Watson & Associates ECONOMISTS LTD.

Township of Cavan Monaghan

Water/Wastewater Rate Study
Council Presentation

November 16, 2020

Study Purpose

- Identify all current and future water and wastewater system capital needs;
- Identify cost recovery options for capital;
- Estimate future operating costs over the next 10 years; and
- Recommend new rates to recover the cost of the water and wastewater systems.

Legislation for Water and Wastewater

Since Walkerton, new legislation has been passed by the Province to enhance the provision of services. These include the following:

- Safe Drinking Water Act;
- Sustainable Water and Sewage Systems Act;
- O.Reg. 453/07 - Safe Drinking Water Act;
- Clean Water Act; and
- Water Opportunities Act.

Further Requirements:

- Municipal Infrastructure Strategy
- Infrastructure for Jobs and Prosperity Act, 2015

Present 2020 Rates

2020 - Water Billing Rates	
Millbrook Monthly Base Charge	
15mm/18mm	32.68
25mm	59.67
40mm	135.74
50mm	316.23
75mm	653.02
100mm	1,158.07
Volume Charge	
$ 1.820	per m^3
Bulk Water Rate	
$ 4.260	per m^3

2020 - Wastewater Billing Rates	
Millbrook Monthly Base Charge	
15mm/18mm	60.47
25mm	112.33
40mm	279.32
50mm	662.34
75mm	1,373.75
100mm	2,441.25
Volume Charge	
$ 2.490	per m^3

Customer Profile

Metered	Water	Wastewater
15mm/18mm	818	807
25mm	3	2
40mm	1	1
50mm	3	3
75mm	0	0
100mm	1	1
Total	**826**	**814**

Historical Volumes

Year	Total Billable Volumes (cu.m)	Total Customers	Total Billable Volumes per Customer (cu.m)
2017	90,015	602	149.53
2018	93,985	653	143.93
2019	105,160	787	133.62

- 2015 rate study assumed 170 cu.m/customer for new users
- 2018 rate study update assumed 150 cu.m/customer
- Average volumes per customer over last three years is 142 cu.m
- The volume per user is trending downwards
- The analysis herein assumes each new customer will generate 140 cu.m in annual volume
- Note: 2020 would not be a representative year due to the increase in residential volumes from residents working from home

Water Forecast Users and Billable Volumes

Assumed an average of 140 cu.m per customer for future flows.

Water Customer Forecast	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Existing	826	826	826	826	826	826	826	826	826	826
New - Growth	25	80	120	150	190	233	275	323	378	428
Total	**851**	**906**	**946**	**976**	**1,016**	**1,059**	**1,101**	**1,149**	**1,204**	**1,254**

Water Volume Forecast (m^3)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Millbrook										
Existing	110,620	110,620	110,620	110,620	110,620	110,620	110,620	110,620	110,620	110,620
Bulk Water	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500	10,500
New - CMCC	2,438	3,250	3,250	3,250	3,250	3,250	3,250	3,250	3,250	3,250
New - Growth	3,500	11,200	16,800	21,000	26,600	32,620	38,500	45,220	52,920	59,920
Total	**127,058**	**135,570**	**141,170**	**145,370**	**150,970**	**156,990**	**162,870**	**169,590**	**177,290**	**184,290**

Customer = Household

Wastewater Forecast Users and Billable Volumes

Assumed an average of 140 cu.m per customer for future flows.

Wastewater Customer Forecast	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Existing	814	814	814	814	814	814	814	814	814	814
New - Growth	25	80	120	150	190	233	275	323	378	428
Total	**839**	**894**	**934**	**964**	**1,004**	**1,047**	**1,089**	**1,137**	**1,192**	**1,242**

Wastewater Flows Forecast (m^3)	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Millbrook										
Existing	108,940	108,940	108,940	108,940	108,940	108,940	108,940	108,940	108,940	108,940
New - CMCC	2,438	3,250	3,250	3,250	3,250	3,250	3,250	3,250	3,250	3,250
New - Growth	3,500	11,200	16,800	21,000	26,600	32,620	38,500	45,220	52,920	59,920
Total	**114,878**	**123,390**	**128,990**	**133,190**	**138,790**	**144,810**	**150,690**	**157,410**	**165,110**	**172,110**

Note: Above flows are water flows on which the wastewater billing will be calculated

Customer = Household

Capital Infrastructure

- Capital needs were developed by Township staff based on Council approved documents such as the Asset Management Plan, Master Plans, and the Development Charges Background Study.
- Works were identified based on the 2020 budget, the 2021 to 2029 capital forecast, and review of capital infrastructure replacement.
- Capital works were identified by
  - Need;
  - Timing; and
  - Costs.

Water Capital System Needs 2021 to 2029

(Uninflated $)

Description	Total 2021 to 2029	Years Undertaken
Water Distribution System (4830)	-	
Watermain Replacement (various locations)	3,000,000	2021 to 2029
Replacement of Well and Pump	150,000	2022
Growth Related:		
Water Master Servicing Study	20,000	2021
Duke Street from King Street Southwards	153,000	2022
King Street from Queen Street to IO Property	51,000	2025
Water Servicing Studies - Future Development A	102,000	2029
Future Watermain Booster Pumping Station	663,000	2023
Total	**4,139,000**	

Note: growth-related projects are 100% growth-related

Wastewater Capital System Needs 2021 to 2029

(Uninflated $)

Description	Total 2021 to 2029	Years Undertaken
Capital Expenditures		
Wastewater Collection System(4811)		
Sewer Relining	250,000	2021
Various Wastewater Facility Upgrades	300,000	2022, 2024, & 2026
Growth Related:		
Wastewater Master Servicing Study	274,000	2021
Cambium Studies	80,000	2021, 2022
Infiltration Solutions	100,000	2021, 2022
Pump Station and Forcemain between property	500,000	2023
Duke Street from King Street Southwards	255,000	2022
King Street from Queen Street to IO Property	102,000	2025
Future Sanitary Pumping Station - Sewage	1,122,000	2023
Future Trunk Sanitary Sewer (oversizing)	122,400	2021
Total	**3,105,400**	

Note: growth-related projects are 100% growth-related

Capital Financing Options
For the capital needs from 2021 to 2029)

- ✓ Reserves
- ✓ Development Charges
- ✓ Operating Budget Transfers (Funding Reserves)
- Debt
- Grants
- Municipal Act (Part 12)

Reserve Balances – Estimated December 31, 2020

Reserve / Reserve Fund	Dec. 31 2020
Water	
Capital Reserve	1,391,060
Development Charges Reserve Fund	(358,817)
Wastewater	
Capital Reserve	906,024
Development Charges Reserve Fund	475,372

Proposed Capital Financing Programs 2021 to 2029

Inflated $

Description	Water 2021 to 2029	Wastewater 2021 to 2029
Capital Financing		
Provincial/Federal Grants	-	-
Development Charges Reserve Fund	1,061,000	2,726,000
Non-Growth Related Debenture Requirements	-	-
Growth Related Debenture Requirements	-	-
Operating Contributions	-	-
Lifecycle Reserve Fund	-	-
Water Reserve	3,491,000	580,000
Total Capital Financing	**4,552,000**	**3,306,000**

Lifecycle Infrastructure Costs

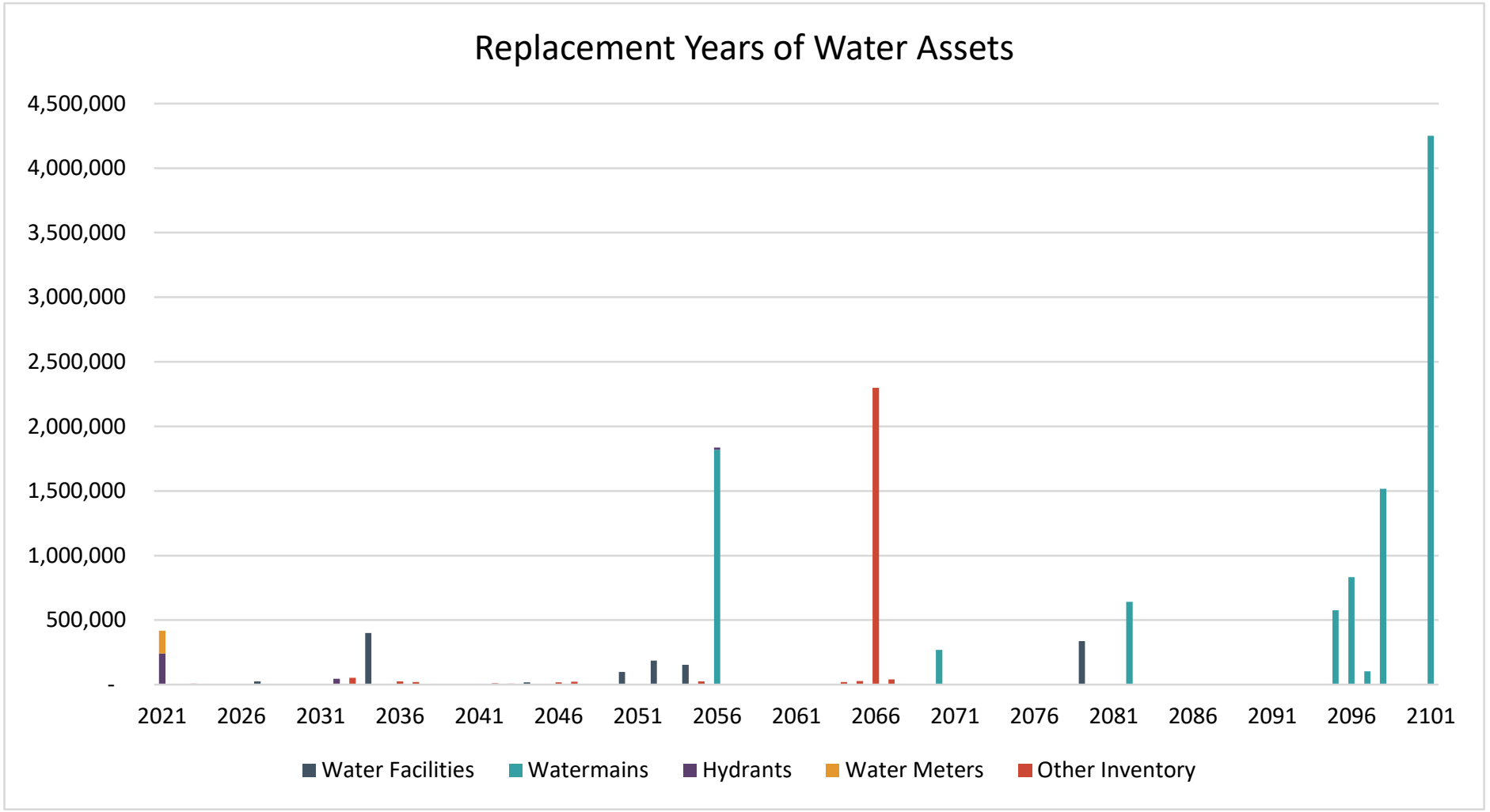
- The age of the water system dates back to the mid 1970's;
- The age of the wastewater system dates back to the mid 1970's;
- Total value of existing water infrastructure is $15.53 million;
- Total value of existing wastewater infrastructure is $35.73 million;
  - Recently upgraded wastewater treatment plant in 2016
- This provides for a "per customer" investment by the Township of $16,970 for water and $39,570 for wastewater.

Summary of Water and Wastewater Asset Inventory

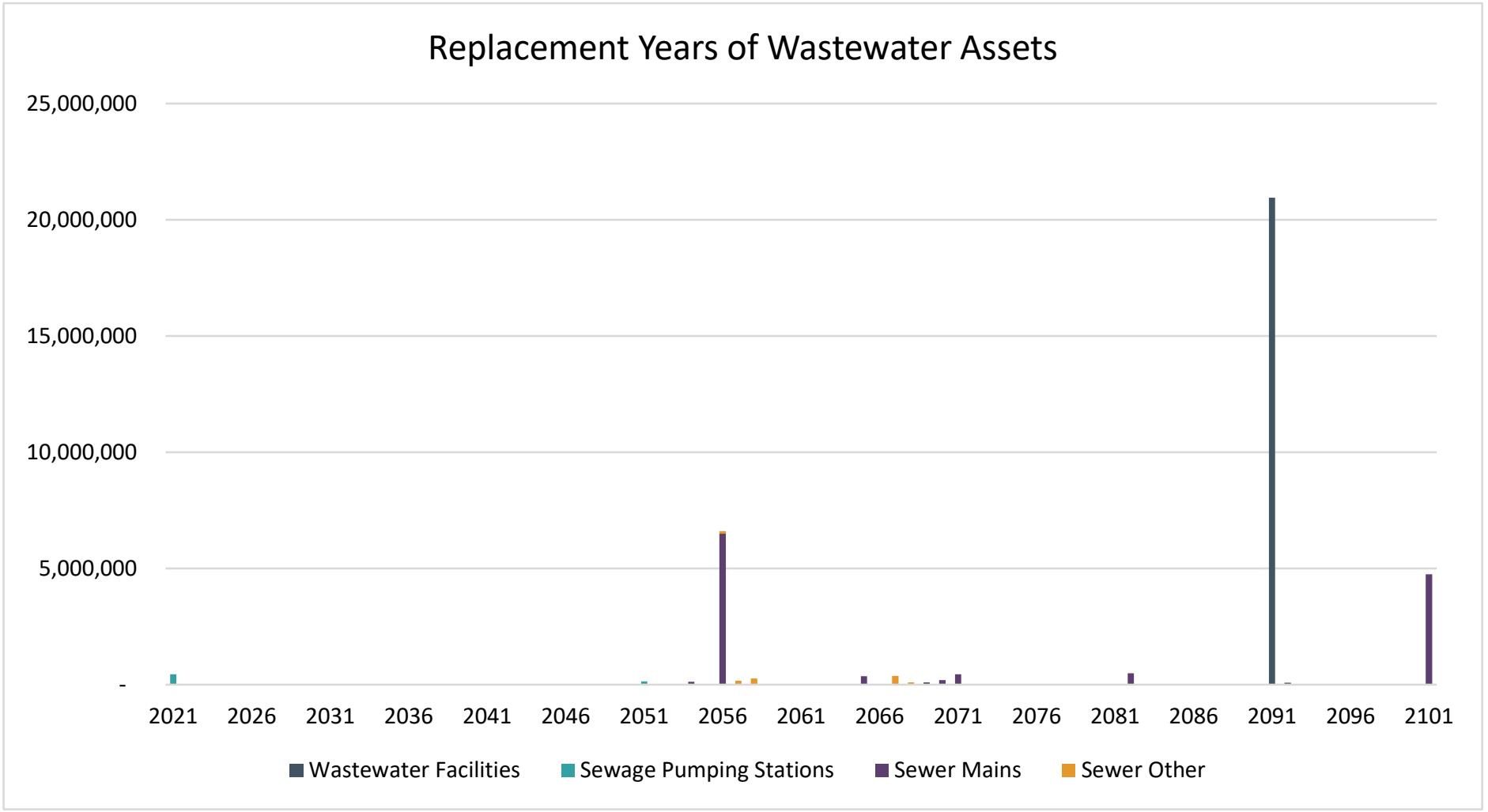
Area	Total Replacement Value	Suggested amount to be included in 10-year forecast based on estimated life	Amount included in 10-year forecast	Net Replacement for Future Lifecycle	Annual Lifecycle Replacement
Water					
Water Facilities	2,455,170	26,586			156,654
Watermains	10,012,414	-			284,723
Hydrants	315,562	242,981	3,350,000	12,177,357	5,755
Water Meters	185,653	179,067			485
Other Inventory	2,558,558	2,705			92,735
Total Water	**15,527,357**	**451,339**	**3,350,000**	**12,177,357**	**540,353**
Wastewater					
Wastewater Facilities	20,984,735	-			559,747
Sewage Pumping Stations	629,943	459,886	899,000	34,832,447	7,842
Sewer Mains	13,059,725	-			437,321
Sewer Other	1,057,044	9,130			38,509
Total Wastewater	**35,731,447**	**469,016**	**899,000**	**34,832,447**	**1,043,418**
Total Water & Wastewater	**51,258,804**	**920,355**	**4,249,000**	**47,009,804**	**1,583,771**

Investment per customer is $18,798 for water and $43,896 for wastewater

Future Lifecycle Replacement Costs – Water



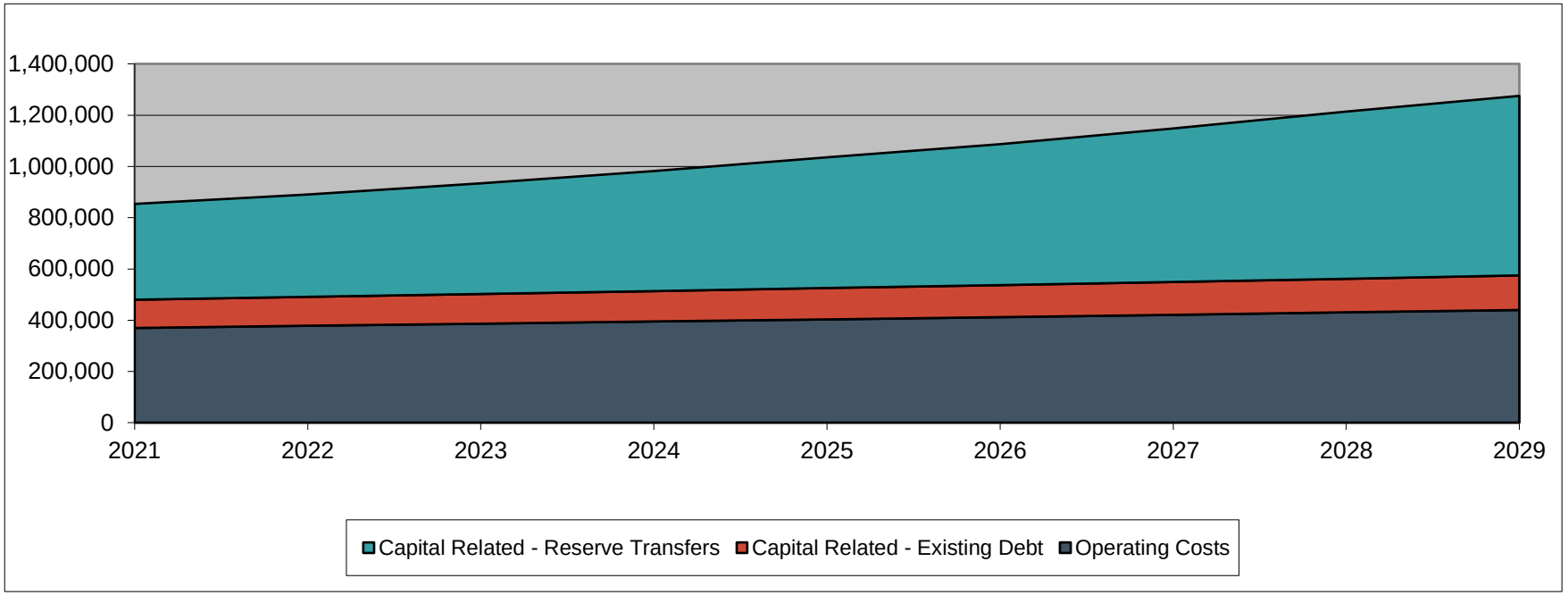
Future Lifecycle Replacement Costs – Wastewater



Operating Budgets

- Operating expenditures (for water and wastewater) are increasing over the forecast to recognize:
  - Inflationary Impacts
    - 2% for most operating expenditures
    - 5% for utilities, materials, and supplies

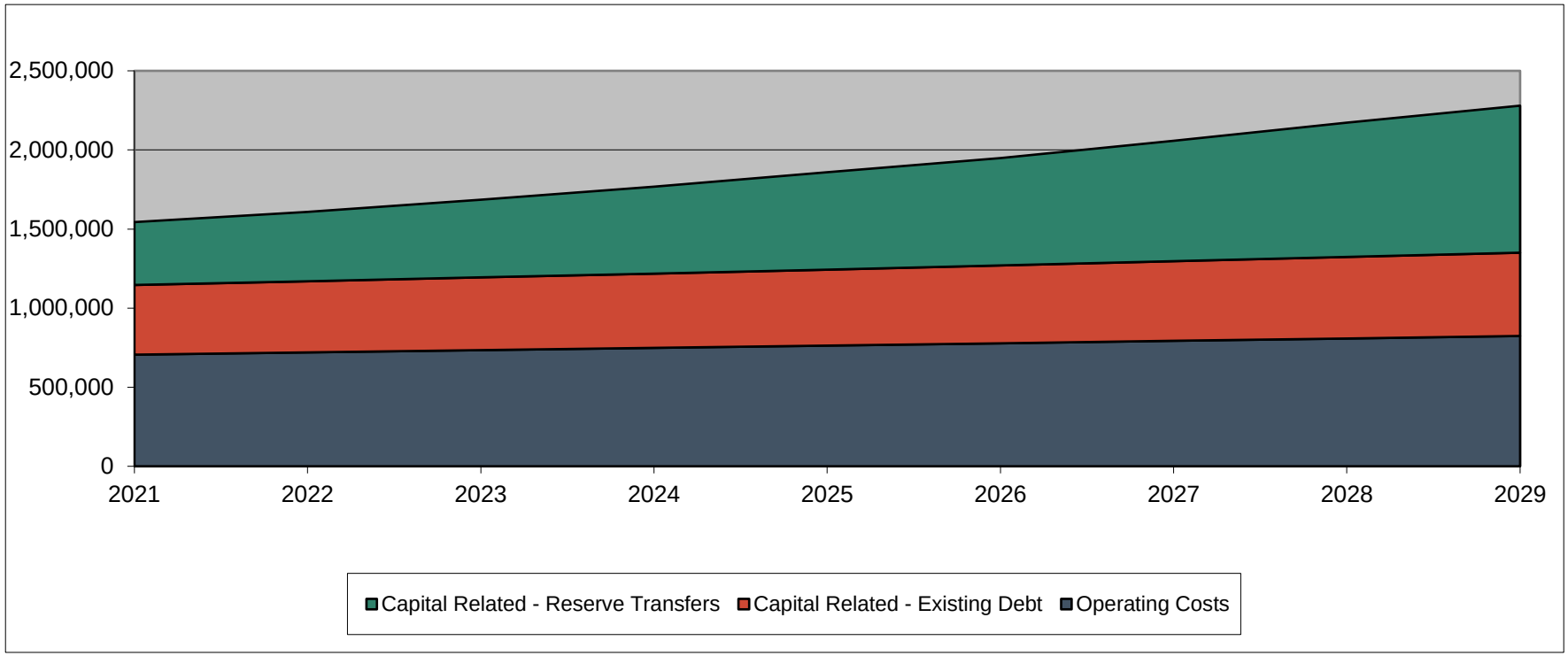
Water Operating Budget
2% Annual Increases



Description	2021	2022	2023	2024	2025	2026	2027	2028	2029
Operating Costs	369,778	378,210	386,526	394,846	403,573	412,406	421,445	430,490	439,841
Capital Related - Existing Debt	110,425	113,145	115,952	118,849	121,839	124,924	128,107	131,393	134,783
Capital Related - Reserve Transfers	373,866	399,210	432,061	468,852	509,785	549,252	598,861	652,089	700,677
Total	854,069	890,565	934,539	982,548	1,035,197	1,086,582	1,148,413	1,213,971	1,275,301

Wastewater Operating Budget

2% Annual Increases



Description	2021	2022	2023	2024	2025	2026	2027	2028	2029
Operating Costs	705,878	719,910	733,924	748,042	762,665	777,592	792,824	808,160	824,001
Capital Related - Existing Debt	440,378	450,079	460,090	470,420	481,081	492,083	503,436	515,153	527,243
Capital Related - Reserve Transfers	397,803	437,800	491,105	550,032	616,154	679,183	761,449	849,282	929,067
Total	1,544,059	1,607,789	1,685,119	1,768,494	1,859,900	1,948,858	2,057,710	2,172,595	2,280,311

Rate Scenarios for Council's Consideration

Rate Structures

- The current rate structures of a monthly base charge with a variable charge based on the volume used by each customer was continued for this study

Rate Increase Scenarios

- Two scenarios are presented in the rate study for Council's consideration
    1. 2% annual increases over the forecast period
    2. 0% increase for 2021 then 2.25% annual increase for the remainder of the forecast period
- An alternative scenario may also be considered (modified scenario 2):
    - 0% increase for 2021, then due to the COVID-19 pandemic, a volume flow review and September 2021 presentation to Council for Council's consideration of the future annual increases for 2022-2025

Reserve/Reserve Fund Balances

Scenario 1 – 2% Annual Increases

Water Reserves/ Reserve Funds Continuity

Inflated $

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	1,244,267	1,391,060	1,494,232	1,459,937	1,612,089	1,798,435	2,025,069	2,233,085	2,488,750	2,736,498
Transfer from Operating	343,925	373,866	399,210	432,061	468,852	509,785	549,252	598,861	652,089	700,677
Transfer to Capital	230,000	306,000	468,000	318,000	325,000	331,000	394,000	402,000	469,000	478,000
Transfer to Operating		-	-	-	-	-	-	-	-	-
Closing Balance	**1,358,192**	**1,458,926**	**1,425,442**	**1,573,998**	**1,755,941**	**1,977,220**	**2,180,321**	**2,429,946**	**2,671,839**	**2,959,175**
Interest	32,868	35,306	34,496	38,091	42,494	47,849	52,764	58,805	64,659	71,612

Water Development Charges Reserve Fund Continuity

Inflated $

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	(307,403)	(358,817)	(401,252)	(588,349)	(1,291,887)	(1,299,715)	(1,357,365)	(1,368,145)	(1,349,631)	(1,326,644)
Development Charge Proceeds	167,466	73,583	75,061	123,051	117,843	128,372	122,583	154,622	161,838	138,918
Transfer to Capital	126,500	20,000	159,000	704,000	-	56,000	-	-	-	122,000
Transfer to Operating	83,901	86,537	89,257	92,064	94,961	97,950	101,035	104,219	107,504	110,895
Closing Balance	**(350,339)**	**(391,771)**	**(574,447)**	**(1,261,362)**	**(1,269,005)**	**(1,325,293)**	**(1,335,818)**	**(1,317,742)**	**(1,295,297)**	**(1,420,621)**
Interest	(8,478)	(9,481)	(13,902)	(30,525)	(30,710)	(32,072)	(32,327)	(31,889)	(31,346)	(34,379)
Required from Development Charges	126,500	20,000	159,000	704,000	-	56,000	-	-	-	122,000

Wastewater Reserves/ Reserve Funds Continuity

Inflated $

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	772,712	906,024	1,074,208	1,442,082	1,979,970	2,480,615	3,171,710	3,828,351	4,700,873	5,684,469
Transfer from Operating	343,480	397,803	437,800	491,105	550,032	616,154	679,183	761,449	849,282	929,067
Transfer to Capital	231,576	255,000	104,000	-	108,000	-	113,000			
Transfer to Operating	-	-	-	-	-	-	-	-	-	-
Closing Balance	**884,616**	**1,048,827**	**1,408,008**	**1,933,187**	**2,422,002**	**3,096,769**	**3,737,894**	**4,589,800**	**5,550,156**	**6,613,536**
Interest	21,408	25,382	34,074	46,783	58,612	74,942	90,457	111,073	134,314	160,048

Wastewater Development Charges Reserve Fund Continuity

Inflated $

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	678,642	475,372	19,503	(526,886)	(2,377,399)	(2,532,495)	(2,792,934)	(2,969,585)	(3,085,176)	(3,198,586)
Development Charge Proceeds	376,430	154,802	157,893	270,505	257,917	282,389	268,352	343,497	360,074	305,653
Transfer to Capital	277,200	288,000	359,000	1,722,000	-	113,000	-	-	-	244,000
Transfer to Operating	313,732	323,132	332,833	342,844	353,175	363,836	374,837	386,191	397,907	409,997
Closing Balance	**464,140**	**19,042**	**(514,437)**	**(2,321,225)**	**(2,472,657)**	**(2,726,942)**	**(2,899,419)**	**(3,012,279)**	**(3,123,009)**	**(3,546,931)**
Interest	11,232	461	(12,449)	(56,174)	(59,838)	(65,992)	(70,166)	(72,897)	(75,577)	(85,836)
Required from Development Charges	277,200	288,000	359,000	1,722,000	-	113,000	-	-	-	244,000

Reserve/Reserve Fund Balances

Scenario 2 – 0% for 2021 then 2.25% Annual Increases

Water Reserves/ Reserve Funds Continuity

Inflated $

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	1,244,267	1,391,060	1,480,213	1,433,218	1,573,287	1,748,437	1,965,074	2,164,702	2,413,956	2,657,762
Transfer from Operating	343,925	360,178	387,142	420,894	458,838	501,205	542,480	594,217	650,007	701,634
Transfer to Capital	230,000	306,000	468,000	318,000	325,000	331,000	394,000	402,000	469,000	478,000
Transfer to Operating		-	-	-	-	-	-	-	-	-
Closing Balance	**1,358,192**	**1,445,238**	**1,399,354**	**1,536,113**	**1,707,125**	**1,918,642**	**2,113,554**	**2,356,919**	**2,594,963**	**2,881,395**
Interest	32,868	34,975	33,864	37,174	41,312	46,431	51,148	57,037	62,798	69,730

Water Development Charges Reserve Fund Continuity

Inflated $

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	(307,403)	(358,817)	(401,252)	(588,349)	(1,291,887)	(1,299,715)	(1,357,365)	(1,368,145)	(1,349,631)	(1,326,644)
Development Charge Proceeds	167,466	73,583	75,061	123,051	117,843	128,372	122,583	154,622	161,838	138,918
Transfer to Capital	126,500	20,000	159,000	704,000	-	56,000	-	-	-	122,000
Transfer to Operating	83,901	86,537	89,257	92,064	94,961	97,950	101,035	104,219	107,504	110,895
Closing Balance	**(350,339)**	**(391,771)**	**(574,447)**	**(1,261,362)**	**(1,269,005)**	**(1,325,293)**	**(1,335,818)**	**(1,317,742)**	**(1,295,297)**	**(1,420,621)**
Interest	(8,478)	(9,481)	(13,902)	(30,525)	(30,710)	(32,072)	(32,327)	(31,889)	(31,346)	(34,379)
Required from Development Charges	126,500	20,000	159,000	704,000	-	56,000	-	-	-	122,000

Wastewater Reserves/ Reserve Funds Continuity

Inflated $

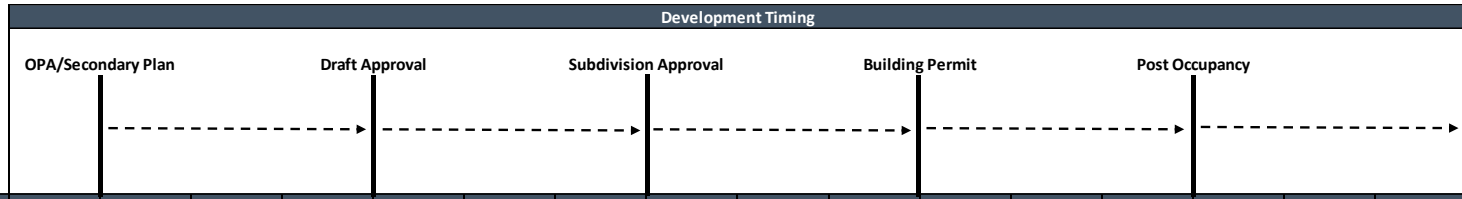
Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	772,712	906,024	1,053,072	1,401,071	1,920,567	2,404,851	3,082,093	3,728,021	4,592,074	5,570,036
Transfer from Operating	343,480	377,166	418,894	474,116	535,462	604,417	670,841	755,551	846,352	929,673
Transfer to Capital	231,576	255,000	104,000	-	108,000	-	113,000			
Transfer to Operating	-	-	-	-	-	-	-	-	-	-
Closing Balance	**884,616**	**1,028,190**	**1,367,966**	**1,875,187**	**2,348,029**	**3,009,269**	**3,639,934**	**4,483,572**	**5,438,426**	**6,499,709**
Interest	21,408	24,882	33,105	45,380	56,822	72,824	88,086	108,502	131,610	157,293

Wastewater Development Charges Reserve Fund Continuity

Inflated $

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Opening Balance	678,642	475,372	19,503	(526,886)	(2,377,399)	(2,532,495)	(2,792,934)	(2,969,585)	(3,085,176)	(3,198,586)
Development Charge Proceeds	376,430	154,802	157,893	270,505	257,917	282,389	268,352	343,497	360,074	305,653
Transfer to Capital	277,200	288,000	359,000	1,722,000	-	113,000	-	-	-	244,000
Transfer to Operating	313,732	323,132	332,833	342,844	353,175	363,836	374,837	386,191	397,907	409,997
Closing Balance	**464,140**	**19,042**	**(514,437)**	**(2,321,225)**	**(2,472,657)**	**(2,726,942)**	**(2,899,419)**	**(3,012,279)**	**(3,123,009)**	**(3,546,931)**
Interest	11,232	461	(12,449)	(56,174)	(59,838)	(65,992)	(70,166)	(72,897)	(75,577)	(85,836)
Required from Development Charges	277,200	288,000	359,000	1,722,000	-	113,000	-	-	-	244,000

Timing of Growth-related Capital Expenditures



Service	*Capital Item*
Water	Treatment
	Distribution
	Local
Wastewater	Treatment
	Distribution
	Local
Stormwater Management	Facilities
Roads and Related	Roads
	Rolling Stock
Library	Facilities
	Collection Materials
Transit	Facilities
	Vehicles
Police	Facilities
	Vehicles
	Police Communication Equipment
	Police Officer Equipment
Health Unit	Facilities
Ambulance	Facilities
	Vehicles
Child Care	Facilities
Provincial Offences Act	Facilities
Parks	Parkland Development
Recreation	Facilities
Fire	Facilities
	Vehicles
	Firefighter Equipment
Administration	Growth Studies

Factors Resulting in Calculated Rates

Water

- D.C. reserve fund is currently in a deficit position which is further increased due to large growth-related capital expenditures
- Rates provide the annual total balance in the water capital reserve and water D.C. reserve funds to be positive

Wastewater

- D.C. reserve fund becomes negative due to large growth-related capital expenditures in 2023
- Rates provide the annual total balance in wastewater capital reserve and wastewater D.C. reserve funds to be positive for all years except 2023 and 2024

Water and Wastewater

- Assumes all capital projects are funded from the reserve and D.C. reserve fund (i.e. no new debt utilized)
- Combined water and wastewater reserves and reserve funds remain in a positive position for all years except 2023

Factors Resulting in Calculated Rates
Comparison of Options

- Scenario 1 (2%) provides for a combined water and wastewater reserve and reserve fund balance to be positive in all years for the forecast
- Scenario 2 (0% for 2021) incurs an overall water and wastewater deficit position in the reserve and reserve funds in 2023
- Rates in both scenarios become equal by 2029

Average Annual Residential Bill (Based on 140 cu.m Annual Volumes) – Combined Summary

Scenario 1 – 2%

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Water Base Charge	$392.10	$399.94	$407.94	$416.10	$424.42	$432.91	$441.57	$450.40	$459.41	$468.60
Water Volume Charges	$254.80	$259.90	$264.60	$270.20	$275.80	$281.40	$287.00	$292.60	$298.20	$303.80
Water Total Bill	**$646.90**	**$659.84**	**$672.54**	**$686.30**	**$700.22**	**$714.31**	**$728.57**	**$743.00**	**$757.61**	**$772.40**
Wastewater Base Charge	$725.64	$740.15	$754.96	$770.05	$785.46	$801.17	$817.19	$833.53	$850.20	$867.21
Wastewater Volume Charges	$348.60	$355.57	$362.60	$369.60	$376.60	$383.60	$390.60	$399.00	$407.40	$415.80
Wastewater Total Bill	**$1,074.24**	**$1,095.72**	**$1,117.56**	**$1,139.65**	**$1,162.06**	**$1,184.77**	**$1,207.79**	**$1,232.53**	**$1,257.60**	**$1,283.01**
Combined Bill Summary										
Total Water and Wastewater Bill	**$1,721.14**	**$1,755.56**	**$1,790.10**	**$1,825.95**	**$1,862.28**	**$1,899.08**	**$1,936.36**	**$1,975.53**	**$2,015.21**	**$2,055.40**
Annual % Increase		*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*	*2.0%*

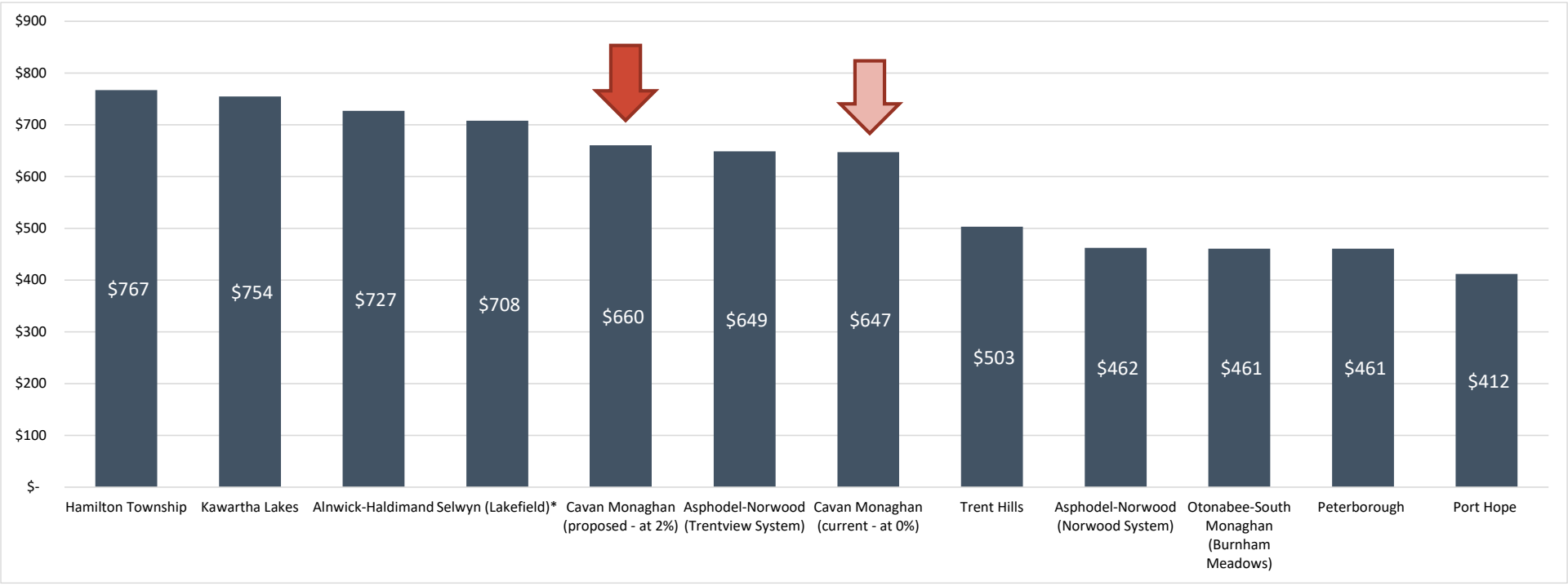
Scenario 2 – 0% then 2.25%

Description	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029
Water Base Charge	$392.10	$392.10	$400.92	$409.94	$419.17	$428.60	$438.24	$448.10	$458.18	$468.49
Water Volume Charges	$254.80	$254.80	$260.54	$266.42	$272.44	$278.60	$284.90	$291.34	$297.92	$304.64
Water Total Bill	**$646.90**	**$646.90**	**$661.46**	**$676.36**	**$691.61**	**$707.20**	**$723.14**	**$739.44**	**$756.10**	**$773.13**
Wastewater Base Charge	$725.64	$725.64	$741.97	$758.66	$775.73	$793.18	$811.03	$829.28	$847.94	$867.02
Wastewater Volume Charges	$348.60	$348.60	$356.44	$364.42	$372.68	$381.08	$389.62	$398.44	$407.40	$416.50
Wastewater Total Bill	**$1,074.24**	**$1,074.24**	**$1,098.41**	**$1,123.08**	**$1,148.41**	**$1,174.26**	**$1,200.65**	**$1,227.72**	**$1,255.34**	**$1,283.52**
Combined Bill Summary										
Total Water and Wastewater Bill	**$1,721.14**	**$1,721.14**	**$1,759.87**	**$1,799.44**	**$1,840.02**	**$1,881.46**	**$1,923.79**	**$1,967.16**	**$2,011.44**	**$2,056.65**
Annual % Increase		*0.0%*	*2.25%*	*2.25%*	*2.25%*	*2.25%*	*2.25%*	*2.25%*	*2.25%*	*2.25%*

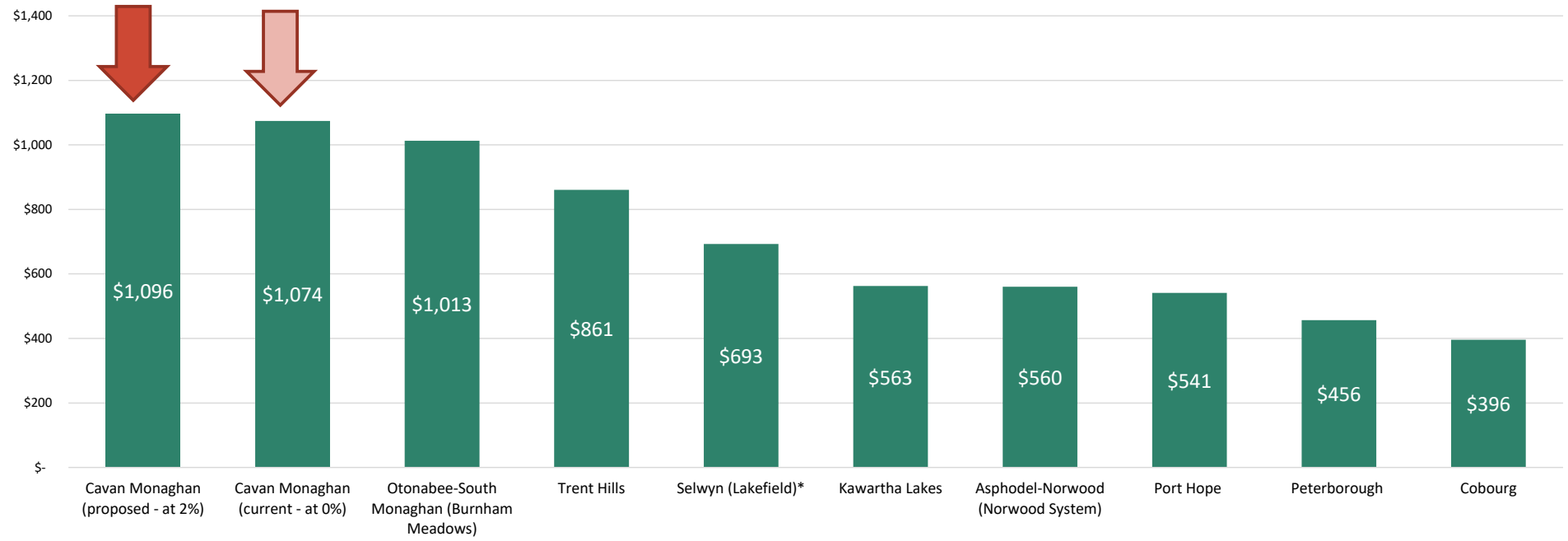
Items for Consideration

- As the DC reserve fund balances become large deficits, it is recommended the Township consider updating the D.C. study for the following:
  1. Update is required due to changes in legislation
  2. Should update the timing of payment to reflect payment at the agreement stage vs. building permit
  3. May consider the requirement of front-ending or pre-payment of DCs for specific projects

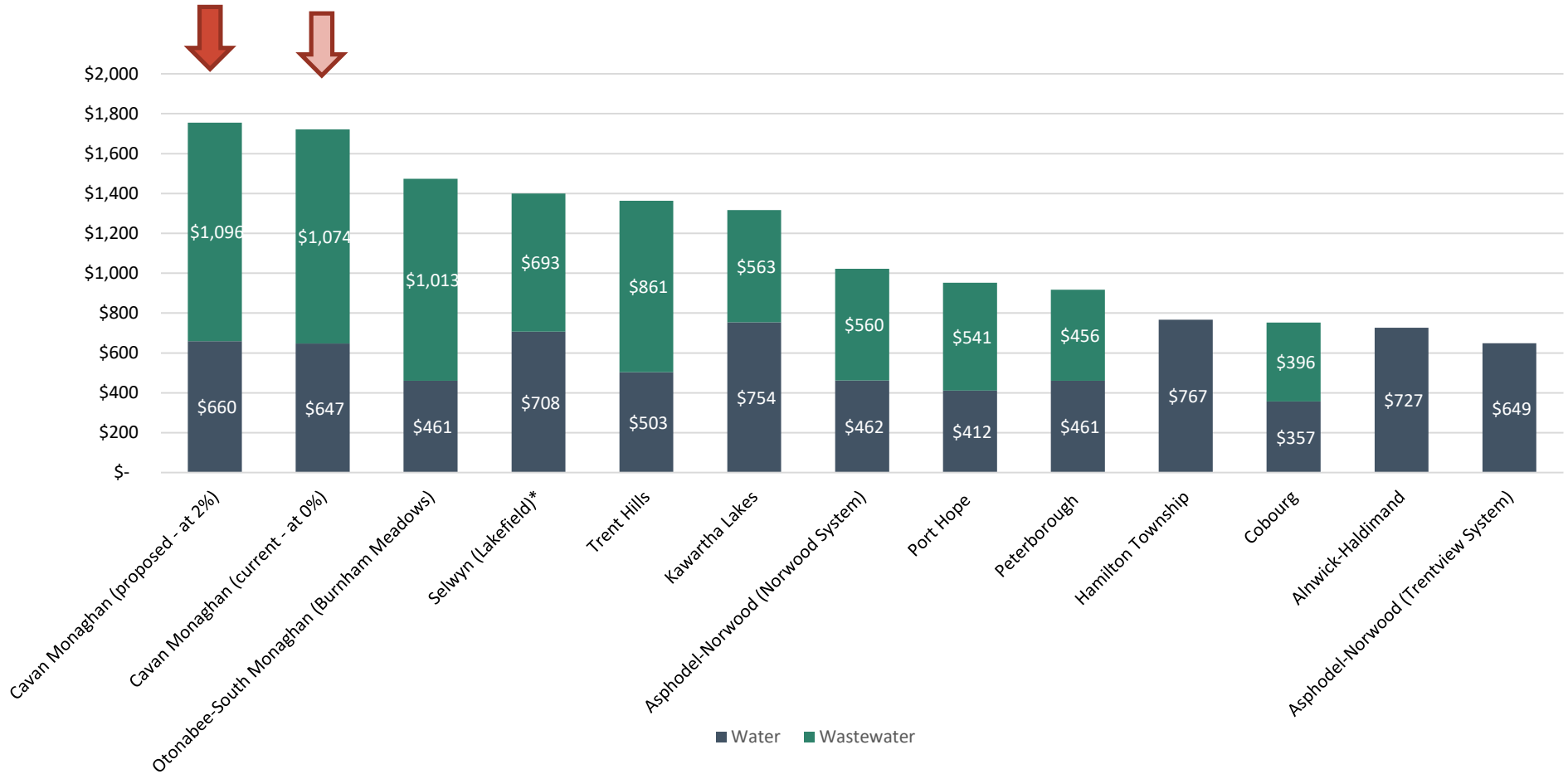
Comparison of Residential Annual Water Bill (based on 140 cu.m)



Comparison of Residential Annual Wastewater Bills (based on 140 cu.m)

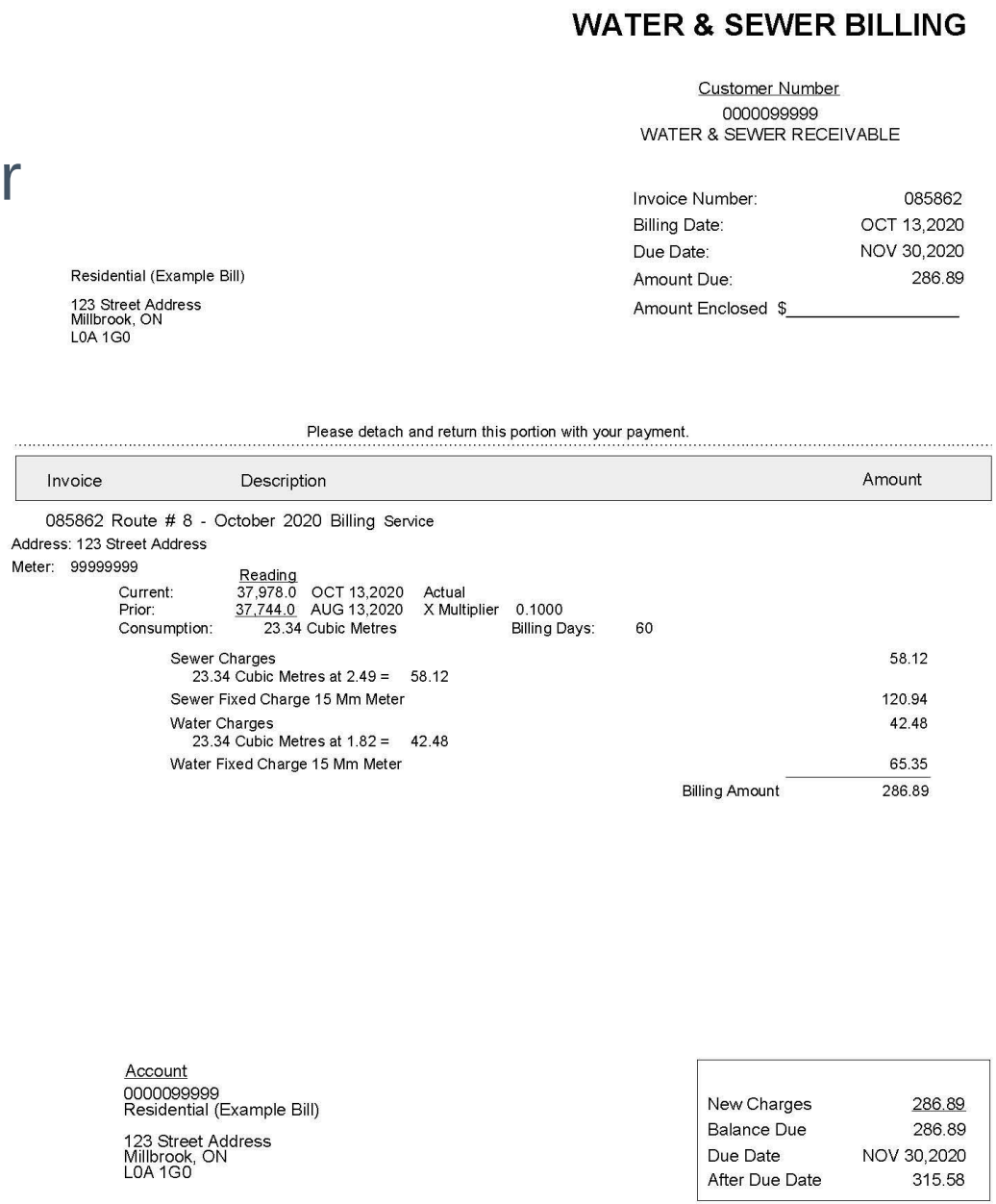


Comparison of Residential Annual Water and Wastewater Combined Bills (based on 140 cu.m)



Sample Water and Wastewater Bill based on Annual Usage of 140 cubic metres

- note that the bill is for two months usage



WATER & SEWER BILLING

Customer Number
0000099999
WATER & SEWER RECEIVABLE

Invoice Number:	085862
Billing Date:	OCT 13,2020
Due Date:	NOV 30,2020
Amount Due:	286.89
Amount Enclosed	$_____

Residential (Example Bill)

123 Street Address
Millbrook, ON
L0A 1G0

Please detach and return this portion with your payment.

Invoice	Description	Amount
085862	Route # 8 - October 2020 Billing Service	
	Address: 123 Street Address	
	Meter: 99999999	
	Reading: Current: 37,978.0 OCT 13,2020 Actual	
	Prior: 37,744.0 AUG 13,2020 X Multiplier 0.1000	
	Consumption: 23.34 Cubic Metres Billing Days: 60	
	Sewer Charges	58.12
	23.34 Cubic Metres at 2.49 = 58.12	
	Sewer Fixed Charge 15 Mm Meter	120.94
	Water Charges	42.48
	23.34 Cubic Metres at 1.82 = 42.48	
	Water Fixed Charge 15 Mm Meter	65.35
	Billing Amount	286.89

Account
0000099999
Residential (Example Bill)

123 Street Address
Millbrook, ON
L0A 1G0

New Charges	286.89
Balance Due	286.89
Due Date	NOV 30,2020
After Due Date	315.58

A finance charge of 10.00% is added to balances not paid before due date.

Township Of Cavan Monaghan

Ontario Regulation 453/07 Water Financial Plan

- All municipalities providing water service are required to be licensed to operate the water system(s)
- Part of the licensing requirement is for the municipality to submit a Financial Plan to the Province
- Current water license expires on July 5, 2021
- Financial Plan to be presented to Council during next Council meeting

Summary of O.Reg. 453/07 Requirements

- The plan is considered a living document but will need to be undertaken at a minimum every five years
- The plans are generally consistent with the "Watson" Approach in forecasting the capital, operating and reserve fund positions, providing detailed inventories, forecasting future volumes and calculation of the rates.
- The additional requirements include the PSAB information for each year of the forecast (i.e. total non-financial assets, tangible capital assets acquisitions, tangible capital asset construction, betterments, write downs, disposals, total liabilities and net debt)
- The financial plans must be made available upon request to the public (without charge) and on the municipality's web site. The availability of this information must also be advertised

What Does All of This Mean?

- Reporting is mandatory for Water and encouraged for Wastewater services
- The intent of the legislation is for:
    1. municipalities to project future activities for capital (including inventory renewal), operating, reserves and customers (and usage) and then
    2. report it to the Province in PSAB 3150 financial statement format (projected into the future)
- The O. Reg. 453/07 Study must be approved but the forecasted rates (i.e. beyond 2019) do not have to be approved at this time (may be reviewed in detail during next budget cycle)
- The Rate study provides the basis projecting the financial information on which the O. Reg. report will be prepared

Rate Study vs. O.Reg 453.07 Reporting Format

Significant Revision Areas	Rate Study	O.Reg 453.07 Financial Plan
Approach	“Modified Cash Basis”	“Full Accrual Basis”
Capital Requirements	Capital Forecast	Tangible Capital Assets
Previously acquired assets	Lifecycle Cost Analysis (Future Replacement)	Tangible Capital Assets (Historical Cost)
Debt Payments	Principal & Interest Expense	Interest Expense Principal: Debt reduction
Amortization	Not Applicable	Included in Operating Expenses
Reserve Transfers	Included as an expense	Part of “Accumulated Surplus”
Development Charge Reserve Fund Balances	Reserve Fund Continuity Schedule	Deferred Revenue

Matters for Council's Consideration

1. Consider the Capital Program;
2. Consider the Operating Program;
3. Consider the Proposed Water Rate Options;
4. Consider the Proposed Wastewater Rates Options; and
5. Consider updating the D.C. by-law to provide for the following:
    - Interest costs on D.C. rate freeze and installment payments,
    - Accelerated timing of collection (at agreement stage), and
    - Potential for front-ending.