



**The City of Richmond Hill**

**Water and Wastewater Financial Plans**

**2019-2027**

**Prepared in Accordance with Ontario Regulation 453/07 under the  
Safe Drinking Water Act, 2002**

## **INTRODUCTION**

The City of Richmond Hill currently provides water and wastewater services to approximate 195,022 residential and commercial customers. Water service is regulated under the Ontario Regulation 453/07 Financial Plans on the Safe Drinking Water Act. It requires the City to apply for municipal drinking water license and renew every five years along with Financial Plans.

The City's current water license is due to expire on August 2019. This Financial Plans is one part of the license renewal documentation required, and it is a living document to the water and wastewater systems. It provides details on the financial self-sustainability of the systems. An explanation of the requirement and the financial plans are to follow.

## **SAFE DRINKING WATER ACT**

The O.Reg. 453/07 Safe Drinking Water Act Financial Plans mandate water license renewal must be approved by Council of the Municipality, apply to a period of at least six years, and the first year of the financial plan must be the year existing municipal drinking water license would otherwise expired.

The financial plan must include the following items:

### **1. Statement of Financial Position**

- a. Total Financial Assets
- b. Total Liabilities
- c. Net Debt
- d. Non-Financial Assets: tangible capital assets, tangible capital assets under construction, inventories of supplies and prepaid expenses, and
- e. Changes in Tangible Capital Assets: additions, donations, write downs and disposal

### **2. Statement of Financial Operations**

- a. Total Revenues: water rates, user charges, other revenues
- b. Total Expenses: amortization expenses, interest expenses and other expenses
- c. Annual Surplus or Deficit, and
- d. Accumulated Surplus or Deficit

### **3. Statement of Cash Flow**

- a. Operating Transactions: cash received from revenues, cash paid for operating expenses and finance charges
- b. Capital Transactions: proceeds on the sale of tangible capital assets and cash used to acquire capital assets
- c. Investing Transactions: acquisition and disposal of investments
- d. Financing Transaction: proceeds from the issuance of debt and debt repayment
- e. Changes in Cash and Cash Equivalent during the year, and
- f. Cash and Cash Equivalents at the beginning and end of the year

The Act also mandates the owner of the water system to make the financial plans available free of charge to the public and provide notice advising its availability. A copy of the financial plans must be provided to Ministry of Municipal Affairs and Housing. This Act does not prevent financial plans from being amended and owners have the option to provide additional information.

The City of Richmond Hill's 2019-2027 Water and Wastewater Financial Plans has met all of the above requirements. It is noted that Wastewater Financial Plan is not required under the legislation, but it is proactively provided.

The Financial Plans are derived from the 2018 Water and Wastewater Study using the full cost recovery method. Information is prepared using the most accurate information available at the time of publication. The legislation allows the financial plans to be updated annually as budget are prepared or undertaken at a minimum of every five years.

**City of Richmond Hill  
Statement of Financial Position  
Water Network**

<b>As at December 31</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Forecast</b>		<b>2025</b>	<b>2026</b>	<b>2027</b>
					<b>2023</b>	<b>2024</b>			
<b>Financial Assets</b>									
Cash and Cash Equivalents	19,013,614	12,453,507	4,841,218	3,188,465	1,475,342	1,523,422	1,604,777	4,091,924	6,050,254
Water Billings Receivables	1,952,852	2,096,033	2,191,585	2,255,259	2,323,099	2,392,980	2,464,964	2,539,112	2,615,491
Inventory for Resale	-	-	-	-	-	-	-	-	-
Other Assets	-	-	-	-	-	-	-	-	-
<b>Total Financial Assets</b>	<b>20,966,466</b>	<b>14,549,540</b>	<b>7,032,802</b>	<b>5,443,724</b>	<b>3,798,441</b>	<b>3,916,402</b>	<b>4,069,740</b>	<b>6,631,037</b>	<b>8,665,746</b>
<b>Liabilities</b>									
Accounts Payable & Accrued Liabilities	3,909,123	4,156,763	4,381,234	4,535,311	4,680,833	4,831,028	4,986,049	5,146,032	5,311,147
Debt	-	-	-	-	-	-	-	-	-
Deferred Revenue	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total Liabilities</b>	<b>3,909,123</b>	<b>4,156,763</b>	<b>4,381,234</b>	<b>4,535,311</b>	<b>4,680,833</b>	<b>4,831,028</b>	<b>4,986,049</b>	<b>5,146,032</b>	<b>5,311,147</b>
<b>Net Financial Assets (Debt)</b>	<b>17,057,343</b>	<b>10,392,776</b>	<b>2,651,568</b>	<b>908,413</b>	<b>(882,391)</b>	<b>(914,625)</b>	<b>(916,308)</b>	<b>1,485,004</b>	<b>3,354,599</b>
<b>Non-Financial Assets</b>									
Tangible Capital Assets	67,067,507	77,056,556	88,368,184	93,474,887	98,571,120	101,957,516	105,474,836	106,857,720	109,005,617
Inventory of Supplies	-	-	-	-	-	-	-	-	-
Prepaid Expenses	-	-	-	-	-	-	-	-	-
<b>Total Non-Financial Assets</b>	<b>67,067,507</b>	<b>77,056,556</b>	<b>88,368,184</b>	<b>93,474,887</b>	<b>98,571,120</b>	<b>101,957,516</b>	<b>105,474,836</b>	<b>106,857,720</b>	<b>109,005,617</b>

**City of Richmond Hill  
Statement of Financial Operations  
Water Network**

<b>For the years ended December 31</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Forecast</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Revenues</b>										
Rate Based Revenue	35,564,664	38,172,221	39,912,378	41,071,992	42,307,478	43,580,130	44,891,063	46,241,432	47,632,420	
Other Revenues	972,800	991,300	1,010,600	1,030,100	1,050,200	1,070,700	1,091,400	1,112,800	1,134,700	
Investment Income	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Earned DC Revenue	42,354	-	-	46,146	-	-	-	-	-	-
Contributed / Assumed Assets	1,628,116	1,083,419	1,341,492	1,369,266	1,401,497	1,438,836	1,482,234	1,533,047	1,593,166	
<b>Total Revenues</b>	<b>38,237,933</b>	<b>40,276,940</b>	<b>42,294,470</b>	<b>43,547,504</b>	<b>44,789,176</b>	<b>46,119,665</b>	<b>47,494,698</b>	<b>48,917,279</b>	<b>50,390,286</b>	
<b>Expenses</b>										
Water Purchase Wholesale Cost	25,678,200	27,304,900	28,779,400	29,791,500	30,747,400	31,734,000	32,752,300	33,803,200	34,887,800	
Other Operating Costs	240,500	250,800	259,700	266,600	274,000	281,400	288,700	296,300	304,200	
Water Meter Services	251,000	229,300	228,100	227,100	243,900	284,100	285,000	277,900	262,900	
General Maintenance-Administration	707,300	720,000	732,600	745,600	758,600	772,200	785,900	799,500	813,800	
General Maintenance-Operation	4,826,200	4,943,700	5,018,100	5,139,600	5,276,700	5,363,300	5,451,100	5,555,600	5,662,200	
Transfer to Other Departments	3,403,600	3,563,500	3,620,100	3,686,000	3,777,000	3,866,600	3,946,500	3,994,600	4,068,300	
Interest on Debt	-	-	-	-	-	-	-	-	-	-
Amortization	1,925,278	2,172,979	2,453,327	2,610,501	2,770,726	2,898,733	3,032,124	3,123,913	3,233,515	
<b>Total Expenses</b>	<b>37,032,078</b>	<b>39,185,179</b>	<b>41,091,327</b>	<b>42,466,901</b>	<b>43,848,326</b>	<b>45,200,333</b>	<b>46,541,624</b>	<b>47,851,013</b>	<b>49,232,715</b>	
<b>Annual Surplus(Deficit)</b>	<b>1,205,855</b>	<b>1,091,761</b>	<b>1,203,143</b>	<b>1,080,603</b>	<b>940,850</b>	<b>919,332</b>	<b>953,073</b>	<b>1,066,265</b>	<b>1,157,571</b>	
<b>Accumulated Surplus(Deficit) Beginning of Year</b>	<b>80,056,923</b>	<b>81,262,777</b>	<b>82,354,538</b>	<b>83,557,681</b>	<b>84,638,284</b>	<b>85,579,134</b>	<b>86,498,466</b>	<b>87,451,539</b>	<b>88,517,804</b>	
<b>Accumulated Surplus(Deficit) End of Year</b>	<b>81,262,777</b>	<b>82,354,538</b>	<b>83,557,681</b>	<b>84,638,284</b>	<b>85,579,134</b>	<b>86,498,466</b>	<b>87,451,539</b>	<b>88,517,804</b>	<b>89,675,376</b>	

**City of Richmond Hill  
Statement of Change in Cash Flow  
Water Network**

For the years ended December 31	2019	2020	2021	2022	Forecast 2023	2024	2025	2026	2027
<b>Cash Provided by (Used in):</b>									
<b>Operations:</b>									
Annual Surplus(Deficit)	1,205,855	1,091,761	1,203,143	1,080,603	940,850	919,332	953,073	1,066,265	1,157,571
Items not involving Cash:									
Add: Amortization	1,925,278	2,172,979	2,453,327	2,610,501	2,770,726	2,898,733	3,032,124	3,123,913	3,233,515
Less: Contributed/Assumed Assets	(1,628,116)	(1,083,419)	(1,341,492)	(1,369,266)	(1,401,497)	(1,438,836)	(1,482,234)	(1,533,047)	(1,593,166)
Less: Earned DC Revenue	(42,354)	-	-	(46,146)	-	-	-	-	-
Increase/(Decrease) in Accounts Payables	432,211	247,641	224,471	154,077	145,522	150,195	155,021	159,984	165,114
(Increase)/Decrease in Water Billing Receivables	(158,247)	(143,181)	(95,552)	(63,674)	(67,840)	(69,881)	(71,983)	(74,149)	(76,379)
Add: Loss on disposal of Tangible Capital Assets	-	-	-	-	-	-	-	-	-
Deferred Charges	-	-	-	-	-	-	-	-	-
Decrease in Deferred Revenue	-	-	-	-	-	-	-	-	-
Received from Rate Stabilization	(3,044,036)	(2,590,879)	(2,722,522)	(3,042,108)	(3,301,922)	(3,543,670)	(3,747,637)	(3,943,468)	(4,173,580)
Transfer to Reserve Funds	4,552,900	4,823,600	5,089,800	5,371,200	5,666,500	5,978,500	6,310,200	6,661,400	7,033,500
<b>Net Change in Cash from Operations</b>	<b>3,243,491</b>	<b>4,518,503</b>	<b>4,811,174</b>	<b>4,695,186</b>	<b>4,752,338</b>	<b>4,894,373</b>	<b>5,148,565</b>	<b>5,460,898</b>	<b>5,746,575</b>
<b>Capital:</b>									
Cash used to acquired Tangible Capital Assets	(4,245,127)	(11,078,610)	(12,423,463)	(6,347,939)	(6,465,461)	(4,846,293)	(5,067,210)	(2,973,751)	(3,788,245)
<b>Net Change in Cash from Capital</b>	<b>(4,245,127)</b>	<b>(11,078,610)</b>	<b>(12,423,463)</b>	<b>(6,347,939)</b>	<b>(6,465,461)</b>	<b>(4,846,293)</b>	<b>(5,067,210)</b>	<b>(2,973,751)</b>	<b>(3,788,245)</b>
<b>Financing:</b>									
Debentures and Other Debt Repaid	-	-	-	-	-	-	-	-	-
<b>Net Change in Cash from Financing</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Investing:</b>									
Increase in Investments	-	-	-	-	-	-	-	-	-
<b>Net Change in Cash from Investing</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>
<b>Net Change in Cash and Cash Equivalents</b>	<b>(1,001,636)</b>	<b>(6,560,107)</b>	<b>(7,612,289)</b>	<b>(1,652,752)</b>	<b>(1,713,123)</b>	<b>48,080</b>	<b>81,355</b>	<b>2,487,148</b>	<b>1,958,330</b>
<b>Cash and Cash Equivalents, Beginning of Year</b>	<b>20,015,250</b>	<b>19,013,614</b>	<b>12,453,507</b>	<b>4,841,218</b>	<b>3,188,465</b>	<b>1,475,342</b>	<b>1,523,422</b>	<b>1,604,777</b>	<b>4,091,924</b>
<b>Cash and Cash Equivalents, End of Year</b>	<b>19,013,614</b>	<b>12,453,507</b>	<b>4,841,218</b>	<b>3,188,465</b>	<b>1,475,342</b>	<b>1,523,422</b>	<b>1,604,777</b>	<b>4,091,924</b>	<b>6,050,254</b>

**City of Richmond Hill  
Statement of Financial Position  
Wastewater Network**

<b>As at December 31</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Forecast</b>		<b>2025</b>	<b>2026</b>	<b>2027</b>
					<b>2023</b>	<b>2024</b>			
<b>Financial Assets</b>									
Cash and Cash Equivalents	46,488,777	59,728,736	74,062,871	88,936,187	102,737,834	116,616,895	131,487,876	147,083,693	163,812,397
Water Billing Receivables	2,749,952	2,951,575	3,086,128	3,175,793	3,271,324	3,369,728	3,471,093	3,575,507	3,683,062
Inventory for Resale	-	-	-	-	-	-	-	-	-
Other Assets	-	-	-	-	-	-	-	-	-
<b>Total Financial Assets</b>	<b>49,238,729</b>	<b>62,680,311</b>	<b>77,148,999</b>	<b>92,111,980</b>	<b>106,009,158</b>	<b>119,986,624</b>	<b>134,958,969</b>	<b>150,659,200</b>	<b>167,495,459</b>
<b>Liabilities</b>									
Accounts Payable & Accrued Liabilities	5,813,644	6,432,723	6,736,404	6,924,898	7,147,103	7,376,433	7,613,114	7,857,390	8,109,518
Debt	-	-	-	-	-	-	-	-	-
Deferred Revenue	-	-	-	-	-	-	-	-	-
Other	-	-	-	-	-	-	-	-	-
<b>Total Liabilities</b>	<b>5,813,644</b>	<b>6,432,723</b>	<b>6,736,404</b>	<b>6,924,898</b>	<b>7,147,103</b>	<b>7,376,433</b>	<b>7,613,114</b>	<b>7,857,390</b>	<b>8,109,518</b>
<b>Net Financial Assets (Debt)</b>	<b>43,425,085</b>	<b>56,247,588</b>	<b>70,412,595</b>	<b>85,187,082</b>	<b>98,862,055</b>	<b>112,610,191</b>	<b>127,345,855</b>	<b>142,801,810</b>	<b>159,385,941</b>
<b>Non-Financial Assets</b>									
Tangible Capital Assets	61,957,592	65,913,324	69,425,017	72,976,423	77,946,023	83,123,927	87,729,911	92,083,338	95,788,117
Inventory of Supplies	-	-	-	-	-	-	-	-	-
Prepaid Expenses	-	-	-	-	-	-	-	-	-
<b>Total Non-Financial Assets</b>	<b>61,957,592</b>	<b>65,913,324</b>	<b>69,425,017</b>	<b>72,976,423</b>	<b>77,946,023</b>	<b>83,123,927</b>	<b>87,729,911</b>	<b>92,083,338</b>	<b>95,788,117</b>

**City of Richmond Hill  
Statement of Financial Operations  
Wastewater Network**

<b>For the years ended December 31</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Forecast</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
<b>Revenues</b>									
Rate Based Revenue	50,081,168	53,753,058	56,203,498	57,836,434	59,576,212	61,368,324	63,214,344	65,115,895	67,074,646
Other Revenues	649,700	664,200	679,000	694,100	709,400	725,100	741,400	757,800	774,800
Investment Income	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000	30,000
Earned DC Revenue	1,602,808	1,605,708	1,652,273	1,746,335	1,749,495	1,800,230	1,852,437	1,906,157	1,961,436
Contributed / Assumed Assets	2,111,212	2,153,689	1,902,008	1,936,244	1,971,097	2,006,576	2,042,695	2,079,463	2,116,894
<b>Total Revenues</b>	<b>54,474,888</b>	<b>58,206,655</b>	<b>60,466,779</b>	<b>62,243,114</b>	<b>64,036,203</b>	<b>65,930,230</b>	<b>67,880,876</b>	<b>69,889,315</b>	<b>71,957,776</b>
<b>Expenses</b>									
Wastewater Wholesale Cost	38,352,900	42,437,000	44,440,400	45,683,900	47,149,800	48,662,700	50,224,100	51,835,600	53,498,900
Other Operating Costs	152,000	170,400	173,200	178,200	183,400	188,700	194,100	199,800	205,600
Water Meter Services	356,100	325,100	323,600	322,400	346,000	402,900	404,500	394,100	373,000
General Maintenance-Administration	472,200	480,300	361,400	367,800	374,300	381,100	387,700	394,400	401,600
General Maintenance-Operation	2,306,900	1,953,700	1,700,900	1,739,500	1,784,700	1,814,700	1,845,000	1,880,200	1,916,600
Transfer to Other Departments	1,409,000	1,484,900	1,512,800	1,533,100	1,562,800	1,596,900	1,630,500	1,649,700	1,681,800
Interest on Debt	-	-	-	-	-	-	-	-	-
Amortization	982,811	1,043,771	1,100,003	1,157,418	1,233,048	1,312,183	1,385,235	1,456,071	1,519,775
<b>Total Expenses</b>	<b>44,031,911</b>	<b>47,895,171</b>	<b>49,612,303</b>	<b>50,982,318</b>	<b>52,634,048</b>	<b>54,359,183</b>	<b>56,071,135</b>	<b>57,809,871</b>	<b>59,597,275</b>
<b>Annual Surplus(Deficit)</b>	<b>10,442,976</b>	<b>10,311,484</b>	<b>10,854,476</b>	<b>11,260,795</b>	<b>11,402,155</b>	<b>11,571,047</b>	<b>11,809,741</b>	<b>12,079,444</b>	<b>12,360,500</b>
<b>Accumulated Surplus(Deficit) Beginning of Year</b>	<b>84,656,069</b>	<b>95,099,045</b>	<b>105,410,529</b>	<b>116,265,005</b>	<b>127,525,801</b>	<b>138,927,956</b>	<b>150,499,003</b>	<b>162,308,743</b>	<b>174,388,187</b>
<b>Accumulated Surplus(Deficit) End of Year</b>	<b>95,099,045</b>	<b>105,410,529</b>	<b>116,265,005</b>	<b>127,525,801</b>	<b>138,927,956</b>	<b>150,499,003</b>	<b>162,308,743</b>	<b>174,388,187</b>	<b>186,748,688</b>



**City of Richmond Hill  
Statement of Change in Cash Flow  
Wastewater Network**

<b>For the years ended December 31</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>Forecast</b>		<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>
					<b>2023</b>	<b>2024</b>				
<b>Cash Provided by (Used in):</b>										
<b>Operations:</b>										
Annual Surplus(Deficit)	10,442,976	10,311,484	10,854,476	11,260,795	11,402,155	11,571,047	11,809,741	12,079,444	12,360,500	
Items not involving Cash:										
Add: Amortization	982,811	1,043,771	1,100,003	1,157,418	1,233,048	1,312,183	1,385,235	1,456,071	1,519,775	
Less: Contributed/Assumed Assets	(2,111,212)	(2,153,689)	(1,902,008)	(1,936,244)	(1,971,097)	(2,006,576)	(2,042,695)	(2,079,463)	(2,116,894)	
Less: Earned DC Revenue	(1,602,808)	(1,605,708)	(1,652,273)	(1,746,335)	(1,749,495)	(1,800,230)	(1,852,437)	(1,906,157)	(1,961,436)	
Increase/(Decrease) in Accounts Payables	415,974	619,080	303,681	188,493	222,205	229,330	236,682	244,276	252,128	
(Increase)/Decrease in Water Billing Receivables	(195,351)	(201,623)	(134,553)	(89,664)	(95,531)	(98,405)	(101,365)	(104,414)	(107,555)	
Add: Loss on disposal of Tangible Capital Assets	-	-	-	-	-	-	-	-	-	
Deferred Charges	-	-	-	-	-	-	-	-	-	
Decrease in Deferred Revenue	-	-	-	-	-	-	-	-	-	
Contribution to Rate Stabilization	4,886,368	4,342,858	4,710,098	5,015,234	5,193,112	5,339,424	5,556,044	5,792,995	6,033,146	
Transfer to Reserve Funds	3,687,000	3,729,600	3,764,400	3,796,200	3,798,800	3,815,800	3,828,300	3,843,100	3,856,700	
<b>Net Change in Cash from Operations</b>	<b>16,505,759</b>	<b>16,085,773</b>	<b>17,043,823</b>	<b>17,645,897</b>	<b>18,033,198</b>	<b>18,362,573</b>	<b>18,819,505</b>	<b>19,325,852</b>	<b>19,836,366</b>	
<b>Capital:</b>										
Cash used to acquired Tangible Capital Assets	(4,767,684)	(2,845,814)	(2,709,688)	(2,772,581)	(4,231,551)	(4,483,511)	(3,948,525)	(3,730,035)	(3,107,661)	
<b>Net Change in Cash from Capital</b>	<b>(4,767,684)</b>	<b>(2,845,814)</b>	<b>(2,709,688)</b>	<b>(2,772,581)</b>	<b>(4,231,551)</b>	<b>(4,483,511)</b>	<b>(3,948,525)</b>	<b>(3,730,035)</b>	<b>(3,107,661)</b>	
<b>Financing:</b>										
Debentures and Other Debt Repaid	-	-	-	-	-	-	-	-	-	
<b>Net Change in Cash from Financing</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Investing:</b>										
Increase in Investments	-	-	-	-	-	-	-	-	-	
<b>Net Change in Cash from Investing</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	
<b>Net Change in Cash and Cash Equivalents</b>	<b>11,738,075</b>	<b>13,239,959</b>	<b>14,334,135</b>	<b>14,873,316</b>	<b>13,801,647</b>	<b>13,879,061</b>	<b>14,870,981</b>	<b>15,595,817</b>	<b>16,728,705</b>	
<b>Cash and Cash Equivalents, Beginning of Year</b>	<b>34,750,702</b>	<b>46,488,777</b>	<b>59,728,736</b>	<b>74,062,871</b>	<b>88,936,187</b>	<b>102,737,834</b>	<b>116,616,895</b>	<b>131,487,876</b>	<b>147,083,693</b>	
<b>Cash and Cash Equivalents, End of Year</b>	<b>46,488,777</b>	<b>59,728,736</b>	<b>74,062,871</b>	<b>88,936,187</b>	<b>102,737,834</b>	<b>116,616,895</b>	<b>131,487,876</b>	<b>147,083,693</b>	<b>163,812,397</b>	

## NOTES AND ASSUMPTIONS

### STATEMENT OF FINANCIAL POSITION

The Statement of Financial Position presents City of Richmond Hill's water and wastewater assets, liabilities and non-financial assets as at the end of each reporting period.

#### Financial Assets

**Cash and Cash Equivalents:** This comes from the end of year balance on the statement of cash flows. It is the cash in the reserve funds including the annual surplus/deficit, and annual cash provided by and used in operating and capital activities.

**Water Billing Receivables:** This is based on the historical year end receivables from water billing customers. It is the average of 2016, 2017 and 2018 receivable rate of 5.49% of total revenue. Wastewater uses the same rate as it is on the same billing.

#### Financial Liabilities

**Accounts Payable and Accrued Liabilities:** Wholesale cost payable to the York Region. At December 31, the City has November and December bills payable which represent 15.22% of the total wholesale cost. This rate is multiply by the annual wholesale cost estimate. The total wholesale cost represents 84.5% of the total expenses. Other payables such as employee salaries and miscellaneous payable are on accrued basis; therefore, it is not part of the accounts payable forecast.

#### Non-Financial Assets

Non-financial assets consists of tangible capital assets (TCA), inventory of supplies, and prepaid expenses.

**Tangible Capital Assets (TCA):** Non-financial physical assets having useful lives extended beyond the current year and are not intended for sales in the ordinary course of operations. TCA are recorded at historical cost, but reported at net book value on the balance sheet. It includes all the amounts directly attribute to acquisition, construction, development, betterment of an asset and developers' contribution.

**TCA – Additions:** The City’s acquisition, construction, development or replacement of assets.

**TCA – Contributed Assets:** These are growth assets constructed by developers and assumed by the City.

**TCA – Disposals:** All assets residual values on disposal are assumed at zero at the end of its useful life.

**TCA – Amortization:** Annual amortization is charged in the year the asset is available for productive use and in the year of disposal. A fixed annual amortization rate based on historic average is used to depreciate the asset. Below is the asset useful life of the water and wastewater infrastructure. Appendix I is the Tangible Capital Asset Summary for water and wastewater.

<b>Assets</b>	<b>Useful Life – Years</b>
Watermain Infrastructure	50-100
Hydrants	50
Control and Specialty Values	28-50
Water Meters	20
Water Vehicles	7-10
Sanitary Sewers Infrastructure	50-100
Maintenance Holes	93-100
Pumping Stations and Facility Equipment	10-50

## STATEMENT OF FINANCIAL OPERATIONS

The Statement of Financial Operations outlines the projected annual revenues, expenses, surplus or deficit, and accumulated surplus/deficit of the City of Richmond Hill.

### Revenues

**Rate Based Revenue:** Forecast based on the product of volume consumption and the City's water and wastewater rate. Water demand is net of water loss and wastewater is assumed with the same volume output. The rate derived after analyzing the total full cost recovery required each year. Rate is expected to increase on April 1 of each year. The 2018 Water and Wastewater Study list the detail breakdown of the rates and volume assumptions.

**Other Revenues:** Water meter and water wastewater maintenance user charges. They include new account fees, administrative charges, plumbing, water service on/off charges, and sewer blocked lateral fees. Annual projection is based on historical averages.

**Investment Income:** Annual projection of interest received from cash account.

**Earned DC Revenue:** Developers' contribution to the growth of the City's assets.

**Contributed/Assumed Assets:** New water and wastewater infrastructure built by developers are assumed into the City's property after completion. The value is equivalent to the value of tangible capital asset contributed/assumed assets under the Statement of Financial Position.

### Expenses

**Water Purchase Wholesale Cost:** Forecasted using the York Region's wholesale rate for water and wastewater multiple with the same volume consumption used in the rate based revenue.

**Other Expenses:** Costs associated with providing water and wastewater services to users, and contribution to share services in other departments. They are categorized into other operating costs, water meter services, water wastewater maintenance, and tax rate recoveries transfers. A detail breakdown is provided in the 2018 Water and Wastewater Study.

## Annual and Accumulated Surplus (Deficit)

Annual surplus (deficit) is net result of total revenue less total expenses. Accumulated surplus (deficit) is the combined of reserve funds, tangible capital asset balance and annual surplus (deficit) carry forward. Below is the accumulated surplus calculation for water and wastewater.

### Accumulated Surplus-Water

	<b>2018</b>
<b>Opening Reserve Balance</b>	
Reserves: Watermain	16,866,971
Reserves: DC	254,451
Reserves: Water Meter	1,973,131
Reserves: Water/Sewage Stabilization	1,620,232
<b>Total Reserve Balance</b>	<b>20,714,785</b>
Less: Debt Obligations and Deffered Revenues	
Add: Adjustment for TCA	57,188,000
<b>Total Opening Balance</b>	<b>77,902,785</b>
2018 Annual Surplus	2,154,138
<b>2018 Closing Balance</b>	<b>80,056,923</b>

### Accumulated Surplus-Wastewater

	<b>2018</b>
<b>Opening Reserve Balance</b>	
Reserves: Sanitary Sewer	21,019,175
Reserves: DC	254,451
Reserves: Water Meter	1,973,131
Reserves: Water/Sewage Stabilization	1,620,232
<b>Total Reserve Balance</b>	<b>24,866,989</b>
Less: Debt Obligations and Deffered Revenues	
Add: Adjustment for TCA	49,612,000
<b>Total Opening Balance</b>	<b>74,478,989</b>
2018 Annual Surplus	10,177,080
<b>2018 Closing Balance</b>	<b>84,656,069</b>

## **STATEMENT OF CASH FLOWS**

The statement of cash flows provides information about the changes in cash and cash equivalent of the City of Richmond Hill's water and wastewater network. It outlines the cash received and paid for in operating activities, capital activities, financing activities, and investment activities.

### **Operating Activities**

These are the cash that received from revenue and cash paid on expenses. It also include the cash increase and decrease from accounts payable and water billing receivables. Non-cash impacting item such as amortization are added back to cash.

### **Capital Activities**

This represents the cash in reserve funds that are used to acquire, constructed or develop tangible capital assets.

### **Financing and Investing Activities**

The City currently does not have any debt or debentures. Its investments are projected to be flat over the period from 2019-2027.

## Appendix I: Tangible Capital Asset Summary

### City of Richmond Hill Tangible Capital Asset Summary Water Network

As at December 31	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Opening TCA Balance(Historical Cost)</b>	88,657,202	94,530,444	106,692,473	120,457,428	128,174,633	136,041,591	142,326,720	148,876,164	153,382,962
Additions	4,245,127	11,078,610	12,423,463	6,347,939	6,465,461	4,846,293	5,067,210	2,973,751	3,788,245
Contributed Assets	1,628,116	1,083,419	1,341,492	1,369,266	1,401,497	1,438,836	1,482,234	1,533,047	1,593,166
Disposals	-	-	-	-	-	-	-	-	-
<b>Closing TCA Balance (Historical Cost)</b>	<b>94,530,444</b>	<b>106,692,473</b>	<b>120,457,428</b>	<b>128,174,633</b>	<b>136,041,591</b>	<b>142,326,720</b>	<b>148,876,164</b>	<b>153,382,962</b>	<b>158,764,373</b>
<b>Opening Accumulated Amortization</b>	25,537,659	27,462,938	29,635,917	32,089,244	34,699,745	37,470,471	40,369,204	43,401,328	46,525,241
Amortization Expense	1,925,278	2,172,979	2,453,327	2,610,501	2,770,726	2,898,733	3,032,124	3,123,913	3,233,515
Amortization on Disposals	-	-	-	-	-	-	-	-	-
<b>Closing Accumulated Amortization</b>	<b>27,462,938</b>	<b>29,635,917</b>	<b>32,089,244</b>	<b>34,699,745</b>	<b>37,470,471</b>	<b>40,369,204</b>	<b>43,401,328</b>	<b>46,525,241</b>	<b>49,758,756</b>
<b>Net Book Value</b>	<b>67,067,507</b>	<b>77,056,556</b>	<b>88,368,184</b>	<b>93,474,887</b>	<b>98,571,120</b>	<b>101,957,516</b>	<b>105,474,836</b>	<b>106,857,720</b>	<b>109,005,617</b>

### City of Richmond Hill Tangible Capital Asset Summary Wastewater Network

As at December 31	2019	2020	2021	2022	2023	2024	2025	2026	2027
<b>Opening TCA Balance(Historical Cost)</b>	73,724,443	80,603,339	85,602,842	90,214,538	94,923,362	101,126,010	107,616,097	113,607,316	119,416,815
Additions	4,767,685	2,845,814	2,709,688	2,772,580	4,231,551	4,483,511	3,948,524	3,730,035	3,107,661
Contributed Assets	2,111,212	2,153,689	1,902,008	1,936,244	1,971,097	2,006,576	2,042,695	2,079,463	2,116,894
Disposals	-	-	-	-	-	-	-	-	-
<b>Closing TCA Balance (Historical Cost)</b>	<b>80,603,339</b>	<b>85,602,842</b>	<b>90,214,538</b>	<b>94,923,362</b>	<b>101,126,010</b>	<b>107,616,097</b>	<b>113,607,316</b>	<b>119,416,815</b>	<b>124,641,369</b>
<b>Opening Accumulated Amortization</b>	17,662,936	18,645,747	19,689,518	20,789,521	21,946,939	23,179,987	24,492,170	25,877,405	27,333,476
Amortization Expense	982,811	1,043,771	1,100,003	1,157,418	1,233,048	1,312,183	1,385,235	1,456,071	1,519,775
Amortization on Disposals	-	-	-	-	-	-	-	-	-
<b>Closing Accumulated Amortization</b>	<b>18,645,747</b>	<b>19,689,518</b>	<b>20,789,521</b>	<b>21,946,939</b>	<b>23,179,987</b>	<b>24,492,170</b>	<b>25,877,405</b>	<b>27,333,476</b>	<b>28,853,252</b>
<b>Net Book Value</b>	<b>61,957,592</b>	<b>65,913,324</b>	<b>69,425,017</b>	<b>72,976,423</b>	<b>77,946,023</b>	<b>83,123,927</b>	<b>87,729,911</b>	<b>92,083,338</b>	<b>95,788,117</b>