction.

- 3.2 Specific servicing needs or deficiencies that were identified as barriers to employment related development were supplied by LAM staff through a Questionnaire and other supplementary information. Individual meetings were held between Regional staff from all applicable Departments, and staff from each LAM for further information and clarification.
- 3.3 Indicators of development potential that were included within the LAM submissions included investment leads, pre-consultation meetings, development applications and municipal studies.
- 3.4 An analysis of potential employment densities, estimated servicing costs (capital and/or annual operating) and potential service delivery timeframes were calculated, taking into account regulatory requirements (e.g. EAs).

4. Technical Overview of Projects.

4.1 The Employment Areas that were evaluated are as follows:

1. Town of Ajax - Ajax Downtown/Central Employment Area (Appendix 1);
2. Township of Brock - Beaver Avenue Employment Area (Appendix 2);
3. Municipality of Clarington - Clarington Technology Park (Appendix 3);
4. Municipality of Clarington - Courtice Main Street (Appendix 4);
5. City of Oshawa - Oshawa Northwood Employment Area (Appendix 5);
6. City of Oshawa – Ministry of Transportation (MTO) properties (Appendix 6);
7. Township of Scugog - Port Perry Employment Area (Appendix 7);
8. Town of Whitby - South Brooklin Employment Area (Appendix 8);
9. Town of Whitby – North-East Whitby Employment Area (Appendix 9); and
10. Town of Whitby - West Whitby Employment Area (Appendix 10).

4.2 Submissions were not provided by the City of Pickering, or the Township of Uxbridge. The City of Pickering has expressed interest in participating in a subsequent phase of this initiative. The Township of Uxbridge did not provide a submission since its Employment Areas are subject to expansion limitations under the Greenbelt Plan.

4.3 A detailed description of each submission, the areas proposed to be serviced, descriptions of required infrastructure, estimated costs and timeframes are provided in Appendices 1-10.

5. Analysis

- 5.1 To enable an objective evaluation of proposed servicing projects across the Region, the following approach was taken:
- a. Pursuant to Council’s direction, the project would need to result in newly serviced Employment Area lands;
 - b. The amount of Employment Area lands determined to be newly “serviced” would be the area directly adjacent to the Region’s planned service; alignment. Interior parcels that would require LAM roads and associated servicing, that would normally be the responsibility of the landowner under a plan of subdivision process was not included;
 - c. Benefiting Employment Areas were developed and mapped (see maps provided within Appendices 1-10);
 - d. Preliminary cost estimates were developed by Regional Works staff;
 - e. Potential Employment Area jobs that could be generated within each benefiting area were derived using a Region-wide average for Employment Area developments, supported by research undertaken by Watson and Associates; and
 - f. To enable a broad general comparison, the servicing costs and the employment potential for the benefiting areas of each project was tabulated.
- 5.2 A comparative summary of the proposed servicing projects is found in Table 1 below.

Table 1: Comparative Summary of Proposed Pre-servicing Projects

Servicing Location Proposed by LAM	Estimated Servicing Cost (\$million)	Newly Serviced “Employment Area” Land (ha)	Potential New “Employment Area” Jobs per \$1M Estimated Servicing Cost
1) Ajax Downtown / Central Employment Area	5.8	0	0
2a) Beaver Avenue Employment Area A	5.8	55	119
2b) Beaver Avenue Employment Area B	9.4	26	61
3) Clarington Technology Park	21.2	35	21
4) Courtice Main Street	2.0	0	0
5a) Oshawa Northwood A	4.1	54	165
5b) Oshawa Northwood B	5.3	43	103
6) Oshawa MTO Lands	1.0	11	144

Servicing Location Proposed by LAM	Estimated Servicing Cost (\$million)	Newly Serviced "Employment Area" Land (ha)	Potential New "Employment Area" Jobs per \$1M Estimated Servicing Cost
7) Port Perry Employment Area	18.3	56	39
8) South Brooklin Employment Area	6.0	48	102
9) North-East Whitby Employment Area	7.8	83	135
10) West Whitby Employment Area	4.2	6	18

- 5.3 Some projects can proceed independently. However, other projects are dependent on the activities or agreements with LAMs, property owners, or other third parties. These dependencies include road design and construction by a LAM or property owner / developer, or the securing of an assurance from a key property owner that they are a willing seller for employment-type development. In addition, some employment areas require expansion of utility networks by service providers.
- 5.4 Where projects are dependent on the actions of another party, it is recommended that the Region's portion of the infrastructure be prioritized upon receipt of the necessary financial commitment by the third party.
- 5.5 Staff recommend that the activities and projects proposed in the following Table 2 be considered.

Table 2: Recommendations for Servicing Project Components

Location	Recommendation and Associated Conditions	Potential Source of Funds / Repayment
1. Ajax Downtown Central Employment Area	Participate in the CAIST Strategy and consider prioritizing the funding and construction (conceptual estimate \$5.75 million) of this sanitary sewer extension in the appropriate year so that it occurs concurrently and in coordination with the construction of the planned Hunt Street extension by the Town of Ajax.	DC payments by future developers
2a. Brock - Beaver Ave Employment Area A	Allocate \$0.5 million and complete the detailed design for the sanitary sewer and watermain.	Recovery from frontage and connection charges from end users

Location	Recommendation and Associated Conditions	Potential Source of Funds / Repayment
	Consider prioritizing the funding and construction of the balance of any portions not yet constructed of this infrastructure at the time the detailed design is completed (conceptual estimate \$5.8 million).	
2b. Brock - Beaver Ave Employment Area B	Allocate \$0.5 million and complete the EA for the sanitary sewer pumping station.	DC payments by future developers
3. Clarington Technology Park	<p>Staff will continue to advance the detailed design and approvals work for the sanitary sewer on Port Darlington Road and Simpson Avenue (for which the funding of \$1.7 million has already been approved by Council);</p> <p>Seek the necessary crossing agreements / easements from CN and the Ministry of Transportation.</p>	DC payments by future developers
4. Clarington - Courtice Main Street	Continue to work with Clarington to maximize the use of the capacity in the existing sanitary systems south of Highway 2.	N/A
5a. Oshawa - Northwood Employment Area A	<p>Staff will continue to advance the design and construction of the Zone 3 watermain on Conlin Road from Ritson Road to Thickson Road (funding already approved).</p> <p>Consider prioritizing the detailed design and construction of an extension of the Zone 3 watermain and sanitary sewer north along Thornton Road from Conlin Road (conceptual estimate \$5.1 million), concurrently and in coordination with the reconstruction of Thornton Road by the City of Oshawa.</p>	<p>DC payments by future developers</p> <p>Frontage and connection charges from end users</p>
5b. Oshawa - Northwood Employment Area B	Staff will continue to advance the design and construction of the Zone 3 watermain on Conlin Road from Ritson Road to Thickson Road (funding already approved).	<p>DC payments by future developers</p> <p>Frontage and connection</p>

Location	Recommendation and Associated Conditions	Potential Source of Funds / Repayment
	Consider prioritizing the design and construction of water and sanitary sewer along Stevenson Road between Taunton Road and Conlin Road (conceptual estimate \$5.3 million), in the appropriate year to be concurrent and in coordination with the reconstruction and widening of Stevenson Road by the City of Oshawa.	charges from end users
6. Oshawa - MTO Lands	Seek adequate assurance that the owner of these parcels is a willing seller and consider prioritizing the design and construction of the sanitary sewer and watermain (conceptual estimate \$1 million), in the appropriate year to occur concurrent with and in coordination with the construction of the connecting road by the City of Oshawa.	Frontage and connection charges from end users
7. Scugog - Port Perry Employment Area	Allocate \$0.75 million and complete the EA for the sanitary sewage pumping station and sewer forcemain on Reach Street.	DC payments by future developers
8. Whitby - South Brooklin Employment Area	Consider prioritizing the allocation of \$0.85 million for the oversizing component of the sanitary sewer along the planned mid-block arterial, which is planned to be built by the developers of the benefitting lands.	DC payments by future developers
9. Whitby – North-East Whitby Employment Area	<p>Staff will continue to advance the design and construction of the Zone 3 watermain on Conlin Road from Ritson Road to Thickson Road (funding already approved).</p> <p>The Region will cover the oversizing component (approximately \$1.6 million Regional share) of the sanitary sewer along Thickson Road from Glengowan Street to Conlin Road in 2021, planned to be designed and built by an area property owner.</p>	<p>DC payments by future developers</p> <p>Frontage and connection charges from end users</p>

Location	Recommendation and Associated Conditions	Potential Source of Funds / Repayment
	<p>In the event that this third party does not proceed to construction in 2021, consider prioritizing the design and construction (additional \$1.6 million), and explore opportunities to coordinate these works with forecasted Regional road improvements for Thickson Road.</p> <p>Consider prioritizing the detailed design and construction of sanitary sewers and watermains in coordination and concurrently with planned road works and other activities by the Town of Whitby and the area landowners group, along the preferred alignment, being:</p> <ul style="list-style-type: none"> i. along Thickson Road from Conlin Road to the planned mid-block arterial; ii. east along this mid-block arterial road right-of-way to Garrard Road; and iii. north along Garrard Road; <p>And, alternatively if required, examine a possible alternate alignment for servicing of this area along Conlin Road as detailed in Appendix 9 this report (conceptual estimate \$7.8 million), which is not preferred due to environmental constraints limiting the amount of available land;</p>	
10. Whitby - West Whitby Employment Area	<p>Allocate \$0.6 million and complete the detailed design for the sanitary sewer.</p> <p>Consider prioritizing the construction of this sewer (conceptual estimate \$3.0 million)</p>	DC payments by future developers

5.6 In order to proceed with advancing this Regional strategic initiative for the implementation of Regional infrastructure to service employments lands in 2021, a project manager is required to be assigned to the proposed projects. Based on

internal demands of current ongoing and future planned infrastructure projects, one additional project manager is required to conduct the environmental assessments and detailed design work for the servicing of employment lands as recommended within this report. The proposed projects are related to water supply and sanitary sewerage infrastructure within the Environmental Services Branch of the Works Department.

- 5.7 It is recommended that one new full-time permanent staff position as a project manager in the Works Department be approved-in-principle, and be included for consideration as part of the 2021 Business Planning and Budgeting process.

6. Complementary Approaches

Various complementary tasks and approaches will improve the overall success of this initiative as summarized below.

6.1 Relationship Development and Agreements with Landowners

A critical element of Market-Readiness is that the parcel owner must either be an industrial / commercial developer, or a willing seller for the purpose of employment-type development. This willingness will help determine whether certain proposed servicing projects would achieve their desired outcomes. In support of this initiative, two streams of activity are proposed.

First, LAM Economic Development staff and Regional Economic Development staff through the Durham Economic Development Partnership (DEDP) will identify serviced parcels that meet the criteria of Market-Readiness except that of a willing seller. Contact will be initiated with these owners, relationships will be pursued, and DEDP staff will attempt to convert unwilling sellers into willing sellers, increasing the supply of Market-Ready lands without the need for infrastructure investments.

Second, the Region would seek assurances from participating landowners that Employment Lands benefitting from Regional servicing projects will ultimately meet the conditions of Market-Readiness. In instances where a property owner's willingness to sell or develop would materially impact the job creation estimate and total benefitting area of a servicing project under this initiative, the Region will seek to satisfy itself, prior to proceeding to construction, that the owner is a willing seller or commercial / industrial developer. The Region will seek to enter into an agreement with these landowners which provides the Region with an acceptable level of assurance as to the willingness of the landowner. This employment land servicing initiative does not seek to prioritize servicing for lands which are at a high

risk of 'land banking' or conversion to residential use. For that reason, this assurance will be secured if deemed necessary by staff, and given the criticality of this criteria, if assurances cannot be secured, projects may need to be postponed or deprioritized.

6.2 Marketing Strategy and Advertising Campaign for Market-Ready Employment Lands

It is recommended that \$0.5 million of the \$3.9 million Economic Development Reserve Fund (see Report #2019-F-33) be allocated for advertising Market-Ready Employment Lands. It has been identified that, while currently limited in supply, there is an inventory of Market-Ready Employment Lands available that are not being developed. In order to more rapidly deploy this existing inventory for desirable types of development and accelerate job creation from the newly serviced lands resulting from this initiative, a comprehensive multi-year national and international advertising strategy will be implemented. This will include collaborating with the DEDP to partner with property owners and real estate industry partners to create property profiles and purchasing appropriate media to showcase and promote these lands. This advertising campaign will be open to all Regional Market-Ready lands.

6.3 Durham Region Transit Service

Durham Region Transit (DRT) is implementing a survey of Employment Areas to identify issues with employers getting their employees to work. Staff are expecting the results by the end of the year, and the results will feed into DRT's five-year strategy. DRT is collecting information through a survey on business occupancy, such as timing of shifts of a business, number of employees, origin of travel of employees, etc., to plan transit routes.

6.4 Broadband Infrastructure

The Region's Broadband Strategy details the essential nature of reliable, fast, and affordable broadband infrastructure for businesses. Opportunities for cost efficiencies may exist if the extension of fibre service to employment areas is coordinated with other major infrastructure work. At the time of detailed design for each project, broadband servicing options will be considered.

7. **Risks to Pre-servicing**

There are various risks to implementing this project, which are described below.

- 7.1 As outlined in the Competitiveness Study, the development of Employment Area uses is dependent upon a full range of factors that are outside of Regional or LAM control. Therefore, neither the timing nor the actual development of employment uses following the introduction of Regional services can be guaranteed. After Regional services are introduced, the development of employment uses will still be reliant upon broader economic conditions, the location preferences of end users, the price of land, the desire of land owners to sell or develop their land, and access to transportation infrastructure. Similarly, there is no absolute guarantee that a landowner would not seek a conversion of their land to non-employment uses after services have been introduced.
- 7.2 There is a risk that it could take a very long time to realize development and job creation on newly pre-serviced Employment Area lands. The time-value and opportunity cost of investing in Regional servicing projects must be considered against other Regional project opportunities.
- 7.3 There is a potential for a significant deviation in the estimated costs of construction based on actual field conditions, the outcome of detailed engineering design work, the long-term cost variability of material, the time required to complete projects, and labour costs.
- 7.4 There is risk that projected job creation does not materialize, particularly if the lands are ultimately developed in such a way as to generate little to no job creation, which would result in permanently sunk costs.
- 7.5 For Employment Areas to be fully Market-Ready, there are projects and initiatives that need to be implemented by the LAMs, utilities, and landowners or their contractors. As described in this Report, this can include EAs, land acquisitions, construction of local roads projects, the approval of privately initiated development applications and other required infrastructure such as electricity and natural gas as determined by end users.

8. Financial Implications

- 8.1 Based on discussions and information sharing with LAM staff, a list of priority employment areas was developed, as identified in the Appendices. The estimated total cost of water and sewer infrastructure works to service these lands would be nearly \$90 million (Region's share). Based on current DC splits, an estimated \$30 million in costs would be eligible for DC funding and the remaining \$60 million would come from non-DC sources (i.e. servicing of employment land reserve fund,

water and sewer revenue and / or third-party contributions). These funding splits will likely change in future DC By-law renewals.

- 8.2 However, staff are recommending that the preliminary work (EA, design, acquisition of approvals) for a number of water and sewer infrastructure projects as outlined in Recommendation A be approved, at an estimated cost of \$2.35 million, to be funded from the following sources:

Funding Source	Amount
Sewer Residential Development Charges Reserve Fund	\$1,044,000
Sewer Commercial Development Charges Reserve Fund	\$88,000
Servicing of Employment Lands Reserve Fund	<u>\$1,218,000</u>
Total	<u>\$2,350,000</u>

- 8.3 Regional staff are also recommending that the following projects be given priority in future Regional Business Plans and Budgets, based on an analysis of the employment areas in the Appendices, which considered servicing costs, potential Employment Area jobs generated and potential service delivery timeframes:

- i. Sanitary sewer extension on the proposed Hunt Street extension, Ajax;
- ii. Sanitary sewer and watermain on Concession Road 5, Beaverton;
- iii. Sanitary sewer and watermain on Thornton Road, north of Conlin Road, Oshawa; and
- iv. Watermain and sanitary sewer on Stevenson Road, Oshawa (Taunton Road to Conlin Road);
- v. Watermain and sanitary sewer on new local road connecting Windfield Farms Drive and Winchester Road, Oshawa;
- vi. Sanitary sewer for south Brooklin Employment Area, Whitby (Region cost sharing);
- vii. Sanitary sewer on Thickson Road, Whitby (Glengowan Street to Conlin Road);
- viii. Sanitary sewer and watermain in the North Whitby Employment Area (on Thickson Road from Conlin Road to the planned mid-block arterial and along the mid-block arterial to Garrard Road);
- ix. Sanitary sewer and watermain along Dundas Street crossing Highway 412, Whitby.

- 8.4 The estimated cost of these priority capital projects is \$35 million. Based on the current DC splits for these projects (which are subject to change in future DC studies), approximately \$8.0 million would be eligible for DC funding and \$26.0 million would come from for non-DC sources (i.e. servicing of employment land reserve fund, water and sewer revenue and / or third-party contributions).
- 8.5 Additional work will be undertaken to examine the options available to recover the non-development share of the water and sewer infrastructure projects. This work will be done in coordination with the next DC By-law renewal as follows:
- a. Staff will review the long-term capital requirements as part of the DC Background Study which includes identifying capital projects that support the servicing of employment lands. As a number of the capital projects identified in this report are not included in the current DC By-law, a review will be undertaken in the next DC Background Study to determine if these projects should be included (i.e. either as a project constructed and funded entirely by the Region or constructed by the developer who is responsible to fund the minimum size requirements with the Region paying the oversizing requirements as per the Region Share Policy);
 - b. The analysis will consider if any of the infrastructure projects should be the responsibility of the developers or end users (i.e. a local service) where the Region could play a role by implementing an area specific development charge. If there is fractured ownership with divergent development interests, causing challenges for developers to work as a consortium to develop employment lands, the Region can facilitate the implementation of local water and sewer works to service employment lands through the use of area specific development charges. This would enable cost recovery from benefitting landowners to reimburse the landowners who front-ended the necessary works. The Region could collect area specific development charges from non-contributing benefitting landowners and transfer these funds to the landowners who upfronted the works; and
 - c. For any capital project not funded by DCs or by a third party (i.e. funded by the Regional resources), the Region can recover these costs from future frontage charges. The frontage charges will only be collected if the landowner connects to the system, unless the project is implemented through a petition.

9. Conclusion

- 9.1 The quantity of supply of Market-Ready employment lands affects the competitiveness of Durham Region to attract new employment-type investment, and in turn, the creation of jobs and economic growth.
- 9.2 Area Municipalities proposed areas for consideration by the Region for prioritized water supply and sanitary sewerage infrastructure projects, to increase the supply of these Market-Ready lands. Potential servicing projects were analyzed by the Region, and an evaluation was completed for each area, considering location-specific issues or constraints, as well as the projected employment generation potential and investment required.
- 9.3 As outlined in the Appendices, the water and sewer infrastructure projects rely on several factors before proceeding to construction including completion of studies, EAs, design, land acquisition, approvals, coordination with LAMs and third parties regarding road construction and implementation of utilities. For this reason, staff cannot yet recommend any construction activity for the water and sewer infrastructure projects identified in this report.
- 9.4 The Interdepartmental Regional staff working group will report back on an annual basis on the progress of the recommended work elements, new recommendations for next steps as detailed design and development proceeds, and the outcomes of the Regional investment and supporting efforts to encourage economic development in designated employment areas.

10. Appendices - Project Maps and Summaries

1. Town of Ajax - Downtown/Central Employment Area
2. Township of Brock - Beaver Avenue Employment Area
3. Municipality of Clarington - Clarington Technology Park
4. Municipality of Clarington - Courtice Main Street
5. City of Oshawa - Oshawa Northwood Employment Area
6. City of Oshawa - MTO properties
7. Township of Scugog - Port Perry Employment Area
8. Town of Whitby - South Brooklin Employment Area

9. Town of Whitby – North-East Whitby Employment Area

10. Town of Whitby - West Whitby Employment Area

Respectfully submitted,

Original signed by

Brian Bridgeman, MCIP, RPP
Commissioner of Planning and
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Original signed by

Susan Siopis, P.Eng.
Commissioner of Works

Original signed by

Nancy Taylor, BBA, CPA, CA
Commissioner of Finance

Recommended for Presentation to Committee

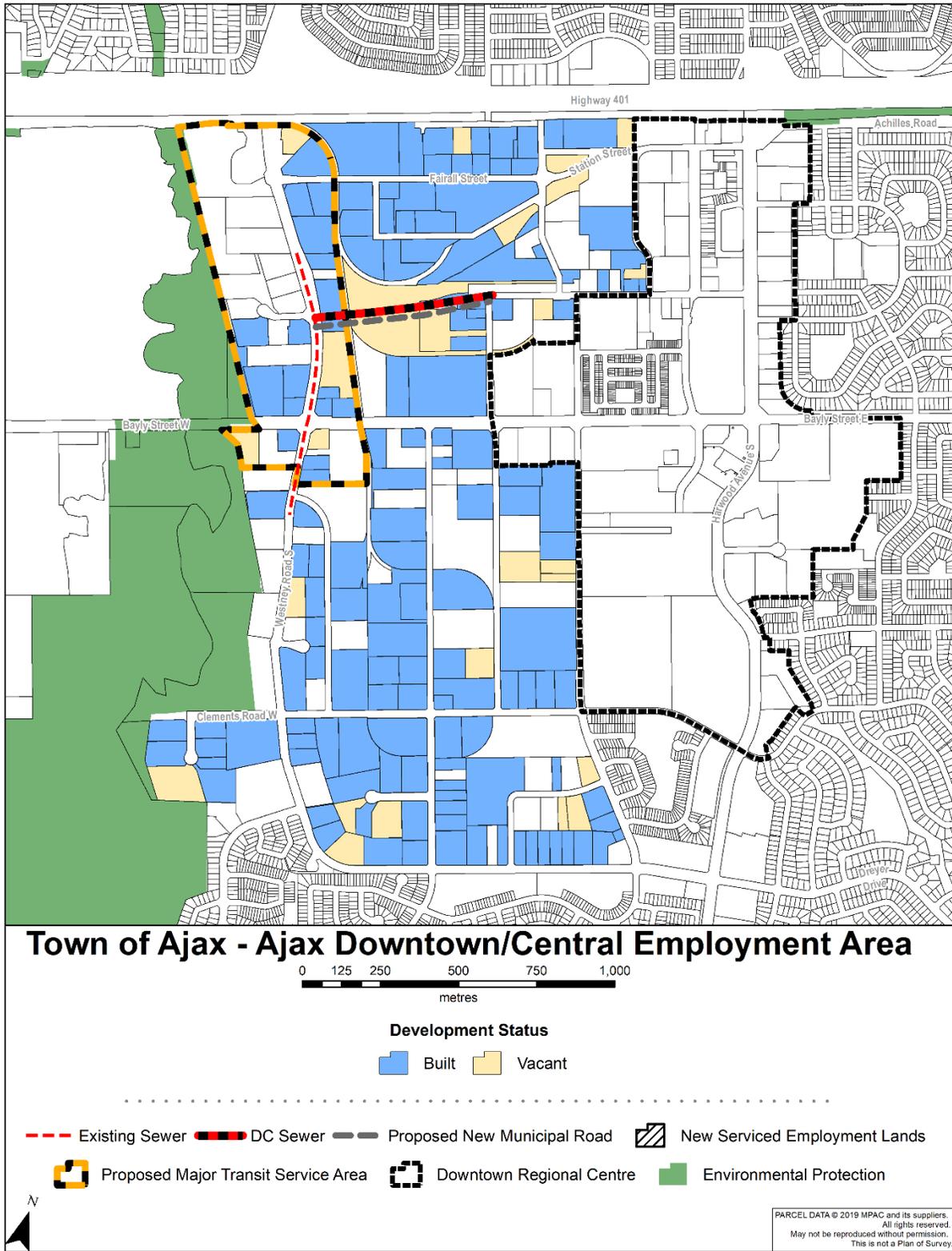
Original signed by

Elaine C. Baxter-Trahair
Chief Administrative Officer

1. Appendix 1: Town of Ajax - Downtown/Central Employment Area

- 1.1 A written submission was received from the Town of Ajax in July 2019. Within its submission, it describes Ajax as being in a unique position compared to other municipalities in that all of its vacant employment lands have already been pre-serviced, and employment areas and intensification sites have been pre-zoned. However, the Town's submission points to sanitary servicing capacity constraints within and in the vicinity of its downtown as a barrier to intensification, redevelopment, and job creation.
- 1.2 The Ajax Central Employment Area, bounded by Highway 401 to the north, Westney Road to the south, the Ajax Downtown to the east and the Duffins Creek valley to the west. This employment area includes a proposed Major Transit Station Area (MTSA) due to its proximity to the Ajax GO Station (see Figure 1).
- 1.3 To deal with the sanitary sewer capacity constraint in the neighbouring Downtown, a new sewer has been proposed connecting the north east section of the employment area to an existing trunk sanitary sewer on Westney Road. The alignment of this sanitary sewer would follow the planned westerly extension of Hunt Street, which is a local collector road. This sanitary sewer is planned to be funded by DCs.
- 1.4 The estimated total costs based on the conceptual design of this sanitary sewer is approximately \$5.75 million.
- 1.5 The Town of Ajax completed the Environmental Assessment for the extension of Hunt Street and must acquire the property for the right of way.
- 1.6 The proposed sanitary sewer would traverse a designated and serviced Employment Area. The project would not bring services to unserviced lands in an Employment Area, rather it would increase capacity in the neighbouring Downtown area.
- 1.7 In support of its efforts toward Downtown redevelopment, intensification, and improvement, the Town of Ajax is currently conducting a "Central Ajax Intensification, Servicing and Transportation Strategy" (CAIST). This study will, among other objectives, update its long-term population and employment distribution assumptions for this area and identify infrastructure constraints and opportunities to support redevelopment. This Strategy will need to be completed and the population distribution known to inform the sanitary servicing approach for this area. The Central Ajax Employment Area lands are fully serviced; the additional capacity being requested by the Town would be to satisfy the needs of the adjacent Ajax Downtown.
- 1.8 The Region will continue to participate fully in the CAIST strategy. Once the Town of Ajax has completed the Study, has acquired the necessary land for the road and is prepared to construct the Hunt Street extension, the Region could budget for and construct the sanitary sewer extension.

Figure 1: Town of Ajax - Ajax Downtown/Central Employment Area



2. Appendix 2: Township of Brock - Beaver Avenue Employment Area

- 2.1 The Township of Brock (Brock) provided a submission pertaining to lands west of Highway 12, north of Regional Road 15 and south of Main Street in Beaverton. Township staff indicated that these lands are the only viable lands for pre-servicing in Brock due to water and sanitary sewer limitations in Cannington and Sunderland.
- 2.2 The Brock submission also indicated that Beaverton is experiencing an influx of residential development with an estimated 1,040 units in various phases of approval. There are also commercially designated lands along Highway 12 and an opportunity for large industrial development on Concession 5 in Beaverton.
- 2.3 The Brock submission noted that Beaver Avenue Employment Area is essential to the continued economic viability of the Township, since the other remaining vacant and designated Employment Lands have severe constraints to development, including distance to a provincial highway system, depth of bedrock, well-head protection areas, and environmental sensitivity. Although the population forecasts in Brock predicts steady population growth, with recent population growth exceeding the Provincial average, the number of residents leaving the community to work will continue to increase.
- 2.4 For the purposes of analysis, the Beaver Avenue Employment Area has been separated into two parts for evaluation. Beaver Avenue Employment Area A is located on the north and south sides of Concession Road 5, east of Osborne Road, and Employment Area B is located on the north side of the Beaver River, west of Highway 12 (see Figure 2).
- 2.5 Beaver Avenue Employment Area A
- a. Sanitary sewer servicing
- A new sanitary sewer is required from the Lake Simcoe Water Pollution Control Plant (WPCP) easterly on Concession Road 5 for approximately 1500 m and then northerly through the employment lands to the intersection of Simcoe Street at Madill Street. The estimated total costs for the extension of sanitary sewers are \$3.45 million. This infrastructure is not planned to be funded by DCs.
- b. Water supply servicing
- A new watermain is required from Osborne Street easterly on Concession Road 5 for approximately 1000 m and then northerly through the employment lands to Simcoe Street at Madill Street. The estimated total costs for these watermains are \$2.38 million. This infrastructure is not planned to be funded by DCs.

c. Additional relevant details

The construction of the above items will result in approximately 55 ha of newly serviced Employment Area lands.

The owner of the lands at the north east corner of Concession Road 5 and Osborne Street has submitted a draft plan of subdivision application. If this development proceeds, a significant portion of the required sanitary sewer and watermain on Concession Road 5 would be built by the developer.

To facilitate the extension of required infrastructure for Beaver Avenue Employment Area A, the Region could budget and undertake the detailed design, and seek the necessary approvals for the sanitary sewer and watermain required on Concession Road 5. If the owner of the lands located between Concession Road 5 and Simcoe Street would be willing to provide an easement to the Region for the north south portion of the services at no charge to the Region, the design effort could be expanded to include these works as well.

Once the design is complete, the Region could be prepared for the construction of Regional services if an employment use end-user requires the services or if the developer is prepared to move forward.

2.6 Beaver Avenue Employment Area B

a. Sanitary sewer servicing

The proposed sanitary servicing approach would include the following:

- a sanitary sewage pumping station (SSPS) on the north side of the Beaver River and a forcemain would be required to cross the Beaver River and extend westerly to the topographic high point on Simcoe Street. These works are included in the Region's Development Charges Study.
- The extension of sanitary sewers would be required from the intersection of Simcoe Street and Madill Street easterly on Simcoe Street to the forcemain outlet. This infrastructure is not planned to be funded by DCs.

The estimated total cost for this sanitary sewer servicing concept is \$6.5 million. Approximately \$5.0 million would be funded by DCs (SSPS and forcemain) and the remaining \$1.5 million would be non-DC funded.

b. Water supply servicing

The extension of the watermain from the intersection of Simcoe Street and Madill Street easterly on Simcoe Street to Highway 12 and then northerly on Highway 12 to Beaver Avenue would be required. These watermains are not planned to be funded by DCs. The estimated total costs for the watermain servicing concept is approximately \$2.88 million.

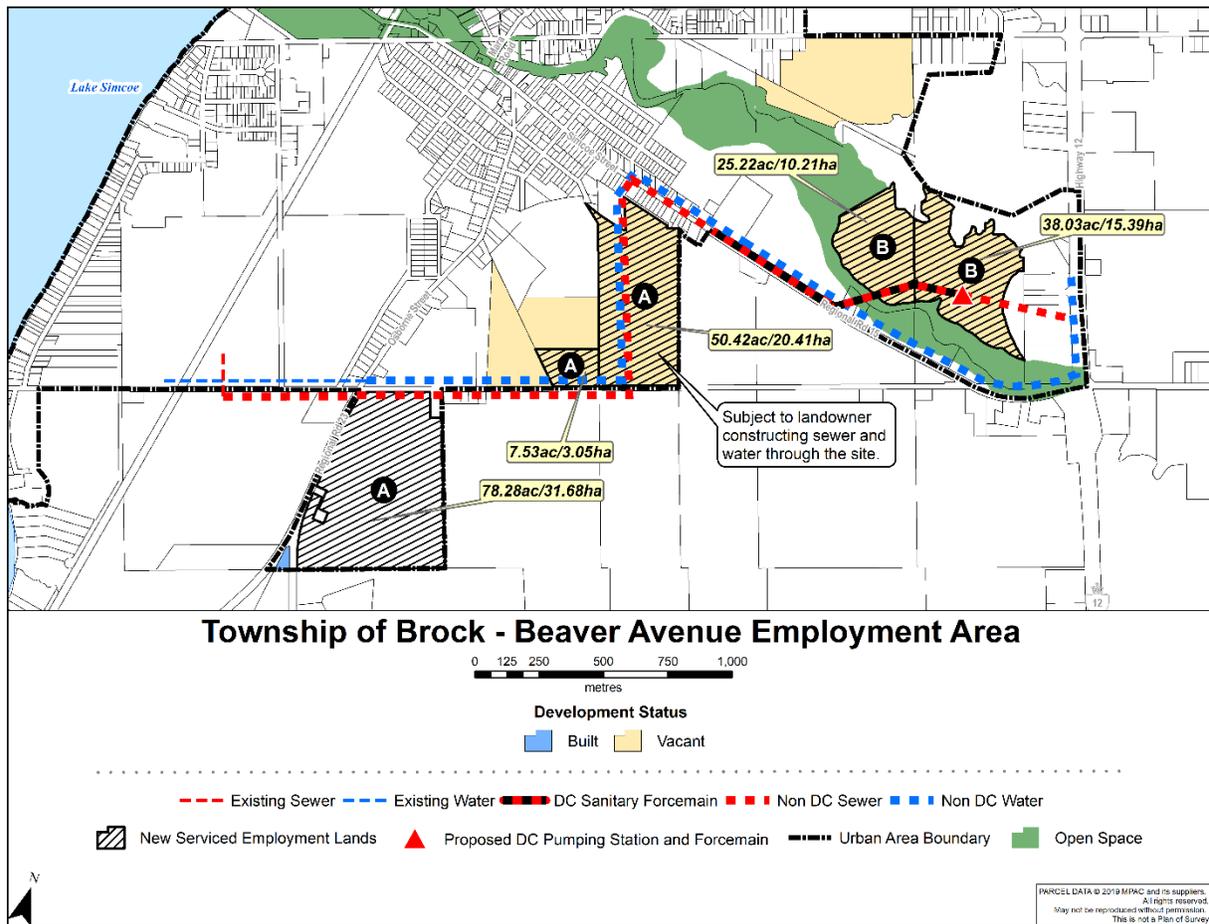
2.7 Additional relevant details

The construction of the above items will result in approximately 26 ha of newly serviced Employment Area lands. This project would also service commercial lands located immediately west of Highway 12.

2.8 Servicing for the Beaver Avenue Employment Area B is dependent on the construction of the works required for the Beaver Avenue Employment Area A. Employment Area B also requires a Class Environmental Assessment (EA) for the proposed sanitary sewage pumping Station (SSPS).

2.9 To facilitate this initiative, budgeting for and conducting the EA required for the SSPS could be provided as an initial step.

Figure 2: Township of Brock - Beaver Avenue Employment Area



3. Appendix 3: Municipality of Clarington - Clarington Technology Park

- 3.1 The Municipality of Clarington provided a submission in support of servicing for the Clarington Technology Park, which is bounded by Highway 401 to the south, Highway 2 to the north, Haines Street to the west and Bennett Road to the east (see Figure 3). Clarington's submission indicated that potential use can be expected to be in logistics and distribution, health and life science, light manufacturing and convention uses.

Since 2016, investment inquiries have been received for a total of 180 acres of land that could have been accommodated within the Clarington Technology Park. Their submission notes that development cannot proceed without sanitary servicing capacity being addressed.

The submission also notes the following:

- a. a municipal desire to facilitate traffic accessibility to the Highway 401/Bennett Road interchange;
- b. a request for improved local transit by extending Route 506 to Bennett Road from the Wilmot Creek community;
- c. the need for better internet connectivity, as some businesses depend on reliable internet to execute projects and uploading/downloading of data.

3.2 Sanitary sewer servicing

This project entails the northerly extension of a trunk sanitary sewer on Port Darlington Road and Simpson Avenue from East Shore Drive to Baseline Road. New sanitary sewers are also required on Baseline Road from Simpson Avenue to Bennett Road and on Bennett Road to a point several hundred metres north of Baseline Road.

The estimated total cost for the proposed trunk sanitary sewers along the conceptual alignment is approximately \$20.5 million. This project is planned to be funded by approximately \$13.5 million from DCs for the proposed sanitary trunk sewer on Darlington Road and Simpson Avenue and for the oversizing of the sanitary sewers on Baseline and Bennett Roads. The remaining \$7 million would be funded through user rates for the minimum size of the new sanitary sewers on Baseline and Bennett Roads.

3.3 Water supply servicing

The extension of the existing watermain is required from the intersection of Baseline Road and Bennett Road northerly several hundred metres. The estimated total cost for the proposed watermain servicing is approximately \$700,000 and would not be funded by DCs.

3.4 Additional relevant details

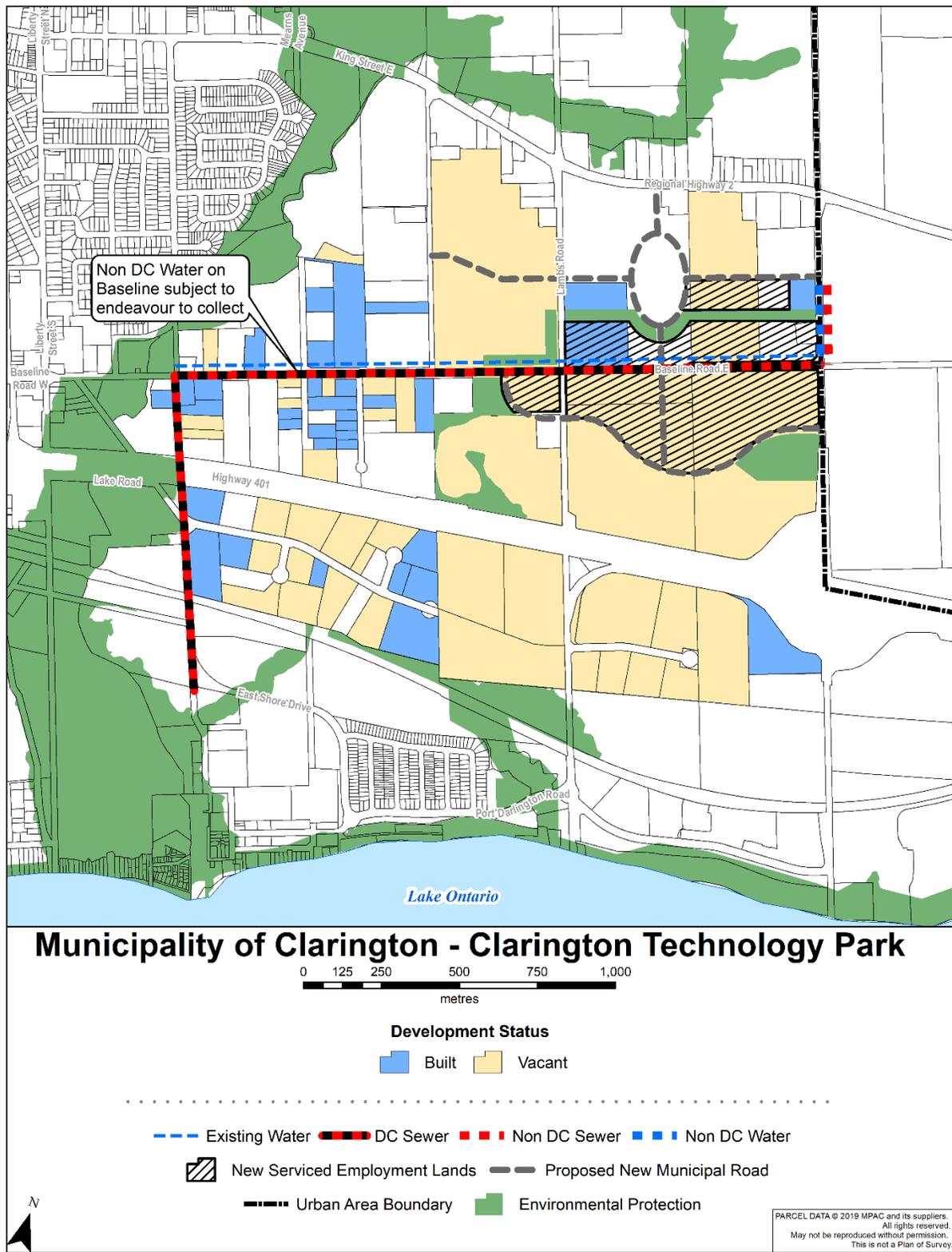
The construction of the above items will result in the creation of approximately 35 ha of newly serviced Employment Area lands. However, any further development within this Employment Area will require the construction of a new LAM internal road system.

The existing watermain on Baseline Road was constructed through a development agreement with Holborn Biomedical. This agreement contained an “endeavour to collect” clause. The Region is obligated to endeavour to collect, from any future development in the area that benefits from the watermain, a contribution to the original construction and then return this collected amount to Holborn Biomedical.

The sanitary sewer servicing of these lands is complex. The main complications come from the need to cross the under the CN Rail line and Highway 401, which will require tunnelling and extensive approval processes.

The Region will expedite the terms of reference for detailed design and obtaining the necessary approvals for the proposed sanitary sewer on Port Darlington Road and Simpson Avenue as an initial action. Funding in the amount of \$1.7 million was included in the approved 2020 budget for this project.

Figure 3: Municipality of Clarington - Clarington Technology Park



4. Appendix 4: Municipality of Clarington - Courtice Main Street

4.1 The Municipality of Clarington provided a submission requesting sanitary servicing to enable intensification-type development in the area along Highway 2 between Sandringham Drive to Highway 418 (see Figure 4).

4.2 A number of developments have been proposed along this section of Highway 2, including various multi-story mixed-use buildings, a new worship centre and a commercial development.

4.3 Sanitary sewer servicing

A new sanitary sewer would be required across this length of Highway 2 through the identified area, potentially connecting to several sanitary sewers to the south. The estimated total cost for the sanitary sewer servicing concept is approximately \$2 million and is not planned to be funded by DCs.

4.4 Water supply servicing

There are no water supply works required to service these lands with the exception of the length of road between Courtice Road and Highway 418. The estimated total cost for this watermain is \$750,000 and is not planned to be funded by DCs.

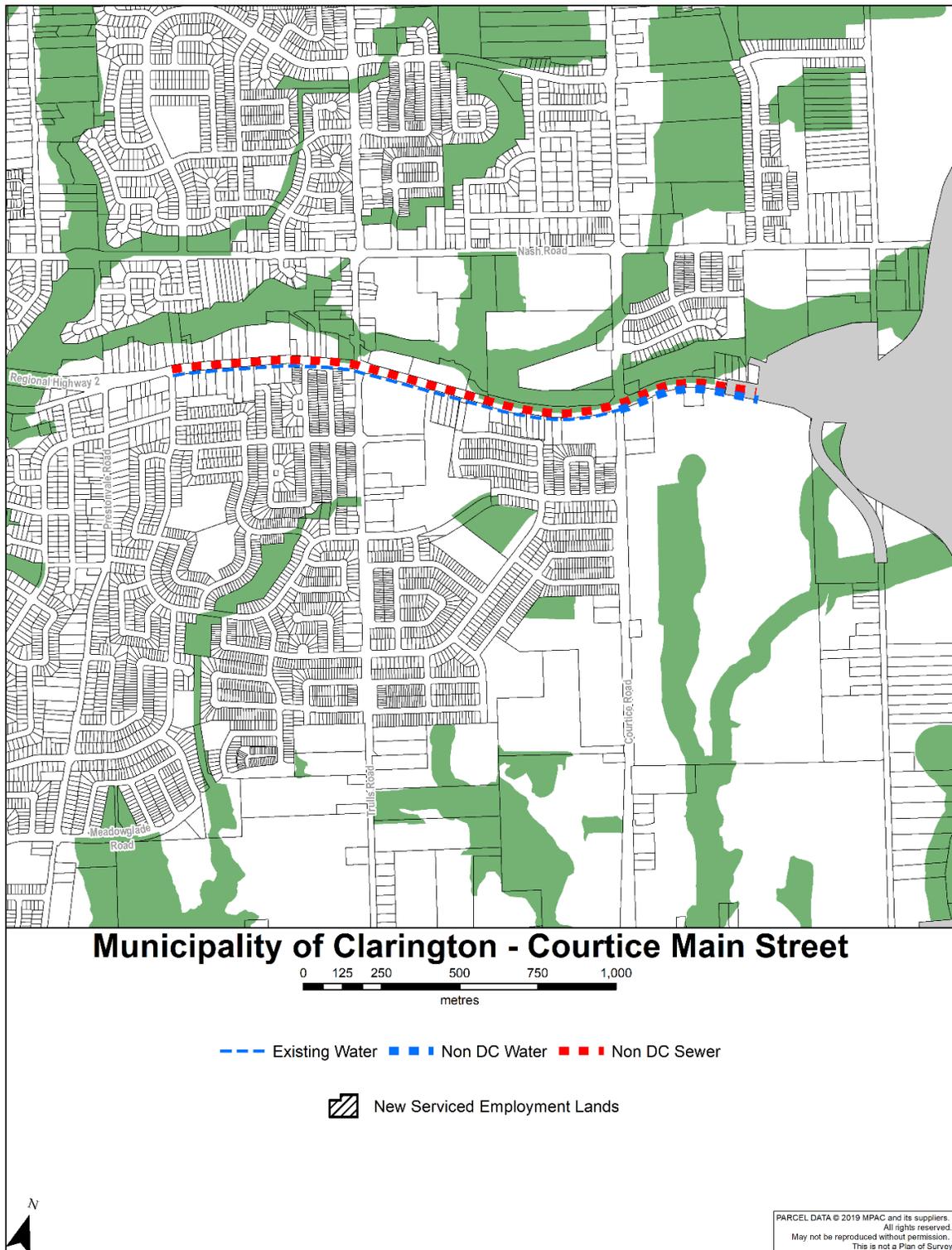
4.5 Additional relevant details

The construction of the above items will not result in any newly serviced Employment Area lands as none of the benefitting lands are within a designated Employment Area within the Regional Official Plan.

4.6 A continuous sanitary sewer across Highway 2 may not be the most efficient design to service these lands. There are several sanitary sewers located to the south with spare capacity which could be used to service the sites as development proposals arise. One such example is the ongoing development at the south east corner of Highway 2 and Trulls Road. This development will be connected to the existing sewer on Trulls Road which will be planned to be incorporated into the Courtice Trunk sanitary sewer once constructed.

4.7 The Region will continue to work with the municipality as developments arise to maximize the capacity in the existing sanitary sewers to the south.

Figure 4: Municipality of Clarington – Courtice Main Street



5. Appendix 5: City of Oshawa - Northwood Employment Area

- 5.1 Submissions were received from the City of Oshawa proposing servicing for a number of locations. A technical session was held with City staff in July 2019 where the requests were discussed and the servicing status of various locations was reviewed.
- 5.2 The City proposed several locations for consideration, and upon review during the technical session, it was determined that many of these locations were already fully serviced with sanitary sewer and water and may already be fully Market-Ready lands.
- 5.3 One area that was discussed was the Northwood Employment Area, generally from Taunton Road to north of Conlin Road and including properties on both sides of Thornton Road and Stevenson Road.
- 5.4 For analysis purposes, the remaining Northwood Employment Area was divided into two areas. Northwood Employment Area 'A' is located on the east and west sides of Thornton Road north of Conlin Road (see Figure 5). Northwood Employment Area 'B' is located on the east and west side of Stevenson Road between Taunton and Conlin Roads (see Figure 6).

5.5 Sanitary sewer servicing (Northwood 'A')

The northerly extension of the sanitary sewer would be needed on Thornton Road from the south side of Conlin Road as far north as required to service all of the lands.

The estimated total cost for this sanitary sewer servicing concept is approximately \$3.35 million and is not planned to be funded by DCs.

5.6 Water supply servicing (Northwood 'A')

The proposed water supply servicing approach would include the following:

Construction of a Zone 3 watermain on Conlin Road is required. There are two options for this servicing concept. The Zone 3 watermain could either be extended from the existing Zone 3 watermain on Conlin Road at Ritson Road, or a Zone 3 water pumping station could be constructed at the Garrard Road reservoir site in Whitby with a watermain extension to Thornton Road. Both of these projects are in the Region's Development Charges Study and are in the Region's capital program. The costs to bring the Zone 3 watermain across Conlin Road is approximately \$19.4 million, which was included in the approved 2019 water supply budget. The detailed design is currently underway.

Further, the northerly extension of the watermain would be required on Thornton Road from Conlin Road as far north as required to service all of the lands.

The estimated total cost for this watermain extension is \$1.76 million, all of which would be non-DC funded.

5.7 Additional relevant details (Northwood 'A')

The construction of the above items will result in approximately 54 ha of newly serviced Employment Area lands. A large section of these lands on the east side of Thornton Road has been identified as a City of Oshawa park. Additionally, the north west quadrant of Thornton Road and Conlin Road has been identified as the City's preferred location for a future hospital. Finally, the northern-most section of these lands has been acquired for a future Durham Region Transit maintenance facility. The sum of these known uses significantly impacts the availability of new Employment Area lands for private development.

5.8 It is also noted that Thornton Road to the south, from Taunton Road to Conlin Road, has been serviced with sanitary sewers and watermains for the benefit of the surrounding Employment Area lands, but no associated development has yet occurred following the construction of these Regional services.

5.9 The Zone 3 watermain being constructed through the existing roundabout at the intersection of Thornton Road and Conlin Road and will require significant reconstruction. In an effort to minimize the disruption of this roundabout, it would be prudent and cost effective to construct the north/south portions of the required watermains and sanitary sewer under the roundabout at the same time.

5.10 To ensure that projects are coordinated and to reduce disruption associated with construction, the Region could commit to the budgeting, design and construction of the remaining sanitary sewer and watermain required on Thornton Road in the same year(s) that the City of Oshawa budgets, designs, and constructs the Thornton Road improvement works.

5.11 Sanitary sewer servicing (Northwood 'B')

The northerly extension of the sanitary sewer is required on Stevenson Road from Taunton Road to Conlin Road. The estimated cost for this sanitary sewer is \$3 million, which is not planned to be funded by DCs.

5.12 Water supply servicing (Northwood 'B')

Similar to Northwood 'A', a Zone 3 watermain on Conlin Road would be required. As described previously, two options exist, \$19.4 million is already approved, and the detailed design is currently underway.

In addition, the northerly extension of the watermain on Stevenson Road to Conlin Road would be required. The estimated total cost for this watermain is \$2.3 million, which would be non-DC funded.

5.13 Additional relevant details (Northwood 'B')

The construction of the above items will result approximately 43 ha of newly serviced Employment Area land. The watermain on Stevenson Road would traverse a water pressure zone boundary approximately 1000 m south of Conlin Road. The Employment Area lands south of the water pressure zone boundary could proceed to development prior to the completion of Zone 3 watermain works on Conlin Road.

- 5.14 To ensure that projects are coordinated and to reduce disruption associated with construction, the Region could commit to budgeting for design and construction the sanitary sewer and watermain required on Stevenson Road in the same year(s) as the City of Oshawa budgets, designs, and constructs the Stevenson Road improvement works.

Figure 5: City of Oshawa - Northwood Employment Area A

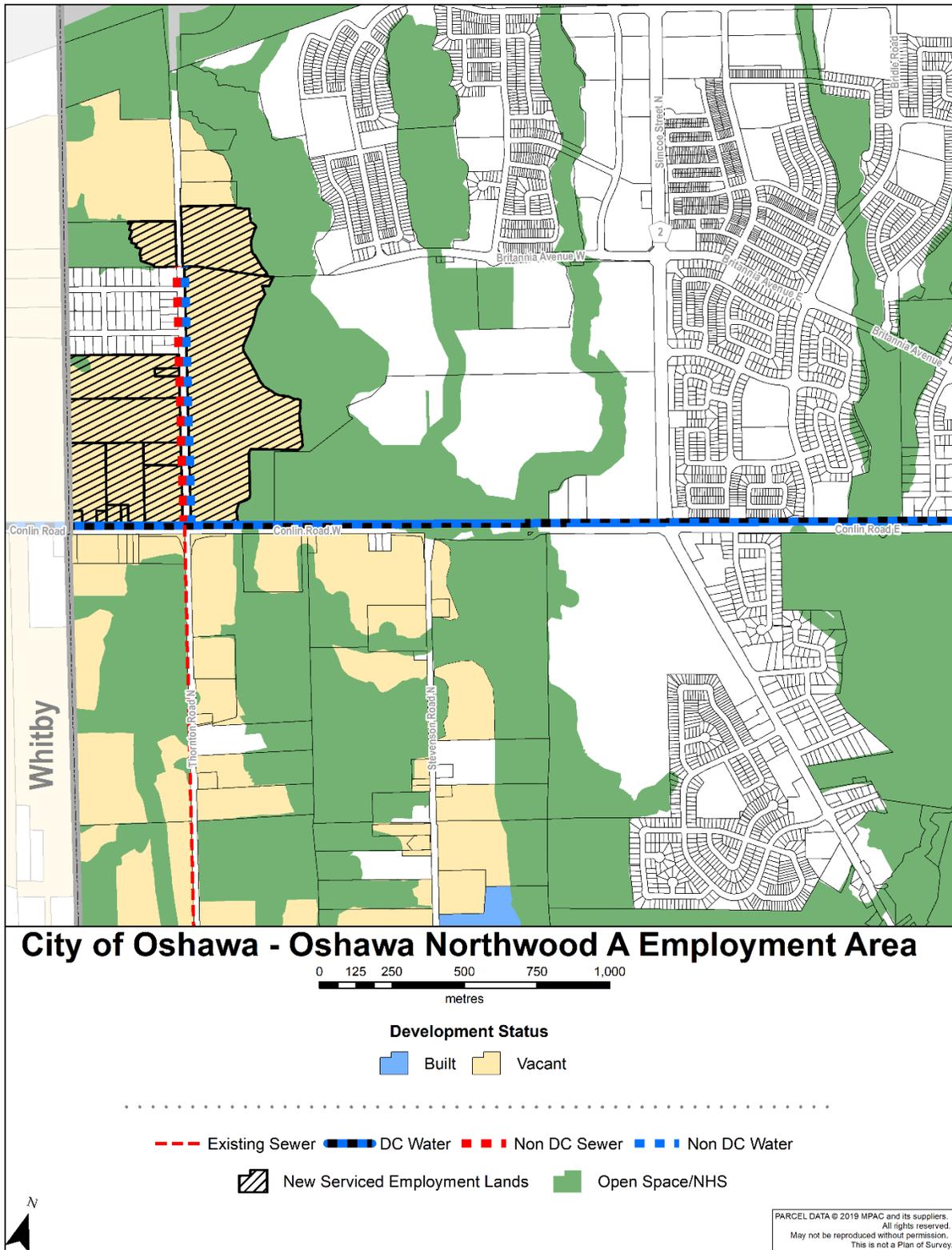
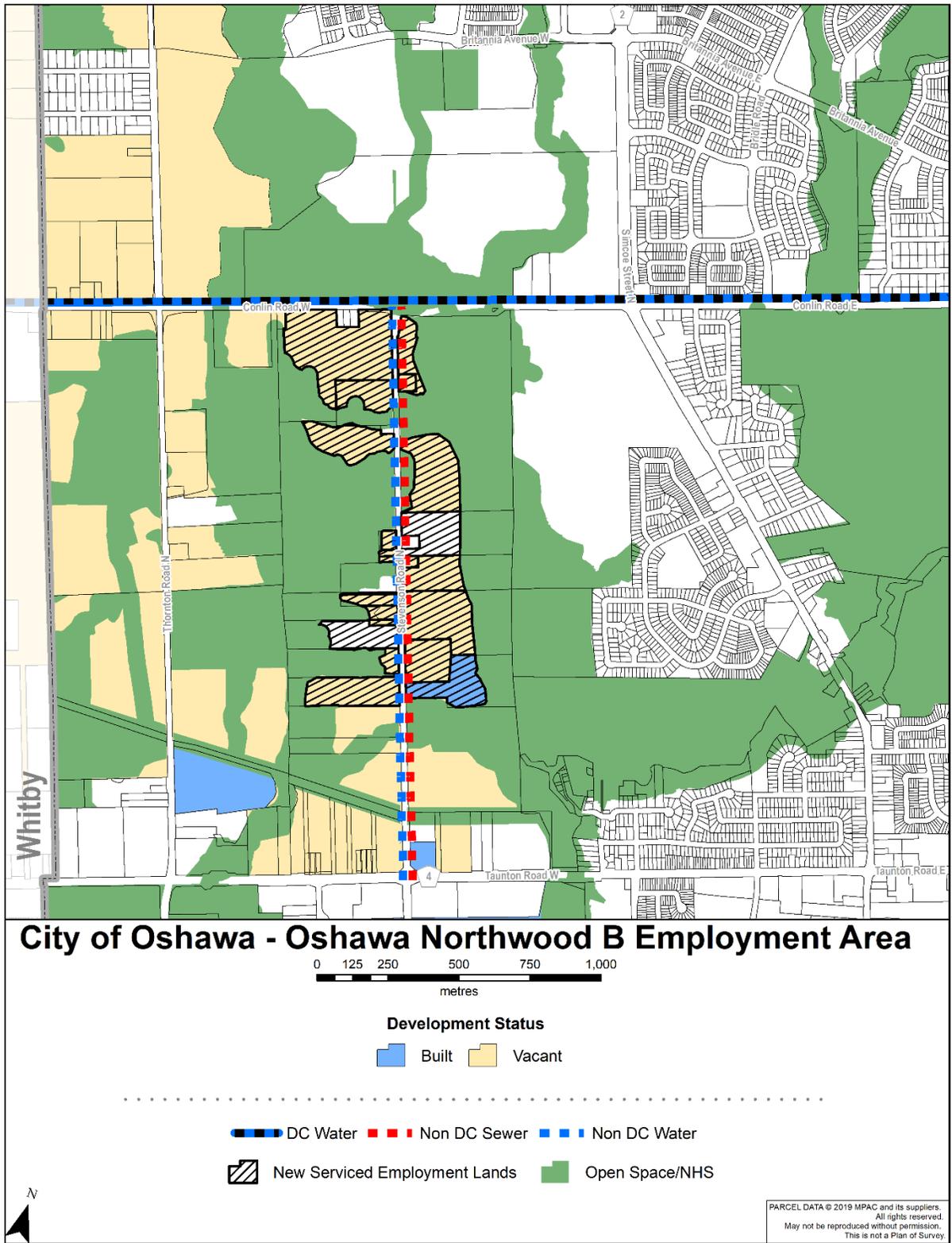


Figure 6: City of Oshawa - Northwood Employment Area B



6. Appendix 6: City of Oshawa - MTO Lands

6.1 The City of Oshawa indicated that lands owned by the Provincial Ministry of Transportation along Hwy 407, located partially within the City's Columbus Part II Planning Study area, would benefit from the introduction of Regional services. The Oshawa MTO Lands Employment Area is located on the north and south side of Winchester Road, at the planned location where a new local City of Oshawa road would connect Winchester Road to Windfields Farm Drive (see Figure 7).

6.2 Sanitary sewer servicing

To service these lands, a new sanitary sewer would be required on the planned City of Oshawa local road, from Windfields Farm Drive northerly to Winchester Road. The cost of this sanitary sewer is estimated at \$0.5 million and is not planned to be funded by DCs.

6.3 Water supply servicing

Similar to the above, a new watermain would also be required on the new City of Oshawa road from Windfields Farm Drive, northerly to Winchester Road. The cost for this watermain is estimated at \$0.5 million and is not planned to be funded by DCs.

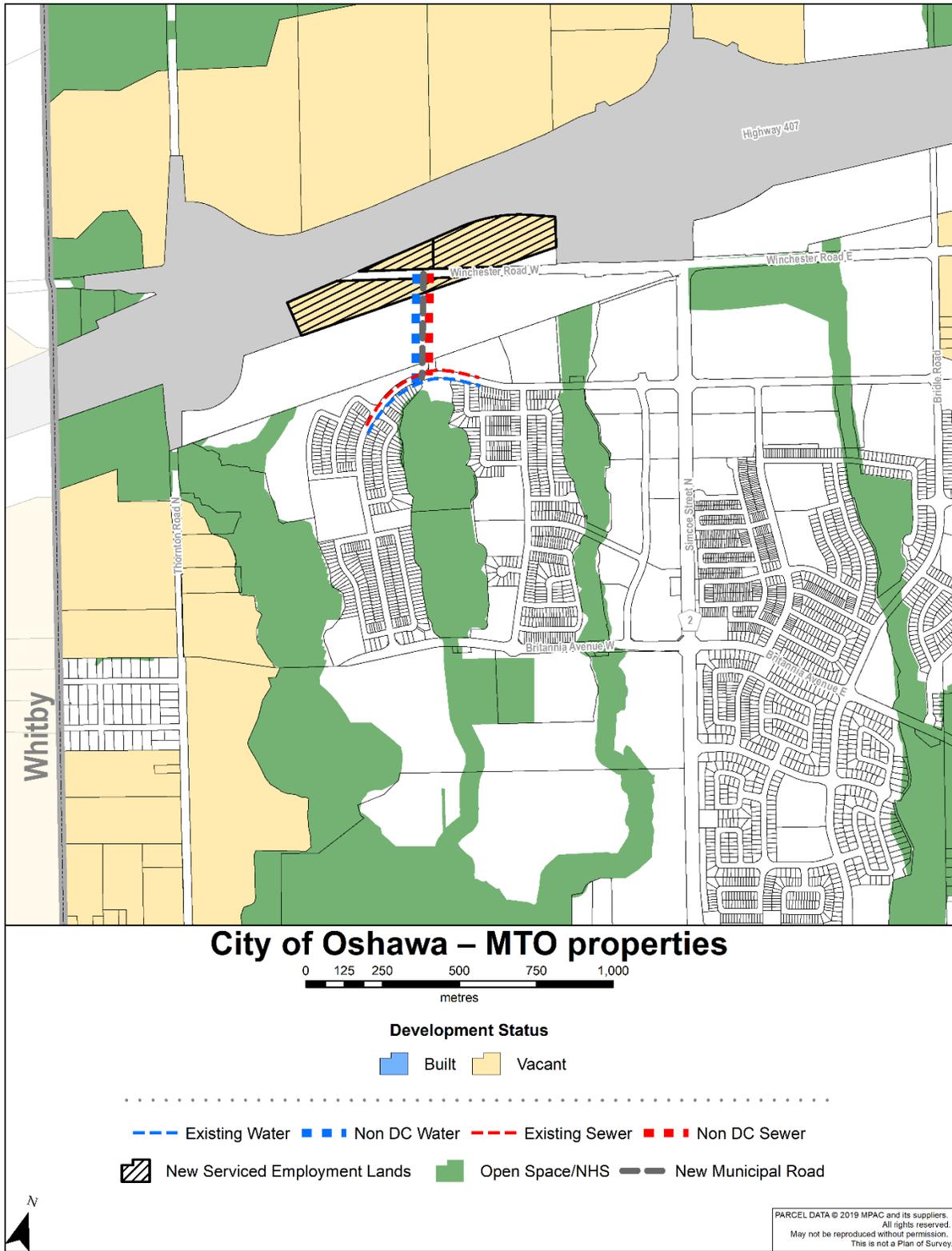
6.4 Additional relevant details

The construction of the above items will result in approximately 11 ha of newly serviced Employment Area lands.

6.5 The City of Oshawa is currently conducting an environmental assessment (EA) for the required new local road. This EA needs to be completed and the associated road right-of-way would need to be acquired by the City of Oshawa in order to construct the local Regional services. This road and services will need to cross the hydro lands, which will add some complexity to the project.

6.6 To ensure that projects are coordinated and to reduce disruption associated with construction, the Region could budget for the design and construction of the sanitary sewer and watermain so that construction occurs concurrently and in coordination with the construction of the connecting road by the City of Oshawa.

Figure 7: City of Oshawa - MTO Lands



7. Appendix 7: Township of Scugog - Port Perry Employment Area

7.1 The Township of Scugog provided a submission in support of Regional servicing for the Port Perry Employment Area, which is bounded by Line 6 to the south, Reach Street to the north, Highway 12 to the west and Cawker's Creek to the east (see Figure 8). Within its submission, the Township indicated that approximately 267 hectares (660 acres) of land are designated for employment uses, approximately 64 per cent of which (425 acres) are currently vacant.

7.2 Sanitary sewer servicing

The provision of sanitary servicing to these Employment Area lands requires the following:

- a. a new sanitary sewage pumping station (SSPS) near Reach Street and North Port Road. These works are included in the Development Charges Study;
- b. a forcemain from the SSPS to the Nonquon Water Pollution Control Plant (WPCP). These works are included in the Development Charges Study;
- c. a new gravity sanitary sewer along Reach Street draining into the SSPS. This sanitary sewer is not planned to be funded by DCs.

The estimated total cost of these works is estimated to be approximately \$12.9 million.

7.3 Water supply servicing

The provision of water supply servicing for this Employment Area requires the following:

- a. a watermain from approximately 500 m east of the future water storage facility connection, along Reach Street to the existing water supply system. This work could potentially be funded by DCs. The proposed water tower within the area needs one feed either from the south or from the north to be funded by DCs. The decision as to which direction will be funded by DCs is, in part, dependent on negotiations with the current landowners. If the decision is to connect from the north, then these works could be funded by DCs. If from the south, these works will not be funded by DCs, and which way it will be is not known at this time.
- b. The remaining portion of watermain (approximately 1500 m) would be required along Reach Street that is not planned to be funded by DCs.

The estimated total cost for these watermains is approximately \$2.5 million.

7.4 Additional relevant details

The construction of the above infrastructure would provide an opportunity for approximately 56 ha of newly serviced Employment Area lands. However, in order to achieve the full benefit of 56 ha being serviced, local land owners immediately south of Reach Street would need to construct the required internal roads and associated local servicing as part of the private land development process. Without this private work, the newly serviced Employment Area lands would be limited to only the lands fronting onto Reach Street.

7.5 Any further development within these lands would require the construction of additional internal Township of Scugog roads.

7.6 Further, since a small number of very large parcels contribute to the calculated amount of newly serviced lands benefitting from this infrastructure, the Region would want to secure adequate assurance that the owner or owners of these few parcels are willing sellers for the purposes of employment-type development, prior to expending any funds for construction of this infrastructure.

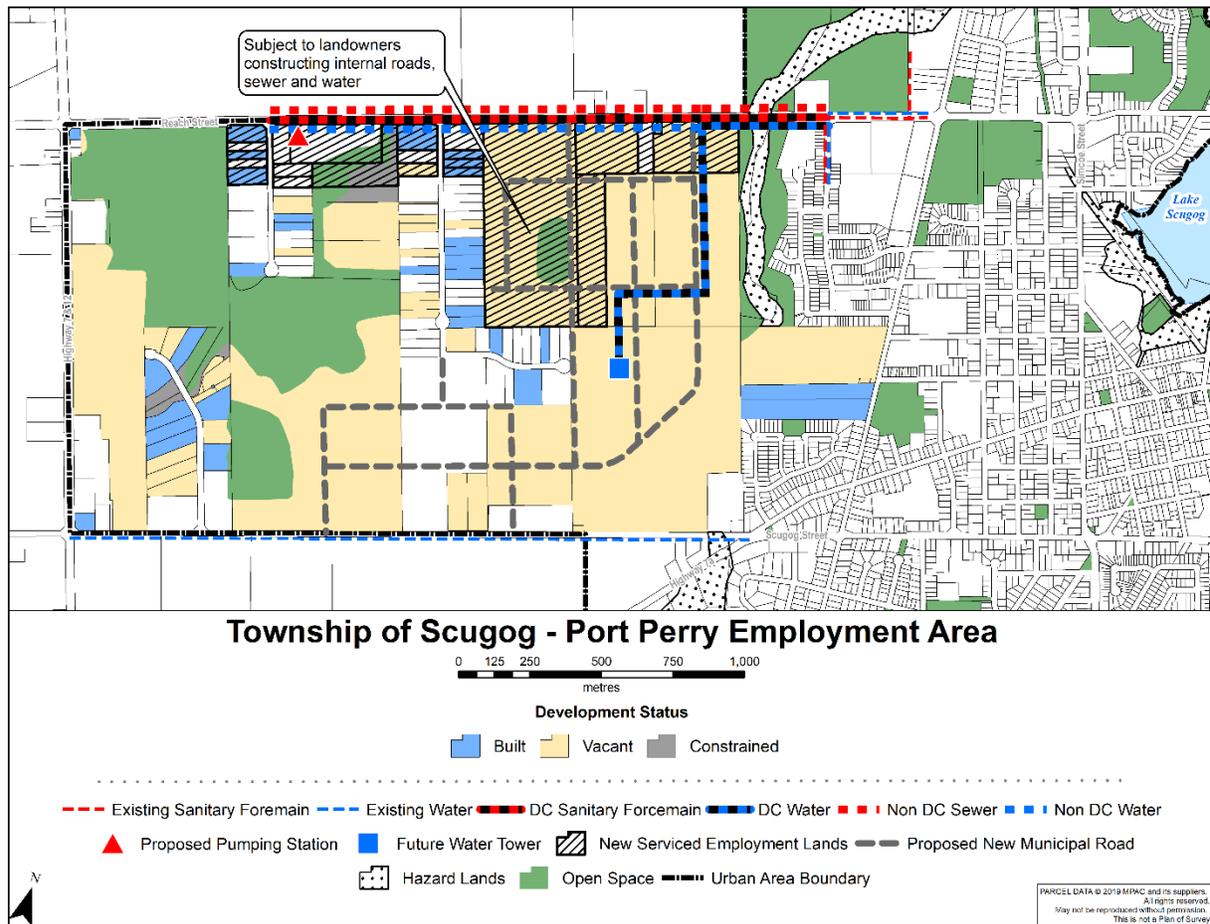
7.7 Lastly, there are considerable additional vacant Employment Lands in this area which would not be immediately adjacent to the proposed infrastructure, but which would become significantly more easily serviceable by sanitary sewer extensions once the proposed SSPS and sanitary force main were constructed. Vacant lands south of Reach Street, Industrial Park Road, and North Port Road, as well as south and west of Taylor Boulevard, would all become more easily serviceable by possible future sanitary sewers and watermains which could be constructed along these roads.

7.8 The Port Perry Employment Area requires a Class Environmental Assessment (EA) for the proposed SSPS. This is a critical component to bringing servicing to any of the lands within the Port Perry Employment Area and is the first activity on the critical path of the broader proposed project.

7.9 It is noted that through the Region's Municipal Comprehensive Review process, a Request for Employment Area conversion has been received by a principal property owner within the Port Perry Employment Area. The proposal requests the conversion of approximately 60 hectares of Employment Area to a designation that would permit residential and retail commercial uses, to permit approximately 511 detached dwelling lots, medium and high-density residential development and commercial uses

7.10 The Region could commit \$750,000 to complete the SSPS EA as a first step towards servicing this area.

Figure 8: Township of Scugog – Port Perry Employment Area



8. Appendix 8: Town of Whitby - South Brooklin Employment Area

8.1 The Town of Whitby provided submissions regarding Employment Area lands generally south of Highway 407. The submission identified some of the Town's efforts in support of future development and employment attraction efforts in this area, including:

- a. an environmental assessment (EA) and preliminary design for a midblock arterial road extending from Cochrane Street, traversing southeasterly between Winchester Road and Conlin Road and connecting to Britannia Road in the City of Oshawa;
- b. discounting of the Town's portion of DCs for industrial buildings that exceed 2,323 square metres (25,000 sq.ft.). A payable amount of seventy-five per cent of the amount that would otherwise be payable is in effect until March 31, 2021;
- c. policies in the Brooklin Community Secondary Plan supporting health, medical-related, and research and development facilities in a highly visible area in proximity to Highway 407;

8.2 For the purposes of analysis, the South Brooklin Employment Area has been identified as the area bounded by Highway 407 to the north, the Hydro corridor to the south, Cochrane Street to the west and Lynde Creek to the east (see Figure 9).

8.3 Sanitary sewer servicing

A new sanitary sewer is required along the proposed Town of Whitby mid-block arterial road from Ashburn Road to an existing trunk sanitary sewer located in the Lynde Creek Valley. The oversizing of this sanitary sewer is planned to be funded through DCs and is estimated to be \$0.85M. The minimum size of the sanitary sewer is planned to be funded by the end user and is estimated to be \$0.85 million. The estimated total cost for this sanitary sewer servicing concept is \$1.7 million.

8.4 Water supply servicing

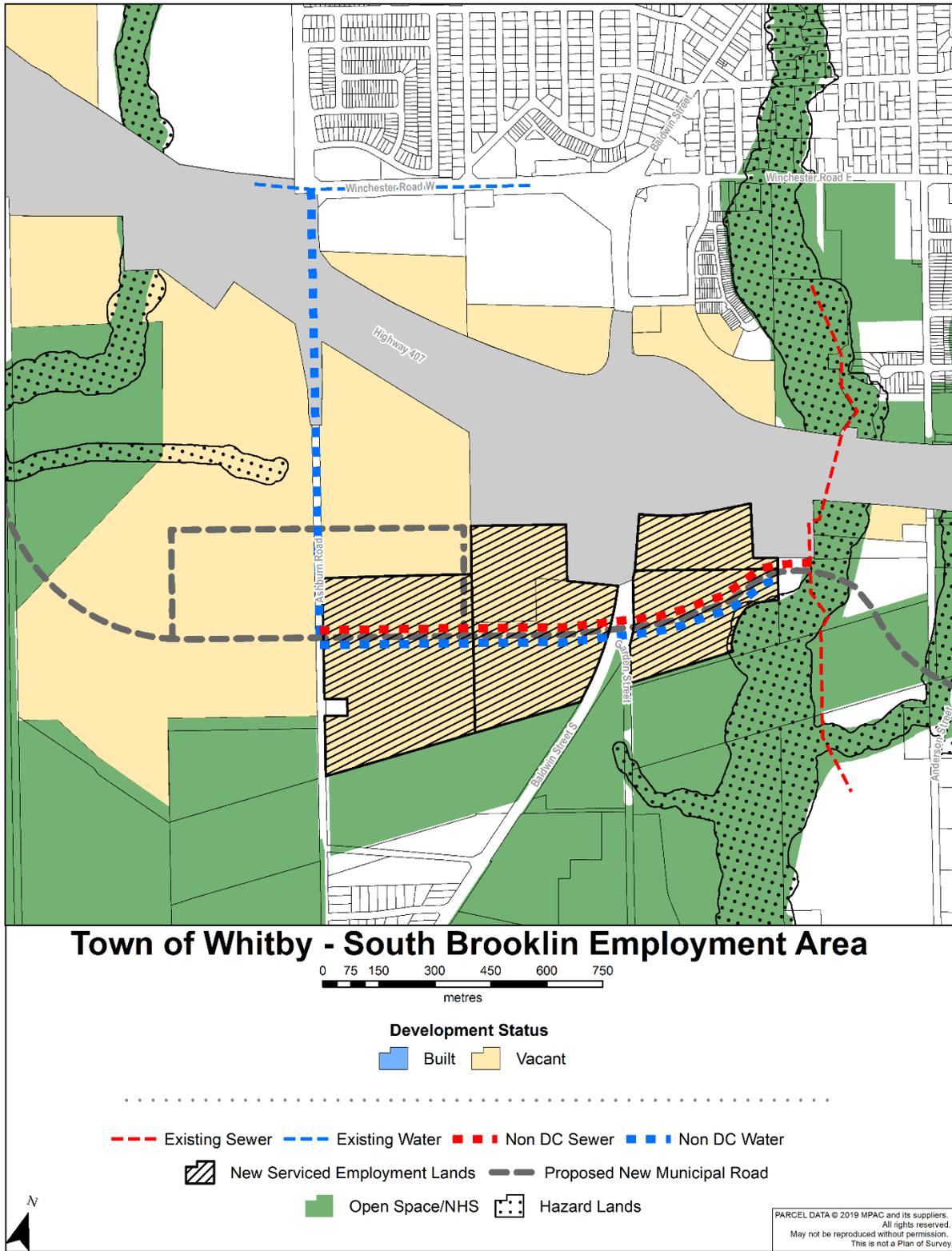
A new watermain is required along the proposed Town of Whitby mid-block arterial road, from Ashburn Road to east of Baldwin Street. A second new watermain is also required on Ashburn Road from the proposed mid-block arterial to the existing watermain on Winchester Road. The estimated total costs for the watermain servicing concept are approximately \$4.35 million. This work is not planned to be funded by DCs.

8.5 Additional relevant details

The construction of the above items will result in approximately 48 ha of newly serviced Employment Area lands but is contingent upon the construction of a new Town of Whitby mid-block arterial road. Any further development in the area will require the construction of additional internal Town of Whitby local roads.

- 8.6 The Town of Whitby is currently conducting an EA for the proposed mid-block arterial road, which is scheduled for completion in 2020. For the exact locations of the sanitary sewer and watermain construction to be finalized, This EA needs to be completed.
- 8.7 A large section of the South Brooklin Employment Lands is held in one ownership. The owner (Winash Developments Limited) is actively pursuing a draft plan of subdivision on these employment lands and is planning to construct all of the services required, and subsequently sell the serviced lots directly to end users.
- 8.8 The Region could best contribute to the successful servicing of these lands by budgeting for the Region Share (DC component) of the sanitary services to be paid to the developer after the work is complete through a standard subdivision agreement process.
- 8.9 The Town has also identified that broadband services would need to be extended in the areas as properties develop.

Figure 9: Town of Whitby: South Brooklin Employment Area



9. Appendix 9: Town of Whitby – North-East Whitby Employment Area

For the purposes of analysis, the Whitby North-East Employment Area has been identified as the area bounded by Conlin Road to the south, Highway 407 to the north, 500 m west of Thickson Road to the west, and the Whitby/Oshawa municipal boundary to the east (see Figure 10).

9.1 The Town's submission identified developer interest in the Thickson and Conlin Road area, citing opportunities lost due to a lack of servicing.

9.2 Sanitary sewer servicing

To enable Regional sanitary sewer servicing of this area, the preferred alignment for this infrastructure has been identified and is detailed in Section 9.5 below. However, the following less-preferred alternate route for infrastructure has been identified, if required:

- a. The northerly extension of the sanitary sewer on Thickson Road from Glengowan Street to Conlin Road. The oversizing of this sanitary sewer is planned to be funded through DCs. The minimum size of this sewer would be funded by the end user or developer;
- b. The extension of sanitary sewers: easterly on Conlin Road from Thickson Road to Garrard Road; north on Garrard Road to approximately 1000 m north of Conlin Road; and, north on Thickson Road from Conlin Road to the future mid-block arterial road. These sewers are not planned to be funded by DCs.
- c. The estimated total costs for the sanitary sewer servicing concept is approximately \$6.5 million, of which approximately \$1.6 would be DC funded (oversizing south of Conlin), while the remaining \$4.9 would be non-DC funded.

9.3 Water supply servicing

The provision of Regional water supply services for the Whitby North-East Employment Area would entail the following components:

- a. Construction of a Zone 3 watermain on Conlin Road from Garrard Road to Thickson Road. There are two options for this servicing concept: either the Zone 3 watermain could be extended from the existing Zone 3 watermain on Conlin Road at Ritson Road; or, a Zone 3 water pumping station could be constructed at the Garrard Road reservoir site in Whitby with a watermain extension to Thickson Road. Both projects are identified within the Region's Development Charges Study and are in the Region's capital program. The detailed design of the watermain on Conlin Road is currently underway.

- b. The extension of watermains north on Garrard Road, to approximately 1000 m north of Conlin Road, and the extension of watermains north on Thickson Road from Conlin Road to the future mid-block arterial road. These watermains are not planned to be funded by DCs.
- c. The estimated total costs for the watermain servicing concept are approximately \$1.25 million; this cost is in addition to the primary Zone 3 watermain project along Conlin for which budget is approved and detailed design is currently underway.

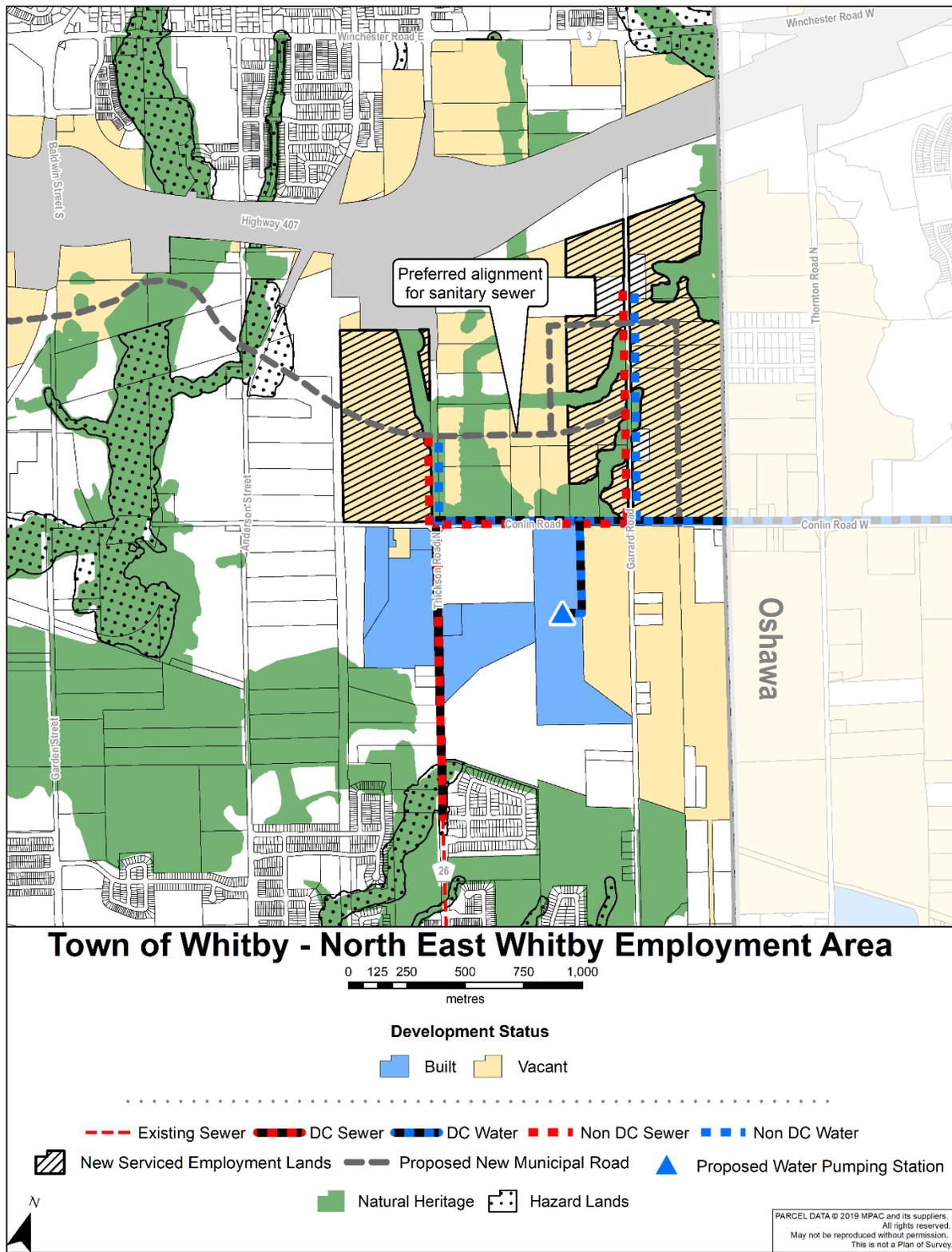
9.4 Additional relevant details

The construction of the above items will result in approximately 83 ha of newly serviced Employment Area lands. It should be noted, however, that any further development in this general area will require the construction of a new Town of Whitby internal road network, including the planned mid-block arterial road for which an EA is currently underway.

- 9.5 If the planned mid-block arterial is to be constructed before the sanitary sewer (as proposed here) along Conlin Road, then the preferred alignment of sanitary sewer servicing for this entire Employment Area would instead be along this mid-block arterial road right-of-way, between Thickson Road and Garrard Road, since that alignment would result in a more efficient and cost-effective servicing approach overall. With respect to timing for this decision, the Town of Whitby is currently conducting an EA for the proposed mid-block arterial road. This EA is scheduled for completion in 2020, and the exact limits of the sanitary sewer and watermain construction could be determined upon completion of this EA and determination of the final location of the road.
- 9.6 Elexicon Energy has noted in the past that the available capacity of electrical supply in this area is limited, and if a prospective industrial end user's energy demands are above the area's available capacity, improvements to the electrical system would be required.
- 9.7 The 2020 Regional Road Program forecasts the widening of Thickson Road from Taunton Road to Highway 407 in 2025. Marginally lower costs and less public disruption could occur if the sanitary sewer and watermain were constructed at the same time as the road widening.
- 9.8 The owner of the lands located at the north west corner of Thickson Road and Conlin Road is in the process of designing the sanitary sewer along Thickson Road from Glengowan Street to Conlin Road. This owner has stated they are prepared to construct this sewer to service their lands through a servicing agreement with the Region. If this solution were to proceed, this owner would be responsible for the cost of the installation and base size of pipe (conceptual estimate \$1,600,000), and the Region would be responsible for the oversizing share (conceptual estimate \$1,600,000).

- 9.9 The Region could budget for \$1,600,000 to pay for the Region share of the sanitary sewer construction up to Conlin Road.

Figure 10: Town of Whitby – North-East Whitby Employment Area



10. Appendix 10: Town of Whitby - West Whitby Employment Area

Although not included in the Town of Whitby servicing request documents, a portion of the Employment Area within the West Whitby Secondary Plan is being considered for servicing at this time. These lands are located at the north west corner of Halls Road and Dundas Street West (see Figure 11).

10.1 Sanitary sewer servicing

The westerly extension of the sanitary sewer is required on Dundas Street West from Des Newman Boulevard to Halls Road, crossing under Highway 412. This sewer is planned to be DC funded. The estimated total cost for this sanitary sewer servicing concept is approximately \$3.6 million.

10.2 Water supply servicing

There are no water supply works required to service these lands except for individual service connections as required by the end user.

10.3 Additional relevant details

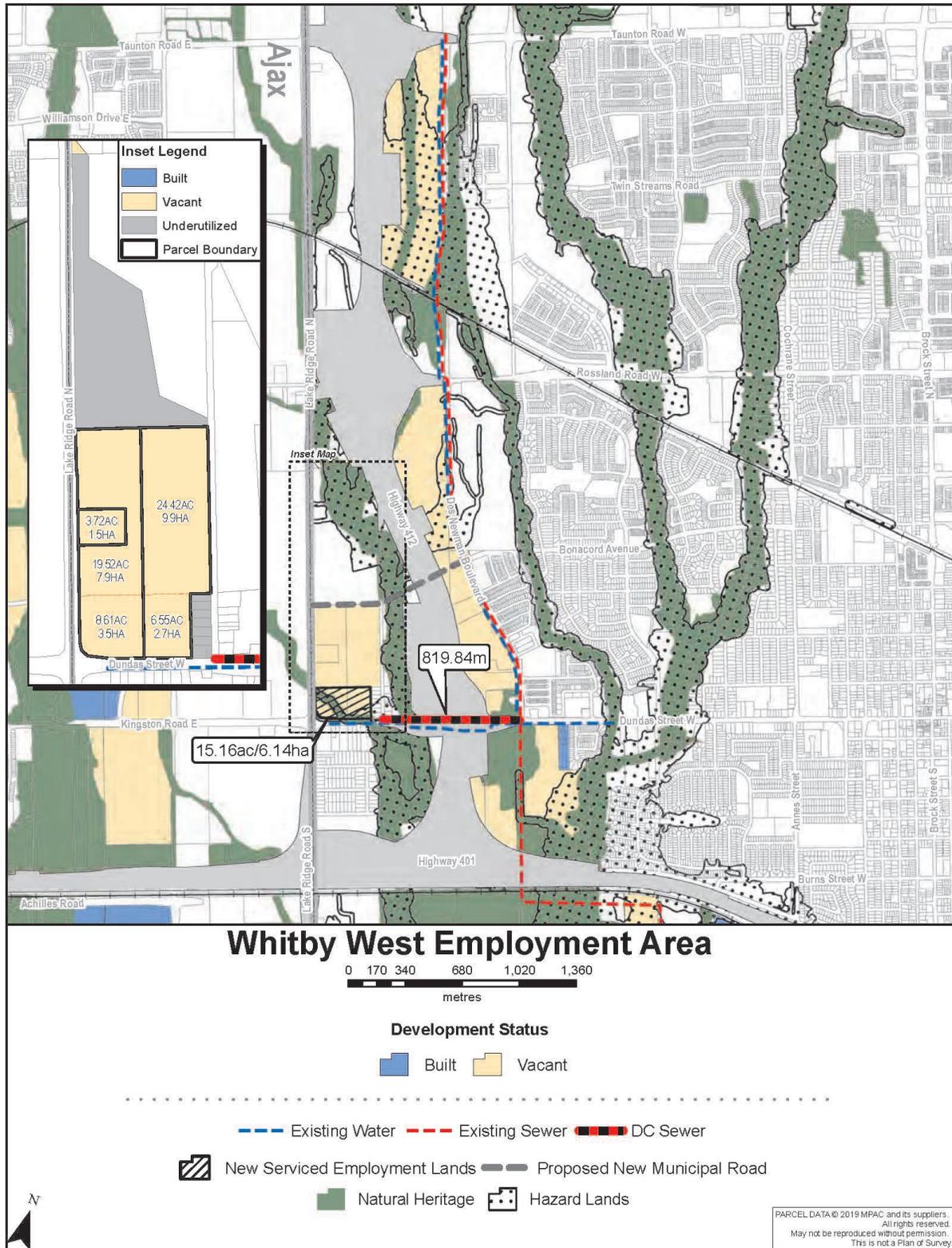
The construction of the above infrastructure will result in approximately 6.2 ha of newly serviced Employment Area lands immediately adjacent to Dundas Street West. It should be noted, however, that all the Employment Area lands on the west side of Des Newman Boulevard between Dundas Street West and Taunton Road are already fully serviced with sanitary sewers and watermains.

10.4 Regarding the three parcels at the north east corner of Dundas Street West and Lake Ridge Road North (see inset, Figure 11), the unhatched balance of these parcels would become more easily serviceable by this project. If the owners of these parcels install internal servicing, a potential total of up to 25 ha of land would be serviced, increasing the potential number of jobs per \$1 million from 18 to 77.

10.5 The design of the sanitary sewer required to further service the West Whitby Employment Area is complex as it must cross under Highway 412. This detailed design funding is currently forecast in 2022, with the construction funding forecast in 2023, in the approved 2020 Budget and 9-year Forecast.

10.6 The Region could advance the design and approval of these works (\$600,000) to 2021 to address its design complexities and lengthy approval process.

Figure 11: West Whitby Employment Area





The Regional Municipality of Durham Report

To: Committee of the Whole
From: Commissioner of Finance and Commissioner of Works
Report: #2020-COW-24
Date: September 16, 2020

Subject:

2020 Corporate Asset Management Update Report

Recommendations:

That the Committee of the Whole recommends to Regional Council that:

- A) This 2020 Corporate Asset Management Update report be received; and
 - B) The best business practice of allocating funds to address the Region's infrastructure asset management needs, including priority rehabilitation and replacement needs, identified in this update report through the Region's asset management planning process, continue as part of the Region of Durham's annual 2021 Business Planning and Budget development.
-

1. Purpose

- 1.1 This report provides an update companion report to the Region's full 2019 Asset Management Plan (2019-COW-16). Through the Region's current asset management planning process, this update companion report provides:
 - a. updated asset information on the state of the Region's infrastructure;
 - b. introduction of new condition ratings and age for the Region's fleets and DRT bus stop pads and shelters, and improvements in other asset management data collection and analysis;
 - c. introduction of Bridge Condition Index (BCI) for condition rating of the Region's structures, to align with the service level reporting approach in the Region's Asset Management Plan in compliance with Ontario Regulation 588/17 (Asset Management Planning for Municipal Infrastructure);
 - d. updated infrastructure investment needs to inform the development of the 2021 budget and nine-year capital forecast;
 - e. status update on the continued enhancements of the Region's Asset Management Program to achieve compliance with the future reporting requirements outlined in Ontario Regulation 588/17; and
 - f. next steps for the Region's annual asset management planning program.

1.2 This report, along with the 2019 Asset Management Plan Report, re-affirms the Region’s compliance with current Provincial and Federal regulatory and reporting requirements and grant funding programs, including the new requirements under Ontario Regulation 588/17 that were due by July 1, 2019 (completed in June 2019) and in almost all cases those requirements due by July 1, 2021 and in some cases those requirements due by July 1, 2023.

2. Current Corporate Asset Management Policy, Goals & Approach

2.1 The Region’s Corporate Strategic Asset Management Policy, which was approved by Regional Council in June 2019, guides the Region’s current asset management planning process and approach, with the aim of achieving the seven goals in the policy and informing annual business plans, budgets and long-term capital forecasts.

2.2 The Region’s asset management program is a continuous year-round process:

Figure 1: Region’s Asset Management Planning Process



2.3 Multi-disciplinary departmental asset management teams, coordinated by the Corporate Asset Management Team (Finance Department) and led by a cross departmental Director Steering Committee, collaboratively collect, analyze and report on the following asset information. These teams also participate in the Region’s Climate and Sustainability Community of Practice team and its sub committees, as well as with departmental budget teams preparing the business plans, budgets and capital forecasts. This process provides a coordinated approach.

Figure 2: Region’s Asset Management Analysis and Teams



- 2.4 The focus of this report is to update the state of infrastructure information to inform the development of the upcoming 2021 business plans, budgets and long-term capital forecast.
- 2.5 Through this integrated multi-disciplinary analysis and approach, Regional staff strive to achieve the seven asset management goals (Figure 3) in the approved Corporate Strategic Asset Management Policy. These goals were based on the Region’s Strategic Plan and other various plans, studies, reports, senior government regulations and best business practices.
- 2.6 One of the identified 2021-2022 initiatives will be to revisit these asset management goals and the Corporate Strategic Asset Management Policy, to incorporate recent Regional Council approvals of key strategic plans, such as the Region’s new Strategic Plan and Long Term Financial Planning Framework, as well as results from other currently ongoing studies such as the Climate Change Master Plan when completed.

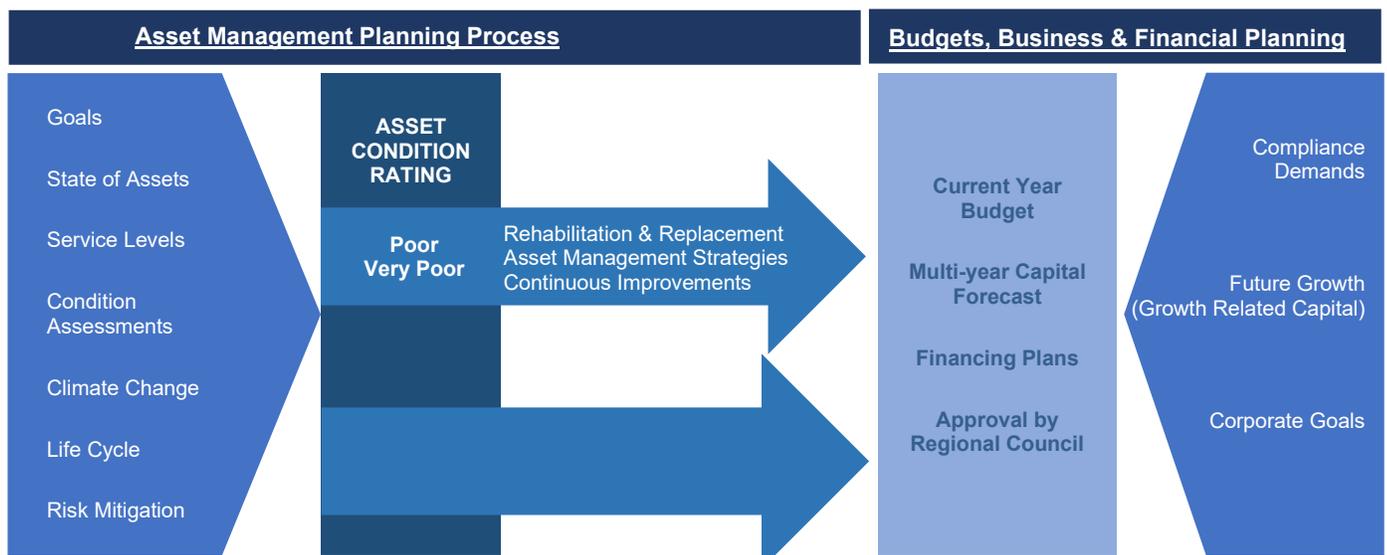
Figure 3: Asset Management Goals



- 2.7 The Region has been producing annual Asset Management Plans that report the results of the analyses highlighted in Figure 2 to Regional Council for approval on an annual basis.
- 2.8 The annual Asset Management Plan is one of the first steps in the Region’s business planning process. The identified infrastructure repair, rehabilitation and/or replacement investment needs, based on asset conditions, service levels, life cycles, climate change vulnerability, and mitigating risks, are prioritized through the Region’s annual business planning, budget and long-term capital planning process. This current approach also ensures that opportunities for continuous improvements and asset management strategies are explored and considered for implementation. This process is highlighted in Figure 4.

- 2.9 The Region’s approach allows for Regional Council approval of the required budgetary resources and financing plans for the prioritized infrastructure renewal and new capital investments through the approval of the Region’s Business Plans and Budgets and receipt of the long-term capital forecasts. This process ensures the best business practice of allocating and approving funds to address the Region’s infrastructure needs (based on a life cycle approach) to continue to provide safe infrastructure and services to residents and businesses while addressing climate mitigation and adaptation, and minimizing risk, in a financially sustainable manner.
- 2.10 Throughout this process, opportunities for the public to provide input are available through the Region’s public engagement initiatives for the annual Business Plans and Budgets as well as appearing at Committee and Council meetings when the reports are subject for approval.
- 2.11 The focus of this year’s process was to produce an asset management update companion report with updated state of the infrastructure asset information (condition, age, replacement value, etc.) to inform the 2021 business plans and budgets and long-term capital forecasts.
- 2.12 It is important to note that the Region is undertaking a multi-year business planning and budget review and modernization project, which includes the asset management planning process and its integration in the business planning and budget process. The Region will update the Corporate Strategic Asset Management Policy to incorporate any updates resulting from the review.

Figure 4: Corporate Asset Management & Budget, Business & Financial Planning

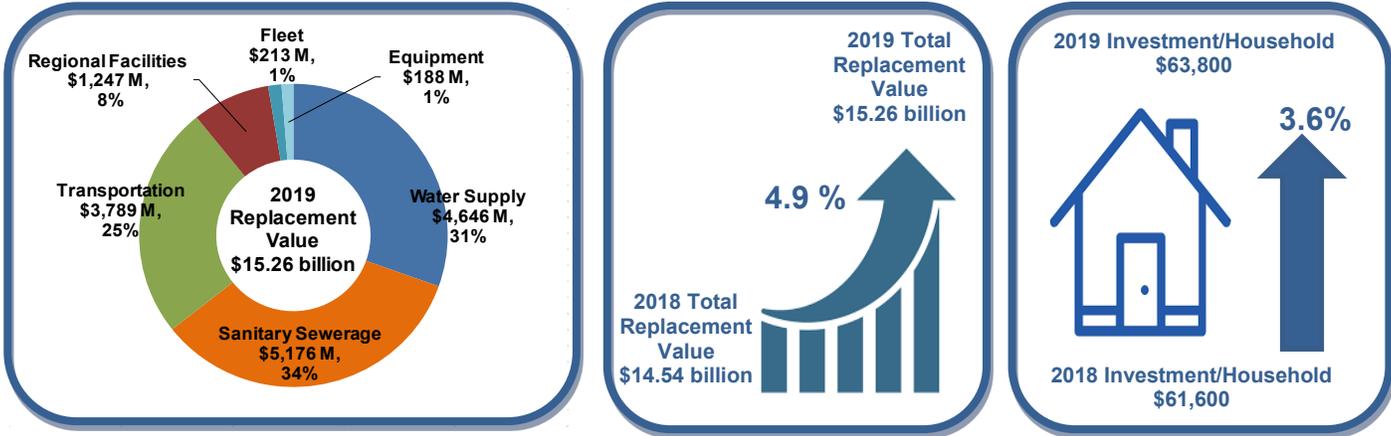


3. Updated State of the Region’s Infrastructure as at Year End 2019

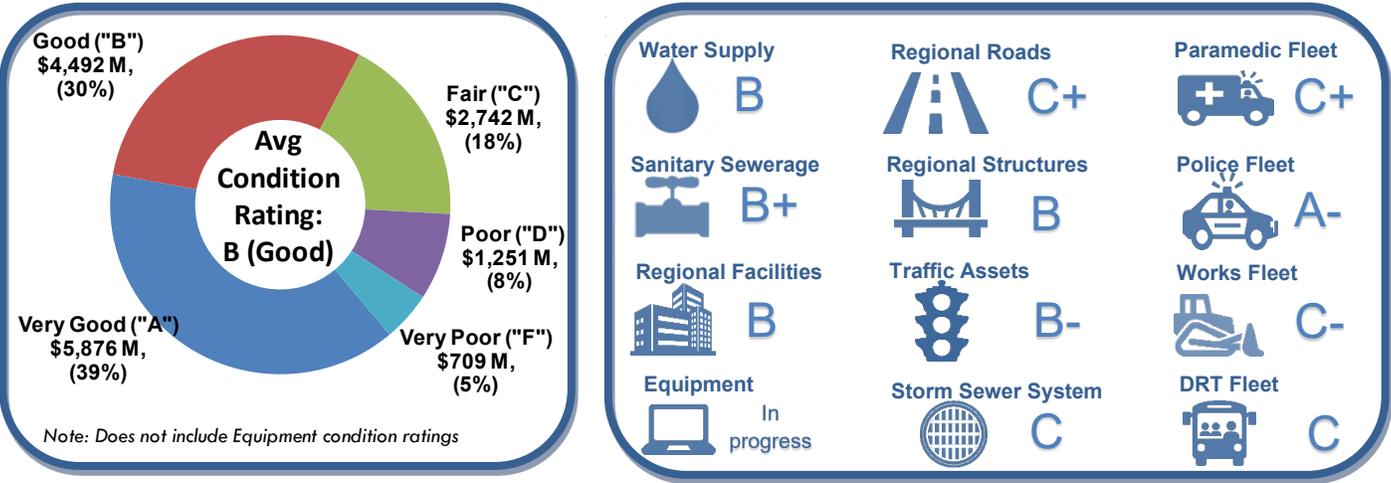
- 3.1 The updated state of the Region’s infrastructure for year-end 2019 is summarized in Figure 5 and includes the introduction of new fleet and DRT bus stop pad and shelter condition ratings and age, updated BCI condition ratings for structures and improvements to other data analyses. Attachments 1 and 2 provide further detailed state of infrastructure asset data for each asset class (e.g. water supply) as well as or the individual assets within each asset class (e.g. water supply plants, wells, watermains, hydrants, valves, etc).

Figure 5: Updated State of the Region's Infrastructure as at Year End 2019

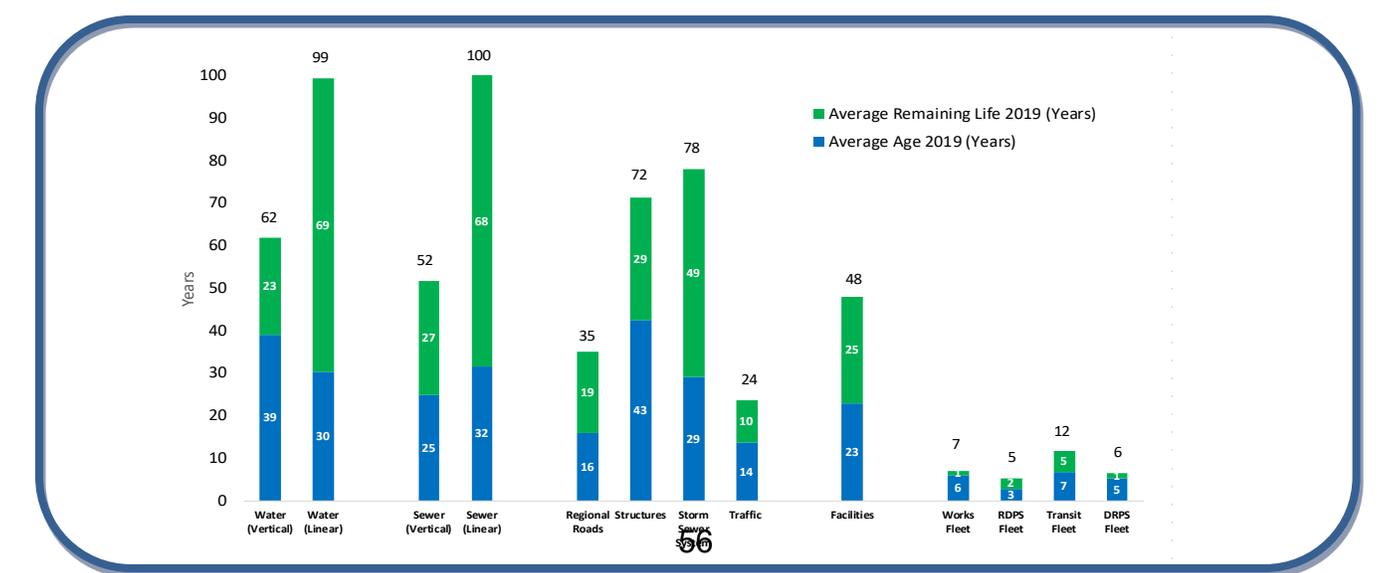
2019 Replacement Value of Regional Assets



2019 Average Condition Ratings of Regional Assets



2019 Average Age and Remaining Useful Life of Regional Assets



4. Service Levels and Performance Measurement

- 4.1 Service levels are a key consideration in asset management planning and investment decisions. Assets must be maintained, repaired, rehabilitated and/or replaced in a timely manner to ensure services can be provided at approved levels.
- 4.2 The Region's full 2019 Asset Management Plan (2019-COW-16) includes asset related service levels and performance measurement as part of best business practices. In addition, Ontario Regulation 588/17 prescribes specific service levels for core assets (water, wastewater, roads, structures, and stormwater management) that municipalities must track, measure, and report on by July 1, 2021. With the service levels reported in the 2019 Asset Management Plan, the Region is already compliant with all of these service level reporting requirements for water, wastewater, roads, and structures ahead of the specified July 1, 2021 deadline. The 2019 Asset Management Plan also includes service levels for non-core assets (e.g. Transit and Traffic) that are not required until July 1, 2023, placing the Region well ahead and in a good position.
- 4.3 The Region's asset related service levels are defined through:
- Regional Council approved corporate plans, studies, strategic planning documents, policies, by laws, reports and goals and objectives;
 - Best engineering and industry practices including climate change risk and vulnerability assessments at the asset class and individual asset level;
 - Regulatory guidelines and/or requirements; and
 - Other performance expectations as defined through other reports.
- 4.4 Moving forward, Regional staff will complete the service level reporting requirements for Regional stormwater management infrastructure and report on them in the 2021 Asset Management Plan. In addition, service levels and performance measurement for all the other assets will be refreshed and updated reflecting newly approved plans (e.g. strategic plan, climate change plans, Long Term Financial Planning Framework, etc.), evolving Regional Council priorities and best engineering practices.

5. Life Cycle Considerations

- 5.1 Life cycle refers to how assets are managed over their useful lives, from initial construction to disposal. Life cycle management involves determining the optimal timing and type of maintenance, repair, renewal, rehabilitation and replacement over its life span to ensure safety, achieve approved service levels and maximize the value of that asset at the lowest possible cost. This is important as it improves the ability to predict, plan and include the necessary investments in annual business plans, budgets and capital forecasts to undertake those optimal treatments at the appropriate time to maintain service levels while minimizing risks.
- 5.2 The full 2019 Asset Management Plan provides life cycle practices of the Region's assets (timing and type of repair, rehabilitation and operational treatments) and the investments approved in the 2019 business plans and budgets and identified over the capital forecast (2020-2028).

5.3 Moving forward, Regional staff will refine life cycle analyses and use the updated state of infrastructure in this update report as part of best business practices to inform business plans, budgets and capital forecasts, as well as complete the life cycle reporting requirements in asset management regulation (O. Reg. 588/17) by July 1, 2021 for core assets.

6. Climate Change Mitigation and Adaptation Measures

6.1 The Region's asset management planning process includes consideration of reducing greenhouse gas emissions (mitigation) and addressing vulnerabilities and potential impacts to infrastructure due to changing weather patterns (adaptation), through the work of the coordinated interdepartmental working teams.

6.2 The Region's full 2019 Asset Management Plan includes the identification of asset management related climate considerations and provides mitigation and adaptation measures and associated investments that were approved in the Region's 2019 business plans and budgets and identified in the capital forecast.

6.3 Currently, there are several new climate related studies and initiatives underway, supporting Council's declaration of a climate change emergency, including:

- Durham Corporate Climate Change Master Plan, which will establish corporate GHG emissions reduction targets, and a strategic framework to guide operational decision making through a climate lens. The Master Plan will enhance organizational alignment and connect the various corporate plans and strategies that address energy use and emissions;
- Development of the Durham Standard for the construction, expansion, and renovation of Regional facilities, which includes standards reflecting sustainable construction, low carbon technologies and energy efficient building systems;
- Green Fleet Review and Analysis (low carbon fleet strategy) for Paramedics, Police, Transit, and Works fleets. The Region is analyzing vehicle use and needs to develop a 10-year low carbon fleet transition plan that aligns with corporate GHG targets;
- Transit Electric Bus Strategy. As part of the overarching low carbon fleet strategy, DRT is moving forward with an electric bus pilot strategic initiative, leveraging \$10.1 million in federal gas tax funding. As part of this pilot DRT will trial eight battery electric buses to inform overall fleet transition to zero emission vehicles;
- Flood Vulnerable Road and Culvert Hydraulic Capacity Assessment. This project will analyze the impacts of flooding events on the Regional transportation network (roads, bridges, etc.), and set spatial priorities to reduce risks. Deliverables will include a series of GIS maps across the Region displaying urban flood hazards, infrastructure and human vulnerability and overall relative flood risk;
- Climate Adaptation and Asset Management Pilot Study. The Region is part of a cohort of 5 GTHA municipalities that are piloting the integration of climate risk into municipal asset management planning and priority setting. The pilot will focus on municipal water and wastewater systems while helping to increase capacity and preparedness through a climate change focus; and

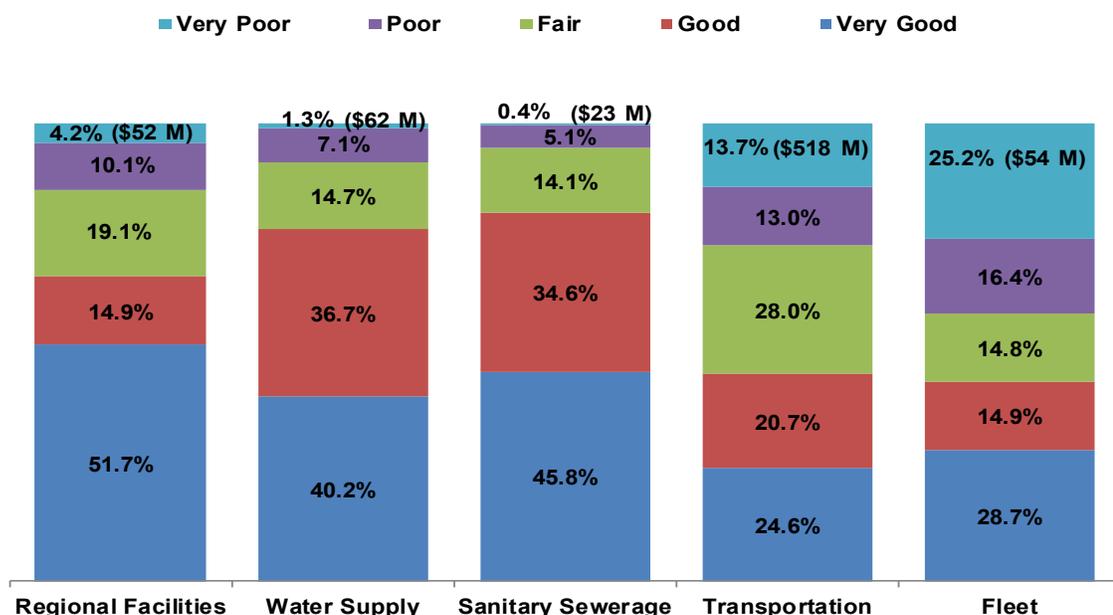
- Electric Vehicle charging infrastructure deployment strategy. As part of the implementation of the Durham Community Energy Plan, the Region is investing in the deployment of EV charging stations on Regional property for public use, as well as for employee and fleet charging purposes. Greater availability of EV charging stations will encourage uptake of low emissions vehicles across sectors.

6.4 As this work progresses, the results related to Regional assets will continue to be considered through the Region’s asset management planning process and will continue to be reported through annual Asset Management Plans. This work will also continue to inform and be addressed with investments through the Region’s annual business plans, budgets and capital forecasts. This will allow the Region to enhance asset resilience to severe weather events as part of best business practices and continue to remain in compliance with asset management regulatory requirements (O. Reg. 588/17).

7. Asset Management Investment Strategies for Assets in Very Poor Condition

7.1 Figure 6 summarizes the degree and value of assets that are in Very Good, Good, Fair, Poor and Very Poor condition within each asset class. Following Figure 6 there is a description of some of the key asset management strategies that have been addressing asset needs, including those in Very Poor condition while considering service levels, life cycle considerations, risks, and climate adaptation and mitigation. It is important to note that an asset which has been classified as Very Poor does not represent a hazard. Rather, these are assets that may be experiencing unacceptable rehabilitation and or maintenance costs due to condition, may not be performing as well as once intended or may be deemed to be at the end of their useful lives (as defined in the 2019 Asset Management Plan Report 2019-COW-16). All Regional assets are maintained to regulatory standards and are safe for daily use as required.

Figure 6: Regional Asset Condition Rating by Asset Class



7.2 Of the infrastructure assets currently rated in Very Poor condition:

- Approximately \$518 million (13.7 per cent of the Region's transportation assets) are within this transportation asset class, of which \$515 million are roads in Very Poor condition. The number of roads in Very Poor condition has remained fairly consistent to last year (\$508 million for 2018), and the overall pavement condition index (PCI) for the entire road network has also remained stable at 53 for 2019 (compared to 54 in 2018). The Region strives to achieve a PCI service level target of 65. Road rehabilitation/reconstruction continues to be a Regional Council priority and the 2020 Capital Budget approved \$38.7 million for rehabilitation of roads in Very Poor condition. This \$38.7 million included \$27.3 million from the Region's Road Rehabilitation Reserve Fund (asset management strategy for road rehabilitation and reconstruction), \$1.3 million in property tax funding, and \$10.1 million in federal gas tax funding. This asset management strategy has been ramping up over time, increasing by approximately \$15.2 million (65%) from 2017 (\$23.5 million) to now reach the \$38.7 million funding level approved in 2020 Roads Capital Budget. There is also \$3.5 million from the one-time Federal Gas Tax allocation (in 2019) approved for exploring the use of alternative waste materials (with asphalt) to reconstruct a portion (4.6 km) of Regional Road 18 in Clarington (between Concession Road 5 and Ganaraska Road) which is in Very Poor Condition. In addition, there is \$0.3 million identified per year for annual pavement and structures inventory updates, condition assessments, and needs analysis. The updated 2019 road infrastructure data will inform the 2021 budget and capital forecast and this asset management strategy will be refreshed through the 2021 business planning process;
- There are no structures (i.e. bridges or culverts), which are included within the transportation asset group, that are in Very Poor condition. The current Bridge Condition Index (BCI) of the Region's structures is 75.9, which is a slight improvement over last year (74.1 in 2018), and above the BCI target service level of 70. The Region has an asset management strategy for structures, which includes the Regional Bridge Rehabilitation Fund (for replacements and major rehabilitations) and property tax financing (for inspections, repairs, and replacements of components). The Regional Council approved 2020 Capital Budget included \$8.5 million for replacement and or rehabilitation of the Region's structures, of which \$8.0 million was funded from the Bridge Rehabilitation Fund (including a one-time application of \$2.5 million) and \$0.5 million in property tax funding. In addition, there is \$0.3 million identified per year for annual pavement and structures inventory updates, condition assessments, and needs analysis. The updated 2019 structures asset data will inform the 2021 budget and capital forecast and this asset management strategy will be refreshed through the 2021 business planning process;
- For the Region's traffic assets, which are also part of the transportation asset group, there are currently no major or critical assets in Very Poor condition. Asset management strategies for the Region's traffic system include annual allocations within the capital budget for replacing and improving traffic assets, such as replacing and modernizing traffic control signals (\$1.2 million in 2020

Budget), traffic management system upgrades (\$1.1 million in 2020 Budget), installing uninterrupted power supply (UPS) at traffic control signals (\$0.2 million in 2020 Budget), road safety program (\$0.8 million in 2020 Budget), and the implementation of the Durham's Vision Zero Program (\$1.2 million in 2020 Budget). The updated 2019 traffic asset data will inform the 2021 budget and capital forecast and these asset management strategies will be updated through the 2021 business planning process;

- There is approximately \$62 million in water supply assets that are in Very Poor condition representing only 1.3 per cent of the total water supply system assets. Of this, \$17 million is related to watermains and the attached valves and service connections (linear assets). The asset management strategy to address these includes annual budgetary funds provided through the Asset Management Reserve fund, along with user rate revenues, for the repair, betterment and/or replacement of these linear assets. The Regional Council approved 2020 Capital Budget included \$20.6 million for watermain replacements, rehabilitation and or betterments (includes \$2.4 million in petition funding), of which \$4.6 million is from the Asset Management Reserve Fund. Other strategies include the annual linear condition assessment program (\$0.1 million in 2020 and \$1.7 million projected to be funded over 2021-2029 from the Asset Management Reserve Fund), replacement of lead or galvanized iron service connections (\$1.0 million in 2020 Budget), water meter replacement program (\$3.1 million in 2020 Budget), replacement of hydrants (\$0.2 million in the 2020 Budget), and replacement of valves (\$0.4 million). For vertical assets (water supply plants and wells, pumping stations and storage facilities), there is approximately \$45 million, (representing 1 facility) in Very Poor condition, being the Bowmanville Water Supply Plant. To address this, funds were approved in the 2020 Budget (\$0.5 million) for an Environmental Assessment, with detail design anticipated in 2023 (\$1.5 million) and the construction rebuild planned for 2025 (\$39.2 million). Consulting work to undertake a detailed condition assessment of the facility is underway. The Region also has \$0.1 million approved in 2020 and \$2.5 million (2021-2029) in vertical condition assessments projected to be funded from the Asset Management Reserve Fund. The updated 2019 water supply asset data will inform the 2021 budget and capital forecast and these asset management strategies will be refreshed and updated through the 2021 business planning process;
- For the Region's Sanitary Sewerage assets, approximately 0.4 per cent (with a replacement value of \$23 million) are in Very Poor condition, primarily in linear assets (\$19.0 million). The asset management strategy to address these includes annual budgetary funds provided through the Asset Management Reserve fund, along with user rate revenues, for the betterment and/or replacement of these linear assets. The Regional Council approved 2020 Capital Budget included \$5.6 million to address priority sanitary sewer linear assets, of which \$0.6 million is from the Asset Management Reserve Fund. Other strategies include the annual linear condition assessment program (\$0.2 million approved in 2020 and \$1.8 million projected to be funded over 2021-2029 from the Asset Management Reserve Fund), and \$0.5 million approved in 2020 and a

total of \$5 million projected over the forecast period (2021-2029) to conduct inflow and infiltration studies and complete remedial works as required. There is approximately \$3.9 million in vertical assets (1 facility) in Very Poor condition, being the Madawaska Sanitary Sewerage Pumping Station. To address this, there is \$1.5 million in 2020 and previously approved funding for a new generator and other associated work. There is \$5 million identified in the capital forecast (2022-2026) for the replacement of this pumping station. The Region also has \$0.3 million in funding approved in 2020 and \$2.7 million projected (2021-2029) for vertical condition assessments funded from the Asset Management Reserve Fund. The updated 2019 sanitary sewerage asset data will inform the 2021 budget and capital forecast and these asset management strategies will be refreshed and updated through the 2021 business planning process;

- Approximately \$52 million of Regional facilities are in Very Poor condition (4.2 per cent), which is all related to the DRLHC housing stock. Previously and currently approved funding for the DRLHC housing stock is assisting in addressing needs. The 2020 DRLHC Budget included \$2.0 million for repairs and renovations along with \$9.6 million (of which \$5.4 million is from one-time Federal Gas Tax) for capital replacements and improvements to the building structures and components (for a total investment of \$11.6 million). This is an increase of \$7.6 million from the 2019 Budget (\$4.0 million). The Region undertakes Building Condition Assessments (BCA's) annually, utilizing \$0.3 million approved in the Region's 2020 Budget and anticipated annually over the forecast period. In addition, \$0.4 million was also approved in the 2020 Business Plans and Budgets for a Master Housing Strategy and a portfolio review of the DRLHC Housing stock that will include an evidence-based strategy to address maintenance, revitalization, regeneration and redevelopment of the DRLHC facilities. The updated 2019 facilities asset data and Master Housing Strategy will inform the 2021 budget and capital forecast and these asset management strategies will be refreshed and updated through the 2021 business planning process; and
- For fleet, approximately 25.2 per cent (\$54 million) is in Very Poor condition. RDPS has 8 emergency response vehicles (\$1.4 million) in Very Poor condition and the 2020 Budget approved the replacement of 10 ambulances (\$1.6 million) to address these. For the Works fleet, there is approximately \$16.1 million assets in Very Poor condition. The Works Department has already placed a number of vehicle replacement orders with vendors that are currently being built as well as have a number of tenders in process to order new vehicles to replace those in Very Poor condition using previously approved budget funding for this purpose. For the DRT fleet, there are 57 conventional buses (\$35.9 million) in Very Poor condition. DRT is in the process of replacing 37 of these Very Poor conventional buses through the use of previously and currently approved budgetary and senior government funding (i.e. ICIP and one time Federal Gas Tax funding approved through report 2019-COW-31), with hybrid buses, electric buses, BRT buses, articulated buses, and regular conventional buses. Future bus replacements will be included in future DRT capital budgets.

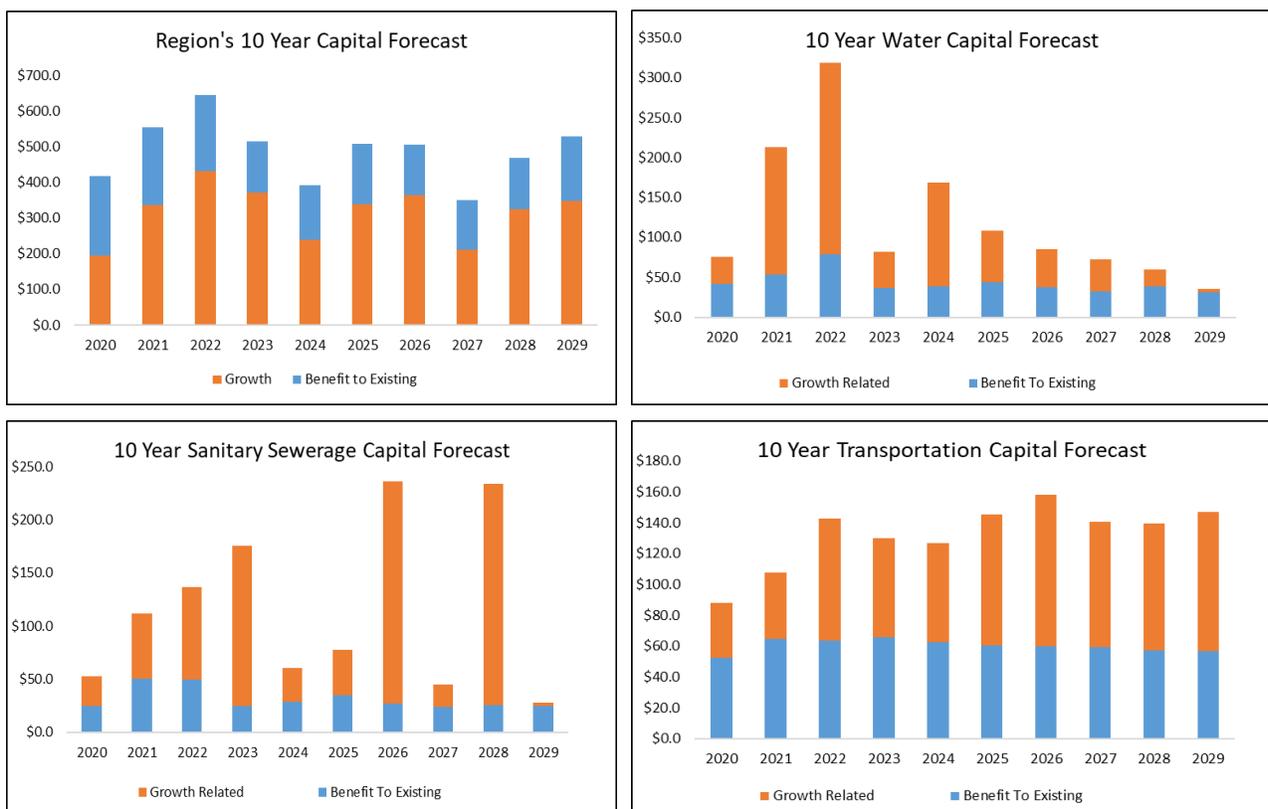
7.3 The Region’s assets will continue to undergo prioritization through the 2021 budget and capital forecasting process, for continued investment, including ongoing maintenance, repairs, rehabilitation and replacement.

8. Capital Forecast, Potential Funding Options and Asset Management Strategies to Be Updated During the 2021 Budgets and Capital Forecast Process

8.1 Major capital investments for water, sewer, and transportation (core assets required to be reported per O. Reg 588/17) approved in the 2020 Budget and projected for the 2021-2029 Capital Forecast (as part of the 2020 Business Planning and Budget process) totaled approximately \$3.7 billion. Of this, approximately \$1.3 billion (36 per cent) were for improving existing infrastructure and \$2.4 billion (64 percent) were for new growth-related infrastructure expansion. Attachment 3 provides further details.

8.2 For all Regional owned assets, the 2020-2029 capital forecast totaled approximately \$4.9 billion for major capital infrastructure investments, of which \$3.2 billion (65 percent) were for growth expansion needs and \$1.7 billion (35 percent) were for improvements to existing infrastructure.

Figure 7: 2020-2029 Capital Forecast for Core Infrastructure (\$ millions)



8.3 In addition to these previously forecasted major capital infrastructure needs, investments are also made annually through departmental budgets in the following capital assets, which in 2020 totaled \$48.1 million for both new (\$9.7 million) and replacements (\$38.4 million). Attachment 4 provides further details.

- Computer hardware and associated infrastructure;

- Building repairs and renovations (improvements);
 - Vehicles (fleet replacement);
 - Machinery and equipment; and
 - Furniture and fixtures.
- 8.4 Through this asset management update report, refined asset needs have been identified. Based on the preceding analyses, the Region is facing significant asset needs for both new expansion capital and to improve existing infrastructure across all asset classes.
- 8.5 Prioritization of asset management need and updated asset management strategies will be part of the 2021 financial and business planning process that will consider:
- Condition and age of assets;
 - Continuation and expansion of service levels;
 - Optimizing the useful life and lifecycle of assets;
 - Minimizing asset related risks through mitigation controls;
 - Furthering climate mitigation and adaptation measures; and
 - Balancing growth-related demands.
- 8.6 The goal is to ensure assets are maintained to deliver services (in accordance with corporate goals while complying with regulatory guidelines) with tolerable risks mitigated through strategies and prudent life cycle considerations.
- 8.7 In October 2019, the Region's new Long-Term Financial Planning Framework was approved (Report 2019-F-33) to guide the planning and financing of Regional Council priorities based on service plans, using best financing practices, policies and tools included in the framework, while ensuring financial flexibility, sustainability, and affordability. The framework also included the approval of the streamlining and modernization of reserve and reserve funds, including the repeal of some reserve funds, the creation of some new reserve funds, and the rebalancing of some other reserve funds.
- 8.8 Moving forward, the Region will update, refine and explore new and/or additional combinations of financing options and strategies to fund capital infrastructure needs. A summary of some of the asset management related reserve funds and financing options are highlighted below, with further details included in Attachment 5.
- Roads Rehabilitation Reserve Fund;
 - Bridge Rehabilitation Reserve Fund;
 - Asset Management Reserve Funds (one for each Water, Sewer and General Levy);
 - Equipment Replacement Reserve;
 - Water Supply Treatment Plant/Rate Stabilization Reserve Fund;
 - Sanitary Sewerage Treatment Plant/Rate Stabilization Reserve Fund;
 - Provincial and Federal Gas Tax Revenues and Reserve Fund;
 - Development Charge Revenues and Reserve Funds;

- Capital Impact Stabilization Reserve Fund;
- Capital Reserve Funds (Solid Waste, Transit, Social Housing, Paramedic Services, Seaton Capital, York Durham, etc.);
- User Rate Revenues;
- Property Tax Revenues; and
- Debt (with repayment over subsequent years).

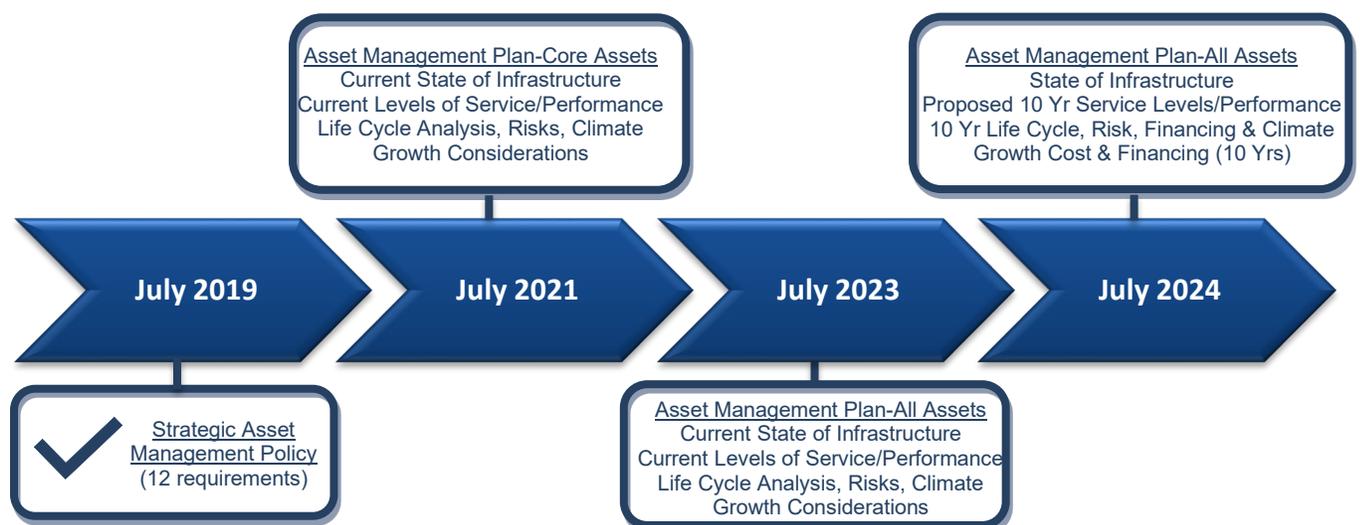
9. Complying with Federal and Provincial Requirements, including Ontario Regulation 588/17, Asset Management Planning for Municipal Infrastructure

9.1 In addition to best practices, the Region’s annual Asset Management Plan also ensures the Region is consistent and compliant with the following Provincial, Federal and Regional requirements:

- Federal requirements for the recording of Tangible Capital Assets (TCA);
- Federal Gas Tax Municipal Funding Agreement requirements;
- Requirements related to the *Ontario Infrastructure for Jobs and Prosperity Act, 2015*;
- *The Development Charges Act*;
- Requirements under *The Smart Growth for Our Communities Act, 2015*;
- Requirements under the Growth Plan to support the next Municipal Comprehensive Review (ROPA); and
- The Region’s Tangible Capital Assets (TCA) Policy.

9.2 On January 1, 2018, Ontario Regulation 588/17, Asset Management Planning for Municipal Infrastructure, under the Ontario Infrastructure for Jobs and Prosperity Act, 2015, came into effect. Figure 8 outlines the various municipal asset management plan requirements under the regulation.

**Figure 8:
Ontario Regulation 588/17 Asset Management Planning for Municipal Infrastructure**



9.3 Additional notable requirements include:

- A municipality’s Strategic Asset Management Policy must be reviewed and updated at least once every five years;
- Municipalities are also required to review and update their asset management plan at least once every five years;
- A municipality’s asset management plan must be approved by Council; and
- Commencing after July 1, 2024, municipalities will be required to undertake and complete an annual review of their asset management progress and report to Council by July 1 of each subsequent year.

9.4 The Region’s Corporate Strategic Asset Management Policy was approved by Regional Council in June 2019, thereby achieving compliance with the regulation by the July 1, 2019 deadline.

9.5 Furthermore, this update companion report, combined with the analysis and reporting in the Region’s approved full 2019 Asset Management Plan, already meet almost all of the July 2021 new asset management regulatory reporting requirements as shown in Figure 9.

**Figure 9:
Durham’s Compliance with July 2021 Requirements of the Ontario Regulation 588/17, Asset Management Planning for Municipal Infrastructure**

Core Assets by July 1, 2021						
Service Area	State of Infrastructure	Community & Technical Levels of Service	Asset Management Strategies	Life Cycle Cost	Climate Change and Risk	Financing Strategies (Asset Management and Growth)
Water	✓	✓	✓	In Progress	✓	✓
Wastewater	✓	✓	✓	In Progress	✓	✓
Roads	✓	✓	✓	In Progress	✓	✓
Structures	✓	✓	✓	In Progress	✓	✓
Stormwater	✓	In Progress	In Progress	In Progress	✓	✓

9.6 Municipal organizations including the Regional Public Works Commissioners of Ontario (RPWCO), Regional Planning Commissioners of Ontario (RPCO) and the Ontario Regional and Single Tier Treasurers (ORSTT), have requested the Province extend the legislative deadlines in O. Reg. 588/17 by one year given the unique recent circumstances. Regional staff will keep abreast of the request and advise Regional Council of any changes as well as work within the current regulatory timelines.

9.7 Moving forward, the Region is very well positioned, and staff have a plan to meet the future regulatory requirements by the specified timelines.

10. Next Steps

10.1 The infrastructure needs identified in this update report will be considered and prioritized through the 2021 business planning process, including during the development of the 2021 budget guideline, individual detailed departmental budgets, and the 10-year capital forecasts.

10.2 Asset management staff will continue to work collaboratively on the following tasks as part of best asset management business practices including informing investment needs, as well as to meet the remaining and ongoing asset management regulatory requirements due between 2021 and 2024. The specific next step tasks include:

- Update the Region's Corporate Strategic Asset Management Policy over 2021-2022 to incorporate the Region's recently approved Strategic Plan, Long Term Financial Planning Framework, climate related plans such as the Climate Change Master Plan when completed, and other related approved reports;
- Incorporate any revisions to the Corporate Strategic Asset Management Policy and the Region's asset management approach and process (also over 2021-2022) resulting from the ongoing modernization of the Region's business planning and budget process;
- Migrate the reporting and analysis of information and data from the current specific asset class categories (e.g. facilities, fleet, equipment) into specific municipal service-based categories (i.e. paramedic services, police, social services, etc.) for the upcoming 2021 Asset Management Plan and future reports;
- Develop and report condition assessment approaches and ratings for the Region's equipment and include them in the 2021 Asset Management Plan;
- Complete the stormwater management service levels due by July 1, 2021 and report them in the 2021 Asset Management Plan;
- Refine life cycle data, costing, and analysis for core assets (water, wastewater, roads, structures, and stormwater management) by July 2021 for inclusion into the 2021 Asset Management Plan. This is necessary to ensure full compliance with the provincial asset management regulation (O. Reg 588/17) and to better identify and inform investment needs into the annual business plans, budgets and capital forecasts;
- Refresh and update the currently reported service levels and performance measurement for the assets in the 2019 full Asset Management Plan based on newly approved and or pending master plans, reports and studies, and report them in the 2021 Asset Management Plan;
- Incorporate results from ongoing climate related studies and mitigation and adaptation initiatives, that build upon those climate related considerations included in the 2019 Asset Management Plan, into future annual Asset Management Plans;

- Continually seek improvements in data collection, methodology and analyses to improve asset management planning capabilities, strategies and recommendations to better inform budgets and capital forecasts;
- Continue to develop information and data required for the upcoming 2023 and 2024 regulatory reporting deadlines, including new service levels and performance measurement, life cycle analyses, climate mitigation and adaptation considerations and growth-related requirements for the non-core assets, to be presented in future Asset Management Plans; and
- Continue to assess risk (including climate risk), business continuity, asset criticality, and asset reliability to refine existing and incorporate any new mitigation approaches as warranted.

11. Conclusions

11.1 This report provides an update on the state of the Region's infrastructure and is a companion report to the full 2019 Asset Management Plan.

11.2 As the asset management planning process is one of the first steps in the Region's business planning process, this report provides updated asset investment needs for consideration into the development of the 2021 business plans, budgets and nine-year capital forecast.

11.3 The results contained in this update report, combined with the Region's approved 2019 Asset Management Plan, also highlights that the Region is compliant with senior government requirements as well as with almost all of the new Ontario asset management planning regulatory requirements (O. Reg. 588/17), ahead of schedule (due by July 1, 2021).

11.4 Moving forward, Regional asset management staff will continue to improve and refine asset management planning, data, information, analyses and reporting as part of best business practices. As a result, the Region is well positioned to meet the remaining requirements of the new asset management planning regulation due between 2021 and 2024.

11.5 A fully updated and comprehensive Asset Management Plan will be developed and brought forward to Regional Council for approval in 2021, which will include the results of the upcoming tasks identified in Regional staff's workplan to be completed over the next year.

Respectfully submitted,

Original Signed by Nancy Taylor

Nancy Taylor, BBA, CPA, CA
Commissioner of Finance

Original Signed by Susan Siopis

Susan Siopis, P.Eng.
Commissioner of Works

Recommended for Presentation to Committee

Original Signed by Elaine C. Baxter-Trahair

Elaine C. Baxter-Trahair
Chief Administrative Office

- Attachment 1: State of Infrastructure for Individual Assets**
- Attachment 2: State of Infrastructure Summary of All Assets**
- Attachment 3: Capital Forecast and Maintenance Investments**
- Attachment 4: Capital from Current Asset Investments**
- Attachment 5: Asset Management Financing Options**

Attachment 1: State of Infrastructure for Individual Assets

Water Supply Assets

1.1 Description of Water Supply System Assets:

Linear water supply assets include watermains, feeder mains, valves, service connections, hydrants, fire lines and meters. Vertical assets include water supply plants (WSPs), well systems, pumping stations, water storage facilities and water sampling buildings.

1.2 Water Supply System State of Infrastructure:

The state of the Region’s water supply infrastructure is summarized below in the following figures.

Figure 1: Water Supply Inventory, Replacement Value, And Average Condition Ratings

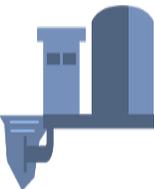
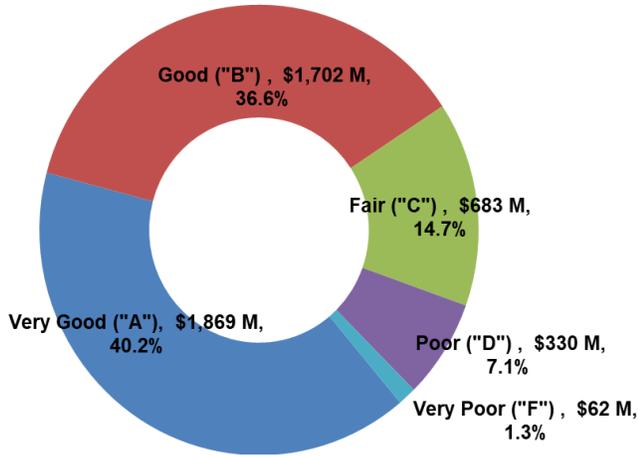
	<u>Inventory</u>		<u>Replacement Value (\$ m)</u>		<u>Condition Rating</u>	
	<u>2018</u>	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>	<u>2019</u>
<u>Vertical Assets</u>						
 Water Supply Plants & Well Systems	14	14	\$576.8	\$638.7	C-	C-
Water Pumping Stations	10	10	\$34.1	\$30.6	C+	C+
Water Storage Facilities	14	14	\$70.0	\$70.5	B	B
Water Combined Pumping/Storage	8	8	\$197.3	\$184.1	C+	C+
Water Sampling Buildings	3	3	\$1.4	\$1.5	B-	B-
Sub-total	49	49	\$879.6	\$925.4	C-	C-
<u>Linear Assets</u>						
Mains (Km)	2,556	2,564	\$2,338.7	\$2,437.2	B+	B+
Control Valves	26,808	26,922	\$196.1	\$204.7	B+	B+
Specialty Valves	663	665	\$13.7	\$14.4	B+	B+
Service Connections	176,768	178,652	\$797.8	\$837.9	B+	B+
Hydrants	16,241	16,301	\$166.6	\$173.8	B+	B+
Fire Lines	1,906	1,936	\$18.6	\$19.6	B+	B+
Meters	175,342	177,032	\$31.3	\$33.2	B+	B+
Sub-total			\$3,562.8	\$3,720.8	B+	B+
TOTAL			\$4,442.4	\$4,646.2	B	B

Figure 2: Water Supply Condition Assessment Approach and Ratings

Condition Rating by Replacement Value (\$millions)

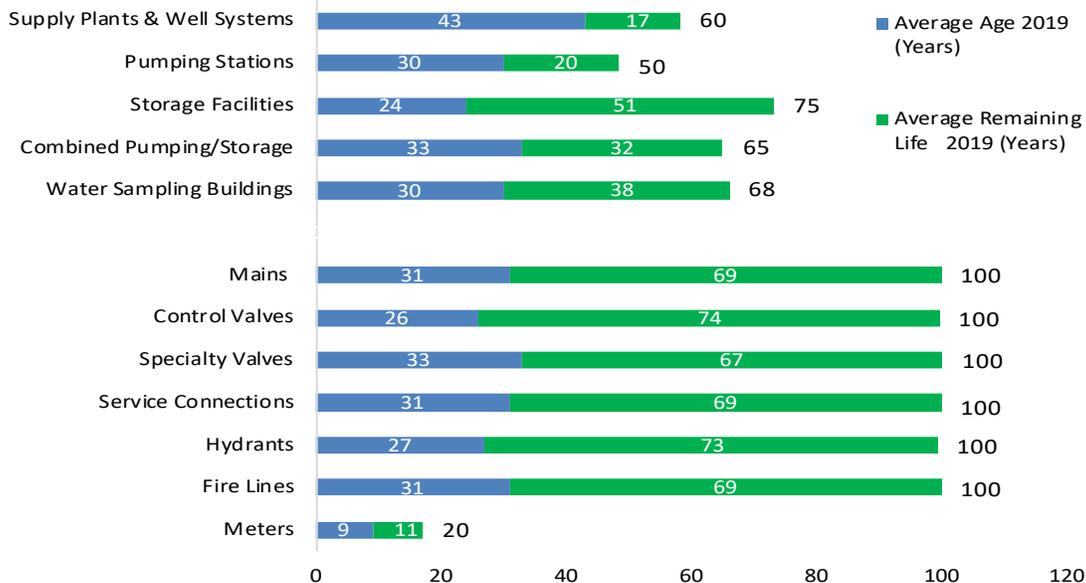


B (Good)
(Avg Condition)

Condition Assessment Approach

- For vertical assets, a combination of detailed site-specific condition assessments and high-level scoring based on a condition review of process equipment, tanks and buildings.
- For watermains, condition ratings based on material type, break rate and break history, age, reported operational issues and any previous rehabilitation work like linings.
- For valves and connections, condition based on age and adjacent watermain condition.
- For hydrants, fire lines and meters, condition based on age.
- \$0.1 million approved in 2020 and \$2.5 million (2021-2029) planned for vertical condition assessments to be funded from Asset Management Reserve Fund.
- \$0.1 million approved in 2020 and \$1.7 million (2021-2029) planned for linear condition assessments to be funded from Asset Management Reserve Fund.
- Other condition assessments are included in annual business plans and budgets (e.g. 2020 Budget approved \$0.5 million for condition assessment and rehabilitation work for Water Storage Facilities).

Figure 3: Water Supply Average Age and Remaining Useful Life



Sanitary Sewerage Assets

1.1 Description of Sanitary Sewerage System Assets:

Sanitary sewerage linear assets include gravity and forcemains, maintenance holes, chambers and service connections. Vertical assets include water pollution control plants (WPCP), sanitary sewage pumping stations (SSPS) and wastewater storage facilities.

1.2 Sanitary Sewerage System State of Infrastructure:

The state of the Region's sanitary sewerage infrastructure is summarized below in the following figures.

Figure 1: Sanitary Sewerage Inventory, Replacement Value, and Average Condition Ratings

	Inventory		Replacement Value (\$m)		Condition Rating	
	2018	2019	2018	2019	2018	2019
Vertical Assets						
 Water Pollution Control Plants	11	11	\$1,012.2	\$1,051.9	C+	C+
Wastewater Pumping Stations	51	51	\$288.3	\$291.4	C+	C+
Wastewater Storage Facilities	2	2	\$6.5	\$6.7	A	A
Sub-total	64	64	\$1,307.0	\$1,350.0	C+	C+
Linear Assets						
 Gravity Sewers/Siphons (Km)	2,140	2,151	\$2,259.0	\$2,367.3	A-	B+
Forcemains (Km)	64	64	\$107.3	\$111.5	A-	A-
 Maintenance Holes/Chambers	31,137	31,269	\$444.5	\$464.0	B+	B+
Service Connections	172,665	174,827	\$839.5	\$883.4	A-	A-
Sub-total			\$3,650.3	\$3,826.2	A-	A-
TOTAL			\$4,957.3	\$5,176.2	B+	B+

Figure 2: Sanitary Sewerage Condition Assessment Approach and Ratings

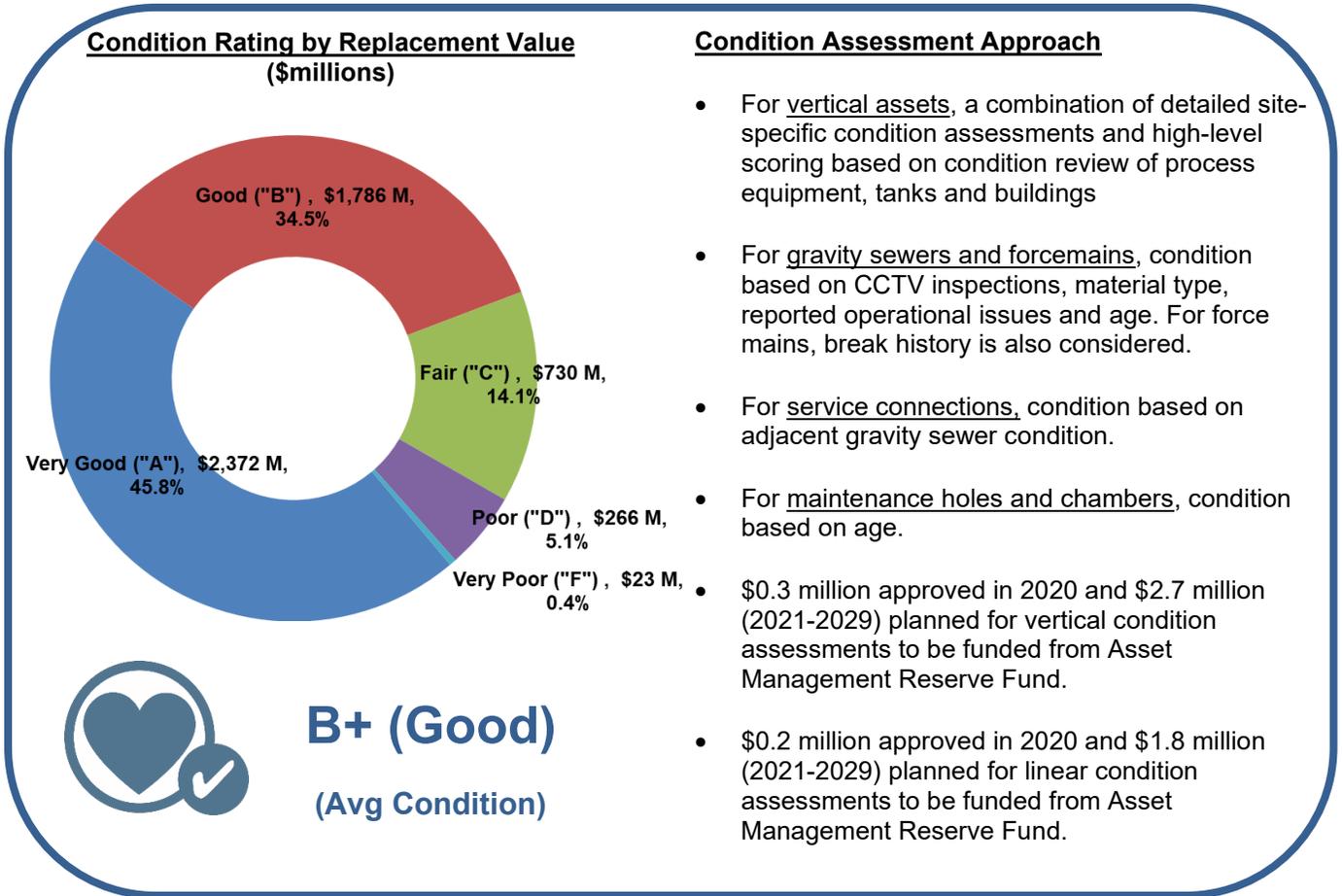
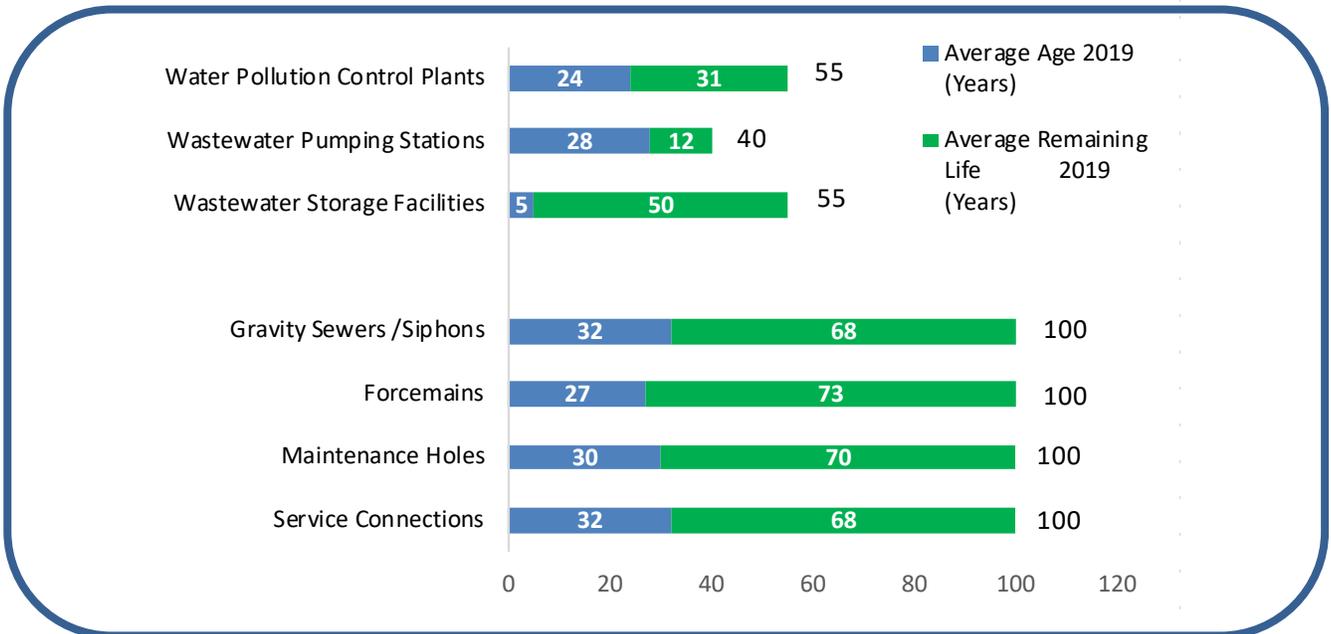


Figure 3: Sanitary Sewerage Average Age and Remaining Useful Life



Transportation System Assets

1.1 Description of Transportation System Assets

Durham’s integrated transportation system assets include a network of urban and rural arterial road segments (including bus only and cycling lanes); structures consisting of bridges and culverts; storm sewers, maintenance holes, catch basins, and outfalls, which capture storm water flows from Regional roads; and, traffic control systems (including traffic control signals, flashing beacons, signs, roadside protection, intelligent transportation systems and communication infrastructure), which control and monitor the safe and efficient flow of traffic throughout the Region.

1.2 Transportation System State of Infrastructure

The state of the Region’s transportation infrastructure is summarized below in the following figures.

Figure 1: Transportation Inventory, Replacement Value and Average Condition

	<u>Inventory</u>		<u>Replacement Value (\$m)</u>		<u>Condition Rating</u>	
	<u>2018</u>	<u>2019</u>	<u>2018</u>	<u>2019</u>	<u>2018</u>	<u>2019</u>
 <u>Regional Roads</u>						
High Volume Urban (Lane Km)	840.0	801.5	\$889.6	\$883.1	C+	C+
Low Volume Urban (Lane Km)	162.8	210.3	\$180.1	\$240.0	C+	C+
High Volume Rural (Lane Km)	407.8	473.1	\$375.1	\$463.8	C	C
Low Volume Rural (Lane Km)	959.0	905.3	\$939.0	\$915.0	C	C
Sub-total	2,369.6	2,390.2	\$2,383.8	\$2,501.9	C+	C+
 <u>Bridges and Culverts (>3m)</u>	222	234	\$555.5	\$589.8	B	B
 <u>Storm Sewer</u>						
Storm Sewer Mains (Km)	293	304	\$443.8	\$478.3	C	C
Culverts <3m (Km)	35	30	\$34.9	\$34.3	C	C
Maintenance Holes	4,597	4,751	\$27.3	\$29.3	C	C
Catchbasins	5,401	5,525	\$32.0	\$34.0	C	C
Outfalls	399	288	\$0.8	\$0.5	C	C
Sub-total			\$538.8	\$576.4	C	C
 <u>Traffic</u>						
Traffic Control Signals/Flashing Beacon	464	473	\$73.3	\$77.1	C+	C+
Traffic Management Systems	17	17	\$7.6	\$7.6	C-	C-
Communication Infrastructure (Km)	318	320	\$10.4	\$10.5	B-	B-
Regulatory, Warning, Information Signs	22,275	22,275	\$4.3	\$4.5	A-	A-
Roadside Protection (Km)	103	104	\$19.3	\$20.5	A-	A-
CCTV	95	103	\$0.3	\$0.3	C+	C
Sub-total			\$115.2	\$120.5	B-	B-
TOTAL			\$3,593.3	\$3,788.6	C+	C+

Figure 2: Transportation Assets Condition Assessment Approach and Ratings

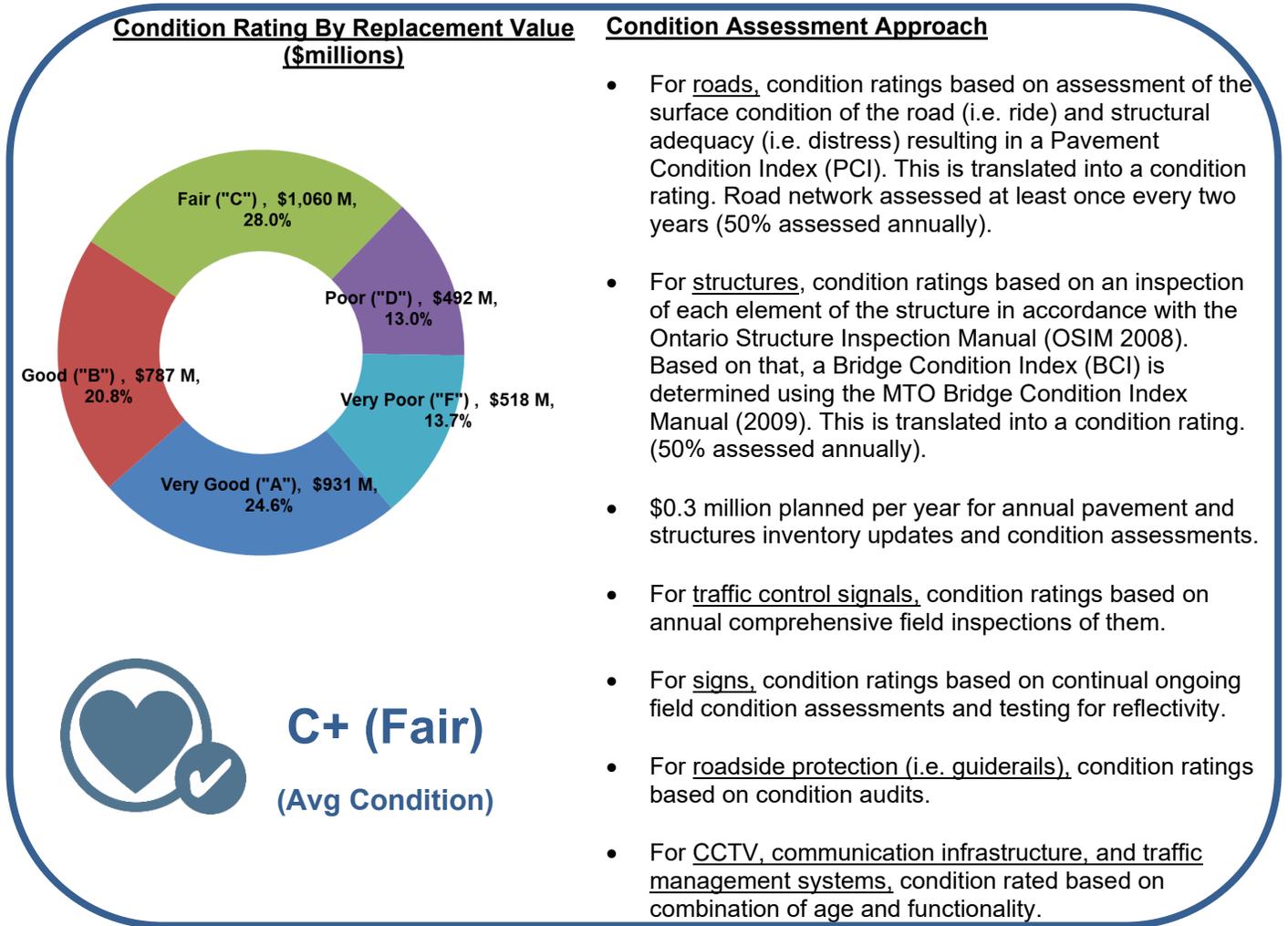
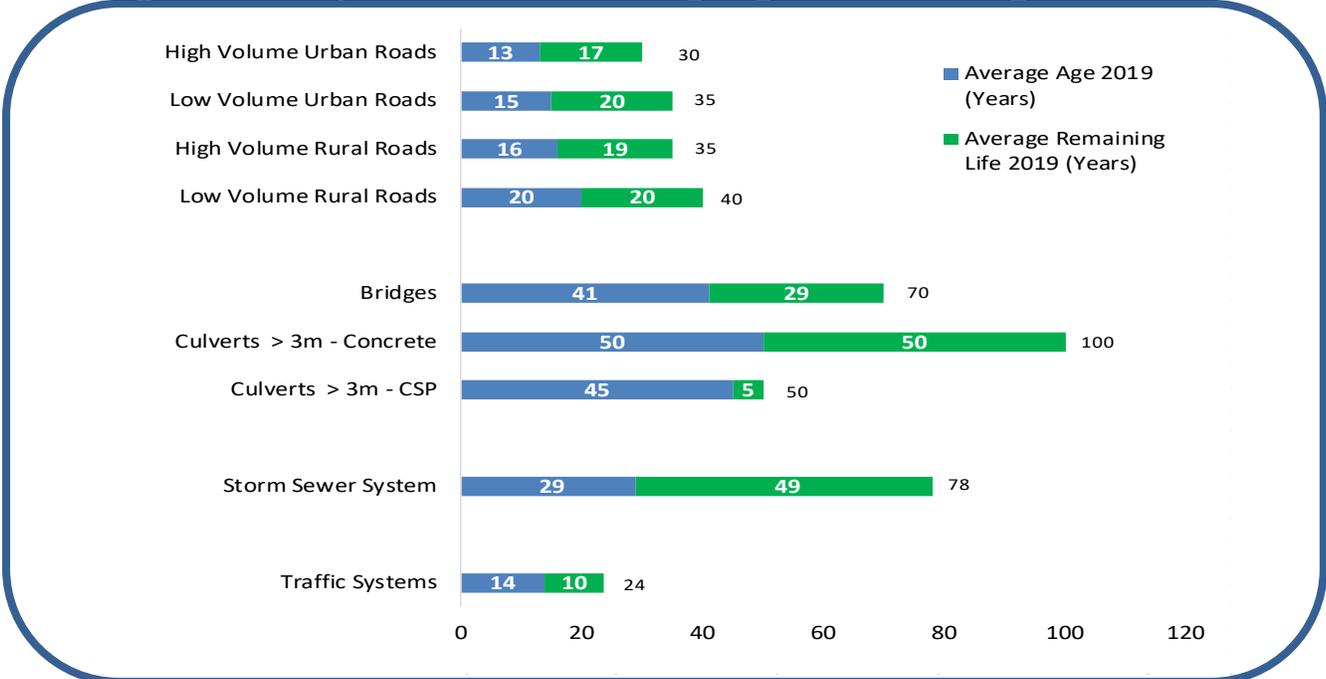


Figure 3: Transportation Assets Average Age and Remaining Useful Life



Region Owned Facilities Assets

1.1 Description of Region Owned Facilities Management:

Region-owned facilities includes Durham Regional Local Housing Corporation (DRLHC) housing stock, Durham Regional Police Service (DRPS) facilities, Works depots, Region of Durham Paramedic Service (RDPS) stations, Regionally owned childcare facilities, waste management facilities, long-term care facilities, Durham Region Transit (DRT) maintenance facilities and corporate facilities (e.g. Regional Headquarters).

Facilities are crucial to the various program areas to allow them to deliver their respective service levels to the community.

1.2 Facility State of Infrastructure (Excluding Water Supply and Sanitary Sewer):

The state of the Region’s facilities is summarized below in the following figures.

Figure 1: Regional Facilities Inventory, Replacement Value, Condition and Age

	Inventory		Replacement Value (\$m)		Condition Rating	
	2018	2019	2018	2019	2018	2019
Regional Owned Facilities						
 Durham Regional Local Housing Corporation (DRLHC)	23	23	\$251.6	\$261.5	D+	D+
Durham Regional Police Service (DRPS)	8	8	\$113.0	\$117.4	B+	B+
Regional Works Depots	5	5	\$51.8	\$53.9	C	C
Region of Durham Paramedic Service (RDPS)	8	8	\$30.9	\$32.1	B+	B+
 Regionally-Owned Child Care Facilities	5	4	\$10.9	\$9.2	D+	C-
Waste Management	7	7	\$254.3	\$264.2	A	A
Long Term Care Home (LTC)	4	4	\$253.5	\$263.4	A-	B+
Durham Region Transit (DRT) Facilities	3	3	\$78.8	\$81.8	A-	A-
Durham Region Transit Bus Stop Pads/Shelters	2,391	2,437	\$8.6	\$11.3	n/a	A
Administration Facilities	3	3	\$118.7	\$123.3	A-	A-
 Parking Structure	1	1	\$21.5	\$22.4	B	B
Centennial Building	1	1	\$4.5	\$4.6	B	B
Other	1	1	\$1.6	\$1.7	D	D
TOTAL¹	69	68	\$1,199.7	\$1,246.8	B	B

Note 1: Total inventory excludes DRT Bus Stop Pads and Shelters

Figure 2: Facility Assets Condition Assessment Approach and Ratings

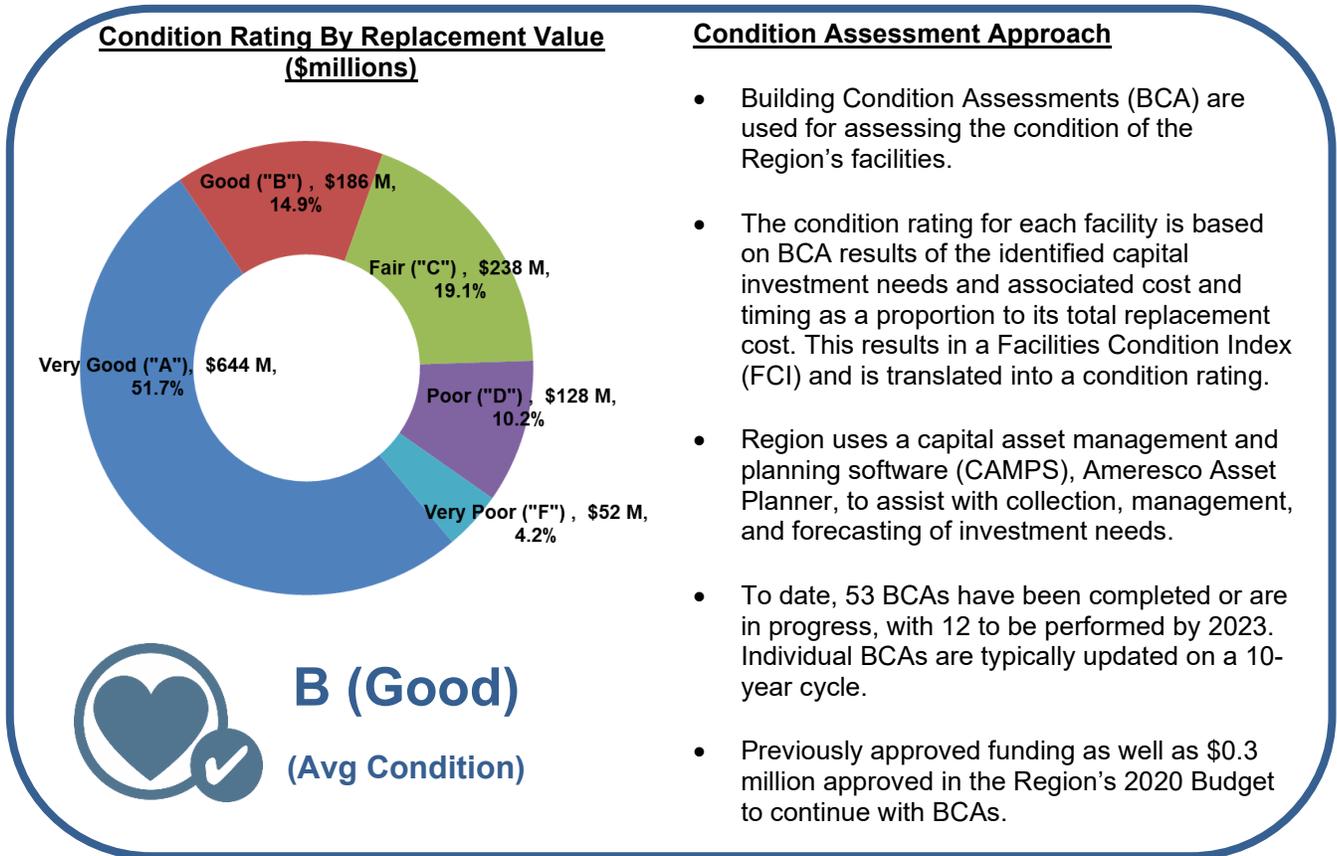
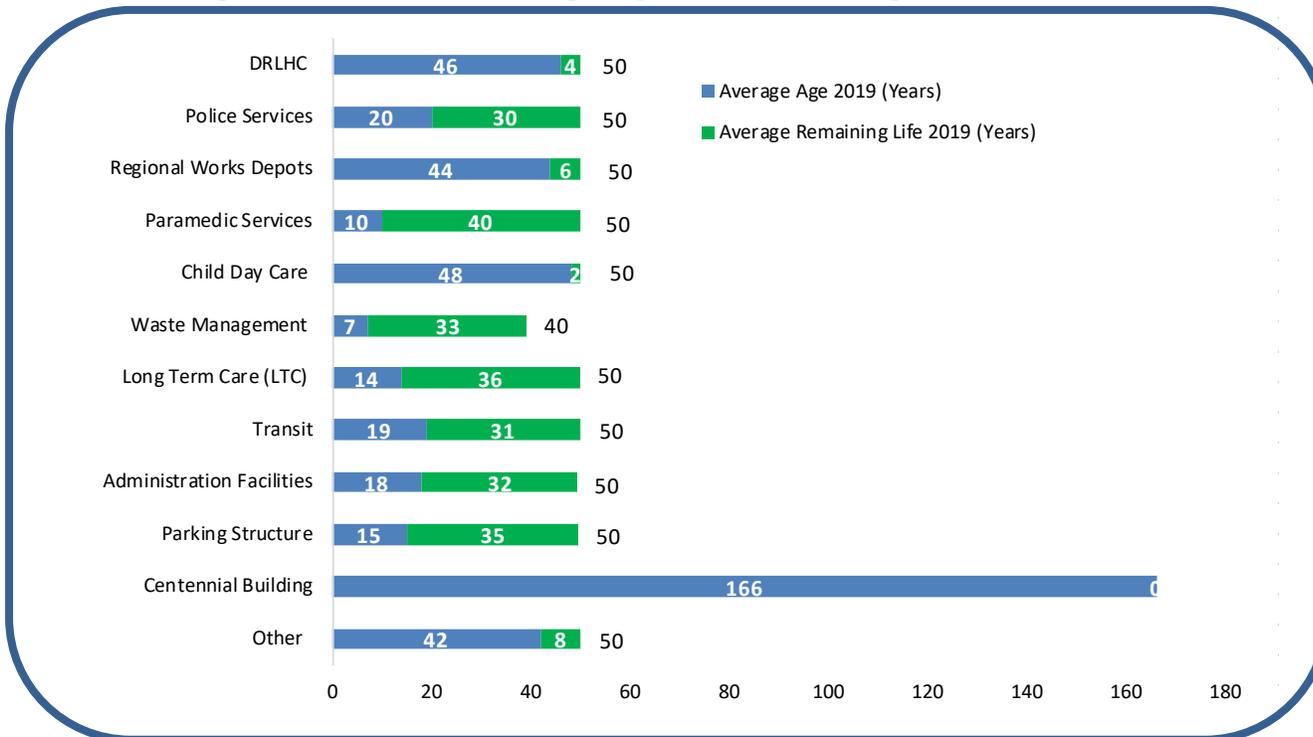


Figure 3: Facilities Average Age and Remaining Useful Life



Fleet Assets

1.1 Description of Regional Fleet

Regional fleet assets include transit vehicles (e.g. conventional and specialized service buses and supervisory vehicles), Region of Durham Paramedic Services (RDPS) vehicles (e.g. ambulances, rapid response vehicles, emergency support vehicles and emergency response and command vehicles), Works vehicles (e.g. trucks, vans, plows, trailers etc.), and Durham Regional Police Service (DRPS) vehicles (e.g. police cruisers, trailers and all-terrain vehicles or ATVs).

1.2 Regional Fleet

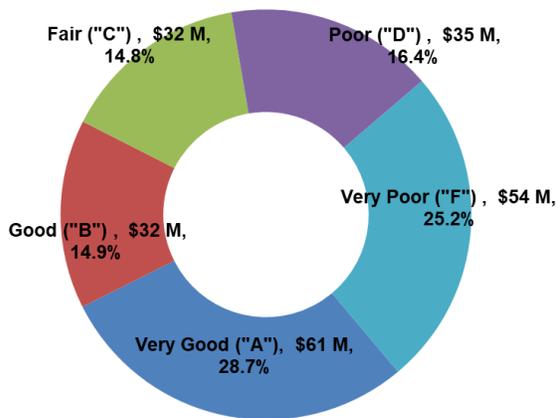
The state of the Region’s fleets are summarized below in the following figures.

Figure 1: Regional Fleet Inventory, Replacement Value, Condition and Age

	Inventory		Replacement Value (\$m)		Condition Rating	
	2018	2019	2018	2019	2018	2019
 Transit (DRT) Fleet	242	257	\$121.0	\$139.6	n/a	C
 Works Fleet	352	359	\$39.8	\$40.4	n/a	C-
 Police (DRPS) Fleet	354	359	\$19.9	\$23.1	n/a	A-
 Paramedic (RDPS) Fleet	83	83	\$10.8	\$9.6	n/a	C+
TOTAL	1,031	1,058	\$191.5	\$212.7	n/a	C

Figure 2: Fleet Condition Assessment Approach and Ratings

Condition Rating By Replacement Value (\$millions)



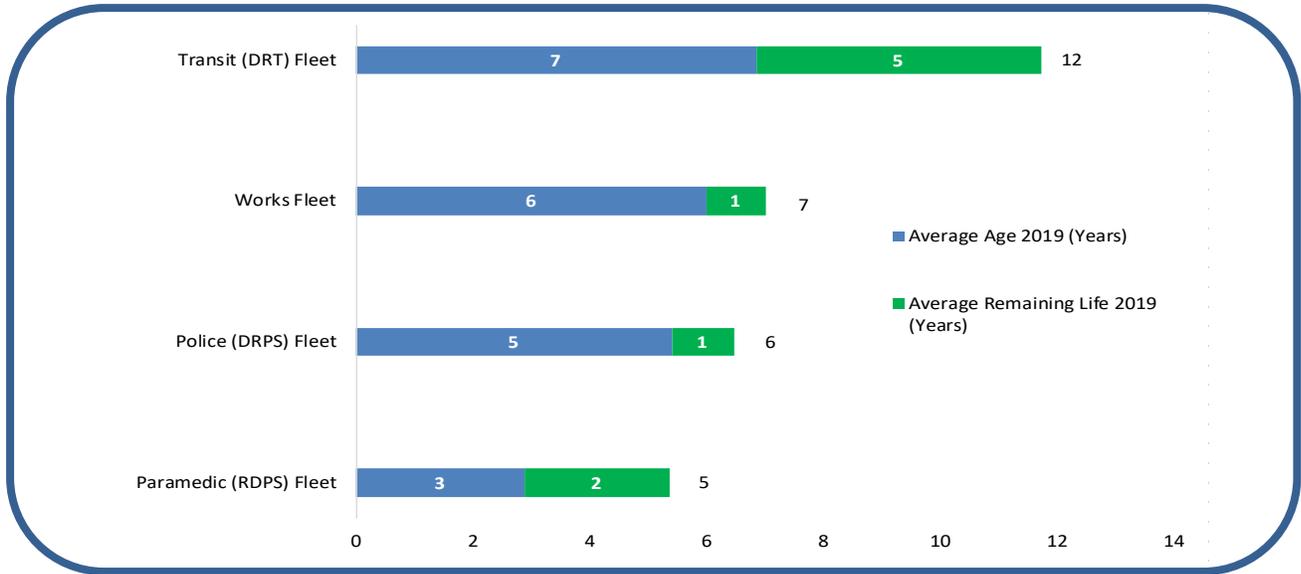
Condition Assessment Approach

- For DRT fleet, condition ratings based on km driven for each bus and vehicle and inspections and assessments.
- For Works fleet, condition ratings based on combination of age, km driven, hours of service, and inspections.
- For Police fleet, condition ratings based on inspections and assessment of each vehicle.
- For Paramedic fleet, the emergency response vehicles (e.g. ambulances) condition rating is based on age and inspections and assessments. For support vehicles, condition rating based on inspections and assessments.



C (Fair)
(Avg Condition)

Figure 3: Fleet Assets Average Age and Remaining Useful Life



Equipment Assets

1.1 Description of Regional Equipment

The equipment asset class includes equipment related to water supply, sanitary sewerage, transportation, solid waste management, RDPS equipment (stretchers, defibrillators etc.), DRPS equipment, DRT, Health, Social Service (e.g. long-term care beds, ceiling lifts, kitchen equipment etc.) and administration.

1.2 Regional Equipment State of Infrastructure

The replacement value of the Region’s equipment is as follows below. Additional state of infrastructure information such as condition ratings and age will be reported in future asset management plans.

Figure 1: Regional Equipment Replacement Value

<u>Regional Equipment</u>	<u>Replacement Costs (\$m)</u>	
	<u>2018</u>	<u>2019</u>
Water	\$21.0	\$22.6
Sewer	\$12.3	\$15.3
Transportation	\$6.6	\$9.3
Waste Management	\$11.6	\$11.8
RDPS (Paramedics)	\$4.9	\$5.4
DRPS (Police)	\$41.1	\$43.8
DRT (Transit)	\$8.1	\$10.6
Health	\$2.2	\$2.3
Social Services	\$18.4	\$20.0
Administration	\$30.8	\$47.0
TOTAL	\$157.0	\$188.1

Attachment 2: State of Infrastructure Summary of All Assets

Category	2018 Inventory	2018 Replacement Value (\$ millions)	2019 Inventory	2019 Replacement Value (\$ millions)
Water Supply System				
Vertical Assets - Treatment, Pumping & Storage				
Water Supply Plants and Well Systems	14 supply plants & well systems	\$ 576.8	14 supply plants & well systems	\$ 638.7
Water Pumping Stations	10 pumping stations	\$ 34.1	10 pumping stations	\$ 30.6
Water Storage Facilities	14 storage facilities	\$ 70.0	14 storage facilities	\$ 70.5
Water Combined Pumping Station/Storage	8 pumping station/storage	\$ 197.3	8 pumping station/storage	\$ 184.1
Water Sampling Buildings	3 water sampling buildings	\$ 1.4	3 water sampling buildings	\$ 1.5
Total Vertical	49 facilities	\$ 879.6	49 facilities	\$ 925.4
Linear Assets - Water Distribution				
Mains	2,556 kilometres	\$ 2,338.7	2,564 kilometres	\$ 2,437.2
Control Valves	26,808 control valves	\$ 196.1	26,922 control valves	\$ 204.7
Specialty Valves	663 specialty valves	\$ 13.7	665 specialty valves	\$ 14.4
Service Connections	176,768 service connections	\$ 797.8	178,652 service connections	\$ 837.9
Hydrants	16,241 hydrants	\$ 166.6	16,301 hydrants	\$ 173.8
Fire Lines	1,906 fire lines	\$ 18.6	1,936 fire lines	\$ 19.6
Meters	175,342 meters	\$ 31.3	177,032 meters	\$ 33.2
Total Linear		\$ 3,562.8		\$ 3,720.8
Total Water Supply		\$ 4,442.4		\$ 4,646.2
Sanitary Sewerage System				
Vertical Assets - Treatment, Pumping & Storage				
Water Pollution Control Plants	11 treatment plants	\$ 1,012.2	11 treatment plants	\$ 1,051.9
Wastewater Pumping Stations	51 pumping stations	\$ 288.3	51 pumping stations	\$ 291.4
Wastewater Storage Facilities	2 storage facilities	\$ 6.5	2 storage facilities	\$ 6.7
Total Vertical	64 facilities	\$ 1,307.0	64 facilities	\$ 1,350.0
Linear Assets - Sewage Collection				
Gravity Sewers / Siphons	2,140 kilometres	\$ 2,259.0	2,151 kilometres	\$ 2,367.3
Forcemains	64 kilometres	\$ 107.3	64 kilometres	\$ 111.5
Maintenance Holes	31,137 structures	\$ 444.5	31,269 structures	\$ 464.0
Service Connections	172,665 service connections	\$ 839.5	174,827 service connections	\$ 883.4
Total Linear		\$ 3,650.3		\$ 3,826.2
Total Sanitary Sewerage		\$ 4,957.3		\$ 5,176.2
Transportation System				
Roads (arterial)				
Urban	1,003 lane kilometres	\$ 1,069.7	1,012 lane kilometres	\$ 1,123.2
Rural	1,367 lane kilometres	\$ 1,314.1	1,378 lane kilometres	\$ 1,378.7
Bridges and Culverts (>3m)	118 bridges	\$ 555.5	118 bridges	\$ 589.8
Total Roads, Bridges & Culverts		\$ 2,939.3		\$ 3,091.7
Storm Sewer System				
Storm Sewer Mains	293 kilometres	\$ 443.8	304 kilometres	\$ 478.3
Culverts (<3m)	35 kilometres	\$ 34.9	30 kilometres	\$ 34.3
Maintenance Holes	4,597 structures	\$ 27.3	4,751 structures	\$ 29.3
Catchbasins	5,401 structures	\$ 32.0	5,525 structures	\$ 34.0
Outfalls	399 outfalls	\$ 0.8	288 outfalls	\$ 0.5
Total Storm Sewer		\$ 538.8		\$ 576.4
Traffic Control System				
Traffic Control Signals and Flashing Beacons	464 signals	\$ 73.3	473 signals	\$ 77.1
Traffic Management Systems	17 systems	\$ 7.6	17 systems	\$ 7.6
Communication Infrastructure	318 kilometres	\$ 10.4	320 kilometres	\$ 10.5
Regulatory Warning and Information Signs	22,275 signs	\$ 4.3	22,275 signs	\$ 4.5
Roadside Protection (Steel Beam, guiderail and guide posts)	103 kilometres	\$ 19.3	104 kilometres	\$ 20.5
CCTV	95 intersections	\$ 0.3	103 intersections	\$ 0.3
Total Traffic Control		\$ 115.2		\$ 120.5
Total Transportation		\$ 3,593.3		\$ 3,788.6

Category	2018 Inventory	2018 Replacement Value (\$ millions)	2019 Inventory	2019 Replacement Value (\$ millions)
Regionally Owned Facilities				
Durham Regional Local Housing Corporation (DRLHC)	23 buildings	\$ 251.6	23 buildings	\$ 261.5
Durham Regional Police Service (DRPS)	8 buildings	\$ 113.0	8 buildings	\$ 117.4
Regional Works Depots	5 buildings	\$ 51.8	5 buildings	\$ 53.9
Region of Durham Paramedic Services (RDPS)	8 buildings	\$ 30.9	8 buildings	\$ 32.1
Regional Owned Child Care Facilities	5 buildings	\$ 10.9	4 buildings	\$ 9.2
Waste Management Facilities	7 buildings	\$ 254.3	7 buildings	\$ 264.2
Long Term Care (LTC) Facilities	4 buildings	\$ 253.5	4 buildings	\$ 263.4
Durham Region Transit (DRT) Maintenance Facilities	3 buildings	\$ 78.8	3 buildings	\$ 81.8
Durham Region Transit (DRT) Pads and Shelters	2,391 bus stop pads and shelters	\$ 8.6	2,437 bus stop pads and shelters	\$ 11.3
Administration Facilities	3 buildings	\$ 118.7	3 buildings	\$ 123.3
Parking Structure	1 building	\$ 21.5	1 building	\$ 22.4
Centennial Building	1 building	\$ 4.5	1 building	\$ 4.6
Other	1 building	\$ 1.6	1 building	\$ 1.7
Total Facilities 1	69	\$ 1,199.7	68	\$ 1,246.8
Fleet				
Transit	242 vehicles	\$ 121.0	257 vehicles	\$ 139.6
Works	352 vehicles	\$ 39.8	359 vehicles	\$ 40.4
Durham Regional Police Service (DRPS)	354 vehicles	\$ 19.9	359 vehicles	\$ 23.1
Region of Durham Paramedic Services (RDPS)	83 vehicles	\$ 10.8	83 vehicles	\$ 9.6
Total Fleet	1,031 vehicles	\$ 191.5	1,058 vehicles	\$ 212.7
Equipment				
Water		\$ 21.0		\$ 22.6
Sewer		\$ 12.3		\$ 15.3
Transportation		\$ 6.6		\$ 9.3
Waste Management		\$ 11.6		\$ 11.8
RDPS (Paramedics)		\$ 4.9		\$ 5.4
DRPS (Police)		\$ 41.1		\$ 43.8
DRT (Transit)		\$ 8.1		\$ 10.6
Health		\$ 2.2		\$ 2.3
Social Services		\$ 18.4		\$ 20.0
Administration		\$ 30.8		\$ 47.0
Total Equipment		\$ 157.0		\$ 188.1
GRAND TOTAL		\$ 14,541.2	GRAND TOTAL	
GRAND TOTAL		\$ 14,541.2	GRAND TOTAL	

* Facilities inventory total excludes DRT bus stop pads and shelters

Attachment 3: Capital Forecast and Maintenance Investments

Category	2020			2021			2022		
	Annual Maintenance Investment \$ millions	Annual Capital Investment \$ millions	Total Annual Investment \$ millions	Annual Maintenance Investment \$ millions	Annual Capital Investment \$ millions	Total Annual Investment \$ millions	Annual Maintenance Investment \$ millions	Annual Capital Investment \$ millions	Total Annual Investment \$ millions
Water Supply System: Vertical Assets - Treatment, Pumping and Storage Linear Assets - Water Distribution	5.9 5.8	39.4 36.6	45.3 42.4	3.5 5.8	103.6 109.6	107.1 115.4	1.1 5.8	238.8 80.0	239.9 85.8
Sub-Total	11.7	76.0	87.7	9.3	213.1	222.5	6.9	318.8	325.7
Sanitary Sewerage System: Vertical Assets - Treatment, Pumping and Storage Linear Assets - Sewage Collection	3.5 4.5	24.9 27.5	28.4 32.0	4.7 4.5	62.6 49.4	67.3 53.9	2.3 4.5	54.9 81.5	57.2 86.0
Sub-Total	8.1	52.4	60.4	9.3	112.0	121.2	6.8	136.3	143.2
Transportation System: Roads (Arterial) and Storm Sewer Bridges and Culverts Traffic Control	4.1 0.1 5.0	72.4 8.5 7.4	76.4 8.7 12.4	4.1 0.1 5.0	86.1 14.9 6.8	90.2 15.0 11.8	4.1 0.1 5.0	123.2 13.5 6.3	127.2 13.6 11.3
Sub-Total	9.2	88.3	97.5	9.2	107.8	116.9	9.2	142.9	152.0
TOTAL	28.9	216.7	245.6	27.8	432.9	460.6	23.0	598.0	621.0

Category	2023			2024			2025-2029		
	Annual Maintenance Investment \$ millions	Annual Capital Investment \$ millions	Total Annual Investment \$ millions	Annual Maintenance Investment \$ millions	Annual Capital Investment \$ millions	Total Annual Investment \$ millions	Annual Maintenance Investment \$ millions	Annual Capital Investment \$ millions	Total Annual Investment \$ millions
Water Supply System: Vertical Assets - Treatment, Pumping and Storage Linear Assets - Water Distribution	2.3 5.8	40.6 41.3	42.9 47.0	2.3 5.8	135.2 33.3	137.5 39.1	11.7 28.9	148.5 210.6	160.2 239.5
Sub-Total	8.1	81.8	89.9	8.1	168.5	176.6	40.6	359.1	399.7
Sanitary Sewerage System: Vertical Assets - Treatment, Pumping and Storage Linear Assets - Sewage Collection	3.5 4.5	105.7 69.5	109.2 74.0	3.5 4.5	19.3 41.0	22.8 45.5	17.6 22.7	429.0 190.8	446.6 213.5
Sub-Total	8.0	175.1	183.2	8.0	60.3	68.4	40.2	619.9	660.1
Transportation System: Roads (Arterial) and Storm Sewer Bridges and Culverts Traffic Control	4.1 0.1 5.0	107.5 16.3 6.2	111.6 16.4 11.2	4.1 0.1 5.0	107.1 13.3 6.4	111.1 13.4 11.4	20.3 0.6 25.1	652.7 48.7 29.1	672.9 49.2 54.2
Sub-Total	9.2	130.0	139.2	9.2	126.7	135.9	45.9	730.4	776.3
TOTAL	25.4	386.9	412.3	25.4	355.5	380.9	126.8	1,709.4	1,836.2

Note 1: Figures above exclude funding from others.

Note 2: Rows and columns may not add due to rounding.

Attachment 4: Capital From Current Asset Investments

Department	Furniture & Fixtures (\$000's) 	Computer Hardware Infrastructure (\$000's) 	Buildings/ Building Improvements (\$000's) 	Vehicles (\$000's) 	Other Machinery & Equipment (\$000's) 	Total (\$000's)
Water	21	725	1,867	586	4,006	7,206
Sewer	17	206	1,692	607	1,169	3,691
	38	931	3,559	1,193	5,175	10,897
Social Services	429	524	718		919	2,590
Works	31	368	315	7,265	1,494	9,473
Health	285	472	200	1,869	430	3,256
Planning & Economic Development	45	51			13	51
Corporate Services	23	1,218			212	1,276
Transit	122	72			827	307
Police		2,044		1,612		4,605
DRLHC	42	4,919	9,575	40	360	9,575
Other	977	9,668	11,588	10,786	4,255	6,141
Total	1,015	10,599	15,147	11,979	9,430	48,171

Note: Figures above exclude funding from others

Attachment 5: Asset Management Financing Options

<u>Asset Management Options</u>	<u>Description</u>	<u>Asset Management Financial Strategy</u>
Roads Rehabilitation Reserve Fund	The Roads Rehabilitation Reserve Fund was established in 2001 and provides sustainable funding to address the rehabilitation of the road network. This Reserve Fund is funded through a special dedicated annual contribution approved as part of the annual business plans and budgets.	The Roads Rehabilitation Reserve Fund (\$27.3 million) that when combined with general levy financing through the Region’s normal roads program (\$1.3 million) and \$10.1 million in Federal Gas Tax, provided a total road rehabilitation investment of \$38.7 million in 2020. This was used to address road segments in Very Poor condition and ensure annual investments in pavement preservation, rehabilitation and preventative maintenance. In addition, there is also \$3.5 million from the one-time Federal Gas Tax allocation (in 2020) approved for exploring the use of alternative waste materials (with asphalt) to reconstruct a portion (4.6 km) of Regional Road 18 in Clarington (between Concession Road 5 and Ganaraska Road) which is in Very Poor Condition.
Bridge Rehabilitation Reserve Fund	The Bridge Rehabilitation Reserve Fund was established in 2007 and provides sustainable funding to address structures replacements and rehabilitation needs. This Reserve Fund is funded through a special dedicated annual contribution approved as part of the annual business plans and budgets.	Annual bridge and structure maintenance, rehabilitation and replacement are crucial to addressing the aging bridge inventory. In 2020, \$8.0 million was funded from the Bridge Rehabilitation Fund (including a one-time application of \$2.5 million), that when combined with additional funding (\$0.5 million) provided through the Region’s normal roads program (property tax), provided a total of \$8.5 million in property tax-supported funding for bridge rehabilitation and maintenance.
Water Supply and Sanitary Sewerage Asset Management Reserve Funds	These reserve funds were established in 2005 to address high priority capital investments related to repair, rehabilitation, and replacement of existing water supply and sanitary sewerage assets. These reserve funds are funded through annual contributions approved as part of the annual business plans and budgets.	Annual funding for water supply and sanitary sewerage asset management needs are provided through the user rate-supported Water Supply and Sanitary Sewerage Asset Management Reserve Fund. The 2020 Water Supply Budget included \$5.2 million in expenditures from the Asset Management Reserve Fund for watermain betterments/improvements (\$4.6 million) and condition assessments (\$0.6 million). The 2020 Sanitary Sewerage Capital Budget included \$8.6 million from the Asset Management Reserve Fund for linear betterments/replacements (\$0.6 million), buildings (\$2.5 million for Water Street pumping station), machinery and equipment (\$5.0 million) and condition assessments (\$0.5 million).
General Levy Asset Management Reserve Fund	This reserve fund was established in 2007 and recognizes the priority of ensuring the upgrade, maintenance and/or replacement of general purpose program infrastructure. This reserve fund is funded through annual contributions approved as part of the annual business plans and budgets.	This fund is utilized for the high priority capital initiatives related to repair, rehabilitation and replacement of existing assets.

Attachment 5: Asset Management Financing Options

<u>Asset Management Options</u>	<u>Description</u>	<u>Asset Management Financial Strategy</u>
Water Supply and Sanitary Sewerage Treatment Plant/Rate Stabilization Reserve Funds	These long-established reserve funds have been derived from annual budget appropriations and any year-end contributions.	These funds serve two primary functions: they provide a source of funding for unplanned circumstances (e.g. emergency capital outlays/requirements); and, they allow for potential financing contributions towards major capital projects and asset management needs.
Equipment Replacement Reserve	This long-established reserve provides funding for the replacement of the Works Department fleet and equipment. The funds are derived from annual amortization and proceeds of fleet and equipment sales.	This fund ensures that when fleet and equipment are due for replacement, there is a sustainable ongoing annual source of funding to purchase replacement fleet and equipment. The 2020 Works General Levy provided \$7.5 million in funding for the replacement of the Works Department fleet and equipment.
Federal and Provincial Gas Tax Revenues	<p>Provincial Gas Tax funds are provided to municipalities in Ontario for public transit operating and or capital investments.</p> <p>Federal Gas Tax funds are provided by the Federal Government for municipal infrastructure.</p>	<p>The Region has typically applied Provincial Gas Tax funding mainly for bus replacements that were coming due and bus repairs/mid-life refurbishment. In 2020, Provincial Gas Tax funds (\$8.9 million) were proposed to fund a portion of the Region's cost of the Investing in Canada Infrastructure Program (ICIP) projects, plus \$3.3 million for other expenditures, which included \$1.5 million for major bus engine/transmission repairs/replacements. This strategy has reduced the average age of DRT conventional bus fleet from 13 years of age (in 2006) to 7 years of age (2019), as well as provided for repairs/replacements of major fleet components.</p> <p>Federal Gas Tax funding has been used for Solid Waste management facility infrastructure, including the Region's Material Recovery Facility and the Durham York Energy Centre and more recently, road rehabilitation. In 2020, \$10.1 million in Federal Gas Tax funding was applied to roads in very poor condition. In addition, in 2019, the Region received an one-time allocation of \$19.7 million in Federal Gas Tax Funding (in addition to the annual allocation Durham receives), which was allocated in the 2020 Budget for electric buses and infrastructure (\$10.1 million), DRLHC energy efficiency retrofits (\$5.4 million), road building pilot with Regional waste materials (\$3.5 million), and Regional Smart City Traffic Pilot (\$0.7 million).</p>

Attachment 5: Asset Management Financing Options

<u>Asset Management Options</u>	<u>Description</u>	<u>Asset Management Financial Strategy</u>
Development Charges	<p>Growth-related capital works can be funded through development charges as permitted under the <i>Development Charges Act (DCA)</i> legislation.</p> <p>Development charges are imposed on new development to recover the cost of capital for providing services related to water and sanitary sewerage, Regional roads, transit (GO and DRT), police and paramedic services, long-term care, health and social services.</p>	<p>The DCA legislation provides exemptions for specific types of development which results in funding shortfalls being addressed through alternative financing sources such as property taxes and water and sewer user rates.</p> <p>The Region charges residential and non-residential development charges for all major asset classes to maximize recoveries related to growth infrastructure.</p>
Capital Impact Stabilization Reserve Fund	<p>A new reserve fund established in 2019 as part of the Region’s Long-Term Financial Planning Framework.</p>	<p>The purpose of this reserve fund is to provide up front financing for large property tax supported capital projects on a case by case basis and to provide financing for cost sharing of capital grant programs for property tax supported infrastructure (on a case by case basis).</p>
Various Program Specific Capital Reserve Funds	<p>Specific Reserve Funds have been established for Solid Waste, Transit, Social Housing, Paramedics, York Durham, Duffin Creek WPCP, etc.)</p>	<p>The purpose of these are to mainly provide a source of capital financing for specific departmental service area capital projects on a case by case basis.</p>
User Rates	<p>Water and sanitary sewer user rates are collected and used in part to finance the upgrade, rehabilitation and replacement of infrastructure assets for Regional water supply and sanitary sewerage systems.</p>	<p>On an annual basis, a portion of water and sewer user rate revenues are dedicated to the highest priority needs.</p>
Property Taxes	<p>Property taxes are levied to support property tax programs.</p>	<p>A portion of property tax revenues are utilized to finance upgrades, rehabilitation and the replacement of infrastructure assets, for example, Regional roads, transit, and other tax-supported programs, excluding water and sewer.</p>
Debt Financing	<p>The Region utilizes debt financing where appropriate to fund major capital requirements.</p>	<p>For large-scale capital projects which may require significant up-front financing, debt financing options provide the ability to distribute the costs over a longer time horizon to current and future users who will benefit from use of the infrastructure asset.</p>

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2094.



The Regional Municipality of Durham Report

To: Committee of the Whole
From: Commissioner of Corporate Services, Commissioner of Works,
Commissioner of Finance
Report: #2020-COW-25
Date: September 16, 2020

Subject:

Report on the Organics Management Solution – Joint Venture/Co-ownership with EPCOR Power Development Corporation

Recommendations:

That the Committee of the Whole recommends to Regional Council (“Council”):

- A) That Council ratify the August 11, 2020 Memorandum of Agreement between the Regional Municipality of Durham (“Region”) and EPCOR Power Development Corporation (“EPCOR”) in relation to the termination of the joint venture/co-owner relationship (“JV Termination”) between the parties on the Region’s long-term organics waste management solution (the “Project”).
-

Report:

1. Purpose

- 1.1 The purpose of this report is to seek ratification of the August 11, 2020 Memorandum of Agreement between the Region and EPCOR and report on the JV Termination.

2. Memorandum of Agreement

- 2.1 Pursuant to Report #2020-COW-20, Council authorized Regional staff to continue negotiations with EPCOR to explore the possibility for a joint venture/co-owner relationship with the Region on the Project.

- 2.2 The parties exchanged written proposals on the joint venture/co-owner's agreement in the spring of 2020 and commenced negotiations thereafter. The parties made a good faith attempt to negotiate an agreement that was fair and reasonable for both parties. The Region's interests were to find an agreement that would result in a net present value benefit to the Region equal to or greater than what had been previously been presented to Council (as outlined in 2020-COW-20), share the change in law risk and ensure the Region retained control over substantial Project decisions. Unfortunately, the parties reached an impasse in negotiations on some of the key terms outlined in 2020-COW-20, such as governance and risk allocation related to change in law. As such, the parties mutually agreed that negotiations should be terminated, and the parties should part ways on amicable terms before either party incurred additional costs and time. Please note that the JV Termination date preceded the issuance of the RFPQ and therefore EPCOR was not referenced as a potential co-owner on the Project.
- 2.3 Prior to the termination of negotiations, the parties executed a Memorandum of Agreement on August 11, 2020, subject to ratification by Council. The substantive terms of the Agreement are as follows:
- a. The Region shall compensate EPCOR for its Project development costs associated with development activities for the Project from the date EPCOR commenced incurring such costs (September 25, 2019) to the date the JV Termination date. Such Project development costs shall not exceed \$250,000 CDN, which is inclusive of any applicable taxes or remittances ("Project Development Costs"). It is understood that the Project Development Costs do not include any costs associated with EPCOR's assessment of the joint venture/co-owner relationship, work on the joint venture/co-owner agreement and/or joint venture/co-owner negotiations.
 - b. Upon payment of the Project Development Costs, EPCOR and its past, present and future officers, directors, shareholders, employees, agents, successors, assigns, affiliates and subsidiaries shall release and forever discharge the Region and its past, present and future officers, directors, shareholders, employees, agents, successors, assigns, affiliates and subsidiaries of the Region from all claims, debts, demands, actions, complaints and liabilities of any kind or nature whatsoever in law, in equity or otherwise arising out of or in any way related to the JV Termination and/or EPCOR's involvement in the development activities on the Project prior to the JV Termination, excluding any claims, debts, demands, actions, complaints and liabilities arising out of or in any way related to the RFPQ for

the Project in which EPCOR is included with the Region in the definition of 'Owner'.

- c. EPCOR's ownership of all materials, work product and deliverables arising from the development activities on the Project shall be transferred to the Region and vest exclusively in the Region upon payment of the Internal Costs as required pursuant to this Agreement; however, EPCOR may use such work product, materials and/or deliverables as a precedent for other non-competing projects outside of the Durham Region provided confidential legal and financial information arising from the Project is not disclosed to a third party without written consent from the Region.

2.4 Regional staff recommend the Memorandum of Agreement for ratification by Council. The Region and Project have benefited from the labour and expertise EPCOR has dedicated to the development activities on the Project up to the JV Termination date. Starting in September of 2019, EPCOR dedicated eight staff members or 1,637.25 hours to the development activities on the Project. These activities included:

- a. **Project Risk Development:** EPCOR was a key participant, working with Deloitte and the Region, in developing the Project's risk matrix which included defining approximately 150 commercial and contract risks and allocating the assignment of those Project risks. They participated in meetings and workshops to develop and refine the risk matrix.
- b. **Procurement:** EPCOR participated in the development of the Project's procurement documents and strategy, including drafting, reviewing, and providing input into the bid and tender layout, technical scope, technical and financial evaluation scoring criteria, reference check questions and site visit parameters. EPCOR's expertise as a frequent respondent in the market assisted the Region to develop a financially, technically and legally sound document that is expected to generate significant market interest.
- c. **Business Case Development:** EPCOR was a key participant in developing and reviewing the Project's business case inputs and assumptions, working closely with Deloitte and the Region during various workshops as the Project developed. They also developed pro-forma financials for the Project and presented and discussed securing contract options for renewable natural gas ("RNG") sales based on their experience working in RNG markets across Canada.

- d. **Project Agreements:** Based on its prior experience and commercial precedents, EPCOR provided the Region with input into anticipated Project agreements that the Region can rely on in the future development of the Project.
- 2.5 The approved Project budget included anticipated consulting fees for developing and negotiating several agreements related to the JV. These agreements will no longer be required, therefore EPCOR's costs associated with the Project development activities can be funded from within the current Project budget. It is anticipated that consulting fees earmarked to the JV would have been at least \$250,000 over the life of the Project.

3. Conclusion

- 3.1 In light of the foregoing, Regional Staff recommend the ratification of the August 11, 2020 Memorandum of Agreement to compensate EPCOR for its Project Development Costs incurred on the Project's development activities, secure a release of future liability on the Project as it relates to EPCOR, and protect the Region's intellectual property on the Project to date.

Respectfully submitted,

Original signed by:

Don Beaton, B.Com., MPA
Commissioner of Corporate Services

Original signed by:

Susan Siopis, P.Eng.
Commissioner of Works

Original signed by:

Nancy Taylor, BBA, CPA, CA
Commissioner of Finance

Recommended for Presentation to Committee

Original signed by:

Elaine C. Baxter-Trahair
Chief Administrative Officer