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# Development Charges Background Study

WASTEWATER, WATER, AND ROADS

Town of Collingwood

# Document Control

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# 1 Introduction

The Town of Collingwood retained Tatham Engineering Limited (Tatham) to complete a background study that identifies and provides our opinion of probable cost to construct wastewater, water and road network projects within the Town required to accommodate future development. Information contained within this report will be incorporated in the overall 2024 Development Charges Background Study prepared by Hemson Consulting Limited (Hemson) and associated Town of Collingwood By-Law.

Development charge eligible capital projects have been identified in collaboration with Town of Collingwood staff, with consideration of planned and proposed development within the Town and a review of the following:

- Official Plan Town of Collingwood (December 2023);
- Collingwood Transportation Study Update (August 2019);
- Collingwood Water and Sanitary Sewer Systems Master Plan (December 2019);
- Town of Collingwood Cycling Plan (October 2019);
- Town of Collingwood Development Standards (July 2007);
- Servicing Study for Land Acquired under County Restructuring (dated June 1994);
- applicable Class EA Study Reports;
- Local Service Guidelines (included within 2024 Development Charge Study); and
- previous Development Charge studies.

This study report identifies and quantifies projects to accommodate growth and development within the planning horizon of 2024-2041. Growth projects for build-out (ultimate conditions) within the boundaries of the Town of Collingwood are also included; however, the costs of these projects are categorized as full or partial post-period benefit. The Collingwood Water and Sanitary Sewer Systems Master Plan was used to determine the applicable development charge related projects within the built boundary. The Servicing Study for Land Acquired under County Restructuring report was used to determine the applicable development charge related projects outside of the built boundary. Development charges related road projects were determined based on the Collingwood Transportation Study Update and the Town Official Plan.

Land use designations specified in the Official Plan (Schedule '2' – Land Use Plan) were used; however, the infrastructure projects were developed on the assumption that most lands currently



designated Rural will eventually be developed as Residential, which follows assumptions made in the Collingwood Water and Sanitary Sewer Systems Master Plan.

For each project, the opinion of probable cost was estimated based on the scope of work anticipated and current construction values (based on recent tender results, master study estimates and EA/design cost estimates). Where appropriate, consideration was given to engineering, property acquisition, contingencies, Town staff allowances and utility relocation costs, which in most cases were estimated based on comparable projects and knowledge of the corresponding study areas.

The post-period benefit for wastewater, water and road network projects will provide excess capacity to service future growth beyond the development charge horizon period of 2041. The capital costs of post-period benefit projects have been estimated with input from the Town, Hemson and applicable studies based on projected growth and the expected timing for various developments, reflecting increased demands and needs over time.



## 2 Wastewater Projects

The attached Drawing SAN-1 in Appendix A conceptually illustrates the Town's key wastewater infrastructure, showing the existing and proposed trunk wastewater collection system and projects required to accommodate future development. Wastewater projects include:

- proposed trunk sewers;
- the replacement of undersized trunk sewers; and
- the expansion of the Collingwood Water Pollution Control Plant.

### **Wastewater Sewers**

The centre of Collingwood is serviced through south-to-north trunk sewers that discharge to the First Street and Birch Street collector sewers and ultimately to the Collingwood Water Pollution Control Plant at the north end of Birch Street.

The east end of Collingwood is serviced by trunk sewers that discharge to the St. Clair sewage pumping station. The extension of the Lakeshore trunk sewer eastward and additional sewage pumping stations are planned for servicing the existing residential area along the eastern lakeshore through a local improvement project.

The western section of Collingwood is serviced by the Highway 26 trunk sewer and the Harbour Street trunk sewer, which discharge into the Black Ash Creek sewage pumping station and the Mountain Road trunk sewer. These sewers discharge to the Water Pollution Control Plant via the Harbourview Park interceptor. Growth in the western areas will be serviced through extensions of the Harbour Street and the Mountain Road trunk sewers, partial replacement of the Mountain Road trunk sewer, expansion of the Black Ash Creek Sewage Pumping Station and forcemain installation to the Water Pollution Control Plant.

The opinion of probable costs for wastewater sewer projects within the existing municipal right-of-way were developed based on sewer installation costs, including structures and services if applicable. Based on the typical alignment and depth, estimates also include the cost to remove and reinstate the existing road and boulevards across a typical 20 metre right-of-way.

The oversizing of sewers to accommodate future development areas are also included in the development charge projects. The oversizing costs include the incremental difference (above 300 mm nominal diameter) to supply and install the trunk sewer. The pricing was based on a combination of unit prices (developed based on our construction cost database) and on the Collingwood Water and Sanitary Sewer Systems Master Plan. A detailed description of each project is provided below.



The benefit to existing development represents the value of replacing existing municipal assets through a growth-related capital project. We note most wastewater projects are an expansion to the existing sewer network and thus provide no benefit to existing development. Based on these principles and input from the Town and Hemson, benefit to existing values was applied accordingly.

### **Wastewater Facilities**

A Class Environmental Assessment (Class EA) was completed in May 2011 for the expansion of the Collingwood Water Pollution Control Plant to accommodate growth, which will require an amendment. Based on updated growth forecasts and capacity limits, the expansion is expected to be triggered in 2026 and will require full upgrades by 2036.

Project descriptions, estimated timing and the costs for the proposed wastewater sewer and facility projects are summarized in Appendix B. Along with values for post-period benefit, benefit to existing development, and grants, subsidies and other contributions, which reduce the development charge eligible portion of the opinion of probable cost.

## **2.1 WASTEWATER SEWERS**

### **2.1.1 Project 1: Mountain Road - Eleventh Line to the West**

The extension of the Mountain Road trunk sewer from the intersection of Mountain Road and the Eleventh Line to the west is intended to service the southwest portion of the Mountain Road West Corridor Secondary Plan. The lands in this area are currently designated Rural; however, it is assumed the lands would be developed as Residential and the sewer would be located along the centreline of Mountain Road. The costs were established based on the installation of a 450 mm diameter sewer and a full road reconstruction. A post-period benefit has been applied based on growth targets following the development charge horizon period.

### **2.1.2 Project 2: North of Mountain Road - Tenth Line to the West**

The lands north of Mountain Road from Silver Creek to Tenth Line will be serviced by a 450 mm diameter trunk sewer. It is assumed the lands designated Rural in this area would be developed as Residential and the sewer will be installed through the developments. The Town's development charge eligible capital costs are the incremental difference for oversizing these sewers, greater than 300 mm diameter (in that 300 mm is the minimum recommended pipe size). This project will be further refined in conjunction with the development of the Mountain Road West Corridor Secondary Plan.



**2.1.3 Project 3: Black Ash Creek Trunk Main - South of Sixth Street**

The extension of the Black Ash Creek trunk main will service the lands west of Black Ash Creek, south of Sixth Street. It is assumed the land designation will eventually change from Rural to Residential and a 375 mm diameter sewer will be installed through future developments. The Town's development charge eligible capital costs are the incremental difference for oversizing these sewers, greater than 300 mm diameter. This project is considered for long range planning and is scheduled to proceed outside of the growth period and thus the entire cost is categorized as a post-period benefit.

**2.1.4 Project 4: Mountain Road - Improvements West of Balsam Street**

The replacement of the Mountain Road trunk sewer west of Balsam Street will increase capacity, as required to facilitate future development, conveying wastewater to the Harbourview Park interceptor. The costs were established based on the installation of 100 metres of 600 mm diameter sewer and full road reconstruction.

**2.1.5 Project 5: Harbour Street - Georgian Trail to Tenth Line**

The extension of the Harbour Street trunk sewer will service the lands surrounding the landfill and south of Georgian Trail. It is assumed lands currently designated Rural will eventually become Residential and the landfill site will not be redeveloped. The 525 mm diameter sewer extension will also serve the industrial lands between Harbour Street and Mountain Road. The Town's development charge eligible capital costs include only the installation of 650 metres of 525 mm diameter sewer. The road reconstruction portion of the capital costs is covered in the applicable road project.

**2.1.6 Project 6: Hurontario Street - Lockhart Road to Collins Street**

This project consists of replacing the Hurontario Street sewer from Lockhart Road to Collins Street. The Hurontario trunk sewer will provide sewage conveyance capacity for servicing developments in the south end of Collingwood. The pricing was based on installation of a 375 mm diameter sewer and full road reconstruction.

**2.1.7 Project 7: Black Ash Creek Sewage Pumping Station Forcemain**

This project consists of a new forcemain from the Black Ash Creek Sewage Pumping Station to the Water Pollution Control Plant to provide required capacity and redundancy. This forcemain will be installed along the Harbourview Park Trail alongside the existing Harbourview Park interceptor. The pricing was based on the Collingwood Water and Sanitary Sewer Systems Master Plan with an inflation factor applied.





## **2.2 WASTEWATER FACILITIES**

### **2.2.1 Project 8: Water Pollution Control Plant - Outfall Improvements**

The Water Pollution Control Plant's effluent outfall needs to be extended to meet the Ministry of the Environment, Conservation and Parks requirements in support of the additional treatment capacity. The outfall extension will consist of 228 metres of 900 mm diameter pipe with a multiport diffuser. The pricing was based on the Collingwood Water and Sanitary Sewer Systems Master Plan with an inflation factor applied.

### **2.2.2 Project 9: Water Pollution Control Plant**

An expansion of the Collingwood Water Pollution Control Plant will be required to treat the projected future sewage flows generated by residential, commercial and industrial developments. As per the Municipal Class EA completed in 2011, the preferred solution is to increase capacity by 12 ML/day, resulting in a total capacity of 36.5 ML/day. A benefit to existing value was applied to this project to reflect the odour control facility that will handle odours for both the existing and future tanks. We have included for a Class EA amendment, which will be required prior to advancing the design and will evaluate construction phasing options.



## 3 Water Projects

The attached Drawing WAT-1 in Appendix A conceptually illustrates the Town's key water infrastructure, outlining the existing and proposed trunk water distribution system and the projects required to accommodate future development. Such projects, which were included in the development charge project list, involve:

- watermains;
- water valves;
- reservoirs;
- booster pumping stations;
- elevated tanks; and
- the expansion of the Raymond A. Barker Water Treatment Plant.

### **Watermains and Valves**

For watermain and valve projects, the benefit to existing has been estimated based on improvements to the Town's overall watermain distribution system, as the completion of particular development charge projects will strengthen and upgrade the network to meet current standards. Benefit to existing values for trunk extension projects are based on modelling results from the Collingwood Water and Sanitary Sewer Systems Master Plan and consultation with Town staff. The benefit to existing values for upsizing projects are based on the value of replacing existing municipal assets through a growth-related capital project.

The opinion of probable costs for watermain projects within existing municipal right-of-ways were developed based on watermain installation including hydrants and gate valves if applicable. Based on the typical alignment and depth, estimates also include the cost to remove and reinstate half of the existing road and boulevards (across a typical 20 metre right-of-way - resulting in a 10 metre wide restoration). Oversizing of watermains to accommodate future development areas is included in the development charge projects. The oversizing costs include the incremental difference (above 300 mm nominal diameter) to supply and install the main. The pricing was based on a combination of unit prices (developed based on our construction cost database) and on the Collingwood Water and Sanitary Sewer Systems Master Plan.

### **Water Facilities**

The benefit to existing development for water facility projects is based on unconnected units and available capacity within the existing facility to service growth over the planning horizon. Based



on these principles and input from the Town and Hemson, benefit to existing values was applied accordingly.

Currently, most of Collingwood's water distribution system operates within pressure zone 1 with a water supply from the Raymond A Barker Water Treatment Plant and two reservoirs: the Hume Street elevated tank and the Carmichael grade level tank on Highway 26. Pressure zone 2 is supplied from the R. A. Davey Booster Pumping Station and reservoir on Poplar Sideroad that is filled from the water transmission pipeline from the Water Treatment Plant to New Tecumseth. To service growth in pressure zone 2, the Town plans to add a new booster pumping station and reservoir at Stewart Road, with construction starting in 2026.

In accordance with the Schedule C Class EA completed in 2020, the Raymond A Barker Water Treatment Plant will be expanded in two phases from its rated capacity of 31 ML/day to 52 ML/day (phase 1) and to 101 ML/day (phase 2) to provide the capacity for Collingwood growth while accommodating supply commitments to the Town of New Tecumseth and the Town of The Blue Mountains.

Project descriptions, estimated timing and the costs for the proposed wastewater sewer and facility projects are summarized in Appendix B. Along with values for post-period benefit, benefit to existing development, and grants, subsidies and other contributions, which reduce the development charge eligible portion of the opinion of probable cost. A detailed description of each project is provided below.

### **3.1 WATER DISTRIBUTION**

#### **3.1.1 Project 10: Poplar Sideroad - Raglan Street to Beachwood Road**

Along Poplar Sideroad, east of Raglan Street, a 300 mm diameter trunk watermain extension will service the industrial zoned lands in pressure zone 2. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation.

#### **3.1.2 Project 11: Sixth Line - Poplar Sideroad to Sandford Fleming Drive**

Along Sixth Line, a 300 mm diameter trunk watermain will connect the existing main at Sandford Fleming Drive to the Poplar Sideroad main and will service the industrial zoned lands on Sixth Line. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation.

#### **3.1.3 Project 12: Poplar Sideroad - Rowland Street to Tenth Line**

A 400 mm diameter trunk watermain will extend from Rowland Street along Poplar Sideroad to Tenth Line. This project includes removal and restoration within half of the right-of-way to



facilitate the watermain installation. This watermain extension will supply the southwest quadrant of Collingwood.

#### **3.1.4 Project 13: High Street - Findlay Drive to Campbell Street**

On High Street, a 300 mm diameter trunk watermain will extend from the existing 400 mm diameter main at High Street and Findlay Drive connecting to the main at Campbell Street. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation.

#### **3.1.5 Project 14: Tenth Line - Poplar Sideroad to Sixth Street**

Along Tenth Line, from Poplar Sideroad to Sixth Street, a 400 mm diameter trunk watermain will supply water to the west end of Collingwood. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation. This project is scheduled to proceed outside of the growth period and thus the entire cost is categorized as a post-period benefit.

#### **3.1.6 Project 15: Tenth Line - Sixth Street to Mountain Road**

A 400 mm diameter trunk watermain is proposed from Sixth Street to Mountain Road. This project forms part of the pressure zone 2 supply from the proposed Stewart Road Booster Pumping Station and Reservoir. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation and forms part of the pressure zone 2 supply from the proposed Stewart Road Booster Pumping Station and Reservoir.

#### **3.1.7 Project 16: Sixth Street - Georgian Meadows Drive to Tenth Line**

Along Sixth Street, the existing 400 mm diameter watermain will be extended (via a trunk watermain) from Georgian Meadows Drive to the proposed Tenth Line trunk watermain. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation and forms part of the pressure zone 2 supply from the proposed Stewart Road Booster Pumping Station and Reservoir.

#### **3.1.8 Project 17: Future Secondary Plan Development - Tenth Line to Concession 11/12**

An oversized 350 mm diameter trunk watermain is proposed through future developments north of Sixth Street, from Tenth Line to the Concession 11/12 border, in the Mountain Road West Corridor Secondary Plan.



**3.1.9 Project 18: Future Secondary Plan Development - Concession 11/12 to Osler Bluff Road**

An oversized 350 mm diameter trunk watermain is proposed through future developments north of Sixth Street, from the Concession 11/12 border to Osler Bluff Road in the Mountain Road West Corridor Secondary Plan. This project will serve developments in pressure zone 3. This project is scheduled to proceed outside of the growth period and thus the entire cost is categorized as a post-period benefit.

**3.1.10 Project 19: Future Secondary Plan Development - Southern Extension of Eleventh Line**

A 350 mm diameter trunk watermain will extend south of the Eleventh Line and Mountain Road intersection through future developments in the Mountain Road West Corridor Secondary Plan.

**3.1.11 Project 20: Future Secondary Plan Development - Sixth Street to Mountain Road**

A 350 mm diameter trunk watermain will run parallel to Tenth Line in the southwest corner of the Mountain Road West Corridor Secondary Plan, east of Silver Creek, and will primarily serve the future development within pressure zone 3. This project is scheduled to proceed outside of the growth period and thus the entire cost is categorized as a post-period benefit.

**3.1.12 Project 21: Mountain Road - Thomas Drive to Tenth Line**

The existing 400 mm diameter Mountain Road trunk watermain through the Mair Mills Estates subdivision will be extended to Tenth Line. It is assumed this watermain will be installed through the Panorama Subdivision and only includes the incremental difference (above 300 mm nominal diameter) to supply and install the main.

**3.1.13 Project 22: Watermain Loop along the Eleventh Line and the Georgian Trail**

A 300 mm diameter trunk watermain is proposed on the Eleventh Line at Mountain Road, heading north to the Georgian Trail, then east connecting to the watermain along Tenth Line. It is assumed this watermain will be installed through development and since the watermain size is not greater than 300 mm diameter there is no development charge associated with this project.

**3.1.14 Project 23: Cranberry Development to the Georgian Trail**

A 300 mm diameter trunk watermain on Harbour Street is proposed to extend west of the current dead end and connect to the existing Tenth Line watermain. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation. It is assumed this watermain will be installed through development and since the watermain size is not greater than 300 mm diameter there is no development charge associated with this project.



**3.1.15 Project 24: Harbour Street Extension to Tenth Line**

A 400 mm diameter trunk watermain on Harbour Street is proposed to extend west of the current dead end and connect to the existing Tenth Line watermain. The road reconstruction portion of the capital costs is covered in the applicable road project.

**3.1.16 Project 25: North of First Street - Maple Street to Hickory Street**

The existing 400 mm diameter trunk watermain north of First Street through the existing Shipyards development will be extended westerly to Hickory Street. It will provide additional flow to the west end of Collingwood and will be installed along the existing trail alignment.

**3.1.17 Project 26: North of First Street - Hickory Street to Highway 26**

A 400 mm diameter trunk main will extend the proposed main at Hickory Street and connect to the existing main at Highway 26. It will provide additional flow to the west end of Collingwood and will be installed along the existing trail alignment.

**3.1.18 Project 27: Simcoe Street - Heritage Street to the Water Treatment Plant**

A new 500 mm diameter trunk watermain will be installed along Huron Street, Rodney Street and Simcoe Street to replace the undersized 300 mm diameter watermain. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation. A post-period benefit has been applied based on growth targets following the development charge horizon period.

**3.1.19 Project 28: Highway 26 - Old Mountain Road to Carmichael Pumping Station**

Along Highway 26, a new 400 mm diameter trunk watermain will be installed to replace the undersized 300 mm diameter watermain. This includes removal and restoration within half of the right-of-way to facilitate the watermain installation. This project is scheduled to proceed outside of the growth period and thus the entire cost is categorized as a post-period benefit.

**3.1.20 Project 29: Sixth Street - Hurontario Street to High Street**

Along Sixth Street, from Hurontario Street to High Street, a 400 mm diameter watermain will be installed replacing a 150 mm diameter watermain, increasing the overall system capacity. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation.



**3.1.21 Project 30 High Street - Old Mountain Road to Fifth Street**

Along High Street, from Old Mountain Road to Fifth Street, a 450 mm diameter watermain will be installed replacing the 300 mm diameter watermain, increasing the overall system capacity. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation.

**3.1.22 Project 31: St. Paul Street - Side Launch Way to Hume Street**

Along St. Paul Street, from Side Launch Way to Hume Street, a 400 mm diameter trunk watermain will be installed, increasing the overall system capacity. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation. The portion of watermain from Hume Street to Ontario Street is planned to be completed in 2026, with the rest to be completed in 2041.

**3.1.23 Project 32: High Street - Sixth Street to Campbell Street**

Along High Street, from Sixth Street to Campbell Street, a 450 mm diameter trunk watermain will replace the existing 200 mm diameter watermain, increasing the overall system capacity. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation.

**3.1.24 Project 33: Poplar Sideroad - Clark Street to Rowland Street**

Along Poplar Sideroad, from Clark Street heading west to the Summit View Subdivision, a 200 mm diameter watermain will create connectivity. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation.

**3.1.25 Project 34: Hume Street - Pretty River Parkway to Raglan Street North**

A 400 mm diameter watermain will be installed on Hume Street from the Pretty River Parkway to Raglan Street North. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation.

**3.1.26 Project 35: Raglan Street - Erie Street to Oliver Crescent**

A 400 mm diameter watermain will be installed on Raglan Street from Erie Street to Oliver Crescent. This project includes removal and restoration within half of the right-of-way to facilitate the watermain installation.



## **3.2 WATER VALVES**

### **3.2.1 Project 36: Osler Bluff Road Pressure Reducing Valve and Decommission Booster Pumps**

At the western edge of the Mountain Road West Corridor Secondary Plan, a pressure reducing valve and check valve will be installed at the zone 1 / zone 2 pressure border. The decommissioning of the Osler Bluff Road booster pumping station is included within this project, scheduled to commence after Phase 1 of the Stewart Road booster pumping station and reservoir project is complete.

### **3.2.2 Project 37: Mountain Road Pressure Reducing Valve and Chamber Installation**

At the intersection of Mountain Road and Tenth Line, a pressure reducing valve will be installed in a chamber at the zone 1 / zone 2 pressure border.

### **3.2.3 Project 38: Pretty River Check Valve**

On Peel Street, a new check valve will be installed at the zone 1 / zone 2 pressure border to supply zone 2 in an emergency.

### **3.2.4 Project 39: Sixth Line Pressure Reducing Valve and Chamber Installation**

On Sixth Line, a pressure reducing valve will be installed at the zone 1 / zone 2 pressure border to supply zone 2 in an emergency.

## **3.3 WATER FACILITIES**

### **3.3.1 Project 40: Stewart Road Reservoir and Booster Pumping Station (Phase 1)**

The Stewart Road booster pumping station will be required to meet local peak hour water demands and pressure requirements in the west of pressure zone 2 (north of Sixth Street and west of Tenth Line). It will be supported by a grade level reservoir with an approximate volume of 3,700 m<sup>3</sup> to meet the storage requirements in pressure zone 2.

### **3.3.2 Project 41: Stewart Road Reservoir and Booster Pumping Station (Phase 2)**

Phase 2 of the Stewart Road reservoir and pumping station is scheduled to commence after the current growth period and thus a post-period benefit has been applied based on growth targets following the development charge horizon period.

### **3.3.3 Project 42: Stewart Road Ultimate Pump Upgrades**

Pumping upgrades are required prior to the completion of the Stewart Road reservoir and booster pumping station Phase 2. This project is scheduled to commence near the end of the





growth period and thus a post-period benefit has been applied based on growth targets following the development charge horizon period.

#### **3.3.4 Project 43: Decommissioning of Georgian Meadows Pumping Station**

Once Phase 1 of the Stewart Road booster pumping station is commissioned, the decommissioning of the Georgian Meadows pumping station will be completed.

#### **3.3.5 Project 44: Ted Carmichael West End Reservoir (Highway 26 West)**

As outlined in the Collingwood Water and Sanitary Sewer Systems Master Plan, modifications to the Ted Carmichael West End Reservoir are required to operate it as an “in and out” reservoir, with flow filling the reservoir from the east and flowing out to the west. This will assist in maintaining adequate pressures and fire flows in the water distribution system as development proceeds west of the reservoir.

#### **3.3.6 Project 45: New Elevated Tank**

A new elevated tank is proposed to replace the tank on Hume Street. It will double the current operating volume. The location is to be determined. A 50% benefit to existing value has been applied to account for the replacement of the existing deteriorating asset.

#### **3.3.7 Project 46: Raymond A. Barker Water Treatment Plant (Raglan Street)**

In accordance with the Collingwood Water and Sanitary Sewer Systems Master Plan, the Raymond A. Barker Water Treatment Plant requires an expansion to 67 ML/day to meet the water demands from growth in the Town of Collingwood. The Water Treatment Plant currently produces treated water for the Town of Collingwood, the Town of New Tecumseth and The Town of The Blue Mountains. An 8% benefit to existing has been applied to account for the maintenance costs that would be required if the Town decided not to proceed with the upgrades. The expansion will involve replacing membranes with higher capacity membranes, installing UV disinfection equipment, expanding the clearwell, adding wastewater management facilities and expanding the low lift pumping station.

Costs are based on the construction tender results and 63% of the Water Treatment Plant expansion costs will be funded by the Town of New Tecumseth. This project has been scoped out of the Town-wide DC background study and included as a sole DC study, due to the magnitude of the project.



## 4 Road Projects

Road projects include:

- improvements to collector or arterial roads as designated in the Town's Official Plan;
- intersection improvements including additional lanes, roundabouts and signalization; and
- sidewalk, trail, and cycling improvements.

Through this update we have combined all sidewalk/trail projects into the applicable road projects and have assumed they will be constructed in conjunction. Project descriptions, estimated timing and the costs for the proposed road projects are summarized in Appendix B. Along with values for post-period benefit, benefit to existing development, and grants, subsidies and other contributions, which reduce the development charge eligible portion of the opinion of probable cost.

For road, intersection and sidewalk projects, the benefit to existing development represents the value of replacing existing municipal assets through growth related capital project. More specifically, on substandard roads (i.e. those that are assumed to not meet current road design standards with respect to width, cross section and/or granular type and/or depths), the benefit to existing value applied was based on the cost to replace the existing road base and asphalt at its current configuration. On existing roads constructed to an appropriate standard, the benefit to existing was assigned based on the cost to replace the asphalt surface only at its current configuration (recognizing the road base is sufficient). The conditions of the existing roads and the benefit to existing values assigned to each project, based on these principles were collaboratively established with the Town.

The opinion of probable costs for road projects within existing municipal right-of-ways were developed based on the cost to remove and reinstate the existing road and boulevards (across a typical 20 metre right-of-way).

Allowances have been included in support of miscellaneous Municipal Class EAs and property acquisition, if applicable. A detailed description of each project is provided below.

### 4.1 ROADS

#### 4.1.1 Project 47: Highway 26 - Harbour Street West to Silver Creek Drive

The arterial road improvements along the 3,600 metre section of Highway 26 from Harbour Street West to Silver Creek Drive will upgrade the existing 3 lane rural to a 5 lane urban road cross section. The majority of this project is already constructed as a 3 lane rural cross section and the



remainder is scheduled to be constructed in 2025. We have assumed the project will re-use the granular base and binder course asphalt from the existing 3 lane roadway. The surface course asphalt will be removed along the existing road and replaced following the installation of the additional 2 lanes. The benefit to existing was based on pulverizing and paving of the existing 3 lane surface course asphalt. An allowance for a Schedule C Class EA has been included in the estimate.

A post-period benefit has been applied based on growth targets following the development charge horizon period as it is scheduled to proceed at the end of the growth period to service development beyond the development charge horizon period of 2041.

#### **4.1.2 48: Mountain Road - Tenth Line to Eleventh Line Road Project**

Improvements to the 1,130 metre section of Mountain Road from Tenth Line to Eleventh Line will include road base widening in accordance with the current 2 lane collector rural standards and the installation of a 3 metre wide trail. We have assumed the road was originally constructed to an appropriate standard and the road reconstruction will re-use the existing granular base from the existing roadway. The benefit to existing is based on pulverizing and paving the asphalt along its current alignment.

#### **4.1.3 49: Sixth Line - Poplar Sideroad to Sandford Fleming Drive.**

Improvements to the 680 metre section of Sixth Line from Poplar Sideroad to Sandford Fleming Drive will include road base widening in accordance with the current 2 lane collector rural standards. We have assumed a new granular road base will be required throughout in support of the proposed improvements. The benefit to existing is based on pulverizing and paving the asphalt along its current alignment.

#### **4.1.4 Project 50: Hurontario Street - Hume Street to Collins Street**

The arterial road improvements to the 780 metre section of Hurontario Street from Hume Street to Collins Street will consist of constructing a continuous centre turn lane throughout to better serve the abutting developments. The improvements will include satisfying the requirements of a 3 lane urban road cross section. We have assumed the road was originally constructed to an appropriate standard and the road reconstruction will re-use the granular base from the existing 2 lane roadway. The benefit to existing is based on pulverizing and paving the existing asphalt along its current alignment.

#### **4.1.5 Project 51: Collins Street - Ste. Marie Street to Katherine Street**

The collector road improvements to the 360 metre section of Collins Street from Ste. Marie Street to Katherine Street will include upgrading the existing 2 lane rural road to a 2 lane urban road



cross section. Through the urbanizing, a 1.5 metre wide sidewalk will be installed on the south side of the road and the 1.5 metre wide sidewalk on the north side will be removed and replaced. We have assumed a new granular road base will be required throughout in support of the proposed improvements. The benefit to existing is based on pulverizing and paving the asphalt along its current alignment.

#### **4.1.6 Project 52: High Street - Third Street to Fifth Street**

The arterial road improvements along the 450 metre section of High Street from Third Street to Fifth Street will consist of widening the existing 4 lane urban road to accommodate a continuous centre turn lane throughout (thus providing a continuous centre turn lane from First Street to Sixth Street). The improvements will satisfy the requirements of a 5 lane urban road cross section. A 3 metre wide sidewalk will be installed on the west side and the 1.5 metre wide sidewalk on the east side will be removed and replaced. We have assumed the road was originally constructed to an appropriate standard and the road reconstruction will re-use the granular base from the existing roadway. The benefit to existing is based on resurfacing the existing concrete along its current alignment.

#### **4.1.7 Project 53: Tenth Line - Sixth Street to Mountain Road**

This collector road project will upgrade 1,240 metre of Tenth Line between Sixth Street and Mountain Road by widening the 2 lane rural cross section to a 3 lane urban cross section to accommodate a continuous centre turn lane throughout. The project will also include the installation of a 4 metre sidewalk on the west side and a 1.5 metre sidewalk on the east side, as per the Class EA Addendum filed in 2023. We have assumed the road was originally constructed to an appropriate standard and the benefit to existing is based on pulverizing and paving the asphalt along its current alignment.

#### **4.1.8 Project 54: High Street - Poplar Sideroad to Tenth Street**

Arterial road improvements to this 1,400 metre section of High Street from Poplar Sideroad to Tenth Street will consist of widening and upgrading the 2 lane rural road to a 4 lane urban road cross section. A 3 metre wide sidewalk will also be added to the west side of the road and the existing 1.5 metre sidewalk on the east side will be removed and replaced. We have assumed a new granular road base will be required throughout in support of the proposed improvements. The benefit to existing is based on full road reconstruction of the existing roadway along its current alignment. An allowance for a Schedule C Class EA has been included in the estimate.



#### **4.1.9 Project 55: Third Street - High Street to Birch Street**

Collector road improvements to the 865 metre section of Third Street for High Street to Birch Street include upgrading the 2 lane rural road to a 2 lane urban road cross section. The project includes 360 metres of 1.5 metre wide sidewalk installation on both sides of the road. We have assumed a new granular road base will be required throughout in support of the proposed improvements. The benefit to existing is based on full road reconstruction of the existing roadway along its current alignment.

#### **4.1.10 Project 56: Cameron Street - Hurontario Street to Walnut Street**

Collector road improvements to the 830 metre section of Cameron Street between Hurontario Street and Walnut Street include upgrading the existing 2 lane rural road to a 2 lane urban road cross section and replacement of the 1.5 metre sidewalks on both sides of the road. We have assumed a new granular road base will be required throughout in support of the proposed improvements. The benefit to existing is based on full road reconstruction of the existing roadway along its current alignment.

#### **4.1.11 Project 57: Mountain Road - Cambridge Street to Tenth Line**

Arterial road improvements to the 1,075 metre section of Mountain Road from Cambridge Street to Tenth Line consist of widening the 2 lane rural road to 5 lane urban road cross section. The scope of this project will include a 5 lane bridge. A 4 metre wide sidewalk will be added to the south and 1.5 metre wide sidewalk will be added to the north side of the road, as per the Class EA Addendum filed in 2023. We have assumed a new granular road base will be required throughout in support of the proposed improvements. The benefit to existing is based on removing and replacing the existing asphalt along its current alignment and the replacement of a 2 lane bridge. Overall costs were based on the current detailed design cost estimate.

#### **4.1.12 Project 58: Peel Street - Hume Street to Bush Street**

Collector road improvements to the 365 metre section of Peel Street between Ontario Street and Bush Street include upgrading the 2 lane rural road to a 2 lane urban road cross section and the replacement of the 1.5 metre wide sidewalks on both sides of the road. We have assumed a new granular road base will be required throughout in support of the proposed improvements. The benefit to existing is based on full road reconstruction of the existing roadway along its current alignment.

#### **4.1.13 Project 59: Peel Street - Ontario Street to Hume Street**

Collector road improvements to the 560 metre section of Peel Street between Ontario Street and Bush Street include upgrading the 2 lane rural road to a 2 lane urban road cross section and the



replacement of the 1.5 metre wide sidewalks on both sides of the road. We have assumed a new granular road base will be required throughout in support of the proposed improvements. The benefit to existing is based on full road reconstruction of the existing roadway along its current alignment.

#### **4.1.14 Project 60: Sixth Street - Tenth Line to High Street**

Arterial road improvements for the 1,320 metre section of Sixth Street from Tenth Line to High Street consist of widening and upgrading the road from 2 lane rural to a 3 lane urban road cross section and installation of 1.5 metre wide sidewalks on both sides of the road. We have assumed the road was originally constructed to an appropriate standard and the road reconstruction will re-use the granular base from the existing roadway. The benefit to existing is based on pulverizing and paving the existing asphalt along its current alignment. An allowance for a Schedule C Class EA has been included in the estimate.

#### **4.1.15 Project 61: Harbour Street Extension - Tenth Line to the Georgian Trail**

This collector road project will construct 525 metres of new road in accordance with 2 lane urban standards with a 3 metre wide trail along one side of the road. An allowance for a Schedule C Class EA has been included in the estimate.

#### **4.1.16 Project 62: Tenth Line - Mountain Road to Harbour Street**

Collector road improvements to the 620 metre section of Tenth Line between Mountain Road and Harbour Street include upgrading the 2 lane rural road to a 2 lane urban road cross section and installing 1.5 metre wide sidewalks on both sides of the road. We have assumed a new granular road base will be required throughout in support of the proposed improvements. The benefit to existing is based on full road reconstruction of the existing roadway along its current alignment.

## **4.2 INTERSECTIONS**

### **4.2.1 Project 63: Highway 26 and Silver Creek Drive**

Improvements include the construction of a westbound left turn lane and converting the existing slip lane into a travel lane.

### **4.2.2 Project 64: Highway 26 and Cranberry Trail East / Gun Club Road**

Improvements include the signalization of the existing intersection and the conversion of the existing centre turning lane into exclusive westbound and eastbound left turn lanes with permitted and protected phasing.



#### 4.2.3 Project 65: High Street and First Street (Phase 1)

Improvements include the construction of an exclusive eastbound right turn lane, converting the shared southbound through-left turn lane into an exclusive left turn lane and the construction of a shared southbound through-right lane to maintain two southbound lanes through the intersection. The signal timings are to be revised to include protected left phases for northbound and southbound lefts and eliminating the existing customized timing plans and including permitted and overlap phases for eastbound right turns.

#### 4.2.4 Project 66: High Street and Home Depot Access

In conjunction with future commercial development on the lands abutting the Home Depot, the existing signalized Home Depot access will be converted to a right-in / right-out access and the signals will be relocated to the intersection of High Street and Third Street. The extension of Cambridge Street (to be completed as part of future commercial development) will subsequently connect to the new signalized intersection as the new west leg. 100% of this project will be paid for by the developer in accordance with the existing Site Plan Agreement.

#### 4.2.5 Project 67: Mountain Road / First Street Extension / Cambridge Street (Phase 1)

Improvement includes the conversion of the existing exclusive westbound right turn lane into a shared through-right lane and the provision of northbound and southbound right turn lanes (thus allowing the existing shared through and right lanes to become exclusive through lanes). Improved signal timings to consider permitted and protected phases for eastbound left turns should also be considered.

#### 4.2.6 Project 68: High Street and Third Street

Improvements include the signalization of the existing intersection and the construction of exclusive northbound and southbound left turn lanes with permitted and protected phasing.

90% of the signalization cost is to be paid for by the developer, as these lights provide a direct benefit to the future commercial development on Third Street, west of High Street.

#### 4.2.7 Project 69: High Street and Campbell Street

As per the Municipal Class EA, this project includes the construction of a two-lane roundabout with widened or flared approaches to incorporate two lanes entering per approach. A 70% post-period benefit has been applied to this project since it is scheduled to proceed towards the end of the growth period to service development beyond the development charge horizon period of 2031.



**4.2.8 Project 70: Highway 26 and Harbour Street / Balsam Street**

Improvements include the construction of northbound and southbound left turn lanes, complete with permitted and protected signal phases.

**4.2.9 Project 71: High Street and First Street (Phase 2)**

Improvements include revising the signal timing plans to include a permitted and protected phase for the eastbound left turn lane and the construction of exclusive northbound and southbound right turn lanes, with widened or flared approaches to incorporate two lanes entering per approach. A post-period benefit has been applied based on growth targets following the development charge horizon period as it is scheduled to proceed at the end of the growth period to service development beyond the development charge horizon period of 2041.

**4.2.10 Project 72: Mountain Road / First Street Extension / Cambridge Street (Phase 2)**

Improvements include the construction of eastbound right turn lane. A post-period benefit has been applied based on growth targets following the development charge horizon period as it is scheduled to proceed at the end of the growth period to service development beyond the development charge horizon period of 2041.

**4.2.11 Project 73: High Street and Sixth Street**

Improvements include the construction of eastbound and westbound right turn lanes. A post-period benefit has been applied based on growth targets following the development charge horizon period as it is scheduled to proceed at the end of the growth period to service development beyond the development charge horizon period of 2041.





## 5 Summary

Through consultation with Town staff and Hemson, and following a review of applicable studies, standards and guidelines (i.e. master studies, project specific Class EA, project designs, the Town's Official Plan, Town Standards, developing mapping and forecasts, etc.), the previous development charge study list of capital engineering project has been updated. Engineering projects were considered as they relate to the following:

- wastewater sewer and facilities (trunk sewers, sewage pumping stations and forcemains and the Water Pollution Control Plant);
- water distribution and facilities (watermains, booster pumping stations and reservoirs and the Raymond A. Barker Water Treatment Plant); and
- transportation services (roads, intersections, sidewalks and trails, and cycling facilities).

Opinion of probable costs were estimated based on the scope of work anticipated and current construction values. Where appropriate, consideration was given to engineering, property acquisition, contingencies, Town staff allowances, and utility relocation costs. Recognizing that projects may vary with respect to their role and function, and who they are intended to benefit, consideration has been given to the following:

- benefit to existing developments;
- benefit to new developments;
- available funding and/or other cost contributions (as may be secured through separate development agreements or government infrastructure programs); and
- post-period development (i.e. the degree to which the project will provide benefit beyond the 2041 growth period).

A summary of the respective values for the noted servicing systems is provided in Table 1.

As noted, the identification of the capital projects, the contributing factors and extent of benefit have been determined based on past studies and/or consideration for future growth. As development occurs and growth is realized (or is not realized), it may be necessary to update the study methodology to reflect the current development environment. In this respect, regular updates of this study are recommended.



**Table 1: Costing Summary**

DESCRIPTION	GROSS CAPITAL COST ESTIMATE	<sup>(1)</sup> LESS: OTHER CONTRIBUTIONS	LESS: BENEFIT TO EXISTING	DC IN-PERIOD ELIGIBLE COSTS	POST-PERIOD BENEFIT
Wastewater Sewers	\$7,969,000	\$0	\$0	\$6,841,000	\$1,128,000
Wastewater Facilities	\$234,600,000	\$0	\$13,800,000	\$114,087,300	\$106,712,700
Water Distribution	\$59,480,200	\$0	\$8,173,600	\$38,152,200	\$13,154,400
Water Valves	\$1,237,000	\$0	\$32,700	\$1,204,300	\$0
Water Facilities	\$309,020,000	\$170,100,000	\$12,800,000	\$81,788,700	\$44,331,300
Roads	\$107,887,275	\$0	\$22,371,500	\$78,769,475	\$6,746,300
Intersections	\$10,801,804	\$1,945,944	\$0	\$8,207,060	\$648,800
<b>TOTAL</b>	<b>\$730,995,279</b>	<b>\$172,045,944</b>	<b>\$57,177,800</b>	<b>\$329,050,035</b>	<b>\$172,721,500</b>

<sup>(1)</sup> other contributions include: grants, subsidies and other contributions attributable to new development



## **Appendix A: Servicing Plans**





LEGEND	
SECONDARY PLAN BOUNDARY	-----
EX. SAN. SEWER, FORCEMAINS AND SPS	--- --
PROPOSED LOCAL SAN. SEWER	--- --
PROPOSED DC PROJECT	--- --
SEWAGE PUMPING STATIONS	□

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**BENCHMARKS**

**NOTES**

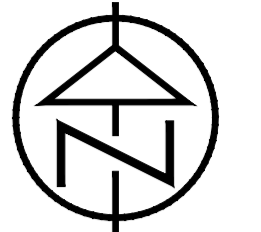
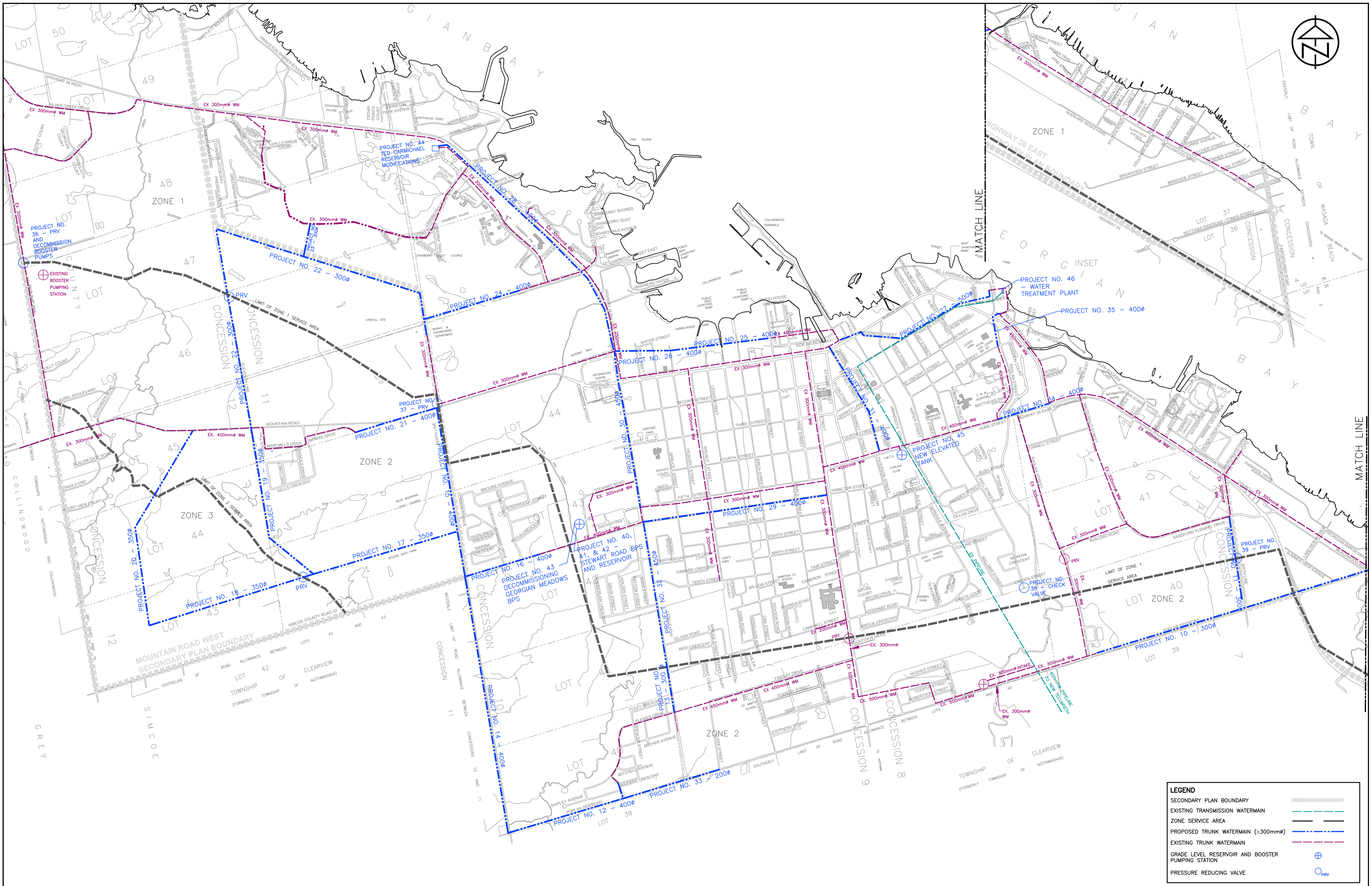
No.	REVISION DESCRIPTION	DATE	ENGINEER STAMP
1.	DRAFT SUBMISSION	JAN 2024	

2024 DEVELOPMENT CHARGES UPDATE	
TOWN OF COLLINGWOOD	
SANITARY INFRASTRUCTURE	
DESIGN: JK	FILE: 123275
DRAWN: JK	DATE: NOV 2023
CHECK: AT	SCALE: 1:12,500

**TATHAM ENGINEERING**

**SAN-1**





LEGEND	
SECONDARY PLAN BOUNDARY	
EXISTING TRANSMISSION WATERMAIN	
ZONE SERVICE AREA	
PROPOSED TRUNK WATERMAIN (≥300mm)	
EXISTING TRUNK WATERMAIN	
GRADE LEVEL RESERVOIR AND BOOSTER PUMPING STATION	
PRESSURE REDUCING VALVE	

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**BENCHMARKS**

**NOTES**

No.	REVISION DESCRIPTION	DATE	ENGINEER STAMP
1.	DRAFT SUBMISSION	JAN 2024	

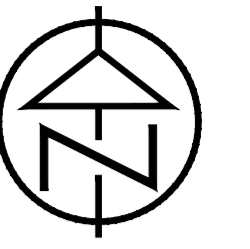
**2024 DEVELOPMENT CHARGES UPDATE**  
**TOWN OF COLLINGWOOD**

**WATER SERVICING INFRASTRUCTURE**

**TATHAM ENGINEERING**

DESIGN: JK	FILE: 123275	DWG:
DRAWN: JK	DATE: NOV 2023	<b>WAT-1</b>
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LEGEND	
ROAD IMPROVEMENT	
INTERSECTION IMPROVEMENT	

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**BENCHMARKS**  
 NOTES

No.	REVISION DESCRIPTION	DATE	ENGINEER STAMP
1.	DRAFT SUBMISSION	JAN 2024	

2024 DEVELOPMENT CHARGES UPDATE	
TOWN OF COLLINGWOOD	
ROAD NETWORK INFRASTRUCTURE	

DESIGN: JK	FILE: 123275	DWG:
DRAWN: JK	DATE: NOV 2023	<b>ROAD-1</b>
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**TATHAM ENGINEERING**



## **Appendix B: Opinion of Probable Cost**

TOWN OF COLLINGWOOD  
2024 DEVELOPMENT CHARGES BACKGROUND STUDY

**DRAFT**

WASTEWATER SEWERS - PROJECT LIST  
APRIL 2024  
FILE NO. 123275

PROJECT NO.	LOCATION	PROJECT LENGTH (m)	INCREASED SERVICE NEEDS ATTRIBUTABLE TO ANTICIPATED DEVELOPMENT	TIMING	GROSS CAPITAL COST ESTIMATE	<sup>(1)</sup> LESS: OTHER CONTRIBUTIONS	NET MUNICIPAL COST	LESS: BENEFIT TO EXISTING DEVELOPMENT %	LESS: BENEFIT TO EXISTING DEVELOPMENT AMOUNT	TOTAL DC ELIGIBLE COSTS	DC IN-PERIOD ELIGIBLE COSTS	POST-PERIOD BENEFIT
1	Mountain Road: Eleventh Line to the West	650	Extension of the existing trunk sewer	2041	\$2,873,000	\$0	\$2,873,000	0%	\$0	\$2,873,000	\$1,892,100	\$980,900
2	North of Mountain Road: Tenth Line to the West	1,900	Oversizing of trunk sewer through future development	2029   2041	\$255,000	\$0	\$255,000	0%	\$0	\$255,000	\$167,900	\$87,100
3	Black Ash Creek Trunk Main: South of Sixth Street	900	Oversizing of trunk sewer through future development	2044	\$60,000	\$0	\$60,000	0%	\$0	\$60,000	\$0	\$60,000
4	Mountain Road: Improvements West of Balsam Street	100	Trunk sewer to replace the existing sewer	2032	\$476,000	\$0	\$476,000	0%	\$0	\$476,000	\$476,000	\$0
5	Harbour Street: Georgian Trail to Tenth Line	650	Extension of the existing trunk sewer	2030	\$937,000	\$0	\$937,000	0%	\$0	\$937,000	\$937,000	\$0
6	Hurontario Street: Lockhart Road to Collins Street	368	Trunk sewer to replace the existing sewer	2027	\$1,568,000	\$0	\$1,568,000	0%	\$0	\$1,568,000	\$1,568,000	\$0
7	Black Ash Creek SPS Forcemain: SPS to WPCP (along trail)	1,390	Twin forcemain to provide additional capacity	2036	\$1,800,000	\$0	\$1,800,000	0%	\$0	\$1,800,000	\$1,800,000	\$0
<b>TOTAL</b>					<b>\$7,969,000</b>	<b>\$0</b>	<b>\$7,969,000</b>		<b>\$0</b>	<b>\$7,969,000</b>	<b>\$6,841,000</b>	<b>\$1,128,000</b>

(1) - Other contributions includes: grants, subsidies and other contributions attributable to new development



**TOWN OF COLLINGWOOD  
2024 DEVELOPMENT CHARGES BACKGROUND STUDY**

**DRAFT**

**WASTEWATER FACILITIES - PROJECT LIST  
APRIL 2024  
FILE NO. 123275**

PROJECT NO.	LOCATION	INCREASED SERVICE NEEDS ATTRIBUTABLE TO ANTICIPATED DEVELOPMENT	TIMING	GROSS CAPITAL COST ESTIMATE	<sup>(1)</sup> LESS: OTHER CONTRIBUTIONS	NET MUNICIPAL COST	LESS: BENEFIT TO EXISTING DEVELOPMENT % AMOUNT	TOTAL DC ELIGIBLE COSTS	DC IN-PERIOD ELIGIBLE COSTS	POST-PERIOD BENEFIT	
8	Water Pollution Control Plant - Outfall Improvements	Plant Outfall Improvements	2027	\$4,600,000	\$0	\$4,600,000	0%	\$0	\$4,600,000	\$4,600,000	\$0
9	Water Pollution Control Plant	Expansion of the WPCP to increase the capacity by 12,000 m <sup>3</sup> /day	2026-2036	\$230,000,000	\$0	\$230,000,000	6%	\$13,800,000	\$216,200,000	\$109,487,300	\$106,712,700
<b>TOTAL</b>				<b>\$234,600,000</b>	<b>\$0</b>	<b>\$234,600,000</b>		<b>\$13,800,000</b>	<b>\$220,800,000</b>	<b>\$114,087,300</b>	<b>\$106,712,700</b>

(1) - Other contributions includes: grants, subsidies and other contributions attributable to new development

**TOWN OF COLLINGWOOD  
2024 DEVELOPMENT CHARGES BACKGROUND STUDY**

**DRAFT**

**WATER DISTRIBUTION - PROJECT LIST  
APRIL 2024  
FILE NO. 123275**

PROJECT NO.	LOCATION	PROJECT LENGTH (m)	INCREASED SERVICE NEEDS ATTRIBUTABLE TO ANTICIPATED DEVELOPMENT	TIMING	GROSS CAPITAL COST ESTIMATE	<sup>(1)</sup> LESS: OTHER CONTRIBUTIONS	NET MUNICIPAL COST	LESS: BENEFIT TO EXISTING DEVELOPMENT	TOTAL DC ELIGIBLE COSTS	DC IN-PERIOD ELIGIBLE COSTS	POST-PERIOD BENEFIT	
								% AMOUNT				
10	Poplar Sideroad: Raglan Street to Beachwood Road	2,000	Trunk watermain extension	2029	\$5,485,300	\$0	\$5,485,300	0%	\$0	\$5,485,300	\$5,485,300	\$0
11	Sixth Line: Poplar Sideroad to Sandford Fleming Drive	650	Trunk watermain extension	2031	\$1,694,400	\$0	\$1,694,400	0%	\$0	\$1,694,400	\$1,694,400	\$0
12	Poplar Sideroad: Rowland Street to Tenth Line	920	Trunk watermain extension	2032	\$2,763,700	\$0	\$2,763,700	0%	\$0	\$2,763,700	\$2,763,700	\$0
13	High Street: Findlay Drive to Campbell Street	300	Trunk watermain extension	2028	\$825,300	\$0	\$825,300	15%	\$123,800	\$701,500	\$701,500	\$0
14	Tenth Line: Poplar Sideroad to Sixth Street	1,850	Trunk watermain extension	2044	\$5,321,500	\$0	\$5,321,500	0%	\$0	\$5,321,500	\$0	\$5,321,500
15	Tenth Line: Sixth Street to Mountain Road	1,125	Trunk watermain extension	2026	\$3,257,300	\$0	\$3,257,300	0%	\$0	\$3,257,300	\$3,257,300	\$0
16	Sixth Street: Georgian Meadows Drive to Tenth Line	275	Trunk watermain extension	2026	\$894,200	\$0	\$894,200	0%	\$0	\$894,200	\$894,200	\$0
17	Future Secondary Plan Develop: Tenth Line to Conc. 11/12	1,000	Oversizing of trunk watermain through future development	2031	\$120,600	\$0	\$120,600	0%	\$0	\$120,600	\$120,600	\$0
18	Future Secondary Plan Develop: Conc. 11/12 to Osler Bluff	1,200	Oversizing of trunk watermain through future development	2044	\$147,400	\$0	\$147,400	0%	\$0	\$147,400	\$0	\$147,400
19	Future Secondary Plan Develop: South Extension of 11th Line	1,100	Oversizing of trunk watermain through future development	2032	\$137,400	\$0	\$137,400	0%	\$0	\$137,400	\$137,400	\$0
20	Future Secondary Plan Develop: Sixth Street to Mountain Rd.	1,450	Oversizing of trunk watermain through future development	2044	\$179,300	\$0	\$179,300	0%	\$0	\$179,300	\$0	\$179,300
21	Mountain Road: Thomas Drive to Tenth Line	700	Trunk watermain extension	2027	\$178,300	\$0	\$178,300	0%	\$0	\$178,300	\$178,300	\$0
22	Watermain Loop along Eleventh Line and Georgian Trail	3,300	Trunk watermain extension	2031	\$0	\$0	\$0	0%	\$0	\$0	\$0	\$0
23	Cranberry Development to the Georgian Trail	250	Oversizing of trunk watermain through future development	2031	\$0	\$0	\$0	0%	\$0	\$0	\$0	\$0
24	Harbour Street Extension to Tenth Line	565	Trunk watermain extension	2030	\$801,800	\$0	\$801,800	15%	\$120,300	\$681,500	\$681,500	\$0
25	North of First Street: Maple Street to Hickory Street	785	Trunk watermain extension	2027	\$2,255,300	\$0	\$2,255,300	15%	\$338,300	\$1,917,000	\$1,917,000	\$0
26	North of First Street: Hickory Street to Highway 26	420	Trunk watermain extension	2030	\$1,155,500	\$0	\$1,155,500	15%	\$173,300	\$982,200	\$982,200	\$0
27	Simcoe Street: Heritage Drive to Water Treatment Plant	1,365	Upsize existing watermain from 300 to 500 mm	2040	\$4,962,200	\$0	\$4,962,200	15%	\$744,300	\$4,217,900	\$2,777,800	\$1,440,100
28	Hwy 26: Old Mountain Road to Carmichael Pumping Station	2,122	Upsize existing watermain from 300 to 400 mm	2045	\$7,136,600	\$0	\$7,136,600	15%	\$1,070,500	\$6,066,100	\$0	\$6,066,100
29	Sixth Street: Hurontario Street to High Street	1,960	Upsize existing watermain from 300 to 400 mm	2025	\$6,375,600	\$0	\$6,375,600	15%	\$956,300	\$5,419,300	\$5,419,300	\$0
30	High Street: Old Mountain Road to Fifth Street	1,225	Upsize existing watermain from 300 to 450 mm	2030	\$4,374,900	\$0	\$4,374,900	15%	\$656,200	\$3,718,700	\$3,718,700	\$0
31	St. Paul Street: Side Launch Way to Hume Street	830	Upsize existing watermain from 300 to 400 mm	2026   2041	\$2,807,500	\$0	\$2,807,500	15%	\$421,100	\$2,386,400	\$2,386,400	\$0
32	High Street: Sixth Street to Campbell Street	1,468	Upsize / add new watermain from 200 to 450 mm	2028	\$4,610,900	\$0	\$4,610,900	50%	\$2,305,500	\$2,305,400	\$2,305,400	\$0
33	Poplar Sideroad: Clark Street to Rowland Street	720	Trunk watermain extension	2035	\$1,825,300	\$0	\$1,825,300	0%	\$0	\$1,825,300	\$1,825,300	\$0
34	Hume Street: Pretty River Parkway to Raglan Street North	410	Upsize existing watermain to 400 mm	2035	\$1,340,700	\$0	\$1,340,700	85%	\$1,139,600	\$201,100	\$201,100	\$0
35	Raglan Street: Erie Street to Oliver Crescent	250	Upsize existing watermain from 300 to 400 mm	2035	\$829,200	\$0	\$829,200	15%	\$124,400	\$704,800	\$704,800	\$0
<b>TOTAL</b>					<b>\$59,480,200</b>	<b>\$0</b>	<b>\$59,480,200</b>		<b>\$8,173,600</b>	<b>\$51,306,600</b>	<b>\$38,152,200</b>	<b>\$13,154,400</b>

(1) - Other contributions includes: grants, subsidies and other contributions attributable to new development

**TOWN OF COLLINGWOOD  
2024 DEVELOPMENT CHARGES BACKGROUND STUDY**

**DRAFT**

**WATER VALVE - PROJECT LIST  
APRIL 2024  
FILE NO. 123275**

PROJECT NO.	LOCATION	INCREASED SERVICE NEEDS ATTRIBUTABLE TO ANTICIPATED DEVELOPMENT	TIMING	GROSS CAPITAL COST ESTIMATE	<sup>(1)</sup> LESS: OTHER CONTRIBUTIONS	NET MUNICIPAL COST	LESS: BENEFIT TO EXISTING DEVELOPMENT % AMOUNT	TOTAL DC ELIGIBLE COSTS	DC IN-PERIOD ELIGIBLE COSTS	POST-PERIOD BENEFIT
36	Osler Bluff Road PRV and Decommissioning Osler Booster Pumps	Create valve configuration to feed zone 1A or 2 in emergency	2028	\$742,000	\$0	\$742,000	0% \$0	\$742,000	\$742,000	\$0
37	Mountain Road PRV and Chamber Installation	New valve to feed Mountain Road low pressure & fire from zone 2	2026	\$218,000	\$0	\$218,000	15% \$32,700	\$185,300	\$185,300	\$0
38	Pretty River Check Valve	New check valve to supply zone 2 in emergency	2025	\$73,000	\$0	\$73,000	0% \$0	\$73,000	\$73,000	\$0
39	Sixth Line PRV and Chamber Installation	New valve to supply zone 2 in emergency	2035	\$204,000	\$0	\$204,000	0% \$0	\$204,000	\$204,000	\$0
<b>TOTAL</b>				<b>\$1,237,000</b>	<b>\$0</b>	<b>\$1,237,000</b>	<b>\$32,700</b>	<b>\$1,204,300</b>	<b>\$1,204,300</b>	<b>\$0</b>

(1) - Other contributions includes: grants, subsidies and other contributions attributable to new development

**TOWN OF COLLINGWOOD  
2024 DEVELOPMENT CHARGES BACKGROUND STUDY**

**DRAFT**

**WATER FACILITIES - PROJECT LIST  
APRIL 2024  
FILE NO. 123275**

PROJECT NO.	LOCATION	INCREASED SERVICE NEEDS ATTRIBUTABLE TO ANTICIPATED DEVELOPMENT	TIMING	GROSS CAPITAL COST ESTIMATE	<sup>(1)</sup> LESS: OTHER CONTRIBUTIONS	NET MUNICIPAL COST	LESS: BENEFIT TO EXISTING DEVELOPMENT %	AMOUNT	TOTAL DC ELIGIBLE COSTS	DC IN-PERIOD ELIGIBLE COSTS	POST-PERIOD BENEFIT
40	Stewart Road Booster Pumping Station and Reservoir (Phase 1)	Zone 2 BPS & Reservoir	2026	\$17,000,000	\$0	\$17,000,000	0%	\$0	\$17,000,000	\$17,000,000	\$0
41	Stewart Road Booster Pumping Station and Reservoir (Phase 2)	Zone 2 BPS & Reservoir	2044	\$7,000,000	\$0	\$7,000,000	0%	\$0	\$7,000,000	\$4,610,100	\$2,389,900
42	Stewart Road Ultimate Pump Upgrades	Required for Stewart Road Reservoir Phase 2	2038	\$1,000,000	\$0	\$1,000,000	0%	\$0	\$1,000,000	\$658,600	\$341,400
43	Decommissioning Georgian Meadows BPS	Decommission BPS after Stewart Road BPS is commissioned	2028	\$300,000	\$0	\$300,000	0%	\$0	\$300,000	\$300,000	\$0
44	Ted Carmichael West End Reservoir (Highway 26 West)	West End BPS Improvements	2024-2025	\$3,400,000	\$0	\$3,400,000	0%	\$0	\$3,400,000	\$3,400,000	\$0
45	New Elevated Tank (Location TBD)	Replacement of existing tank	2030	\$10,000,000	\$0	\$10,000,000	50%	\$5,000,000	\$5,000,000	\$5,000,000	\$0
46	Water Treatment Plant (Raglan Street)	Expansion and upgrade of Water Treatment Plant	2024-2029	\$270,000,000	\$170,100,000	\$99,900,000	8%	\$7,800,000	\$92,100,000	\$50,500,000	\$41,600,000
		Water Efficiency Measures	2024-2041	\$320,000	\$0	\$320,000	0%	\$0	\$320,000	\$320,000	\$0
<b>TOTAL</b>				<b>\$309,020,000</b>	<b>\$170,100,000</b>	<b>\$138,920,000</b>		<b>\$12,800,000</b>	<b>\$126,120,000</b>	<b>\$81,788,700</b>	<b>\$44,331,300</b>

(1) - Other contributions includes: grants, subsidies and other contributions attributable to new development

**TOWN OF COLLINGWOOD  
2024 DEVELOPMENT CHARGES BACKGROUND STUDY**

**DRAFT**

**ROAD WORKS - PROJECT LIST  
APRIL 2024  
FILE NO. 123275**

PROJECT NO.	LOCATION	ROAD CLASSIFICATION	PROJECT LENGTH (m)	INCREASED SERVICE NEEDS ATTRIBUTABLE TO ANTICIPATED DEVELOPMENT	TIMING	GROSS CAPITAL COST ESTIMATE	(1) LESS: OTHER CONTRIBUTIONS	NET MUNICIPAL COST	LESS: BENEFIT TO EXISTING DEVELOPMENT %	LESS: BENEFIT TO EXISTING DEVELOPMENT AMOUNT	TOTAL DC ELIGIBLE COSTS	DC IN-PERIOD ELIGIBLE COSTS	POST-PERIOD BENEFIT
47	Hwy 26: Harbour Street West to Silver Creek Drive	Arterial	3,600	Upgrade & widen 3 lane rural to 5 lane urban	2041	\$22,233,000	\$0	\$22,233,000	11%	\$2,473,000	\$19,760,000	\$13,013,700	\$6,746,300
48	Mountain Road: Tenth Line to Eleventh Line	Arterial	1,130	Upgrade 2 lane rural to 2 lane rural 3 m trail on one side	2029	\$4,556,500	\$0	\$4,556,500	24%	\$1,088,500	\$3,468,000	\$3,468,000	\$0
49	Sixth Line: Poplar Sideroad to Sandford Fleming Dr	Collector	680	Upgrade 2 lane rural to 2 lane rural	2031	\$2,952,000	\$0	\$2,952,000	16%	\$477,600	\$2,474,400	\$2,474,400	\$0
50	Hurontario Street: Hume Street to Collins Street	Arterial	780	Widen 2 lane urban to 3 lane urban	2027	\$5,241,100	\$0	\$5,241,100	12%	\$606,400	\$4,634,700	\$4,634,700	\$0
51	Collins Street: Ste. Marie Street to Katherine Street	Collector	360	Upgrade 2 lane rural to 2 lane urban 1.5 m wide sidewalk on both sides	2028	\$2,258,400	\$0	\$2,258,400	15%	\$332,100	\$1,926,300	\$1,926,300	\$0
52	High Street: Third Street to Fifth Street	Arterial	450	Widen 4 lane urban to 5 lane urban West: 3 m wide sidewalk; East: 1.5 m wide sidewalk	2027	\$3,495,100	\$0	\$3,495,100	30%	\$1,048,500	\$2,446,600	\$2,446,600	\$0
53	Tenth Line: Sixth Street to Mountain Road	Collector	1,240	Upgrade 2 lane rural to 2 lane urban 4 m wide trail on one side	2030	\$8,147,700	\$0	\$8,147,700	10%	\$844,700	\$7,303,000	\$7,303,000	\$0
54	High Street: Poplar Sideroad to Tenth Street	Arterial	1,400	Upgrade & widen 2 lane rural to 4 lane urban 3 m wide trail on one side	2027	\$10,734,500	\$0	\$10,734,500	34%	\$3,607,900	\$7,126,600	\$7,126,600	\$0
55	Third Street: High Street to Birch Street	Collector	865	Upgrade 2 lane rural to 2 lane urban 1.5 m wide sidewalk on both sides	2028	\$5,275,800	\$0	\$5,275,800	38%	\$2,023,800	\$3,252,000	\$3,252,000	\$0
56	Cameron Street: Hurontario St to Walnut St	Collector	830	Upgrade 2 lane rural to 2 lane urban 1.5 m wide sidewalk on both sides	2028	\$5,176,900	\$0	\$5,176,900	40%	\$2,062,300	\$3,114,600	\$3,114,600	\$0
57	Mountain Road: Cambridge Street to Tenth Line	Arterial	1,075	Upgrade & widen 3 lane rural to 5 lane urban North: 1.5 m wide sidewalk; South: 4 m wide sidewalk	2024	\$15,347,675	\$0	\$15,347,675	16%	\$2,526,300	\$12,821,375	\$12,821,375	\$0
58	Peel Street: Hume Street to Bush Street	Collector	365	Upgrade 2 lane rural to 2 lane urban 1.5 m wide sidewalk on both sides	2026	\$2,655,900	\$0	\$2,655,900	40%	\$1,052,000	\$1,603,900	\$1,603,900	\$0
59	Peel Street: Ontario Street to Hume Street	Collector	560	Upgrade 2 lane rural to 2 lane urban 1.5 m wide sidewalk on both sides	2031	\$3,700,500	\$0	\$3,700,500	40%	\$1,490,700	\$2,209,800	\$2,209,800	\$0
60	Sixth Street: Tenth Line to High Street	Arterial	1,320	Widen 2 lane rural to 3 lane urban 1.5 m wide sidewalk on both sides	2035	\$8,874,500	\$0	\$8,874,500	15%	\$1,334,800	\$7,539,700	\$7,539,700	\$0
61	Harbour Street Extension: Tenth Line to Georgian Trail	Collector	560	Extend 2 lane rural through unopened R.O.W.	2032	\$3,872,800	\$0	\$3,872,800	0%	\$0	\$3,872,800	\$3,872,800	\$0
62	Tenth Line: Mountain Road to Harbour Street	Collector	620	Upgrade 2 lane rural to 2 lane urban 1.5 m wide sidewalk on both sides	2032	\$3,364,900	\$0	\$3,364,900	42%	\$1,402,900	\$1,962,000	\$1,962,000	\$0
<b>TOTAL</b>						<b>\$107,887,275</b>	<b>\$0</b>	<b>\$107,887,275</b>		<b>\$22,371,500</b>	<b>\$85,515,775</b>	<b>\$78,769,475</b>	<b>\$6,746,300</b>

(1) - Other contributions includes: grants, subsidies and other contributions attributable to new development

**TOWN OF COLLINGWOOD  
2024 DEVELOPMENT CHARGES BACKGROUND STUDY**

**DRAFT**

**INTERSECTION IMPROVEMENTS - PROJECT LIST  
APRIL 2024  
FILE NO. 123275**

PROJECT NO.	LOCATION	INCREASED SERVICE NEEDS ATTRIBUTABLE TO ANTICIPATED DEVELOPMENT	TIMING	GROSS CAPITAL COST ESTIMATE	(1) LESS: OTHER CONTRIBUTIONS	NET MUNICIPAL COST	LESS: BENEFIT TO EXISTING DEVELOPMENT		TOTAL DC ELIGIBLE COSTS	DC IN-PERIOD ELIGIBLE COSTS	POST PERIOD BENEFIT
							%	AMOUNT			
63	Highway 26 and Silver Creek Drive	Left turn lane	2025	\$1,191,000	\$0	\$1,191,000	0%	\$0	\$1,191,000	\$1,191,000	\$0
64	Highway 26 and Cranberry Trail E/Gun Club Road	Signalization, left turn lanes	2025	\$819,000	\$0	\$819,000	0%	\$0	\$819,000	\$819,000	\$0
65	High Street and First Street (Phase 1)	Additional turning lanes and revise timing	2029	\$819,000	\$0	\$819,000	0%	\$0	\$819,000	\$819,000	\$0
66	High Street and Home Depot Access	Relocate access to 3rd Street or Cambridge Street (widening)	2027	\$176,904	\$176,904	\$0	0%	\$0	\$0	\$0	\$0
67	Mountain Road / First Street Extension / Cambridge Street (Phase 1)	Additional turning lanes	2030	\$1,309,000	\$0	\$1,309,000	0%	\$0	\$1,309,000	\$1,309,000	\$0
68	High Street and Third Street	Signalization, left turn lanes and phases	2028	\$1,965,600	\$1,769,040	\$196,560	0%	\$0	\$196,560	\$196,560	\$0
69	High Street and Campbell Street	Double lane roundabout	2028	\$1,638,000	\$0	\$1,638,000	0%	\$0	\$1,638,000	\$1,638,000	\$0
70	Highway 26 and Harbour Street / Balsam Street	Additional turning lanes	2030	\$982,800	\$0	\$982,800	0%	\$0	\$982,800	\$982,800	\$0
71	High Street and First Street (Phase 2)	Additional turning lane	2041	\$595,000	\$0	\$595,000	0%	\$0	\$595,000	\$391,900	\$203,100
72	Mountain Road / First Street Extension / Cambridge Street (Phase 2)	Additional turning lane	2041	\$595,000	\$0	\$595,000	0%	\$0	\$595,000	\$391,900	\$203,100
73	High Street and Sixth Street	Additional turning lanes	2041	\$710,500	\$0	\$710,500	0%	\$0	\$710,500	\$467,900	\$242,600
<b>TOTAL</b>				<b>\$10,801,804</b>	<b>\$1,945,944</b>	<b>\$8,855,860</b>		<b>\$0</b>	<b>\$8,855,860</b>	<b>\$8,207,060</b>	<b>\$648,800</b>

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