The Regional Municipality of Durham

Works Committee Agenda

Wednesday, December 7, 2022, 9:30 a.m.
Regional Council Chambers
Regional Headquarters Building
605 Rossland Road East, Whitby

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2097.

Note: This meeting will be held in a hybrid meeting format with electronic and in-person participation. It is encouraged that members of the public view the Committee meeting via live streaming, instead of attending the meeting in-person. If in-person attendance is required, arrangements must be made by emailing clerks@durham.ca prior to the meeting date.

Pages

1. **Roll Call**
2. **Declarations of Interest**
3. **Election of the Works Committee Vice-Chair**
4. **Adoption of Minutes**
   - 4.1 Works Committee meeting - September 7, 2022 — 3
5. **Statutory Public Meetings**
   There are no statutory public meetings
6. **Delegations**
   There are no delegations
7. **Presentations**
   - 7.1 Commissioner of Works and Works Directors Team
     Re: Works Departmental Overview
   - 7.2 John Presta, Commissioner of Works
     Re: Works Department - 2023 Water Supply and Sanitary Sewerage Systems Business Plans and Budgets (2022-W-42)
8. **Waste**
   - 8.1 Correspondence

8.2 Reports

There are no Waste Reports to be considered

9. Works

9.1 Correspondence

a. Correspondence received from Shelagh Cauchi on behalf of Wickham Street Residents in the City of Oshawa 18

Re: A Sound/Pollution Barrier on Harmony Road North in the City of Oshawa

Recommendation: Receive for Information

b. Correspondence received from the Town of Whitby 21

Re: Highway 412 – Installation of Ramps and Signalization Lights

Pulled from October 7, 2022, Council Information Package by Councillor Collier

Recommendation: Receive for Information

9.2 Reports

a. Report #2022-W-42 23

Works Department - 2023 Water Supply and Sanitary Sewerage Systems Business Plans and Budgets

10. Advisory Committee Resolutions

11. Confidential Matters

There are no confidential matters to be considered

12. Other Business

13. Date of Next Meeting

Wednesday, January 11, 2023 at 9:30 AM

14. Adjournment

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 2097.

The Regional Municipality of Durham

MINUTES

WORKS COMMITTEE

Wednesday, September 7, 2022

A regular meeting of the Works Committee was held on Wednesday, September 7, 2022 in the Lower Level Boardroom (LL-C), Regional Headquarters Building, 605 Rossland Road East, Whitby, Ontario at 9:33 AM. Electronic participation was offered for this meeting.

1. Roll Call

Present: Councillor Barton*
Councillor Crawford*
Councillor Marimpietri*, Vice-Chair attended the meeting at 10:29 AM
Councillor John Neal*
Councillor Smith*
Regional Chair Henry*
***denotes Councillors participating electronically**

Also Present: Councillor Dies*
Councillor Foster* left the meeting at 10:40 AM
Councillor Leahy attended the meeting at 9:58 AM
Councillor Joe Neal*
Councillor Pickles*
Councillor Wotten* left the meeting at 11:30 AM
Councillor Yamada attended the meeting at 11:14 AM

Absent: Councillor McLean
Councillor Mitchell, Chair

Staff Present: G. Anello, Director of Waste Management Services
E. Baxter-Trahair, Chief Administrative Officer
B. Bridgeman, Commissioner of Planning & Economic Development
B. Dobson, Acting Director of Environmental Services
C. Dunkley, Manager of Financial Services and Corporate Real Estate
A. Evans, Manager of Waste Services
B. Holmes, General Manager, DRT
R. Inacio, Systems Support Specialist, Corporate Services – IT
R. Jagannathan, Director of Transportation and Field Services
A. Porteous, Supervisor of Waste Services
J. Presta, Commissioner of Works
K. Smith, Committee Clerk, Corporate Services – Legislative Services

S. Ciani, Committee Clerk, Corporate Services – Legislative Services

In the absence of the Committee Chair, and Committee Vice-Chair, Regional Chair Henry, was appointed as Acting Committee Chair.

Moved by Councillor Smith, Seconded by Councillor Barton,
(64) That Regional Chair Henry be appointed as Acting Committee Chair for the September 7, 2022 Works Committee meeting.
CARRIED

2. Declarations of Interest

There were no declarations on interest.

3. Adoption of Minutes

Moved by Councillor John Neal, Seconded by Councillor Barton,
(65) That the minutes of the regular Works Committee meeting held on Wednesday, June 8, 2022, be adopted.
CARRIED

4. Statutory Public Meetings

There were no statutory public meetings.

5. Delegations

5.1 Linda Gasser, Whitby resident, re: Update on the Proposed Clear Bag Pilot in the Municipality of Clarington (2022-WR-4) [Item 7.2 A)]

Linda Gasser, Whitby resident appeared before the Committee regarding Report #2022-WR-4: Update on the Proposed Clear Bag Pilot in the Municipality of Clarington.

L. Gasser stated that the primary objective of the clear bags pilot should be to minimize and reduce waste tonnage in garbage bags, which would encourage proper sorting behaviour and participation in diversion programs including e-waste and hazardous waste.

L. Gasser stated other considerations that would affect future recommendations, besides the pilot results, should be identified. She referenced statistics from the City of Markham's clear bag garbage program that noted when the program was introduced in 2013 there was a significant reduction in garbage tonnage and a slight increase in recycling/organics tonnages.

L. Gasser stated that the primary objective should be to encourage, motivate and empower residents to achieve positive pilot objectives, and that careful consideration needs to be given to the timing of the pilot.

L. Gasser stated that the clear bag pilot would help raise awareness and change behaviour around waste generation across Durham. She stated that the following should occur for the pilot to be successful: communication materials should be developed with the Municipality of Clarington's input; all communication materials should be circulated to the Works Committee and Council; and there should be prompt public reporting of the pilot results.

5.2 Wendy Bracken, Clarington resident, re: Update on the Proposed Clear Bag Pilot in the Municipality of Clarington (2022-WR-4) [Item 7.2 A)]

Wendy Bracken, Clarington resident appeared before the Committee regarding Report #2022-WR-4: Update on the Proposed Clear Bag Pilot in the Municipality of Clarington.

W. Bracken stated that a clear bag policy would be a positive step forward to reducing garbage and protecting residents' health and the environment. She also stated that according to the Continuous Improvement Fund (CIF), 40 Ontario municipalities have successfully implemented a clear bag policy.

W. Bracken expressed concerns with the shortened length of study being only 6 months) as opposed to a one-year pilot program.as it is not optimal with seasonal fluctuations. She stated that removing hazardous and other materials from the waste stream matters and referenced an excerpt from the Waste Incineration & Public Health, National Research Council (US) Committee on Health Effects of Waste Incineration.

Moved by Councillor Smith, Seconded by Councillor John Neal,
(66) That W. Bracken be granted a one-time 2-minute extension to finish her delegation.

CARRIED

W. Bracken stated that a clear bag policy is part of pollution prevention, and that the "zero tolerance" policy referenced in Report #2022-WR-4 is inconsistent with the CIF's Clear Bag Toolkit which advises that there should be some tolerance.

W. Bracken suggested that the performance measures should also include electronic waste; the Municipality of Clarington should be involved especially in the development of promotional and educational materials; the "zero tolerance" policy needs to be reviewed; and, that the residents should be informed of why the clear bag pilot is being launched and how maximizing the removal of hazardous materials, electronics, recyclables, and organic matter benefits all residents.

W. Bracken responded to questions from the Committee.

6. Presentations

6.1 Andrew Evans, Manager of Waste Services, and Angela Porteous, Supervisor of Waste Operations, re: Waste Management Education Programs in Durham Region Schools

Andrew Evans, Manager of Waste Services, and Angela Porteous, Supervisor of Waste Operations, provided a PowerPoint Presentation with regards to the Waste Management Education Programs in Durham Region Schools.

Highlights of the Presentation included:

- School Programming
- Current Programming
- Elementary School Program
- High School Program
- Post-Secondary School Program
- Results
- Video Programming

A. Porteous advised that the goal of these presentations is to educate students on waste management programs and the impact individual choices can have on the environment. She also advised that the content can be tweaked for other organizations in the community and not just for schools.

A. Porteous advised that the school programming shifted to online presentations and materials during COVID, but that staff anticipate reaching over 6,000 students by the end of 2022.

A. Porteous responded to questions from the Committee regarding whether there would be a balanced approach to presenting information regarding the Durham York Energy Centre (DYEC) and how it operates; and now that planning for the development of French programming has been initiated, whether there would be staff that are able to present in French schools, or if bi-lingual staff would need to be hired.

7. Waste

7.1 Correspondence

There were no items of communication considered.

7.2 Reports

A) Update on the Proposed Clear Bag Pilot in the Municipality of Clarington (2022-WR-4)

Report #2022-WR-4 from J. Presta, Commissioner of Works, was received.

Moved by Councillor Marimpietri, Seconded by Councillor John Neal,
(67) That we recommend to Council:

A) That the implementation of a clear garbage bag pilot program in the Municipality of Clarington be approved with the following implementation parameters:

i) That the clear garbage bag pilot be implemented for a period of six months;

ii) That the clear garbage bag pilot commence in the third quarter of 2023 and include a four-week transition period before participation in the program becomes mandatory;

iii) That the clear garbage bag pilot project be implemented in a manner that reflects how the clear garbage bag program would be implemented on a permanent basis, meaning that where any visible Blue Box material, food, household hazardous waste or any other material for which a diversion program is available is detected in the garbage bag during the mandatory phase, that the bag will not be collected and will be left at the curb;

iv) That the clear garbage bag pilot project be conducted with the following performance measures with a comparison of the data pre- and post-pilot:

1. Garbage generation rates;

2. Quantity of Blue Box, Green Bin and/or household hazardous material found in the garbage bag;

3. Collection contractor injury rate;

4. Collection route impacts (collection time, etc.);

5. Impacts at Waste Management Facilities; and

6. Incidence of illegal dumping complaints.

B) That external resources to support the implementation of the clear garbage bag pilot project be retained to provide the following:

i) An initial communication strategy and support in the planning and operating phases of the clear garbage bag pilot, including the distribution of educational material to residents in the Municipality of Clarington and discussions with retail outlets and/or clear bag suppliers related to the supply of clear garbage bags to pilot project residents; and

ii) Waste audits to establish the baseline for the performance measures and to measure performance in the Municipality of Clarington and other Regional Municipality of Durham municipalities during the pilot;

C) That the pilot program costs, including anticipated additional collection contractor costs, waste audits to establish the baseline and ongoing evaluation of the effectiveness of the clear garbage bag pilot program, and continued educational and promotional efforts to support the pilot, currently estimated at $530,000 exclusive of taxes, be included in the proposed 2023 Business Plans and Budget for Waste Management Services and subject to the approval of the new Council; and

D) That additional details regarding the Regional Municipality of Durham's waste management education programs in partnership with local school boards and details regarding the City of Orillia's clear garbage bag requirement be received for information.

REFFERED LATER IN THE MEETING
(See Following Motion)

Moved by Councillor Barton, Seconded by Councillor Marimpietri,

(68) That the main motion (67) of Councillors Marimpietri and John Neal be referred back to staff for a further report to be presented to the January 11, 2023 Works Committee meeting (the second Works Committee meeting of the new Council).

CARRIED ON THE FOLLOWING
RECORDED VOTE:

Yes	No
Councillor Barton	None
Councillor Crawford	
Regional Chair Henry	
Councillor Marimpietri	
Councillor John Neal	
Councillor Smith	

Members Absent: Councillor McLean
Chair Mitchell

Declarations of Interest: None

8. Works

There were no items of communication considered.

8.1 Reports

A) Sole Source of Ultraviolet Disinfection Units at the Newcastle Water Pollution Control Plant, in the Municipality of Clarington (2022-W-37)

Report #2022-W-37 from J. Presta, Commissioner of Works, was received.

Staff responded to questions from the Committee regarding the justification for the sole source contract, and what benefit a sole source contract would have to the taxpayers.

Moved by Councillor Marimpietri, Seconded by Councillor Smith,
(69) That we recommend to Council:

A) That staff be authorized to enter into a sole source agreement with Trojan Technologies for the provision of ultraviolet disinfection units at the Newcastle Water Pollution Control Plant for the Rerating and Upgrades Project (D1117) in the amount of $422,000*; to be financed within the approved project from the Sanitary Sewage System Capital Budget; and

B) That the Commissioner of Finance or designate be authorized to execute the required agreements.
(*) before applicable taxes.

CARRIED

B) Sole Source Approval for the Supply of Replacement Primary Treatment Scum Collectors and Equipment Required to Refurbish Existing Travelling Bridges at the Duffin Creek Water Pollution Control Plant, in the City of Pickering (2022-W-38)

Report #2022-W-38 from J. Presta, Commissioner of Works, was received.

Staff responded to questions from the Committee regarding the justification for the sole source contract, and what benefit a sole source contract would have to the taxpayers.

Moved by Councillor Marimpietri, Seconded by Councillor Barton,
(70) That we recommend to Council:

A) That staff be authorized to negotiate and award a sole source agreement with OVIVO Water Technologies at an upset limit of $12,500,000* for the supply of replacement primary treatment scum collectors and equipment to refurbish the existing travelling bridges;

B) That financing be provided from within the approved project budget in accordance with the approved cost sharing with the Region of York as follows:

	Cost Split (%)	Cost Allocation*
Durham Region	20	$2,500,000
York Region	80	$10,000,000
Total	100	$12,500,000

C) That the Commissioner of Finance be authorized to execute the necessary documents related to this sole source agreement.
(*) before applicable taxes

CARRIED

C) Sole Source Engineering Services Agreement for the Detailed Design of Bloor Street East (Regional Road 22), from East of Harmony Road South (Regional Road 33) to Grandview Street South, in the City of Oshawa (2022-W-39)

Report #2022-W-39 from J. Presta, Commissioner of Works, was received.

Staff responded to questions from the Committee regarding the justification for the sole source contract, and what benefit a sole source contract would have to the taxpayers.

In response to a question from Councillor Joe Neal regarding why the services are stopping at Grandview Street South in the City of Oshawa, R. Jagannathan advised that he would follow-up with staff on this matter and report back to Councillor Joe Neal directly.

Moved by Councillor Marimpietri, Seconded by Councillor Barton,
(71) That we recommend to Council:

A) That staff be authorized to negotiate a sole source engineering services agreement with AECOM Canada Limited to undertake the detailed design of Bloor Street East (Regional Road 22) from east of Harmony Road South (Regional Road 33) to Grandview Street South, in the City of Oshawa, at an amount not to exceed $1,737,140*; to be financed through the approved project budget; and

B) That the Commissioner of Finance be authorized to execute the necessary documents related to the sole source agreement.
(*) before applicable taxes

CARRIED

D) Update on Servicing Options for Property Owners on Bickle Drive and Roselawn Avenue, including the Sun Valley Heights Homebuilders Co-op, in the City of Oshawa (2022-W-40)

Report #2022-W-40 from J. Presta, Commissioner of Works, was received.

Detailed discussion ensued regarding the servicing options for property owners on Bickle Drive and Roselawn Avenue, including the Sun Valley Heights Homebuilders Co-op, in the City of Oshawa; whether there is an ability to change the policy to service the remaining communities that are not connected to municipal sewer and water; the current well interference concerns raised by the property owners; and if an emergency waterline can be extended from Thornton Road and Conlin Road to the Sun Valley Heights residents in the case that there are well interruptions due to construction.

J. Presta advised that homeowners were informed that the communal well could fail at any time and then the well would need to be replaced or municipal services brought in. He advised that staff are following the authority through the Region's by-law and provincial legislation, and referenced Section 5 of Report 2022-W-40 that details an alternative option for the extension of municipal services, which would be through a local improvement charge that would need to be approved by Regional Council.

J. Presta advised that if Report #2022-W-40 is approved by Regional Council, the next steps would be to construct the services that have been approved in the City of Oshawa's and Region of Durham's budgets; obtain a project schedule from the City of Oshawa; and provide an update to Regional Council on the status of the detailed design and project schedule. He advised that the services are forecasted to begin in the Summer of 2023 and that a supplementary memo will be provided to Regional Council with the details listed above.

At this time, at the request of Acting Chair Henry, the Committee Clerk took a roll call of the Committee members to ensure there was still quorum. All members of the Committee were present with the exceptions of Councillor McLean and Chair Mitchell.

Staff responded to further questions from the Committee regarding the initial cause for concern after a well inspection was conducted in 2020 and a crack in the communal well seal was identified; and what financing options would be available to the homeowners.

In response to a question from the Committee regarding the history of the communal well, Commissioner Presta advised that the Region of Durham was ordered by the Ministry of the Environment, Conservation and Parks to operate the well on behalf of the Sun Valley Heights Homebuilders Co-op but does not own the communal well.

Moved by Councillor Marimpietri, Seconded by Councillor Barton,
(72) That the Committee recess for 10 minutes.
CARRIED

The Committee recessed at 11:56 AM and returned at 12:06 PM.

The Committee Clerk conducted a roll call following the recess and all members of Committee were present with the exceptions of Councillor McLean and Chair Mitchell.

Moved by Councillor Marimpietri, Seconded by Councillor Smith,
(73) That we recommend to Council:

A) That Report #2022-W-40 of the Commissioner of Works be received for information; and

B) That a copy of Report #2022-W-40 be provided to the residents on Bickle Drive and Roselawn Avenue; Sun Valley Homebuilders Co-op; the City of Oshawa; and The Ministry of the Environment, Conservation and Parks York-Durham office.

CARRIED LATER IN THE MEETING
(See Following Motion)

Moved by Councillor Marimpietri, Seconded by John Neal,
(74) That the main motion (73) of Councillors Marimpietri and Smith be amended to include the following as new Parts C), D), E) and F):

C) That the Region of Durham collaborate with the City of Oshawa and the appropriate legislative bodies to immediately undertake a policy review and provide options and recommendations to effectively change the current water and sanitary service provision policy with the objective of making access to municipal servicing for existing privately serviced communities such as Sun Valley Homebuilders Co-op on Thornton Road, Roselawn Avenue and Bickle Drive easier to satisfy and provide homeowners with the appropriate servicing;

D) That staff investigate providing the same level of water and sanitary service options to Sun Valley residents as the very residents in the same subdivision fronting on Thornton Road impacted by the Regional and City of Oshawa road and water services project scheduled to be undertaken in the coming months;

E) And furthermore, that an Emergency Waterline be extended from Thornton Road and Conlin Road to the Sun Valley residents in the case that well interruptions occur resulting from the Regional and City roads and water serving work on Thornton Road; and

F) That these actions be engaged and executed with the specific objective of providing clean potable municipal water and sanitary services to the Sun Valley residents and those deemed applicable by the actions taken by Regional staff and the policy reform being undertaken through the policy review herein requested.

MOTION REFERRED BACK TO STAFF
(See Following Motion)

Moved by Councillor Smith, Seconded by Councillor Barton,
(75) That the foregoing amending motion (74) of Councillors Marimpietri and John Neal be referred back to staff for a further report to address the amending motion (74) and that it be presented to the January 11, 2023 Works Committee meeting (the second Works Committee meeting of the new Council).

CARRIED

The main motion (73) of Councillors Marimpietri and John Neal was then put to a vote and CARRIED.

E) Approval of Capital Works and Financing to be Incorporated into a Servicing Agreement with Universal City Developments Inc., Including Cost Sharing in Accordance with the Region Share Policy, for the Extension and Oversizing of a Sanitary Sewer and the Extension of a Watermain, in the City of Pickering (2022-W-41)

Report #2022-W-41 from J. Presta, Commissioner of Works, was received.

Moved by Councillor Marimpietri, Seconded by Councillor Barton,
(76) That we recommend to Council:

A) That capital works and financing estimated at $167,200 for the Region's share of the Universal City Developments Inc. sanitary sewer and watermain project in the City of Pickering with a total cost of $657,500 be approved;

B) That the Regional Municipality of Durham be authorized to enter into a Servicing Agreement with a Region Share payment to Universal City Developments Inc. estimated at $167,200 for the Region share of the oversizing of a sanitary sewer, and watermain on Celebration Drive, located north of Bayly Street (Regional Road 22) and west of Sandy Beach Road in the City of Pickering, at an estimated total project cost of $657,500; and

C) That financing for the sanitary capital works, estimated at $345,000, be provided from the following sources:

Sanitary Sewer

Developer's Share – Sanitary Sewer

Universal City Developments Inc.	$277,500
Total Developer's Sanitary Sewer Share	**$277,500**

Regional Costs – Sanitary Sewer

2022 Sanitary Sewerage System Capital Budget
Item 154: Allowance for Regional share for works in conjunction with residential subdivision development:

Residential Development Charges (Project ID: M2210)	$49,815
Commercial Development Charges (Project ID: M2210)	3,105
User Rate (Project ID: M2210)	14,580
	$67,500
Total Regional Share – Sanitary Sewer	**$67,500**
Total Sanitary Sewer	**$345,000**

Watermain:

Developer's Share – Watermain

Universal City Developments Inc.	$212,800
Total Developer's Watermain Share	**$212,800**

Regional Costs – Watermain

2022 Water Supply System Capital Budget

Item 249 Allowance for Regional share for works in conjunction with residential subdivision development:

Residential Development Charges (Project ID: M2210)	$87,337
Commercial Development Charges (Project ID: M2210)	2,194
User Rate (Project ID: M2210)	10,169
	$99,700
Total Regional Share – Watermain	**$99,700**
Total Watermain	**$312,500**
Total Developer's Share	**$490,300**
Total Regional Share	**$167,200**
Total Project Financing	**$657,500**

CARRIED

9. Advisory Committee Resolutions

There were no advisory committee resolutions to be considered.

10. Confidential Matters

There were no confidential matters to be considered.

11. Other Business

11.1 Service Line Warranties of Canada Inc. Program

Detailed discussion ensued regarding the Service Line Warranties of Canada Inc. Program, and the communication methods used to inform the public of the new program that came into effect July 1, 2022.

Staff responded to questions from the Committee regarding the concerns received from residents; the need for a better coordinated communications plan moving forward and the best way to ensure all residents are informed; the timing around the distribution of the communication material; and what the potential cost of service connection repairs could be for residents now that the property owner's new limit of responsibility for residential sanitary service connections is at the property boundary, which would be consistent with the responsibility for water service connection maintenance.

E. Baxter-Trahair highlighted that Report #2021-W-31: Amendment to Regional Water Pollution Control System and Storm Sewer System By- Law #90-2003 and Residential Water and Sanitary Service Connection Protection Plans was extremely detailed and was approved by Regional Council September 29, 2021. She advised that staff have met with Service Line Warranties of Canada Inc., and that there has been an internal review of the communication process and that there will be better communication moving forward. She advised that the amendment to the Regional Water Pollution Control System and Storm Sewer System By- Law #90-2003 aligns with how the Region handles its water infrastructure, and that the purchase of the insurance is completely up to the discretion of the residents.

In response to a question regarding whether the Region signed a contract with Service Warranty Canada Inc., and what the cost would be to break the contract, staff advised that there would need to be a discussion between Legal, Finance, and Works staff, the details of which could be provided to Regional Council prior to the September 14, 2022, Committee of the Whole meeting.

In response to a question regarding whether Council members would be able to be forwarded a copy of the contract with Service Line Warranties of Canada Inc.,

staff advised that they would need to confirm if that could be done with Legal staff.

11.2 Update on Reconstruction of Regional Road 13, between Highway 12 and Lakeridge Road in the Township of Brock

Councillor Smith requested an update regarding whether the concrete box cover drawings for this road reconstruction project were completed and if the project has gone out to tender. Staff advised that it is scheduled to go out to tender in the first quarter of 2023.

11.3 Reconstruction of Provincial Highway 12

In response to a question from the Committee regarding the sporadic reconstruction of Provincial Highway 12, staff advised that they do not control the schedules of a Ministry of Transportation (MTO) project, however, will reach out to the MTO contact for details.

11.4 Dedicated Water Service Line for Coco Paving in the City of Oshawa

Councillor Joe Neal questioned if Coco Paving in the City of Oshawa having a dedicated water service line is permissible. J. Presta advised that he would look into this matter and report back to Councillor Joe Neal directly.

12. Date of Next Meeting

The next regularly scheduled Works Committee meeting will be held on Wednesday, December 7, 2022 at 9:30 AM in Council Chambers, Regional Headquarters Building, 605 Rossland Road East, Whitby.

13. Adjournment

Moved by Councillor Crawford, Seconded by Councillor Barton,
(77) That the meeting be adjourned.
CARRIED

The meeting adjourned at 1:01 PM

Respectfully submitted,

_____

Regional Chair Henry, Acting Committee Chair

_____

S. Ciani, Committee Clerk

C/o Shelagh Cauchi
434 Wickham St.
Oshawa, ON
[redacted]

August 31th, 2022

Alexander Harras, Regional Clerk
Regional Municipality of Durham
605 Rossland Road East,
Whitby, Ontario L1N 6A3

To Members of Durham Regional Council

Requests to Council:

1) Sound/Pollution Barrier (10ft minimum height) be erected on Harmony Road N. just north of Adelaide Ave. East to Copperfield Drive, Oshawa.
2) A study be done on:
   a) the existing noise (NPC 206 Ontario Report).
   b) the existing air quality (AQHI)
   c) compare the above with any studies done previously
3) Speed Board and permanent reduction to 40km: the road is now a thoroughfare from Hwy 401 to Hwy 407 and vehicles use excessive speed when traveling along the Harmony Road artery.
4) Sound, Air Quality Measurements in line with Ontario Provincial Standards.

Wickham St resident's health is at risk from the degradation of our environment due to the increased traffic flow resulting from the initial phase of the Harmony Rd. expansion (Harmony Rd. at Adelaide Ave. to Harmony Rd. and Rossland Rd): exacerbated by the recent four lane extension from Rossland Road to Taunton Road.

The noise and fumes have increased exponentially which has significantly impacted our lives:

1) Sleep deprivation is due to high-speed traffic, modified mufflers, Jbrakes, rattling transport loads, roaring and thundering – all causing sleep disturbances.
2) Conversations in the garden are paralyzed.
3) Closing windows 24/7 has become the norm just to be able to think.
4) Pollution due to fumes, especially dump truck "exhaust snorkels" elevated above fences and directed into our properties.
5) The impact on our mental health cannot be overstated: lack of sleep; no clarity of communication; little garden time. Levels of agitation, depression, frustration and anxiety are increasing.
6) Racing vehicular behavior from Taunton Rd both north and southbound on Harmony hill late at night.

This stretch of Harmony Rd is the most convenient artery in Oshawa from Hwy 401 to Hwy 407 that affords speed, thus creating excessive further noise.

Bonus needed for businesses and builders to use 407: reduce Hwy 407 fee to US levels.

Force dump trucks off Harmony with some incentive.

These houses were built in the early 1980s and residents were proactive in the mitigation of such problems by planting trees, replacing windows etc. Residents attended an initial meeting at Eastdale Collegiate when the first phase of Harmony's four-lane expansion was proposed. Concerns regarding increasing traffic noise were shared at that time.

A petition and audio video footage of the noise heard from our houses (both inside and outside) are attached and reflect the degradation of our lives and confirm concerns by the residents.

We are aware of the latest Noise Policy. We feel confident that Council will understand the impact of one section of Harmony being no different to another. Equal consideration to mitigate the problem for Wickham St. residents would be appreciated.

We recommend reviewing:
1) SOCAAR pilot study ***"Near Road-Air Pollution"*** as extremely informative:
https://www.socaar.utoronto.ca/wp-content/uploads/2019/10/SOCAAR-Near-Road-Air-Pollution-Pilot-Study-Summary-Report-Fall-2019-web-Final.pdf

2) https://www.ontario.ca/page/sound-levels-due-road-traffic-npc-206#section-3

What steps do the residents of Wickham St. need to take in order for these points to be addressed? We hope that council will guide us to a compatible resolution.

We look forward to hearing from you in a timely manner,
Yours truly,

Shelagh Cauchi
On behalf of Wickham Street Residents

cc
John Henry, Regional Chair
Elaine Baxter-Trahair, CAO
Dr. Robert Kyle, Medical Officer of Health, Health Department
John Presta, P.Eng., Commissioner of Works Department
Dan Carter, Mayor City of Oshawa and Member of Health Committee
Bob Chapman, Regional Councillor and Chair of Health Committee
Tito-Dante Marimpietri, Regional Councillor, and Member of Works Committee
John Neal, Regional Councillor and Member of Works Committee
Paul Gee, P.Eng., Works Department

Petition for a 10 foot Sound Barrier Wall on the west side of Harmony Rd North, from Adelaide E. to Copperfield Drive, Oshawa, Ontario

To be errected by:

Wickham Street owners (many having bought in the 1980s when Harmony Rd was just 2 lanes), due to the expansion of lanes, drastic increase in traffic, transport/dump trucks using J brakes, semis, speeding vehicles, roaring bikes and exhaust fumes,
it is now impossible to have a conversation in our backyards or sleep with our windows open.

When Harmony Rd was expanded north of Rossland Rd a stone barrier was erected at Storie Ave
At the time of construction why wasn't our stretch considered too?
It's the same traffic!

Name (block)	Signature	Address	Telephone/email
Shelagh Cauchi		434 Wickham St	[redacted]
Rob Quant		450 Wickham	
Kim Quant		450 Wickham	
Paul Walker		458 Wickham	
Elaine Walker	ELAINE W	458 Wickham	
Rosemary Spencer		466	
Steve Polikrais		829 Copperfield	
Nicholle Hillier		446 Wickham St	
Karen Hillier		446 Wickham St	
Colleen Tutin		442 Wickham	
Richard Schaub		442 Wickham	
Sue Richardson		438 Wickham	
Mike Edwards		422 Wickham St	
Bessie Thompson		418 Wickham St	
Ed Thompson		418 Wickham St	
Jennifer Harper		408 Wickham St	
Francis Contiga		400 Wickham	
Ava D		415 Wickham	
Ken Spencer		466 Wickham St	
Viviana Manay		462 Wickham St	
Chosa McEvoy		426 Wickham St	
Sharon Brech		414 Wickham Crt	
Sarah Fenn		414 Wickham Crt	
Sami Lamrad		462 Wickham St.	
Mahoin Jessup		430 Wickham	
Ron Motum		476 Wickham St	
Margaret Motum		476 Wickham St	
Cathy Head		478 Wickham St.	

Town of Whitby
575 Rossland Road East,
Whitby, ON L1N 2M8
905.430.4300
whitby.ca

October 3, 2022

Via Email:

The Honourable Caroline Mulroney
Minister of Transportation
caroline.mulroney@pc.ola.org

Re: Highway 412 – Installation of Ramps and Signalization Lights

Please be advised that at its meeting held on September 26, 2022, the Council of the Town of Whitby adopted the following as Resolution # 215-22:

> Whereas the traffic has increased in volume on Highway 412 since the tolls were lifted earlier this year; and,
>
> Whereas residents report that the intersections of the on and off ramps at both Highway 7 and Highway 2 are difficult to navigate safely; and,
>
> Whereas there is substantial growth around the Rossland Road area of Highway 412; and,
>
> Whereas the east-west roads within our municipality are increasingly congested with all the new growth, and the usage of Highway 412 is anticipated to increase substantially.
>
> Now therefore be it resolved:
>
> 1. That the Council of the Town of Whitby requests that the Province of Ontario install entrance and exit ramps at Rossland Road on Highway 412, as well as provide for signalization lights at the intersections of the on and off ramps to provincial highways 2 and 7; and,
> 2. That this request of Council be copied to the MTO, AMO, Region of Durham and all Durham MPPs and MPs.

Should you require further information, please do not hesitate to the Office of the Town Clerk at 905.430.4315.

Chris Harris
Town Clerk

Copy: C. Harris, Town Clerk

Association of Municipalities of Ontario – amo@amo.on.ca
Erin O'Toole, MP, Durham - Erin.OToole@parl.gc.ca
Ryan Turnbull, MP, Whitby - Ryan.Turnbull@parl.gc.ca
Colin Carrie, MP, Oshawa - colin.carrie@parl.gc.ca
Jennifer O'Connell, MP, Pickering-Uxbridge - Jennifer.OConnell@parl.gc.ca
Jamie Schmale, MP, Haliburton-Kawartha Lakes-Brock - Jamie.Schmale@parl.gc.ca
Mark Holland, MP, Ajax - Mark.Holland@parl.gc.ca
Lorne Coe, MPP, Whitby - lorne.coe@pc.ola.org
Todd J. McCarthy, MPP, Durham - Todd.McCarthy@pc.ola.org
Jennifer K. French, MPP, Oshawa - Jennifer.OConnell@parl.gc.ca
Peter Bethlenfalvy, MPP, Pickering-Uxbridge - peter.bethlenfalvy@pc.ola.org
Laurie Scott, MPP, Haliburton-Kawartha Lakes-Brock - laurie.scott@pc.ola.org
A. Harras, Regional Clerk – clerks@durham.ca

If this information is required in an accessible format, please contact 1-800-372-1102 ext. 3540.

The Regional Municipality of Durham Report

To:	Works Committee
From:	Commissioner of Works
Report:	#2022-W-42
Date:	December 7, 2022

Subject:

Works Department – 2023 Water Supply and Sanitary Sewerage Systems Business Plans and Budgets

Recommendation:

That the Works Committee recommends to the Finance and Administration Committee for subsequent recommendation to Regional Council that the Works Department's portion of the 2023 Water Supply System and Sanitary Sewerage System Business Plans and Budgets be approved.

Report:

1. Purpose

1.1 The purpose of this report is to obtain Works Committee concurrence of the 2023 Business Plans and Budgets for the Works Department's portion of the Water Supply System and Sanitary Sewerage System. The Works Department's 2023 Business Plans and Budgets will be referred to the Finance and Administration Committee for consideration during deliberations of the 2023 Consolidated Business Plans and Budgets for the Water Supply and the Sanitary Sewerage Systems.

2. Overview

2.1 The Works Department's portion of the 2023 Water Supply System and Sanitary Sewerage System Business Plans and Budgets supports and advances the goals of the Regional Municipality of Durham's (Region) Strategic Plan, namely:

- Goal 1: Environmental Sustainability
- Goal 2: Community Vitality
- Goal 3: Economic Prosperity
- Goal 4: Social Investment
- Goal 5: Service Excellence

2.2 The recommended Works Department's portion of the 2023 Water Supply System and Sanitary Sewerage System Business Plans and Budget includes $453.76 million in gross expenditures (Water Supply System $200.82 million and Sanitary Sewerage System $252.94 million) requiring $206.34 million in user rate revenue ($105.58 million Water Supply System and $100.76 million Sanitary Sewerage System) with the remaining funded by program fees, development charges, recovery from the Regional Municipality of York, debt financing, and reserve and reserve funds.

2.3 The recommended Works Department's portion of the 2023 Water Supply System and Sanitary Sewerage System Business Plans and Budgets provides operating and capital funding for the following items:

Water Supply:

- Maintenance Operations
  - (a) Watermain Cleaning and Repairs
  - (b) Valve and Hydrant Maintenance
  - (c) Water Connection Maintenance
  - (d) Water Meter Repair and Testing
  - (e) Depot Operations
- Water Supply Plant Operations
  - (a) Plants East
  - (b) Plants Central
  - (c) Plants North

(d) Sun Valley Private Water System

(e) Supervisory Control and Data Acquisition (SCADA) Systems

- Engineering and Staff Support
- Facilities Management
- Administration
- Water Supply System portion of Headquarters Shared Costs
- Construction of Municipal Services

Sanitary Sewerage:

- Maintenance Operations
  - (a) Sewer Cleaning, Repairs and Maintenance
  - (b) Sewer Connection Maintenance
  - (c) Depot Operations
- Water Pollution Control Plant Operations
  - (a) Plants and Pumping Stations
  - (b) Duffin Creek Water Pollution Control Plant
- Regional Environmental Laboratory
- Engineering and Staff Support
- Facilities Management
- Administration
- Sanitary Sewerage portion of Headquarters Shared Costs
- Construction of Municipal Services

3. Previous Reports and Decisions

3.1 Report #2021-W-51, approved by Regional Council on December 22, 2021, approved the Works Department's 2022 Water Supply and Sanitary Sewerage Business Plans and Budgets.

4. 2022 Accomplishments

4.1 Regional water supply and sanitary sewerage systems continue to provide safe drinking water and protect the water environment. Quality and environmental

management systems support and integrate operations to meet regulatory performance requirements. The following metrics provide a demonstration of the system performance objectives in 2022:

- No Boil Water Advisory days.
- 99.8 per cent compliance of drinking water test results.
- No unplanned sanitary sewage by-pass events.
- 100 per cent compliance of wastewater effluent results to protect water environment.

4.2 The capital water supply and sanitary sewerage programs support the Region's Strategic Plan goals. The following highlights the detailed design and construction of some of the major projects which commenced in 2022:

- 23 water supply and sanitary sewerage projects.
- Twinning of the Liverpool Road forcemain, Pickering – construction has commenced with a completion target of August 2023.
- Whitby Water Supply Plant industrial raw water pumping station, outfall works and chlorination lines replacement, Whitby – commence work order to be issued in December 2022 with completion target October 2024.
- Courtice Trunk Sanitary Sewer and Watermain on Baseline Road from Courtice Road to Trulls Road and Trulls Road from Baseline Road to Bloor Street, the project includes the reconstruction Baseline Road from Courtice Road to Trulls Road, Courtice – construction has commenced with completion target December 2023.
- Watermain and sanitary sewer replacement on Balsam Street from Old Simcoe Road to Rosa Street, Scugog – construction to commence Spring 2023 with completion target July 2023.
- Cannington Water Supply System new well and pumphouse with standby power, Brock – construction has commenced with completion target November 2023.

4.3 The multi-year modernization of data management continues with water supply and sanitary sewerage operational areas with a focus on municipal well systems and wastewater solids management.

4.4 The Enterprise Maintenance Management System (EMMS) has been fully implemented. Plant and maintenance operations are now utilizing this

comprehensive work management system to manage activities, capture life cycle cost data and provide real time maintenance information.

4.5 Works staff, in conjunction with Utility Finance, initiated a three-year project in 2022 to retrofit existing water meters with radio frequency remote reading devices (RF) to eliminate manual meter readings. The total estimated cost of this initiative over a three-year period is $10.0 million funded from the Water Rate Stabilization Reserve Fund and is included in the Utility Finance portion of the Consolidated Water Supply and Sanitary Sewerage Business Plans and Budget. This is a significant enhancement from a customer service perspective and has been much anticipated as the follow up step to the MyDurhamWater project.

5. 2023 Priorities and Highlights

5.1 To maintain sustainable and compliant water supply and sanitary sewerage systems, the 2023 capital program includes items with a total estimated project value for implementation of approximately $288.24 million such as:

- Planning, detailed design and construction of 5.3 kilometres (km) of linear pipe and four vertical facilities as identified within the Asset Management Plan.
- Planning, detailed design and construction of several Water Supply facilities and Sanitary Sewerage vertical assets, including the expansion of the Whitby Water Supply Plant, Lake Simcoe and Duffin Creek Water Pollution Plant, and Liberty Street Zone 1 Reservoir and pumping station.
- Planning, detailed design and construction of 15.1 km of linear pipe in co-ordination with Regional and Municipal Road Programs and 3.7 km of independent watermain projects.
- Phases 3 and 4 regulatory works to be tendered related to Technical Standards and Safety Authority (TSSA) fuel tank replacement/upgrades.
- Planning, detailed design and property acquisition for Depot expansion and modernization projects as recommended by the Depot Rationalization study.

5.2 A total of 7.389 new full-time equivalent employees (FTEs) are proposed in 2023. These positions represent new permanent resources to support the delivery of capital projects and operating activities. The cost of some of these positions is allocated at varying levels to capital projects or maintenance activities:

- Emergency Management Coordinator – Compliance 0.500 FTE
  (costs are shared with Water Supply, Sanitary Sewerage,

Works General Tax and Waste)

- Inspector 3 – Capital Construction – Construction (costs are shared with Water Supply and Sanitary Sewerage and Works General Tax) 0.642 FTE
- Supervisor – Maintenance Operations (Water Supply) 1.000 FTE
- Supervisor – Facilities Design, Construction and Asset Management (costs are shared with Water Supply, Sanitary Sewerage, Works General Tax and Waste Management) 0.657 FTE
- Junior Project Engineer – Environmental Services Design (costs are shared with Water Supply and Sanitary Sewerage) 2.000 FTE
- Works Technician 2 - Environmental Services Design (costs are shared with Water Supply and Sanitary Sewerage) 1.000 FTE
- Works Technician 5 – Environmental Services Design (costs are shared with Water Supply and Sanitary Sewerage) 1.000 FTE
- Business Analyst – Systems, Policies, Process (costs are shared with Water Supply, Sanitary Sewerage and Works General Tax) 0.590 FTE

6. 2023 Risks and Uncertainties

6.1 Areas of potential risks that could impact the operating and capital budgets of the Works Department include:

- Increasing costs of operations due to unprecedented inflation on materials and supplies critical for service provision and capital project delivery.
- Ongoing supply chain and labour challenges.
- Changes in local market demands for engineering and construction services can impact industry capacity for infrastructure projects.
- Increasing legislative requirements from provincial and federal approval agencies.
- Uncertainty surrounding the level and availability of revenues from Development Charges.
- Revenue/Funding pressures (e.g., provincial/federal infrastructure programs which require matching Regional investment).
- Debt carrying costs as a result of the current volatile debt markets and impacts of Federal monetary policies.

- Operating Pressures, such as:
  - (a) Growth across the Region, which includes development of several new communities in Seaton, West Whitby, North Oshawa, Bowmanville and Newcastle Village, will increase the demand for services to support residents and businesses as well as the operational and maintenance requirements for Regional infrastructure;
  - (b) Ensuring sufficient staff resources to deliver a growing capital program to avoid impacts to the delivery schedules of projects or delays in response times for reactive maintenance activities; and
  - (c) Changing and unpredictable weather patterns impact treatment operations as well as preventative and reactive maintenance activities for the Regional Water Supply and Sanitary Sewerage linear infrastructure network.

7. Future Budget Pressures

7.1 Items proposed in the 2023 Works Department Water Supply System and Sanitary Sewerage System Budgets will result in impacts to the 2024 budget, including:

Annualization of new positions proposed in 2023

- Water Supply $308,463
- Sanitary Sewerage $215,899

7.2 Looking forward over the next four years, the following significant budget pressures include:

- Infrastructure requirements to address Regional growth.
- Increased demands for infrastructure maintenance.
- Operating costs related to major facility and system expansions including:
  - a) Whitby, Ajax and Bowmanville Water Supply Plant expansions;
  - b) Zone 1 Feedermain from Highway 2 to Liberty Reservoir in Clarington;
  - c) Zone 4 Reservoir and Water Pumping Station in Whitby;
  - d) Thickson Road Zone 3 Water Pumping Station expansion in Whitby;
  - e) New Sunderland Well and Pumphouse with Standby Power in Brock;
  - f) Zone 4 Reservoir and Water Pumping Station in Oshawa;

g) Bowmanville Zone 1 Reservoir and Water Pumping Station in Clarington;

h) Newcastle Water Pollution Control Plant and Sanitary Sewage Pumping Station;

i) Corbett Creek, Lake Simcoe and Courtice Water Pollution Control Plan expansions;

j) New Well and Treatment System in Port Perry;

k) New Water Pollution Control Plants in Sunderland and Cannington; and

l) York Durham Sewage System primary trunk twinning in Pickering.

- The Region has been collecting development charges to help finance the growth portion of these large infrastructure expansion projects. It is projected that these reserve funds will be drawn down significantly over the next five years. Additional information on the Consolidated 2023 Capital Budget and Nine-Year Forecast for Water Supply and Sanitary, including financing plan will be included in Report 2022-F-22 being presented to Finance and Administration Committee at their December 13, 2022, meeting.
- Ongoing asset management and infrastructure maintenance requirements.
- Refurbishment of existing Water Supply and Water Pollution Control Plants.
- Expansion and modernization of Maintenance Operations Depots.
- Implementation of the recommendations from the Integrated Resource Recovery Studies for Water Pollution Control Plants, including ongoing exploration of district heating and cooling opportunities.
- Continued review of district heating opportunities utilizing sanitary sewerage infrastructure.
- Maintenance and replacement of building elements such as roofing, envelope, HVAC systems, windows, etc. with enhancements to reduce energy consumption and carbon emissions.
- Legislative and Regulatory Requirements:

    (a) Bill 23-Supporting Growth and Housing in York and Durham Regions Act, 2022 suddenly received Royal Assent on November 28th in the Provincial Legislature. This legislation will impact the amount of development charges available to fund new and expanded infrastructure to service growth. Without development

charges this infrastructure will need to be funded from user rates. The provincial direction to develop 1.5 million homes in an expediated manner and allowing the development of Greenbelt lands with restricted timelines will be another development pressure competing for Regional infrastructure funds. Staff will be working on the financial impacts on future Regional budgets through the update to the Region's Development Charges Background Study and specific Bill 23 impact reports in early 2023. A thorough review of the proposed legislation details is not available in time for this report approval so impacts will be primarily accommodated beginning in the 2024 Business Plans and Budgets.

(b) Schedule 10 within Bill 23 provides the provincial direction for the wastewater servicing for the Upper York Sewage Solution which includes the Lake Ontario option of conveying wastewater south to the York Durham Sewage System. A detailed review of the proposed servicing option will need to be conducted in consultation with Region of York to determine infrastructure planning impacts.

(c) Perfluoroalkyl (PFAS) substances are an emerging regulatory issue in Canada and the United States of America. The sources of PFAS substances can originate from fire-fighting foams, consumer products, packaging, landfills and industrial processes. The regulatory requirements for drinking water are developing and emerging as there is limited data on the substances. There is currently considerable variation in the magnitude of guidelines between regulatory agencies.

(d) Potential impacts to the Region's SCADA system, including proposed changes to Industry Canada regulations related to radio communications, and continuing review of potential adjustments to the radio frequencies that the Region currently uses for the SCADA communications as proposed by the Innovation, Science and Economic Development Canada (ISED) - Spectrum Management and Telecommunications. The proposed adjustments will require modification to the Region's Wide Area Network base to a new frequency, involving significant changes to equipment at Regional facilities.

8. Conclusion

8.1 The recommended Works Department's portion of the 2023 Water Supply System and Sanitary Sewerage System Business Plans and Budgets can be financed from the proposed combined water and sanitary sewer user rate increase as detailed in Report #2022-F-23 – Recommended 2023 Water and Sanitary Sewer User Rates.

8.2 It is recommended that the Works Committee approve the Works Department's portion of the 2023 Water Supply System and Sanitary Sewerage System Business Plans and Budgets and forward this report to the Finance and Administration Committee for consideration during the budget deliberations of the 2023 Consolidated Business Plans and Budgets for the Water Supply System and the Sanitary Sewerage System.

8.3 This report has been reviewed by the Finance Department and the Commissioner of Finance concurs with the recommendation.

8.4 For additional information, contact: Jenni Demanuele, Director, Corporate Infrastructure and Strategic Business Services, at 905-668-7711, extension 3456.

9. Attachments

9.1 Detailed 2023 Business Plans and Budgets for the Works Water Supply and Sanitary Sewerage Systems.

Respectfully submitted,

Original signed by:

John Presta, P.Eng., MPA
Commissioner of Works

Recommended for presentation to Committee.

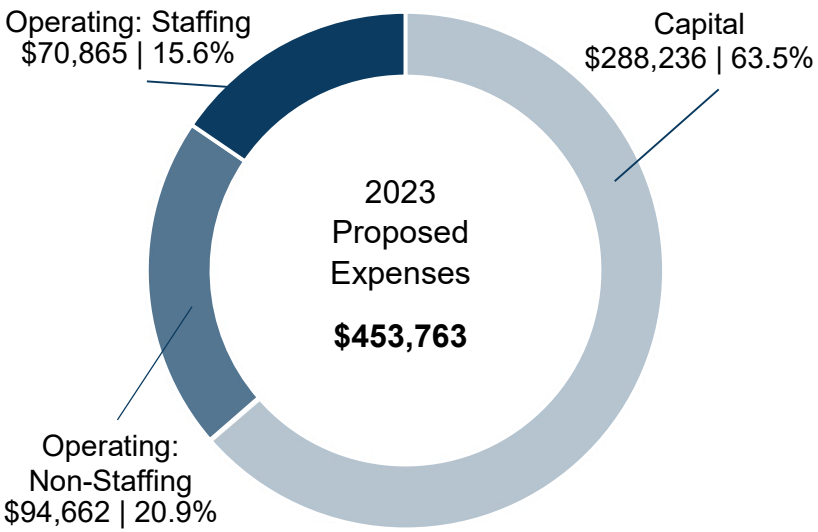
Original signed by:

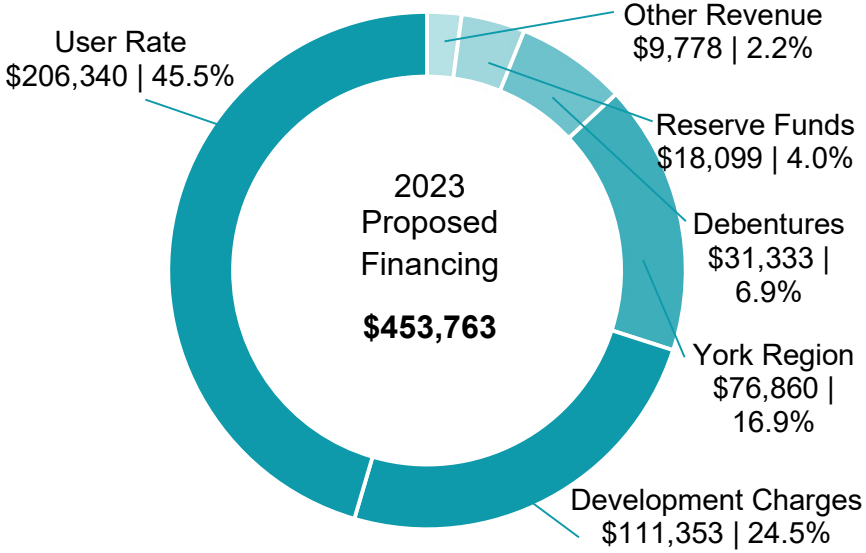
Elaine C. Baxter-Trahair
Chief Administrative Officer

Durham Budget 2023

WORKS DEPARTMENT
WATER SUPPLY & SANITARY SEWERAGE

Plans, designs, constructs, operates, and maintains Regional infrastructure related to the supply of drinking water and the protection of the water environment through the collection and treatment of sanitary sewage.





Amounts are in $,000's

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Major Programs and Services

Water Supply System

Watermain Cleaning and Repairs
Maintain and operate the Region's water distribution system by flushing watermains, cleaning through foam swabbing, repairing breaks, administering leak detection surveys, and preventing corrosion of infrastructure through cathodic protection.

Valves and Hydrants
Maintain the Region's water valves and hydrants ensuring all are in good working condition.

Water Connections
Maintain the Region's water connection inventory to provide potable water for domestic use and fire protection.

Water Meter Repairs and Testing
Maintain the Region's water meter inventory to accurately measure the consumption of water by replacing meters based on age. Other work includes the calibration, testing, repair, and replacement of large meters as required.

Depot Operations
Support the delivery of water infrastructure maintenance activities including watermain repairs, valve and hydrant operations and water meter repair, calibration, and replacement.

Water Supply Plants – Plants East
Serve Bowmanville, Newcastle, Orono and Blackstock (comprised of two surface water plants, six storage facilities, three municipal groundwater wells and three water pumping stations) by providing potable water which meets all quality requirements prescribed by the Ministry of the Environment, Conservation and Parks' (MECP) legislation and regulations, accomplished through continuous monitoring of water quality and flows.

Water Supply Plants – Plants Central
Serve Pickering, Ajax, Whitby, Oshawa and Courtice (Clarington) (comprised of three surface water plants, 13 water pumping stations and 11 storage facilities) by providing safe, potable water which meets all quality requirements prescribed by the MECP's legislation and regulations, accomplished through continuous monitoring of water quality and flows.

Water Supply Plants – Plants North
Serve the Townships of Brock, Scugog and Uxbridge (comprised of one surface water plant, 20 municipal groundwater wells, seven storage facilities and one water pumping station) by providing safe, potable water which meets all quality requirements prescribed by the MECP's legislation and regulations, accomplished through continuous monitoring of water quality and flows.

Major Programs and Services *Continued*

Sun Valley Co-Operative Water System
A private water system operated by the Region on behalf of the Sun Valley Co-operative comprised of 17 properties in the City of Oshawa to supply safe, potable water which meets all quality requirements prescribed by MECP's legislation and regulations accomplished through continuous monitoring of water quality and flows.

SCADA Systems
The centralized SCADA (Supervisory Control and Data Acquisition) Systems Group based at the Oshawa Water Supply Plant monitors, gathers and processes real time data to control plant processes, directly interacting with sensors, valves, pumps, and motors while logging events for regulatory reporting requirements.

Engineering and Staff Support
Support the delivery of capital projects and initiatives through planning, design and construction activities, including advancing the servicing of key Regional employment lands, providing real estate services for infrastructure projects including well head protection land acquisitions, maintaining linear infrastructure data within GIS systems, coordinating development applications with impacts to Regional services, providing technical support including water conservation programming, energy management guidance, oversight to the Region's Source Water Protection programs and supplying financial and administrative support services to all divisions within the Works Department.

Facilities Management
Provide overall lifecycle management of all Regional facilities. Services include the design and construction of Regional facilities, delivery of major repair and renovation projects, lifecycle maintenance and replacement strategies, delivering corporate security services, and the ongoing and preventative maintenance and overall operation of Regional facilities, properties, and grounds.

Administration
Provide the overall strategic planning and direction to all programs within the Works Department.

Headquarters Shared Costs – Works - Water Supply System Portion
The allocated share of costs attributable to the Works Department – Water Supply System for the operation of Regional Headquarters facility.

Construction of Municipal Services
Plan, design, and construction of the water supply system major capital program.

Major Programs and Services *Continued*

Sanitary Sewerage System

Cleaning, Repairs and Maintenance Holes
Maintain and operate the Region's sanitary sewerage collection system efficiently and effectively, undertaking spot repairs of damaged sanitary sewers, and scheduled cleaning of sanitary sewers and syphons.

Sewer Connections
Maintain the Region's sanitary sewer connection inventory efficiently and effectively, safeguarding the public and environment from any public health hazards and ensuring continuity of service.

Depot Operations
Support the delivery of sanitary sewerage infrastructure maintenance activities which include the maintenance, cleaning and repairs of sanitary sewers, maintenance holes and sewer connections.

Water Pollution Control Plants and Pumping Stations
The water pollution control plants and sanitary sewerage pumping stations treat and convey sanitary sewerage, ensuring it meets the discharge requirements prescribed by the MECP. The system is comprised of 11 treatment plants and 51 pumping stations spread across the Region.

Duffin Creek Water Pollution Control Plant
Operation of the plant, co-owned by the Regions of Durham and York, to treat sanitary sewage, ensuring it meets the discharge requirements prescribed by the MECP. The Duffin Creek Water Pollution Control Plant is one the largest water pollution control plants in Ontario.

Regional Environmental Laboratory
Operation of a certified laboratory, co-owned by the Regions of Durham and York, which provides testing services for water and wastewater monitoring for the Regions of Durham and York, local municipalities, and private clients. Services are provided in accordance with the MECP License and laboratory accreditation for drinking water and wastewater requirements.

Engineering and Staff Support
Support the delivery of capital projects and initiatives through planning, design and construction activities, including advancing the servicing of key Regional employment lands, providing real estate services for infrastructure projects including well head protection land acquisitions, maintaining linear infrastructure data within GIS systems, coordinating development applications with impacts to Regional services, providing technical support including water conservation programming, energy management guidance, oversight to the Region's Source Water Protection programs and supplying financial and administrative support services to all divisions within the Works Department.

Major Programs and Services *Continued*

Facilities Management
Provide overall lifecycle management of all Regional facilities. Services include the design and construction of Regional facilities, delivery of major repair and renovation projects, lifecycle maintenance and replacement strategies, delivering corporate security services, and the ongoing and preventative maintenance and overall operation of Regional facilities, properties, and grounds.

Administration
The overall strategic planning and direction to all programs within the Works Department.

Headquarters Shared Costs – Works - Sanitary Sewerage System Portion
The allocated share of costs attributable to Works Department – Sanitary Sewerage System for the operation of Regional Headquarters for the operation of Regional Headquarters facility.

Construction of Municipal Services
Plan, design, and construction of the sanitary sewerage system major capital program.

Strategic Priorities

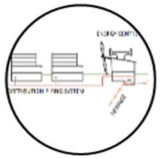
For 2023 some of the key priorities and planned actions focus on:

Environmental Sustainability

Accelerate the adoption of green technologies and clean energy solutions through strategic partnerships and investment with internal and external partners and academic institutions. In 2023, work towards the implementation of an Energy Data Management Platform will continue, providing consolidated energy data for analysis and project planning.

Protect, preserve, and restore the natural environment including greenspaces, waterways, parks, trails, and farmlands by planning and implementing critical sanitary sewerage infrastructure identified through asset management planning.

Demonstrate leadership in sustainability and climate change action by mitigating the environmental impacts of projects and incorporating strategies in the construction and rehabilitation of Regional infrastructure and facilities by incorporating climate-friendly strategies.



Continued progress on a comprehensive water and wastewater GHG emissions management strategy including an assessment of the overall heat recovery potential from the Region's wastewater system. This study will inform on areas of the system which may yield the greatest degree of energy exchange potential, both for private sector participants wishing to utilize wastewater energy to displace traditional fossil fuel energy requirements for their respective developments, as well as for potential Regional opportunities.

Community Vitality

Review and expand system capacity to facilitate balanced growth to provide an adequate mix of attainable housing for residents at all ages and stages of life. Through revitalized infrastructure, the Region will ensure traditional neighbourhoods remain great places to live and work, and build complete communities that are walkable, well-connected, and adequately served by nearby amenities.

Revitalize existing neighbourhoods and build complete communities that are walkable, well-connected, and have a mix of attainable housing through monitoring and assessing excess capacity available in existing sanitary sewer and water distribution systems.

Strategic Priorities *Continued*

Economic Prosperity

Streamlining review and payment processes; planning for growth; and positioning Durham Region as the location of choice for business by servicing strategic employment lands. Detailed design work overseen by the Region is ongoing for 3 projects identified in Report #2020-COW-23 - Regional Pre-servicing of Designated Employment Areas. Class EA work commenced for 2 projects in 2022, and 3 projects are being led by developers and are at various stages of design.

Provide a supportive environment for agriculture and agri-food industries by maintaining beneficial re-use of treated municipal wastewater solids (biosolids) on agricultural lands; and working collaboratively with industry to promote growth while maintaining a sewer-use program. In 2022, the Region and Durham College partnered to create a temporary urban farm on a future water supply infrastructure site. Construction of the farm will be completed in 2023 and cultivation will begin on site.

Service Excellence

Optimize resources and partnerships to deliver exceptional quality services and value by continuing a “customer first” focus. To expedite ON1Call locate requests, additional resources are being proposed in the 2023 budget to address the demands for service resulting from increasing development activity across the Region.

Collaborate for a seamless service experience by seeking new partnerships with local municipalities. As part of the water meter renewal program, radio frequency remote meter reading technology is being installed to minimize manual meter readings.

Demonstrate commitment to continuous quality improvement and transparency through public engagement on all major public works initiatives in real time. Consultation for the Environmental Assessment to expand the sanitary sewerage capacity in Cannington will wrap up in 2023, with the commencement of detailed design to follow.

Strategic Priorities *Continued*

Drive innovation through the continued evolution of the Region's Enterprise Maintenance Management System to increase efficiency in maintenance operations while collecting accurate and timely life cycle costs for analysis and planning; ongoing modernization of the review and approval of development engineering submissions through the PlanIT platform to expedite application reviews while ensuring requirements are met; and ongoing data management modernization and automation within the water supply and water pollution control plants to streamline reporting and increase operational efficiency.

Implement the recommendations of the Depot Modernization and Rationalization Study. The study's purpose was to assess the current depot network and recommend the most effective and efficient means of operation and site utilization strategies in response to the immediate, medium, and long-term needs of the Works Depots to meet growth across the Region. The implementation work will commence with the expansion of the Ajax Depot at its current location, and the relocation of the Oshawa/Whitby Depot, and will include energy efficient, low carbon measures while modernizing the function and layout of this critical infrastructure.

Key Targets for 2023

Water Supply System

- Maintain and operate 2,669 kilometres of watermains – 1.3% system growth over 2022
- Maintain and operate 29,232 valves – 1.5% growth over 2022
- Inspect and maintain 17,288 fire hydrants – 1.5% increase over 2022 inventory
- Maintain 186,359 water supply connections – 1.1% system growth over 2022
- Treat 68,866 megalitres of water – 0.7% increase over projections for 2022

Sanitary Sewerage System

- 2,323 kilometres of gravity, forcemains, and siphons of sanitary sewer maintained and operated – 1.2% system growth over 2022
- 182,623 sanitary sewer connections maintained – 1.1% system growth over 2022
- Treat a total of 174,543 megalitres of sanitary sewerage, a 1.2% increase from 2022, with 124,754 megalitres flowing through Duffin Creek Water Pollution Control Plant
- Analyze 60,000 samples for 200,000 tests at the Regional Environmental Laboratory - consistent with 2022 volumes

Financial Details: Summary by Account ($,000's)

Provides the gross expenditures and revenues - including both operating and capital - and the resulting net user rate requirement

Durham Budget 2023	2022 Estimated Actuals	2022 Restated Budget	2023 Proposed Budget	Variance $	Variance %
Expenses					
Operating Expenses					
Personnel Expenses	61,840	67,870	70,865		
Personnel Related	1,877	2,193	2,269		
Communications	1,086	1,093	1,130		
Supplies	7,622	8,041	7,699		
Utilities	20,158	20,155	23,503		
Chemicals	10,285	8,747	14,549		
Computer Maintenance & Operations	967	901	877		
Materials & Services	11,154	8,538	8,802		
Buildings & Grounds Operations	5,162	4,822	4,923		
Equipment Maintenance & Repairs	3,574	3,762	3,814		
Vehicle Operations	3,895	4,177	4,027		
Professional Services	1,841	2,240	2,197		
Contracted Services	4,252	4,274	4,773		
Leased Facilities Expenses	60	43	43		
Financial Expenses	2,901	2,887	3,133		
Property Taxes	5,263	5,341	5,415		
Minor Assets & Equipment	353	441	192		
Major Repairs & Renovations	656	788	920		
Contribution to Reserves / Reserve Funds	264	264	275		
Headquarters Shared Costs	2,306	2,306	2,406		
Operating Expenses Subtotal	**145,516**	**148,883**	**161,812**	**12,929**	**8.7%**

Financial Details: Summary by Account ($,000's)

Provides the gross expenditures and revenues - including both operating and capital - and the resulting net user rate requirement

Durham Budget 2023	2022 Estimated Actuals	2022 Restated Budget	2023 Proposed Budget	Variance $	Variance %
Internal Transfers & Recoveries					
NextGen Fees	46	46	45		
Communications Charge	362	362	365		
Corporate IT Charge	321	321	358		
Corporate HR Charge	160	160	160		
Works - General Administration Charge	3,138	3,138	3,261		
Recovery - Ajax WSP - Labour	(4)	(4)	(43)		
Recovery - Works - General Tax	(338)	(338)	(338)		
Recovery - Regional Environmental Lab	(93)	(93)	(93)		
Internal Transfers & Recoveries Subtotal	**3,592**	**3,592**	**3,715**	**123**	**3.4%**
Gross Operating Expenses	**149,108**	**152,475**	**165,527**	**13,052**	**8.6%**
Capital Expenses					
New	3,111	3,111	33,950		
Replacement	9,184	9,184	7,098		
Major Capital	258,764	258,764	247,188		
Capital Expenses Subtotal	**271,059**	**271,059**	**288,236**	**17,177**	**6.3%**
Total Expenses	**420,167**	**423,534**	**453,763**	**30,229**	**7.1%**
Revenues and Financing					
Operating Revenue					
Fees & Service Charges	(6,810)	(6,053)	(6,875)		
Sale of Publications	(10)	(19)	(16)		
Rents	(29)	(48)	(49)		
Sundry Revenue	(1,203)	(1,274)	(1,176)		
Revenue from Municipalities	(31,734)	(31,445)	(37,825)		
Revenue from Related Entities	(6)	(6)	(6)		
Operating Revenue Subtotal	**(39,792)**	**(38,845)**	**(45,947)**	**(7,102)**	**(18.3%)**

Financial Details: Summary by Account ($,000's)

Provides the gross expenditures and revenues - including both operating and capital - and the resulting net user rate requirement

Durham Budget 2023	2022 Estimated Actuals	2022 Restated Budget	2023 Proposed Budget	Variance $	Variance %
Capital Financing					
Sewer Residential DC	(25,703)	(25,703)	(36,203)		
Sewer Commercial DC	(2,341)	(2,341)	(2,609)		
Sewer Industrial DC	(192)	(192)	(1,874)		
Water Residential DC	(63,793)	(63,793)	(68,205)		
Water Commercial DC	(2,420)	(2,420)	(2,462)		
Water Industrial DC	(1,607)	(1,607)	-		
Servicing Employment Lands Water RF	(684)	(684)	-		
Servicing Employment Lands Sewer RF	(509)	(509)	-		
Sewer Asset Management RF	(9,275)	(9,275)	(11,107)		
Water Asset Management RF	(5,623)	(5,623)	(5,764)		
Recovery from York	(63,388)	(63,388)	(40,691)		
Federal Grant	(93)	(93)	-		
Recovery from Reserve Funds - Capital	(797)	(797)	(475)		
Sewer Rate Stabilization Reserve Fund	(9,826)	(9,825)	(442)		
Water Rate Stabilization Reserve Fund	(2,549)	(2,549)	(311)		
Debentures	-	-	(31,333)		
Capital Financing Subtotal	**(188,800)**	**(188,799)**	**(201,476)**	**(12,677)**	**(6.7%)**
Total Revenues and Financing	**(228,592)**	**(227,644)**	**(247,423)**	**(19,779)**	**(8.7%)**
User Rate Requirement Works Department - Water Supply System and Sanitary Sewerage System Total	**191,575**	**195,890**	**206,340**	**10,450**	**5.3%**

Financial Details: Summary by Program ($,000's)

Provides the total operating expense, capital expense, subsidy, other revenue and the resulting user rate requirement for each major program and service

Durham Budget 2023	2022 Estimated Actuals	2022 Approved Budgets					2023 Proposed Budgets					Variance	
		Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Approved Budget	Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Proposed Budget	$	%
Works Department - Water Supply System													
1 Watermain Cleaning and Repairs	3,812	3,545	-	-	-	3,545	3,481	-	-	-	3,481	(64)	
2 Valves and Hydrants	2,261	3,255	-	-	(853)	2,402	3,128	-	-	(838)	2,290	(112)	
3 Water Connections	4,228	4,725	-	-	(497)	4,228	4,405	-	-	(510)	3,895	(333)	
4 Water Meter Repairs and Testing	517	594	-	-	(133)	461	590	-	-	(136)	454	(7)	
5 Depot Operations	6,608	6,220	331	-	(136)	6,415	7,181	1,270	-	(148)	8,303	1,888	
6 Water Supply Plants - Plants East	3,338	3,332	235	-	(89)	3,478	3,498	110	-	(140)	3,468	(10)	
7 Water Supply Plants - Plants Central	14,063	14,602	435	-	(103)	14,934	15,492	580	-	(253)	15,819	885	
8 Water Supply Plants - Plants North	2,820	3,011	30	-	(30)	3,011	3,316	-	-	(30)	3,286	275	
9 Sun Valley Co-Operative Water System	-	30	-	-	(30)	-	30	-	-	(30)	-	-	
10 SCADA Systems	-	-	-	-	-	-	-	-	-	-	-	-	
11 Engineering and Staff Support	6,772	8,293	433	-	(666)	8,060	8,804	210	-	(732)	8,282	222	
12 Facilities Management	8,747	8,184	1,971	(67)	(977)	9,111	8,535	17,736	-	(15,989)	10,282	1,171	
13 Administration	319	342	-	-	-	342	370	-	-	-	370	28	
14 Headquarters Shared Cost - Works - Water Supply System Portion	1,153	1,153	-	-	-	1,153	1,203	-	-	-	1,203	50	
15 Construction of Municipal Services	44,361	-	120,104	-	(75,743)	44,361	-	120,878	-	(76,430)	44,448	87	
Works Department - Water Supply System Subtotal	**98,999**	**57,286**	**123,539**	**(67)**	**(79,257)**	**101,501**	**60,033**	**140,784**	**-**	**(95,236)**	**105,581**	**4,080**	**4.0%**
Works Department - Sanitary Sewerage System													
1 Cleaning, Repairs and Maintenance Holes	2,421	2,188	-	-	-	2,188	2,208	-	-	-	2,208	20	
2 Sewer Connections	2,450	3,567	-	-	(1,011)	2,556	3,389	-	-	(1,014)	2,375	(181)	
3 Depot Operations	3,975	3,492	331	-	(29)	3,794	3,612	416	-	(34)	3,994	200	
4 WPCPs and Pumping Stations	26,625	25,240	2,196	-	(214)	27,222	26,393	308	-	(284)	26,417	(805)	
5 Duffin Creek WPCP													
(a) Management Committee	1,007	2,836	-	-	(1,771)	1,065	2,918	-	-	(1,820)	1,098	33	
(b) Duffin Creek Plant	5,740	30,313	2,494	-	(27,171)	5,636	38,371	570	-	(32,366)	6,575	939	
(c) Duffin Creek Tech Support	43	231	-	-	(189)	42	234	-	-	(192)	42	-	
(d) Duffin Creek Administration	547	3,019	-	-	(2,472)	547	3,147	-	-	(2,572)	575	28	
(e) Duffin Creek Facility	762	2,000	550	-	(2,067)	483	1,910	1,437	-	(2,681)	666	183	
Total Duffin Creek WPCP	8,099	38,399	3,044	-	(33,670)	7,773	46,580	2,007	-	(39,631)	8,956	1,183	

Financial Details: Summary by Program ($,000's)

Provides the total operating expense, capital expense, subsidy, other revenue and the resulting user rate requirement for each major program and service

Durham Budget 2023	2022 Estimated Actuals	2022 Approved Budgets					2023 Proposed Budgets					Variance	
		Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Approved Budget	Operating Expenses	Gross Capital	Subsidy Funding	Other Funding	Proposed Budget	$	%
6 Regional Environmental Laboratory	760	3,213	1,057	-	(3,660)	610	3,053	703	-	(3,294)	462	(148)	
7 Engineering and Staff Support	6,096	8,076	197	-	(962)	7,311	8,440	326	-	(1,023)	7,743	432	
8 Facilities Management	9,774	9,516	2,035	(26)	(952)	10,573	10,243	17,382	-	(16,115)	11,510	937	
9 Administration	359	345	-	-	-	345	373	-	-	-	373	28	
10 Headquarters Shared Cost - Works - Sanitary Sewerage System Portion	1,153	1,153	-	-	-	1,153	1,203	-	-	-	1,203	50	
11 Construction of Municipal Services	30,864	-	138,660	-	(107,796)	30,864	-	126,310	-	(90,792)	35,518	4,654	
Works Department - Sanitary Sewerage System Subtotal	**92,576**	**95,189**	**147,520**	**(26)**	**(148,294)**	**94,389**	**105,494**	**147,452**	**-**	**(152,187)**	**100,759**	**6,370**	**6.7%**
User Rate Requirement Works Department - Water Supply System and Sanitary Sewerage System	**191,575**	**152,475**	**271,059**	**(93)**	**(227,551)**	**195,890**	**165,527**	**288,236**	**-**	**(247,423)**	**206,340**	**10,450**	**5.3%**

Financial Details: Summary of Capital ($,000's)

Provides a summary of the current year capital budget, nine-year capital forecast and proposed financing summarized by asset type. See Appendices for specific capital projects

Durham Budget 2023	2022 Approved Budget	2023 Proposed Budget	Forecast					Forecast Total
			2024	2025	2026	2027	2028-2032	
Water Supply System								
Capital Expenditures								
Linear Infrastructure	45,468	64,491	134,883	74,439	84,315	59,235	233,521	586,393
Building & Structures	64,013	67,294	72,540	224,197	242,814	243,667	257,035	1,040,253
Machinery & Equipment	8,163	3,565	9,167	10,599	7,105	8,771	39,524	75,166
Information Technology Infrastructure	1,278	182	10,128	3,367	5,904	508	1,303	21,210
Vehicles	304	1,245	509	28	153	56	217	963
Furniture & Fixtures	88	10	208	18	12	11	24	273
Allowances & Other Provisions	4,225	3,997	4,832	4,450	4,536	6,442	26,241	46,501
Capital Expenditure Subtotal	**123,539**	**140,784**	**232,267**	**317,098**	**344,839**	**318,690**	**557,865**	**1,770,759**
Capital Financing								
Water Residential DC	63,793	68,205	80,643	86,118	38,763	42,419	88,338	336,281
Water Commercial DC	2,420	2,462	3,632	4,872	8,815	3,488	7,825	28,632
Water Industrial DC	1,607	-	8,072	8,618	3,091	13,066	17,688	50,535
Reserve Fund - Asset Management	5,623	5,764	13,507	6,155	6,206	6,362	34,913	67,143
Reserve Fund - Water Rate Stabilization	2,548	311	9,125	20,002	70,727	29,025	16,396	145,275
Equipment Replacement Reserve	33	-	-	-	-	-	-	-
Reserve Fund - Servicing of Employment	684	-	2,450	1,408	-	-	-	3,858
Lands Developer Contributions	-	-	7,000	314	-	81,826	-	89,140
Subsidy / Grant	67	-	-	-	-	-	-	-
Debentures - DC Funded	-	-	23,652	56,019	156,739	32,570	25,054	294,034
Debentures - User Rate Funded	-	15,666	11,667	73,272	-	45,705	17,300	147,944
User Rate	46,764	48,376	72,519	60,320	60,498	64,229	350,351	607,917
Capital Financing Subtotal	**123,539**	**140,784**	**232,267**	**317,098**	**344,839**	**318,690**	**557,865**	**1,770,759**
Total Capital Water Supply System	**123,539**	**140,784**	**232,267**	**317,098**	**344,839**	**318,690**	**557,865**	**1,770,759**

Financial Details: Summary of Capital ($,000's)

Provides a summary of the current year capital budget, nine-year capital forecast and proposed financing summarized by asset type. See Appendices for specific capital projects

Durham Budget 2023	2022 Approved Budget	2023 Proposed Budget	Forecast					
			2024	2025	2026	2027	2028-2032	Forecast Total
Sanitary Sewerage System								
Capital Expenditures								
Linear Infrastructure	28,499	46,615	189,710	52,978	135,408	82,729	414,584	875,409
Building & Structures	20,715	32,325	77,110	199,213	46,429	42,965	502,641	868,358
Machinery & Equipment	91,956	61,829	70,076	43,577	61,263	80,977	213,243	469,136
Information Technology Infrastructure	3,008	963	450	1,800	1,846	483	1,706	6,285
Vehicles	379	395	509	28	153	56	217	963
Furniture & Fixtures	88	10	202	11	12	11	24	260
Allowances and Other Provisions	2,875	5,315	5,865	4,415	4,765	4,665	23,075	42,785
Capital Expenditure Subtotal	**147,520**	**147,452**	**343,922**	**302,022**	**249,876**	**211,886**	**1,155,490**	**2,263,196**
Capital Financing								
Sewer Residential DC	25,703	36,203	46,450	44,240	38,173	48,023	91,901	268,787
Sewer Commercial DC	2,341	2,609	9,621	7,107	6,962	3,754	11,788	39,232
Sewer Industrial DC	192	1,874	28,554	6,369	2,982	8,000	12,174	58,079
Reserve Fund - Environmental Lab	750	475	575	125	400	325	915	2,340
Reserve Fund - Sewer Rate Stabilization	9,825	442	86,151	36,989	13,100	18,340	55,284	209,864
Reserve Fund - Servicing of Employment Lands	509	-	1,653	-	580	1,066	-	3,299
Equipment Replacement Reserve	14	-	-	-	-	-	-	-
Reserve Fund - Asset Management	9,275	11,107	21,352	11,108	15,238	10,494	56,539	114,731
Recovery From York	63,388	40,691	51,670	27,882	54,980	58,199	404,296	597,027

Financial Details: Summary of Capital ($,000's)

Provides a summary of the current year capital budget, nine-year capital forecast and proposed financing summarized by asset type. See Appendices for specific capital projects

Durham Budget 2023	2022 Approved Budget	2023 Proposed Budget	Forecast					
			2024	2025	2026	2027	2028-2032	Forecast Total
Subsidy / Grant	26	-	-	-	-	-	-	-
Debentures - DC Funded	-	-	38,893	52,177	69,297	12,000	106,140	278,507
Debentures - User Rate Funded	-	15,667	11,667	69,000	-	-	101,550	182,217
User Rate	35,497	38,384	47,336	47,025	48,164	51,685	314,903	509,113
Capital Financing Subtotal	**147,520**	**147,452**	**343,922**	**302,022**	**249,876**	**211,886**	**1,155,490**	**2,263,196**
Total Capital Sanitary Sewerage System	**147,520**	**147,452**	**343,922**	**302,022**	**249,876**	**211,886**	**1,155,490**	**2,263,196**
Total Capital Works Department - Water Supply System and Sanitary Sewerage System	**271,059**	**288,236**	**576,189**	**619,120**	**594,715**	**530,576**	**1,713,355**	**4,033,955**

Details of Budget Changes

Strategic Investments: Water Supply System	**2023 Impact** ($ 000's)
New positions not captured below – details of the 3.026 FTEs are provided in Staffing Details. 2024 incremental impact of $210k	183
Expansion and modernization of Maintenance Depots to accommodate increased service demand due to population growth including land acquisition for the Sunderland Depot ($1,333k), the Whitby/Oshawa Depot ($12,667k) and design of the expansion to the Ajax Depot ($1,667k). These projects are fully funded by debenture proceeds. Annual debt service costs of $1.02 million will be required in 2024. A portion of the debt servicing costs may be eligible to be financed from development charges	-
New position (1.0 FTE), additional staffing resources (equivalent of 10 positions being allocated form Works General Tax) and overhead for locates program to ensure compliance with *Ontario Underground Infrastructure Notification System Act, 2012 (*$861k in capital). 2024 incremental impact of $602k	1,488
Increase in stand-by and overtime pay to support response to the increased frequency of severe weather events	113
New position (0.280 FTE) and other support costs to maintain the new Enterprise Maintenance Management System (EMMS) – to allow staff to manage activities, capture life-cycle cost data and provide real-time maintenance information. 2024 incremental impact of $36k	189
Integrated security capital project to replace the security control panels and programming at all regional facilities to meet the new facility standard	310
Additional financing for the energy retrofit and modernization ($311k) of 101 Consumers Drive, Whitby to optimize space, reduce greenhouse gas emissions and provide energy efficient lighting. This additional financing is provided from the Water Rate Stabilization Reserve Fund	-
Net increase in the user rate funded portion of capital investment not captured above – see detailed project listing in Appendix B	441
Strategic Investments: Water Supply System Subtotal	**2,724**

Base Adjustments: Water Supply System	**2023 Impact** ($ 000's)
Economic increases	335
Annualization of 9.01 FTEs approved in the 2022 budget	514
Various revenue adjustments to align with actuals	(274)

Details of Budget Changes *Continued*

Inflationary increases including chemicals ($1,064k) and utilities ($241k)	1,333
Line-by-line review savings	(598)
Increase in Water Supply System's share of costs for the operation and maintenance of Regional Headquarters	46
Base Adjustments: Water Supply System Subtotal	**1,356**
Net Changes: Water Supply System Subtotal	**4,080**

Details of Budget Changes *Continued*

Strategic Investments: Sanitary Sewerage System	**2023 Impact** ($ 000's)
New positions not captured below – details of the 2.773 FTEs are provided in Staffing Details. 2024 annualized impact of $195k	162
Expansion and modernization of Maintenance Depots to accommodate increased service demand due to population growth including land acquisition for the Sunderland Depot ($1,333k), the Whitby/Oshawa Depot ($12,667k) and design of the expansion to the Ajax Depot ($1,667k). These projects are fully funded by debenture proceeds. Annual debt service costs of $1.02 million will be required in 2024. A portion of the debt servicing costs may be eligible to be financed from development charges	-
New position (0.310 FTE) and other support costs to maintain the new Enterprise Maintenance Management System (EMMS) – to allow staff to manage activities, capture life-cycle cost data and provide real-time maintenance information. 2024 annualized impact of $40k	168
Integrated security capital project to replace the security control panels and programming at all regional facilities to meet the new facility standard	336
Additional financing for the energy retrofit and modernization ($311k) of 101 Consumers Drive, Whitby to optimize space, reduce greenhouse gas emissions and provide energy efficient lighting. This additional financing is provided by the Sewer Rate Stabilization Reserve Fund	-
Net increase in the user rate funded portion of capital investment not captured above – see detailed project listing in Appendix D	2,540
Strategic Investments: Sanitary Sewerage System Subtotal	**3,206**

Base Adjustments: Sanitary Sewerage System	**2023 Impact** ($ 000's)
Economic increases	408
Annualization of 7.519 FTEs approved in the 2022 budget	417
Various revenue adjustments to align with actuals	(110)
Inflationary increases including chemicals ($1,857k) and utilities ($760k)	2,923
Line-by-line review savings	(520)

Details of Budget Changes *Continued*

Increase in Sanitary Sewerage System's share of costs for the operation and maintenance of Regional Headquarters	46
Base Adjustments: Sanitary Sewerage System Subtotal	**3,164**
Net Changes: Sanitary Sewerage System Subtotal	**6,370**
Net Changes: Works Department - Water Supply System and Sanitary Sewerage System	**10,450**

*Note that impacts are net of recoveries

Staffing Details

Water Supply System		Full Time Equivalents (FTE's)
2022 Approved Complement (Restated)		204.048
Proposed New Positions		
Supervisor - to monitor, develop, schedule and manage the various positions pertaining to the development of the Regions centralized Utility Locate program.	1.000	
Supervisor DCAM - to support increase in project delivery for depots, sewage treatment plants and water pumping stations, and major capital projects supporting corporate priorities (Note: this position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.271	
Emergency Management Coordinator - to support emergency management programs and initiatives corporately and departmentally as a dedicated liaison with Durham Emergency Management (Note: this position is shared with Sanitary Sewerage, Works General Tax and Waste Management)	0.250	
Business Analyst - to provide business support for the Enterprise Maintenance Management System (Note: this position is shared with Sanitary Sewerage and Works General Tax)	0.280	
Junior Project Engineer (2 positions) - to support the vertical group in the delivery of capital projects (Note: these two positions are shared with Sanitary Sewerage)	1.060	
Works Technician 2 - to provide CAD support to the vertical and linear project teams (Note: this position is shared with Sanitary Sewerage)	0.530	
Works Technician 5 - to support the vertical group in the delivery of capital projects (Note: this position is shared with Sanitary Sewerage)	0.530	
Inspector 3 - to support the projects in the Construction Division and reduce reliance on consulting services and temporary staff (Note: this position is shared with Sanitary Sewerage and Works General Tax)	0.385	
Total Proposed New Positions		4.306
Water Supply System Subtotal		**208.354**

Staffing Details *Continued*

Sanitary Sewerage System		Full Time Equivalents (FTE's)
2022 Approved Complement (Restated)		278.793
Proposed New Positions		
Supervisor DCAM - to support increase in project delivery for depots, sewage treatment plants and water pumping stations, and major capital projects supporting corporate priorities (Note: this position is shared with Water Supply, Works General Tax and Waste Management)	0.386	
Emergency Management Coordinator - To support emergency management programs and initiatives corporately and departmentally as a dedicated liaison with Durham Emergency Management (Note: this position is shared with Water Supply, Works General Tax and Waste)	0.250	
Business Analyst - to provide business support for the Enterprise Maintenance Management System (Note: this position is shared with Water Supply and Works General Tax)	0.310	
Junior Project Engineer (2 positions) - to support the vertical group in the delivery of capital projects (Note: these two positions are shared with Water Supply)	0.940	
Works Technician 2 - to provide CAD support to the vertical and linear project teams (Note: this position is shared with Water Supply)	0.470	
Works Technician 5 - To support the vertical group in the delivery of capital projects (Note: this position is shared with Water Supply)	0.470	
Inspector 3 - to support the projects in the Construction Division and reduce reliance on consulting services and temporary staff (Note: this position is shared with Water Supply and Works General Tax)	0.257	
Total Proposed New Positions		3.083
Sanitary Sewerage System Subtotal		**281.876**
Total Complement: Works Department - Water Supply System and Sanitary Sewerage System		**490.230**

Looking Forward

Water supply and sanitary sewerage systems support residents, businesses, and institutions by providing public infrastructure, reliable service, and expertise so that healthy and sustainable communities thrive. To support these commitments the Region continues to modernize operations through a variety of initiatives including:

- the implementation of the Enterprise Maintenance Management System has moved maintenance operations from paper-based information processing to a comprehensive work management system, providing real time maintenance activities and information;
- the utilization of technology such as drones, sonar and submersible cameras for inspections and assessments; and innovative mapping technology;
- continued shift to digitized public facing services to enhance the experience of residents and business that access services provided by the Works Department, such as continued enhancements to the online permitting system including adding additional permits to the system;
- refinement of design standards for Regional construction projects to further protect the natural environment and incorporate compliance measures related to the Excess Soil Management Regulation;
- implementing climate mitigation and GHG reduction strategies and measures, including conversion of the Region's fleet of vehicles and equipment to lower carbon options and development of a GHG Emissions Management Strategy for Water Supply and Sanitary Sewerage facilities;
- presentation and implementation of the Durham Building Standard, providing guidelines related to energy efficiency, greenhouse gas emissions and reductions, and incorporation of amenities that support diversity and inclusion in the workplace for all projects related to the construction or renovation/retrofit of Regional facilities;
- future implementation of recommendations from Integrated Resource Recovery Studies for Water Pollution Control Plants; and
- continued advancement of the water meter retrofit initiative, installing radio frequency remote reading devices (RF) to eliminate manual meter readings. This is a significant enhancement from a customer service perspective and has been much anticipated as the follow up step to the MyDurhamWater project.

Looking Forward *Continued*

The Region will continue to leverage long-term financial planning to chart a response to some of the significant challenges ahead which include leading infrastructure renewal (in alignment with the Region's Asset Management Plan and prudent asset management practices), preparing for projected Regional growth and new development which will increase demands for Regional services, and major plant expansions and infrastructure construction projects (including the continued servicing of employment lands and infrastructure constructed to service developments in Seaton in Pickering, West Whitby, Courtice and Newcastle in Clarington, and in North Oshawa).

As part of these long-term financial planning efforts the Region continues to monitor its SCADA WAN which provides wireless communication to approximately 75 water sites. The existing 3,650-3,700Mhz frequency band used is regulated by Innovation, Science and Economic Development Canada (ISED). ISED has planned to terminate all radio licenses in the Region's current band to reallocate for 5G cellular communications and provisioning of frequencies to lesser served areas. Also, ISED has allocated a new frequency band for users displaced by this decision, which means that the Region must discontinue use of the current frequency band by March 31, 2025. The Works Department is expecting this frequency band reallocation decision will result in the replacement of radio units, antennas, routers, cabling, and communication panel modifications. The Region has included $3 million in the capital budget and forecast to help address these challenges, and the WAN assessment and pre-design work has commenced.

Further, in alignment with Regional Council's commitment to confront climate change, a core element in the design and construction of Regional infrastructure is sustainability - using best practices and innovations developed through in-house research and partnerships with academia. In particular, the Region's wastewater assets have the potential to contribute to both corporate and Region-wide GHG reduction targets by transferring thermal energy (e.g., heating and cooling) between trunk sanitary sewer collection systems and adjacent buildings and facilities displacing energy consumption that might otherwise come from fossil fuel energy sources. Such projects, referred to as wastewater energy transfer (WET) projects, can reduce GHGs from the building sector which is the second largest source of community-wide emissions. Discussions are ongoing regarding the implementation of the first WET project in the Region.

The *Supporting Growth and Housing in York and Durham Region Act, 2022* (Bill 23) suddenly received Royal Assent on November 28, 2022 in the provincial legislature. This legislation will impact the amount of development charges available to fund new and expanded infrastructure to service growth. Schedule 10 within Bill 23 provides the provincial direction for the wastewater servicing for the Upper York Sewage Solution which includes the Lake Ontario option of conveying wastewater south to the York Durham Sewerage System. A detailed review of the proposed servicing option will need to be conducted in consultation with the Region of York to determine infrastructure planning impacts.

Appendix A: 2023 Water Supply System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix B for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023	Quantity	New / Replacement	2023 Proposed Financing										2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate					
Water Supply System																
Linear Infrastructure																
1 R.R. 2A (Centre St.) from Athol St. to Adelaide Ave., Oshawa	-	-	-	-	-	-	-	-	-	-	250	250	1,860	-	2,110
2 R.R. 14 (Liberty St.) from Baseline Rd. to King St., Bowmanville	-	-	-	-	-	-	-	-	-	-	100	100	200	3,100	3,400
6 R.R. 22 (Bloor St.) from east of Harmony Rd. to Grandview St., Oshawa	-	-	-	-	-	-	-	-	-	-	100	100	50	1,350	1,500
7 R.R. 22 (Victoria St.) from Thickson Rd. to South Blair St.	-	-	-	-	-	-	-	-	-	-	80	80	550	-	630
20 R.R. 56 (Farewell St.) from Harbour Rd. to Bloor St., Oshawa	-	-	-	-	-	-	-	-	-	-	800	800	200	-	1,000
21 Replacement of watermain on R.R. 56 (Farewell St.) from Canadian National Railway to Bloor St., Oshawa	-	-	-	-	-	-	-	-	-	-	385	385	830	-	1,215
31 Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the City of Oshawa Road Program	-	-	-	-	-	-	-	-	-	-	900	900	450	9,900	11,250
32 Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the Municipality of Clarington Road Program	-	-	-	-	-	-	-	-	-	-	1,385	1,385	-	3,330	4,715
33 Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the Township of Scugog Road Program	-	-	-	-	-	-	-	-	-	-	200	200	525	1,768	2,493

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			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
36 Allowance for unknown requirements in conjunction with area municipality road programs	-	-	-	-	-	-	-	-	-	-	200	200	-	1,800	2,000
39 Watermain replacement on Park Rd. S. and Cubert St., in conjunction with the MTO, Oshawa	-	-	-	-	-	-	-	-	-	-	300	300	-	-	300
41 Water works to rectify identified system deficiencies independent of road programs in various locations	-	-	-	-	-	-	-	-	-	-	400	400	-	7,800	8,200
42 Rehabilitation of existing watermains in various locations	-	-	-	-	-	-	-	-	-	-	2,400	2,400	3,000	37,000	42,400
44 Replacement of a watermain on Kingston Rd. (Hwy No. 2) from Steeple Hill to Merritton Rd., Pickering	-	-	-	-	-	-	-	-	-	-	2,200	2,200	2,090	-	4,290
45 Replacement of a watermain on Kingston Rd. (Hwy No. 2) from Dixie Rd. to Bainbridge Dr., Pickering	-	-	-	-	-	-	-	-	-	-	2,500	2,500	1,200	-	3,700
53 Achilles Rd. from Salem Rd. to 100 m west of Salem Rd., Ajax	-	-	-	-	-	-	-	-	-	-	80	80	210	-	290
54 Replacement of a watermain on Pickering Beach Rd. from Foord Rd. to Hewitt Cres., Ajax	-	-	-	-	-	-	-	-	-	-	360	360	840	-	1,200
58 Replacement of watermain and valves on Harwood Ave. from Clements Rd. to Falby Crt., Ajax	-	-	-	-	-	-	-	-	-	-	250	250	-	750	1,000
68 Erosion protection Crystal Beach Boulevard watermain, Whitby	-	-	-	-	-	-	-	-	-	-	500	500	544	5,000	6,044
69 Replacement of watermain on High St. from Mary St. to Walnut St., Whitby	-	-	-	-	-	-	-	-	-	-	260	260	465	-	725

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				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
71	Replacement of watermain on Belton Crt. from Michael Blvd. to S/L, Whitby	-	-	-	-	-	-	-	-	-	-	1,000	1,000	90	-	1,090
73	Replacement of watermain on Mary St. from Rossland Rd. to Robert St., Oshawa	-	-	-	2,335	-	-	-	-	-	-	-	2,335	40	-	2,375
74	Replacement of watermain on Simcoe St. from Metcalf St. to Quebec St., Oshawa	-	-	-	1,300	-	-	-	-	-	-	-	1,300	691	-	1,991
78	Replacement of a watermain on Simcoe St. South and easement from Erie St. to Albert St., Oshawa	-	-	-	135	-	-	-	-	-	-	-	135	565	-	700
79	Replacement of a watermain on Olive Ave. from Simcoe St. to Drew St., Oshawa	-	-	-	-	-	-	-	-	-	-	385	385	2,150	-	2,535
82	Replacement of watermain on Highway No. 2 (King St. W.) from Midtown Dr. to Queen St., Oshawa	-	-	-	-	-	-	-	-	-	-	100	100	-	400	500
89	Replacement of a watermain on Ritson Rd. from Annis St. to Conant St., Oshawa	-	-	-	-	-	-	-	-	-	-	290	290	100	-	390
90	Replacement of a watermain on Douglas St. from Conant St. to Wolfe St., Oshawa	-	-	-	-	-	-	-	-	-	-	340	340	100	-	440
91	Replacement of watermain on Conant St. from Myers Rd. to Nelson St., Oshawa	-	-	-	-	-	-	-	-	-	-	100	100	-	390	490
103	Replacement of watermain on Bigelow St. from 140 m north of Kellett St. to Kellett St., Kellett St. from Bigelow St. to Simcoe St., Beech St from Simcoe St. to 60 m east of Kent St., and Kent St. from Beech St. to 100 m north of Beech St., Port Perry	-	-	-	440	-	-	-	-	-	-	-	440	300	-	740

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				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
109	Replacement of watermain on Jane St. from Ida St. to 220 m north of Ida St., Sunderland	-	-	-	775	-	-	-	-	-	-	-	775	200	-	975
110	Replacement of watermain on Maple St. from River St. to dead-end, Sunderland	-	-	-	146	-	-	-	-	-	-	-	146	135	-	281
113	Replacement of watermain on Centre St. from Mara Rd. to James St., Beaverton	-	-	-	50	-	-	-	-	-	-	-	50	100	650	800
119	Allowance for the evaluation of feedermains/watermains at creek crossings	-	-	-	-	-	-	-	-	-	-	75	75	-	300	375
123	Zone 2 feedermain on William Jackson Dr. & Taunton Rd. from Earl Grey Ave. to Ravenscroft Rd., Pickering/ Ajax	-	-	-	-	-	-	174	6,920	-	-	806	7,900	900	-	8,800
124	Zone 2 feedermain on Church St. from south side of the hydro right of way to Taunton Rd., Ajax	-	-	-	-	-	-	92	3,679	-	-	429	4,200	-	-	4,200
131	Zone 3 feedermain on Conlin Rd. from Anderson St. to Thickson Rd., Whitby (Region's share only)	-	-	-	-	-	-	22	876	-	-	102	1,000	3,135	-	4,135
132	Zone 3 feedermain on Mid-Block Arterial from Lynde Creek to Ashburn Rd., Whitby (West Loop) (Region's share only)	-	-	-	-	-	-	123	4,906	-	-	571	5,600	5,400	-	11,000
140	Watermain on Britannia Ave. from Thornton Rd. to Windfields Farm Dr., Oshawa	-	-	-	-	-	-	17	657	-	-	77	751	340	1,250	2,341
143	Watermain on Thornton Rd. from 100 m North of Conlin Rd. within the Northwood Employment Area, Oshawa	-	-	-	-	-	-	3	131	-	-	16	150	2,122	-	2,272
154	Zone 1 feedermain on Lambs Rd. from Hwy No. 2 (King St.) to Zone 1 Liberty Street Reservoir, Bowmanville	-	-	-	-	-	-	394	15,680	-	-	1,826	17,900	16,000	27,000	60,900

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				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
158	Zone 2 feedermain on Liberty St. from Concession Rd. 3 and Concession Rd. 4 to Zone 2 Reservoir, Bowmanville	-	-	-	-	-	-	26	1,051	-	-	122	1,199	-	8,300	9,499
160	Zone 1 feedermain on Highway No. 2 (King Ave.) from Rudell Rd. to 200 m west of North St., Newcastle	-	-	-	-	-	-	3	105	-	-	12	120	200	2,120	2,440
164	Water Meter installation and replacement	-	-	-	-	-	-	-	-	-	-	3,000	3,000	2,000	47,414	52,414
165	Depots - Replacement of polybutylene service connections in various locations	-	-	-	-	-	-	-	-	-	-	50	50	-	50	100
166	Replacement of lead service connection in various locations	-	-	-	-	-	-	-	-	-	-	450	450	-	29,000	29,450
167	Replacement of valves	-	-	-	-	-	-	-	-	-	-	400	400	-	6,400	6,800
168	Valve Chamber Condition Assessment and inspections	-	-	-	-	-	-	-	-	-	-	450	450	-	1,350	1,800
169	Replacement of hydrants	-	-	-	-	-	-	-	-	-	-	200	200	-	3,650	3,850
	Linear Infrastucture Subtotal			**-**	**5,181**	**-**	**-**	**854**	**34,005**	**-**	**-**	**24,451**	**64,491**	**47,582**	**200,072**	**312,145**
	Building and Structures															
172	Expansion of the Whitby Water Supply Plant from 109 MLD to 218 MLD, Whitby	-		-	-	-	-	814	8,101	-	-	4,585	13,500	27,850	234,300	275,650
175	Garrard Rd. Zone 3 Water Pumping Station - upgrades, Whitby	-		-	-	-	-	38	1,524	-	-	177	1,739	410	-	2,149

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				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
179	Proposed Whitby Zone 4 & 5 Pumping Station at Duffs Rd. Reservoir and feedermain, Whitby	-		-	-	-	-	51	2,015	-	-	235	2,301	-	12,000	14,301
187	Proposed Zone 5 Pumping Station at Harmony Rd. Reservoir and feedermain, Oshawa	-		-	-	-	-	22	876	-	-	102	1,000	1,000	10,200	12,200
190	Proposed Liberty Street Zone 1 Reservoir 11 ML and demolition of the existing elevated tank	-		-	-	-	-	286	11,472	-	-	5,442	17,200	22,100	1,500	40,800
191	Proposed Zone 2 Pumping Station at the Zone 1 Reservoir - Bowmanville	-		-	-	-	-	130	5,188	-	-	982	6,300	8,800	-	15,100
193	Newcastle Water Supply Plant - demolition of plant No. 1	-		-	-	-	-	42	417	-	-	541	1,000	300	3,400	4,700
198	Scugog Water Supply System - Alternative Water Supply Source	-		-	-	-	-	127	1,267	-	-	1,606	3,000	4,530	27,900	35,430
200	Blackstock Water Supply System - upgrades to Municipal Well No. 7	-		-	-	-	-	-	-	-	-	350	350	2,200	-	2,550
201	Greenbank Water Supply System - Replacement of Municipal Well 1 and 6 with rehabilitation work at the pumphouse	-		-	-	-	-	-	-	-	-	1,000	1,000	-	4,000	5,000
202	Uxbridge Water Supply System - New Well and Pumphouse	-		-	-	-	-	32	319	-	-	150	501	1,500	4,220	6,221
203	Uxbridge Water Supply System - Municipal Well No. 7 Replacement	-		-	-	-	-	-	-	-	-	500	500	-	6,000	6,500
211	Beaverton - additional Water Storage from 2 ML to 4.8 ML	-		-	-	-	-	5	212	-	-	283	500	-	9,000	9,500

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				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
213	Reservoir inspections, condition assessment and minor rehabilitation works	-		-	300	-	-	-	-	-	-	-	300	-	2,400	2,700
214	Wellhead protection at Regional well sites	-		-	-	-	-	-	-	-	-	800	800	800	7,200	8,800
217	Replace Fire Panel and Smoke Detector - Ajax WSP	-	Replacement	-	-	-	-	-	-	-	-	141	141	-	-	141
220	Access Ladder Repair/Replacement Project - Various Locations	2	Replacement	-	-	-	-	-	-	-	-	15	15	-	-	15
223	Replacement of Fire System - Oshawa/Whitby Depot	-	Replacement	-	-	-	-	-	-	-	-	67	67	-	-	67
227	Widening of Existing Canopy Entrance - Sunderland Depot	-	Replacement	-	-	-	-	-	-	-	-	8	8	-	-	8
229	Roof Replacement on Vehicle Storage Bays - Orono Depot	-	Replacement	-	-	-	-	-	-	-	-	27	27	-	-	27
231	Metering Chamber Drainage - Oshawa WSP	-	Replacement	-	-	-	-	-	-	-	-	595	595	-	-	595
236	RTU's 1 2 3 4 Replacement - Oshawa WSP	1	Replacement	-	-	-	-	-	-	-	-	457	457	-	-	457
239	Renovation & Optimization - 101 Consumers	-	Replacement	-	310	-	-	-	-	-	-	-	310	-	-	310
240	Depot Rationalization - Ajax Depot Expansion	-	New	-	-	-	-	-	-	-	1,667	-	1,667	-	-	1,667

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				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
244	Depot Rationalization - New Oshawa/Whitby Depot	-	New	-	-	-	-	-	-	-	12,667	-	12,667	-	-	12,667
248	Depot Rationalization - New Sunderland Depot	-	New	-	-	-	-	-	-	-	1,333	-	1,333	-	-	1,333
249	Repairs and Epoxy Coat Fleet Bay Concrete Floors & Repairs to Floor Drains in Fleet Bays - Scugog Depot	-	Replacement	-	-	-	-	-	-	-	-	16	16	-	-	16
Buildings & Structures Subtotal				**-**	**610**	**-**	**-**	**1,547**	**31,391**	**-**	**15,667**	**18,079**	**67,294**	**69,490**	**322,120**	**458,904**
Machinery & Equipment																
251	Ajax Water Supply Plant - pump replacement with variable frequency drive	-		-	-	-	-	-	-	-	-	100	100	-	500	600
252	Ajax Water Supply Plant - hyochlorite feed and control system upgrades	-		-	-	-	-	-	-	-	-	600	600	100	-	700
254	Cherrywood Water Pumping Station upgrades - pumps and feedermain, Pickering	-		-	-	-	-	-	-	-	-	250	250	500	1,800	2,550
261	Oshawa Water Supply Plant - Replacement/rehabilitation of the sedimentation tanks, Header & Backwash valves, and piping	-		-	-	-	-	-	-	-	-	300	300	550	2,900	3,750
266	Taunton Rd. Water Pumping Station and Reservoir - station improvements and replacement	-		-	-	-	-	-	-	-	-	500	500	200	2,300	3,000
277	Beaverton Water Supply Plant - upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch, Standby power, uninterrupted power supply (UPS) and Ultraviolet disinfection system	-		-	-	-	-	-	-	-	-	250	250	750	2,600	3,600
281	Emergency Generator Fuel Tank Compliance upgrades Phase 3 and Phase 4	-		-	-	-	-	-	-	-	-	400	400	17,996	-	18,396

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				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
282	Replace Uninterrupted Power Supply (UPS) Batteries - Ajax WSP	1	Replacement	-	-	-	-	-	-	-	-	50	50	-	-	50
283	Sulphuric Acid Pump Replacement - Ajax WSP	1	Replacement	-	-	-	-	-	-	-	-	240	240	-	-	240
284	Sump Pump Systems - Ajax WSP	-	Replacement	-	-	-	-	-	-	-	-	122	122	-	-	122
287	Integrated Control Technology - Security Project - Various Locations	-	New	-	-	-	-	-	-	-	-	306	306	-	-	306
297	Pump / Motor / Mixer Repair / Replacement - Plants East	-	Replacement	-	-	-	-	-	-	-	-	80	80	-	-	80
298	Regulatory Instrumentation Replacement and Maintenance - Various Locations	-	Replacement	-	-	-	-	-	-	-	-	30	30	-	-	30
302	Bar Pullout Tester - Construction	1	New	-	-	-	-	-	-	-	-	4	4	-	-	4
303	Bench Oven - Construction	1	New	-	-	-	-	-	-	-	-	5	5	-	-	5
304	Concrete End Grinder - Construction	1	New	-	-	-	-	-	-	-	-	9	9	-	-	9
307	Gyratory Compactor/Molds/Equipment - Construction	1	New	-	-	-	-	-	-	-	-	23	23	-	-	23
309	Nuclear Densometer - Construction	1	Replacement	-	-	-	-	-	-	-	-	3	3	-	-	3

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			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
313 Chlorine Analyzers - Plants Central	3	Replacement	-	-	-	-	-	-	-	-	30	30	-	-	30
314 UPS Battery Replacements and Testing - Plants Central	40	Replacement	-	-	-	-	-	-	-	-	40	40	-	-	40
317 WSP Post Chlorinator Replacement - Oshawa WSP	1	Replacement	-	-	-	-	-	-	-	-	25	25	-	-	25
318 Replace Weigh Scale - Various Locations	4	Replacement	-	-	-	-	-	-	-	-	35	35	-	-	35
319 Tank Liners - Whitby WSP	2	Replacement	-	-	-	-	-	-	-	-	30	30	-	-	30
320 Flow Meter Replacements - WSP Pumping Stations	4	Replacement	-	-	-	-	-	-	-	-	80	80	-	-	80
321 Install Isolation Valve - Taunton Rd. Pumping Station	1	Replacement	-	-	-	-	-	-	-	-	50	50	-	-	50
323 Integrated Control Technology - Security Project - Various Locations	3	New	-	-	-	-	-	-	-	-	3	3	-	-	3
Machinery & Equipment Subtotal			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**3,565**	**3,565**	**20,096**	**10,100**	**33,761**
Information Technology Infrastructure															
329 Standard Laptop	2	New	-	-	-	-	-	-	-	-	1	1	-	-	1
332 GIS Hardware (Monitors, Backup Devices and Other) - Data System Management	1	Replacement	-	-	-	-	-	-	-	-	5	5	-	-	5

Appendix A: 2023 Water Supply System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix B for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023	Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
333 Power Laptop	13	New	-	-	-	-	-	-	-	-	16	16	-	-	16
334 Computers & Monitors Refresh - Financial Services	-	Replacement	-	-	-	-	-	-	-	-	149	149	-	-	149
338 Power Laptop (with Monitor)	3	New	-	-	-	-	-	-	-	-	5	5	-	-	5
340 Tablet	1	New	-	-	-	-	-	-	-	-	2	2	-	-	2
340 Tablet	1	Replacement	-	-	-	-	-	-	-	-	4	4	-	-	4
Information Technology Infrastructure Subtotal			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**182**	**182**	**-**	**-**	**182**
Vehicles															
349 Hybrid PHEV SUV - Oshawa/Whitby Depot	10	New	-	-	-	-	-	-	-	-	850	850	-	-	850
356 Vactor 2100 - Oshawa/Whitby Depot	1	New	-	-	-	-	-	-	-	-	395	395	-	-	395
Vehicles Subtotal			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1,245**	**1,245**	**-**	**-**	**1,245**
Furniture & Fixtures															
364 A/V Equipment and Technology Upgrades - Various Locations	1	New	-	-	-	-	-	-	-	-	10	10	-	-	10
Furniture & Fixtures Subtotal			**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**10**	**10**	**-**	**-**	**10**

Appendix A: 2023 Water Supply System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix B for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023		Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
Allowances & Other Provisions																
365	Regional Water Supply Master Planning Study for the Regional Official Plan Review	-		-	-	-	-	6	219	-	-	25	250	900	800	1,950
367	Asset Condition Assessments - Reports for Vertical Assets	-		-	100	-	-	-	-	-	-	-	100	1,063	2,086	3,249
368	Asset Condition Assessment/ investigation for transmission pipes	-		-	182	-	-	-	-	-	-	-	182	1,037	1,780	2,999
370	Allowance for acquisition of easements	-		-	-	-	-	-	-	-	-	100	100	150	900	1,150
371	Allowance for engineering studies	-		-	-	-	-	-	-	-	-	150	150	-	1,950	2,100
375	Preliminary engineering	-		-	-	-	-	-	-	-	-	100	100	-	900	1,000
376	Allowance for sundry extensions as per Council policy - Various	-		-	-	-	-	-	-	-	-	15	15	-	135	150
377	Allowance for unknown requirements	-		-	-	-	-	-	-	-	-	100	100	-	900	1,000
378	Allowance for land severance review and drawing requirements	-		-	-	-	-	-	-	-	-	100	100	-	900	1,000
379	Allowance for Regional share for works in conjunction with residential subdivision development	-		-	-	-	-	44	1,752	-	-	204	2,000	-	18,000	20,000

Appendix A: 2023 Water Supply System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix B for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023		Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
380	Allowance for Regional share for works in conjunction with non-residential development	-		-	-	-	-	11	438	-	-	51	500	-	4,500	5,000
381	Well interference works	-		-	-	-	-	-	400	-	-	-	400	-	7,200	7,600
Allowances & Other Provisions Subtotal				**-**	**282**	**-**	**-**	**61**	**2,809**	**-**	**-**	**845**	**3,997**	**3,150**	**40,051**	**47,198**
Water Supply System Subtotal				**-**	**6,075**	**-**	**-**	**2,462**	**68,205**	**-**	**15,666**	**48,376**	**140,784**	**140,318**	**572,343**	**853,445**
Total Water Supply System				**-**	**6,075**	**-**	**-**	**2,462**	**68,205**	**-**	**15,666**	**48,376**	**140,784**	**140,318**	**572,343**	**853,445**

* Rows and columns may not add due to rounding

** Appendix A includes Reserve financing as follows:

Reserve Fund	2023
Asset Management Reserve Fund - Water	5,764
Rate Stabilization Reserve Fund - Water	311
Pre-Servicing of Employment Lands Reserve Fund - Water	-
Total Reserve/Reserve Fund Financing	**6,075**

*** Appendix A includes financing of the following development charge shortfalls as follows:

DC Shortfall	2023
Residential DC Shortfall	-
Commercial DC Shortfall	-
Institutional DC Shortfall	130
Industrial DC Shortfall	11,327
Total DC Shortfall	**11,457**

Shortfall Financing Source	
Rate Stabilization Reserve Fund - Water	-
Debenture - DC Funded	-
User Rate	11,457
Total Funding	**11,457**

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
Water Supply									
Linear Infrastructure									
1	R.R. 2A (Centre St) from Athol St. to Adelaide Ave., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	250	-	-	-	-	-	-
		Total	250	-	-	-	-	-	-
2	R.R. 14 (Liberty St.) from Baseline Rd. to King St., Bowmanville	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	-	-	3,100	-	-	3,100
		Total	100	-	-	3,100	-	-	3,100
3	R.R. 16 (Ritson Rd.) from Taunton Rd. to Conlin Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,100	-	-	-	1,100
		Total	-	-	1,100	-	-	-	1,100
4	R.R. 17 (Main St.) from Station St. to Winter Rd., Clarington	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	760	-	-	-	760
		Total	-	-	760	-	-	-	760
5	R.R. 22 (Bayly St.) from Westney Rd. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	1,900	-	1,900
		Total	-	-	-	-	1,900	-	1,900
6	R.R. 22 (Bloor St.) from east of Harmony Rd. to Grandview St., Oshawa	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	-	1,350	-	-	-	1,350
		Total	100	-	1,350	-	-	-	1,350
7	R.R. 22 (Victoria St.) from Thickson Rd. to South Blair St., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	80	-	-	-	-	-	-
		Total	80	-	-	-	-	-	-
8	R.R. 26 (Thickson Rd.) from Consumers Dr. to Dundas St., Whitby	Pre-Construction	-	-	-	500	-	-	500
		Construction	-	-	-	-	-	2,900	2,900
		Total	-	-	-	500	-	2,900	3,400

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
9	R.R. 26 (Thickson Rd.)/Wentworth St. Culvert rehabilitation, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	850	-	-	-	-	850
		Total	-	850	-	-	-	-	850
10	R.R. 28 (Rossland Rd.) from Park Rd. to Simcoe St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	1,100	-	-	1,100
		Total	-	-	-	1,100	-	-	1,100
11	R.R. 28 (Rossland Rd.) from Ritson Rd. to Harmony Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	2,380	-	-	-	2,380
		Total	-	-	2,380	-	-	-	2,380
12	R.R. 29 (Liverpool Rd.) from Highway 401 to Kingston Rd. (Highway No. 2), Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	250	250
		Total	-	-	-	-	-	250	250
13	R.R. 31 (Westney Rd.) from Finley Ave. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	1,230	1,230
		Total	-	-	-	-	-	1,230	1,230
14	R.R. 36 (Hopkins St.) from Consumers Dr. to Dundas St., Whitby	Pre-Construction	-	270	-	-	-	-	270
		Construction	-	-	-	150	-	500	650
		Total	-	270	-	150	-	500	920
15	R.R. 37 (Finch Ave.) from Altona Rd. to Brock Rd., Pickering	Pre-Construction	-	-	-	-	500	-	500
		Construction	-	-	-	-	-	6,000	6,000
		Total	-	-	-	-	500	6,000	6,500
16	R.R. 38 (Whites Rd.) from Kingston Rd. Highway 2 to Finch Ave., Pickering	Pre-Construction	-	-	-	-	-	500	500
		Construction	-	-	-	-	-	2,300	2,300
		Total	-	-	-	-	-	2,800	2,800
17	R.R. 52 (Thornton Rd.) from King St. to Stellar Dr., Whitby/Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,330	-	-	-	1,330
		Total	-	-	1,330	-	-	-	1,330

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
18	R.R. 53 (Stevenson Rd.) from Highway 401 to Bond St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	1,430	-	1,430
		Total	-	-	-	-	1,430	-	1,430
19	R.R. 53 (Stevenson Rd.) from Bond St. to Rossland Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	3,800	3,800
		Total	-	-	-	-	-	3,800	3,800
20	R.R. 56 (Farewell St.) from Harbour Rd. to Bloor St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	800	-	-	-	-	-	-
		Total	800	-	-	-	-	-	-
21	Replacement of watermain on R.R. 56 (Farewell St.) from Canadian National Railway to Bloor St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	385	-	-	-	-	-	-
		Total	385	-	-	-	-	-	-
22	R.R. 57 (Bowmanville Ave.) from Baseline Rd. to Highway No. 2, Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	500	-	-	-	-	500
		Total	-	500	-	-	-	-	500
23	R.R. 58 (Manning Rd.) /Adelaide Ave. interconnection from Garrard Rd. to Thornton Rd., Whitby and Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	980	-	-	980
		Total	-	-	-	980	-	-	980
24	R.R. 59 (Gibb St.) from Stevenson Rd. to Simcoe St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	2,100	2,100
		Total	-	-	-	-	-	2,100	2,100
25	R.R. 59 (Gibb St)./Olive Ave. Extension from Drew St. to Ritson Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	430	430
		Total	-	-	-	-	-	430	430
26	R.R. 60 (Wentworth St.) from Simcoe St. to Farewell St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	665	-	-	-	-	665
		Total	-	665	-	-	-	-	665

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
27	Allowance for watermains in conjunction with the Regional Road Program	Pre-Construction	-	-	-	-	-	6,000	6,000
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	6,000	6,000
28	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the City of Pickering Road Program	Pre-Construction	-	275	275	275	275	1,375	2,475
		Construction	-	-	-	-	-	-	-
		Total	-	275	275	275	275	1,375	2,475
29	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the Town of Ajax Road Program	Pre-Construction	-	2,100	200	200	200	1,000	3,700
		Construction	-	-	-	-	-	-	-
		Total	-	2,100	200	200	200	1,000	3,700
30	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the Town of Whitby Road Program	Pre-Construction	-	1,350	620	620	620	3,100	6,310
		Construction	-	-	-	-	-	-	-
		Total	-	1,350	620	620	620	3,100	6,310
31	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the City of Oshawa Road Program	Pre-Construction	900	1,100	1,100	1,100	1,100	5,500	9,900
		Construction	-	-	-	-	-	-	-
		Total	900	1,100	1,100	1,100	1,100	5,500	9,900
32	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the Municipality of Clarington Road Program	Pre-Construction	1,385	370	370	370	370	1,850	3,330
		Construction	-	-	-	-	-	-	-
		Total	1,385	370	370	370	370	1,850	3,330
33	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the Township of Scugog Road Program	Pre-Construction	200	229	629	130	130	650	1,768
		Construction	-	-	-	-	-	-	-
		Total	200	229	629	130	130	650	1,768

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
34	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the Township of Uxbridge Road Program	Pre-Construction	-	270	270	270	270	1,350	2,430
		Construction	-	-	-	-	-	-	-
		Total	-	270	270	270	270	1,350	2,430
35	Area Municipality Road Program - Replacement of deficient watermains and/or construction of required works in conjunction with the Township of Brock Road Program	Pre-Construction	-	250	250	250	250	1,250	2,250
		Construction	-	-	-	-	-	-	-
		Total	-	250	250	250	250	1,250	2,250
36	Allowance for unknown requirements in conjunction with area municipality road programs	Pre-Construction	200	200	200	200	200	1,000	1,800
		Construction	-	-	-	-	-	-	-
		Total	200	200	200	200	200	1,000	1,800
37	Watermain replacement at Highway 401 and Wilson Rd., in conjunction with the MTO, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,000	-	-	-	-	3,000
		Total	-	3,000	-	-	-	-	3,000
38	Watermain replacement in conjunction with the Metrolinx Toronto East Rail Corridor expansion to Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	3,340	-	-	3,340
		Total	-	-	-	3,340	-	-	3,340
39	Watermain replacement on Park Rd. S. and Cubert St., in conjunction with the MTO, Oshawa	Pre-Construction	300	-	-	-	-	-	-
		Construction	-	-	-	-	-	-	-
		Total	300	-	-	-	-	-	-
40	Allowance for watermains in conjunction with the MTO & Go Transit projects	Pre-Construction	-	-	200	-	250	1,950	2,400
		Construction	-	-	-	-	-	-	-
		Total	-	-	200	-	250	1,950	2,400
41	Water works to rectify identified system deficiencies independent of road programs in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	400	800	800	800	900	4,500	7,800
		Total	400	800	800	800	900	4,500	7,800

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
42	Rehabilitation of existing watermains in various locations.	Pre-Construction	-	-	-	-	-	-	-
		Construction	2,400	3,000	3,000	3,500	4,000	23,500	37,000
		Total	2,400	3,000	3,000	3,500	4,000	23,500	37,000
43	Replacement of the watermain on Kingston Rd. (Hwy No. 2) from Altona Rd. to Steeple Hill and Rougemount Dr. from Hwy No. 2 to 100 m south, Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	3,000	-	3,000
		Total	-	-	-	-	3,000	-	3,000
44	Replacement of a watermain on Kingston Rd. (Hwy No. 2) from Steeple Hill to Merritton Rd., Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	2,200	-	-	-	-	-	-
		Total	2,200	-	-	-	-	-	-
45	Replacement of a watermain on Kingston Rd. (Hwy No. 2) from Dixie Rd. to Bainbridge Dr., Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	2,500	-	-	-	-	-	-
		Total	2,500	-	-	-	-	-	-
46	Replacement of watermain on Sandy Beach Rd. from 300 m north of Alyssum St. to 210 m south of Alyssum St., Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	300	-	-	-	-	300
		Total	-	300	-	-	-	-	300
47	Replacement of a watermain on Bayly St. from Westshore Blvd. to Mattins Rd., Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	2,800	-	-	2,800
		Total	-	-	-	2,800	-	-	2,800
48	Watermain and valve impovements at Brock Rd. and Montgomery Park Rd., Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	300	-	-	-	-	300
		Total	-	300	-	-	-	-	300
49	Replacement of a watermain on Brock Rd. from Feldspar Crt. to Clements Rd., Pickering	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	480	480
		Total	-	-	-	-	-	580	580
50	Replacement of a watermain on Notion Rd. from Kingston Rd. to approx. 230 m South, Pickering	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	250	250
		Total	-	-	-	-	-	350	350

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
51	Replacement of a watermain on Alliance Rd. from 20 m North of Bayly St. S. to dead-end, Pickering	Pre-Construction	-	-	-	-	150	-	150
		Construction	-	-	-	-	-	400	400
		Total	-	-	-	-	150	400	550
52	Replacement of watermain on Krosno Blvd. from Liverpool Rd. E. to Fanshaw Place, Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	400	-	-	-	-	400
		Total	-	400	-	-	-	-	400
53	Replacement of watermain on Achilles Rd. from Salem Rd. to 100 m west of Salem Rd., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	80	-	-	-	-	-	-
		Total	80	-	-	-	-	-	-
54	Replacement of a watermain on Pickering Beach Rd. from Foord Rd. to Hewitt Cres., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	360	-	-	-	-	-	-
		Total	360	-	-	-	-	-	-
55	Replacement of a watermain on Cedar St. from Tudor Ave. W. to Beatty Rd., Ajax	Pre-Construction	-	-	-	-	130	-	130
		Construction	-	-	-	-	400	-	400
		Total	-	-	-	-	530	-	530
56	Replacement of a watermain on Clements Rd. E. from Burcher Rd. E. to Dryer Dr., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,450	-	-	-	-	1,450
		Total	-	1,450	-	-	-	-	1,450
57	Replacement of a watermain on Thorncroft Cres. from Billingsgate Cres. to Billingsgate Cres., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	750	-	-	-	-	750
		Total	-	750	-	-	-	-	750
58	Replacement of watermain and valves on Harwood Ave. from Clements Rd. to Falby Crt., Ajax	Pre-Construction	250	-	-	-	-	-	-
		Construction	-	-	750	-	-	-	750
		Total	250	-	750	-	-	-	750
59	Replacement of watermain on Water St. from the Whitby WSP to Breakwater SSPS, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	750	-	-	-	-	750
		Total	-	750	-	-	-	-	750

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
60	Replacement of watermain on Dundas St. (Hwy No. 2) from Lakeridge Rd. to McQuay Blvd., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	400	-	-	-	-	400
		Total	-	400	-	-	-	-	400
61	Replacement of watermain on Consumers Dr. from 140 m west of Thickson Rd. S to 110 m east of Sunray St., Whitby	Pre-Construction	-	-	-	-	200	-	200
		Construction	-	-	-	-	-	590	590
		Total	-	-	-	-	200	590	790
62	Replacement of watermain on Palmerston Ave. from Centre St. to Walton Blvd., Whitby	Pre-Construction	-	-	-	200	-	-	200
		Construction	-	-	-	-	480	-	480
		Total	-	-	-	200	480	-	680
63	Replacement of watermain on Centre St. N. from Willis Ave. to Rossland Rd. W., Whitby	Pre-Construction	-	-	-	200	-	-	200
		Construction	-	-	-	-	950	-	950
		Total	-	-	-	200	950	-	1,150
64	Replacement of a watermain on Orchard Crt. from St. Lawrence St. to Orchard Crt., Whitby	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	270	270
		Total	-	-	-	-	-	370	370
65	Replacement of watermain on Athol St. from St. Lawrence St. to Clemence St., Whitby	Pre-Construction	-	140	-	-	-	-	140
		Construction	-	-	-	300	-	-	300
		Total	-	140	-	300	-	-	440
66	Replacement of watermain on St. Lawrence St. from Brock St. to Athol St., Whitby	Pre-Construction	-	100	-	-	-	-	100
		Construction	-	-	-	130	-	-	130
		Total	-	100	-	130	-	-	230
67	Replacement of watermain on Byron St. North from Willis Ave. to Starr Ave., Whitby	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	260	260
		Total	-	-	-	-	-	360	360
68	Erosion protection Crystal Beach Boulevard watermain, Whitby	Pre-Construction	500	-	-	-	-	-	-
		Construction	-	5,000	-	-	-	-	5,000
		Total	500	5,000	-	-	-	-	5,000

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
69	Replacement of watermain on High St. from Mary St. to Walnut St., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	260	-	-	-	-	-	-
		Total	260	-	-	-	-	-	-
70	Replacement of watermain on Cochrane St. from Ferguson St. to 125 m north of Beech St. W., Whitby	Pre-Construction	-	300	-	-	-	-	300
		Construction	-	-	-	-	1,130	-	1,130
		Total	-	300	-	-	1,130	-	1,430
71	Replacement of watermain on Belton Court from Michael Blvd to S/L, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,000	-	-	-	-	-	-
		Total	1,000	-	-	-	-	-	-
72	Replacement of watermain on Harbour St. from Watson Rd. to dead-end, Whitby	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	1,000	1,000
		Total	-	-	-	-	-	1,100	1,100
73	Replacement of watermain on Mary St. from Rossland Rd. to Robert St., Oshawa	Pre-Construction	140	-	-	-	-	-	-
		Construction	2,195	-	-	-	-	-	-
		Total	2,335	-	-	-	-	-	-
74	Replacement of watermain on Simcoe St. from Metcalf St. to Quebec St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,300	-	-	-	-	-	-
		Total	1,300	-	-	-	-	-	-
75	Replacement of feedermain on Simcoe St. from Albert St. to Bloor St. and Bloor St. from Simcoe St. to Albert St., Oshawa	Pre-Construction	-	500	-	-	-	-	500
		Construction	-	-	-	4,900	-	-	4,900
		Total	-	500	-	4,900	-	-	5,400
76	Replacement of a feedermain on R.R. 22 (Bloor St.) from Cubert St. to Oxford St., Oshawa	Pre-Construction	-	-	-	-	-	60	60
		Construction	-	-	-	-	-	240	240
		Total	-	-	-	-	-	300	300
77	Replacement of a feedermain on R.R. 22 (Bloor St.) from Wilson Rd. to Holland St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	100	-	-	-	-	100
		Total	-	100	-	-	-	-	100

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
78	Replacement of a watermain on Simcoe St. South and easement from Erie St. to Albert St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	135	-	-	-	-	-	-
		Total	135	-	-	-	-	-	-
79	Replacement of a watermain on Olive Ave from Simcoe St. to Drew St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	385	-	-	-	-	-	-
		Total	385	-	-	-	-	-	-
80	Replacement of watermain on R.R. 52 (Thornton Rd.) from South of Bloor St. under the Canadian National Railway, Oshawa	Pre-Construction	-	-	-	200	-	-	200
		Construction	-	-	-	-	200	2,300	2,500
		Total	-	-	-	200	200	2,300	2,700
81	Replacement of watermain on Highway No. 2 (King St. W.) from Garrard Rd. to Thornton Rd., Oshawa	Pre-Construction	-	-	-	83	-	-	83
		Construction	-	-	-	100	-	-	100
		Total	-	-	-	183	-	-	183
82	Replacement of watermain on Highway No. 2 (King St. W.) from Midtown Dr. to Queen St., Oshawa	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	400	-	-	-	-	400
		Total	100	400	-	-	-	-	400
83	Replacement of watermain on Highway No. 2 (King St. E.) from Wilson Rd. to 30 m east of Harmony Creek, Oshawa	Pre-Construction	-	-	-	232	-	-	232
		Construction	-	-	-	-	765	-	765
		Total	-	-	-	232	765	-	997
84	Replacement of watermain on Highway No. 2 (King St. E.) from Harmony Rd. to Kingsway College, Oshawa	Pre-Construction	-	-	-	500	-	-	500
		Construction	-	-	-	-	-	1,900	1,900
		Total	-	-	-	500	-	1,900	2,400
85	Replacement of feedermain on Ritson Rd. from Oshawa Water Supply Plant Valve Chamber to Kawartha Ave., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	7,600	-	-	-	-	7,600
		Total	-	7,600	-	-	-	-	7,600
86	Replacement of a watermain on Ritson Rd. S. from Kawartha Ave. to Simcoe St. S., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	2,800	-	-	2,800
		Total	-	-	-	2,800	-	-	2,800

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
87	Replacement of a watermain on Thornton Rd. from Adelaide Ave. to Tatra Dr., Oshawa	Pre-Construction	-	-	-	160	-	-	160
		Construction	-	-	-	-	-	550	550
		Total	-	-	-	160	-	550	710
88	Replacement of a watermain on Adelaide Ave. from Kaiser Cres. to Simcoe St., Oshawa	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	220	220
		Total	-	-	-	-	-	320	320
89	Replacement of a watermain on Ritson Rd. from Annis St. to Conant St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	290	-	-	-	-	-	-
		Total	290	-	-	-	-	-	-
90	Replacement of a watermain on Douglas St. from Conant St. to Wolfe St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	340	-	-	-	-	-	-
		Total	340	-	-	-	-	-	-
91	Replacement of watermain on Conant St. from Myers Rd. to Nelson St., Oshawa	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	-	390	-	-	-	390
		Total	100	-	390	-	-	-	390
92	Replacement of a watermain on Oxford St. from Malaga Rd. to Porter St. and Porter St. from Oxford St. to Glen St., Oshawa	Pre-Construction	-	-	340	-	-	-	340
		Construction	-	-	-	-	1,150	-	1,150
		Total	-	-	340	-	1,150	-	1,490
93	Replacement of watermain on Valencia Rd. from Oxford St. to dead-end, Oshawa	Pre-Construction	-	-	100	-	300	-	400
		Construction	-	-	-	-	-	-	-
		Total	-	-	100	-	300	-	400
94	Replacement of a watermain on Ansley Crt. from Rossland Rd. to dead-end, Oshawa	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	280	280
		Total	-	-	-	-	-	380	380
95	Replacement of a watermain on Wilson Rd. from Raleigh Ave. to Wentworth St., Oshawa	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	425	425
		Total	-	-	-	-	-	525	525

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

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Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
96	Replacement of watermain on East Shore Dr./Port Darlington Rd. from Lake Rd. to Bowmanville Water Supply Plant, Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,150	-	-	-	1,150
		Total	-	-	1,150	-	-	-	1,150
97	Replacement of watermain on Baseline Rd. East from Liberty St. to Mearns Ave., Bowmanville	Pre-Construction	-	-	150	-	-	-	150
		Construction	-	-	1,300	1,300	-	-	2,600
		Total	-	-	1,450	1,300	-	-	2,750
98	Replacement of watermain on North St. from Wilmot St. to Concession Rd. 3, Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,750	-	-	-	-	1,750
		Total	-	1,750	-	-	-	-	1,750
99	Replacement of watermain on Amos St. from Toronto St. to Highway 401, Newcastle	Pre-Construction	-	-	-	-	100	-	100
		Construction	-	-	-	-	210	-	210
		Total	-	-	-	-	310	-	310
100	Replacement of watermain on First Ave. from Brock St. to Dominion St., Uxbridge	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	280	-	-	-	-	280
		Total	-	280	-	-	-	-	280
101	Cemetery Rd. from Toronto St to 600 m northerly - required to loop the watermain and system security	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	180	-	-	-	-	180
		Total	-	180	-	-	-	-	180
102	Replacement of watermain on Caleb St. from Clarke St. to Queen St., Port Perry	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	350	-	-	-	-	350
		Total	-	350	-	-	-	-	350
103	Replacement of watermain on Bigelow St. from 140 m north of Kellett St. to Kellett St., Kellett St. from Bigelow St. to Simcoe St., Beech St from Simcoe St. to 60 m east of Kent St., and Kent St. from Beech St. to 100 m north of Beech St., Port Perry	Pre-Construction	-	-	-	-	-	-	-
		Construction	440	-	-	-	-	-	-
		Total	440	-	-	-	-	-	-

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

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Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
104	Replacement of watermain on Rosa St. from Paxton St. to dead-end, Port Perry	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,250	-	-	-	1,250
		Total	-	-	1,250	-	-	-	1,250
105	Replacement of watermain on Ottawa St. from Queen St. to MacDonald St., Port Perry	Pre-Construction	-	-	-	150	-	-	150
		Construction	-	-	-	730	-	-	730
		Total	-	-	-	880	-	-	880
106	Replacement of watermain on Bay St. from Old Simcoe St. to Bigelow St., Port Perry	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	960	-	-	-	960
		Total	-	-	960	-	-	-	960
107	Replacement of watermain on Kent St. from 85 m north of Beech St. to Lakeshore Rd., Port Perry	Pre-Construction	-	-	100	-	-	-	100
		Construction	-	-	-	-	600	-	600
		Total	-	-	100	-	600	-	700
108	Replacement of watermain on Perry St. from North St. to Paxton St., Port Perry	Pre-Construction	-	-	-	-	-	75	75
		Construction	-	-	-	-	-	180	180
		Total	-	-	-	-	-	255	255
109	Replacement of watermain on Jane St. from Ida St. to 220 m north of Ida St., Sunderland	Pre-Construction	-	-	-	-	-	-	-
		Construction	775	-	-	-	-	-	-
		Total	775	-	-	-	-	-	-
110	Replacement of watermain on Maple St. from River St. to dead-end, Sunderland	Pre-Construction	-	-	-	-	-	-	-
		Construction	146	-	-	-	-	-	-
		Total	146	-	-	-	-	-	-
111	Replacement of watermain on Cameron St. from 215 m east of McRae St. to 750 m west of R.R. 2 Simcoe St., Cannington	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,650	-	-	-	-	1,650
		Total	-	1,650	-	-	-	-	1,650
112	Replacement of watermain on Laidlaw St. from Cameron St. to Park St., Cannington	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	450	450
		Total	-	-	-	-	-	550	550

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

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Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
113	Replacement of watermain on Centre St. from Mara Rd. to James St., Beaverton	Pre-Construction	50	-	-	-	-	-	-
		Construction	-	-	650	-	-	-	650
		Total	50	-	650	-	-	-	650
114	Replacement of watermain on Simcoe St. from Canadian National Railway to John St., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,340	-	-	-	-	1,340
		Total	-	1,340	-	-	-	-	1,340
115	Replacement of watermain on Simcoe St. from Beaverton Water Supply Plant to 60 m west of Canadian National Railway, Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,340	-	-	-	1,340
		Total	-	-	1,340	-	-	-	1,340
116	Replacement of watermain on James St. from Main St. to Centre St./Highland Crt., Beaverton	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	580	-	-	-	-	580
		Total	-	580	-	-	-	-	580
117	Replacement of watermain on King St. from Mara Rd. to dead-end, Beaverton	Pre-Construction	-	-	-	200	-	-	200
		Construction	-	-	-	1,100	-	-	1,100
		Total	-	-	-	1,300	-	-	1,300
118	Allowance for replacement of watermains in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	18,966	18,966
		Total	-	-	-	-	-	18,966	18,966
119	Allowance for the evaluation of feedermains/watermains at creek crossings	Pre-Construction	-	-	-	-	-	-	-
		Construction	75	75	75	75	75	-	300
		Total	75	75	75	75	75	-	300
120	Allowance for construction of services in unserviced areas in response to requests or petitions	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	200	200	200	200	1,000	1,800
		Total	-	200	200	200	200	1,000	1,800
121	Zone 1 feedermain on Bayly St. from Toy Ave. to Pickering Beach Rd., Pickering/Ajax	Pre-Construction	-	-	1,500	-	-	-	1,500
		Construction	-	-	-	-	20,400	-	20,400
		Total	-	-	1,500	-	20,400	-	21,900

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				2024	2025	2026	2027	2028-2032	Forecast Total
122	Zone 2 feedermain on Taunton Rd. from Westney Rd. to 200 m west of Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,000	-	-	-	-	3,000
		Total	-	3,000	-	-	-	-	3,000
123	Zone 2 feedermain on William Jackson Dr. & Taunton Rd. from Earl Grey Ave. to Ravenscroft Rd., Pickering/ Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	7,900	-	-	-	-	-	-
		Total	7,900	-	-	-	-	-	-
124	Zone 2 feedermain on Church St. from south side of the hydro right of way to Taunton Rd., Ajax	Pre-Construction	800	-	-	-	-	-	-
		Construction	3,400	-	-	-	-	-	-
		Total	4,200	-	-	-	-	-	-
125	Watermain on Hunt St. from Westney Rd. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,600	-	-	-	1,600
		Total	-	-	1,600	-	-	-	1,600
126	Zone 1 feedermain from Whitby Water Supply Plant to Thornton Rd., Whitby/Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	9,000	7,000	7,000	-	-	23,000
		Total	-	9,000	7,000	7,000	-	-	23,000
127	Zone 1 feedermain on Manning Rd. from Anderson St. to Hydro corridor., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,840	-	-	-	-	1,840
		Total	-	1,840	-	-	-	-	1,840
128	Zone 1 West Whitby feedermain on Brock St./Victoria St. to Rossland Rd., Whitby	Pre-Construction	-	-	-	-	600	650	1,250
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	600	650	1,250
129	Zone 3 feedermain on Garrard Rd. from north of the Mid-Block Arterial to Winchester Rd., Whitby (East Loop)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	6,400	-	-	-	-	6,400
		Total	-	6,400	-	-	-	-	6,400
130	Zone 3 feedermain on Winchester Rd. from Cachet Blvd. to Garrard Rd., Whitby (East Loop)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,100	-	-	-	-	1,100
		Total	-	1,100	-	-	-	-	1,100

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Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
131	Zone 3 feedermain on Conlin Rd. from Anderson St. to Thickson Rd., Whitby (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,000	-	-	-	-	-	-
		Total	1,000	-	-	-	-	-	-
132	Zone 3 feedermain on Mid-Block Arterial from Lynde Creek to Ashburn Rd., Whitby (West Loop) (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	5,600	-	-	-	-	-	-
		Total	5,600	-	-	-	-	-	-
133	Zone 3 feedermain on Ashburn Rd. from Amanda Ave. to Columbus Rd., Whitby (West Loop) (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	5,950	-	-	-	-	5,950
		Total	-	5,950	-	-	-	-	5,950
134	Zone 3 feedermain on Columbus Rd. from Ashburn Rd. to 360 m east of Ashburn Rd., Whitby (West Loop) (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,260	-	-	-	-	1,260
		Total	-	1,260	-	-	-	-	1,260
135	Zone 3 feedermain on Columbus Rd. from Ashburn Rd. to Country Lane, Whitby (West Loop) (Region's Share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	5,850	-	5,850
		Total	-	-	-	-	5,850	-	5,850
136	Zone 4 feedermain from Thickson Rd. Zone 4 water pumping station to Zone 4 Reservoir, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	28,600	28,600
		Total	-	-	-	-	-	28,600	28,600
137	Zone 4 feedermain on Brawley Rd. from Ashburn Rd. to Duffs Rd., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	6,475	-	-	-	-	6,475
		Total	-	6,475	-	-	-	-	6,475
138	Zone 4 feedermain on Ashburn Rd. from Brawley Rd. to Mid-block., Whitby	Pre-Construction	-	700	-	-	-	-	700
		Construction	-	-	-	-	-	8,100	8,100
		Total	-	700	-	-	-	8,100	8,800
139	Zone 4 feedermain on Columbus Rd. from Thickson Rd. to Ritson Rd., Whitby/Oshawa	Pre-Construction	-	1,500	-	-	-	-	1,500
		Construction	-	-	-	17,900	-	-	17,900
		Total	-	1,500	-	17,900	-	-	19,400

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
140	Watermain on Britannia Ave. from Thornton Rd. to Windfields Farm Dr., Oshawa	Pre-Construction	750	-	-	-	-	-	-
		Construction	-	-	1,250	-	-	-	1,250
		Total	750	-	1,250	-	-	-	1,250
141	Watermain on local road from Windfields Farm Dr. to Winchester Rd., Oshawa	Pre-Construction	-	-	150	-	-	-	150
		Construction	-	-	-	1,100	-	-	1,100
		Total	-	-	150	1,100	-	-	1,250
142	Watermain on Stevenson Rd. from Taunton Rd. to Conlin Rd., Oshawa	Pre-Construction	-	300	-	-	-	-	300
		Construction	-	-	2,200	-	-	-	2,200
		Total	-	300	2,200	-	-	-	2,500
143	Watermain on Thornton Rd. from 100 m North of Conlin Rd. within the Northwood Employment Area, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	150	-	-	-	-	-	-
		Total	150	-	-	-	-	-	-
144	Watermain modifications in conjunction with the twinning of northwest branch of Harmony Creek sub-trunk sanitary sewer from 200 m south of Beatrice St. to Ritson Rd., Oshawa	Pre-Construction	-	40	-	-	-	-	40
		Construction	-	135	-	-	-	-	135
		Total	-	175	-	-	-	-	175
145	Zone 3 feedermain on Conlin Rd. from Garrard Rd. to Ritson Rd.,Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	7,525	-	9,500	-	-	17,025
		Total	-	7,525	-	9,500	-	-	17,025
146	Zone 3 feedermain on Conlin Rd. from Ritson Rd. to Wilson Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	4,000	-	-	-	4,000
		Total	-	-	4,000	-	-	-	4,000
147	Zone 4 feedermain from Proposed Zone 4 Water Pumping Station at Harmony Reservoir to Proposed Windchester Zone 4 Reservoir, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	17,000	-	-	-	17,000
		Total	-	-	17,000	-	-	-	17,000

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
148	Zone 4 feedermain on Ritson Rd. from Columbus Rd. to Winchester Rd., Oshawa	Pre-Construction	-	600	-	-	-	-	600
		Construction	-	-	-	-	-	7,200	7,200
		Total	-	600	-	-	-	7,200	7,800
149	Zone 4 feedermain on Winchester Rd. from Ritson Rd. to Harmony Rd., Oshawa	Pre-Construction	-	600	-	-	-	-	600
		Construction	-	-	-	-	-	6,750	6,750
		Total	-	600	-	-	-	6,750	7,350
150	Zone 1 feedermain on Baseline Rd. from Prestonvale Rd. to Trulls Rd., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	3,650	-	-	-	3,650
		Total	-	-	3,650	-	-	-	3,650
151	Zone 1 feedermain on Prestonvale Rd. from Baseline Rd. to 950 m north of Baseline Rd., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,850	-	-	-	1,850
		Total	-	-	1,850	-	-	-	1,850
152	Zone 1 feedermain on easement from Townline Rd. to Prestonvale Rd., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	3,000	-	-	-	3,000
		Total	-	-	3,000	-	-	-	3,000
153	Zone 2 feedermain on Bloor St. from Townline Rd. to Trulls Rd., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	350	350
		Total	-	-	-	-	-	350	350
154	Zone 1 feedermain on Lambs Rd. from Hwy No. 2 (King St.) to Zone 1 Liberty Street Reservoir, Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	17,900	27,000	-	-	-	-	27,000
		Total	17,900	27,000	-	-	-	-	27,000
155	Zone 1 feedermain on Baseline Rd. from Bowmanville Ave. to Liberty St., Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,400	2,400	-	3,000	-	7,800
		Total	-	2,400	2,400	-	3,000	-	7,800
156	Zone 1 feedermain from Bowmanville Water Supply Plant to Baseline Rd., Bowmanville	Pre-Construction	-	500	-	500	-	-	1,000
		Construction	-	-	-	-	-	10,600	10,600
		Total	-	500	-	500	-	10,600	11,600

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
157	Zone 1 feedermain on Baseline Rd. from Liberty St. to Mearns Ave., Bowmanville	Pre-Construction	-	-	-	520	-	540	1,060
		Construction	-	-	-	-	-	2,500	2,500
		Total	-	-	-	520	-	3,040	3,560
158	Zone 2 feedermain on Liberty St. from Concession Rd. 3 and Concession Rd. 4 to Zone 2 Reservoir, Bowmanville	Pre-Construction	1,200	-	-	-	-	-	-
		Construction	-	-	-	8,300	-	-	8,300
		Total	1,200	-	-	8,300	-	-	8,300
159	Zone 1 feedermain from Arthur Street reservoir to future Zone 1 water storage facility, Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,200	-	-	-	-	3,200
		Total	-	3,200	-	-	-	-	3,200
160	Zone 1 feedermain on Highway No. 2 (King Ave.) from Rudell Rd. to 200 m west of North St., Newcastle	Pre-Construction	120	-	-	-	-	-	-
		Construction	-	2,120	-	-	-	-	2,120
		Total	120	2,120	-	-	-	-	2,120
161	Zone 2 feedermain on Arthur St. from the Zone 2 pumping station to existing Andrew St. pumping station, Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,800	-	-	-	-	4,800
		Total	-	4,800	-	-	-	-	4,800
162	Watermain on Grady Dr. from Whitehand Cres. to North St., Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	850	-	-	-	-	850
		Total	-	850	-	-	-	-	850
163	Watermain on Concession Rd. 5 to service the westerly portion of the Beaverton Avenue Employment Area A, Brock	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,450	-	-	-	-	2,450
		Total	-	2,450	-	-	-	-	2,450
164	Water Meter installation and replacement	Pre-Construction	-	-	-	-	-	-	-
		Construction	3,000	2,814	3,100	4,000	5,000	32,500	47,414
		Total	3,000	2,814	3,100	4,000	5,000	32,500	47,414
165	Depots - Replacement of polybutylene service connections in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	50	50	-	-	-	-	50
		Total	50	50	-	-	-	-	50

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
166	Replacement of lead service connection in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	450	1,000	1,000	1,000	1,000	25,000	29,000
		Total	450	1,000	1,000	1,000	1,000	25,000	29,000
167	Replacement of valves	Pre-Construction	-	-	-	-	-	-	-
		Construction	400	450	450	500	600	4,400	6,400
		Total	400	450	450	500	600	4,400	6,400
168	Valve Chamber Condition Assessment and inspections	Pre-Construction	-	-	-	-	-	-	-
		Construction	450	450	450	450	-	-	1,350
		Total	450	450	450	450	-	-	1,350
169	Replacement of hydrants	Pre-Construction	-	-	-	-	-	-	-
		Construction	200	250	250	300	350	2,500	3,650
		Total	200	250	250	300	350	2,500	3,650
Linear Infrastructure Subtotal			**64,491**	**134,883**	**74,439**	**84,315**	**59,235**	**233,521**	**586,393**
Buildings and Structures									
170	Expansion of the Ajax Water Supply Plant from 163.6 MLD to 327 MLD, Ajax	Pre-Construction	-	12,500	-	-	-	-	12,500
		Construction	-	-	-	-	138,500	-	138,500
		Total	-	12,500	-	-	138,500	-	151,000
171	Proposed Ajax Zone 1 Water Storage facility - 11 ML, Ajax	Pre-Construction	-	1,200	-	-	-	-	1,200
		Construction	-	-	-	12,700	-	-	12,700
		Total	-	1,200	-	12,700	-	-	13,900
172	Expansion of the Whitby Water Supply Plant from 109 MLD to 218 MLD, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	13,500	15,500	-	218,800	-	-	234,300
		Total	13,500	15,500	-	218,800	-	-	234,300
173	Whitby Water Supply Plant - Plant 1 Upgrades and Rehabilitation Works proposed works to include but not limited to building envelope improvements, filter treatment process upgrades, rehabilitation works for electrical, mechanical and process systems	Pre-Construction	-	-	-	-	2,500	-	2,500
		Construction	-	-	-	-	-	17,300	17,300
		Total	-	-	-	-	2,500	17,300	19,800

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
174	Garrard Rd. Zone 1 Reservoir Expansion from 31 ML to 50 ML and Zone 2 pumping station expansion, Whitby	Pre-Construction	-	-	2,000	-	-	-	2,000
		Construction	-	-	-	-	-	17,200	17,200
		Total	-	-	2,000	-	-	17,200	19,200
175	Garrard Rd. Zone 3 Water Pumping Station - upgrades, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,740	-	-	-	-	-	-
		Total	1,740	-	-	-	-	-	-
176	Thickson Rd. Zone 3 Water Pumping Station Expansion to 22.7 MLD, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	11,800	-	-	-	-	11,800
		Total	-	11,800	-	-	-	-	11,800
177	Proposed Zone 4 Pumping Station at the Thickson Rd. Reservoir, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,000	-	-	-	1,000
		Total	-	-	1,000	-	-	-	1,000
178	Proposed Whitby Zone 4 Storage Facility - 13 ML, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	35,600	-	-	-	35,600
		Total	-	-	35,600	-	-	-	35,600
179	Proposed Whitby Zone 4 & 5 Pumping Station at Duffs Rd. Reservoir and feedermain, Whitby	Pre-Construction	2,300	-	-	-	-	-	-
		Construction	-	-	-	-	12,000	-	12,000
		Total	2,300	-	-	-	12,000	-	12,000
180	Oshawa Water Supply Plant - break wall modifications	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,120	-	-	-	-	1,120
		Total	-	1,120	-	-	-	-	1,120
181	Taunton Rd. Zone 2 Reservoir Expansion from 13 ML to 27 ML, Oshawa	Pre-Construction	-	-	2,000	-	-	-	2,000
		Construction	-	-	-	-	17,000	-	17,000
		Total	-	-	2,000	-	17,000	-	19,000
182	Grandview Zone 2 Pumping Station Expansion, Oshawa	Pre-Construction	-	-	2,000	-	-	-	2,000
		Construction	-	-	-	-	8,000	-	8,000
		Total	-	-	2,000	-	8,000	-	10,000

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
183	Taunton Rd. Zone 3 Water Pumping Station Expansion from 27 ML to 75 ML, Oshawa	Pre-Construction	-	1,000	-	4,000	-	-	5,000
		Construction	-	-	-	-	-	20,000	20,000
		Total	-	1,000	-	4,000	-	20,000	25,000
184	Harmony Rd. Zone 3 Reservoir Expansion, Oshawa	Pre-Construction	-	600	-	1,500	-	-	2,100
		Construction	-	-	-	-	-	6,000	6,000
		Total	-	600	-	1,500	-	6,000	8,100
185	Proposed Zone 4 Pumping Station at the Harmony Rd. Reservoir, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	8,000	-	-	-	8,000
		Total	-	-	8,000	-	-	-	8,000
186	Proposed Oshawa Zone 4 Water Storage Facility - 16 ML, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	44,800	-	44,800
		Total	-	-	-	-	44,800	-	44,800
187	Proposed Zone 5 Pumping Station at Harmony Rd. Reservoir and feedermain, Oshawa	Pre-Construction	1,000	-	-	-	-	-	-
		Construction	-	-	10,200	-	-	-	10,200
		Total	1,000	-	10,200	-	-	-	10,200
188	Hortop Water Pumping Station - pumping station replacement, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	10,600	-	-	-	10,600
		Total	-	-	10,600	-	-	-	10,600
189	Bowmanville Water Supply Plant Expansion from 36 MLD to 55 MLD	Pre-Construction	-	-	4,000	-	-	-	4,000
		Construction	-	-	-	-	-	55,000	55,000
		Total	-	-	4,000	-	-	55,000	59,000
190	Proposed Liberty Street Zone 1 Reservoir 11 ML and demolition of the existing elevated tank	Pre-Construction	-	-	-	-	-	-	-
		Construction	17,200	-	-	1,500	-	-	1,500
		Total	17,200	-	-	1,500	-	-	1,500
191	Proposed Zone 2 Pumping Station at the Zone 1 Reservoir - Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	6,300	-	-	-	-	-	-
		Total	6,300	-	-	-	-	-	-

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
192	Bowmanville Zone 2 reservoir expansion	Pre-Construction	-	600	-	1,325	-	-	1,925
		Construction	-	-	-	-	-	7,700	7,700
		Total	-	600	-	1,325	-	7,700	9,625
193	Newcastle Water Supply Plant - demolition of plant No.1	Pre-Construction	1,000	-	-	-	-	-	-
		Construction	-	3,400	-	-	-	-	3,400
		Total	1,000	3,400	-	-	-	-	3,400
194	Proposed Zone 1 Newcastle Reservoir 11 ML	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	16,500	-	-	-	16,500
		Total	-	-	16,500	-	-	-	16,500
195	Proposed Zone 2 Newcastle Water Pumping Station	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	11,200	-	-	-	11,200
		Total	-	-	11,200	-	-	-	11,200
196	Proposed Zone 2 Newcastle Reservoir	Pre-Construction	-	-	-	500	-	1,600	2,100
		Construction	-	-	-	-	-	6,350	6,350
		Total	-	-	-	500	-	7,950	8,450
197	Proposed Zone 1 Orono Storage Facility 1 ML	Pre-Construction	-	-	-	-	-	1,500	1,500
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	1,500	1,500
198	Scugog Water Supply System - Alternative Water Supply Source	Pre-Construction	2,000	-	-	-	-	-	-
		Construction	1,000	-	27,900	-	-	-	27,900
		Total	3,000	-	27,900	-	-	-	27,900
199	Port Perry Water Storage Facility - additional capacity 2.8 ML and watermain	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	16,200	-	-	-	16,200
		Total	-	-	16,200	-	-	-	16,200
200	Blackstock Water Supply System - upgrades to Municipal Well No. 7	Pre-Construction	-	-	-	-	-	-	-
		Construction	350	-	-	-	-	-	-
		Total	350	-	-	-	-	-	-

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
201	Greenbank Water Supply System - Replacement of Municipal Well 1 and 6 with rehabilitation work at the pumphouse	Pre-Construction	1,000	-	-	-	-	-	-
		Construction	-	-	-	-	-	4,000	4,000
		Total	1,000	-	-	-	-	4,000	4,000
202	Uxbridge Water Supply System - New Well and Pumphouse	Pre-Construction	500	-	-	-	-	-	-
		Construction	-	-	4,220	-	-	-	4,220
		Total	500	-	4,220	-	-	-	4,220
203	Uxbridge Water Supply System - Municipal Well No. 7 Replacement	Pre-Construction	500	-	1,000	-	-	-	1,000
		Construction	-	-	-	-	-	5,000	5,000
		Total	500	-	1,000	-	-	5,000	6,000
204	Expansion of Quaker Hill Reservoir from 2.8 ML to 5.2 ML, Uxbridge	Pre-Construction	-	1,200	-	-	-	-	1,200
		Construction	-	-	-	-	6,800	-	6,800
		Total	-	1,200	-	-	6,800	-	8,000
205	Sunderland Water Supply System - New Well and Pumphouse with standby power (DC602)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	5,000	-	-	-	-	5,000
		Total	-	5,000	-	-	-	-	5,000
206	Sunderland Water Supply System - New Well and Pumphouse with standby power (DC603)	Pre-Construction	-	-	-	-	-	7,000	7,000
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	7,000	7,000
207	Sunderland Water Supply System - Elevated Water Storage Tank (2.2 ML) and removal of the existing standpipe	Pre-Construction	-	-	-	-	-	1,000	1,000
		Construction	-	-	-	-	-	8,000	8,000
		Total	-	-	-	-	-	9,000	9,000
208	Cannington Water Supply System - New Well and Pumphouse with standby power (DC601)	Pre-Construction	-	-	-	-	1,000	1,500	2,500
		Construction	-	-	-	-	-	6,000	6,000
		Total	-	-	-	-	1,000	7,500	8,500
209	Cannington Water Supply System - Additional Water Storage from 1.4 ML to 3.0 ML	Pre-Construction	-	-	-	-	1,000	1,200	2,200
		Construction	-	-	-	-	-	8,000	8,000
		Total	-	-	-	-	1,000	9,200	10,200

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
210	Beaverton Water Supply Plant Expansion	Pre-Construction	-	-	-	1,000	-	2,400	3,400
		Construction	-	-	-	-	-	30,000	30,000
		Total	-	-	-	1,000	-	32,400	33,400
211	Beaverton - additional Water Storage from 2 ML to 4.8 ML	Pre-Construction	500	-	1,000	-	-	-	1,000
		Construction	-	-	-	-	8,000	-	8,000
		Total	500	-	1,000	-	8,000	-	9,000
212	Water Tower inspections, condition assessment and rehabilitation works	Pre-Construction	-	100	-	-	100	300	500
		Construction	-	400	-	-	400	1,200	2,000
		Total	-	500	-	-	500	1,500	2,500
213	Reservoir inspections, condition assessment and minor rehabilitation works	Pre-Construction	-	-	-	-	-	-	-
		Construction	300	-	300	300	300	1,500	2,400
		Total	300	-	300	300	300	1,500	2,400
214	Wellhead protection at Regional well sites	Pre-Construction	-	-	-	-	-	-	-
		Construction	800	800	800	800	800	4,000	7,200
		Total	800	800	800	800	800	4,000	7,200
215	Water Supply Plants - Asset Management Remediation and Rehabilitation works	Pre-Construction	-	-	-	-	-	8,000	8,000
		Construction	-	-	-	-	-	32,500	32,500
		Total	-	-	-	-	-	40,500	40,500
216	New Concrete Floor in Sign Shed - Ajax Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	58	-	-	-	-	58
		Total	-	58	-	-	-	-	58
217	Replace Fire Panel and Smoke Detector - Ajax WSP	Pre-Construction	142	-	-	-	-	-	-
		Construction	-	285	-	-	-	-	285
		Total	142	285	-	-	-	-	285
218	Roof Replacement - Ajax WSP	Pre-Construction	-	160	-	-	-	-	160
		Construction	-	-	560	-	-	-	560
		Total	-	160	560	-	-	-	720

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
220	Access Ladder Repair/Replacement Project - Various Locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	15	-	-	-	-	-	-
		Total	15	-	-	-	-	-	-
221	Construction of Mezzanine in Fleet Bay 1 - Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	67	-	-	-	-	67
		Total	-	67	-	-	-	-	67
222	Thermal Glass Panels for Rollup Doors and Door Operators - Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	66	-	-	-	-	66
		Total	-	66	-	-	-	-	66
223	Replacement of Fire System - Oshawa/Whitby Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	67	-	-	-	-	-	-
		Total	67	-	-	-	-	-	-
225	Repairs and Epoxy Coat Fleet Bay Concrete Floors & Repairs to Floor Drains in Fleet Bays - Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	69	-	-	-	-	69
		Total	-	69	-	-	-	-	69
226	Replace Existing Asphalt in Various Location - Scugog Depot	Pre-Construction	-	-	10	-	-	-	10
		Construction	-	-	-	123	-	-	123
		Total	-	-	10	123	-	-	133
227	Widening of Existing Canopy Entrance - Sunderland Depot	Pre-Construction	8	-	-	-	-	-	-
		Construction	-	42	-	-	-	-	42
		Total	8	42	-	-	-	-	42

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
228	Paving of Rear Yard and Site Repairs - Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	122	122
		Total	-	-	-	-	-	122	122
229	Roof Replacement on Vehicle Storage Bays - Orono Depot	Pre-Construction	27	-	-	-	-	-	-
		Construction	-	173	-	-	-	-	173
		Total	27	173	-	-	-	-	173
230	Front Entrance Automatic Gate - Oshawa WSP	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	175	-	-	-	-	175
		Total	-	175	-	-	-	-	175
231	Metering Chamber Drainage - Oshawa WSP	Pre-Construction	-	-	-	-	-	-	-
		Construction	595	-	-	-	-	-	-
		Total	595	-	-	-	-	-	-
232	Rectification of Drainage Problem near Metering Chamber - Oshawa WSP	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	231	231
		Total	-	-	-	-	-	231	231
233	Repairs to Building Envelope - Oshawa WSP	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	135	-	-	-	-	135
		Total	-	135	-	-	-	-	135
234	Replace Floor Access Panels and Sleeves - Oshawa WSP	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	150	-	-	-	-	150
		Total	-	150	-	-	-	-	150
235	RTU's 1 2 3 4 Replacement - Oshawa WSP	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,094	-	-	-	-	1,094
		Total	-	1,094	-	-	-	-	1,094
236	RTU's 1 2 3 4 Replacement - Oshawa WSP	Pre-Construction	457	-	-	-	-	-	-
		Construction	-	-	-	-	-	-	-
		Total	457	-	-	-	-	-	-

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
237	Water Damage on Window System - Oshawa WSP	Pre-Construction	-	49	-	-	-	-	49
		Construction	-	-	107	-	-	-	107
		Total	-	49	107	-	-	-	156
238	Front Foyer Concrete Wall/Floor Repair - Bowmanville WSP	Pre-Construction	-	65	-	-	-	-	65
		Construction	-	-	-	-	-	-	-
		Total	-	65	-	-	-	-	65
239	Renovation & Optimization - 101 Consumers	Pre-Construction	-	-	-	-	-	-	-
		Construction	310	-	-	-	-	-	-
		Total	310	-	-	-	-	-	-
240	Depot Rationalization - Ajax Depot Expansion	Pre-Construction	1,667	-	-	-	-	-	-
		Construction	-	11,667	-	-	-	-	11,667
		Total	1,667	11,667	-	-	-	-	11,667
241	Installation of Fencing - Plants North - Blackstock Well #6	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	65	-	-	-	-	65
		Total	-	65	-	-	-	-	65
242	20 Bay Cold Vehicle Storage - Orono Depot Expansion	Pre-Construction	-	-	-	-	-	73	73
		Construction	-	-	-	-	-	1,192	1,192
		Total	-	-	-	-	-	1,265	1,265
243	Salt and Brine Storage Building - Orono Depot Expansion	Pre-Construction	-	-	-	-	-	117	117
		Construction	-	-	-	-	-	1,050	1,050
		Total	-	-	-	-	-	1,167	1,167
244	Depot Rationalization - New Oshawa/Whitby Depot	Pre-Construction	12,667	1,667	-	-	-	-	1,667
		Construction	-	-	55,000	-	-	-	55,000
		Total	12,667	1,667	55,000	-	-	-	56,667
245	New 16 Bay Cold Vehicle Storage - Scugog Depot Expansion	Pre-Construction	-	-	-	73	-	-	73
		Construction	-	-	-	-	993	-	993
		Total	-	-	-	73	993	-	1,066

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
246	New Salt and Brine Storage Facility - Scugog Depot Expansion	Pre-Construction	-	-	-	100	-	-	100
		Construction	-	-	-	-	1,067	-	1,067
		Total	-	-	-	100	1,067	-	1,167
247	Additional Office Space - Scugog Depot	Pre-Construction	-	-	-	93	-	-	93
		Construction	-	-	-	-	407	-	407
		Total	-	-	-	93	407	-	500
248	Depot Rationalization - New Sunderland Depot	Pre-Construction	1,333	1,333	-	-	-	-	1,333
		Construction	-	-	14,000	-	-	-	14,000
		Total	1,333	1,333	14,000	-	-	-	15,333
249	Repairs and Epoxy Coat Fleet Bay Concrete Floors & Repairs to Floor Drains in Fleet Bays - Scugog Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	16	-	-	-	-	-	-
		Total	16	-	-	-	-	-	-
Buildings and Structures Subtotal			**67,294**	**72,540**	**224,197**	**242,814**	**243,667**	**257,035**	**1,040,253**
Machinery & Equipment									
250	Ajax Water Supply Plant - Chlorine line replacement	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	750	-	-	-	-	750
		Total	-	750	-	-	-	-	750
251	Ajax Water Supply Plant - pump replacement with variable frequency drive	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	500	-	-	-	-	500
		Total	100	500	-	-	-	-	500
252	Ajax Water Supply Plant - hyochlorite feed and control system upgrades	Pre-Construction	100	-	-	-	-	-	-
		Construction	500	-	-	-	-	-	-
		Total	600	-	-	-	-	-	-
253	Rosebank Rd. Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power	Pre-Construction	-	-	-	-	-	600	600
		Construction	-	-	-	-	-	2,100	2,100
		Total	-	-	-	-	-	2,700	2,700

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
254	Cherrywood Water Pumping Station upgrades - pumps and feedermain, Pickering	Pre-Construction	250	-	-	-	-	-	-
		Construction	-	1,800	-	-	-	-	1,800
		Total	250	1,800	-	-	-	-	1,800
255	Cherrywood Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power	Pre-Construction	-	-	-	600	-	-	600
		Construction	-	-	-	-	2,100	-	2,100
		Total	-	-	-	600	2,100	-	2,700
256	Finch Ave. Elevated Water Storage Tank - Recoating	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	65	-	-	-	-	65
		Total	-	65	-	-	-	-	65
257	Whitby Water Supply Plant - Valve Chamber upgrades	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,100	-	-	-	-	1,100
		Total	-	1,100	-	-	-	-	1,100
258	Grandview Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch, Standby power and Variable-frequency drive (VFD)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,500	-	-	-	-	2,500
		Total	-	2,500	-	-	-	-	2,500
259	Thickson Rd. Water Pumping Station - replacement of the motor control centre (MCC)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	50	-	-	-	-	50
		Total	-	50	-	-	-	-	50
260	Oshawa Water Supply Plant - Valve Chamber Upgrades	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	1,150	1,150
		Total	-	-	-	-	-	1,150	1,150
261	Oshawa Water Supply Plant - Replacement/rehabilitation of the sedimentation tanks, Header & Backwash valves, and piping	Pre-Construction	300	-	-	-	-	-	-
		Construction	-	-	-	-	-	2,900	2,900
		Total	300	-	-	-	-	2,900	2,900

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
262	Oshawa Water Supply Plant - Replacement of the Motor Control Centre	Pre-Construction	-	-	-	-	-	500	500
		Construction	-	-	-	-	-	1,000	1,000
		Total	-	-	-	-	-	1,500	1,500
263	Oshawa Water Supply Plant - upgrading the uninterrupted power supply UPS	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	900	-	-	-	900
		Total	-	-	900	-	-	-	900
264	Oshawa Water Supply Plant - Rehabilitation of the filters 1 to 6	Pre-Construction	-	-	-	1,200	-	-	1,200
		Construction	-	-	-	3,000	-	8,400	11,400
		Total	-	-	-	4,200	-	8,400	12,600
265	Waverly Rd. Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	2,450	-	-	-	2,450
		Total	-	-	2,450	-	-	-	2,450
266	Taunton Rd. Water Pumping Station and Reservoir - station improvements and replacement	Pre-Construction	500	-	-	-	-	-	-
		Construction	-	-	2,300	-	-	-	2,300
		Total	500	-	2,300	-	-	-	2,300
267	Bowmanville Water Supply Plant - Emergency Backwash piping and Filter bypass piping upgrades	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	200	-	-	-	200
		Total	-	-	200	-	-	-	200
268	Bowmanville Water Supply Plant - Filter Replacement	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,000	-	-	-	1,000
		Total	-	-	1,000	-	-	-	1,000
269	Bowmanville Zone 2 Reservoir - standby power with transfer switch	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	750	-	-	-	-	750
		Total	-	750	-	-	-	-	750
270	Bowmanville Water Supply Plant - header and pump replacement with associated piping rehabilitation/replacement	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,500	-	-	-	1,500
		Total	-	-	1,500	-	-	-	1,500

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
271	Bowmanville Water Supply Plant - Chlorine line replacement	Pre-Construction	-	-	-	-	-	200	200
		Construction	-	-	-	-	-	1,400	1,400
		Total	-	-	-	-	-	1,600	1,600
272	Newcastle Water Supply Plant - Chlorine line replacement	Pre-Construction	-	-	-	-	-	200	200
		Construction	-	-	-	-	-	1,400	1,400
		Total	-	-	-	-	-	1,600	1,600
273	Newtonville Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power	Pre-Construction	-	-	-	-	-	600	600
		Construction	-	-	-	-	-	2,000	2,000
		Total	-	-	-	-	-	2,600	2,600
274	Orono Water Supply System - upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch, Standby power and uninterrupted power supply UPS	Pre-Construction	-	-	-	-	-	700	700
		Construction	-	-	-	-	-	2,200	2,200
		Total	-	-	-	-	-	2,900	2,900
275	Mill St. Water Pumping Station - Station upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch and Standby power	Pre-Construction	-	600	-	-	-	-	600
		Construction	-	-	-	-	-	2,000	2,000
		Total	-	600	-	-	-	2,000	2,600
276	Sunderland Standpipe Water Storage Tank - Recoating	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	800	-	-	-	800
		Total	-	-	800	-	-	-	800
277	Beaverton Water Supply Plant - upgrades Electrical System Study, Grounding Study, Replacement of the Motor Control Centre, Diesel transfer switch, Standby power, uninterrupted power supply (UPS) and Ultraviolet disinfection system	Pre-Construction	250	-	-	-	-	-	-
		Construction	-	-	-	-	2,600	-	2,600
		Total	250	-	-	-	2,600	-	2,600

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
278	Beaverton Water Supply Plant - Chlorine Solution line replacement	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,000	-	-	-	1,000
		Total	-	-	1,000	-	-	-	1,000
279	Beaverton Water Supply Plant - Filter modifications	Pre-Construction	-	-	-	-	-	2,000	2,000
		Construction	-	-	-	-	-	5,000	5,000
		Total	-	-	-	-	-	7,000	7,000
280	Automatic Bulk Water Dispensing System - Various	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	2,000	3,700	4,100	9,800
		Total	-	-	-	2,000	3,700	4,100	9,800
281	Emergency Generator Fuel Tank Compliance upgrades Phase 3 and Phase 4	Pre-Construction	-	-	-	-	-	-	-
		Construction	400	-	-	-	-	-	-
		Total	400	-	-	-	-	-	-
282	Replace Uninterrupted Power Supply (UPS) Batteries - Ajax WSP		50	-	-	-	-	-	-
283	Sulphuric Acid Pump Replacement - Ajax WSP		240	-	-	-	-	-	-
284	Sump Pump Systems - Ajax WSP		123	230	-	-	-	-	230
287	Integrated Control Technology - Security Project - Various Locations		307	-	-	-	-	-	-
288	48" Round Shoring - Sunderland Depot		-	3	-	-	-	3	6
290	Pipe Locator - Sunderland Depot		-	3	-	-	-	3	6
291	Pressure Washer - Sunderland Depot		-	3	3	-	-	-	6
292	Snow Fence Replacement - Sunderland Depot		-	-	-	-	-	6	6

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
293	Temporary Traffic Control Sign replacement - Sunderland Depot		-	2	2	-	2	4	10
294	Trench box replacement - Sunderland Depot		-	-	-	-	-	5	5
295	Chlorine Analyzers - Plants East		-	-	-	30	-	30	60
296	Lab/Process Equipment - Plants East		-	-	11	-	-	-	11
297	Pump / Motor / Mixer Repair / Replacement - Plants East		80	50	50	-	-	-	100
298	Regulatory Instrumentation Replacement and Maintenance - Various Locations		30	95	145	40	120	125	525
299	SCADA / Communications / UPS - Plants East		-	25	-	-	-	-	25
300	SCADA Services - Maintenance - Plants East		-	305	175	190	205	705	1,580
301	Asphalt Content Ignition Furnace - Construction		-	-	-	-	-	7	7
302	Bar Pullout Tester - Construction		4	-	-	-	-	-	-
303	Bench Oven - Construction		5	-	-	-	-	-	-
304	Concrete End Grinder - Construction		8	-	-	-	-	-	-
305	Concrete Testing Equipment - Construction		-	-	-	-	-	8	8
306	Electronic Scale - Construction		-	-	-	-	-	3	3

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
			2024	2025	2026	2027	2028-2032	Forecast Total
307 Gyratory Compactor/Molds/Equipment - Construction		22	-	-	-	-	-	-
308 Lab Oven - Construction		-	-	-	-	-	4	4
309 Nuclear Densometer - Construction		3	-	5	-	-	-	5
310 Survey GPS Instrument - Construction		-	10	10	10	10	52	92
311 Survey Total Station Replacement - Construction		-	-	-	-	-	39	39
312 SCADA / Electrical / Communications / UPS - Plants North		-	30	-	-	-	-	30
313 Chlorine Analyzers - Plants Central		30	30	30	30	29	60	179
314 UPS Battery Replacements and Testing - Plants Central		40	-	-	-	-	-	-
315 Motor Control Centre - Plants Central - Harwood		-	250	-	-	-	-	250
316 SCADA Spare Parts/Lab Work Area - Oshawa WSP		-	11	13	-	-	-	24
317 WSP Post Chlorinator Replacement - Oshawa WSP		25	-	-	-	-	-	-
318 Replace Weigh Scale - Various Locations		35	-	-	-	-	-	-
319 Tank Liners - Whitby WSP		30	-	-	-	-	-	-
320 Flow Meter Replacements - WSP Pumping Stations		80	-	-	-	-	-	-

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
321	Install Isolation Valve - Taunton Rd. Pumping Station		50	-	-	-	-	-	-
322	Teleloggers - Environmental Services Design		-	5	5	5	5	20	40
323	Integrated Control Technology - Security Project - Various Locations		3	-	-	-	-	-	-
Machinery and Equipment Subtotal			**3,565**	**9,167**	**10,599**	**7,105**	**8,771**	**39,524**	**75,166**
Information Technology									
324	Replacement of wireless WAN frequency Replacement		-	3,000	-	-	-	-	3,000
325	Supervisory Control and Data Acquisition (SCADA) Plant North Improvements		-	-	-	5,500	-	-	5,500
326	Supervisory Control and Data Acquisition (SCADA) Plant South Improvements		-	5,800	-	-	-	-	5,800
327	Supervisory Control and Data Acquisition (SCADA) Plant East Improvements		-	-	2,800	-	-	-	2,800
328	Fuel Management System & Infrastructure Replacement - Various Locations		-	-	216	-	-	-	216
329	Standard Laptop		-	2	-	-	-	-	2
330	PLC & Computer Scada Upgrades - Ajax WSP		-	100	-	-	-	-	100
331	Water SCADA - Hardware, Software and Communications - Various Locations		-	935	161	100	273	272	1,741
332	GIS Hardware (Monitors, backup devices and other) - Data System Management		5	-	-	-	-	-	-
333	Power Laptop		15	22	2	6	6	7	43

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
334	Computers & Monitors Refresh - Financial Services		149	228	175	272	225	1,004	1,904
335	Scanner and Wide Format Black & White Printer - Construction		-	-	-	22	-	-	22
336	SCADA Computers - Plants Central		-	10	-	-	-	-	10
337	SCADA Workstation - Plants Central		-	20	10	-	-	-	30
338	Power Laptop (with Monitor)		5	7	-	-	-	-	7
339	Tablet - Environmental Services Design		-	4	3	4	4	20	35
340	Tablet		6	-	-	-	-	-	-
341	Standard Laptop		1	-	-	-	-	-	-
342	Power Laptop		1	-	-	-	-	-	-
Information Technology Subtotal			**182**	**10,128**	**3,367**	**5,904**	**508**	**1,303**	**21,210**

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
			2024	2025	2026	2027	2028-2032	Forecast Total
Vehicles								
343 1/2 Ton Pick-up Truck - Various Locations		-	134	28	28	56	84	330
344 1 Ton High Roof Van - Ajax Depot		-	42	-	-	-	-	42
345 Forklift - Various Locations		-	25	-	-	-	-	25
346 Tractor - Ajax Depot		-	100	-	-	-	-	100
347 Rubber tire roller compaction unit - Orono Depot		-	20	-	-	-	-	20
348 Asphalt Grinder Attachement (Skid Steer Loader) - Oshawa/Whitby Depot		-	-	-	8	-	-	8
349 Hybrid PHEV SUV - Oshawa/Whitby Depot		850	-	-	-	-	-	-
350 Hybrid Van - Oshawa/Whitby Depot		-	17	-	-	-	-	17
351 Sidewalk Plow/Snowblower - Oshawa/Whitby Depot		-	-	-	-	-	50	50
352 Snow Blower for skid steer loader - Oshawa/Whitby Depot		-	10	-	-	-	-	10
353 Street Flusher - Oshawa/Whitby Depot		-	-	-	117	-	-	117
354 Street Sweeper attachment for Roadside Mower/Tractor - Oshawa/Whitby Depot		-	8	-	-	-	-	8
355 Tandem Axle Truck - Oshawa/Whitby Depot		-	-	-	-	-	83	83
356 Vactor 2100 - Oshawa/Whitby Depot		395	-	-	-	-	-	-

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
357	3/4 Ton Pick Up - Scugog Depot		-	28	-	-	-	-	28
358	Backhoe with Breaker Attachment - Sunderland Depot		-	125	-	-	-	-	125
Vehicles Subtotal			**1,245**	**509**	**28**	**153**	**56**	**217**	**963**
Furniture and Fixtures									
359	Office Furniture - Various Locations		-	8	7	1	-	-	16
360	Parts Cabinets - Ajax Depot		-	16	-	-	-	-	16
361	Heavy Duty Steel Racking for Materials Storage Building - Orono Depot		-	65	-	-	-	-	65
362	Parts Cabinets - Oshawa/Whitby Depot		-	108	-	-	-	-	108
363	Office Chairs - Financial Services		-	1	1	1	1	4	8
364	A/V Equipment and Technology Upgrades - Various Locations		10	10	10	10	10	20	60
Furniture and Fixtures Subtotal			**10**	**208**	**18**	**12**	**11**	**24**	**273**

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
Allowances & Other Provisions									
365	Regional Water Supply Master Planning Study for the Regional Official Plan Review		250	-	-	-	-	800	800
366	Emergency Planning Updating Requirements		-	100	-	-	-	-	100
367	Asset Condition Assessments - Reports for Vertical Assets		100	-	290	100	300	1,396	2,086
368	Asset Condition Assessment/ investigation for transmission pipes		182	67	245	221	227	1,020	1,780
369	Master planning energy management		-	200	-	-	200	200	600
370	Allowance for acquisition of easements		100	100	100	100	100	500	900
371	Allowance for engineering studies		150	150	300	150	300	1,050	1,950
372	Climate Change Strategy Allowance		-	150	-	-	-	-	150
373	Allowance for Vulnerability Assessments for Water Supply Plants		-	350	-	350	-	-	700
374	Allowance for CTC Source Water Protection Plan related to the Lake Ontario Collaborative		-	500	300	400	1,500	2,200	4,900
375	Preliminary engineering		100	100	100	100	100	500	900
376	Allowance for sundry extensions as per Council policy - Various		15	15	15	15	15	75	135
377	Allowance for unknown requirements		100	100	100	100	100	500	900
378	Allowance for land severance review and drawing requirements		100	100	100	100	100	500	900

Appendix B: 2023-2032 Water Supply System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix A for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
379	Allowance for Regional share for works in conjunction with residential subdivision development		2,000	2,000	2,000	2,000	2,000	10,000	18,000
380	Allowance for Regional share for works in conjunction with non-residential development		500	500	500	500	500	2,500	4,500
381	Well interference works		400	400	400	400	1,000	5,000	7,200
Allowances & Other Provisions Subtotal			**3,997**	**4,832**	**4,450**	**4,536**	**6,442**	**26,241**	**46,501**
Water Supply System Subtotal			**140,784**	**232,267**	**317,098**	**344,839**	**318,690**	**557,865**	**1,770,759**
Total Water Supply System			**140,784**	**232,267**	**317,098**	**344,839**	**318,690**	**557,865**	**1,770,759**

* Rows and columns may not add due to rounding

** Pre-construction capital financing includes expenditures for land purchases, utility relocates, preliminary studies, design, etc.

*** Projects with regularly recurring expenditures include allowances, machinery and equipment, information technology, vehicles and furniture and fixtures, etc. do not include separate pre-construction and contruction capital financing

**** Appendix B includes financing of the following development charge shortfalls as follows:

	2023	2024	2025	2026	2027	2028 - 2032	Grand Total
DC Shortfall							
Residential DC Shortfall	-	23,652	56,018	152,739	67,608	86,065	386,082
Commercial DC Shortfall	-	-	-	6,000	-	-	6,000
Institutional DC Shortfall	130	186	250	898	176	418	2,058
Industrial DC Shortfall	11,327	8,636	13,802	65,173	2,998	18,365	120,301
Total DC Shortfall	**11,457**	**32,474**	**70,070**	**224,810**	**70,782**	**104,848**	**514,441**

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

	Durham Budget 2023	Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
Sanitary Sewer																
Linear Infrastructure																
1	R.R. 2A (Centre St). from King St. to Brock St. West, Oshawa	-	-	-	-	-	-	-	-	-	-	400	400	1,485	-	1,885
3	R.R. 16 (Ritson Rd.) from Taunton Rd. to Conlin Rd., Oshawa	-	-	-	-	-	-	-	-	-	-	225	225	200	1,450	1,875
16	City of Oshawa Road Program	-	-	-	-	-	-	-	-	-	-	570	570	-	9,900	10,470
17	Municipality of Clarington Road Program	-	-	-	-	-	-	-	-	-	-	275	275	25	2,700	3,000
18	Township of Scugog Road Program	-	-	-	-	-	-	-	-	-	-	200	200	-	675	875
19	Township of Uxbridge Road Program	-	-	-	-	-	-	-	-	-	-	225	225	-	3,060	3,285
21	Allowance for unknown sanitary sewerage requirements in conjunction with area municipality road programs in various locations	-	-	-	-	-	-	-	-	-	-	200	200	-	1,800	2,000
24	Sanitary sewerage works to rectify identified system deficiencies independent of road programs in various locations	-	-	-	-	-	-	-	-	-	-	400	400	-	5,850	6,250
25	Rehabilitation of existing sanitary sewers in various locations	-	-	-	457	-	-	-	-	-	-	-	457	-	7,828	8,285
27	Trunk Sanitary Sewer Rehabilitation from Lord Elgin Park to Kingston Rd. (Highway No. 2), Ajax	-	-	-	-	-	-	-	-	-	-	250	250	-	11,000	11,250

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

	Durham Budget 2023	Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
28	Replacement of the trunk sanitary sewer from Harwood Ave. South and Edward St. through Lord Elgin Park to the intersection of Chadwick Dr. and Adams Dr., Ajax	-	-	-	1,600	-	-	-	-	-	-	-	1,600	1,705	-	3,305
29	Replacement of sanitary sewer between Birch Court and Glynn Rd., Ajax	-	-	-	-	-	-	-	-	-	-	150	150	-	500	650
30	Replacement of the sanitary sewer on High St. from Mary St. to Walnut St., Whitby	-	-	-	-	-	-	-	-	-	-	175	175	460	-	635
31	Replacement of sanitary sewer on Donovan Cres. from Walton Blvd. to 30 m east of Walton Blvd., Whitby	-	-	-	-	-	-	-	-	-	-	215	215	-	430	645
38	Replacement of sanitary sewer on Olive Ave from Simcoe St. to Drew St., Oshawa	-	-	-	-	-	-	-	-	-	-	260	260	1,605	-	1,865
41	Replacement of sanitary sewer on Conant St. from Myers Rd. to Nelson St., Oshawa	-	-	-	150	-	-	-	-	-	-	-	150	-	390	540
44	Replacement of sanitary sewer on Simcoe St. from Metcalf St. to Quebec St., Oshawa	-	-	-	150	-	-	-	-	-	-	-	150	925	-	1,075
46	Replacement of sanitary sewer on Mary St. from Rossland Rd. to Robert St., Oshawa	-	-	-	2,150	-	-	-	-	-	-	-	2,150	-	-	2,150
47	Replacement of forcemain on Wilmot Creek easement from Cobbledick Rd. to Toronto St., Newcastle	-	-	-	1,300	-	-	-	-	-	-	-	1,300	1,406	-	2,706
48	Replacement of sanitary sewer on First Ave. from Brock St. to Dominion St., Uxbridge	-	-	-	150	-	-	-	-	-	-	-	150	100	330	580
49	Evaluation of trunk sanitary sewers/gravity sewers at creek crossings	-	-	-	-	-	-	-	-	-	-	75	75	75	225	375
52	Sanitary Sewer on Meadow St. from Avalon St. to Manor Dr., Oshawa	-	-	-	-	-	-	-	-	-	-	100	100	-	260	360

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

	Durham Budget 2023	Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
57	Trunk Sanitary Sewer on Kingston Rd. (Highway No. 2) from east of Harwood Ave. to east of Galea Dr., Ajax	-	-	-	-	-	-	522	8,376	-	-	2,452	11,350	350	-	11,700
59	Thickson Rd. Sub-Trunk sanitary sewer from Glengowan St. to Conlin Rd., Whitby (Region's share only)	-	-	-	-	-	-	126	2,021	-	-	591	2,738	762	-	3,500
62	West Brooklin Trunk Sanitary Sewer from west of Cochrane St. to east of Highway No. 12, Whitby (Region's share only)	-	-	-	-	-	-	184	2,952	-	-	864	4,000	9,945	6,600	20,545
70	Sanitary Sewer on Thornton Rd. from Conlin Rd. within the Northwood Employment Area, Oshawa	-	-	-	-	-	-	74	1,181	-	-	346	1,601	2,450	-	4,051
74	Twinning of northwest branch of Harmony Creek Sub-Trunk Sanitary Sewer from Central Park Blvd. N. & Hillcroft St. to Beatrice St., Oshawa	-	-	-	-	-	-	-	-	-	-	150	150	-	2,520	2,670
81	Courtice Trunk Sanitary Sewer - Trulls Rd. from Bloor St. to future Adelaide Ave., Courtice	-	-	-	-	-	-	138	2,214	-	-	648	3,000	-	52,700	55,700
82	Courtice Trunk Sanitary Sewer - Adelaide Ave. from Trulls Rd. to Townline Rd., Courtice	-	-	-	-	1,874	-	405	6,494	-	-	26	8,799	-	53,400	62,199
85	Southeast Courtice Sub-Trunk Sanitary Sewer on future mid-block road from Trulls Rd. to Courtice Rd. & Courtice Rd. from mid-block to Bloor St., Courtice	-	-	-	-	-	-	244	3,911	-	-	1,145	5,300	-	-	5,300
Linear Infrastucture Subtotal				**-**	**5,957**	**1,874**	**-**	**1,693**	**27,149**	**-**	**-**	**9,942**	**46,615**	**21,493**	**161,618**	**229,726**

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023	Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
Building and Structures															
101 Harmony Creek Sanitary Sewage Pumping Station - expansion and forcemain twinning, Oshawa	-		-	-	-	-	28	443	-	-	130	601	-	48,100	48,701
102 Expansion of the Conlin Rd. Sanitary Sewage Pumping Station and twinning of the forcemain, Oshawa	-		-	-	-	-	115	1,845	-	-	540	2,500	2,802	70,700	76,002
106 Expansion of Courtice Water Pollution Control Plant from 68 MLD to 136 MLD	-		-	-	-	-	26	168	-	-	806	1,000	-	153,400	154,400
109 Newcastle Water Pollution Control Plant - Capacity Re-rating from 4 MLD to 7 MLD	-		-	-	-	-	300	1,913	-	-	1,416	3,629	19,154	-	22,783
115 Sunderland Water Pollution Control Plant - Lagoon System, Brock	-		-	-	-	-	83	527	-	-	1,390	2,000	1,000	11,000	14,000
116 River St. Sanitary Sewage Pumping Station expansion, Brock	-		-	-	-	-	50	316	-	-	834	1,200	-	4,600	5,800
117 Cannington Water Pollution Control Plant - Lagoon System, Brock	-		-	-	-	-	83	527	-	-	1,390	2,000	1,074	11,500	14,574
118 Laidlaw St. Sanitary Sewage Pumping Station expansion, Brock	-		-	-	-	-	42	264	-	-	695	1,001	-	5,200	6,201
125 Depot Rationalization - Ajax Depot Expansion	-	New	-	-	-	-	-	-	-	1,667	-	1,667	-	-	1,667
126 Building J Roof Replacement - Corbett Creek WPCP	-	Replacement	-	-	-	-	-	-	-	-	82	82	-	-	82
128 Access Ladder Repair/Replacement Project - Various Locations	-	Replacement	-	-	-	-	-	-	-	-	641	641	-	-	641
129 Replacement Fire System - Vesda - Duffin Creek WPCP	-	Replacement	623	-	-	-	-	-	-	-	177	800	-	-	800

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023		Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
130	New Furniture in Office and Lab - Expansion - Environmental Lab	-	Replacement	11	-	-	-	-	-	-	-	11	22	-	-	22
136	Roof Replacement on Vehicle Storage Bays - Orono Depot	-	Replacement	-	-	-	-	-	-	-	-	27	27	-	-	27
139	Replacement of Fire System - Oshawa/Whitby Depot	-	Replacement	-	-	-	-	-	-	-	-	67	67	-	-	67
141	Depot Rationalization - New Oshawa/Whitby Depot	-	New	-	-	-	-	-	-	-	12,667	-	12,667	-	-	12,667
143	Repairs and Epoxy Coat Fleet Bay Concrete Floors & Repairs to Floor Drains in Fleet Bays - Scugog Depot	-	Replacement	-	-	-	-	-	-	-	-	7	7	-	-	7
148	Widening of Existing Canopy Entrance - Sunderland Depot	-	Replacement	-	-	-	-	-	-	-	-	8	8	-	-	8
149	Install Perimeter Fence - Pumping Stations Central - Cochrane St. SPS	-	Replacement	-	-	-	-	-	-	-	-	50	50	-	-	50
150	Renovation & Optimization - 101 Consumers	-	Replacement	-	442	-	-	-	-	-	-	-	442	-	-	442
151	Access Ladder Repair/Replacement Project - Duffin Creek WPCP	-	Replacement	454	-	-	-	-	-	-	-	128	582	-	-	582
152	Depot Rationalization - New Sunderland Depot	-	New	-	-	-	-	-	-	-	1,333	-	1,333	-	-	1,333
Buildings & Structures Subtotal				**1,088**	**442**	**-**	**-**	**727**	**6,003**	**-**	**15,667**	**8,399**	**32,325**	**24,030**	**304,500**	**360,856**

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023		Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
Machinery & Equipment																
153	Central Duffin Creek Metering Building at Valleyfarm Road and Finch Avenue meter replacement, Pickering	-		-	-	-	-	-	-	-	-	100	100	-	560	660
154	Duffin Creek Water Pollution Control Plant - Digester mixing improvements and Motor Control Centre Replacement, Pickering	-		15,830	-	-	-	-	-	-	-	5,620	21,450	19,400	23,850	64,700
156	Duffin Creek Water Pollution Control Plant - Remedial works and improvements in various locations throughout the plant	-		22,000	-	-	-	-	-	-	-	5,500	27,500	16,500	-	44,000
157	Duffin Creek Water Pollution Control Plant - Ammonia-based aeration control (ABAC) for Stage 1, 2 and 3	-		800	200	-	-	-	-	-	-	-	1,000	-	5,000	6,000
164	Michael Blvd. Sanitary Sewerage Pumping Station - replacement of the Motor Control Centre (MCC) and pump, Whitby	-		-	200	-	-	-	-	-	-	-	200	400	2,000	2,600
165	Hanover Sanitary Sewage Pumping Station - the replacement of pumps and forcemain, Whitby	-		-	100	-	-	-	-	-	-	-	100	700	-	800
167	Simcoe St. Sanitary Sewerage Pumping Station - Chemical Pump addition, Oshawa	-		-	-	-	-	-	-	-	-	250	250	-	575	825
173	Lake Simcoe Water Pollution Control Plant - Diffused Air System replacement and associated system upgrades	-		-	3,750	-	-	-	-	-	-	3,300	7,050	8,150	-	15,200
174	Lake Simcoe Water Pollution Control Plant - Replacement of Clarifier mechanisms	-		-	100	-	-	-	-	-	-	-	100	420	-	520
176	Lake Simcoe Water Pollution Control Plant and associated sanitary sewerage pumping stations - PLC and SCADA system upgrades	-		-	500	-	-	-	-	-	-	-	500	600	6,000	7,100

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023		Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
179	Emergency Generator Fuel Tank Compliance upgrades Phase 3 and 5	-		-	-	-	-	-	-	-	-	1,700	1,700	3,364	-	5,064
181	Bar Pullout Tester - Construction	1	New	-	-	-	-	-	-	-	-	4	4	-	-	4
182	Bench Oven - Construction	1	New	-	-	-	-	-	-	-	-	5	5	-	-	5
183	Concrete End Grinder - Construction	1	New	-	-	-	-	-	-	-	-	8	8	-	-	8
186	Gyratory Compactor/Molds/Equipment - Construction	1	New	-	-	-	-	-	-	-	-	22	22	-	-	22
188	Nuclear Densometer - Construction	1	Replacement	-	-	-	-	-	-	-	-	3	3	-	-	3
195	Chemical Pump Replacement - Various Locations	2	Replacement	-	-	-	-	-	-	-	-	18	18	-	-	18
199	Grit Blower Rebuild - Courtice WPCP	1	Replacement	-	-	-	-	-	-	-	-	10	10	-	-	10
203	Analytical Balance Bench Scale - Duffin Creek WPCP	1	New	12	-	-	-	-	-	-	-	3	15	-	-	15
204	Auto Sampler Replacement - Duffin Creek WPCP	1	Replacement	20	-	-	-	-	-	-	-	5	25	-	-	25
206	BAS Server Replacement - Duffin Creek WPCP	1	Replacement	58	-	-	-	-	-	-	-	17	75	-	-	75
211	Chain and Flyght Replacement - Stage 3 Secondary Clarifier - Duffin Creek WPCP	1	Replacement	81	-	-	-	-	-	-	-	19	100	-	-	100
215	Dock Leveler Replacement - Duffin Creek WPCP	1	Replacement	23	-	-	-	-	-	-	-	7	30	-	-	30

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023		Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
217	DR3900 Spectrophotometer - Duffin Creek WPCP	1	New	12	-	-	-	-	-	-	-	3	15	-	-	15
224	Integrated Control Technology - Security Project - Various Locations	6	New	-	-	-	-	-	-	-	-	311	311	-	-	311
230	Polymer Building PRAP Network Upgrades - Duffin Creek WPCP	1	Replacement	31	-	-	-	-	-	-	-	9	40	-	-	40
251	Secondary Clarifier (Circular) Gearbox - Duffin Creek WPCP	2	Replacement	195	-	-	-	-	-	-	-	45	240	-	-	240
263	Biochemical Oxygen Demand (BOD) Incubators - Environmental Lab	2	Replacement	20	-	-	-	-	-	-	-	20	40	-	-	40
264	Biological Oxygen Demand Analyzer - Environmental Lab	1	Replacement	6	-	-	-	-	-	-	-	5	11	-	-	11
267	Centrifuge (Inorganics) - Environmental Lab	1	Replacement	6	-	-	-	-	-	-	-	6	12	-	-	12
269	Digestion Block with Controllers - Environmental Lab	4	Replacement	40	-	-	-	-	-	-	-	40	80	-	-	80
270	Dishwasher - Environmental Lab	1	Replacement	5	-	-	-	-	-	-	-	5	10	-	-	10
274	Gas Chromatograph / Mass Spectrometer / MS (Extractables) - Environmental Lab	1	Replacement	-	300	-	-	-	-	-	-	-	300	-	-	300
282	Microscope - Environmental Lab	1	Replacement	-	75	-	-	-	-	-	-	-	75	-	-	75
290	Solids Manifold - Environmental Lab	2	Replacement	10	-	-	-	-	-	-	-	10	20	-	-	20
295	Water Purification System - Environmental Lab	1	Replacement	13	-	-	-	-	-	-	-	12	25	-	-	25

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

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Durham Budget 2023		Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
298	RAS Piping - Nonquon WPCP	1	New	-	-	-	-	-	-	-	-	95	95	-	-	95
302	Backflow Preventer Device Replacement - Port Darlington WPCP	1	Replacement	-	-	-	-	-	-	-	-	29	29	-	-	29
309	Sodium Bisulfite HVAC - Port Darlington WPCP	1	Replacement	-	-	-	-	-	-	-	-	135	135	-	-	135
318	Install AC for Blower Room - Uxbridge Brook WPCP	1	New	-	-	-	-	-	-	-	-	50	50	-	-	50
321	Electrical Equipment Replacements - WPCP Pumping Stations	1	Replacement	-	-	-	-	-	-	-	-	50	50	-	-	50
324	Integrated Control Technology - Security Project - Duffin Creek WPCP	1	New	19	-	-	-	-	-	-	-	6	25	-	-	25
Machinery & Equipment Subtotal				**39,181**	**5,225**	**-**	**-**	**-**	**-**	**-**	**-**	**17,422**	**61,829**	**49,534**	**37,985**	**149,347**
Information Technology Infrastructure																
325	SCADA System Master Plan for the sanitary sewage pumping stations and implementation requirements	-		-	-	-	-	8	136	-	-	356	500	-	2,800	3,300
326	Standard Laptop	2	New	-	-	-	-	-	-	-	-	1	1	-	-	1
327	Power Laptop	12	New	-	-	-	-	-	-	-	-	13	13	-	-	13
330	GIS Hardware (Monitors, Backup Devices and Other) - Data System Management	1	Replacement	-	-	-	-	-	-	-	-	5	5	-	-	5
331	Tablet	1	New	-	-	-	-	-	-	-	-	2	2	-	-	2
331	Tablet	1	Replacement	-	-	-	-	-	-	-	-	4	4	-	-	4

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023		Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
333	SCADA Programming Software Upgrade (ifix) - Duffin Creek WPCP	1	Replacement	39	-	-	-	-	-	-	-	11	50	-	-	50
334	SCADA Workstations (Desktops) - Duffin Creek WPCP	1	New	8	-	-	-	-	-	-	-	2	10	-	-	10
335	Barcode Printers - Environmental Lab	4	Replacement	4	-	-	-	-	-	-	-	4	8	-	-	8
337	LIMS Computer System - Environmental Lab	1	Replacement	-	100	-	-	-	-	-	-	-	100	-	-	100
339	Power Laptop (with Monitor) - Various Locations	3	New	-	-	-	-	-	-	-	-	5	5	-	-	5
341	Computers & Monitors Refresh - Financial Services	1	Replacement	-	-	-	-	-	-	-	-	265	265	-	-	265
Information Technology Infrastructure Subtotal				**51**	**100**	**-**	**-**	**8**	**136**	**-**	**-**	**668**	**963**	**-**	**2,800**	**3,763**
Vehicles																
357	Vactor 2100 - Oshawa/Whitby Depot	1	New	-	-	-	-	-	-	-	-	395	395	-	-	395
Vehicles Subtotal				**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**395**	**395**	**-**	**-**	**395**
Furniture & Fixtures																
360	A/V Equipment and Technology Upgrades - Various Locations	1	New	-	-	-	-	-	-	-	-	10	10	-	-	10
Furniture & Fixtures Subtotal				**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**10**	**10**	**-**	**-**	**10**

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023		Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
				Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
Allowances & Other Provisions																
366	Regional Sewage Master Planning Study for the Regional Official Plan Review	-		-	-	-	-	27	443	-	-	130	600	800	800	2,200
367	Biosolids Master Plan	-		-	-	-	-	23	369	-	-	108	500	-	500	1,000
368	York Durham Sanitary Sewerage Master Plan	-		369	-	-	-	-	-	-	-	131	500	-	500	1,000
371	Asset Condition Assessments - Reports for the Vertical Assets	-		-	300	-	-	-	-	-	-	-	300	1,503	2,400	4,203
375	Allowance for acquisition of easements	-		-	-	-	-	-	-	-	-	100	100	-	900	1,000
376	Allowance for engineering studies	-		-	-	-	-	-	-	-	-	150	150	-	1,350	1,500
378	Preliminary engineering	-		-	-	-	-	-	-	-	-	100	100	-	900	1,000
379	Allowance for sundry extensions as per Council policy	-		-	-	-	-	-	-	-	-	15	15	-	135	150
380	Allowance for unknown requirements	-		-	-	-	-	-	-	-	-	100	100	-	900	1,000
381	Allowance for land severance review and drawing requirements	-		-	-	-	-	-	-	-	-	100	100	-	900	1,000
382	Allowance for Regional share for works in conjunction with residential subdivision development	-		-	-	-	-	92	1,476	-	-	432	2,000	-	18,000	20,000

Appendix C: 2023 Sanitary Sewerage System Capital Projects ($,000's)

Provides financing details for capital projects proposed in 2023. See Appendix D for the comprehensive 2023 capital budget and 2024-2032 forecast

Durham Budget 2023	Quantity	New / Replacement	2023 Proposed Financing									2023 Proposed Budget	Proposed Funding Prior to 2023	Forecast 2024-2032	Total Project to 2032
			Other	Reserve/ Reserve Funds	Industrial DCs	Institutional DCs	Commercial DCs	Residential DCs	Subsidy /Grant	Debenture	User Rate				
383 Allowance for Regional share for works in conjunction with non-residential development	-		-	-	-	-	23	369	-	-	108	500	-	4,500	5,000
384 Allowance for intensification	-		-	-	-	-	16	258	-	-	76	350	-	3,150	3,500
Allowances & Other Provisions Subtotal			**369**	**300**	**-**	**-**	**181**	**2,915**	**-**	**-**	**1,550**	**5,315**	**2,303**	**34,935**	**42,553**
Sanitary Sewer System Subtotal			**40,691**	**12,024**	**1,874**	**-**	**2,609**	**36,203**	**-**	**15,667**	**38,384**	**147,452**	**97,360**	**541,838**	**786,650**
Total Sanitary Sewerage System			**40,691**	**12,024**	**1,874**	**-**	**2,609**	**36,203**	**-**	**15,667**	**38,384**	**147,452**	**97,360**	**541,838**	**786,650**

* Rows and columns may not add due to rounding

** Appendix C includes Other financing from York Recovery as follows:

Other	2023
Recovery From York	40,691
Total Other Financing	40,691

*** Appendix C includes Reserve financing as follows:

Reserve Fund	2023
Asset Management Reserve Fund - Sewer	11,107
Rate Stabilization Reserve Fund - Sewer	442
Pre-Servicing of Employment Lands Reserve Fund - Sewer	-
Reserve Fund - Environmental Lab	475
Equipment Replacement Reserve	-
Total Reserve/Reserve Fund Financing	12,024

**** Appendix C includes financing of the following development charge shortfalls as follows:

DC Shortfall	2023
Residential DC Shortfall	0
Commercial DC Shortfall	0
Institutional DC Shortfall	169
Industrial DC Shortfall	10,215
Total DC Shortfall	**10,384**
Shortfall Funding Source	
Rate Stabilization Reserve Fund_Sewer	-
Debenture - DC Funded	-
User Rate	10,384
Total Funding	**10,384**

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
Sanitary Sewerage System									
Linear Infrastructure									
1	R.R. 2A (Centre St). from King St. to Brock St. West, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	400	-	-	-	-	-	-
		Total	400	-	-	-	-	-	-
2	R.R. 14 (Liberty St.) from Baseline Rd. to King St., Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	6,400	-	6,400
		Total	-	-	-	-	6,400	-	6,400
3	R.R. 16 (Ritson Rd.) from Taunton Rd. to Conlin Rd., Oshawa	Pre-Construction	225	-	-	-	-	-	-
		Construction	-	-	1,450	-	-	-	1,450
		Total	225	-	1,450	-	-	-	1,450
4	R.R. 22 (Bayly St.) from Westney Rd. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	2,300	-	2,300
		Total	-	-	-	-	2,300	-	2,300
5	R.R. 36 (Hopkins St.) from Consumers Dr. to Dundas St., Whitby	Pre-Construction	-	220	-	-	-	-	220
		Construction	-	-	-	-	-	1,450	1,450
		Total	-	220	-	-	-	1,450	1,670
6	R.R. 37 (Finch Ave.) from Altona Rd. to Brock Rd., Pickering	Pre-Construction	-	-	-	70	-	-	70
		Construction	-	-	-	-	-	120	120
		Total	-	-	-	70	-	120	190
7	R.R. 52 (Thornton Rd.) from King St. to Stellar Dr., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	170	-	-	-	170
		Total	-	-	170	-	-	-	170

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
8	R.R. 53 (Stevenson Rd.) from Highway 401 to Bond St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	870	-	-	-	870
		Total	-	-	870	-	-	-	870
9	R.R. 57 (Bowmanville Ave.) from Stevens Rd. to Nash Rd., Bowmanville	Pre-Construction	-	150	-	-	-	-	150
		Construction	-	-	-	-	-	1,100	1,100
		Total	-	150	-	-	-	1,100	1,250
10	R.R. 59 (Gibb St.) from Stevenson Rd. to Simcoe St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	450	-	450
		Total	-	-	-	-	450	-	450
11	R.R. 59 (Gibb St.)/Olive Ave. Extension from Drew St. to Ritson Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	570	-	-	570
		Total	-	-	-	570	-	-	570
12	Allowance for sanitary sewers in conjunction with the Regional Road Program	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	300	-	8,600	8,900
		Total	-	-	-	300	-	8,600	8,900
13	City of Pickering Road Program	Pre-Construction	-	35	35	35	35	175	315
		Construction	-	200	200	200	200	1,000	1,800
		Total	-	235	235	235	235	1,175	2,115
14	Town of Ajax Road Program	Pre-Construction	-	65	65	65	65	325	585
		Construction	-	300	300	300	300	1,500	2,700
		Total	-	365	365	365	365	1,825	3,285
15	Town of Whitby Road Program	Pre-Construction	-	100	100	100	100	500	900
		Construction	-	500	500	500	500	2,500	4,500
		Total	-	600	600	600	600	3,000	5,400

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
16	City of Oshawa Road Program	Pre-Construction	170	200	200	200	200	1,000	1,800
		Construction	400	900	900	900	900	4,500	8,100
		Total	570	1,100	1,100	1,100	1,100	5,500	9,900
17	Municipality of Clarington Road Program	Pre-Construction	75	75	75	75	75	375	675
		Construction	200	225	225	225	225	1,125	2,025
		Total	275	300	300	300	300	1,500	2,700
18	Township of Scugog Road Program	Pre-Construction	50	10	10	10	10	50	90
		Construction	150	65	65	65	65	325	585
		Total	200	75	75	75	75	375	675
19	Township of Uxbridge Road Program	Pre-Construction	75	50	50	50	50	250	450
		Construction	150	290	290	290	290	1,450	2,610
		Total	225	340	340	340	340	1,700	3,060
20	Township of Brock Road Program	Pre-Construction	-	30	30	30	30	150	270
		Construction	-	90	90	90	90	450	810
		Total	-	120	120	120	120	600	1,080
21	Allowance for unknown sanitary sewerage requirements in conjunction with area municipality road programs in various locations	Pre-Construction	200	200	200	200	200	1,000	1,800
		Construction	-	-	-	-	-	-	-
		Total	200	200	200	200	200	1,000	1,800
22	Sanitary Sewer replacement in conjunction with the Metrolinx Toronto East Rail Corridor expansion to Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,100	-	-	-	-	3,100
		Total	-	3,100	-	-	-	-	3,100
23	Allowance for sanitary sewers in conjunction with the MTO & GO Transit projects	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	100	100	100	100	500	900
		Total	-	100	100	100	100	500	900
24	Sanitary sewerage works to rectify identified system deficiencies independent of road programs in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	400	650	650	650	650	3,250	5,850
		Total	400	650	650	650	650	3,250	5,850

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
25	Rehabilitation of existing sanitary sewers in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	457	490	338	1,000	1,000	5,000	7,828
		Total	457	490	338	1,000	1,000	5,000	7,828
26	Durham York Primary Trunk Sanitary Sewer System - Condition Assessment and Rehabilitation requirements (CCTV inspection, minor repair and rehabilitation works to be completed on Chamber 4 to 7)	Pre-Construction	-	-	3,000	-	-	17,375	20,375
		Construction	-	-	-	-	-	52,125	52,125
		Total	-	-	3,000	-	-	69,500	72,500
27	Trunk Sanitary Sewer Rehabilitation from Lord Elgin Park to Kingston Rd. (Highway No. 2),Ajax	Pre-Construction	250	-	-	-	-	-	-
		Construction	-	1,000	-	5,000	5,000	-	11,000
		Total	250	1,000	-	5,000	5,000	-	11,000
28	Replacement of the trunk sanitary sewer from Harwood Ave. south and Edward St. through Lord Elgin Park to the intersection of Chadwick Dr. and Adams Dr., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,600	-	-	-	-	-	-
		Total	1,600	-	-	-	-	-	-
29	Replacement of sanitary sewer between Birch Court and Glynn Road, Ajax	Pre-Construction	150	-	-	-	-	-	-
		Construction	-	500	-	-	-	-	500
		Total	150	500	-	-	-	-	500
30	Replacement of the sanitary sewer on High St. from Mary St. to Walnut St., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	175	-	-	-	-	-	-
		Total	175	-	-	-	-	-	-
31	Replacement of sanitary sewer on Donovan Cres. from Walton Blvd. to 30 m east of Walton Blvd., Whitby	Pre-Construction	215	-	-	-	-	-	-
		Construction	-	430	-	-	-	-	430
		Total	215	430	-	-	-	-	430
32	Replacement of sanitary sewer on Water St. from the Whitby Water Supply Plant to Breakwater Sanitary Sewage Pumping Station, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	920	-	-	-	-	920
		Total	-	920	-	-	-	-	920

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
33	Replacement of sanitary sewer on Hillcrest Dr. from Beech St. W/L to Beech St. E/L, Whitby	Pre-Construction	-	-	-	-	150	-	150
		Construction	-	-	-	-	840	-	840
		Total	-	-	-	-	990	-	990
34	Replacement of sanitary sewer on Athol St. from St. Lawrence St. to Clemence St., Whitby	Pre-Construction	-	130	-	-	-	-	130
		Construction	-	-	-	300	-	-	300
		Total	-	130	-	300	-	-	430
35	Replacement of sanitary sewer on St. Lawrence St. from Brock St. to Athol St., Whitby	Pre-Construction	-	100	-	-	-	-	100
		Construction	-	-	-	120	-	-	120
		Total	-	100	-	120	-	-	220
36	Replacement of sanitary sewer on Cochrane St. from Ferguson St. to 125 m north of Beech St. W., Whitby	Pre-Construction	-	220	-	-	-	-	220
		Construction	-	-	1,120	-	-	-	1,120
		Total	-	220	1,120	-	-	-	1,340
37	Replacement of sanitary sewer on R.R. 22 (Bloor St.) from Wilson Rd. to Holland St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	330	-	-	-	-	330
		Total	-	330	-	-	-	-	330
38	Replacement of sanitary sewer on Olive Ave from Simcoe St. to Drew St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	260	-	-	-	-	-	-
		Total	260	-	-	-	-	-	-
39	Replacement of sanitary sewer on RR 22 (Bloor St.) from Cubert St. to Oxford St., Oshawa	Pre-Construction	-	-	-	-	-	100	100
		Construction	-	-	-	-	-	330	330
		Total	-	-	-	-	-	430	430
40	Replacement of a sanitary sewer on Thornton Rd. from Adelaide Ave. to Tatra Dr., Oshawa	Pre-Construction	-	-	-	-	-	500	500
		Construction	-	-	-	-	-	1,000	1,000
		Total	-	-	-	-	-	1,500	1,500
41	Replacement of sanitary sewer on Conant St. from Myers Rd. to Nelson St., Oshawa	Pre-Construction	150	-	-	-	-	-	-
		Construction	-	-	390	-	-	-	390
		Total	150	-	390	-	-	-	390

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
42	Replacement of sanitary sewer on Ritson Rd. S. from Kawartha Ave. to Simcoe Street South, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	675	-	-	-	-	675
		Total	-	675	-	-	-	-	675
43	Replacement of sanitary sewer on Ritson Rd. South from Annis St. to Conant St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	385	-	-	-	-	385
		Total	-	385	-	-	-	-	385
44	Replacement of sanitary sewer on Simcoe St. from Metcalf St to Quebec St., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	150	-	-	-	-	-	-
		Total	150	-	-	-	-	-	-
45	Replacement sanitary sewer on Jackson Ave from Merritt St. to Ritson Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	300	-	-	300
		Total	-	-	-	300	-	-	300
46	Replacement of sanitary sewer on Mary St. from Rossland Rd to Robert St., Oshawa	Pre-Construction	150	-	-	-	-	-	-
		Construction	2,000	-	-	-	-	-	-
		Total	2,150	-	-	-	-	-	-
47	Replacement of forcemain on Wilmot Creek easement from Cobbledick Rd. to Toronto St., Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,300	-	-	-	-	-	-
		Total	1,300	-	-	-	-	-	-
48	Replacement of sanitary sewer on First Ave. from Brock St. to Dominion St., Uxbridge	Pre-Construction	150	-	-	-	-	-	-
		Construction	-	330	-	-	-	-	330
		Total	150	330	-	-	-	-	330
49	Evaluation of trunk sanitary sewers/gravity sewers at creek crossings	Pre-Construction	-	-	-	-	-	-	-
		Construction	75	75	75	75	-	-	225
		Total	75	75	75	75	-	-	225
50	Replacement of sanitary sewer in various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,300	1,818	8,004	47,109	58,231
		Total	-	-	1,300	1,818	8,004	47,109	58,231

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
51	Allowance for construction of services in unserviced areas in response to requests or petitions	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	200	200	200	200	1,000	1,800
		Total	-	200	200	200	200	1,000	1,800
52	Sanitary Sewer on Meadow St. from Avalon St. to Manor Dr., Oshawa	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	-	260	-	-	-	260
		Total	100	-	260	-	-	-	260
53	York/Durham Sewage System - Primary Trunk Sanitary Sewer Twinning, Pickering	Pre-Construction	-	16,000	-	20,000	-	-	36,000
		Construction	-	-	-	-	-	217,050	217,050
		Total	-	16,000	-	20,000	-	217,050	253,050
54	Sanitary sewer on Church St. from Hydro Right of Way to Taunton Rd., Ajax (Region's Share)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,500	-	-	-	-	3,500
		Total	-	3,500	-	-	-	-	3,500
55	Sanitary sewer diversion on Hunt St. from Westney Rd. to Harwood Ave., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	5,700	-	-	-	5,700
		Total	-	-	5,700	-	-	-	5,700
56	Twinning of Duffin Creek Trunk Sanitary Sewer on easement from Bayly St. Sanitary Sewage Pumping Station to Highway 401, Ajax	Pre-Construction	-	-	-	-	500	1,000	1,500
		Construction	-	-	-	-	-	5,700	5,700
		Total	-	-	-	-	500	6,700	7,200
57	Trunk Sanitary Sewer on Kingston Rd. (Highway No. 2) from east of Harwood Ave. to east of Galea Dr., Ajax	Pre-Construction	-	-	-	-	-	-	-
		Construction	11,350	-	-	-	-	-	-
		Total	11,350	-	-	-	-	-	-
58	Corbett Trunk Sanitary Sewer on easement from Wentworth St. to Corbett Creek Water Pollution Control Plant, Whitby	Pre-Construction	-	1,000	-	-	-	-	1,000
		Construction	-	-	-	6,200	-	-	6,200
		Total	-	1,000	-	6,200	-	-	7,200

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
59	Thickson Rd. Sub-Trunk sanitary sewer from Glengowan St. to Conlin Rd., Whitby (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	2,738	-	-	-	-	-	-
		Total	2,738	-	-	-	-	-	-
60	West Whitby sub trunk on Dundas St. from Des Newman Blvd. to Halls Rd., Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	12,400	-	-	-	-	12,400
		Total	-	12,400	-	-	-	-	12,400
61	Brooklin Trunk Sanitary Sewer on Mid Block Arterial from Lynde Creek to St. Thomas St. Sanitary Sewage Pumping Station, Whitby	Pre-Construction	-	900	-	-	-	-	900
		Construction	-	-	-	4,020	-	-	4,020
		Total	-	900	-	4,020	-	-	4,920
62	West Brooklin Trunk Sanitary Sewer from west of Cochrane St. to east of Highway No. 12, Whitby (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	4,000	6,600	-	-	-	-	6,600
		Total	4,000	6,600	-	-	-	-	6,600
63	Southwest Brooklin Trunk Sanitary Sewer from west of Cochrane St. on New collector road to east of Highway 12, Whitby (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,700	-	-	-	-	4,700
		Total	-	4,700	-	-	-	-	4,700
64	West Central Brooklin Trunk Sanitary Sewer west of Way St., Whitby (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,900	-	-	-	1,900
		Total	-	-	1,900	-	-	-	1,900
65	Central Brooklin Trunk Sanitary Sewer, Whitby (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,800	-	-	-	-	4,800
		Total	-	4,800	-	-	-	-	4,800
66	Central East Brooklin Trunk Sanitary Sewer east of Baldwin St., Whitby (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	1,100	-	-	-	1,100
		Total	-	-	1,100	-	-	-	1,100
67	East Brooklin Trunk Sanitary Sewer east of Thickson Rd., Whitby (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,200	-	-	-	-	3,200
		Total	-	3,200	-	-	-	-	3,200

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
68	Sanitary Sewer on local road from Windfields Farm Dr. to Winchester Rd., Oshawa	Pre-Construction	-	-	120	-	-	-	120
		Construction	-	-	-	1,000	-	-	1,000
		Total	-	-	120	1,000	-	-	1,120
69	Sanitary Sewer on Stevenson Rd. from Taunton Rd. to Conlin Rd., Oshawa	Pre-Construction	-	300	-	-	-	-	300
		Construction	-	-	2,800	-	-	-	2,800
		Total	-	300	2,800	-	-	-	3,100
70	Sanitary Sewer on Thornton Rd. from Conlin Rd. within the Northwood Employment Area, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,600	-	-	-	-	-	-
		Total	1,600	-	-	-	-	-	-
71	Ash Creek Trunk Sanitary Sewer from Consumers Dr./Green Rd. to Ash Creek Trunk Sanitary Sewage at the former Pringle Creek Water Pollution Control Plant, Whitby	Pre-Construction	-	-	1,500	-	-	2,500	4,000
		Construction	-	-	-	-	-	16,000	16,000
		Total	-	-	1,500	-	-	18,500	20,000
72	Mid Block Arterial Forcemain from Whitby/ Oshawa Boundary to Durham College easement, Whitby/Oshawa	Pre-Construction	-	1,300	-	-	-	-	1,300
		Construction	-	-	-	6,700	-	-	6,700
		Total	-	1,300	-	6,700	-	-	8,000
73	Farewell Creek Trunk Sanitary Sewer twinning on easement west of Grandview St., Oshawa	Pre-Construction	-	-	-	800	-	-	800
		Construction	-	-	-	-	-	2,700	2,700
		Total	-	-	-	800	-	2,700	3,500
74	Twinning of northwest branch of Harmony Creek Sub-Trunk Sanitary Sewer from Central Park Blvd N. & Hillcroft St. to Beatrice St., Oshawa	Pre-Construction	150	320	-	-	-	-	320
		Construction	-	-	2,200	-	-	-	2,200
		Total	150	320	2,200	-	-	-	2,520
75	North Oshawa Creek (East branch) Trunk Sanitary Sewer on easement from Arctic Red Dr. to Winchester Rd., Oshawa (Region's Share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	5,000	-	-	-	5,000
		Total	-	-	5,000	-	-	-	5,000

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
76	North Oshawa Creek (East Branch) Trunk Sanitary Sewer on easement from southeast of Thornton Rd. to Simcoe St., Oshawa (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	4,500	4,500
		Total	-	-	-	-	-	4,500	4,500
77	Twinning of Oshawa Creek Trunk Sanitary Sewer from Gibb St. to Greenwood Ave., Oshawa	Pre-Construction	-	-	-	250	-	-	250
		Construction	-	-	-	-	-	1,200	1,200
		Total	-	-	-	250	-	1,200	1,450
78	Forcemain on Conlin Rd. from Ritson Rd. to Harmony Rd., Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	9,200	-	-	-	9,200
		Total	-	-	9,200	-	-	-	9,200
79	North Oshawa Creek (West Branch) Trunk Sanitary Sewer from Conlin Rd. Sanitary Sewage Pumping Station to Britannia Ave., Oshawa	Pre-Construction	-	1,000	-	-	-	-	1,000
		Construction	-	-	-	4,500	-	-	4,500
		Total	-	1,000	-	4,500	-	-	5,500
80	North Oshawa Creek (West Branch) Trunk Sanitary Sewer from south side of hydro corridor to Columbus Rd., Oshawa	Pre-Construction	-	3,000	-	-	-	-	3,000
		Construction	-	-	-	19,300	-	-	19,300
		Total	-	3,000	-	19,300	-	-	22,300
81	Courtice Trunk Sanitary Sewer - Trulls Rd. from Bloor St. to future Adelaide Ave., Courtice	Pre-Construction	3,000	-	-	-	-	-	-
		Construction	-	52,700	-	-	-	-	52,700
		Total	3,000	52,700	-	-	-	-	52,700
82	Courtice Trunk Sanitary Sewer - Adelaide Ave. from Trulls Rd. to Townline Rd., Courtice	Pre-Construction	1,200	-	-	-	-	-	-
		Construction	7,600	4,300	4,300	44,800	-	-	53,400
		Total	8,800	4,300	4,300	44,800	-	-	53,400
83	Courtice Trunk Sanitary Sewer - Townline Rd. from Adelaide Ave. to Beatrice St., Courtice	Pre-Construction	-	-	1,300	-	-	-	1,300
		Construction	-	-	-	-	52,800	-	52,800
		Total	-	-	1,300	-	52,800	-	54,100

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
84	Southwest Courtice Sub -Trunk Sanitary Sewer on Baseline Rd. from Trulls Rd. to 650 m west of Trulls Rd., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	4,600	-	-	-	4,600
		Total	-	-	4,600	-	-	-	4,600
85	Southeast Courtice Sub-Trunk Sanitary Sewer on future mid-block road from Trulls Rd. to Courtice Rd. & Courtice Rd. from mid-block to Bloor St., Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	5,300	-	-	-	-	-	-
		Total	5,300	-	-	-	-	-	-
86	Baseline Rd. Trunk Sanitary Sewer from Simpson Ave. to Bennett Rd., Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	16,900	-	14,000	-	-	30,900
		Total	-	16,900	-	14,000	-	-	30,900
87	Bennett Rd. Trunk Sanitary Sewer from Baseline Rd. to Highway No. 2, Bowmanville (Region's share only)	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	1,700	1,700
		Total	-	-	-	-	-	1,700	1,700
88	Port Darlington Rd. Trunk Sanitary Sewer from Baseline Rd. to existing easement, Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	24,300	-	-	-	-	24,300
		Total	-	24,300	-	-	-	-	24,300
89	Twinning of Spry Ave. Trunk Sanitary Sewer from Baseline Rd. to N/L of Spry Ave., Bowmanville	Pre-Construction	-	-	-	-	1,000	1,000	2,000
		Construction	-	-	-	-	-	5,000	5,000
		Total	-	-	-	-	1,000	6,000	7,000
90	Soper Creek Trunk Sanitary Sewer on Mearns Ave. from Freeland Ave. to Concession Rd. 3 and on Concession Rd. 3 from Mearns Ave. to 450 m west of Mearns Ave., Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,650	-	-	-	-	1,650
		Total	-	1,650	-	-	-	-	1,650
91	Foster Creek Trunk Sanitary Sewer on Sunset Blvd./ Lakeview Rd. from Rudell Rd. to Church St., Newcastle	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	11,000	-	-	-	-	11,000
		Total	-	11,000	-	-	-	-	11,000
92	Foster Creek Trunk Sanitary Sewer on North St. from north side of Canadian Pacific Railway to Concession Rd. 3, Newcastle (Region's share only)	Pre-Construction	-	2,900	-	-	-	-	2,900
		Construction	-	-	-	-	-	-	-
		Total	-	2,900	-	-	-	-	2,900

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
93	Sanitary Sewer on Concession Rd. 5 to service the westerly portion of the Beaverton Avenue Employment Area A, Brock	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,600	-	-	-	-	3,600
		Total	-	3,600	-	-	-	-	3,600
Linear Infrastructure Subtotal			**46,615**	**189,710**	**52,978**	**135,408**	**82,729**	**414,584**	**875,409**
Buildings and Structures									
94	Duffin Creek Water Pollution Control Plant - Chlorine Contact Tank Expansion	Pre-Construction	-	-	-	340	500	-	840
		Construction	-	-	-	-	-	14,640	14,640
		Total	-	-	-	340	500	14,640	15,480
95	Proposed Pickering Parkway Sanitary Sewage Pumping Station and forcemain, Pickering	Pre-Construction	-	1,400	3,000	-	-	-	4,400
		Construction	-	-	-	-	13,500	-	13,500
		Total	-	1,400	3,000	-	13,500	-	17,900
96	Proposed Squires Beach Sanitary Sewage Pumping Station, Pickering	Pre-Construction	-	-	-	-	-	1,749	1,749
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	-	1,749	1,749
97	Corbett Creek Water Pollution Control Plant - works to rectify existing deficiencies	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	7,300	-	-	-	-	7,300
		Total	-	7,300	-	-	-	-	7,300
98	Expansion of Corbett Creek Water Pollution Control Plant from 84 MLD to 109 MLD	Pre-Construction	-	-	10,000	-	-	-	10,000
		Construction	-	-	-	-	-	174,000	174,000
		Total	-	-	10,000	-	-	174,000	184,000
99	Brooklin Sanitary Diversion Strategy - Proposed Thickson Rd. Sanitary Sewage Pumping Station and forcemain, Whitby	Pre-Construction	-	3,500	-	-	-	-	3,500
		Construction	-	-	-	29,800	-	-	29,800
		Total	-	3,500	-	29,800	-	-	33,300
100	Harmony Creek Water Pollution Control Plant No. 1 demolition, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	2,900	-	-	-	2,900
		Total	-	-	2,900	-	-	-	2,900

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
101	Harmony Creek Sanitary Sewage Pumping Station - expansion and forcemain twinning, Oshawa	Pre-Construction	600	-	3,000	-	-	-	3,000
		Construction	-	-	-	-	-	45,100	45,100
		Total	600	-	3,000	-	-	45,100	48,100
102	Expansion of the Conlin Rd. Sanitary Sewage Pumping Station and twinning of the forcemain, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	2,500	-	70,700	-	-	-	70,700
		Total	2,500	-	70,700	-	-	-	70,700
103	Proposed Harbour Rd. South Sanitary Sewage Pumping Station and forcemain, Oshawa	Pre-Construction	-	500	-	1,600	-	-	2,100
		Construction	-	-	-	-	-	7,100	7,100
		Total	-	500	-	1,600	-	7,100	9,200
104	Simcoe St. South Sanitary Sewage Pumping Station and forcemain replacement, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,700	-	-	-	-	4,700
		Total	-	4,700	-	-	-	-	4,700
105	Madawaska Sanitary Sewage Pumping Station - pumping station replacement, Oshawa	Pre-Construction	-	-	-	-	1,000	1,200	2,200
		Construction	-	-	-	-	-	7,500	7,500
		Total	-	-	-	-	1,000	8,700	9,700
106	Expansion of Courtice Water Pollution Control Plant from 68 MLD to 136 MLD	Pre-Construction	1,000	-	4,500	-	-	-	4,500
		Construction	-	-	-	-	-	148,900	148,900
		Total	1,000	-	4,500	-	-	148,900	153,400
107	Proposed Baseline Rd. Sanitary Sewage Pumping Station and forcemain, Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	4,000	-	-	-	4,000
		Total	-	-	4,000	-	-	-	4,000
108	Proposed Northeast Sanitary Sewage Pumping Station and forcemain, Bowmanville	Pre-Construction	-	-	-	500	-	1,700	2,200
		Construction	-	-	-	-	-	5,700	5,700
		Total	-	-	-	500	-	7,400	7,900
109	Newcastle Water Pollution Control Plant - Capacity Re-rating 4 MLD to 7 MLD	Pre-Construction	-	-	-	-	-	-	-
		Construction	3,630	-	-	-	-	-	-
		Total	3,630	-	-	-	-	-	-

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
110	Expansion of Newcastle Water Pollution Control Plant from 7 MLD to 16 MLD and outfall	Pre-Construction	-	-	1,100	-	1,300	-	2,400
		Construction	-	-	-	-	-	-	-
		Total	-	-	1,100	-	1,300	-	2,400
111	Sunset Sanitary Sewage Pumping Station - decommissioning, Clarington	Pre-Construction	-	120	-	-	-	-	120
		Construction	-	600	-	-	-	-	600
		Total	-	720	-	-	-	-	720
112	Uxbridge Water Pollution Control Plant - Optimization Study, upgrades and rehabilitation works based on the condition assessment.	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	4,600	-	-	-	-	4,600
		Total	-	4,600	-	-	-	-	4,600
113	Water St. Sanitary Sewage Pumping Station - Expansion/Replacement, Scugog	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	19,550	-	3,000	-	-	22,550
		Total	-	19,550	-	3,000	-	-	22,550
114	Port Perry Industrial Area Sanitary Sewage Pumping Station, forcemain and sanitary sewer, Port Perry	Pre-Construction	-	1,200	-	-	-	-	1,200
		Construction	-	-	-	-	14,200	-	14,200
		Total	-	1,200	-	-	14,200	-	15,400
115	Sunderland Water Pollution Control Plant - Lagoon System, Brock	Pre-Construction	2,000	-	-	-	-	-	-
		Construction	-	-	11,000	-	-	-	11,000
		Total	2,000	-	11,000	-	-	-	11,000
116	River St. Sanitary Sewage Pumping Station expansion, Brock	Pre-Construction	1,200	-	-	-	-	-	-
		Construction	-	4,600	-	-	-	-	4,600
		Total	1,200	4,600	-	-	-	-	4,600
117	Cannington Water Pollution Control Plant - Lagoon System, Brock	Pre-Construction	2,000	-	-	-	-	-	-
		Construction	-	-	11,500	-	-	-	11,500
		Total	2,000	-	11,500	-	-	-	11,500
118	Laidlaw St. Sanitary Sewage Pumping Station expansion, Brock	Pre-Construction	1,000	-	-	-	-	-	-
		Construction	-	5,200	-	-	-	-	5,200
		Total	1,000	5,200	-	-	-	-	5,200

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
119	Lake Simcoe Water Pollution Control Plant - expansion, Brock	Pre-Construction	-	-	-	-	1,000	2,000	3,000
		Construction	-	-	-	-	-	39,000	39,000
		Total	-	-	-	-	1,000	41,000	42,000
120	Harbour St. Sanitary Sewage Pumping Station expansion, Brock	Pre-Construction	-	-	-	-	1,000	6,500	7,500
		Construction	-	-	-	-	-	-	-
		Total	-	-	-	-	1,000	6,500	7,500
121	Beaverton Employment Lands Area B Sanitary Sewage Pumping Station and sanitary sewer, Brock	Pre-Construction	-	1,000	-	-	-	-	1,000
		Construction	-	-	-	5,800	-	-	5,800
		Total	-	1,000	-	5,800	-	-	6,800
122	Septage receiving stations, various stations	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,840	-	-	-	-	1,840
		Total	-	1,840	-	-	-	-	1,840
123	Water Pollution Control Plant - Asset Management Remediation and Rehabilitation works	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	5,000	8,000	5,000	8,000	45,000	71,000
		Total	-	5,000	8,000	5,000	8,000	45,000	71,000
124	New Concrete Floor in Sign Shed - Ajax Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	25	-	-	-	-	25
		Total	-	25	-	-	-	-	25
125	Depot Rationalization - Ajax Depot Expansion	Pre-Construction	1,667	-	-	-	-	-	-
		Construction	-	11,667	-	-	-	-	11,667
		Total	1,667	11,667	-	-	-	-	11,667
126	Building J Roof Replacement - Corbett Creek WPCP	Pre-Construction	82	-	-	-	-	-	-
		Construction	-	153	-	-	-	-	153
		Total	82	153	-	-	-	-	153
127	Digester Cleanout - Various Locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	650	250	-	-	-	900
		Total	-	650	250	-	-	-	900

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
128	Access Ladder Repair/Replacement Project - Various Locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	641	-	-	-	-	-	-
		Total	641	-	-	-	-	-	-
129	Replacement Fire System - Vesda - Duffin Creek WPCP	Pre-Construction	-	-	-	-	-	-	-
		Construction	800	-	-	-	-	-	-
		Total	800	-	-	-	-	-	-
130	New Furniture in Office and Lab - Expansion - Environmental Lab	Pre-Construction	-	-	-	-	-	-	-
		Construction	22	-	-	-	-	-	-
		Total	22	-	-	-	-	-	-
131	Re-pave Existing South Driveway - Harmony Creek WPCP	Pre-Construction	-	40	-	-	-	-	40
		Construction	-	-	143	-	-	-	143
		Total	-	40	143	-	-	-	183
132	Install Electric Gates - Lake Simcoe WPCP	Pre-Construction	-	40	-	-	-	-	40
		Construction	-	-	110	-	-	-	110
		Total	-	40	110	-	-	-	150
133	Construction of Mezzanine in Fleet Bay 1 - Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	67	-	-	-	-	67
		Total	-	67	-	-	-	-	67
134	Thermal Glass Panels for Rollup Doors and Door operators - Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	66	-	-	-	-	66
		Total	-	66	-	-	-	-	66
135	Paving of Rear Yard and Site Repairs - Orono Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	-	-	121	121
		Total	-	-	-	-	-	121	121
136	Roof Replacement on Vehicle Storage Bays - Orono Depot	Pre-Construction	27	-	-	-	-	-	-
		Construction	-	172	-	-	-	-	172
		Total	27	172	-	-	-	-	172

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
137	20 Bay Cold Vehicle Storage - Orono Depot Expansion	Pre-Construction	-	-	-	-	-	73	73
		Construction	-	-	-	-	-	1,192	1,192
		Total	-	-	-	-	-	1,265	1,265
138	Salt and Brine Storage Building - Orono Depot Expansion	Pre-Construction	-	-	-	-	-	116	116
		Construction	-	-	-	-	-	1,050	1,050
		Total	-	-	-	-	-	1,166	1,166
139	Replacement of Fire System - Oshawa/Whitby Depot	Pre-Construction	-	-	-	-	-	-	-
		Construction	68	-	-	-	-	-	-
		Total	68	-	-	-	-	-	-
141	Depot Rationalization - New Oshawa/Whitby Depot	Pre-Construction	12,667	1,667	-	-	-	-	1,667
		Construction	-	-	55,000	-	-	-	55,000
		Total	12,667	1,667	55,000	-	-	-	56,667
142	Driveway Replacement - Plants Central - Zone 2 Reservoir	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	50	-	-	-	-	50
		Total	-	50	-	-	-	-	50
143	Repairs and Epoxy Coat Fleet Bay Concrete Floors & Repairs to Floor Drains in Fleet Bays - Scugog Depot	Pre-Construction	7	-	-	-	-	-	-
		Construction	-	28	-	-	-	-	28
		Total	7	28	-	-	-	-	28
144	Replace Existing Asphalt in Various Location - Scugog Depot	Pre-Construction	-	-	10	-	-	-	10
		Construction	-	-	-	123	-	-	123
		Total	-	-	10	123	-	-	133
145	Additional Office Space - Scugog Depot	Pre-Construction	-	-	-	93	-	-	93
		Construction	-	-	-	-	406	-	406
		Total	-	-	-	93	406	-	499

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

		Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
146	New 16 Bay Cold Vehicle Storage - Scugog Depot Expansion	Pre-Construction	-	-	-	73	-	-	73
		Construction	-	-	-	-	992	-	992
		Total	-	-	-	73	992	-	1,065
147	New Salt and Brine Storage Facility - Scugog Depot Expansion	Pre-Construction	-	-	-	100	-	-	100
		Construction	-	-	-	-	1,067	-	1,067
		Total	-	-	-	100	1,067	-	1,167
148	Widening of Existing Canopy Entrance - Sunderland Depot	Pre-Construction	8	-	-	-	-	-	-
		Construction	-	42	-	-	-	-	42
		Total	8	42	-	-	-	-	42
149	Install Perimeter Fence - Pumping Stations Central - Cochrane St SPS	Pre-Construction	-	-	-	-	-	-	-
		Construction	50	-	-	-	-	-	-
		Total	50	-	-	-	-	-	-
150	Renovation & Optimization - 101 Consumers	Pre-Construction	-	-	-	-	-	-	-
		Construction	442	-	-	-	-	-	-
		Total	442	-	-	-	-	-	-
151	Access Ladder Repair/Replacement Project - Duffin Creek WPCP	Pre-Construction	-	-	-	-	-	-	-
		Construction	582	-	-	-	-	-	-
		Total	582	-	-	-	-	-	-
152	Depot Rationalization - New Sunderland Depot	Pre-Construction	1,333	1,333	-	-	-	-	1,333
		Construction	-	-	14,000	-	-	-	14,000
		Total	1,333	1,333	14,000	-	-	-	15,333
Buildings and Structures Subtotal			**32,325**	**77,110**	**199,213**	**46,429**	**42,965**	**502,641**	**868,358**
Machinery & Equipment									
153	Central Duffin Creek Metering Building at Valleyfarm Road and Finch Avenue meter replacement, Pickering	Pre-Construction	100	-	-	-	-	-	-
		Construction	-	560	-	-	-	-	560
		Total	100	560	-	-	-	-	560

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
154	Duffin Creek Water Pollution Control Plant - Digester mixing improvements and Motor Control Centre Replacement, Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	21,450	23,850	-	-	-	-	23,850
		Total	21,450	23,850	-	-	-	-	23,850
155	Duffin Creek Water Pollution Control Plant - Replacement of Reactor No. 1 & 2, Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	25,000	25,000	50,000	70,000	133,500	303,500
		Total	-	25,000	25,000	50,000	70,000	133,500	303,500
156	Duffin Creek Water Pollution Control Plant - Remedial works and improvements in various locations throughout the plant	Pre-Construction	-	-	-	-	-	-	-
		Construction	27,500	-	-	-	-	-	-
		Total	27,500	-	-	-	-	-	-
157	Duffin Creek Water Pollution Control Plant - Ammonia-based aeration control (ABAC) for Stage 1, 2 and 3	Pre-Construction	1,000	-	-	-	-	-	-
		Construction	-	-	5,000	-	-	-	5,000
		Total	1,000	-	5,000	-	-	-	5,000
158	Duffin Creek Water Pollution Control Plant - Ultra Fine Bubble Diffusers conversion (full plant)	Pre-Construction	-	-	-	-	-	3,000	3,000
		Construction	-	-	-	-	-	20,000	20,000
		Total	-	-	-	-	-	23,000	23,000
159	Duffin Creek Water Pollution Control Plant - Biogas Purification to Renewable Natural Gas (RNG)	Pre-Construction	-	-	-	-	5,000	-	5,000
		Construction	-	-	-	-	-	18,400	18,400
		Total	-	-	-	-	5,000	18,400	23,400
160	Duffin Creek Water Pollution Control Plant - Condition Assessment and Asset Plan updating	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	200	300	-	-	500	1,000
		Total	-	200	300	-	-	500	1,000
161	Duffin Creek Water Pollution Control Plant - Asset Management Remediation and rehabilitation works	Pre-Construction	-	100	100	100	100	4,300	4,700
		Construction	-	900	900	900	900	20,700	24,300
		Total	-	1,000	1,000	1,000	1,000	25,000	29,000

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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Durham Budget 2023

		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
162	Liverpool Road Sanitary Sewage Pumping Station - communication, mechanical and process upgrades, Pickering	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	3,700	-	-	-	-	3,700
		Total	-	3,700	-	-	-	-	3,700
163	Carruthers Sanitary Sewage Pumping Station - Standby Power Upgrades	Pre-Construction	-	-	250	-	-	-	250
		Construction	-	-	-	-	750	-	750
		Total	-	-	250	-	750	-	1,000
164	Michael Blvd. Sanitary Sewerage Pumping Station - replacement of the Motor Control Centre (MCC) and pump, Whitby	Pre-Construction	200	-	-	-	-	-	-
		Construction	-	-	-	2,000	-	-	2,000
		Total	200	-	-	2,000	-	-	2,000
165	Hanover Sanitary Sewage Pumping Station - the replacement of pumps and forcemain, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	100	-	-	-	-	-	-
		Total	100	-	-	-	-	-	-
166	Breakwater Saniitary Sewage Pumping Station - station modifications, Whitby	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	960	-	-	-	960
		Total	-	-	960	-	-	-	960
167	Simcoe St. Sanitary Sewerage Pumping Station - Chemical Pump addition, Oshawa	Pre-Construction	250	-	-	-	-	-	-
		Construction	-	-	575	-	-	-	575
		Total	250	-	575	-	-	-	575
168	Madawaska Sanitary Sewerage Pumping Station - piping upgrades and flow meter installation, Oshawa	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	460	-	-	-	460
		Total	-	-	460	-	-	-	460
169	Courtice Water Pollution Control Plant - remediation work and performance improvements, Courtice	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	2,900	-	-	-	-	2,900
		Total	-	2,900	-	-	-	-	2,900
170	Courtice Water Pollution Control Plant - Digester 1 Refurbishment, Courtice	Pre-Construction	-	-	750	1,600	-	-	2,350
		Construction	-	-	-	-	-	4,000	4,000
		Total	-	-	750	1,600	-	4,000	6,350

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
171	Port Darlington Water Pollution Control Plant - Major Maintenance replacement work, Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	7,100	-	-	-	-	7,100
		Total	-	7,100	-	-	-	-	7,100
172	Port Darlington Water Pollution Control Plant - work to recitify deficiencies, Bowmanville	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	1,400	-	-	-	-	1,400
		Total	-	1,400	-	-	-	-	1,400
173	Lake Simcoe Water Pollution Control Plant - Diffused Air System replacement and associated system upgrades	Pre-Construction	-	-	-	-	-	-	-
		Construction	7,050	-	-	-	-	-	-
		Total	7,050	-	-	-	-	-	-
174	Lake Simcoe Water Pollution Control Plant - Replacement of Clarifier mechanisms	Pre-Construction	-	-	-	-	-	-	-
		Construction	100	-	-	-	-	-	-
		Total	100	-	-	-	-	-	-
175	Lake Simcoe Water Pollution Control Plant - tertiary filter replacement	Pre-Construction	-	750	-	-	-	-	750
		Construction	-	-	-	-	2,000	-	2,000
		Total	-	750	-	-	2,000	-	2,750
176	Lake Simcoe Water Pollution Control Plant and associated sanitary sewerage pumping stations - PLC and SCADA system upgrades	Pre-Construction	500	-	-	-	-	-	-
		Construction	-	-	6,000	-	-	-	6,000
		Total	500	-	6,000	-	-	-	6,000
177	Laidlaw, Cedar and Harbour St. Sanitary Sewage Pumping Station - Major Maintenance and replacement work	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	-	4,000	-	-	4,000
		Total	-	-	-	4,000	-	-	4,000
178	Sanitary Sewerage Pumping Station - piping upgrades and flow meter installation, at various locations	Pre-Construction	-	-	-	-	-	-	-
		Construction	-	-	500	500	-	-	1,000
		Total	-	-	500	500	-	-	1,000

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
179	Emergency Generator Fuel Tank Compliance upgrades Phase 3 and 5	Pre-Construction	-	-	-	-	-	-	-
		Construction	1,700	-	-	-	-	-	-
		Total	1,700	-	-	-	-	-	-
180	Asphalt Content Ignition Furnace - Construction		-	-	-	-	-	7	7
181	Bar Pullout Tester - Construction		4	-	-	-	-	-	-
182	Bench Oven - Construction		5	-	-	-	-	-	-
183	Concrete End Grinder - Construction		8	-	-	-	-	-	-
184	Concrete Testing Equipment - Construction		-	-	-	-	-	9	9
185	Electronic Scale - Construction		-	-	-	-	-	3	3
186	Gyratory Compactor/Molds/Equipment - Construction		22	-	-	-	-	-	-
187	Lab Oven - Construction		-	-	-	-	-	4	4
188	Nuclear Densometer - Construction		3	-	5	-	-	-	5
189	Survey GPS Instrument - Construction		-	10	10	10	10	54	94
190	Survey Total Station Replacement - Construction		-	-	-	-	-	39	39
191	Valve Actuators - Corbett Creek WPCP		-	25	-	25	-	-	50

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
			2024	2025	2026	2027	2028-2032	Forecast Total
192 WAS Pump Replacement - Corbett Creek WPCP		-	50	-	-	-	-	50
193 Aeration Cell Cleanout - Sand - Courtice WPCP		-	200	-	-	-	-	200
194 Biosolids Transfer Pumps - Courtice WPCP		-	15	-	-	-	-	15
195 Chemical Pump Replacement - Various Locations		18	12	-	30	-	12	54
196 Clarifier Mechanisms - Courtice WPCP		-	32	32	-	-	-	64
197 Digester Mixing Pump Rebuild - Courtice WPCP		-	15	-	15	-	30	60
198 Digester Mixing Pumps - Courtice WPCP		-	-	15	-	15	15	45
199 Grit Blower Rebuild - Courtice WPCP		10	-	10	-	10	-	20
200 Return Pump Rebuild - Courtice WPCP		-	-	-	-	-	30	30
201 Truck Loading Pump Rebuild - Courtice WPCP		-	-	15	-	15	-	30
202 Wasting Pump Rebuild - Courtice WPCP		-	10	-	10	-	20	40
203 Analytical Balance Bench Scale - Duffin Creek WPCP		15	-	-	-	-	-	-
204 Auto Sampler Replacement - Duffin Creek WPCP		25	-	-	-	-	75	75
205 Barscreen Replacement/Major Repair - Duffin Creek WPCP		-	-	-	-	150	150	300

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
206	BAS Server Replacement - Duffin Creek WPCP		75	-	-	-	-	75	75
207	Biofilter Inspection/Media Replacement - Duffin Creek WPCP		-	-	100	100	100	200	500
208	Blower Building Major Repairs - Duffin Creek WPCP		-	-	-	-	-	200	200
209	Bobcat Replacement - Duffin Creek WPCP		-	-	75	-	-	-	75
210	Boiler Building Instrumentation - Duffin Creek WPCP		-	75	75	75	-	-	225
211	Chain and Flyght Replacement - Stage 3 Secondary Clarifier - Duffin Creek WPCP		100	-	-	-	-	-	-
212	Density Meter Replacement - Duffin Creek WPCP		-	-	-	88	-	-	88
213	Dewatered Sludge Conveyor Replacement - Duffin Creek WPCP		-	-	-	125	-	125	250
214	Digester Cleanout/Blend Tank - Duffin Creek WPCP		-	125	-	-	-	1,200	1,325
215	Dock Leveler Replacement - Duffin Creek WPCP		30	50	-	-	-	-	50
216	DPD Analyzer - Duffin Creek WPCP		-	17	-	-	-	-	17
217	DR3900 Spectrophotometer - Duffin Creek WPCP		15	-	-	-	-	-	-
218	ERIS Servers - Duffin Creek WPCP		-	75	-	-	-	75	150
219	Filtrate Station LIT Replacement - Duffin Creek WPCP		-	75	-	-	-	-	75

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
220	Filtrate Station Pump Replacement - Duffin Creek WPCP		-	-	-	-	-	200	200
221	Forklift Replacement - Duffin Creek WPCP		-	-	-	-	-	140	140
222	Gator Replacement - Duffin Creek WPCP		-	25	-	-	-	100	125
223	Grit Conveyor System Replacement - Duffin Creek WPCP		-	-	150	-	-	300	450
224	Integrated Control Technology - Security Project - Various Locations		311	-	-	-	-	-	-
225	Laboratory Meter/Scale Replacement - Duffin Creek WPCP		-	-	15	-	-	65	80
226	Major Centrifuge Component Replacement/Rebuild - Duffin Creek WPCP		-	125	125	125	125	500	1,000
227	Network Core Switches - Duffin Creek WPCP		-	-	150	-	-	150	300
228	Network Switches BAS, SCADA - Duffin Creek WPCP		-	-	-	-	300	300	600
229	OIT Replacements - Duffin Creek WPCP		-	15	15	15	15	75	135
230	Polymer Building PRAP Network Upgrades - Duffin Creek WPCP		40	-	-	-	-	-	-
231	Programmable Logic Controllers (PLCs) - Duffin Creek WPCP		-	200	300	-	-	400	900
232	Radio Network Upgrades - Duffin Creek WPCP		-	-	-	-	-	250	250
233	Reactor #3 ID Fan Replacement Parts - Duffin Creek WPCP		-	-	-	-	150	-	150

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Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
234	Reactor #4 ID Fan Replacement Parts - Duffin Creek WPCP		-	-	-	-	-	150	150
235	Reactor 1 and/or 2 Major Maintenance - Duffin Creek WPCP		-	100	100	-	-	-	200
236	Replace flowmeters and transmitters at Reactor 3 - Duffin Creek WPCP		-	-	-	-	-	150	150
237	Replace flowmeters and transmitters at Reactor 4 - Duffin Creek WPCP		-	-	-	-	-	150	150
238	Replace chlorine contact chamber 1/2 level sensors at effluent station 1. Replace chlorine injector, level sensors, pH/Temp AIT and TIT, and ORP transmitterat effluent station 2. Replace ORP Analyzer AIT-0113 at chlorine chamber 5-6 - Duffin Creek WPCP		-	105	-	-	-	-	105
239	Replace electrical substation TS-102 power supply to H2 sensor, Replace LITs for diesel generator fuel tanks. Replace flowmeters of diesel transfer pumps - Duffin Creek WPCP		-	-	-	-	-	190	190
240	Replace Fluke Processmeters and A Chamber LIT-0101 at Admin Building - Duffin Creek WPCP		-	23	-	-	-	-	23
241	Replace indicators (PIT, TIT, FIT) and humidification system at the Stage 3 Headwork and Biofilter Areas - Duffin Creek WPCP		-	75	80	-	-	-	155
242	Replace LITs of primary scum tanks and raw sludge density trainsmitters DITs at Stage 3 Primary Gallery - Duffin Creek WPCP		-	-	125	-	-	125	250

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
243	Replace LITs of Storage Tank 2,4,3 at Stage 3 Disinfection - Duffin Creek WPCP		-	-	-	-	-	45	45
244	Replace methane sensors, H2S sensors, PITs, TITs, LITs, and FITs at Stage 2 Headworks - Duffin Creek WPCP		-	-	-	150	150	-	300
245	Replace transmitters (PITs, TITs, LITs, and AITs) at Reactor 3 - Duffin Creek WPCP		-	-	-	-	100	100	200
246	Replace transmitters (PITs, TITs, LITs, and AITs) at Reactor 4 - Duffin Creek WPCP		-	-	-	-	-	200	200
247	Replace transmitters (PITs, TITs, LITs, and AITs), process and safety valves at the South Incineration Common Area - Duffin Creek WPCP		-	75	75	-	-	-	150
248	Replace transmitters (PITs, TITs, LITs, Vibration Sensor, and AITs) at the North Incineration Common Area - Duffin Creek WPCP		-	100	-	100	-	100	300
249	Replace Wet Well No.1/No.2 LIT-0101/LIT-0102, strainer No.3 - No.5 differential pressure switches, and main header PIT-0192 at Stage 3 Effluent Pumping Station - Duffin Creek WPCP		-	-	-	-	-	70	70
250	Schwing Sludge Pump Major Component Replacement - Duffin Creek WPCP		-	125	-	125	-	250	500

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
251	Secondary Clarifier (Circular) Gearbox - Duffin Creek WPCP		240	-	-	-	-	-	-
252	Secondary Clarifier (Circular) Major Repairs - Duffin Creek WPCP		-	150	150	150	-	-	450
253	Secondary Clarifier (Circular) Upgrades - Duffin Creek WPCP		-	200	200	200	-	-	600
254	Secondary Clarifier Chain and Flyght Replacement - Duffin Creek WPCP		-	100	100	100	-	-	300
255	Servers - Duffin Creek WPCP		-	-	100	-	-	100	200
256	Sludge Tank Cleaning - Duffin Creek WPCP		-	-	100	-	-	100	200
257	Uninterruptable Power Supplies (UPS) - Duffin Creek WPCP		-	-	-	-	250	300	550
258	VxRail Replacement Project (Virtual Server) - Duffin Creek WPCP		-	-	175	-	175	420	770
259	Analytical Balance (Inorganics) - Environmental Lab		-	25	-	-	-	-	25
260	Auto Titration System (Inorganic) - Environmental Lab		-	-	-	-	-	100	100
261	Autoclaves - Environmental Lab		-	-	-	-	-	150	150
262	Balances - Environmental Lab		-	-	-	-	-	52	52
263	Biochemical Oxygen Demand (BOD) Incubators - Environmental Lab		40	-	-	-	-	-	-
264	Biological Oxygen Demand Analyzer - Environmental Lab		11	-	-	-	60	-	60

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
265	Biosafety Cabinet - Environmental Lab		-	-	-	-	-	25	25
266	BOD Incubators (Inorganic) - Environmental Lab		-	-	-	40	-	-	40
267	Centrifuge (Inorganics) - Environmental Lab		12	-	-	-	-	-	-
268	PCR Equipment - Environmental Lab		-	295	-	-	-	-	295
269	Digestion Block with Controllers - Environmental Lab		80	-	-	-	-	-	-
270	Dishwasher - Environmental Lab		10	-	65	-	-	110	175
271	Drying Oven (MB) - Environmental Lab		-	-	-	-	-	3	3
272	Freezer - Environmental Lab		-	35	-	-	-	4	39
273	Gas Chromatograph / Dual Electron Capture Detector - Environmental Lab		-	-	75	-	-	-	75
274	Gas Chromatograph / Mass Spectrometer / MS (Extractables) - Environmental Lab		300	-	-	-	-	-	-
275	Incubators (Microbiology) - Environmental Lab		-	-	-	-	-	65	65
276	Inductively Coupled Plasma - Optical Emission Spectrometer - Environmental Lab		-	150	-	-	-	-	150
277	Ion Chromatograph - Environmental Lab		-	-	-	-	130	-	130
278	Lab Oven (Inorgranics) - Environmental Lab		-	-	-	-	-	15	15

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
279	Liquid Chromatograph Mass Spectrometer - Environmental Lab		-	-	-	-	-	400	400
280	Media Preparing Equipment (Microbiology) - Environmental Lab		-	-	-	-	-	65	65
281	Mercury Analyzer (Cold Vapour Fluorescence / Atomic Absorption) - Environmental Lab		-	-	-	-	70	-	70
282	Microscope - Environmental Lab		75	-	-	-	-	30	30
283	Muffle Furnace - Environmental Lab		-	-	-	-	-	20	20
284	Nanodrop - Environmental Lab		-	25	-	-	-	-	25
285	Pharmacy Lab Refrigerator - Environmental Lab		-	-	-	-	-	15	15
286	Powder Containment System (MB) - Environmental Lab		-	-	-	-	-	6	6
287	Skalar Auto Sampler - Environmental Lab		-	-	-	-	25	-	25
288	Skalar Low P Analyzer - Environmental Lab		-	-	-	-	65	-	65
289	Skalar Segmented Flow Analyzer - Environmental Lab		-	130	-	-	-	-	130
290	Solids Manifold - Environmental Lab		20	-	-	-	-	-	-
291	SPME Gas Chromatograph / Mass Spectrometer / Mass Spectrometer - Environmental Lab		-	-	-	310	-	-	310
292	Turbovaps - Environmental Lab		-	36	-	-	-	-	36

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
293	UV Spec. Plate Readers - Environmental Lab		-	30	-	-	-	-	30
294	Vacusafe (MB) - Environmental Lab		-	-	-	-	-	4	4
295	Water Purification System - Environmental Lab		25	-	-	-	-	30	30
296	Teleloggers - Environmental Services Design		-	5	5	5	5	20	40
297	Mechanical Bar screen Replacement - Lake Simcoe WPCP		-	-	100	-	-	-	100
298	RAS Piping - Nonquon WPCP		95	-	-	-	-	-	-
301	RAS Chamber Split - Plants North - Nonquon		-	75	-	-	-	-	75
302	Backflow Preventer Device Replacement - Port Darlington WPCP		29	-	-	-	-	-	-
303	Digester Mixing Pump Rebuild/Replacement - Port Darlington WPCP		-	-	-	-	20	20	40
304	Grit Blower Rebuild/Replacement - Port Darlington WPCP		-	-	-	-	-	20	20
305	Grit Pump Rebuild/Replacement - Port Darlington WPCP		-	-	10	-	-	10	20
306	RAS Pump - Port Darlington WPCP		-	-	-	15	-	30	45
307	Raw Sewage Pump - Port Darlington WPCP		-	-	-	-	50	50	100
308	Raw Sludge Pump - Port Darlington WPCP		-	-	15	-	15	15	45

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
309	Sodium Bisulfite HVAC - Port Darlington WPCP		135	-	-	-	-	-	-
310	Wasting Pump Rebuild/Replacement - Port Darlington WPCP		-	-	-	-	10	10	20
311	48" Round Shoring - Sunderland Depot		-	3	-	-	-	3	6
313	Pipe Locator - Sunderland Depot		-	3	-	-	-	3	6
314	Pressure Washer - Sunderland Depot		-	3	3	-	-	-	6
315	Snow Fence Replacement - Sunderland Depot		-	-	-	-	-	6	6
316	Temporary Traffic Control Sign replacement - Sunderland Depot		-	2	2	-	2	4	10
317	Trench box replacement - Sunderland Depot		-	-	-	-	-	5	5
318	Install AC for Blower Room - Uxbridge Brook WPCP		50	205	-	-	-	-	205
319	Mechanical Bar screen Refurbishment - Uxbridge Brook WPCP		-	100	-	-	-	-	100
320	Arc Flash Study Review - Water Pollution Control Plants		-	-	-	200	-	-	200
321	Electrical Equipment Replacements - WPCP Pumping Stations		50	110	110	50	110	100	480
322	Level Sensing Flow Meters - WPCP Pumping Stations - North		-	80	-	-	-	-	80
323	Pump Replacements - WPCP Pumping Stations - South		-	100	100	100	100	200	600

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
324	Integrated Control Technology - Security Project - Duffin Creek WPCP		25	-	-	-	-	-	-
Machinery and Equipment Subtotal			**61,829**	**70,076**	**43,577**	**61,263**	**80,977**	**213,243**	**469,136**
Information Technology									
325	SCADA System Master Plan for the sanitary sewage pumping stations and implementation requirements		500	-	1,300	1,500	-	-	2,800
326	Standard Laptop		1	2	-	-	-	-	2
327	Power Laptop		13	22	2	6	6	7	43
328	Scanner and Wide Format Black & White Printer - Construction		-	-	-	22	-	-	22
329	UPS/Power PDU - Various Locations		-	-	192	-	-	384	576
330	GIS Hardware (Monitors, backup devices and other) - Data System Management		5	-	-	-	-	-	-
331	Tablet		6	-	-	-	-	-	-
332	Laptops - Duffin Creek WPCP		-	10	-	-	5	15	30
333	SCADA Programming Software Upgrade (ifix) - Duffin Creek WPCP		50	-	-	-	250	250	500
334	SCADA Workstations (Desktops) - Duffin Creek WPCP		10	10	10	10	10	50	90
335	Barcode Printers - Environmental Lab		8	-	-	-	-	-	-
336	LIMS Backup Server - Environmental Lab		-	40	-	-	-	-	40

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
337 LIMS Computer System - Environmental Lab		100	-	-	-	-	120	120
338 LIMS Domain Controllers - Environmental Lab		-	-	-	50	-	-	50
339 Power Laptop (with Monitor)		5	7	-	-	-	-	7
340 Tablet - Environmental Services Design		-	4	4	4	4	20	36
341 Computers & Monitors Refresh - Financial Services		265	205	63	254	208	860	1,590
342 Fuel Management System & Infrastructure Replacement - Various Locations		-	-	217	-	-	-	217
343 Mobile ERIS Equipment - Water Pollution Control Plants		-	-	12	-	-	-	12
344 Server/Communications Equipment - WPCP Pumping Stations		-	150	-	-	-	-	150
Information Technology Subtotal		**963**	**450**	**1,800**	**1,846**	**483**	**1,706**	**6,285**
Vehicles								
345 1/2 Ton Pick-up Truck - Various Locations		-	134	28	28	56	84	330
346 1 Ton High Roof Van - Ajax Depot		-	42	-	-	-	-	42
347 Forklift - Various Locations		-	25	-	-	-	-	25
348 Tractor - Ajax Depot		-	100	-	-	-	-	100
349 Rubber tire roller compaction unit - Orono Depot		-	20	-	-	-	-	20

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023		Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
350	Asphalt Grinder Attachement (Skid Steer Loader) - Oshawa/Whitby Depot		-	-	-	8	-	-	8
351	Hybrid Van - Oshawa/Whitby Depot		-	17	-	-	-	-	17
352	Sidewalk Plow/Snowblower - Oshawa/Whitby Depot		-	-	-	-	-	50	50
353	Snow Blower for skid steer loader - Oshawa/Whitby Depot		-	10	-	-	-	-	10
354	Street Flusher - Oshawa/Whitby Depot		-	-	-	117	-	-	117
355	Street Sweeper attachment for Roadside Mower/Tractor - Oshawa/Whitby Depot		-	8	-	-	-	-	8
356	Tandem Axle Truck - Oshawa/Whitby Depot		-	-	-	-	-	83	83
357	Vactor 2100 - Oshawa/Whitby Depot		395	-	-	-	-	-	-
358	3/4 Ton Pick Up - Scugog Depot		-	28	-	-	-	-	28
359	Backhoe with Breaker Attachment - Sunderland Depot		-	125	-	-	-	-	125
Vehicles Subtotal			**395**	**509**	**28**	**153**	**56**	**217**	**963**

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast 2024	2025	2026	2027	2028-2032	Forecast Total
Furniture and Fixtures									
360	A/V Equipment and Technology Upgrades - Various Locations		10	10	10	10	10	20	60
361	Parts Cabinets - Ajax Depot		-	16	-	-	-	-	16
362	Office Chairs - Financial Services		-	1	1	1	1	4	8
363	Heavy Duty Steel Racking for Materials Storage Building - Orono Depot		-	65	-	-	-	-	65
364	Office Furniture - Various Locations		-	1	-	1	-	-	2
365	Parts Cabinets - Oshawa/Whitby Depot		-	109	-	-	-	-	109
Furniture and Fixtures Subtotal			**10**	**202**	**11**	**12**	**11**	**24**	**260**
Allowances & Other Provisions									
366	Regional Sewage Master planning study for the Regional Official Plan Review		600	-	-	-	-	800	800
367	Biosolids Master Plan		500	500	-	-	-	-	500
368	York Durham Sanitary Sewerage Master Plan		500	500	-	-	-	-	500
369	Inflow/infiltration monitoring, studies and required remedial works in various locations		-	500	500	500	500	2,500	4,500
370	Emergency Planning Updating Requirements		-	100	-	-	-	-	100
371	Asset Condition Assessments - Reports for the Vertical Assets		300	-	300	300	300	1,500	2,400

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

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	Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
				2024	2025	2026	2027	2028-2032	Forecast Total
372	Asset Condition Assessment/ investigation on trunk sanitary sewer/forcemain system		-	200	200	200	200	1,000	1,800
373	Climate Change Strategy Allowance		-	300	-	-	-	200	500
374	Allowance for Vulnerability Assessments for Water Pollution Control Plants		-	350	-	350	-	-	700
375	Allowance for acquisition of easements		100	100	100	100	100	500	900
376	Allowance for engineering studies		150	150	150	150	150	750	1,350
377	Phosphorus Reduction Study for Lake Simcoe Water Pollution Control Plants.		-	-	-	-	250	-	250
378	Preliminary engineering		100	100	100	100	100	500	900
379	Allowance for sundry extensions as per Council policy		15	15	15	15	15	75	135
380	Allowance for unknown requirements		100	100	100	100	100	500	900
381	Allowance for land severance review and drawing requirements		100	100	100	100	100	500	900
382	Allowance for Regional share for works in conjunction with residential subdivision development		2,000	2,000	2,000	2,000	2,000	10,000	18,000
383	Allowance for Regional share for works in conjunction with non-residential development		500	500	500	500	500	2,500	4,500
384	Allowance for intensification		350	350	350	350	350	1,750	3,150
Allowances & Other Provisions Subtotal			**5,315**	**5,865**	**4,415**	**4,765**	**4,665**	**23,075**	**42,785**

Appendix D: 2023-2032 Sanitary Sewerage System Capital Forecast ($,000's)

Provides a listing for all projects within the 2023 budget and nine-year capital forecast. See Appendix C for financing details for capital projects proposed in 2023.

Durham Budget 2023	Expenditure Category	2023 Proposed Budget	Forecast					
			2024	2025	2026	2027	2028-2032	Forecast Total
Sanitary Sewerage System Subtotal		**147,452**	**343,922**	**302,022**	**249,876**	**211,886**	**1,155,490**	**2,263,196**
Total Sanitary Sewerage System		**147,452**	**343,922**	**302,022**	**249,876**	**211,886**	**1,155,490**	**2,263,196**

* Rows and columns may not add due to rounding

** Pre-construction capital financing includes expenditures for land purchases, utility relocates, preliminary studies, design, etc.

*** Projects with regularly recurring expenditures include allowances, machinery and equipment, information technology, vehicles and furniture and fixtures, etc. do not include separate pre-construction and contruction capital financing

**** Appendix D includes financing of the following development charge shortfalls as follows:

	2023	2024	2025	2026	2027	2028 - 2032	Grand Total
DC Shortfall							
Residential DC Shortfall	-	97,362	59,557	69,298	12,000	146,982	385,199
Commercial DC Shortfall	-	-	-	-	-	14,442	14,442
Institutional DC Shortfall	169	622	461	454	245	1,637	3,588
Industrial DC Shortfall	10,215	16,002	26,555	29,249	9,385	109,392	200,798
Total DC Shortfall	**10,384**	**113,986**	**86,573**	**99,001**	**21,630**	**272,453**	**604,027**
Shortfall Financing Source							
Rate Stabilization Reserve Fund - Sewer	-	58,469	22,439	-	-	55,284	136,192
Debenture - DC Funded	-	38,893	52,177	69,298	12,000	106,140	278,508
User Rate	10,384	16,624	11,957	29,703	9,630	111,029	189,327
Total Funding	**10,384**	**113,986**	**86,573**	**99,001**	**21,630**	**272,453**	**604,027**