

June 19, 2020

Craig MacMullin, MBA, CPA, CGA, Chair
Halifax Water
Halifax, NS

The regular meeting of the Halifax Water Board will be held on Thursday, June 25, 2020 at 9:00 am. In an effort to stem the spread of COVID19, this meeting will take place via web conferencing and will be available on HRWC's website for public viewing following the meeting.

AGENDA

In Camera Reports

1C Approval of Minutes of the In-Camera Meeting held on Thursday, March 26, 2020

2C Business Arising from Minutes
a)

3C Security Matter

Motion: That the Halifax Water Board approve the recommendation as outlined in the confidential report dated June 17, 2020.

4C Land Matter

Information Item

5C Personnel Matter - Verbal

Information Item

6C Contractual Matter

Information Item

7C Security Matter

Information Item

8C Legal Matter - Verbal

Information Item

Regular Reports

1. a) Ratification of In-Camera Motions
b) Approval of the Order of Business and Approval of Additions and Deletions
2. Approval of Minutes of the Regular Meeting held on Thursday, March 26, 2020

3. Business Arising from Minutes
a)

Financial

4.1 2019/20 Audited Financial Statements and Year-End Results

Motion: That the Halifax Water Board approve the financial statements of the Halifax Regional Water Commission for the year ended March 31, 2020.

4.2 Halifax Regional Water Commission Employees' Pension Plan Audited Financial Statements for the Year Ended December 31, 2019

Motion: That the Halifax Water Board approve the audited financial statements of the Halifax Regional Water Commission Employees' Pension Plan (the "Plan") for the year ended December 31, 2019.

Capital Approvals

5. N/A

Other Business

6. Corporate Balanced Scorecard –2019/20 Results and Revised 2020/21 Targets

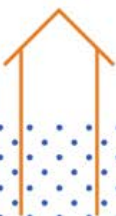
Motion: That the Halifax Water Board approve the revised Corporate Balance Scorecard Targets for 2020/21 for Inflow and Infiltration (I&I) reduction, and Institutional, Commercial, and Industrial (ICI) property inspections

Information Reports

- 1-I Financial and Operations Monthly Update
- 2-I Capital Budget Approvals to Date – 2019/20
- 3-I Bank Balance
- 4-I Halifax Water Compliance Statement – Quarterly Certification
- 5-I 2019/20 Cost Containment
- 6-I Halifax Regional Water Commission Employees' Pension Plan Financial Report – First (1st) Quarter, 2020
- 7-I HRM Pension Plan Investment Performance – Fourth (4th) Quarter, 2019
- 8-I COVID-19 Business Impacts
- 9-I 2019/2020 Lead Service Line Replacement Program
- 10-I Corporate Social Responsibility & Diversity Update

Original Signed By: _____

Heidi Schedler
Secretary



TO: Craig MacMullin, MBA, CPA, CGA, Chair, and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: Original Signed By: _____
Louis de Montbrun, CPA, CA
Director, Corporate Services/CFO

APPROVED: Original Signed By: _____
Cathie O'Toole, MBA, FCPA, FCGA, ICD.D
General Manager

DATE: June 18, 2020

SUBJECT: 2019/20 Draft Audited Financial Statements and Year End Results

ORIGIN

Operational and Regulatory Requirement.

RECOMMENDATION

It is recommended that the Board approve the financial statements of the Halifax Regional Water Commission for the year ended March 31, 2020.

BACKGROUND

Halifax Regional Water Commission (Halifax Water) is required to submit audited financial statements, approved by the Halifax Water Board, to the Halifax Regional Municipality (HRM) by June 30, 2020 and the Nova Scotia Utility and Review Board (NSUARB) within 180 days of the fiscal year end.

DISCUSSION

Attached are the draft audited financial statement for Halifax Water for the year ended March 31, 2020, with comparative figures for March 31, 2019. The auditor has indicated that they are prepared to issue an unqualified Auditor's Report.

ITEM # 4.1

HRWC Board

June 25, 2020

Halifax Water is a fully regulated government business enterprise, falling under the jurisdiction of the NSUARB. The NSUARB requires that Halifax Water file financial statements and rate applications with the Board based on the NSUARB Accounting and Reporting Handbook for Water Utilities (NSUARB Handbook). The Accounting Standards Board (AcSB) requires rate regulated entities to conform to International Financial Reporting Standards (IFRS). Halifax Water maintains the financial records in IFRS for the purposes of the annual audit and consolidation of the financial statements with those of Halifax Regional Municipality (HRM).

The following discussion of the operating results reflect direct operating costs by department and allocations among water, wastewater and stormwater for common costs shared across all the services provided by Halifax Water. The schedules to the financial statements are prepared in accordance with the NSUARB Handbook.

Statement of Financial Position - Page 3 of attachment

Key indicators and balances from the Statement of Financial Position are provided in the following tables. An analysis of current assets is as follows:

	March 31, 2020	March 31, 2019		
	'000	'000	\$ Change	% Change
Current assets				
Cash and cash equivalents	\$ 49,953	\$ 51,603	\$ (1,650)	-3.20%
Receivables				
Customers charges and contractual	18,405	17,407	998	5.73%
Unbilled service revenues	17,367	17,012	355	2.09%
Halifax Regional Municipality	3,668	863	2,805	325.03%
Inventory	1,736	2,057	(321)	-15.61%
Prepays	1,002	1,066	(64)	-6.00%
Total current assets	\$ 92,131	\$ 90,008	\$ 2,123	2.36%

- Cash and cash equivalents consist of cash on hand and balances held within financial institutions reduced by outstanding cheques. It has decreased \$1.7 million from the prior year largely due to the increase in capital expenditures over the prior year, offset by an increase in new debt. The details of changes are outlined in the statement of cash flows on page 6 of the attached draft financial statements.
- Customer charges and contractual receivables have increased \$1.0 million from the prior year. The increase is largely a result of accrued external funding from New Build Canada for the Lucasville Transmission Main Replacement project and current receivables from developers for Capital Cost Contributions (CCC) in West Bedford.
- Halifax Regional Municipality receivables have increased \$2.8 million due to cost sharing relating to the Wanda Lane Storm Sewer and Fall River Water Servicing capital projects for \$3.1 million, which is offset by a reduction in the amount of stormwater liens placed on customer properties.

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The analysis of non-current assets is presented below:

	March 31, 2020	March 31, 2019		
	'000	'000	\$ Change	% Change
Non-current assets				
Intangible assets	\$ 18,951	\$ 15,418	\$ 3,533	22.91%
Capital work in progress	18,104	29,605	(11,501)	-38.85%
Utility plant in service	1,281,010	1,233,440	47,570	3.86%
Regulatory deferral account	2,812	3,004	(192)	-6.39%
Total non-current assets	\$ 1,320,877	\$ 1,281,467	\$ 39,410	3.08%

- The \$3.5 million increase in intangible assets relates to additions of \$5.1 million less \$1.6 million of amortization. Current year additions to intangible assets consist mainly of studies and capital master plans.
- The \$11.5 million decrease in capital work in progress relates to expenditures during the year of \$69.3 million reduced by \$80.8 million transferred to utility plant in service. The top five projects remaining open as at year end are detailed below:

Capital Work in Progress	
	Cumulative '000
Integrate Service Desk & IT Asset Management	\$ 793
PS Control Panel/Electrical Replacement	926
Infrastructure & IT Ops Governance	1,054
Payroll Replacement Project	1,192
Fairview/Clayton Park/Bridgeview I/I Reduction	1,078
All other projects	13,061
Net capital work in progress	\$ 18,104

- Utility plant in service assets total \$1.28 billion, an increase of \$47.6 million from the prior year. The increase is a result of total additions of \$94.3 million less depreciation expense of \$46.4 million and disposals during the year. More details can be found in note 11 of the financial statements.

ITEM # 4.1**HRWC Board****June 25, 2020**

The top six projects capitalized during the year are outlined in the following table:

Utility Plant in Service Additions	
	Cumulative '000
AMI - Advanced Metering Infrastructure	\$ 16,604
JD Kline Filtration Replacement	10,299
Lake Major Dam Replacement	9,080
Lucasville Transmission Main Replacement	6,398
Ellenvale Run	6,027
Wanda Lane Storm Sewer	4,935
All other projects	40,979
Total	\$ 94,322

The changes in current liabilities are presented below:

	March 31, 2020 '000	March 31, 2019 '000	\$ Change	% Change
Current liabilities				
Payables and accruals				
Trade	\$ 28,756	\$ 23,493	\$ 5,263	22.40%
Interest on long term debt	2,139	2,051	88	4.29%
Contractor and customer deposits	197	207	(10)	-4.83%
Current portion of deferred contributed capital	14,488	13,846	642	4.64%
Current portion of long term debt	21,184	24,709	(3,525)	-14.27%
Unearned revenue	760	507	253	49.90%
Total current liabilities	\$ 67,524	\$ 64,813	\$ 2,711	4.18%

- Trade payables and accruals have increased \$5.3 million as a result of costs incurred for work completed on several large capital projects.
- Current portion of long term debt has decreased primarily as a result of the final payment for debt relating to Lake Major being paid in January 2019 for \$3.7 million.

The changes in long term liabilities are presented below:

	March 31, 2020 '000	March 31, 2019 '000	\$ Change	% Change
Long term liabilities				
Deferred contributed capital	\$ 879,460	\$ 867,802	\$ 11,658	1.34%
Long term debt	197,962	182,732	15,230	8.33%
Employee benefit obligation	63,365	72,330	(8,965)	-12.39%
Total long term liabilities	\$ 1,140,787	\$ 1,122,864	\$ 17,923	1.60%

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- Deferred contributed capital increased \$11.7 million due to collection of Regional Development Charges and interest earned.
- Long term debt increased \$15.2 million offset by a reduction in the current portion of \$3.5 million. New debt acquired was more than the prior year and repayments were less. New debt of \$30.0 million was received in November 2019 and \$6.5 million was refinanced at that time. Repayments during the year were \$18.2 million plus the balloon payment of \$6.5 million that was refinanced, as indicated above. See schedule B of the financial statements for additional details.
- The employee benefit obligation decreased \$9.0 million due to several factors:
 - Improvement of the fair market value of plan assets;
 - Increase in the discount rate used to measure the obligation;
 - Initiatives taken to close the pre-retirement benefit program.
- Additional information, including the actuarial assumptions adopted in measuring the employee benefit obligation, is described in note 4 of the financial statements.

Debt servicing ratio is a function of total interest and principal payments (including accrued amounts) plus the amortization of debt issue costs divided by total operating revenue per service.

Debt Servicing Ratio by Service		
	2019/20	2018/19
Water	11.70%	16.25%
Wastewater	24.14%	23.80%
Stormwater	22.39%	19.02%
Combined	18.91%	20.37%

- The debt servicing ratio for Water of 11.7% is substantially lower than the prior year because the prior year includes the final, large repayment for the original Lake Major debt of \$3.7 million. The debt servicing ratio for Wastewater is consistent with prior years. The debt servicing ratio for Stormwater has increased primarily due to a decrease in stormwater site generated charges.
- The debt servicing ratio of 18.91% is below the maximum 35% ratio allowed under the blanket guarantee agreement with HRM.

Statement of Earnings and Comprehensive Earnings - Page 4 of attachment

Key indicators and balances from the Statement of Earnings and Comprehensive Earnings are provided in the following tables:

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Summarized Comprehensive Earnings				
	2019/20 '000	2018/19 '000	\$ Change	% Change
Operating revenues	\$ 137,750	\$ 138,202	\$ (452)	(0.3%)
Operating expenditures	139,040	132,786	6,254	4.7%
Earnings (loss) from operations before financial and other revenues and expenditures	(1,290)	5,416	(6,706)	(123.8%)
Financial and other revenues	20,236	20,041	195	1.0%
Financial and other expenditures	12,611	12,861	(250)	(1.9%)
Earnings for the year before regulatory deferral account depreciation	6,335	12,596	(6,261)	(49.7%)
Regulatory deferral account depreciation	192	192	-	0.0%
Earnings for the year	6,143	12,404	(6,261)	(50.5%)
Other comprehensive earnings	14,756	3,734	11,022	295.2%
Total comprehensive earnings for the year	\$ 20,899	\$ 16,138	\$ 4,761	29.5%

- Operating revenue of \$137.8 million is \$0.5 million lower than the prior year. Details to be discussed on page 7.
- Operating expenses of \$139.0 million are \$6.3 million higher than the prior year. Details to be discussed on page 8.
- The earnings for the year before regulatory deferral account depreciation and other comprehensive earnings (OCI), for the year to date is \$6.3 million.
- OCI is a function of the change in the liability for employee benefits, including the Pension Plan. The OCI adjustment at year-end was an income of \$14.8 million due to the actuarial remeasurement.
- The total comprehensive earnings for the year are \$20.9 million, an increase in the surplus of \$4.8 million from the prior year. The following is a discussion on factors influencing the change.

Operating revenues are presented in two formats below:

The first table is an extract from the statement of earnings and comprehensive earnings and the second table is a breakdown of operating revenues by type.

	2019/20 '000	2018/19 '000	\$ Change	% Change
Operating Revenues				
Water	\$ 47,918	\$ 48,040	\$ (122)	-0.25%
Wastewater	70,494	69,901	593	0.85%
Stomwater	9,196	9,741	(545)	-5.59%
Public fire protection	7,074	7,074	-	0.00%
Private fire protection	881	869	12	1.38%
Other operating revenue	2,187	2,577	(390)	-15.13%
	\$ 137,750	\$ 138,202	\$ (452)	-0.33%

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Operating Revenues					
	2019/20	2018/19			
	'000	'000	\$ Change	% Change	
Consumption revenue	\$ 86,054	\$ 86,244	\$ (190)	(0.2%)	
Base charge revenue	33,399	33,191	208	0.6%	
Wastewater rebate	(1,041)	(1,494)	453	(30.3%)	
Metered sales total	118,412	117,941	471	0.4%	
Stormwater site generated charge	5,361	5,906	(545)	(9.2%)	
Stormwater right of way	3,835	3,835	-	0.0%	
Public fire protection	7,074	7,074	-	0.0%	
Private fire protection	881	869	12	1.4%	
Other operating revenue	2,187	2,577	(390)	(15.1%)	
Operating revenue total	\$ 137,750	\$ 138,202	\$ (452)	(0.3%)	

Operating revenues have decreased \$0.5 million as compared to the previous year. Key items of note include:

- Water and wastewater consumption is down 0.22% on a volumetric basis as compared to the previous year. Consumption had been budgeted to remain consistent with the prior year but has decreased slightly.
- Base charge revenue has increased slightly due to an increase in the customer base (619 new water accounts).
- The wastewater rebate has decreased \$0.4 million from the prior year due to a higher than anticipated rebate in the prior year as consumption fluctuates based on environmental factors. The wastewater rebate is an offset to revenue. It is available to certain large customers whose wastewater is a lower proportion of their consumed water.
- Stormwater site generated charge revenue is less than the prior year. The decrease relates to an adjustment to revenue billed.
- Other operating revenue categories are down \$0.4 million. This is a result of a decrease in septage tipping revenues as customers have been taking their septage outside of HRM for disposal.

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Operating expenditures are presented below:

	2019/20 '000	2018/19 '000	\$ Change	% Change
Operating Expenditures				
Water supply and treatment	\$ 9,573	\$ 9,767	\$ (194)	-1.99%
Water transmission and distribution	10,843	10,903	(60)	-0.55%
Wastewater collection	13,963	13,125	838	6.38%
Stormwater collection	4,808	4,950	(142)	-2.87%
Wastewater treatment	20,633	19,789	844	4.26%
Engineering and information services	8,436	8,156	280	3.43%
Regulatory services	3,781	3,152	629	19.96%
Customer services	5,167	4,920	247	5.02%
Administration and pension services	15,426	13,964	1,462	10.47%
Depreciation and amortization	46,410	44,060	2,350	5.33%
	\$ 139,040	\$ 132,786	\$ 6,254	4.71%

Key items to note:

- Operating expenditures of \$139.0 million are \$6.3 million higher than the prior year.
- Compared to the prior year, expense categories with the largest increases in costs are:
 - Wastewater collection and wastewater treatment had higher salaries and benefits as a result of wage rate increases and additional overtime. Other contributing factors were increased chemical costs and increased materials and supplies purchases.
 - Regulatory services had higher salaries and benefits as a result of wage rate increases and new hires and the transfer of four technologists from Water Services (which includes water supply and treatment and water transmission and distribution). Water services also had an increase in wage rates, but this was offset by the transfer of the technologists referenced above.
 - Administration and pension services saw an increase as a result of higher accrued pension expense based on actuarial valuation.
 - Depreciation has increased as a result of additions to utility plant in service.

Financial and other revenues are presented in the below:

	2019/20 '000	2018/19 '000	\$ Change	% Change
Financial and other revenues				
Interest	\$ 512	\$ 1,157	\$ (645)	-55.75%
Amortization of contributed capital	19,025	18,142	883	4.87%
Other	699	742	(43)	-5.80%
	\$ 20,236	\$ 20,041	\$ 195	0.97%

Key items to note:

- Interest is lower than the previous year despite higher than anticipated cash balances and rising interest rates. To align with the requirements of the Regional Development Charge (RDC) regulations, the portion of interest earned attributable to RDC funds is now allocated to those funds.

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- Amortization of contributed capital has increased related to a project funded by the RDC.
- Other revenue includes various un-regulated activities such as tower leases, energy generation, consulting activities and some contracted services.

Financial and other expenditures are presented below:

There were no significant changes from the prior year. Other expenditures include losses on the disposal of utility plant in service.

	2019/20 '000	2018/19 '000	\$ Change	% Change
Financial and other expenditures				
Interest on long term debt	\$ 7,144	\$ 7,430	\$ (286)	-3.85%
Amortization of debt discount	187	199	(12)	-6.03%
Dividend/grant in lieu of taxes	5,078	4,999	79	1.58%
Other	202	233	(31)	-13.30%
	\$ 12,611	\$ 12,861	\$ (250)	-1.94%

Results under International Financial Reporting Standards as compared to NSUARB Handbook

As noted previously, the AcSB requires Halifax Water, as a rate regulated utility, to report financial results using IFRS. The NSUARB requires Halifax Water to report in accordance with the NSUARB Handbook. The table below reconciles the results between IFRS and the NSUARB Handbook:

Reconcile IFRS to NSUARB		
	2019/20 '000	2018/19 '000
IFRS comprehensive earnings	\$ 20,899	\$ 16,138
Add non-cash pension expense	8,381	6,208
Subtract debt principle appropriation expense	(18,719)	(20,516)
Add depreciation expense on contributed assets	19,025	18,143
Subtract amorization of contributed capital	(19,025)	(18,143)
Add various depreciation adjustments	2,635	3,292
Subtract OCI gain	(14,756)	(3,734)
NSUARB earnings (loss)	\$ (1,560)	\$ 1,388

Operating revenues are the same as operating revenues using IFRS and the NSUARB Handbook.

The main differences relate to reporting requirements surrounding the recognition of various expenditures as follows:

- Non-cash pension expense represents the accrued portion of contributions to the pension plan and is not considered an expense for NSUARB Handbook reporting purposes.

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- The principle payments on long term debt are recognized as an expense for NSUARB Handbook reporting purposes but are not an expense in IFRS statements.
- Depreciation expense on contributed assets is not an expense for NSUARB Handbook purposes, however, it is offset by the removal of the amortization of contributed capital. IFRS requires contributed capital to be treated as a long term liability and amortized, resulting in higher long term liabilities and lower equity on the statement of financial position.
- The various depreciation adjustments include the add back of losses on the disposal of utility plant in service and IFRS requires componentization of assets and shorter useful lives resulting in higher depreciation than under NSUARB Handbook reporting.

Schedule C (pages 26 to 28) presents the Statement of Earnings under the NSUARB Handbook and contain the adjustment referenced above.

Operating Results by Service					
	2019/20	2018/19			
	'000	'000	\$ Change	% Change	
Water	\$ 5,205	\$ 2,759	\$ 2,446	88.7%	
Wastewater	(5,035)	(576)	(4,459)	774.1%	
Stormwater	(1,730)	(795)	(935)	117.6%	
Surplus (deficit)	\$ (1,560)	\$ 1,388	\$ (2,948)	(212.4%)	

Variances as compared to the prior year are outlined in previous sections of this report.

Schedule D (pages 29 and 30) presents the Statements of Earning segregated between Regulated and Unregulated Operations.

Results by Activity					
	2019/20	2018/19			
	'000	'000	\$ Change	% Change	
Regulated activities	\$ (2,260)	\$ 22	\$ (2,282)	(10372.7%)	
Unregulated activities	700	1,366	(666)	(48.8%)	
Surplus (deficit)	\$ (1,560)	\$ 1,388	\$ (2,948)	(212.4%)	

Variances as compared to the prior year are outlined in previous sections of this report.

Refer to Schedule D of the financial statements for more details on the earnings by activity.

ATTACHMENTS

Draft audited financial statements for the fiscal year ended March 31, 2020.

Presentation to the Audit and Finance Committee by Grant Thornton

Report prepared by: Original Signed By:

Alicia Scallion, CPA, CA, Manager, Accounting, (902)-490-4814

Financial Statements

Halifax Regional Water Commission

March 31, 2020

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Grant Thornton

Independent auditor's report

To the Members of the Board of the
Halifax Regional Water Commission

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Halifax Regional Water Commission

Statement of financial position

March 31 (in thousands)

2020

2019

Assets

Current

Cash and cash equivalents	\$ 49,953	\$ 51,603
Receivables (Note 8)		
Customer charges and contractual	18,405	17,407
Unbilled service revenues	17,367	17,012
Halifax Regional Municipality	3,668	863
Inventory	1,736	2,057
Prepays	1,002	1,066
	<u>92,131</u>	<u>90,008</u>

Intangible assets (Note 10)	18,951	15,418
Capital work in progress	18,104	29,605
Utility plant in service (Note 11)	<u>1,281,010</u>	<u>1,233,440</u>
Total assets	<u>1,410,196</u>	<u>1,368,471</u>

Regulatory deferral account (Note 5)	2,812	3,004
Total assets and regulatory deferral account	\$ 1,413,008	\$ 1,371,475

Liabilities

Current

Payables and accruals		
Trade	\$ 28,756	\$ 23,493
Interest on long term debt	2,139	2,051
Contractor and customer deposits	197	207
Current portion of deferred contributed capital (Note 12)	14,488	13,846
Current portion of long term debt (Note 13)	21,184	24,709
Unearned revenue	760	507
	<u>67,524</u>	<u>64,813</u>

Deferred contributed capital (Note 12)	879,460	867,802
Long term debt (Note 13)	197,962	182,732
Employee benefit obligation (Note 4)	<u>63,365</u>	<u>72,330</u>
Total liabilities	<u>1,208,311</u>	<u>1,187,677</u>

Equity

Accumulated other comprehensive loss	(26,453)	(41,209)
Accumulated surplus	<u>231,150</u>	<u>225,007</u>
Total equity	<u>204,697</u>	<u>183,798</u>

Total liabilities and equity	\$ 1,413,008	\$ 1,371,475
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Contingent liabilities (Note 3)
Commitments (Note 6)
Subsequent events (Note 15)

Approved by the Board

Commissioner

Commissioner

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Statement of earnings and comprehensive earnings

Year ended March 31 (in thousands)	2020	2019
Operating revenues		
Water	\$ 47,918	\$ 48,040
Wastewater	70,494	69,901
Stormwater	9,196	9,741
Public fire protection	7,074	7,074
Private fire protection	881	869
Other operating revenue	2,187	2,577
	<u>137,750</u>	<u>138,202</u>
Operating expenditures (Note 14)		
Water supply and treatment	9,573	9,767
Water transmission and distribution	10,843	10,903
Wastewater collection	13,963	13,125
Stormwater collection	4,808	4,950
Wastewater treatment	20,633	19,789
Engineering and information services	8,436	8,156
Regulatory services	3,781	3,152
Customer services	5,167	4,920
Administration and pension services	15,426	13,964
Depreciation and amortization	46,410	44,060
	<u>139,040</u>	<u>132,786</u>
Earnings (loss) from operations before financial and other revenues and expenditures	<u>(1,290)</u>	<u>5,416</u>
Financial and other revenues		
Interest	512	1,157
Amortization of contributed capital	19,025	18,142
Other	699	742
	<u>20,236</u>	<u>20,041</u>
Financial and other expenditures		
Interest on long term debt	7,144	7,430
Amortization of debt discount	187	199
Dividend/grant in lieu of taxes	5,078	4,999
Other	202	233
	<u>12,611</u>	<u>12,861</u>
Earnings for the year before regulatory deferral account depreciation	6,335	12,596
Regulatory deferral account depreciation (Note 5)	<u>(192)</u>	<u>(192)</u>
Earnings for the year	<u>6,143</u>	<u>12,404</u>
Other comprehensive earnings		
Items that will not be reclassified subsequently to earnings:		
Re-measurement on defined benefit plans	14,756	3,734
Total comprehensive earnings for the year	<u>\$ 20,899</u>	<u>\$ 16,138</u>

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Statement of changes in equity

Year ended March 31 (in thousands)

	Accumulated other comprehensive income (loss)	Accumulated surplus	Total
Balance, April 1, 2018	\$ (44,943)	\$ 212,603	\$ 167,660
Earnings for the year	-	12,404	12,404
Other comprehensive earnings	3,734	-	3,734
Comprehensive earnings for the year	3,734	12,404	16,138
Balance, March 31, 2019	\$ (41,209)	\$ 225,007	\$ 183,798
Earnings for the year	-	6,143	6,143
Other comprehensive earnings	14,756	-	14,756
Comprehensive earnings for the year	14,756	6,143	20,899
Balance, March 31, 2020	\$ (26,453)	\$ 231,150	\$ 204,697

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Statement of cash flows

Year ended March 31 (in thousands)

2020

2019

Increase (decrease) in cash and cash equivalents

Operating

Comprehensive earnings for the year	\$ 20,899	\$ 16,138
Depreciation and amortization	29,183	27,781
Employee benefit obligation	(8,965)	2,431
Loss on disposal of utility plant in service	135	188
	<u>41,252</u>	<u>46,538</u>

Change in non-cash operating working capital items

Receivables, customer charges and contractual	(998)	87
Receivables, unbilled service revenues	(355)	(372)
Receivable from Halifax Regional Municipality	(2,805)	1,972
Inventory	321	(615)
Prepays	64	(53)
Payables and accruals, trade	5,263	778
Accrued interest on long term debt	88	21
Contractor and customer deposits	(10)	21
Unearned revenue	253	(77)
	<u>1,821</u>	<u>1,762</u>
	<u>43,073</u>	<u>48,300</u>

Financing

Proceeds from issuance of long term debt	36,500	16,500
Contributed capital	12,712	14,481
Debt issue costs	(87)	70
Principal repayment on Halifax Regional Municipality long term debt	(6,500)	(6,500)
Principal repayments on long term debt	(18,208)	(16,130)
	<u>24,417</u>	<u>8,421</u>

Investing

Proceeds from sale of utility plant in service	203	189
Purchase of capital work in progress	(13,775)	(18,519)
Purchase of utility plant in service and intangible assets	(55,568)	(38,258)
	<u>(69,140)</u>	<u>(56,588)</u>

Net increase (decrease) in cash and cash equivalents

(1,650) 133

Cash and cash equivalents, beginning of year

51,603 51,470

Cash and cash equivalents, end of year

\$ 49,953 \$ 51,603

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

1. Nature of operations

The Halifax Regional Water Commission (Halifax Water) is a public utility owned and controlled by the Halifax Regional Municipality (HRM). Halifax Water is responsible for the supply of municipal water, wastewater and stormwater services to the residents of HRM. Halifax Water's principal place of business is 450 Cowie Hill Road, Halifax, Nova Scotia. Halifax Water is exempt from income tax.

2. Summary of significant accounting policies

(a) Statement of compliance

The financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB). The principal accounting policies applied in the preparation of these financial statements are set out below. These policies have been consistently applied to all years presented, unless otherwise stated.

The financial statements were authorized for issue by the Board on June 25, 2020.

(b) Basis of measurement

Halifax Water's financial statements are prepared on the historical cost basis, except for certain financial instruments measured at fair value. The financial statements are presented in Canadian dollars and all values are rounded to the nearest thousand. The financial statements are presented in accordance with International Accounting Standards (IAS) 1 "Presentation of Financial Statements".

(c) Regulation

In matters of administrative policy relating to customers, rates, capital expenditures, depreciation rates and accounting matters, Halifax Water is subject to the jurisdiction of the Nova Scotia Utility and Review Board (NSUARB). Rates charged to and collected from customers are designed to recover costs of providing the regulated services. Halifax Water is required to prepare submissions in accordance with the Handbook issued by the NSUARB. There are differences in the accounting treatment of certain transactions from IFRS including the accounting of principal debt payments, employee future benefits, depreciation and amortization, gains and losses on the disposal of utility plant in service, and accumulated surplus.

Regulatory assets represent costs incurred that have been deferred as approved by the NSUARB and will be recovered through future rates collected from customers. Halifax Water's regulatory assets are disclosed in Note 5.

(d) Utility plant in service

Utility plant in service (Note 11) is recorded at cost, being the purchase price and directly attributable cost of acquisition or construction, including interest capitalized during construction. Losses or gains related to assets retired, demolished or sold are charged or credited to the statement of earnings.

(e) Deferred contributed capital

Contributions for capital expenditures are treated as deferred contributed capital on the statement of financial position and amortized over the estimated useful lives of the assets (Note 12). Deferred contributed capital is initially measured at cost, being the value of contributions received by Halifax Water for the acquisition of utility plant in service. Contributions for capital expenditures are amortized over the estimated useful lives of the assets and show as a reduction in the amortization of utility plant in service.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

2. Summary of significant accounting policies (continued)

(f) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and balances held within financial institutions managed by HRM.

(g) Depreciation

Depreciation is calculated using the straight-line method over the estimated useful lives of the assets.

The estimated useful lives for the major classifications of utility plant in service are as follows:

Office equipment and furniture and transportation equipment	3 to 10 years
SCADA equipment	5 to 25 years
Meters	20 to 25 years
Pumping equipment	5 to 30 years
Tools and work equipment	5 to 30 years
Culverts	25 to 50 years
Purification and treatment equipment	20 to 50 years
Services and laterals	50 to 60 years
Hydrants	50 to 80 years
Structures and improvements	50 to 100 years
Water, wastewater and stormwater mains	50 to 100 years

Depreciation commences in the year an asset is placed into service and ready for its intended use. In the year of acquisition, depreciation is calculated at 50% of the above rates unless a project is significant, in which case depreciation is prorated for the number of months the asset was in use. Halifax Water does not maintain a depreciation fund per regulatory reporting requirements. Halifax Water has received NSUARB approval for exemption from setting up a depreciation fund as long as net depreciable additions to utility plant in service exceed the depreciation charged.

(h) Inventory

Cost of inventory is comprised of direct materials and supplies. Inventories are valued at the lower of cost and net realizable value with cost being determined on a weighted average moving cost method.

(i) Revenues and expenditures

Halifax Water recognizes revenue in a manner that depicts the transfer of goods or services to customers at an amount that reflects the consideration Halifax Water is expected to be entitled to in exchange for those goods or services rendered.

All revenues and expenditures are recorded on an accrual basis. Revenues relating to supplying water, wastewater and stormwater services are recorded based on cyclical billings and include an accrual for estimated amounts not yet billed. Fire protection revenue is recorded based on approved rates. Other revenues are recorded at the time services are performed, the amount can be measured reliably, and collection is reasonably assured.

(j) Long term debt

Debt issue costs are deferred and amortized over the term of the debt to which they relate.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

2. Summary of significant accounting policies (continued)

(k) Use of estimates and critical accounting judgments

In preparing Halifax Water's financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenue and expenditures during the period. Significant estimates and assumptions include the following:

- At year end, revenue from water, stormwater and wastewater services has been earned, but not yet billed due to the timing of the billing cycles. Management estimates the unbilled revenue accrual based on historic billing trends.
- Management assumptions are used in the actuarial determination of employee benefit obligations, such as standard rates of inflation, mortality, discount rates, and anticipation of future salary increases.
- Useful lives of utility plant in service are reviewed at each reporting date based on expected patterns of usage and historical information.
- Recognition and measurement of provisions and contingencies.

Actual results could differ from these estimates.

(l) Financial instruments

Recognition and derecognition

Financial assets and financial liabilities are recognized when Halifax Water becomes a party to the contractual provisions of the financial instrument. Financial assets are derecognized when the contractual rights to the cash flows from the financial asset expire, or when the financial asset and substantially all the risks and rewards are transferred. A financial liability is derecognized when it is extinguished, discharged, cancelled or expired.

Classification and initial measurement of financial instruments

All financial instruments are initially measured at fair value and adjusted for transaction costs, where applicable. Financial instruments are classified as: those measured at amortized cost, fair value through other comprehensive income (assets only), or fair value through profit and loss (FVTPL).

Halifax Water has classified its financial instruments as follows:

<u>Asset/Liability</u>	<u>Classification</u>
Cash and cash equivalents	Amortized cost
Receivables	Amortized cost
Payables and accruals	Amortized cost
Long term debt	Amortized cost
Contractor and customer deposits	Amortized cost

The classification is determined by both the Halifax Water business model for managing the financial instrument and the contractual cash flow characteristics of the financial instrument.

Subsequent measurement of financial assets

Financial assets are measured at amortized cost if the assets meet the following conditions (and are not designated as FVTPL):

- they are held within a business model whose objective is to hold the financial assets and collect its contractual cash flows; and,
- the contractual terms of the financial assets give rise to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

2. Summary of significant accounting policies (continued)

(l) Financial instruments (continued)

After initial recognition, financial instruments are measured at amortized cost using the effective interest method. Discounting is omitted where the effect of discounting is immaterial.

Impairment of financial assets

IFRS 9s impairment requirements use more forward-looking information to recognize expected credit losses, the expected credit loss (ECL) model. Financial assets that are subject to the ECL model include cash and cash equivalents and receivables.

(m) Provisions

A provision is recognized in the statement of financial position when Halifax Water has a legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect is material, provisions are determined by discounting the expected future cash flows at a rate that reflects current market assessment of the time value of money and, where appropriate, the risks specific to the obligation.

(n) Impairments

At the end of each reporting period, Halifax Water reviews the carrying amounts of its tangible and intangible assets to determine whether there is an indication of an impairment loss. If any such indication exists, the recoverable amount of the assets is estimated in order to determine the extent of impairment loss, if any. The recoverable amount of any asset is the higher of its fair value less costs to sell and its value in use. Where it is not possible to estimate the recoverable amount of an individual asset, the impairment test is carried out on the asset's cash-generating unit (CGU), which is the lowest group of assets to which the asset belongs for which there are separately identifiable cash inflows that are largely independent of the cash inflows from other assets. Halifax Water has three CGU's (water, wastewater and stormwater) for which impairment testing is performed.

If the recoverable amount of the asset is estimated to be less than its carrying amount, the carrying amount of the asset is reduced to its recoverable amount. An impairment loss is recognized immediately in earnings. When an impairment loss is subsequently reversed, the carrying amount of the assets is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognized for the asset in prior years.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

2. Summary of significant accounting policies (continued)

(o) Intangible assets

Intangible assets include land access easements, water removal rights, studies, and capital master plans. These are recorded at cost less accumulated amortization. Land rights include payment for easements and right of use over land and have an indefinite useful life. Intangibles with finite useful lives are amortized annually over the estimated useful lives. The expected useful lives are as follows:

Intangible assets	10 to 30 years
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(p) Employee benefits obligations

Halifax Water accrues in its accounts annually, the estimated liabilities for pension and other employee benefits.

Pension benefits

Halifax Water provides employment, post-retirement and pre-retirement benefits through defined benefit plans and supplemental retirement plans.

The cost of pension benefits for the supplemental retirement plans are expensed at the time active employees are compensated.

The defined benefit plan sponsored by Halifax Water determines the amount of pension benefits employees will receive on retirement by reference to length of service and salary levels. Obligations associated with the defined benefit plan reside with Halifax Water, even if plan assets for funding the plan are set aside.

The liability recognized in the statement of financial position for the defined benefit plan sponsored by Halifax Water is the present value of the defined benefit obligation at the end of the reporting date less the fair value of plan assets.

Management estimates the defined benefit obligation annually with assistance from an independent actuary using the projected unit credit method. The defined benefit obligation uses estimates for inflation, medical cost trends, mortality, and anticipated salary levels. The discount factor used to present value estimated future cash flows is determined with reference to high quality corporate bonds that have terms to maturity approximating the terms of the related pension liability.

Gains and losses resulting from re-measurements of the net defined benefit liability are charged to other comprehensive income in the period in which they arise. Service costs are recognized immediately into earnings.

Net interest cost related to pension obligations and returns on plan assets are included in salary and benefits on the statement of earnings.

Halifax Water is responsible for funding the employer share of contributions to the HRM pension plan for certain employees that transferred from HRM as of August 1, 2007. HRM administers this defined benefit pension plan and Halifax Water reimburses HRM for the pension costs related to Halifax Water's proportionate share of the employees covered under the plan. Due to the nature of the plan, Halifax Water does not have sufficient information to account for the plan as a defined benefit; therefore, the multi-employer defined benefit plan is accounted for in the same manner as the supplemental retirement plans. An expense is recorded in the period when Halifax Water is obligated to make contributions for services rendered by the employee.

Short-term employee benefits

Short-term employee benefit obligations that are due to be settled wholly within twelve months after the end of the annual reporting period in which the employees rendered the related service are measured on an undiscounted basis and are expensed as the related service is provided.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

2. Summary of significant accounting policies (continued)

(q) Regulatory deferral account

Halifax Water early adopted IFRS 14 Regulatory Deferral Accounts and has continued to apply the accounting policies it applied in accordance with the Handbook for the recognition, measurement and impairment of assets and liabilities arising from rate regulation. These are referred to as the regulatory deferral account.

The regulatory deferral account is recognized and measured at historical cost less depreciation. Management continually assesses the likelihood of recovery of regulatory assets. If recovery through future rates is no longer considered probable, the amounts would be charged to the results of operations in the period that the assessment is made.

(r) Changes to accounting standards

IFRS 16 Leases

Halifax Water adopted IFRS 16: Leases (IFRS 16) with a date of initial application of April 1, 2019. IFRS 16 replaces IAS 17: Leases and IFRIC 4: Determining whether an Arrangement Contains a Lease. IFRS 16 requires the recognition of a right-of-use asset and lease liability on the statements of financial position for all leases, where Halifax Water is acting as a lessee.

Halifax Water has elected to apply the modified retrospective method on transition, which does not require the restatement of prior period financial information and applies the standard prospectively. Under this approach Halifax Water has elected to initially measure the right-of-use asset as equal to the lease liability.

The right-of-use asset is initially measured at cost, which is comprised of the initial measurement of the lease liability, any initial direct costs incurred, an estimate of any costs to dismantle and remove the asset at the end of the lease, and any lease payments made in advance of the lease commencement date (net of any incentives received). The right-of-use asset is subsequently measured at cost less any accumulated depreciation or impairment losses and adjusted for certain re-measurements of the lease liability. The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, Halifax Water's incremental borrowing rate.

Halifax Water has elected to apply the practical expedients available under IFRS 16 for short-term leases and leases for which the underlying asset is of low value. Short-term leases and low value leases are expensed in the period incurred.

The impact of adoption of IFRS 16 was not material to the financial statements of Halifax Water. Management will assess future leases as they arise and will follow the criteria for recognition under IFRS 16.

3. Contingent liabilities

As a condition of a prior year sale of a property, Halifax Water indemnified the purchaser from claims or actions resulting from migration of hydrocarbons. The environmental risk is assessed to be low and the likelihood of any related liability is not determinable.

Halifax Water has been named in a claim that is ongoing and a liability has been accrued for legal fees and the insurance deductible. The potential exposure is estimated to be \$300.

There are other active claims against Halifax Water; however, the likelihood of actual liability is not determinable at this time. If Halifax Water's defense of active claims is unsuccessful, the potential exposure would be \$1,000 - \$2,000.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

4. Employee benefit obligations

Retirement benefit plan – employees transferred from HRM

For employees that transferred from HRM, Halifax Water records an expense for the employer share of the contributions to the HRM pension plan in the period when Halifax Water is obligated to make contributions for services rendered by the employee. During 2020, Halifax Water funded \$679 (2019 - \$599) in contributions to the plan. The number of employees included in this plan is 57 (2019 – 65) and this number is reducing over time. As former HRM employees retire they are replaced with employees in the Halifax Water pension plan.

Supplemental retirement plans sponsored by Halifax Water

For employees who participate in the supplemental retirement plans, the cost of pension benefits are expensed at the time active employees are compensated. During 2020, Halifax Water funded \$15 (2019 - \$13) in contributions to the plans. The number of employees included in the plans is 5 (2019 – 5).

Defined benefit plan sponsored by Halifax Water and other long term employment benefits

For all other employees, Halifax Water maintains a defined benefit pension plan and offers post-retirement health and insurance benefits. The defined benefit pension plan provides pensions based upon length of service and best seven years' earnings. The defined benefit pension plan is funded by employer and employee contributions with employees contributing 10.34% of regular employee earnings, and Halifax Water matching employee contributions. The defined benefit pension plan assets are managed by the HRM Pension Committee.

Employees, who retired prior to July 1, 1998, have extended health benefits coverage for life and drug coverage until age 65. Employees, who retired after July 1, 1998 and before December 31, 2008, have coverage for drug, extended health, dental and life insurance until age 65 on a 50/50 cost shared basis (100% basis for employees who retired after December 31, 2008). Extended health coverage for these retirees and their spouses after the age of 65 is available on an optional basis at 100% retiree cost and drug coverage is available through the provincially managed drug program.

Halifax Water has a non-funded pre-retirement benefit that is accrued annually, and is payable on retirement, termination or death of the employee. Many individual pre-retirement benefits were paid out in 2019/20, with those individuals no longer entitled to accrue future pre-retirement benefits. For individuals who elected to defer receipt of their benefit until the time which they leave employment, their individual benefit equates to approximately three days' pay for each year of completed service. Completed service for unionized employees was frozen as at June 7, 2019 for the purposes of determining their pre-retirement benefit. Pre-retirement benefits accrue to a maximum of six months' salary and can be taken as a lump sum payment at the time of retirement in lieu of pre-retirement leave.

Notes to the financial statements

March 31, 2020 (in thousands)

4. Employee benefit obligations (continued)

Information about Halifax Water's plans, based on an actuarial extrapolation as at March 31, 2020, is as follows:

	Defined benefit pension plan		Post-retirement benefits		Pre-retirement benefits		Total	
	2020	2019	2020	2019	2020	2019	2020	2019
Change in accrued benefit obligation								
Balance, April 1	\$ 198,962	\$ 187,181	\$ 380	\$ 430	\$ 4,195	\$ 3,983	\$ 203,537	\$ 191,594
Current service cost	8,692	7,107	-	-	143	344	8,835	7,451
Interest cost	6,891	6,837	10	13	88	141	6,989	6,991
Contributions by plan participants	3,505	2,885	-	-	-	-	3,505	2,885
Benefit payments	(4,780)	(4,534)	(50)	(60)	(3,025)	(460)	(7,855)	(5,054)
Re-measurements – actuarial (gains)/ losses from changes in demographic assumptions	-	-	-	-	-	-	-	-
Re-measurements – actuarial (gains)/ losses from changes in financial/experience assumptions	(17,366)	(514)	120	(3)	135	187	(17,111)	(330)
Balance, March 31	195,904	198,962	460	380	1,536	4,195	197,900	203,537
Change in fair value of plan assets								
Balance, April 1	131,207	121,695	-	-	-	-	131,207	121,695
Investment income	4,486	4,412	-	-	-	-	4,486	4,412
Administrative expenses	(112)	(94)	-	-	-	-	(112)	(94)
Actual return on plan assets	(2,611)	3,414	-	-	-	-	(2,611)	3,414
Benefit payments	(4,780)	(4,534)	(50)	(60)	(3,025)	(460)	(7,855)	(5,054)
Contributions: Employee	3,505	2,885	-	-	-	-	3,505	2,885
Employer	2,840	3,429	50	60	3,025	460	5,915	3,949
Balance, March 31	134,535	131,207	-	-	-	-	134,535	131,207
Accrued benefit liability, March 31	\$ 61,369	\$ 67,755	\$ 460	\$ 380	\$ 1,536	\$ 4,195	\$ 63,365	\$ 72,330

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

4. Employee benefit obligations (continued)

Included in the statement of earnings is pension expense of \$11,940 (2019 - \$9,388).

The significant actuarial assumptions adopted in measuring Halifax Water's accrued benefit obligations are as follows:

	2020	2019	2020	2019	2020	2019
	Defined benefit pension plan	Defined benefit Pension plan	Post-retirement benefits	Post-retirement benefits	Pre-retirement benefit	Pre-retirement benefit
Discount rate	3.80%	3.40%	3.45%	3.00%	3.60%	3.20%
Expected return on plan assets	3.80%	3.40%	N/A	N/A	N/A	N/A
Rate of compensation increase	3.75%	3.75%	N/A	N/A	3.75%	3.75%
Expenses for life benefits as a % of claims	N/A	N/A	10.00%	10.00%	N/A	N/A
Health benefit trending per year	N/A	N/A	6.50%	6.60%	N/A	N/A
Dental benefit trending per year	N/A	N/A	4.00%	4.00%	N/A	N/A

The measurement date used to determine the plan assets and the accrued benefit obligation was March 31, 2020. The most recent valuation was completed January 1, 2019. The next review is scheduled for January 1, 2022.

The estimated employer contributions expected to be paid to the pension plans for the next fiscal year are \$3,169.

5. Regulatory deferral account

In 2011, the NSUARB granted Halifax Water approval to defer depreciation charges on certain assets transferred in 2010 from HRM relating to the Halifax Harbour Solutions Project (HHSP). Depreciation of \$2,078 was deferred in each of fiscal 2011 and 2012. As a result, Halifax Water recognized a \$4,156 regulatory deferral account. In absence of rate regulation, this regulatory deferral account would have been expensed as depreciation in fiscal 2011 and 2012. In 2012, the NSUARB granted approval of the depreciation of this deferral account over the remaining useful lives of the underlying assets, beginning in 2014. The expense recognized in 2020 is \$192 (2019 - \$192).

	2020	2019
Balance, April 1	\$ 3,004	\$ 3,196
Depreciation	(192)	(192)
Balance, March 31	\$ 2,812	\$ 3,004

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

6. Commitments

The agreement with HRM for the dividend/grant in lieu of taxes (dividend) for fiscal years 2015/16 to 2019/20 for water services has expired. A new agreement for fiscal years 2020/21 to 2022/23 has not been signed as at the date of issue of these financial statements. Dividend payments are approved as part of revenue requirements by the NSUARB. For the Water System, the dividend for fiscal years 2020/21 to 2022/23 is expected to be equal to 1.56% of Halifax Water's rate base assets allocated to the Water System at March 31 of the previous fiscal year. Starting September 1, 2020, for the Wastewater System and Stormwater System, the dividends for fiscal years 2020/21 to 2022/23 are expected to be equal to 0.25% of Halifax Water's rate base assets allocated to the Wastewater System at March 31 of the previous fiscal year, plus 0.25% of Halifax Water's rate base assets allocated to the Stormwater System at March 31 of the previous fiscal year.

For 2021/22, the agreement proposes the dividends will be capped at 1% more than the dividend amounts for 2020/21 that would have been payable had the new Wastewater and Stormwater dividends commenced on April 1, 2020. The dividends payable for 2022/23 will be capped at 1% more than the dividends payable in the preceding fiscal year.

7. Capital management

Halifax Water's objective when managing capital is to ensure sufficient liquidity to support its financial obligations and execute its operating and capital plans. Halifax Water monitors and adjusts its capital structure through additional borrowings of long term debt which are used to finance capital projects.

Halifax Water considers its total capitalization to include all long term debt and total equity. The calculation is set out as follows:

	<u>2020</u>	<u>2019</u>
Long term debt	\$ 219,146	\$ 207,441
Equity	<u>204,697</u>	<u>183,798</u>
Capital under management	<u>\$ 423,843</u>	<u>\$ 391,239</u>

Halifax Water has obtained regulatory approval for all borrowings during the fiscal year. Halifax Water is not subject to financial borrowing covenants other than as outlined in Note 9.

At March 31, 2020, Halifax Water had \$41,663 (2019 - \$70,952) in expenditures from current and past approved capital budgets not yet expended. Halifax Water has obtained regulatory approval for all borrowings during the fiscal year.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

8. Financial instruments and risk management

Halifax Water applies a three-tier hierarchy framework for disclosing fair value of financial instruments, based on whether the inputs into the various valuation techniques are observable or unobservable. Observable techniques reflect market data obtained from independent sources, while unobservable inputs reflect management assumptions. Changes in valuation techniques of financial instruments may result in transfers of assigned levels. The hierarchy of input is as follows:

Level I	Quoted prices in active markets for identical assets or liabilities;
Level II	Inputs other than quoted prices included in Level I that are observable, either directly or indirectly; and
Level III	Inputs that are not based on observable market data.

The carrying values of current assets and current liabilities approximate their fair value due to the relatively short period to maturity of these financial instruments. The fair value of variable rate long-term debt is assumed to approximate its carrying value. Fair value has been estimated by discounting future cash flows at a rate offered for borrowings of similar maturities and credit quality at year end.

There were no transfers between classes of the fair value hierarchy during the year.

Halifax Water is exposed to risks as a result of holding financial instruments. Management considers and evaluates those risks on an on-going basis to ensure that the risks are appropriately managed. These potential risks include credit risk, interest risk, market risk and liquidity risk.

Credit risk

Credit risk arises from the possibility that Halifax Water's customers may experience financial difficulty and be unable to fulfill their obligations. Halifax Water's maximum exposure to credit risk corresponds to customer charges and contractual receivables. However, Halifax Water's customers are numerous and diverse, which reduces the concentration of credit risk.

Halifax Water has allowed customers to defer payment on their accounts until August 31, 2020 due to the emergence of the COVID-19 pandemic. Halifax Water is not charging interest on overdue accounts, nor disconnecting services due to non-payment during this time. Halifax Water is closely monitoring the collection of receivables and there has not been a material decrease in the amounts collected subsequent to year end, therefore impact on credit risk is low.

Halifax Water makes use of a simplified approach in accounting for receivables and records the loss allowance as lifetime ECL. These are the expected shortfalls in contractual cash flows, considering the potential for default at any point during the life of the financial instrument. In calculating, Halifax Water uses its historical experience, external indicators and forward-looking information to calculate the ECL using a provision matrix. Halifax Water includes 75% of the balance of closed accounts in the allowance and 1% of active accounts. Halifax Water assesses impairment of receivables on a collective basis. As receivables possess shared credit risk characteristics, receivables have been grouped based on the days past due.

An analysis of Halifax Water's receivables and continuity of Halifax Water's provision for impairment losses on receivables is as follows:

	<u>2020</u>	<u>2019</u>
Receivables		
Customer charges, contractual, and unbilled service revenues	\$ 38,464	\$ 36,921
Less: allowance for doubtful accounts	<u>(2,692)</u>	<u>(2,502)</u>
	<u>\$ 35,772</u>	<u>\$ 34,419</u>

The credit quality of financial assets that are neither past due nor impaired are assessed with reference to historical information and includes the following considerations; new customers, existing customers and payment pattern history.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

8. Financial instruments and risk management (continued)

Interest risk

Interest risk arises from the possibility that changes in interest rates will cause Halifax Water a potential loss. Halifax Water's long term debt has been acquired with a variety of fixed rates and has staggered maturity dates which mitigates the interest rate risk.

Market risk

Market risk arises from the possibility that the value of an investment will fluctuate as a result of changes in market prices. These changes could affect the market value of the investments in Halifax Water's employees' pension plan and consequently the plan's surplus. The risk is mitigated by the pension plan diversifying the types of investments in its portfolio.

Liquidity risk

Liquidity risk arises from the possibility of Halifax Water not being able to meet its cash requirements in a timely and cost-effective manner. Halifax Water manages this risk by closely monitoring the cash on hand in comparison to upcoming cash commitments.

9. Related party transactions

The immediate parent and ultimate controlling party of Halifax Water is HRM.

Halifax Water is obligated to make payments on debt, held in the name of HRM, associated with wastewater and stormwater assets which were transferred to Halifax Water in 2007 and subsequent years.

Amounts receivable from HRM have normal credit terms.

Halifax Water had the following related party transactions with HRM:

- Halifax Water recorded revenue for provision of water, wastewater and stormwater services in the amount of \$4,943 (2019 - \$5,209).
- Halifax Water recorded public fire protection revenue \$7,074 (2019 - \$7,074).
- Halifax Water paid a dividend of \$5,078 (2019 - \$4,999).
- Halifax Water paid operating expenses of \$1,785 (2019 - \$1,654)
- The debt issued by Halifax Water was covered by a blanket guarantee from HRM subject to Halifax Water maintaining a debt service ratio of less than 35%. The debt service ratio at March 31, 2020 is 18.91% (2019 – 20.37%). Halifax Water obtained regulatory approval for all borrowings during the fiscal year and is not subject to any other financial covenants.

Compensation of key management personnel

Members of the Board of Commissioners and Executive Management team are deemed to be key management personnel. It is the Board of Commissioners and Executive Management team who have the responsibility for planning, directing and controlling the activities of Halifax Water.

The following is compensation expense for key management personnel:

	<u>2020</u>	<u>2019</u>
Short term benefits	\$ 1,428	\$ 1,421
Post-employment benefits	<u>111</u>	<u>313</u>
Total compensation	<u>\$ 1,539</u>	<u>\$ 1,734</u>

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

10. Intangible assets

	<u>2020</u>	<u>2019</u>
Cost		
Balance, April 1	\$ 20,798	\$ 17,888
Additions	<u>5,135</u>	<u>2,910</u>
Balance, March 31	<u>25,933</u>	<u>20,798</u>
Accumulated amortization		
Balance, April 1	5,380	4,011
Amortization	<u>1,602</u>	<u>1,369</u>
Balance, March 31	<u>6,982</u>	<u>5,380</u>
Net book value, March 31	<u>\$ 18,951</u>	<u>\$ 15,418</u>

11. Utility plant in service

	<u>Land</u>	<u>Structures and improvements</u>	<u>Treatment and network equipment</u>	<u>Distribution and collection network</u>	<u>Tools and work equipment</u>	<u>Total</u>
Cost						
Balance, April 1, 2019	\$ 21,603	\$ 235,615	\$ 250,944	\$ 896,065	\$ 28,835	\$ 1,433,062
Additions	-	27,745	21,949	38,627	6,001	94,322
Disposals	-	-	(1,846)	-	(944)	(2,790)
Balance, March 31, 2020	<u>21,603</u>	<u>263,360</u>	<u>271,047</u>	<u>934,692</u>	<u>33,892</u>	<u>1,524,594</u>
Accumulated depreciation						
Balance, April 1, 2019	\$ -	\$ 52,737	\$ 58,807	\$ 77,046	\$ 11,032	\$ 199,622
Depreciation	-	9,909	14,474	17,645	4,386	46,414
Depreciation retired	-	-	(1,508)	-	(944)	(2,452)
Balance, March 31, 2020	<u>-</u>	<u>62,646</u>	<u>71,773</u>	<u>94,691</u>	<u>14,474</u>	<u>243,584</u>
Net book value, March 31, 2020	<u>\$ 21,603</u>	<u>\$ 200,714</u>	<u>\$ 199,274</u>	<u>\$ 840,001</u>	<u>\$ 19,418</u>	<u>\$ 1,281,010</u>

	<u>Land</u>	<u>Structures and improvements</u>	<u>Treatment and network equipment</u>	<u>Distribution and collection network</u>	<u>Tools and work equipment</u>	<u>Total</u>
Cost						
Balance, April 1, 2018	\$ 21,372	\$ 218,876	\$ 229,808	\$ 862,357	\$ 26,080	\$ 1,358,493
Additions	231	16,739	23,461	33,708	3,610	77,749
Disposals	-	-	(2,325)	-	(855)	(3,180)
Balance, March 31, 2019	<u>21,603</u>	<u>235,615</u>	<u>250,944</u>	<u>896,065</u>	<u>28,835</u>	<u>1,433,062</u>
Accumulated depreciation						
Balance, April 1, 2018	\$ -	\$ 43,185	\$ 47,080	\$ 59,968	\$ 7,830	\$ 158,063
Depreciation	-	9,552	13,652	17,078	4,080	44,362
Depreciation retired	-	-	(1,925)	-	(878)	(2,803)
Total accumulated depreciation	<u>-</u>	<u>52,737</u>	<u>58,807</u>	<u>77,046</u>	<u>11,032</u>	<u>199,622</u>
Balance, March 31, 2019	<u>-</u>	<u>52,737</u>	<u>58,807</u>	<u>77,046</u>	<u>11,032</u>	<u>199,622</u>
Net book value, March 31, 2019	<u>\$ 21,603</u>	<u>\$ 182,878</u>	<u>\$ 192,137</u>	<u>\$ 819,019</u>	<u>\$ 17,803</u>	<u>\$ 1,233,440</u>

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

12. Deferred contributed capital	2020	2019
Balance, April 1	\$ 881,648	\$ 856,372
Assets contributed during the year	18,613	28,937
Contributions and interest	12,712	14,481
Amortization	(19,025)	(18,142)
Balance, March 31	893,948	881,648
Less: current portion	(14,488)	(13,846)
	<u>\$ 879,460</u>	<u>\$ 867,802</u>

Deferred contributed capital is comprised of contributions received by Halifax Water for the acquisition of utility plant in service. Contributions for capital expenditures are amortized over the estimated useful lives of the assets.

13. Long-term debt	Interest rates	2020	2019
Payable to Municipal Finance Corporation (MFC)			
Water	0.900% to 4.329%	\$ 67,586	\$ 61,197
HHSP	2.015% to 2.561%	6,500	7,150
Wastewater	1.040% to 3.614%	96,657	87,293
Stormwater	1.040% to 3.614%	16,832	13,643
		<u>187,575</u>	<u>169,283</u>
Payable to Halifax Regional Municipality			
MFC wastewater/stormwater	1.200% to 5.940%	32,500	39,000
		<u>220,075</u>	<u>208,283</u>
Less: debt issue costs		(929)	(842)
		<u>219,146</u>	<u>207,441</u>
Less: amount payable within one year		(21,184)	(24,709)
		<u>\$ 197,962</u>	<u>\$ 182,732</u>

During the year Halifax Water acquired \$30,000 in new debt with a ten year term and twenty year amortization period. Additionally, \$6,500 of debt was refinanced for ten years. The debentures are repayable in fixed annual or semi-annual principal instalments plus interest payable semi-annually. Interest paid during the year was \$7,144 (2019 - \$7,430). Principal instalments for the next five years are as follows:

2020/21	\$ 21,184
2021/22	\$ 19,139
2022/23	\$ 43,852
2023/24	\$ 40,531
2024/25	\$ 30,645
Thereafter	\$ 64,724

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2020 (in thousands)

14. Operating expenditures by nature

	<u>2020</u>	<u>2019</u>
Salaries and benefits	\$ 48,897	\$ 44,916
Training	644	728
Contract services	13,426	14,920
Electricity	6,535	6,601
Operating supplies	10,974	10,984
Professional services	4,806	3,945
Chemicals	5,742	4,961
Depreciation on assets allocated to departments	1,606	1,671
Depreciation and amortization	<u>46,410</u>	<u>44,060</u>
	<u>\$ 139,040</u>	<u>\$ 132,786</u>

15. Subsequent events

On May 11, 2020, the NSUARB approved the application by Halifax Water to participate in the MFC spring debenture for \$25,000 for a ten-year term and twenty-year amortization period and the refinancing of \$1,700 for another ten-year term.

On March 11, 2020, COVID-19 was declared a global pandemic. In response to this, Halifax Water has allowed customers to defer payments on accounts, interest will not be charged on overdue accounts, fees for dishonored payments will be waived, and disconnection for non-payment of service is suspended. These measures are in place until July 31, 2020. The impact of COVID-19 on Halifax Water's credit risk has been factored into the estimates for the allowance for doubtful accounts; however, it is not expected to be material to the financial statements. The duration of the COVID-19 pandemic remains unclear at this time. It is estimated consumption levels may decrease, but this change is not expected to have a significant impact on the financial position and results of Halifax Water for future periods.

Halifax Regional Water Commission

Schedule of utility plant in service

Schedule A

Year ended March 31, 2020 (in thousands)

Water

	Land	Structures and improvements	Pumping equipment	Purification equipment	SCADA equipment	Transmission and distribution mains	Services	Meters	Hydrants	Aerotech and small systems	Tools and work equipment	Total
Cost												
Balance, April 1, 2019												
Cost	\$ 16,240	\$ 96,960	\$ 10,503	\$ 26,899	\$ 5,607	\$ 386,320	\$ 39,899	\$ 16,787	\$ 20,638	\$ 10,054	\$ 29,621	\$ 659,528
Additions	-	21,207	183	876	5,389	13,217	1,647	3,409	859	-	4,339	51,126
Disposals	-	-	-	-	-	-	-	(1,397)	-	-	(912)	(2,309)
Balance, March 31, 2020	<u>16,240</u>	<u>118,167</u>	<u>10,686</u>	<u>27,775</u>	<u>10,996</u>	<u>399,537</u>	<u>41,546</u>	<u>18,799</u>	<u>21,497</u>	<u>10,054</u>	<u>33,048</u>	<u>708,345</u>
Accumulated depreciation												
Balance, April 1, 2019	-	29,662	7,576	17,571	4,053	89,784	7,646	5,087	4,524	3,288	19,014	188,205
Depreciation	-	1,842	293	1,128	352	5,020	701	847	336	339	2,291	13,149
Depreciation retired	-	-	-	-	-	-	-	(852)	-	-	(912)	(1,764)
Total accumulated depreciation, March 31, 2020	<u>-</u>	<u>31,504</u>	<u>7,869</u>	<u>18,699</u>	<u>4,405</u>	<u>94,804</u>	<u>8,347</u>	<u>5,082</u>	<u>4,860</u>	<u>3,627</u>	<u>20,393</u>	<u>199,590</u>
Net book value, March 31, 2020	<u>\$ 16,240</u>	<u>\$ 86,663</u>	<u>\$ 2,817</u>	<u>\$ 9,076</u>	<u>\$ 6,591</u>	<u>\$ 304,733</u>	<u>\$ 33,199</u>	<u>\$ 13,717</u>	<u>\$ 16,637</u>	<u>\$ 6,427</u>	<u>\$ 12,655</u>	<u>\$ 508,755</u>
Cost												
Balance, April 1, 2018												
Cost	\$ 16,009	\$ 95,326	\$ 10,303	\$ 25,226	\$ 5,171	\$ 372,794	\$ 37,241	\$ 15,582	\$ 19,917	\$ 9,834	\$ 28,124	\$ 635,527
Additions	231	1,634	200	1,673	436	13,526	2,658	3,530	721	220	1,903	26,732
Disposals	-	-	-	-	-	-	-	(2,325)	-	-	(406)	(2,731)
Balance, March 31, 2019	<u>16,240</u>	<u>96,960</u>	<u>10,503</u>	<u>26,899</u>	<u>5,607</u>	<u>386,320</u>	<u>39,899</u>	<u>16,787</u>	<u>20,638</u>	<u>10,054</u>	<u>29,621</u>	<u>659,528</u>
Accumulated depreciation												
Balance, April 1, 2018	-	29,560	7,291	16,491	3,860	84,919	6,989	6,075	4,207	3,250	17,395	180,037
Depreciation	-	102	285	1,080	193	4,865	657	741	317	38	2,047	10,325
Depreciation retired	-	-	-	-	-	-	-	(1,729)	-	-	(428)	(2,157)
Total accumulated depreciation, March 31, 2019	<u>-</u>	<u>29,662</u>	<u>7,576</u>	<u>17,571</u>	<u>4,053</u>	<u>89,784</u>	<u>7,646</u>	<u>5,087</u>	<u>4,524</u>	<u>3,288</u>	<u>19,014</u>	<u>188,205</u>
Net book value, March 31, 2019	<u>\$ 16,240</u>	<u>\$ 67,298</u>	<u>\$ 2,927</u>	<u>\$ 9,328</u>	<u>\$ 1,554</u>	<u>\$ 296,536</u>	<u>\$ 32,253</u>	<u>\$ 11,700</u>	<u>\$ 16,114</u>	<u>\$ 6,766</u>	<u>\$ 10,607</u>	<u>\$ 471,323</u>

Schedules are presented in accordance with the NSUARB Accounting and Reporting Handbook for Water Utilities.

Utility plant in service under IFRS differs from the Handbook due to exclusion of intangible assets, componentization of certain assets and useful lives for depreciation.

Halifax Regional Water Commission

Schedule of utility plant in service

Schedule A

Year ended March 31, 2020 (in thousands)

Wastewater

	Land	Structures and improvements	Pumping equipment	Treatment equipment	SCADA equipment	Collection system	Laterals	Meters	Aerotech and small systems	Tools and work equipment	Total
Cost											
Balance, April 1, 2019											
Cost	\$ 5,329	\$ 190,847	\$ 21,467	\$ 172,769	\$ 10,565	\$ 326,334	\$ 26,535	\$ 5,031	\$ 12,784	\$ 36,377	\$ 808,038
Additions	-	4,092	643	2,441	5,196	6,660	2,723	3,409	-	5,792	30,956
Disposals	-	-	-	(449)	-	-	-	-	-	(32)	(481)
Balance, March 31, 2020	<u>5,329</u>	<u>194,939</u>	<u>22,110</u>	<u>174,761</u>	<u>15,761</u>	<u>332,994</u>	<u>29,258</u>	<u>8,440</u>	<u>12,784</u>	<u>42,137</u>	<u>838,513</u>
Accumulated depreciation											
Balance, April 1, 2019	-	59,838	8,104	63,702	2,488	66,089	2,400	201	3,973	16,406	223,201
Depreciation	-	4,414	843	8,707	810	4,571	566	331	429	3,084	23,755
Depreciation retired	-	-	-	(214)	-	-	-	-	-	(32)	(246)
Total accumulated depreciation, March 31, 2019	<u>-</u>	<u>64,252</u>	<u>8,947</u>	<u>72,195</u>	<u>3,298</u>	<u>70,660</u>	<u>2,966</u>	<u>532</u>	<u>4,402</u>	<u>19,458</u>	<u>246,710</u>
Net book value, March 31, 2020	<u>\$ 5,329</u>	<u>\$ 130,687</u>	<u>\$ 13,163</u>	<u>\$ 102,566</u>	<u>\$ 12,463</u>	<u>\$ 262,334</u>	<u>\$ 26,292</u>	<u>\$ 7,908</u>	<u>\$ 8,382</u>	<u>\$ 22,679</u>	<u>\$ 591,803</u>
Cost											
Balance, March 31, 2018											
Cost	\$ 5,329	\$ 176,206	\$ 20,966	\$ 162,499	\$ 8,407	\$ 319,809	\$ 21,898	\$ 1,501	\$ 12,564	\$ 32,929	\$ 762,108
Additions	-	14,641	501	10,270	2,158	6,525	4,637	3,530	220	3,898	46,380
Disposals	-	-	-	-	-	-	-	-	-	(450)	(450)
Balance, March 31, 2019	<u>5,329</u>	<u>190,847</u>	<u>21,467</u>	<u>172,769</u>	<u>10,565</u>	<u>326,334</u>	<u>26,535</u>	<u>5,031</u>	<u>12,784</u>	<u>36,377</u>	<u>808,038</u>
Accumulated depreciation											
Balance, March 31, 2018	-	58,016	7,289	55,290	1,869	61,604	1,912	38	3,893	13,994	203,905
Depreciation	-	1,822	815	8,412	619	4,485	488	163	80	2,862	19,746
Depreciation retired	-	-	-	-	-	-	-	-	-	(450)	(450)
Total accumulated depreciation, March 31, 2019	<u>-</u>	<u>59,838</u>	<u>8,104</u>	<u>63,702</u>	<u>2,488</u>	<u>66,089</u>	<u>2,400</u>	<u>201</u>	<u>3,973</u>	<u>16,406</u>	<u>223,201</u>
Net book value, March 31, 2019	<u>\$ 5,329</u>	<u>\$ 131,009</u>	<u>\$ 13,363</u>	<u>\$ 109,067</u>	<u>\$ 8,077</u>	<u>\$ 260,245</u>	<u>\$ 24,135</u>	<u>\$ 4,830</u>	<u>\$ 8,811</u>	<u>\$ 19,971</u>	<u>\$ 584,837</u>

Schedules are presented in accordance with the NSUARB Accounting and Reporting Handbook for Water Utilities.

Utility plant in service under IFRS differs from the Handbook due to exclusion of intangible assets, componentization of certain assets and useful lives for depreciation.

Halifax Regional Water Commission

Schedule of utility plant in service

Schedule A

Year ended March 31, 2020 (in thousands)

Stormwater

	Land	Structures and improvements	Collection system	Laterals	Tools and work equipment	Total
Cost						
Balance, April 1, 2019						
Cost	\$ 34	\$ 10,226	\$ 251,661	\$ 5,046	\$ 4,532	\$ 271,499
Additions	-	2,446	14,235	144	1,005	17,830
Disposals	-	-	-	-	-	-
Balance, March 31, 2020	34	12,672	265,896	5,190	5,537	289,329
Accumulated depreciation						
Balance, April 1, 2019	-	1,761	48,373	495	1,887	52,516
Depreciation	-	211	6,329	102	582	7,224
Depreciation retired	-	-	-	-	-	-
Total accumulated depreciation, March 31, 2019	-	1,972	54,702	597	2,469	59,740
Net book value, March 31, 2020	34	\$ 10,700	\$ 211,194	\$ 4,593	\$ 3,068	\$ 229,589
Cost						
Balance at April 1, 2018						
Cost	\$ 34	\$ 9,762	\$ 245,447	\$ 4,896	\$ 3,812	\$ 263,951
Additions	-	464	6,214	150	720	7,548
Disposals	-	-	-	-	-	-
Balance, March 31, 2019	34	10,226	251,661	5,046	4,532	271,499
Accumulated depreciation						
Balance, April 1, 2018	-	1,579	42,269	396	1,347	45,591
Depreciation	-	182	6,104	99	540	6,925
Depreciation retired	-	-	-	-	-	-
Total accumulated depreciation, March 31, 2019	-	1,761	48,373	495	1,887	52,516
Net book value, March 31, 2019	\$ 34	\$ 8,465	\$ 203,288	\$ 4,551	\$ 2,645	\$ 218,983
Cumulative utility plant in service	Water	Wastewater	Stormwater	Total		
Net book value, March 31, 2020	\$508,755	\$591,803	\$229,589	\$ 1,330,147		
Net book value, March 31, 2019	\$471,323	\$584,837	\$218,983	\$ 1,275,143		

Schedules are presented in accordance with the NSUARB Accounting and Reporting Handbook for Water Utilities.

Utility plant in service under IFRS differs from the Handbook due to exclusion of intangible assets, componentization of certain assets and useful lives for depreciation.

Halifax Regional Water Commission

Schedule of long term debt

Schedule B

Year ended March 31, 2020 (in thousands)

	<u>Interest rate</u>	<u>Final Maturity</u>	<u>Balance Remaining</u>	
			<u>2020</u>	<u>2019</u>
Payable to Municipal Finance Corporation				
Water				
Debenture 29 A 1	0.900% to 4.329%	2019	\$ -	\$ 225
Debenture 30 A 1	1.330% to 2.979%	2020	175	350
Debenture 31 A 1	1.630% to 4.221%	2021	300	450
Debenture 32 A 1	1.636% to 3.480%	2022	600	800
Debenture 32 C 1	1.510% to 3.160%	2022	6,977	7,514
Debenture 33 A 1	1.330% to 2.979%	2023	7,079	7,584
Debenture 33 B 1	1.285% to 3.614%	2023	5,189	5,559
Debenture 34 B 1	1.200% to 3.190%	2024	10,254	10,938
Debenture 35 A 1	1.040% to 2.894%	2025	10,774	11,447
Debenture 36 A 1	1.150% to 2.925%	2026	1,400	1,600
Debenture 36 B 1	1.150% to 2.506%	2026	3,688	3,905
Debenture 37 A 1	1.734% to 3.073%	2027	3,150	3,325
Debenture 38 A 1	2.060% to 3.295%	2028	1,300	1,500
Debenture 38 B 1	2.490% to 3.389%	2028	5,700	6,000
Debenture 39 A 1	2.015% to 2.561%	2029	11,000	-
Wastewater				
Debenture 30 A 1	1.330% to 2.979%	2020	1,870	2,040
Debenture 32 A 1	1.636% to 3.480%	2022	1,558	1,678
Debenture 32 B 1	1.380% to 3.156%	2022	20,800	22,400
Debenture 32 C 1	1.510% to 3.160%	2022	2,987	3,217
Debenture 33 A 1	1.330% to 2.979%	2023	11,802	12,645
Debenture 33 B 1	1.285% to 3.614%	2023	7,625	8,170
Debenture 34 A 1	1.245% to 3.347%	2024	4,177	4,455
Debenture 34 B 1	1.200% to 3.190%	2024	6,439	6,869
Debenture 35 A 1	1.040% to 2.894%	2025	11,288	11,993
Debenture 36 B 1	1.150% to 2.506%	2026	1,541	1,631
Debenture 37 A 1	1.734% to 3.073%	2027	5,490	5,795
Debenture 38 B 1	2.490% to 3.389%	2028	6,080	6,400
Debenture 39 A 1	2.015% to 2.561%	2029	15,000	-
HHSP				
Debenture 29 A 1	0.900% to 4.329%	2019	-	7,150
Debenture 39 A 1	2.015% to 2.561%	2029	6,500	-
Stormwater				
Debenture 33 A 1	1.330% to 2.979%	2023	378	405
Debenture 33 B 1	1.285% to 3.614%	2023	1,847	1,979
Debenture 34 B 1	1.200% to 3.190%	2024	4,427	4,722
Debenture 35 A 1	1.040% to 2.894%	2025	2,584	2,746
Debenture 36 B 1	1.150% to 2.506%	2026	766	811
Debenture 37 A 1	1.734% to 3.073%	2027	360	380
Debenture 38 B 1	2.490% to 3.389%	2028	2,470	2,600
Debenture 39 A 1	2.015% to 2.561%	2029	4,000	-
			<u>187,575</u>	<u>169,283</u>
Payable to Halifax Regional Municipality				
Wastewater/stormwater				
Debenture 24 B 1	2.840% to 5.940%	2024	27,500	33,000
Debenture 34 B 1	1.200% to 3.190%	2024	5,000	6,000
			<u>32,500</u>	<u>39,000</u>
			220,075	208,283
Less: debt issue costs			(929)	(842)
			<u>219,146</u>	<u>207,441</u>
Less: amount payable within one year			<u>(21,184)</u>	<u>(24,709)</u>
			<u>\$ 197,962</u>	<u>\$ 182,732</u>

Halifax Regional Water Commission

Schedule of earnings

Schedule C

Year ended March 31, 2020 (in thousands)

Water

	<u>2020</u>	<u>2019</u>
Operating revenues		
Water	\$ 47,918	\$ 48,040
Public fire protection	7,074	7,074
Private fire protection	881	869
Other operating revenue		
Bulk water stations	300	227
Customer late payment fees	207	244
Miscellaneous	162	98
	<u>56,542</u>	<u>56,552</u>
Operating expenditures		
Water supply and treatment	9,573	9,767
Water transmission and distribution	10,843	10,903
Engineering and information services	3,230	3,749
Regulatory services	859	679
Customer service	2,520	2,524
Administration and pension	3,536	3,992
Depreciation	9,818	9,046
	<u>40,379</u>	<u>40,660</u>
Earnings from operations before financial and other revenues and expenditures	<u>16,163</u>	<u>15,892</u>
Financial and other revenues		
Interest	222	521
Other	544	559
	<u>766</u>	<u>1,080</u>
Financial and other expenditures		
Interest on long term debt	1,828	1,924
Repayment of long term debt	4,722	7,181
Amortization of debt discount	64	85
Dividend/grant in lieu of taxes	5,078	4,999
Other	32	24
	<u>11,724</u>	<u>14,213</u>
Earnings for the year	<u>\$ 5,205</u>	<u>\$ 2,759</u>

Schedules are presented in accordance with the NSUARB Accounting and Reporting Handbook for Water Utilities.

Halifax Regional Water Commission

Schedule of earnings

Schedule C

Year ended March 31, 2020 (in thousands)

Wastewater

	<u>2020</u>	<u>2019</u>
Operating revenues		
Wastewater	\$ 70,494	\$ 69,901
Other operating revenue		
Leachate and other contract revenue	453	417
Septage tipping fees	514	764
Over strength surcharge	14	75
Airplane effluent	98	143
Customer late payment fees	123	186
Miscellaneous	141	185
	<u>71,837</u>	<u>71,671</u>
Operating expenditures		
Wastewater collection	13,963	13,125
Wastewater treatment	20,633	19,789
Engineering and information services	4,478	3,783
Regulatory services	1,432	886
Customer service	2,277	2,061
Administration and pension	3,024	3,242
Depreciation	14,038	12,986
	<u>59,845</u>	<u>55,872</u>
Earnings from operations before financial and other revenues and expenditures	<u>11,992</u>	<u>15,799</u>
Financial and other revenues		
Interest	191	520
Other	155	183
	<u>346</u>	<u>703</u>
Financial and other expenditures		
Interest on long term debt	4,706	4,939
Repayment of long term debt	12,522	12,015
Amortization of debt discount	110	103
Other	35	21
	<u>17,373</u>	<u>17,078</u>
Loss for the year	<u>\$ (5,035)</u>	<u>\$ (576)</u>

Schedules are presented in accordance with the NSUARB Accounting and Reporting Handbook for Water Utilities.

Halifax Regional Water Commission

Schedule C

Schedule of earnings

Year ended March 31, 2020 (in thousands)

Stormwater

	<u>2020</u>	<u>2019</u>
Operating revenues		
Stormwater site generated service	\$ 5,361	\$ 5,906
Stormwater right-of-way service	3,835	3,835
Other operating revenue		
Customer late payment fees	81	118
Miscellaneous	94	120
	<u>9,371</u>	<u>9,979</u>
Operating expenditures		
Stormwater collection	4,808	4,950
Engineering and information services	728	624
Regulatory services	1,490	1,587
Customer service	370	335
Administration and pension	484	522
Depreciation	1,222	974
	<u>9,102</u>	<u>8,992</u>
Earnings from operations before financial and other revenue and expenditures	<u>269</u>	<u>987</u>
Financial and other revenues		
Interest	<u>99</u>	<u>116</u>
Financial and other expenditures		
Interest on long term debt	610	567
Repayment of long term debt	1,475	1,320
Amortization of debt discount	13	11
	<u>2,098</u>	<u>1,898</u>
Loss for the year	<u>\$ (1,730)</u>	<u>\$ (795)</u>

Schedules are presented in accordance with the NSUARB Accounting and Reporting Handbook for Water Utilities.

Halifax Regional Water Commission

Schedule of earnings

Schedule D

Year ended March 31, 2020 (in thousands)

Regulated activities

	<u>2020</u>	<u>2019</u>
Operating revenues		
Water	\$ 47,918	\$ 48,040
Wastewater	70,494	69,901
Stormwater	9,196	9,741
Public fire protection	7,074	7,074
Private fire protection services	881	869
Other operating revenue	1,085	1,216
	<u>136,648</u>	<u>136,841</u>
Operating expenditures		
Water supply and treatment	9,541	9,746
Water transmission and distribution	10,843	10,903
Wastewater collection	13,963	13,125
Stormwater collection	4,808	4,950
Wastewater treatment	19,868	19,427
Engineering and information services	8,436	8,156
Regulatory services	3,781	3,152
Customer service	5,128	4,885
Administration and pension	7,007	7,713
Depreciation	25,060	22,988
	<u>108,435</u>	<u>105,045</u>
Earnings from operations before financial and other revenues and expenditures	<u>28,213</u>	<u>31,796</u>
Financial and other revenues		
Interest	512	1,157
Other	143	213
	<u>655</u>	<u>1,370</u>
Financial and other expenditures		
Interest on long term debt	7,144	7,430
Repayment of long term debt	18,719	20,516
Amortization of debt discount	187	199
Dividend/grant in lieu of taxes	5,078	4,999
	<u>31,128</u>	<u>33,144</u>
Earnings (loss) for the year	<u>\$ (2,260)</u>	<u>\$ 22</u>

Schedules are presented in accordance with the NSUARB Accounting and Reporting Handbook for Water Utilities.

Halifax Regional Water Commission

Schedule of earnings

Schedule D

Year ended March 31, 2020 (in thousands)

Unregulated activities

	<u>2020</u>	<u>2019</u>
Operating revenues		
Septage tipping fees	\$ 514	\$ 764
Leachate treatment and contract revenue	453	417
Airplane effluent	98	143
Other operating revenue	37	37
	<u>1,102</u>	<u>1,361</u>
Operating expenditures		
Water supply and treatment	32	21
Wastewater treatment	765	362
Customer service	39	35
Administration and pension	37	43
Depreciation	18	18
	<u>891</u>	<u>479</u>
Earnings from operations before financial and other revenues and expenditures	<u>211</u>	<u>882</u>
Financial and other revenues		
Other	<u>556</u>	<u>529</u>
Financial and other expenditures		
Other	<u>67</u>	<u>45</u>
Earnings for the year	<u>\$ 700</u>	<u>\$ 1,366</u>

Schedules are presented in accordance with the NSUARB Accounting and Reporting Handbook for Water Utilities.

Halifax Regional Water Commission

Nova Scotia Utility and Review Board information

Schedule E

Year ended March 31, 2020 (in thousands)

Return on rate base	2020	2019
Rate of return on rate base for water service	3.15%	2.38%
Rate of return on rate base for wastewater service	3.87%	4.29%
Rate of return on rate base for stormwater service	0.50%	1.38%

Return on rate base is calculated based on earnings from operations before financial and other revenues and expenditures divided by the net book value of funded utility plant in service.

Special purpose reserves

	Wastewater & Stormwater Reserves	RDC Water Reserve	RDC Wastewater Reserve	Other Capital Reserves	2020 Total	2019 Total
Reserve, April 1	\$ 3,606	\$ 3,220	\$ 34,718	\$ 208	\$ 41,752	\$ 27,861
Contributions and interest	-	514	11,781	200	12,495	13,689
Expenditures	-	-	(11,644)	-	(11,644)	202
Reserve, March 31	<u>\$ 3,606</u>	<u>\$ 3,734</u>	<u>\$ 34,855</u>	<u>\$ 408</u>	<u>\$ 42,603</u>	<u>\$ 41,752</u>

Summarized consolidated operating results

	2020	2019
Operating revenues	\$ 137,750	\$ 138,202
Operating expenditures	<u>109,326</u>	<u>105,524</u>
Earnings from operations before financial and other revenues and expenditures	28,424	32,678
Financial and other revenues	1,211	1,899
Financial and other expenditures	<u>31,195</u>	<u>33,189</u>
Earnings (loss) for the year	<u>\$ (1,560)</u>	<u>\$ 1,388</u>

Schedules are presented in accordance with the NSUARB Accounting and Reporting Handbook for Water Utilities.

Halifax Regional Water Commission

For the year ended March 31, 2020

Report to the Audit Committee
Audit results

June 8, 2020

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Appendices

Appendix A – Draft independent auditor’s report
Appendix B – Draft management representation letter
Appendix C – COVID-19 financial reporting impacts

Executive summary

Purpose of report and scope

The purpose of this report is to engage in an open dialogue with you regarding our audit of the financial statements of Halifax Regional Water Commission ("Halifax Water") for the year ended March 31, 2020. This communication will assist the Audit Committee in understanding the results of audit procedures and includes comments on misstatements, significant accounting policies, sensitive estimates and other matters.

The information in this document is intended solely for the information and use of the Audit Committee. It is not intended to be distributed or used by anyone other than these specified parties.

We were engaged to provide the following deliverables:

Deliverable	Timing/Status
Discussions and communications regarding planning	February 5, 2020
Communication of audit and results	June 18, 2020
Report on the March 31, 2020 financial statements	June 25, 2020

Status of our audit

We have substantially completed our audit of the financial statements of Halifax Water and the results of that audit are included in this report.

We will finalize our report upon resolution of the following items outstanding as at June 8, 2020

- Receipt of final updated financial statements (for any final changes after June 1, 2020)
- Receipt of legal inquiry responses
- Receipt of certain debt and account balances from the Halifax Regional Municipality ("HRM")
- Receipt of signed management representation letter (a draft has been attached in the appendices)
- Approval of the financial statements by the Board of Commissioners
- Final inquiries regarding subsequent events
- Final communications to KPMG regarding our role as component auditor for their audit of HRM

We have successfully executed our audit strategy in accordance with the plan presented to the Audit Committee on February 5, 2020.

Independence

We confirm that there have been no changes to our status with respect to independence since we confirmed our independence to you on February 5, 2020.

Audit risks and results

We highlight our significant findings in respect of COVID-19 impacts on audit risks and responses, significant transactions, and accounting practices.

COVID-19 impact on audit risks and responses

Area of focus	Matter	Our response and findings
Impact of COVID-19	<p>As a result of the COVID-19 pandemic, Halifax Water announced some measures to assist its clients during the pandemic in effect through July 31, 2020, including:</p> <ul style="list-style-type: none">• Allowing customers to defer payments on accounts;• Not charging interest on overdue accounts;• Waiving fees for dishonoured payments; and• Suspension of disconnection of service for non-payment. <p>The impact of the above measures has been factored into Halifax Water's estimated allowance for doubtful accounts; however, did not have a material impact in the allowance recognized as at March 31, 2020.</p> <p>Additionally, subsequent to year end, Halifax Water recommended to the NSUARB that there be no rate increases in water rates for 2 years (fiscal 2020/21 and 2021/22) and no increase in wastewater rates for fiscal 2020/21 in recognition of the impact of the pandemic on the residents of HRM.</p>	<p>We examined management's disclosures relating to the impact of COVID-19 and examined management's estimate of the allowance for doubtful accounts.</p> <p>We have no findings to report.</p>

Significant transactions

Area of focus	Matter	Our response and findings
Issuance of new debt	<p>In the fall of 2019, Halifax Water participated in the Municipal Finance Commission debenture issue in the amount of \$36.5 million for the purpose of re-financing a balloon payment on a previous debenture and to fund a portion of the 2019/2020 additions to Utility Plant in Service.</p>	<p>We performed the following:</p> <ul style="list-style-type: none">• Examined the new debenture agreement;• Confirmed the balances along with all other outstanding debt with Halifax Regional Municipality and the Nova Scotia Municipal Finance Corporation. <p>We have no findings to report.</p>

Area of focus	Matter	Our response and findings
Capital projects	During the year, Halifax Water had significant capital projects ongoing and approximately \$69.3 million in purchased additions to ongoing and completed capital projects.	<p>We performed the following:</p> <ul style="list-style-type: none"> • Tested the operating effectiveness of controls over additions to capital assets; • On a test basis, examine invoices or other support for additions incurred during the year. <p>We have no findings to report.</p>
Advanced metering infrastructure (AMI) technology	During the year, Halifax Water substantially completed the installation of the new AMI technology, with over 80,000 customers now using the upgraded meters.	<p>We performed the following:</p> <ul style="list-style-type: none"> • Tested the operating effectiveness of controls over the accuracy and occurrence of revenue recognized, including customer set up and meter data collection and processing. • Performed substantive analytical procedures over revenue recognized to identify fluctuations that may be indicative of error or fraud for further investigation. <p>We have no findings to report.</p>

Areas of focus

The following is a summary of areas of focus, and the related matters and findings we would like to communicate to the Audit Committee.

Area of focus	Matter	Our response and findings
Revenue	There are a significant number of transactions in the billing process which leads to a significant risk from a financial reporting perspective.	<p>We performed the following:</p> <ul style="list-style-type: none"> • Tested the operating effectiveness of controls over the accuracy and occurrence of revenue recognized, including customer set up and meter data collection and processing. • Performed substantive analytical procedures over revenue recognized to identify fluctuations that may be indicative of error or fraud for further investigation. <p>We have no findings to report.</p>
Utility plant in service	Halifax Water has a significant balance in utility plant and many ongoing capital projects throughout the year. There is a risk involved from a financial reporting perspective as accounting for utility plant in service involves judgments around classification of assets, estimation of useful lives, etc.	<p>We performed the following:</p> <ul style="list-style-type: none"> • Tested the operating effectiveness of controls over additions to capital assets, including Work in Progress and Utility Plant in Service. • On a test basis, examine invoices or other support for additions incurred during the year. <p>We have no findings to report.</p>

Area of focus	Matter	Our response and findings
Employee benefit obligations	<p>Halifax Water maintains a defined benefit pension plan and offers post-retirement health and insurance benefits. The pension plan provides pensions based upon length of service and best seven years' earnings. Halifax Water contributes 10.34% of payroll.</p> <p>A full valuation was performed at January 1, 2019 with the results extrapolated as at March 31, 2020.</p>	<p>We performed the following:</p> <ul style="list-style-type: none"> • Examined the valuation report prepared by Halifax Water's independent actuary; • Verifies amounts reported and disclosed in Halifax Water's financial statements are accurate; • Assess reasonability of assumptions used in the valuation as compared to expectations and market information; • Perform testing of the data used by the actuary in the performance of their work; and • Confirmation of independence of Halifax Water's actuary and materiality threshold. <p>We have no findings to report.</p>

Accounting practices

Area of focus	Matter	Our response and findings
Adoption of IFRS 16 Leases	<p>Halifax Water adopted IFRS 16 – Leases effective April 1, 2019. The new accounting standard replaces IAS 17 – Leases and other related interpretations and guidance and sets out a new requirement for the accounting and reporting of lease contracts, including revisions to the definition of a lease contract and a requirement for lessees to recognize lease liabilities and right-of-use assets for substantially all leases with few exceptions.</p> <p>The adoption of IFRS 16 did not have a material impact on the financial statements.</p>	<p>We performed the following:</p> <ul style="list-style-type: none"> • Discussed and understood management's process for identifying leases and contracts that may have the form of a lease. • Examined management's IFRS 16 position paper and analysis. • Examined management's disclosures in the financial statements. <p>We have recorded an unadjusted misstatement to reflect the estimated impact of IFRS 16 not recorded in the financial statements.</p>

Adjustments and uncorrected misstatements

Adjustments

Misstatements identified and adjusted in the financial statements by the Halifax Water as a result of our audit procedures are as follows:

Description	Dr. / (Cr.) (in '000s)		Balance sheet		Income effect
	Assets	Liabilities	Equity	Earnings	
Reclass credit balances in accounts receivable to account payable.	\$ 1,425	\$ (1,425)	\$ -	\$ -	

Uncorrected misstatements

Our audit identified the unadjusted non-trivial misstatements noted below.

Description	Dr. / (Cr.) (in '000s)		Balance sheet		Income effect
	Assets	Liabilities	Equity	Earnings	
Impact of adoption of IFRS 16 <i>Leases</i> not reported on the financial statements.	\$ 255	\$ (259)	\$ -	\$ (4)	

Summary of disclosure matters

Our audit did not identify any unadjusted non-trivial misstatements of disclosure matters.

Other reportable matters and technical updates – highlights

Internal control

The audit is designed to express an opinion on the financial statements. We obtain an understanding of internal control over financial reporting to the extent necessary to plan the audit and to determine the nature, timing and extent of our work. Accordingly, we do not express an opinion on the effectiveness of internal control.

If we become aware of a deficiency in your internal control over financial reporting, the auditing standards require us to communicate to the Members of the Audit Committee those deficiencies we consider significant. However, a financial statement audit is not designed to provide assurance on internal control.

We did not identify any deficiencies in internal control that we are required to communicate.

Accounting

There have not been any changes in accounting standards that would have a significant impact on Halifax Water in the current year, except those presented to the Committee as part of the communications on audit planning on February 5, 2020.

A summary of the financial reporting implications as a result of COVID-19 are included in **Appendix C**.

Assurance

There have not been any changes in auditing standards that would have a significant impact on the Halifax Water in the current year, except those presented to the Committee with the planning report on February 5, 2020.

Appendix A

Draft independent auditor's report

To the Members of the Board of the
Halifax Regional Water Commission

Opinion

We have audited the financial statements of the Halifax Regional Water Commission ("Halifax Water"), which comprise the statement of financial position as at March 31, 2020, and the statements of earnings and comprehensive earnings, changes in equity and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly in all material respects, the financial position of the Halifax Regional Water Commission as at March 31, 2020, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS).

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the financial Statements section of our report. We are independent of Halifax Water in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other matter – supplemental schedules

Our audit was conducted for the purposes of forming an opinion on the financial statements taken as a whole as prepared in accordance with IFRS. Schedules A through E are presented in accordance with the Nova Scotia Utility and Review Board Accounting and Reporting Handbook for Water Utilities. Such information has been subjected to the auditing procedures applied for the purpose of the audit of the financial statements as a whole as at and for the period ended March 31, 2020.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRS, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing Halifax Water's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate Halifax Water or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing Halifax Water's financial reporting process.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Halifax Water's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on Halifax Water's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our

auditor's report. However, future events or conditions may cause Halifax Water to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Halifax, Canada
June 25, 2020

Chartered Professional Accountants

Appendix B

Draft management representation letter

June 25, 2020

Grant Thornton LLP
Nova Centre, North Tower, Suite 1000
1675 Grafton Street
Halifax, NS B3J 0E9

Attention: Mr. Tom Brockway, CPA, CA

Dear Sir:

We are providing this letter in connection with your audit of the financial statements of the Halifax Regional Water Commission as of March 31, 2020, and for the year then ended, for the purpose of expressing an opinion as to whether the financial statements present fairly, in all material respects, the financial position, results of operations, and cash flows of the Halifax Regional Water Commission in accordance with International Financial Reporting Standards.

We acknowledge that we have fulfilled our responsibilities for the preparation of the financial statements in accordance with International Financial Reporting Standards and for the design and implementation of internal controls to prevent and detect fraud and error. We have assessed the risk that the financial statements may be materially misstated as a result of fraud, and have determined such risk to be low. Further, we acknowledge that your examination was planned and conducted in accordance with Canadian generally accepted auditing standards (GAAS) so as to enable you to express an opinion on the financial statements. We understand that while your work includes an examination of the accounting system, internal controls and related data to the extent you considered necessary in the circumstances, it is not designed to identify, nor can it necessarily be expected to disclose, fraud, shortages, errors and other irregularities, should any exist.

Certain representations in this letter are described as being limited to matters that are material. An item is considered material, regardless of its monetary value, if it is

probable that its omission from or misstatement in the financial statements would influence the decision of a reasonable person relying on the financial statements.

We confirm, to the best of our knowledge and belief, as of June 25, 2020, the following representations made to you during your audit.

Financial statements

- 1 The financial statements referred to above present fairly, in all material respects, the financial position of the entity as at March 31, 2020 and the results of its operations and its cash flows for the year then ended in accordance with International Financial Reporting Standards, as agreed to in the terms of the audit engagement.
- 2 The financial statements have been prepared for the following users: Nova Scotia Utility and Review Board, Members of the Board of Commissioners, Halifax Regional Municipality (HRM) and management. These users will use the financial statements for meeting their financial reporting requirements.

Completeness of information

- 3 We have made available to you all financial records and related data and all minutes of the meetings of shareholders, directors, and committees of directors, as agreed in the terms of the audit engagement. Summaries of actions of recent meetings for which minutes have not yet been prepared have been provided to you. All significant board and committee actions are included in the summaries.
- 4 We have provided you with unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.
- 5 There are no material transactions that have not been properly recorded in the accounting records underlying the financial statements. The adjusting journal entries which have been proposed by you are approved by us and will be recorded on the books of the entity.

- 6 There were no restatements made to correct a material misstatement in the prior period financial statements that affect the comparative information.
- 7 We are unaware of any known or probable instances of non-compliance with the requirements of regulatory or governmental authorities, including their financial reporting requirements.
- 8 We are unaware of any violations or possible violations of laws or regulations the effects of which should be considered for disclosure in the financial statements or as the basis of recording a contingent loss.
- 9 We have disclosed to you all known deficiencies in the design or operation of internal control over financial reporting of which we are aware.
- 10 We have identified to you all known related parties and related party transactions, including sales, purchases, loans, transfers of assets, liabilities and services, leasing arrangements, guarantees, non-monetary transactions and transactions for no consideration, as disclosed in note 9 of the financial statements.

Fraud and error

- 11 We have no knowledge of fraud or suspected fraud affecting the entity involving management; employees who have significant roles in internal control; or others, where the fraud could have a non-trivial effect on the financial statements.
- 12 We have no knowledge of any allegations of fraud or suspected fraud affecting the entity's financial statements communicated by employees, former employees, analysts, regulators or others.
- 13 We acknowledge our responsibility for the design, implementation and maintenance of internal control to prevent and detect fraud.

Recognition, measurement and disclosure

- 14 We believe that the significant assumptions used by us in making accounting estimates, including those used in arriving at the fair values of financial instruments as measured and disclosed in the financial statements, are reasonable and appropriate in the circumstances.
- 15 We have no plans or intentions that may materially affect the carrying value or classification of assets and liabilities, both financial and non-financial, reflected in the financial statements.

- 16 There are no tangible capital assets belonging to the Halifax Regional Water Commission that have not already been capitalized or would need to be capitalized in the future.
- 17 All related party transactions have been appropriately measured and disclosed in the financial statements.
- 18 The nature of all material measurement uncertainties has been appropriately disclosed in the financial statements, including all estimates where it is reasonably possible that the estimate will change in the near term and the effect of the change could be material to the financial statements.
- 19 There were no business combinations that occurred during the year.
- 20 Any intangibles on the books of the entity are evaluated whenever events or changes in circumstances indicated the carrying amount may not be recoverable to determine whether or not they have been impaired, and an appropriate loss provision is provided in the accounts where there has been a permanent impairment.
- 21 Depreciation and amortization rates have been assessed to ensure they properly reflect the assets' useful lives.
- 22 Rate regulated assets and liabilities have been approved by the NSUARB and have been appropriately reflected in the financial statements. Refer to note 5 of the financial statements.
- 23 All outstanding and possible claims, whether or not they have been discussed with legal counsel, have been disclosed to you and are appropriately reflected in the financial statements. Refer to Note 3 in the financial statements.
- 24 All liabilities and contingencies, including those associated with guarantees, whether written or oral, have been disclosed to you and are appropriately reflected in the financial statements.
- 25 Long lived assets and finite lived intangibles are reviewed for impairment, when events or changes in circumstances indicate that the carrying amount of the long-lived assets may not be recoverable. Halifax Water assesses if any indicators of impairment are present at each financial reporting year end. No impairments have been recognized for the March 31, 2020 year-end.

- 26 With respect to environmental matters:
- a) at year end, there were no liabilities or contingencies that have not already been disclosed to you;
 - b) liabilities or contingencies have been recognized, measured and disclosed, as appropriate, in the financial statements; and
 - c) commitments have been measured and disclosed, as appropriate, in the financial statements.
- 27 The entity has satisfactory title to (or lease interest in) all assets, and there are no liens or encumbrances on the entity's assets nor has any been pledged as collateral.
- 28 We have disclosed to you, and the entity has complied with, all aspects of contractual agreements that could have a material effect on the financial statements in the event of non-compliance, including all covenants, conditions or other requirements of all outstanding debt. Refer to Schedule B in the financial statements.
- 29 The Goods and Services Tax (GST) and Harmonized Sales Tax (HST) transactions recorded by the entity are in accordance with the federal and provincial regulations. The GST and HST liability/receivable amounts recorded by the entity are considered complete.
- 30 Employee future benefit costs, assets, and obligations have been determined, accounted for and disclosed in accordance with the requirements of IAS 19 Employee Benefits of the Chartered Professional Accountants of Canada (CPA Canada) Handbook Part I – Accounting.
- 31 There have been no events subsequent to the balance sheet date up to the date hereof that would require recognition or disclosure in the financial statements. Further, there have been no events subsequent to the date of the comparative financial statements that would require adjustment of those financial statements and related notes.
- 32 Transition adjustments and related required disclosures made as part of Halifax Water's transition to IFRS 16 Leases have been appropriately recognized, measured and presented in accordance with IFRS.

Other

- 33 We have considered whether or not events have occurred or conditions exist which may cast significant doubt on Halifax Water's ability to continue as a going concern and have concluded that no such events or conditions are evident.

- 34 We have considered the implications of the COVID-19 pandemic and impact on Halifax Water and have provided sufficient disclosures in the financial statements accordingly. There are no other related significant matters arising that we have not disclosed to you.

Yours very truly,

Cathie O'Toole, MBA, FCPA, FCGA, ICD.D
General Manager

Louis de Montbrun, CPA, CA
Director, Corporate Services / CFO

Alicia Scallion, CPA, CA
Manager, Accounting

Appendix C

COVID-19 – Financial reporting impacts

The spread of COVID-19 is severely impacting economies around the globe, causing extensive disruptions to many industries and business operations and a level of economic uncertainty that is unprecedented in our time. In addition to the impact on ongoing operations, these events may affect the Halifax Water's financial reporting. While every entity will be impacted differently, the table below summarizes, at a high level, some key COVID-19 related financial reporting considerations that should be considered by most entities.

Matter	Impact	Considerations
Subsequent events	In determining whether the impact of COVID-19 requires adjustments to the Halifax Water's financial statements, management must first determine whether the impact occurred during the fiscal year, or subsequent to year-end. Entities are required to distinguish between subsequent events that are adjusting (provide further evidence of conditions that existed at the balance sheet date) and non-adjusting (indicate conditions that arose after the balance sheet date). Adjusting subsequent events are reflected in the recognition and measurement of amounts reported in the financial statements, while the impact of non-adjusting subsequent events may be required to be disclosed in the notes to the financial statements. Significant subsequent events that may require adjustment or disclosure include items such as: supply chain disruptions, waivers or modifications of contractual terms in lending arrangements or other contractual arrangements, announcing or commencing the implementation of a major restructuring or downsizing, and/or declines in fair values of investments after the reporting period.	Management should determine whether COVID-19 represents an adjusting or non-adjusting subsequent event, bearing in mind that the virus only became widespread in January 2020 and the magnitude of its impact increased from there. Where COVID-19 is determined to be a material non-adjusting subsequent event, management should determine the appropriate disclosures for the financial statements, including the nature and estimated financial effect of each specific impact identified.
Going concern	<p>The preparation of the financial statements on a going concern basis is appropriate if management has determined that the Halifax Water has the ability to continue as a going concern for a period of at least twelve months from the balance sheet date. Management's assessment generally takes into consideration all available information about the future, including events that have occurred after the year-end. Current circumstances related to COVID-19 have resulted in many entities encountering financial difficulties, which could call into question use of the going concern assumption.</p> <p>If there is material uncertainty about the Halifax Water's ability to continue as a going concern, the Halifax Water should include going concern disclosure in the notes to its</p>	<p>Management should update their going concern assessment, considering all events that have occurred subsequent to year end and the wide-ranging impact of COVID-19 (including profitability, debt repayments, etc). In other words, everything that happens during the subsequent events period must be considered in determining if there is substantial doubt regarding the Halifax Water's ability to continue as a going concern, even if those events are otherwise considered non-adjusting.</p> <p>Material uncertainties around the going concern assumption should be disclosed in the financial statements and, depending on</p>

Matter	Impact	Considerations
	financial statements and there will be an impact on the auditor's report. If management concludes that the Halifax Water may be liquidated (either by choice or because it has no realistic alternative but to do so), the going concern assumption would not be appropriate and the financial statements may have to be prepared on another basis, such as a liquidation basis.	the going concern assessment, it may not be appropriate to prepare the financial statements on a going concern basis. In certain lending agreements, the inclusion of an emphasis of matter paragraph in the auditor's report related to the going concern assumption may result in debt being classified as current. Management should review the terms of its lending arrangements carefully to determine if this may be the case.
Impairment	<p>All entities are required to test assets for impairment when indicators of impairment are present. An impairment test must be performed in response to indicators of impairment in addition to any annual impairment test requirements for goodwill and intangible assets with indefinite useful lives.</p> <p>Although some indicators of impairment are based on internal information (e.g., plans to remove an asset from use), others could be triggered by COVID-19, which is an external event. Below are some examples of indicators of impairment that may exist as a result of the economic conditions caused by the spread of COVID-19:</p> <ul style="list-style-type: none"> • Inventory: goods are damaged or spoiled due to cessation of operations or decrease in demand; decline in selling prices • Financial asset (e.g., accounts and loans receivable, portfolio investments): change in the expected timing or amount of future cash flows • Investments (other than portfolio investments, e.g., investment in a subsidiary): significant financial difficulty of the investee, change in economic conditions, in economic or legal environment (e.g., recession) • Tangible capital assets and intangible assets: change in use of the asset (e.g., switch to produce items to support COVID-19 battle which may reduce productive capacity) • Goodwill: a significant adverse change in legal factors or in the business climate (e.g., an entity expects a decrease in its exports to a particular foreign market as a result of lengthy border closings); a loss of key personnel that is other than temporary; the testing for write-down or impairment of a significant asset group; the recognition of a goodwill impairment loss in an investee's separate financial statements • Entities that are publicly listed are required to assess for indicators or impairment on a quarterly basis, even when they do not have their auditors perform a quarterly review.] 	Management should assess whether there are any impairment indicators and test for impairment, where necessary, to the extent that COVID-19 affects the recoverability of the amounts of assets recorded in the financial statements, either due to impacts that occurred during the fiscal year or due to impacts that are considered adjusting subsequent events.
Other items	<p>The accounting impacts of COVID-19 are expected to be wide-ranging. For example:</p> <ul style="list-style-type: none"> • Employee future benefit costs and accruals could be affected by the Halifax Water's responses to COVID-19, due to the Halifax Water providing additional compensation to assist employees who are sick or who are working remotely, incurring termination costs or other unconventional responses to manage employee costs during the pandemic • The pattern of revenue recognition may be affected (e.g. due to new discounts and incentives that are being offered, refunds or credits). The application of the percentage of completion method to long-term sales contracts and services may 	To the extent that COVID-19 affects the amounts recorded in the financial statements, either due to impacts that occurred during the fiscal period or due to impacts that are considered adjusting subsequent events, management needs to determine the appropriate accounting treatment.

Matter	Impact	Considerations
	<p>need to be revisited if the estimate of total costs or expected efforts will change due to COVID-19's impact. Entities must also consider if the contract may become less profitable or even loss-making</p> <ul style="list-style-type: none"> • Inventory costing may be affected if the Halifax Water's production is abnormally low (e.g., due to temporary shutdowns) or the Halifax Water may need to review its costing to ensure that unallocated fixed overhead costs related to excess capacity are expensed as incurred • Debt repayments, classification and, in some cases, recognition, may be affected (such as in the case where the Halifax Water's debtholder allows the deferral of principal repayments for a period of time). Also, management should also consider its ability to comply with covenants under this new economic climate. Furthermore, management must determine whether late release of their audited financial statements may be in and of itself considered a covenant violation that would require reclassification of debt to current presentation. <p>The list above is not exhaustive. An entity's management must consider all of the ways in which COVID-19 is impacting its business and the related effect on financial reporting.</p>	
Disclosures	<p>In addition to the quantitative impact that COVID-19 may have on an entity's financial statements, management must also consider how the entity's financial statement note disclosures could be impacted. An entity may need to revise existing disclosures in its financial statements and/or add new disclosures (e.g., subsequent events, financial instrument risk, measurement uncertainty, going concern). Transparent and carefully worded disclosures will need to be included in the financial statements to convey how the Halifax Water's financial performance and financial position are impacted by COVID-19, and what new risks and uncertainties exist as a result of the pandemic.</p>	<p>Management should review existing financial statements disclosures to determine how they may be impacted by COVID-19 and consider what additional disclosures may be necessary.</p>

TO: Craig MacMullin, MBA, CPA, CGA, and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: Original Signed By: _____
Louis de Montbrun, CPA, CA
Director, Corporate Services / CFO

APPROVED: Original Signed By: _____
Cathie O'Toole, MBA, CPA, CGA, ICD.D
General Manager

DATE: June 18, 2020

SUBJECT: **Halifax Regional Water Commission Employees' Pension Plan
Financial Statements for the Year Ended December 31, 2019**

ORIGIN

The Halifax Regional Water Commission Employees' Pension Plan financial statements are audited annually.

RECOMMENDATION

It is recommended that the Commission Board approve the audited financial statements for the Halifax Regional Water Commission Employees' Pension Plan (the "Plan") for the year ended December 31, 2019.

BACKGROUND

Annually, the Plan's financial statements are prepared by staff and audited by the Commission's auditors, currently Grant Thornton, LLP.

DISCUSSION

Attached are the audited financial statements of the Plan for the year ended December 31, 2019, with comparative figures for 2018. Page numbers and notes referenced in this report refer to the audited financial statements.

ITEM # 4.2

HRWC Board

June 25, 2020

The auditor has indicated they are prepared to issue an unqualified Auditor's Report. The Auditor's Report, on Page 1, indicates that the financial statements present fairly, in all material respects, the financial position of the Plan as at December 31, 2019, the changes in net assets available for benefits, and changes in pension obligations in accordance with Canadian accounting standards for pension plans.

The statement of financial position for the Plan is reported on page 3 of the financial statements, and the highlights are summarized in Table 1 below. The surplus as at December 31, 2019 of \$8.7 million compares favourably to the surplus reported the prior year of \$2.1 million, representing a change of \$6.7 million. This is the result of higher reported values at year-end for net assets available for benefits relative to pension obligations. Net assets available for benefits as at December 31, 2019, amounted to \$141.6 million compared to \$126.5 million the prior year, an increase of \$15.1 million or 12.0%. Pension obligations increased \$8.5 million or 6.8% to \$132.8 million as at December 31, 2019, up from \$124.4 million in 2018.

Table 1:

Statement of financial position December 31				
	2019	2018	Change	
			\$	%
Net assets available for benefits (note 4)	\$141,579,814	\$126,458,630	\$15,121,184	12.0%
Pension obligations (note 5)	\$132,840,559	\$124,371,400	\$8,469,159	6.8%
Surplus	\$8,739,255	\$2,087,230	\$6,652,025	318.7%

The statement of changes in net assets available for benefits are reported on page 4 of the financial statements, with highlights summarized in Table 2 below. As stated previously, net assets available for benefits as at December 31, 2019 are reported as \$141.6 million, compared to \$126.5 million the previous year, representing an increase of \$15.1 million or 12.0%.

Table 2:

Statement of changes in net assets available for benefits December 31				
	2019	2018	Change	
			\$	%
Revenue	\$14,083,715	\$4,536,454	\$9,547,261	210.5%
Expenses	\$5,397,997	\$4,059,539	\$1,338,458	33.0%
Increase in Net Revenue	\$8,685,718	\$476,915	\$8,208,803	1721.2%
Contributions (note 7)	\$6,435,466	\$6,249,833	\$185,633	3.0%
Increase in net assets available for benefits	\$15,121,184	\$6,726,748	\$8,394,436	124.8%

Of the \$15.1 million increase in net assets available for benefits in the current year, net revenue accounted for \$8.7 million, with contributions of \$6.4 million representing the remaining balance. Revenue consists of changes in the fair value of investment assets of \$10.6 million, and net investment income of \$3.5 million. Comparative to 2018, the value of investment assets increased by \$8.9 million, and net investment income increased \$0.7 million. Assets of the Plan are invested as part of the Halifax Regional Municipality Master Trust, and represent 6.3% (2018, 6.2%) of the Master Trust's assets. The Plan's gross fund rate for 2019 was 10.4% (2018, 4.1%), and the net fund rate after expenses was 10.1% (2017, 3.8%).

Contributions also factor into the increase in net assets available for benefits. Combined contributions from employees and Halifax Water are reported at \$6.4 million for 2019, with a net increase of \$0.2 million or 3.0% compared to 2018. Typically, this increase would be reflective of new hires, as well as associated increases in remuneration of existing employees, either through normal pay increases or movements within individual bands. However, as a result of the actuarial valuation performed January 1, 2019, changes were made with respect to required current service contributions for both employees and Halifax Water, and special payments previously paid by Halifax Water. Current service contributions for employees were reduced from 10.65% to 10.34%, and Halifax Water's were increased from 9.85% to 10.34%. With the Plan being in a surplus position as at January 1, 2019, Halifax Water was no longer required to make special payments towards the unfunded liability. It is also noted in 2019, a reciprocal transfer into the Plan in the amount of \$0.4 million is reported within employee contributions. Further details with respect to contributions can be found in Note 7 (page 14) of the financial statements.

Expenses reduce net assets available for benefits, with retirement benefit payments being the main driver, representing \$4.2 million of the \$5.4 million reported in 2019. This is an increase of \$0.4 million compared to 2018, and is attributed to 15 (2018, 10) new retirements in 2019, in addition to increases with respect to annual indexing. Termination

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June 25, 2020

benefit payments are also included in expenses and represent \$1.0 million of reported expenses in 2019. Termination benefits paid in 2019 totaled 14 (2018, 6), representing an increase of \$0.9 million compared to 2018. Termination benefits tend to vary year-over-year, and directly related to staff turnover levels.

The statement of changes in pension obligations is reported on page 5 of the financial statements and summarized in Table 3 below. The valuation of pension obligations as at December 31, 2019 was an extrapolation from the actuarial valuation performed January 1, 2019.

Table 3:

Statement of changes in pension obligations December 31				
	2019	2018	Change	
			\$	%
Pension obligations, beginning of year	\$124,371,400	\$121,473,083	\$2,898,317	2.4%
Changes in actuarial assumptions	\$0	(\$5,383,916)	\$5,383,916	(100.0%)
Miscellaneous sources of decrease	\$0	(\$277,700)	\$277,700	(100.0%)
Interest accrued on benefits	\$7,248,500	\$7,087,500	\$161,000	2.3%
Benefits accrued	\$6,407,700	\$5,400,500	\$1,007,200	18.7%
Benefits paid (note 8)	(\$5,187,041)	(\$3,928,067)	(\$1,258,974)	32.1%
	\$8,469,159	\$2,898,317	\$5,570,842	192.2%
Pension obligations, end of year	\$132,840,559	\$124,371,400	\$8,469,159	6.8%

Pension obligations increased to \$132.8 million in 2019 compared to \$124.4 million the prior year, an increase of \$8.5 million or 6.8%. Increases to pension obligations came from two (2) sources, benefits accrued of \$6.4 million and interest on accrued benefits of \$7.2 million, with reported increases of \$0.2 million and \$1.0 million respectively, compared to 2018. Reductions to pension obligations totaled \$5.2 million, and represent expenses related to retirement and termination benefit payments in 2019, as described previous in this report. Further details with respect to pension obligations including assumptions can be found in Note 5 (page 13) of the financial statements.

Solvency funding is not required as the Plan received a solvency funding exemption effective June 1, 2015. Currently the ratio of solvency assets to solvency liabilities is greater than the “solvency concerns” threshold of 85%, under Nova Scotia pension legislation. Under legislative effective April 1, 2020, should the solvency ratio fall below the 85% threshold, a full actuarial valuation report would be required every 3 years, and a cost certificate annually. The Superintendent may require a valuation sooner than the 3 years if deemed warranted. The next actuarial valuation is scheduled for January 1, 2022.

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With the outbreak of COVID-19, global equity markets experienced significant volatility and weakness, with the value of the Plan's investment assets declining by 2.61% or \$3.7 million as at May 31, 2020. The Plan does not foresee a significant impact to future operations currently, or its ability in making benefit payments.

BUDGET IMPLICATIONS

There are no budget implications associated with the audited financial statements of the Plan. Budget implications arise from the actuarial valuations.

ALTERNATIVES

None

ATTACHMENT

Halifax Regional Water Commission Employees' Pension Plan Financial Statements as at December 31, 2019

Report Prepared by: Original Signed By:

Allan Campbell, B.Comm, CPA, CMA, Manager, Finance
902-490-4288

Financial Statements

Halifax Regional Water Commission

Employees' Pension Plan

December 31, 2019

DRAFT

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Independent auditor's report

To the Board of Trustees of the
Halifax Regional Water Commission
Employees' Pension Plan

Opinion

We have audited the financial statements of Halifax Regional Water Commission Employees' Pension Plan, which comprise the statement of financial position as at December 31, 2019, and the statements of changes in net assets available for benefits and changes in pension obligations for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly in all material respects, the financial position of Halifax Regional Water Commission Employees' Pension Plan as at December 31, 2019, and its changes in net assets available for benefits and its changes in pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans.

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of Halifax Regional Water Commission Employees' Pension Plan in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing Halifax Regional Water Commission Employees' Pension Plan's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate Halifax Regional Water Commission Employees' Pension Plan or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing Halifax Regional Water Commission Employees' Pension Plan's financial reporting process.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of Halifax Regional Water Commission Employees' Pension Plan's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on Halifax Regional Water Commission Employees' Pension Plan's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause Halifax Regional Water Commission Employees' Pension Plan to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Halifax, Canada

Date

Chartered Professional Accountants
Licensed Public Accountants

Halifax Regional Water Commission

Employees' Pension Plan

Statement of financial position

December 31	2019	2018
Assets		
Investment assets	\$ 141,509,795	\$ 126,419,604
Contributions receivable	<u>97,120</u>	<u>67,261</u>
	141,606,915	126,486,865
Liabilities		
Payables and accruals		
Trade	<u>27,101</u>	<u>28,235</u>
Net assets available for benefits (note 4)	141,579,814	126,458,630
Pension obligations (page 5)	<u>132,840,559</u>	<u>124,371,400</u>
Surplus (deficiency)	<u>\$ 8,739,255</u>	<u>\$ 2,087,230</u>

On behalf of the Board

Trustee

Trustee

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Employees' Pension Plan

Statement of changes in net assets available for benefits

Year Ended December 31 2019 2018

Revenue		
Net investment income (note 6)	\$ 3,441,506	\$ 2,773,356
Changes in the fair value of investment assets	<u>10,642,209</u>	<u>1,763,098</u>
	<u>14,083,715</u>	<u>4,536,454</u>
Contributions (note 7)		
Participants	3,463,328	2,845,791
Sponsor	<u>2,972,138</u>	<u>3,404,042</u>
	<u>6,435,466</u>	<u>6,249,833</u>
Expenses		
Benefit payments (note 8)	5,187,041	3,928,067
Administrative (note 9)	<u>210,956</u>	<u>131,472</u>
	<u>5,397,997</u>	<u>4,059,539</u>
Increase in net assets available for benefits	<u>\$ 15,121,184</u>	<u>\$ 6,726,748</u>
Net assets available for benefits, beginning of year	\$ 126,458,630	\$ 119,731,882
Increase in net assets available for benefits	<u>15,121,184</u>	<u>6,726,748</u>
Net assets available for benefits, end of year	<u>\$ 141,579,814</u>	<u>\$ 126,458,630</u>

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Employees' Pension Plan

Statement of changes in pension obligations

Year Ended December 31

2019

2018

Pension obligations, beginning of year	<u>\$ 124,371,400</u>	<u>\$ 121,473,083</u>
Change in pension obligations		
Changes in actuarial assumptions (Note 5)	-	(5,383,916)
Miscellaneous sources of decrease	-	(277,700)
Interest accrued on benefits	7,248,500	7,087,500
Benefits accrued	6,407,700	5,400,500
Benefits paid (note 8)	<u>(5,187,041)</u>	<u>(3,928,067)</u>
	<u>8,469,159</u>	<u>2,898,317</u>
Pension obligations, end of year	<u>\$ 132,840,559</u>	<u>\$ 124,371,400</u>

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

1. Description of the Plan

The Halifax Regional Water Commission Employees' Pension Plan (the "Plan") is registered under the Pension Benefits Act of Nova Scotia (Registration Number 0344614). The following description of the Plan is a summary only. For more complete information, reference should be made to the Plan agreement restated as at January 1, 2011 as amended and consolidated, in addition to Amendment #9 and Amendment #10, both effective January 1, 2016, Amendment #11, effective retroactively to June 1, 2015, and Amendment #12, effective retroactively to January 1, 2019.

(a) General

The Halifax Regional Water Commission maintains a contributory defined benefit pension plan for all employees, and participation in the Plan is compulsory for full-time and part-time employees. The pension plan provides pensions based upon length of service and best seven consecutive years' earnings.

The employees who transferred to the Halifax Regional Water Commission on August 1, 2007 with the transfer of the wastewater/stormwater operations have remained members of the Halifax Regional Municipality Pension Plan. The Halifax Regional Water Commission is responsible for funding the employer share of the contributions for these employees. All new employees hired after August 1, 2007 join the Halifax Regional Water Commission Employees' Pension Plan.

(b) Funding policy

Employees' required contributions in 2019 were 10.34% (2018 – 10.65%) of pensionable earnings. Pensionable earnings are capped temporarily to a maximum of \$140,945 through 2023, and will be indexed at a rate of 1% per annum thereafter. The Halifax Regional Water Commission matches employee contributions up to 10.34% (2018 – 9.85%). Basic contributions from employers and members due to the Plan at the end of the year are recorded on an accrual basis.

In addition, the Plan and the Pension Benefits Act of Nova Scotia require that the Halifax Regional Water Commission, from time to time, make contributions to the Plan of such amounts which are required as special payments in accordance with the provisions of the Plan as determined by the actuary (see note 5).

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

1. Description of the Plan (continued)

(c) Retirement benefits

Employees are entitled to annual pension benefits of an amount equal to 2.0% of their best earnings averaged over the highest seven consecutive years of earnings for each year of credited service up to the maximum permitted by the Canada Revenue Agency. For credited service prior to January 1, 2016, the best average earnings cannot be less than the best average five consecutive years of earnings paid to an employee prior to 2016.

Benefits are adjusted each year. Adjustments are based on the increase in the Consumer Price Index over the previous calendar year to a maximum of 2% for benefits earned prior to January 1, 2016, and to a maximum of 1% for benefits earned after December 31, 2015.

(d) Disability pensions

Disabled employees continue to accrue credited service without having to continue their contributions. The employer and employees fund the actuarial cost of the pensions for disabled employees annually. Disabled employees are eligible for a pension if they meet the following criteria:

- a) they have completed 10 years of continuous participation in the Plan;
- b) they are not in receipt of a salary continuance benefit under an insured plan to which the Halifax Regional Water Commission contributes; and
- c) they are totally and permanently disabled as certified by a medical practitioner.

(e) Death benefits

In the event a pensioner dies after the commencement of their pension payments, the death benefit will be in accordance with the normal or optional form of pension elected at the time of retirement.

In the event a member dies before their retirement date, a survivor pension is payable to the member's surviving spouse at the rate of 60% of the member's pension credits accrued prior to June 1, 1998. The beneficiary of a single employee who dies before retirement will be entitled to the member's contributions and interest up to the month preceding death during that same period. In respect of pension credits accrued after June 1, 1998, the commuted value of the normal retirement benefits shall be paid to the member's surviving spouse, beneficiary or estate. Amendment #11 provides provisions relating to member pension credits accrued between January 1, 1988 and May 31, 1998 whereby a survivor pension payable to the member's surviving spouse is calculated as the greater of: 1) 60% of the survivor pension, or 2) the commuted value of the normal retirement benefits. The beneficiary or estate of a single employee who dies during this same time period, January 1, 1988 and May 31, 1998, would be entitled to the commuted value of the normal retirement benefits.

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

1. Description of the Plan (continued)

(f) Termination of employment

Subject to any statutory limitations and as provided in Amendment #11, Plan members become vested immediately upon joining the Plan. Vesting previously occurred after two years of Plan membership. Members may elect to receive one of the following options upon termination:

- a) a paid-up deferred pension commencing on the member's normal retirement date in an amount equal to the pension accrued to date of termination; or
- b) transfer the value of benefit to the member's new employer's pension plan, a Retirement Savings Plan, or purchase a deferred annuity.

(g) Voluntary contributions

Members of the Plan may make additional voluntary contributions up to the deductible limit provided under the Income Tax Act. The non locked-in additional voluntary contributions may be withdrawn from the Plan by a member prior to termination or retirement, either in the form of a lump sum cash payment or transferred directly to the member's Retirement Savings Plan.

Members of the Plan may transfer non locked-in or locked-in benefits from a previous employer. Non locked-in benefits are administered as outlined in the previous paragraph. Locked-in benefits can be withdrawn within ten years of the normal retirement date. Upon retirement, the locked-in and non locked-in contributions may be used to purchase an annuity.

(h) Income taxes

The Plan is not subject to income taxes since it is a Registered Pension Trust as defined by the Income Tax Act.

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

2. Statement of compliance with Canadian accounting standards for pension plans and summary of significant accounting policies

The financial statements are presented in accordance with Canadian accounting standards for pension plans in Part IV of the Chartered Professional Accountants of Canada (CPA) Handbook, Section 4600 – Pension Plans. Section 4600 provides specific accounting guidance on pension obligations and investments, with investments complying with international financial reporting standards ("IFRS") in Part I of the CPA Canada Handbook. For accounting policies that do not relate to either investments or pension obligations, the plan must consistently comply with either IFRS or Canadian accounting standards for private enterprises ("ASPE") in Part II of the CPA Canada Handbook. The Plan has elected to comply on a consistent basis with ASPE. To the extent that ASPE is inconsistent with Section 4600, Section 4600 takes precedence.

(a) Financial instruments

Financial assets and financial liabilities are recognized when the Plan becomes a party to the contractual provisions of the financial instrument.

Financial assets are derecognized when the contractual rights to the cash flows from the financial assets expire, or when the financial asset and all substantial risks and rewards are transferred.

A financial liability is derecognized when it is extinguished, discharged, cancelled or expires.

All financial assets and financial liabilities are initially measured at fair value. Fair value is an estimate of the amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act.

Financial assets and liabilities are subsequently measured as described below:

Investment assets

All investment assets are measured at fair value at the date of the statement of financial position in accordance with IFRS 13: Fair Value Measurement Part I of the CPA Canada Handbook. Fair values of investment assets are determined as follows:

- Pooled funds are valued at the unit value supplied by the Master Trust administrator and which represent the Plan's proportionate share of underlying net assets at fair value determined using closing bid prices.

Transaction costs are not included in the fair value of investment assets either on initial recognition or on subsequent re-measurement. Transaction costs are included in the statement of changes in net assets available for benefits as part of expenses incurred in the period.

Investment income, excluding changes in the fair value of investment assets, is presented in the statement of changes in net assets available for benefits.

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

2. Statement of compliance with Canadian accounting standards for pension plans and summary of significant accounting policies (continued)

(a) Financial instruments (continued)

Financial liabilities

Financial liabilities are measured subsequently at amortized cost using the effective interest method.

(b) Pension obligations

The Plan is a defined benefit plan established for members. The pension obligations recognized in the statements of financial position are the actuarial present value of accrued pension benefits determined by applying best estimate assumptions and the projected benefit method prorated on services.

(c) Net investment income

Income from investments is recognized on an accrual basis and includes dividend income (recognized on ex-dividend date), interest income, and is net of investment manager fees.

(d) Changes in the fair value of investment assets and liabilities

This includes both realized gains or losses on sale of investments and unrealized gains or losses on investments.

Realized gains or losses on sale of investments are the difference between the proceeds received and the average cost of investments sold.

Unrealized gains or losses on investments represent the difference between the carrying value at the year end and the carrying value at the previous year end or purchase value during the year, less the reversal of previously recognized unrealized gains and losses in respect of disposals during the year.

(e) Contributions

Required employee and employer contributions are recorded the month following when the payroll deductions are made. Employee and employer contributions, as well as special payments due to the Plan at the end of the year are recorded on an accrual basis. Cash received from pension plan transfers or members for service purchases are recorded when received.

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

2. Statement of compliance with Canadian accounting standards for pension plans and summary of significant accounting policies (continued)

(f) Benefits

Benefit payments to retired members, commuted value payments and refunds to former members are recorded in the period paid. Accrued benefits are recorded as part of the accrued pension benefit obligation.

(g) Estimation uncertainty

When preparing the financial statements, management undertakes a number of judgments, estimates and assumptions about recognition and measurement of assets, liabilities, revenue and expenses. The actual results are likely to differ from the judgments, estimates and assumptions made by management and will seldom equal the estimated results. Information about the significant judgments, estimates and assumptions that have the most significant effect on the recognition and measurement of assets, liabilities, revenue and expenses are discussed below:

Fair value of financial instruments

Management uses valuation techniques in measuring the fair value of financial instruments, where active market quotes are not available. Details of the assumptions used are given in the notes regarding financial assets and liabilities. In applying the valuation techniques, management makes maximum use of market inputs, and uses estimates and assumptions that are, as far as possible, consistent with observable data that market participants would use in pricing the instrument. Where applicable data is not observable, management uses its best estimate about the assumptions that market participants would make. These estimates may vary from the actual prices that would be achieved in an arm's length transaction at the reporting date.

Pension obligations

Management estimates the pension obligations annually with the assistance of an independent actuary; however, the actual outcome may vary due to estimation uncertainties. The estimate of the pension obligation of \$132,840,559 (2018 - \$124,371,400) is based on assumed rates of retirement, mortality, breaks in service and contributory hours. Discount factors are determined at or near year-end to reflect the long term expectation of investment returns that are denominated in the currency in which the benefits will be paid and that have terms to maturity approximating the terms of the related pension obligation.

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

3. Investment assets

The investment in the Halifax Regional Municipality Master Trust (the "HRM Master Trust") is recorded at its fair value. The Plan's interest in the HRM Master Trust represents 6.32% (2018 – 6.24%) of the HRM Master Trust units. The remaining units are held by the Halifax Regional Municipality ("HRM"). The co-mingling of investments does not affect the actuarial liabilities or the net assets available for benefits of the Plan.

The fair value of the investment in the HRM Master Trust is determined as at the date of the statements of financial position as described in note 2(a). The fair value of the investment in the HRM Master Trust is categorized as a Level 2 investment under fair value hierarchy measurement.

Section 67 (3) of the *Pension Benefits Act Regulations* requires disclosure of each investment asset that has a fair value greater than two percent (2%) of the fair value of all the investment assets of the Plan. The following schedule reports all investments having a fair value greater than 2% of the fair value of all investment assets of the Plan.

<u>Investment</u>	<u>Asset Class</u>	<u>Market value</u>
Wellington Management Global Total Return Fund	Foreign Bonds	\$ 6,242,378
Putnam Canadian Fixed Income Global Alpha Fund	Canadian Bonds	4,034,567
Wellington Emerging Markets Local Equity Fund	Emerging Market Equities	3,608,373
UBS (UK) Real Estate Funds Selection Global Ex Canada, L.P.	Limited Partnership	3,555,668
Blackrock Active Canadian Equity Fund	Canadian Equities	3,137,558
Minto Multi-Residential Income Partners I, L.P.	Limited Partnership	<u>3,112,589</u>
		<u>\$ 23,691,133</u>

4. Net assets available for benefits

Allocation of net assets available for benefits

	<u>2019</u>	<u>2018</u>
To pension plan	\$ 141,018,461	\$ 125,961,206
To extra voluntary contribution benefits	337,712	270,793
To individual locked in amounts	<u>223,641</u>	<u>226,631</u>
	<u>\$ 141,579,814</u>	<u>\$ 126,458,630</u>

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

5. Pension obligations

The actuarial value of accrued benefits, determined periodically by the Plan's actuary, is the amount that results from applying actuarial assumptions to adjust the Plan benefits to reflect the time value of money between the valuation date and the expected date of payment. The significant actuarial assumptions used include:

- a) 40% of members will retire at the age of 65, and 60% will retire at the earliest date of eligibility for an unreduced pension;
- b) interest rate assumption of 5.80% per annum (2018 – 5.80%);
- c) salary scale assumption of 3.90% per annum (2018 – 3.90%); and
- d) life expectancy of participants based upon the CPM-2014 Combined mortality table, with Scale CPM-B improvements.

The January 1, 2016 actuarial valuation resulted in an unfunded liability of \$7,620,900, and the Halifax Regional Water Commission was required to make special payments which were being amortized over 15 years. This resulted in an unfunded liability payment of \$825,200 in 2018 as shown in note 7.

As a result of the January 1, 2019 actuarial valuation, special payments in respect of going concern liabilities are no longer required. The next actuarial valuation for the Halifax Regional Water Commission Employees' Pension Plan is required to be performed no later than January 1, 2022.

6. Net investment income

	<u>2019</u>	<u>2018</u>
Income from investment funds	\$ 3,644,079	\$ 2,939,026
Investment manager fees	<u>(202,573)</u>	<u>(165,670)</u>
	<u>\$ 3,441,506</u>	<u>\$ 2,773,356</u>

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

7. Contributions	<u>2019</u>	<u>2018</u>
Participants' contributions		
Required	\$ 3,393,051	\$ 2,788,280
Voluntary	<u>70,277</u>	<u>57,511</u>
	<u>\$ 3,463,328</u>	<u>\$ 2,845,791</u>
Sponsor's contributions		
Required	\$ 2,972,138	\$ 2,578,842
Unfunded liability – special payment	<u>-</u>	<u>825,200</u>
	<u>\$ 2,972,138</u>	<u>\$ 3,404,042</u>

8. Benefit payments	<u>2019</u>	<u>2018</u>
Retirement benefit payments	\$ 4,226,855	\$ 3,848,218
Termination benefit payments	<u>960,186</u>	<u>79,849</u>
Death benefit payments	<u>-</u>	<u>-</u>
	<u>\$ 5,187,041</u>	<u>\$ 3,928,067</u>

During 2019, there were 14 termination benefit payments (2018 – 6) and no death benefit payments (2018 – none). Termination benefits are paid out as described in note 1(f) and death benefit payments are paid out as described in note 1(e).

9. Administrative expenses	<u>2019</u>	<u>2018</u>
Actuarial and consulting fees	\$ 118,659	\$ 50,409
Audit and accounting fees	<u>8,530</u>	<u>8,441</u>
Bank custodian fees	<u>28,636</u>	<u>32,303</u>
Insurance	<u>8,760</u>	<u>8,347</u>
Miscellaneous	<u>20,610</u>	<u>16,195</u>
Professional fees	<u>23,261</u>	<u>13,440</u>
Registration fees	<u>2,500</u>	<u>2,337</u>
	<u>\$ 210,956</u>	<u>\$ 131,472</u>

10. Related party transactions

The Halifax Regional Water Commission, the Plan's sponsor, collects the Plan's contributions and pays certain expenses on behalf of the Plan. These items are then credited or charged back to the Plan.

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

11. Financial instruments

Financial instruments risk exposure and management

The Plan is exposed to various risks in relation to its investment in the HRM Master Trust, consisting of investment assets. The Plan's financial assets are categorized in Level 2. The main types of risks are market risk, credit risk and liquidity risk.

The Plan's risk management policy is derived from the HRM Master Trust in which the Plan holds units. The HRM Master Trust has formal policies and procedures placed upon it that establish an asset mix among equity and fixed income investments, required diversification of investments within categories, a set limit on the size of exposure to individual investments, and a requirement to use A-rated counterparties.

The Plan does not actively engage in the trading of financial assets for speculative purposes nor does it write options. The most significant financial risks to which the Plan is exposed are described below:

(a) Market risks

Market risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices. For purposes of this disclosure, the Plan segregates market risk into three categories: interest rate risk, currency risk and other price risk.

i. Interest rate risk

Interest rate risk refers to the fact that the value of the Plan's assets is affected by changes in nominal interest rates and equity markets.

ii. Currency risk

The Plan's functional currency is Canadian dollars and all of the Plan's transactions are carried out in Canadian dollars.

iii. Other price risk

Other price risk is the risk that the fair value or future cash flows of financial instruments will fluctuate because of changes in market prices, other than those arising from interest rate risk or currency risk, whether those changes are caused by factors specific to the individual investment or factors affecting all securities traded in the market.

All investments have a risk of loss of capital. The maximum risk resulting from the investments is determined by the fair value of these instruments, which total \$141,509,795 at December 31, 2019 (2018 - \$126,419,604). A one percent (1%) change in market risk (holding all variables constant) will impact the fair value of these investments by approximately \$1,415,098 (2018 - \$1,264,196).

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

11. Financial instruments (continued)

(b) Credit risk

Credit risk on financial instruments is the risk of financial loss occurring as a result of default or insolvency of a counterparty on its obligations to the Plan. The Plan's credit risk is primarily attributable to the underlying assets of the HRM Master Trust. Credit risk is mitigated through the management of the HRM Master Trust assets with generally accepted parameters of safety and prudence, using a diversified investment program. Investments in the HRM Master Trust must adhere to specific limitations as outlined in the Halifax Regional Municipality's Statement of Investment Policies and Procedures for the Defined Benefit Pension Plan ("the Statement of Investment Policies and Procedures").

(c) Liquidity risk

Liquidity risk is the risk of not being able to meet the Plan's cash requirements in a timely and cost-effective manner. Liquidity requirements are managed through income generated from investments and monthly contributions made by members and participating employers. The sources of funds are used to pay pension benefits, make additional investments and fund operating expenses. The Plan's primary future liabilities include the accrued benefit obligation of the Plan. The Plan's main asset, the investment in the HRM Master Trust, is liquid as cash is available to make required payments.

The following are the contractual maturities of financial liabilities:

Payments due year ending December 31, 2019

	<u>Total</u>	<u>Less than 1 year</u>	<u>1 - 3 years</u>	<u>4 - 5 years</u>	<u>After 5 years</u>
Payables and accruals	\$ 27,101	\$ 27,101	\$ -	\$ -	\$ -

Payments due year ending December 31, 2018

	<u>Total</u>	<u>Less than 1 year</u>	<u>1 - 3 years</u>	<u>4 - 5 years</u>	<u>After 5 years</u>
Payables and accruals	\$ 28,235	\$ 28,235	\$ -	\$ -	\$ -

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

11. Financial instruments (continued)

Fair value disclosure

The financial instruments recognized at fair value on the statement of financial position must be classified as one of three fair value hierarchy levels. This hierarchy groups financial assets and liabilities into three levels based on the significance of inputs used in measuring the fair value of the financial assets and liabilities. The fair value hierarchy has the following levels:

- Level 1: quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2: inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly (i.e. as prices) or indirectly (i.e. derived from prices); and
- Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The level within which the financial asset or liability is classified is determined based on the lowest level of significant input to the fair value measurement. The financial assets and liabilities measured at fair value in the statement of financial position are grouped into the fair value hierarchy as follows:

Financial assets at fair value as at December 31, 2019

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Assets				
Pooled fund	\$ -	\$ 141,509,795	\$ -	\$ 141,509,795

Financial assets at fair value as at December 31, 2018

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Assets				
Pooled fund	\$ -	\$ 126,419,604	\$ -	\$ 126,419,604

There were no transfers between the three levels between December 31, 2018 and December 31, 2019.

The methods and valuation techniques used for the purpose of measuring fair value are unchanged compared to the previous reporting period.

There were no transfers between the three levels between December 31, 2017 and December 31, 2018.

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2019

12. Capital management

The Plan defines its capital as the deficiency of the Plan, as determined annually based on the fair value of net assets and actuarial liabilities, provided by the actuarial valuation prepared by the Plan's independent actuary (note 5).

The overall objectives in investing the assets of the Plan are to ensure sufficient liquidity to support its financial obligations, to continue to provide benefits in the best interest of its members, to remain financially self-sufficient and to preserve and enhance the value of capital through adequate diversification in high quality investments and achieve the highest investment return that can be obtained with the assumption of an acceptable degree of risk. The Plan holds units with the HRM Master Trust which has formal policies and procedures that establish asset mix, require diversification within different categories, set a limit on the exposure to individual investments and provides a requirement to use A-rated counterparties.

13. Subsequent event

Since December 31, 2019, the outbreak of COVID-19 and related global responses have caused material disruptions to businesses around the world, leading to an economic slowdown. Global equity markets have experienced significant volatility and weakness. While governments and central banks have reacted with monetary and fiscal interventions designed to stabilize economic conditions, the duration and extent of the impact of the COVID-19 outbreak, as well as the effectiveness of government and central bank responses, remains unclear at this time.

As at May 31, 2020, the fair value of the Plan's investments declined by 2.61%, or approximately \$3,685,000 since December 31, 2019. At this time, the Plan does not foresee significant impact to future operations or its ability to continue to make benefit payments.

TO: Craig MacMullin, MBA, CPA, CGA, Chair, and Members of the
Halifax Regional Water Commission Board

SUBMITTED BY: Original Signed By: _____
Cathie O'Toole, MBA, FCPA, FCGA, ICD.D, General Manager

DATE: June 17, 2020

SUBJECT: **Corporate Balanced Scorecard - 2019/20 Results and Revised
2020/21 Targets**

ORIGIN

Annual Corporate Performance Measurement.

RECOMMENDATION

It is recommended that the Halifax Regional Water Commission Board approve the revised Corporate Balance Scorecard Targets for 2020/21 for Inflow and Infiltration (I&I) reduction, and Institutional, Commercial, and Industrial (ICI) property inspections.

BACKGROUND

Halifax Water has been utilizing a corporate balanced scorecard (CBS) to measure performance since 2001. With the merger in 2007, Halifax Water developed an expanded CBS to include wastewater and stormwater measurements. As well, this provided an opportunity to refine measurements related to water service delivery. The final 2019/20 results are presented for information. This report proposes two adjustments to the targets for 2020/21 approved by the Halifax Water Board at the March 2020 Board meeting.

DISCUSSION

The mission of Halifax Water is *“to provide world-class services for our customers and our environment”*. The statement is simple and recognizes the connection between customers and the environment with the “one-water” mandate. The mission places the responsibility on employees to make Halifax Water a world class utility, a responsibility they take personally and seriously.

The vision statement for Halifax Water is:

- *We will provide our customers with high quality water, wastewater, and stormwater services.*
- *Through adoption of best practices, we will place the highest value on public health, customer service, fiscal responsibility, workplace safety and security, asset management, regulatory compliance, and stewardship of the environment.*
- *We will fully engage employees through teamwork, innovation, and professional development*

The vision statement expanded on the values and principles of a world class utility in fulfilling its mission and captures the medium to long-term aspirations of Halifax Water. With the vision statement developed, staff then selected the Critical Success Factors (CSFs) that support the mission, and through an interactive process, settled on the following:

- 1. High Quality Drinking Water**
- 2. Service Excellence**
- 3. Responsible Financial Management**
- 4. Effective Asset Management**
- 5. Safety and Security**
- 6. Regulatory Compliance**
- 7. Environmental Stewardship**
- 8. Motivated and Satisfied Employees**

There are Organizational Indicators (OIs) established for each CSF to enable performance measurement and establishment of targets. Each year, the OIs are reviewed and refined based on operational objectives and approved budgets.

CBS Results for 2019/20

The following lists the CSFs and corresponding results for the organizational indicators under each category.

High Quality Drinking Water

Organizational Indicators	2019/20 Target	2019/20 Result
High Quality Drinking Water		
Adherence with 5 objectives of Water Quality Master Plan for all water systems - Percentage of sites achieving targets	80 - 100/100	82
Bacteriological tests - Percentage free from Total Coliform	99.3%	99.9%
Customer satisfaction about water quality - Percentage from customer survey	85%	87%

Under the category of High Quality Drinking Water, we are continuing to seek adherence to five key objectives associated with our Water Quality Masterplan. Performance was measured through our ability to maintain a disinfection residual throughout the distribution system, control disinfection byproducts like trihalomethanes (THMs) and haloacetic acids (HAAs), ensure particle removal through our filtration systems, and ensure corrosion control in the distribution system, as measured by the level of lead at the customers' taps. Our results in these five categories scored 0.82 out of a total maximum score of 1.00, a significant improvement from last year's result of 0.62. The main difference from the previous year is associated with improvement in THM and HAA results which were challenged last year by the phenomenon of source lake recovery.

As for water safety, our bacteriological test results were 99.99%, and improvement over last year's result of 99.7%, and above our target of 99.3% of our samples free of total coliform for the fiscal year.

Results from our annual customer survey indicate that 87% of customers were satisfied or very satisfied with water quality, down slightly from last year's result of 89%, but exceeding the top end of the target range of 80%-85%.

Service Excellence

Service Excellence	Target	Result
Customer satisfaction with service - Percentage from customer survey	90%	96%
Water service outages - Number of connection hours/1000 customers	200	133
Wastewater service outages – Number of connection hours/1000 customers	8	1.64
Average speed of answer – Percentage of calls answered within 20 seconds <i>*Revised in 2019/20. Was previously average call wait time.</i>	60 – 65%	32%

Under the Service Excellence CSF, the annual customer survey indicated that 96% of our customers are satisfied or very satisfied with our overall service, on par with 96% last year and surpassing the target of 90%.

Service reliability was excellent in 2019. Service outages for water and wastewater services were down significantly for water compared to last year with outages of 133 connection hours per 1,000 customers compared to 203 connection hours per 1,000 customers last year, and the target of 200. Wastewater results have improved compared to last year with 1.64 connection hours per 1,000 customers compared to 2.06 connection hours per 1,000 customers last year, and well below the target of 8 connection hours per 1,000 customers.

Customer Care Centre performance is monitored as another important component of Service Excellence. Previously Halifax Water was monitoring call centre performance based on average call wait time, with a target of 80 seconds. At the March 28, 2019 Halifax Water Board meeting, a new Organizational Indicator (OI) was approved. The new OI measures an average speed of answer with a target of 60 – 65% of calls answered within 20 seconds. 2019/20 was an exceptionally challenging year due to higher than forecast call volumes and under-resourcing. The percentage of calls answered within 20 seconds was 32%. Actual call volume was 22% greater than forecast for the year, driven primarily by escalated Advanced Meter Infrastructure (AMI) project activity. Additionally, Halifax Water's AMI project partner experienced several Contact Centre Outages driving more volume to Halifax Water. Customer Care experienced positive attrition in 2019/20 with agents moving into other areas of the business. This, combined with the increase in volume, left Customer Care 40% under resourced for much of the year. Resourcing has returned to a normal level and it is expected the CBS target will be achieved for 2020/21.

Responsible Financial Management

Responsible Financial Management	Target	Result
Operating expense/revenue ratio percentage	0.815	.780
Annual cost per customer connection – Water	\$517	\$469
Annual cost per customer connection – Wastewater	\$708	\$718

Under Responsible Financial Management, the expense to revenue ratio, which is a Gateway Indicator for the Organizational Performance Award program, was recorded as 0.780, compared to the benchmark of 0.815 for the fiscal year. Also tied to the theme of Responsible Financial Management is the annual cost per connection for water and wastewater service. For water, the annual cost per connection decreased to \$469 from \$477 in 2018/19, compared to a target of \$517.

For wastewater, the annual cost increased to \$718 from \$684 per connection and exceeded the target of \$708.

Effective Asset Management

Effective Asset Management	Target	Result
Water leakage control – target leakage allowance of 160 litres/service connection/day	160-170	176
I&I reduction - Number of inspections to identify private property charge of stormwater into the wastewater system	900	1086
Peak flow reduction from wet weather management capital projects	34-38 l/sec	Data is not available
Percentage time GIS and CityWorks are in service	95-97%	99.88%
Capital budget expenditures - Percentage of budget spend by end of fiscal year	80-90% approved	Awaiting data

The leakage performance measure for 2019/20 was 176 compared to 172 litres per service connection per day in 2018/19 and was just above the target range of 160-170 litres per connection per day. It should be noted that this target was adjusted to be more aggressive in 2018/19, where the previous target was 180 - 190 litres per connection per day. In 2020/21 the water loss control program will be reviewed to determine what improvements can be made, and whether the 160-170 target is realistic recognizing there is a point at which there will be diminishing returns as the economic level of water loss control is achieved.

On the wastewater side, reduction of inflow and infiltration is a key measurement of performance, and as such, 1086 inspections were carried out on private property, compared to 932 inspections on private property last year. The target in 2019/20 was 900 inspections per year. At the March 2020 Board meeting the Halifax Water Board approved targets for 2020/21, and it was noted that some adjustments may be required due to operational impacts of COVID-19. Due to increased difficulty securing appointments due to sensitivity around COVID-19, it is proposed that a more realistic target for 2020/21 would be 450 inspections.

In recognition of the importance of keeping extraneous flows out of the wastewater system, a new OI has been developed for 2019/20 targeting peak flow reductions in the Clayton Park/Fairview sewershed where a concerted effort is being made to reduce inflow & infiltration into the wastewater system. The new OI has a target range reduction of 34 – 38 l/sec. No results are available for 2019/20 as the capital project was not approved by the NSUARB in time to implement within the fiscal year.

Updating and maintaining our GIS database is crucial to our Asset Management Program. With the GIS database now considered to be in a mature state, at the March 28, 2019 Halifax Water Board meeting, a new OI was approved based on the percentage of time GIS and CityWorks is in service on a 24/7 operational protocol. The target range was set at 95% - 97%.

For 2019/20, GIS and CityWorks were in service 99.88% of the time, which exceeds the target range of 95-97%. Having this level of system reliability and availability is critical to assisting operational crews as they undertake daily maintenance and planned or emergency repair activities.

Also, under Effective Asset Management is Capital Budget Expenditures, recognizing that we need to maximize spending of the annual funds approved by the NSUARB. The target for this OI is 80%-90%. The 2019/20 result for percentage of capital funds spent is not finalized at the time of writing this report, and an update will be provided prior to the June 25, 2020 Board meeting. Due to the multi-year nature of capital projects, the number of capital projects, system limitations, timing of payments, and holdbacks, production of information for this target is labour intensive. A quality assurance review is being conducted to ensure the information reported is correct.

In 2018/19, 68.4% of the approved capital budget was spent within the fiscal year.

Workplace Safety and Security

Workplace Safety and Security	Target	Result
Average score on internal safety audits <i>*New in 2019/20</i>	85-95%	89%
NS Labour and Advanced Education compliance - # of Incidents with written compliance orders	0-2	0
Lost time accidents -Number of accidents resulting in lost time per 100 employees	2.0-3.0	1.6
Safe driving - Number of traffic Accidents per 1,000,000 km driven (maximum of 5)	4	4.2
Training - Number of employees trained or recertified before due date	80-90%	81%
Percentage of completed safety talks	80-90%	81%

In recognition that the safety program had reached a more mature and stable state, at the March 28, 2019 Halifax Water Board meeting, a revised OI was approved based on the average score of internal safety audits. The target range for this revised OI is 85% - 95%, and in 2019/20 an average score of 89% was achieved on internal safety audits.

In 2019/20, Halifax Water had no infractions resulting in a written warning from NS Labour and Advanced Education, down from 1 in 2018/2019. The target range for this OI is 0 - 2.

With regard to lost-time accidents, which is a key indicator for workplace safety, the organization saw 1.6 accidents per 100 employees as compared to a target of 2.0-3.0 per

100 employees. This is an improvement compared to the 2018/19 result of 2.5 lost time accidents per 100 employees. This OI is a Gateway Indicator for the Organizational Performance Award program.

Halifax Water has a large fleet to deliver its services. Accordingly, the organization tracks the number of traffic accidents per million kilometers driven. For 2019/20, 4.2 traffic accidents per million km were recorded, a slight improvement over the 4.3 recorded in 2018/19 and within the target range of 4 (maximum of 5).

Regulatory Compliance

Regulatory Compliance	Target	Result
Percentage of public health and environmental regulatory infractions resulting in a summary offense ticket, ministerial order, or prosecution	0-2	0 SOTs 4 Warnings 7 Directives
Percentage of WWTFs complying with NSE approval permits	95-100%	91.2%

Under the critical success factor of Regulatory Compliance, 2019/20 saw four written warnings from Nova Scotia Environment (NSE) compared to three written warnings in 2018/19 and exceeding the target of 0 – 2 (maximum). Halifax Water's activities have not changed; however, the tools NSE uses to manage permits and corrective actions has changed resulting in increased reporting of items that would not have generated a written report in the past. This target may need to be adjusted in 2021/22, depending upon the continued evolution of the changes in the NSE reporting process.

Also, under regulatory compliance, we track the percentage of wastewater treatment facilities meeting discharge requirements of their operating permits. The wastewater treatment facilities met their discharge requirements 91.2% of the time, compared to 94.9% last year, and less than the target range of 95-100%. This target was not achieved in 2019/20 due to unexpected failures in one of the process trains at the Dartmouth Wastewater Treatment Facility. The target of 95-100% is aggressive but is achievable and demonstrates our level of commitment to steward ship of the environment. This target was increased in 2018/19 having previously been 93-98%. Remaining compliant with federal wastewater system effluent regulations [WSER] is a key aspect of our strategic plan.

Environmental Stewardship

Environmental Stewardship	Target	Result
Number of ICI properties inspected by Pollution Prevention each year	500	500
Energy management kwh/m3 reduction associated with capital projects	3%	4.67
Bio-solids residual handling - % of sludge meeting bio-solids concentration targets	92-97%	99.2%

During the 2019/20 fiscal year, the Pollution Prevention division of Regulatory Services inspected 501 businesses in the Halifax municipality, a decrease from the 528 inspected in 2018/19, and below the target of 500 inspections. At the March 2020 Board meeting the Halifax Water Board approved targets for 2020/21, and it was noted that some adjustments may be required due to operational impacts of COVID-19. It is recommended the target for ICI property inspections be reduced from 500 to 440 for 2020/21, in light of increased difficulty securing appointments due to sensitivity around COVID-19.

We also continued to focus on energy management associated with our water and wastewater treatment facilities with an energy reduction of 4.67% in 2019/2020, on par with 4.7% in 2018/19, and exceeding the target of 3%. As one of the Utility's largest expenses, these on-going energy reductions represent real savings on the capital and operational sides of the business, as well as continued reductions in our environmental footprint. The energy reductions in 2019/20 are primarily as a result of equipment replacement and repairs at wastewater treatment facilities.

Under biosolids residuals handling, 99.2% of the biosolids residuals met the desired solids concentration in 2019/2020, compared to 99.5% in 2018/19 and still exceeding the target of 97%.

Motivated and Satisfied Employees

Motivated and Satisfied Employees	Target	Result
Number of arbitrations divided by total number of grievances	0	0.07
Percentage of jobs filled with internal candidates	80%	65%
Employee satisfaction survey result	A-	B+
Average number of days absenteeism	<7	7.54

There are several organizational indicators under this category, including filling jobs with Halifax Water incumbents. For the 2019/20 fiscal year, 65% of jobs were filled from within as compared to a target of 80%. This is a slight improvement from the 2018/19 figure of 63%.

To promote harmonious labour management relations, an organizational indicator was chosen to recognize the number of grievances resulting in arbitrations throughout the fiscal year. The 2019/20 result was 0.07 as there were two arbitrations and twenty-seven grievances filed. In 2018/19 there were 26 grievances and 0 arbitrations.

Halifax Water has a target of filling 80% of jobs with internal candidates. Entry level positions are excluded from this calculation, but the positions identified as “entry level” will be reviewed in 2020/21. In 2019/20, only 65% of jobs were filled with internal candidates, and the target of 80% has never been achieved. Halifax Water has been working on a new approach to employee development as part of a broader Talent Management initiative, and will be introducing some career planning brochures, career paths, and job profiles to help employees identify what education, competencies and experience are required for various positions. Halifax Water has programs in place to help employees obtain additional training and education to further their career with the utility.

The Corporate Balanced Scorecard also includes an indicator of employee satisfaction which is derived from a survey that is carried out in the fall of the year. The 2019/20 survey resulted in a B+, which is an improvement over the 2018/19 survey result of B. The target for this OI is an A-. With the 2019 survey having a record response rate of 74%, and significant improvements in categories such as higher levels of job satisfaction, employee engagement and willingness to recommend Halifax Water as an employer, it is hoped that the target of A- will be achieved with continued focus and concentrated effort.

The number of days of absenteeism for employees is also a measure of satisfaction and motivation. Accordingly, the average number of days that an employee was absent this year stood at 7.54 down slightly from 7.8 in 2018/19 and just above the target of less than 7 days. This result is better than most public sector organizations and compares favourably with the private sector.

Organizational Award Program

Similar to previous years, 12 organizational indicators were incorporated into an Organizational Award Program. The selected organizational indicators are determined to be the most objective and outward looking to the customers and environment we serve.

The following is a summary of our organizational indicators and corresponding award point values for the 2019/20 fiscal year:

<u>Organizational Indicator</u>	<u>2019/20 Results</u>
Water Quality Master Plan Objectives	0.82
Customer Water Quality Survey Results	1.0
Customer Service Survey Results	1.0
Operating Expense/Revenue Ratio (Gateway Indicator)	1.0
Water Loss Control Reduction	0.0
Inflow & Infiltration Reduction	1.0
Percentage that GIS is Operational	1.0
# of Lost Time Accidents per 100 Employees (Gateway Indicator)	1.0
# of Accidents per 1,000,000 kms driven	0.8
Percentage of WWTfs Compliant with NS Environment Permits	0.0
Energy Management - Water & Wastewater	1.0
Biosolids Residuals Handling	<u>1.0</u>
*TOTAL SCORE	9.62

**The maximum attainable score is 12.0, which equates to a \$1,000 award.*

In accordance with the Organizational Award Program criteria, eligible employees received \$862 each in recognition of the exceptional performance.

BUDGET IMPLICATIONS

With the operating expense-to-revenue ratio less than the target, funds were available within the 2019/20 operations budget for the Organizational Award Program.

ATTACHMENT

Summary - 2019-20 Corporate Balanced Scorecard – Final Results, June 25, 2020

Report Prepared by: Original Signed By: James Campbell, Communications and Public Relations Manager 902-490-4604
--

Corporate Balanced Scorecard			
Organizational Indicators	2019/20 Target	2019/20 Results	2020/21 Target
High Quality Drinking Water			
Adherence with 5 objectives of Water Quality Master Plan for all water systems - Percentage of sites achieving targets	80 - 100/100	82	80 - 100/100
Bacteriological tests - Percentage free from Total Coliform	99.3%	99.9%	99.3%
Customer satisfaction about water quality - Percentage from customer survey	85%	87%	85%
Service Excellence			
Customer satisfaction with service - Percentage from customer survey	90%	96%	90%
Water service outages - Number of connection hours/1000 customers	200	133	200
Wastewater service outages – Number of connection hours/1000 customers	8	1.64	8
Average speed of answer – Percentage of calls answered within 20 seconds * Revised in 2019/20. Was previously average call wait time.	60 – 65%	32%	70%
Responsible Financial Management			
Operating expense/revenue ratio percentage	0.815	0.780	0.838
Annual cost per customer connection – Water	\$517	\$469	\$522
Annual cost per customer connection – Wastewater (LdeM)	\$708	\$718	\$721
Effective Asset Management			
Water leakage control – target leakage allowance of 160 litres/service connection/day	160-170	176	160-170
I&I reduction - Number of inspections to identify private property discharge of stormwater into the wastewater system *Note 1	900	1086	450 *recommended target
Peak flow reduction from wet weather management capital projects * New in 2019/20 *Note 2	34-38 l/sec	Data is not available	34-38 l/sec
Percentage of time GIS and Cityworks are available	95-97%	99.88%	96-98%
Capital budget expenditures - Percentage of budget spend by end of fiscal year *Note 3	80-90% approved	Data is not available	80-90% approved
Workplace Safety and Security			
Average score on internal safety audits *New in 2019/20	85-95%	89%	85-95%
NS Labour and Advanced Education compliance - # of Incidents with written compliance orders	0-2	0	0-2
Lost time accidents -Number of accidents resulting in lost time per 100 employees	2.0-3.0	1.6	2.0-3.0
Safe driving - Number of traffic Accidents per 1,000,000 km driven (maximum of 5)	4	4.2	4



Training - Number of employees trained or re-certified before due date	80-90%	81%	80-90%
Percentage of completed safety talks	80-90%	81%	80-90%
Regulatory Compliance			
Percentage of public health and environmental regulatory infractions resulting in a summary offense ticket, ministerial order, or prosecution *Note 4	0-2	0 SOTs 4 Warnings 7 Directives	0-2
Percentage of WWTFs complying with NSE approval permits	95-100%	91.2%	95-100%
Environmental Stewardship			
Number of ICI properties inspected by Pollution Prevention each year	500	500	440 *recommended target
Energy management kwh/m3 reduction associated with capital projects	3%	4.67%	3%
Bio-solids residual handling - % of sludge meeting bio-solids concentration targets	92-97%	99.2%	92-97%
Motivated and Satisfied Employees			
Number of arbitrations divided by total number of grievances	0	0.07	0
Percentage of jobs filled with internal candidates	80%	65%	80%
Employee satisfaction survey result	A-	B+	A
Average number of days absenteeism *Note 5	<7	7.54	<7

Notes:

1. I&I reduction – Halifax Water is considering changes to this OI based on discussions with a NSUARB consultant.
2. Peak flow reduction from wet weather management capital projects was a new OI in 2019/20. The NSUARB approval of the capital project was delayed in 2019-20 so the project carries forward to 2020/21
3. The data used to calculate the percentage of capital budget spend by end of fiscal year is going through a quality assurance process, and the final result will be available prior to the June 25, 2020 Board meeting.
4. Percentage of public health and environmental regulatory infractions resulting in a summary offense ticket, ministerial order, or prosecution – Halifax Water’s activities have not changed; however, the tools in which NSE uses to manage permits and corrective actions has.
5. Average number of days absenteeism results for 2019/20, and 2020/21 may be impacted by COVID-19.



TO: Craig MacMullin, MBA, CPA, CGA, Chair, and Members of the Halifax Regional Water Commission Board

SUBMITTED BY:

Original Signed By: _____
Louis de Montbrun, CPA, CA, Director, Corporate Services/CFO

Original Signed By: _____
Reid Campbell, P.Eng. Director, Water Services

Original Signed By: _____
Susheel Arora, M.A.Sc., P.Eng. Director, Wastewater & Stormwater Services

Original Signed By: _____
Kenda MacKenzie, P.Eng. Director, Regulatory Services

APPROVED: Original Signed By: _____
Cathie O'Toole, MBA, CPA, CGA, ICD.D, General Manager

SUBJECT: Financial and Operations Information Report

INFORMATION REPORT

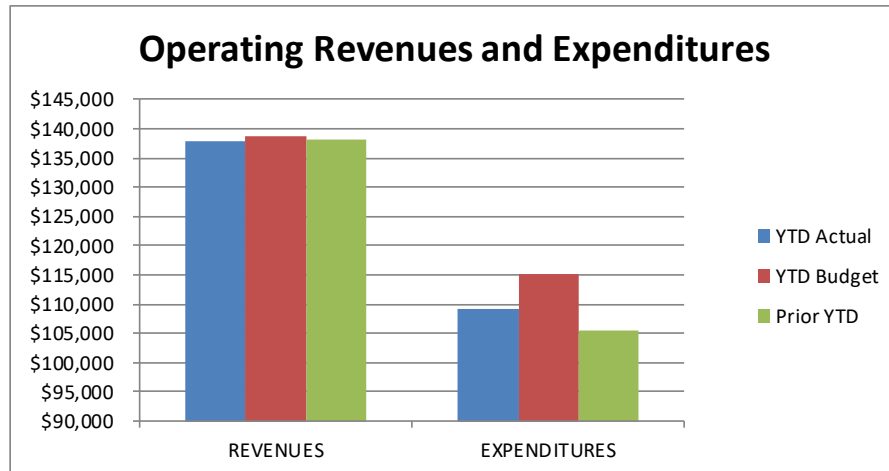
ORIGIN:

Regular update.

This report provides a high level overview of financial and operational performance for the utility. Financial results are presented first, followed by indicators and statistics for water and wastewater.

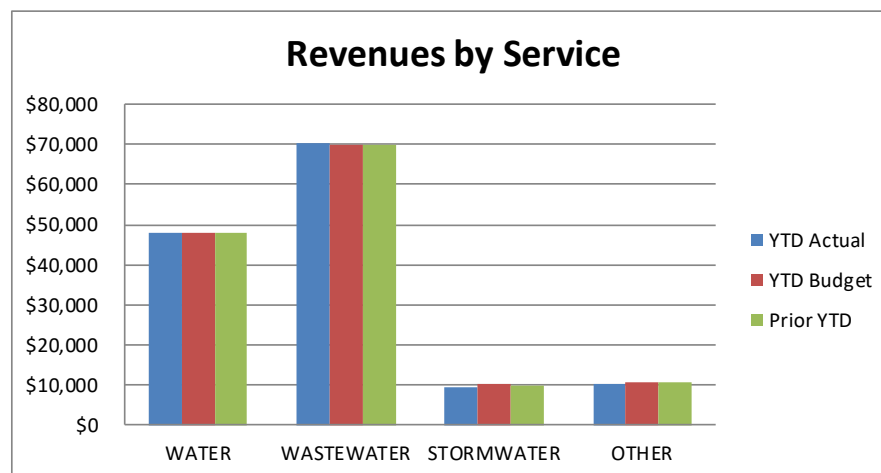
FINANCIAL

**HALIFAX WATER
UNAUDITED FINANCIAL INFORMATION
APRIL 1/19 - MARCH 31/20 (12 MONTHS)
'000**



OPERATING REVENUES AND EXPENDITURES

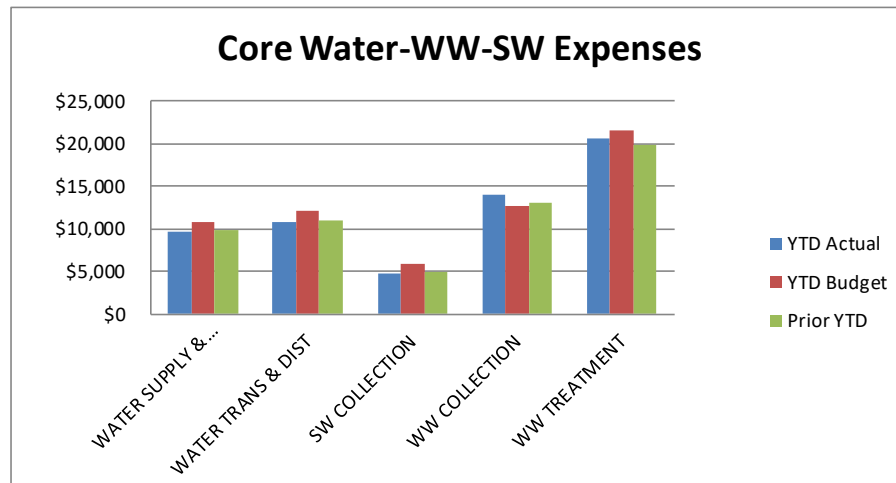
	YTD Actual	YTD Budget	Prior YTD	% of Budget
REVENUES	\$137,750	\$138,727	\$138,202	99.30%
EXPENDITURES	\$109,326	\$115,086	\$105,524	95.00%
	\$28,424	\$23,641	\$32,678	120.23%



REVENUES BY SERVICE (METERED SALES AND SITE GENERATED CHARGE)

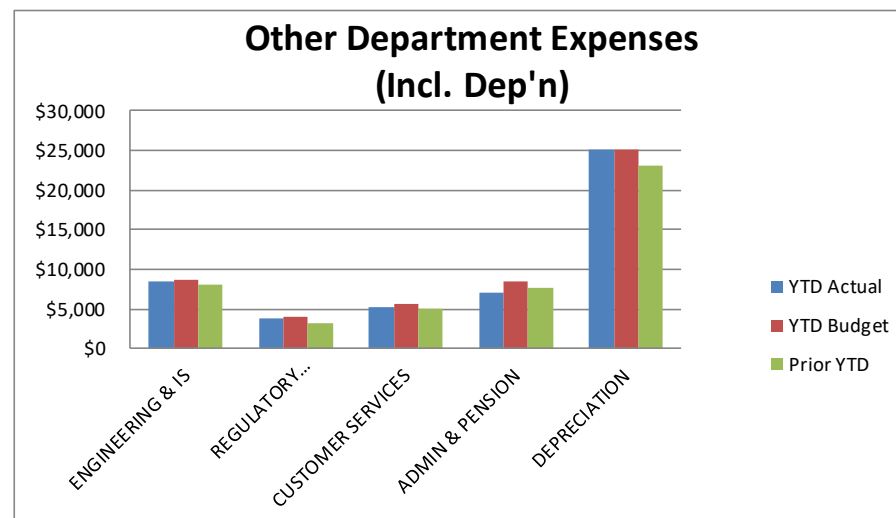
	YTD Actual	YTD Budget	Prior YTD	% of Budget
WATER	\$47,918	\$47,758	\$48,040	100.34%
WASTEWATER	\$70,494	\$70,031	\$69,901	100.66%
STORMWATER	\$9,196	\$10,186	\$9,741	90.28%
OTHER	\$10,142	\$10,752	\$10,520	94.33%
	\$137,750	\$138,727	\$138,202	99.30%

HALIFAX WATER
UNAUDITED FINANCIAL INFORMATION
APRIL 1/19 - MARCH 31/20 (12 MONTHS)
'000



CORE WATER-WW-SW EXPENDITURES

	YTD Actual	YTD Budget	Prior YTD
WATER SUPPLY & TRTMNT	\$9,573	\$10,833	\$9,767
WATER TRANS & DIST	\$10,843	\$12,165	\$10,903
SW COLLECTION	\$4,808	\$5,789	\$4,950
WW COLLECTION	\$13,963	\$12,756	\$13,125
WW TREATMENT	\$20,633	\$21,524	\$19,789
	\$59,820	\$63,067	\$58,534



OTHER DEPARTMENT EXPENSES (INCL DEP'N)

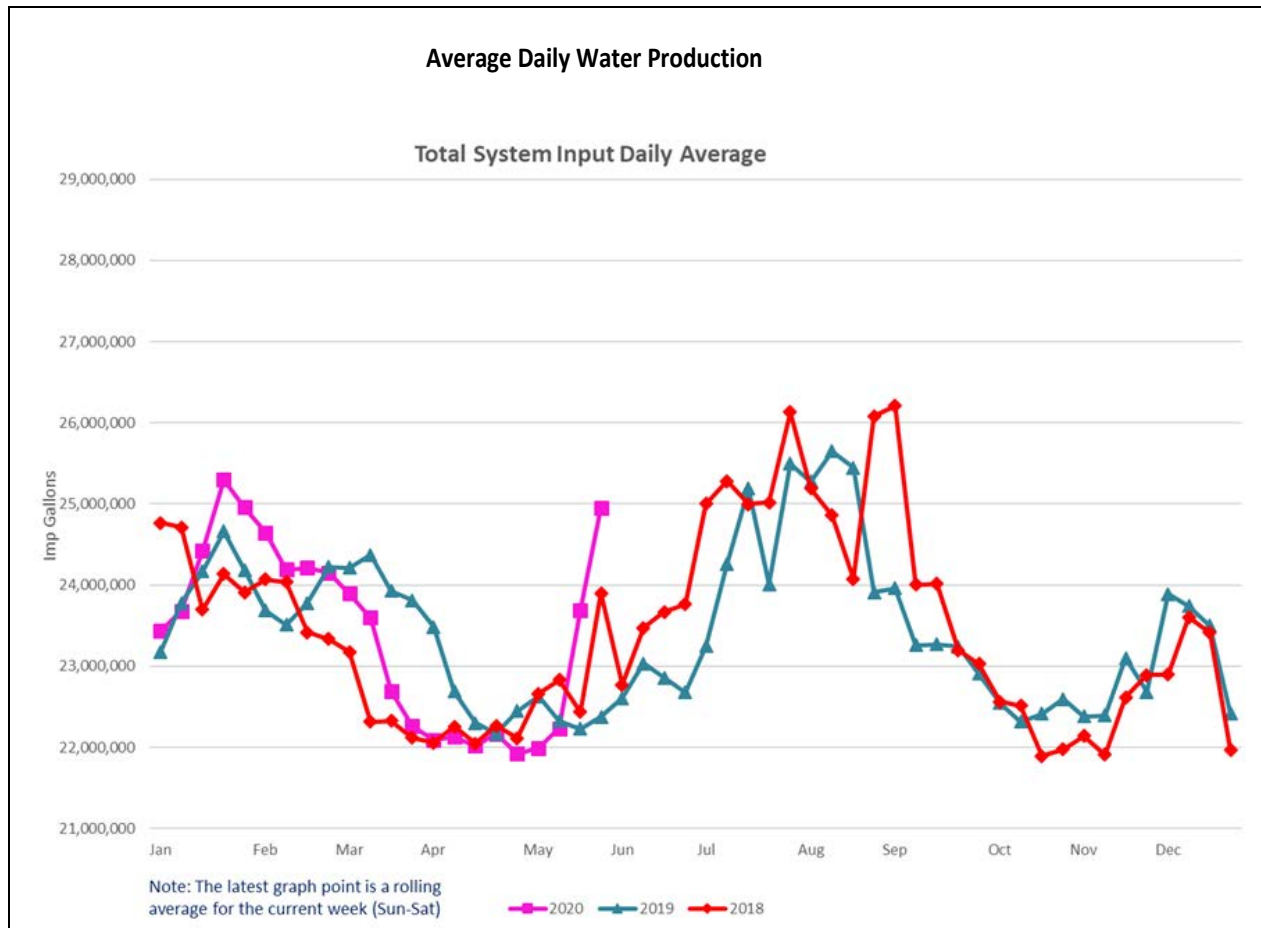
	YTD Actual	YTD Budget	Prior YTD
ENGINEERING & IS	\$8,436	\$8,579	\$8,156
REGULATORY SERVICES	\$3,781	\$4,081	\$3,152
CUSTOMER SERVICES	\$5,167	\$5,727	\$4,920
ADMIN & PENSION	\$7,044	\$8,548	\$7,756
DEPRECIATION	\$25,078	\$25,084	\$23,006
	\$49,506	\$52,019	\$46,990

ITEM# 1-I

HRWC Board

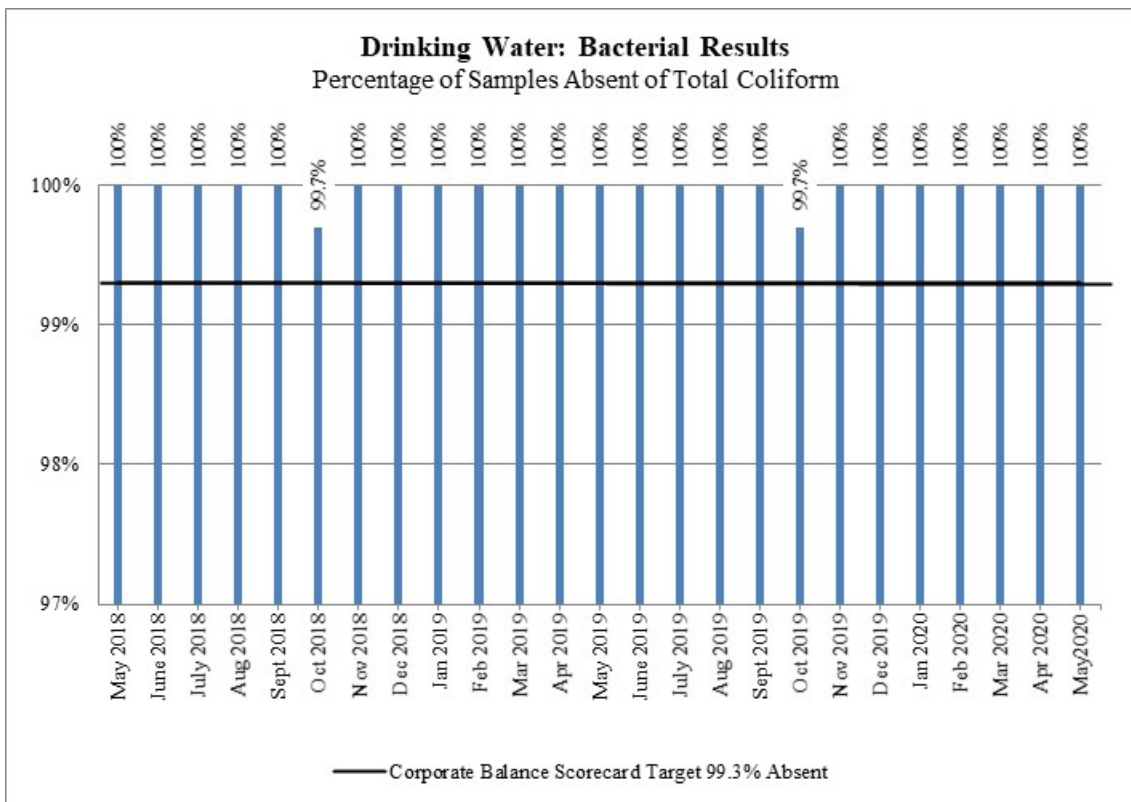
June 25, 2020

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Regional Water Main Break/Leak Data		
Year	Total Breaks/Leaks	Current 12 Month Rolling Total (up to May 31, 2020)
2019/20	191	172
2018/19	226	
2017/18	206	
2016/17	216	
2015/16	226	
Total	1071	
Yr. Avg.	214.2	

Water Accountability
Losses per Service Connection/Day (International Water Association Standard)
<i>Period Ending March, 2020</i>
Real Losses: 176 litres
CBS Target: 160



Water Quality Master Plan Objectives				
2019-2020 Q4				
Objective	Total Sites	% Sites Achieving Target	All Sites: 90th Percentile < 15 µg/L	CBSC Awarded Points
Disinfection	69	99%	---	19
Total Trihalomethanes	26	81%	---	3
Haloacetic Acids	22	100%	---	20
Particle Removal	5	100%	---	20
Corrosion Control	69	---	4.08	20
Summary Total				82

Score: 82/100

In this report each facility is assessed using monthly or quarterly averages, depending on the averaging period specified in its Approval to Operate.

Wastewater Treatment Facility	Wastewater Treatment Facility Compliance Summary																	
	Rolling Averages - March, April and May 2020																	
	CBOD ₅ (mg/L)		TSS (mg/L)		E. coli (counts/ 100mL)		pH		Ammonia (mg/L)		Phosphorous (mg/L)		TRC (mg/L)		Dissolved Oxygen (mg/L)		Toxicity	Trend
NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.			
Halifax	50	26	40	15	5000	91	6-9	6.6	-	-	-	-	-	-	-	Not acutely lethal	Continued	
Dartmouth	50	37	40	42	5000	50	6-9	6.6	-	-	-	-	-	-	-	Not acutely lethal	Continued	
Herring Cove	50	20	40	18	5000	24	6-9	6.6	-	-	-	-	-	-	-	Not acutely lethal	Continued	
Eastern Passage	25	9	25	13	200	15	6-9	6.6	-	-	-	-	-	-	-	Not acutely lethal	Continued	
Mill Cove	25	13	25	19	200	15	6-9	6.5	-	-	-	-	-	-	-	Not acutely lethal	Continued	
Springfield	20	9	20	25	200	43	6-9	6.9	-	-	-	-	-	-	-	-	Improved	
Frame	20	4	20	1	200	10	6-9	7.0	-	-	-	-	-	-	-	-	Continued	
Middle Musq.	20	7	20	6	200	27	6-9	7.3	-	-	-	-	-	-	-	-	Continued	
Uplands	20	5	20	8	200	14	6-9	6.8	-	-	-	-	-	-	-	-	Continued	
Aerotech	5	2	5	1	200	10	6-9	7.3	5.7 W 1.2 S	0.3	0.13	0.04	-	6.5	8.7	Not acutely lethal	Continued	
North Preston	10	6	10	7	200	10	6-9	6.7	3	1.2	1.5	0.3	-	-	-	-	Continued	
Lockview	20	5	20	13	200	22	6.5-9	7.0	8.0 S	0.6	1.2 S	0.3	-	-	-	-	Continued	
Steeves (Wellington)	20	5	20	25	200	10	6.5-9	7.0	14.4 S	0.1	1.0 S	0.5	-	-	-	-	Continued	
BLT	15	7	20	20	200	13	6-9	6.8	5 W 3 S	7	3 W 1 S	2	0.02 *	0.10	-	Not acutely lethal	Continued	
Avg. of all Facilities	11		15		25		6.8		1.8		0.5		0.10		8.7			

NOTES & ACRONYMS:

CBOD₅ - Carbonaceous 5-Day Biochemical Oxygen Demand

TSS - Total Suspended Solids

* TRC - Total Residual Chlorine - Maxxam can only measure 0.10 mg/L residual; results of 0.1 mg/L are compliant

BDL - Below Detection Limit

W / S - Winter / Summer compliance limits

NSE requires monthly averages be less than the NSE Compliance Limit for each parameter (Dartmouth, Eastern Passage, Halifax, Herring Cove, Mill Cove)

NSE requires quarterly averages be less than the NSE Compliance Limit for each parameter (Aerotech, Lockview, Mid. Musq., Frame, BLT, Uplands, North Preston, Steeves, Springfield)

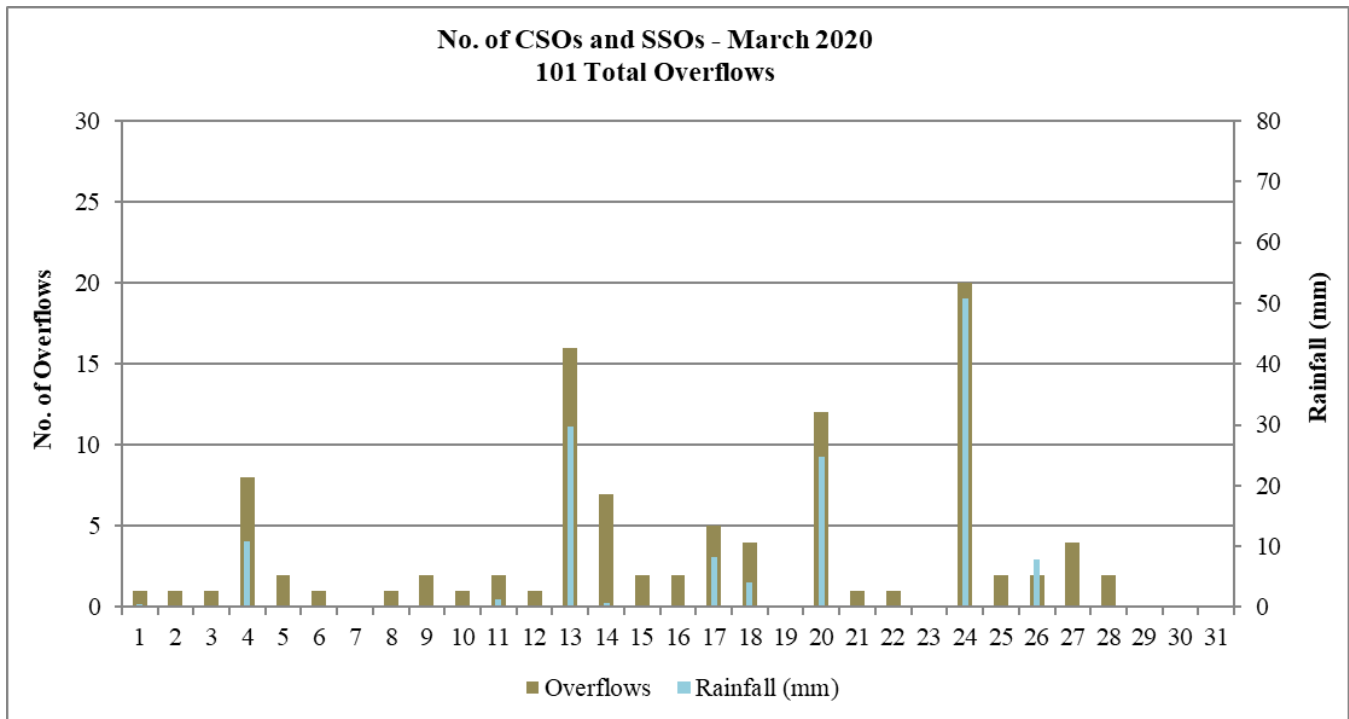
Continued - All parameters remain essentially unchanged since the last report

Improved - One or more parameter(s) became compliant since the last report

Declined - One or more parameters(s) became non-compliant since the last report

LEGEND

	NSE Compliant
	NSE Non-Compliant

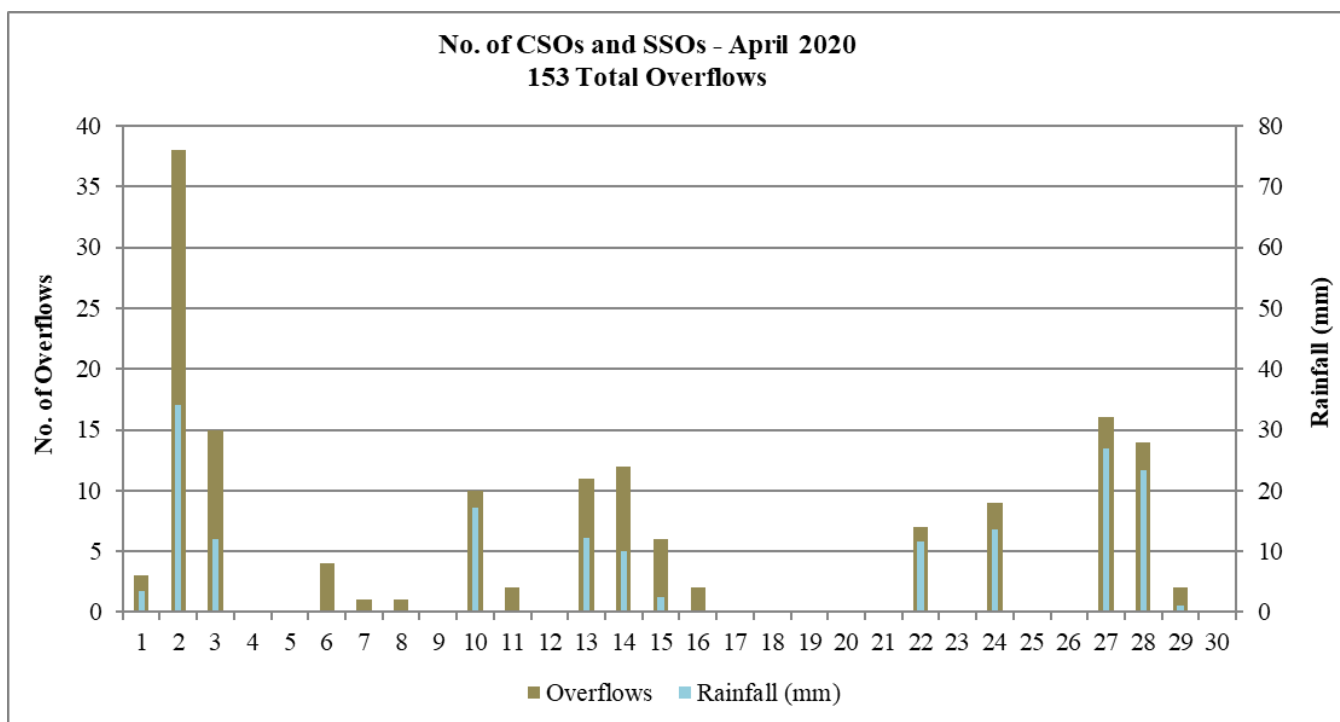


NOTES & ACRONYMS: CSO - Combined Sewer Overflow SSO - Sanitary Sewer Overflow

- Rainfall data is from Halifax Water's rain gauge at the Halifax WWTF.
- There were twenty-two overflows on days when there was no recorded rainfall, as follows:
 1. March 3: The CSO at Chain Rock PS & CSO was the result of a blockage caused by debris.
 2. March 5: The CSO at Chain Rock PS & CSO was the result of a blockage caused by debris. The CSO at Maitland St PS & CSO was due to rain on the previous day.
 3. March 6: The CSO at Chain Rock PS & CSO was the result of a blockage caused by debris.
 4. March 8: The CSO at Chain Rock PS & CSO was the result of a blockage caused by debris.
 5. March 9: The CSOs at Chain Rock PS & CSO were the result of blockages caused by debris.
 6. March 10: The CSO at Chain Rock PS & CSO was the result of a blockage caused by debris.
 7. March 12: The CSO at Chain Rock PS & CSO was the result of a blockage caused by debris.
 8. March 15: The CSOs at Maitland St PS & CSO and Maritime Museum CSO were the result of blockages caused by debris.
 9. March 16: The CSOs at Chain Rock PS & CSO were the result of blockages caused by debris.
 10. March 22: The SSO at Mill Cove Surge Tank was due to rain on previous days.
 11. March 25: The SSO at Herring Cove PS and the CSO at Maitland St PS & CSO were due to rain on the previous day.

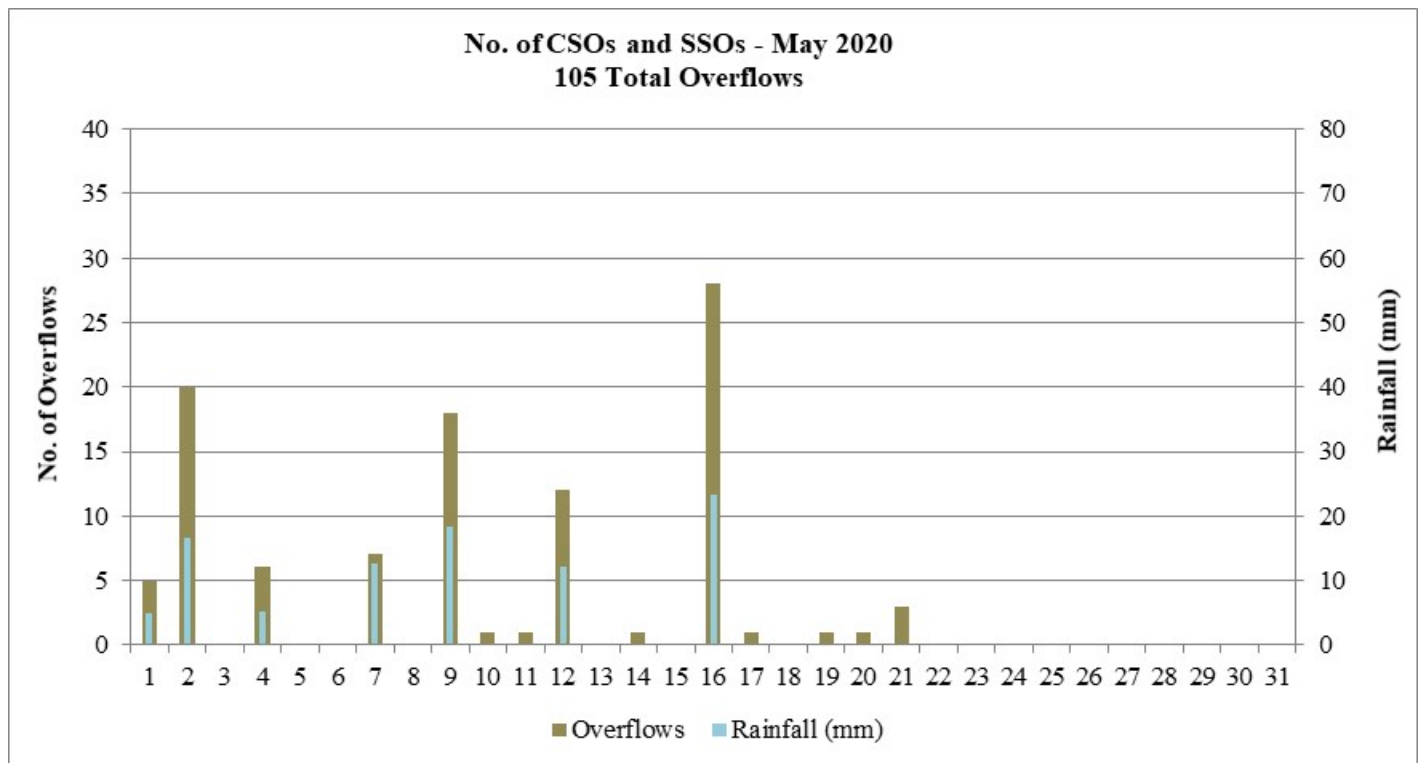
12. March 7: The CSOs at Chain Rock PS & CSO were the result of blockages caused by debris. The CSOs at Duffus St PS and Maitland St PS & CSO were due to rain on the previous day.

13. March 28: The CSO at Chain Rock PS & CSO was the result of a blockage caused by debris. The CSO at Duffus St PS was due to rain on previous days.



NOTES & ACRONYMS: CSO - Combined Sewer Overflow SSO - Sanitary Sewer Overflow

- Rainfall data is from Halifax Water's rain gauge at the Halifax WWTF.
- There were eight overflows on days when there was no recorded rainfall, as follows:
 1. April 6: The CSO at Duffus St PS due to a power bump causing radio communication loss and a resultant brief closure of the influent gate at the HWWTF. The SSO at Valleyford Ave Lift Station was due to rain on previous days. The CSO at Wallace St CSO was the result of a blockage caused by debris. The SSO at Herring Cove PS was due to a mechanical failure of the pump.
 2. April 7: The CSO at Duffus St PS was due to rain on previous days.
 3. April 8: The CSO at Duffus St PS was due to rain on previous days.
 4. April 16: The CSO at Duffus St PS and the SSO at Mill Cove Surge Tank were due to rain on the previous day.



NOTES & ACRONYMS: CSO - Combined Sewer Overflow SSO - Sanitary Sewer Overflow

- Rainfall data is from Halifax Water's rain gauge at the Halifax WWTF.
- There were nine overflows on days when there was no recorded rainfall, as follows:

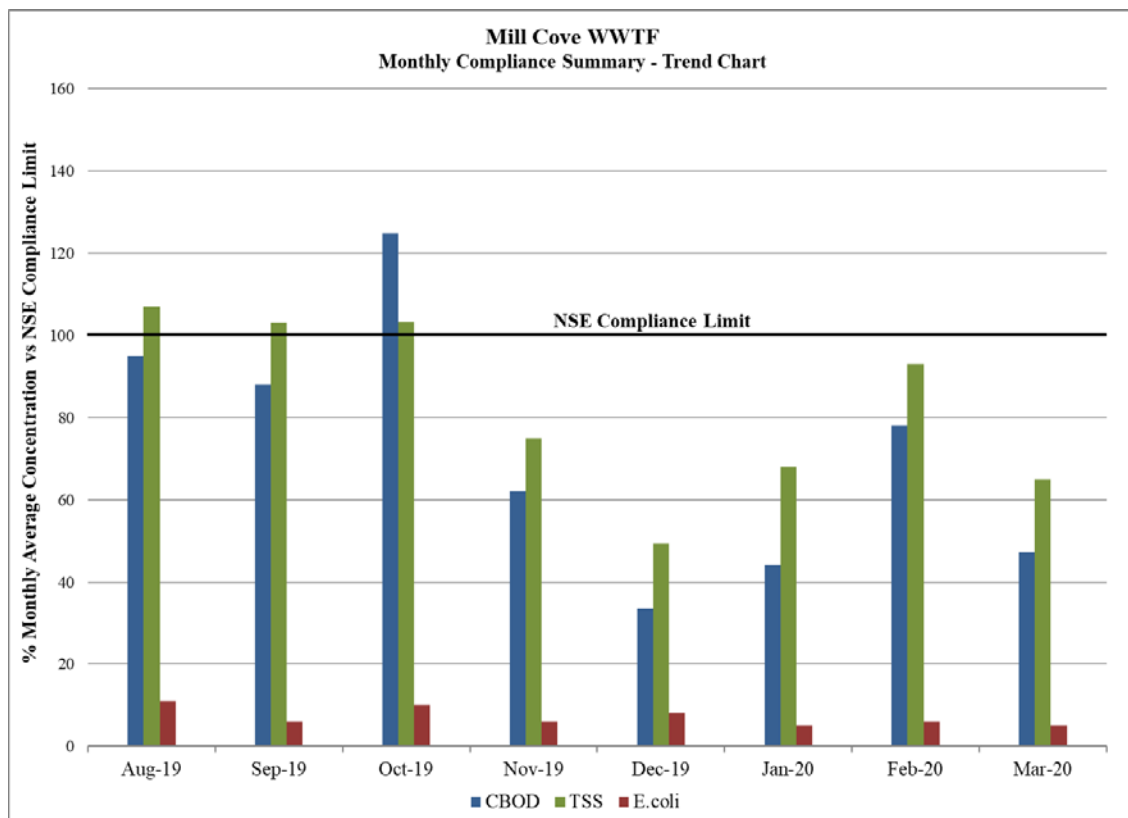
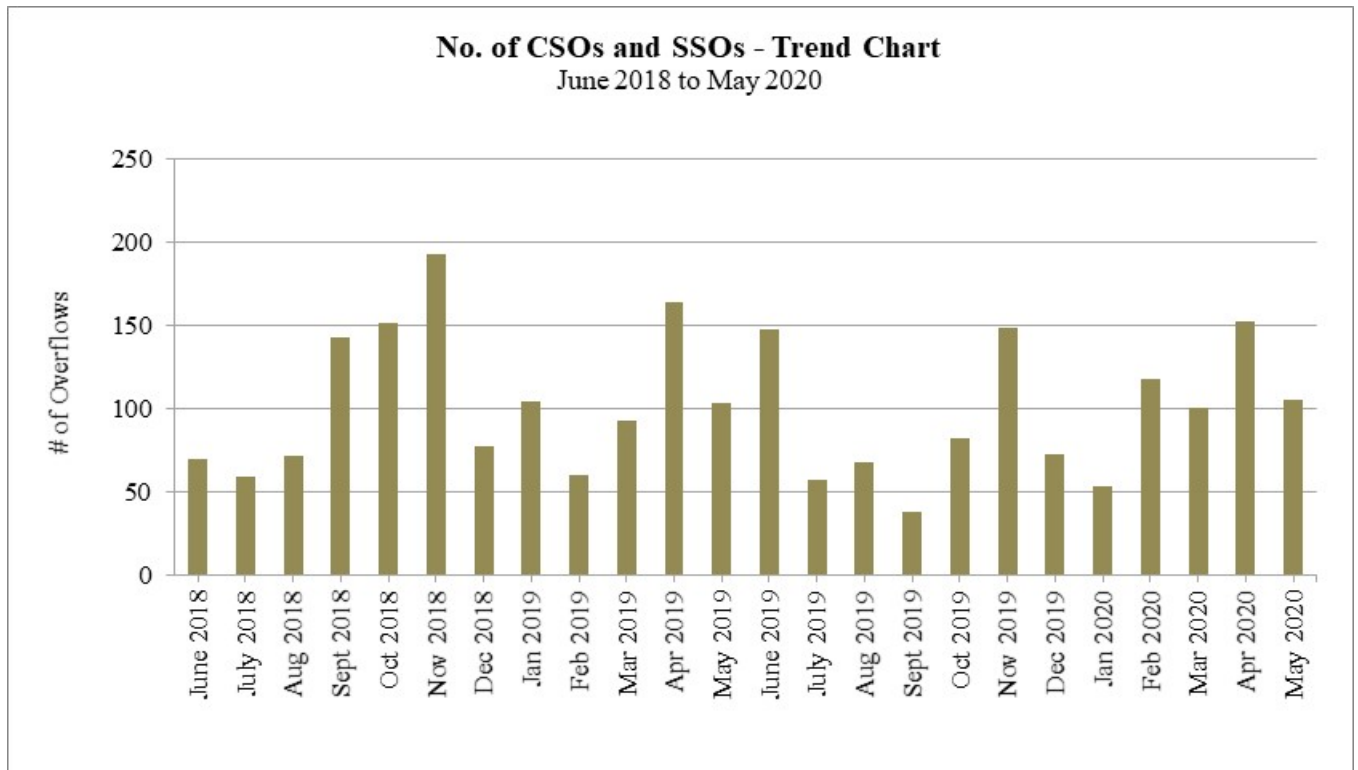
1. May 10: The CSO at Duffus St PS was due to rain on previous days.
2. May 11: The SSO at Herring Cove PS was due to a brief power failure.
3. May 14: The CSO at Duffus St PS was due to rain on previous days.
4. May 17: The SSO at Mill Cove Surge Tank was due to rain on the previous day.
5. May 19: The CSO at Duffus St PS was due to an unknown reason.
6. May 20: The CSO at Duffus St PS was due to an unknown reason.
7. May 21: The CSOs at Lyle St CSO, Old Ferry Road PS & CSO and Melva St PS & CSO were due to a power bump causing radio communication loss and a resultant brief closure of the influent gate at the DWWTF.

ITEM# 1-I

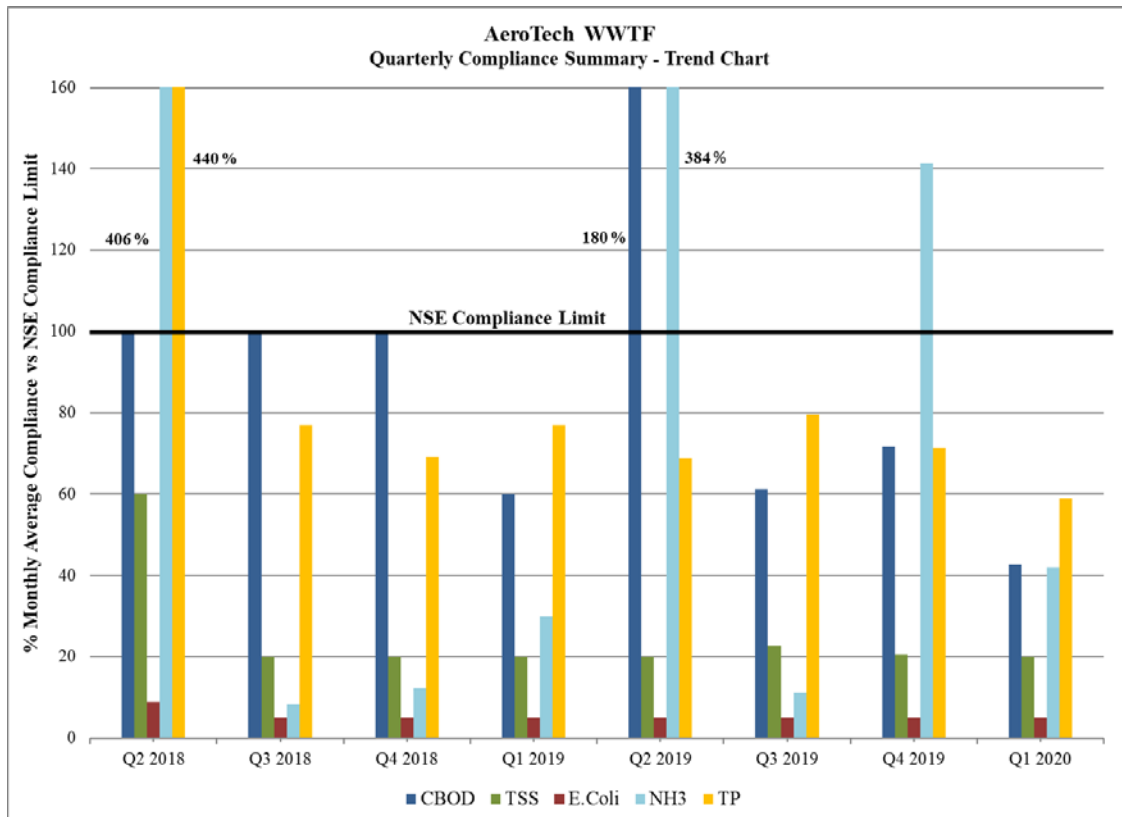
HRWC Board

June 25, 2020

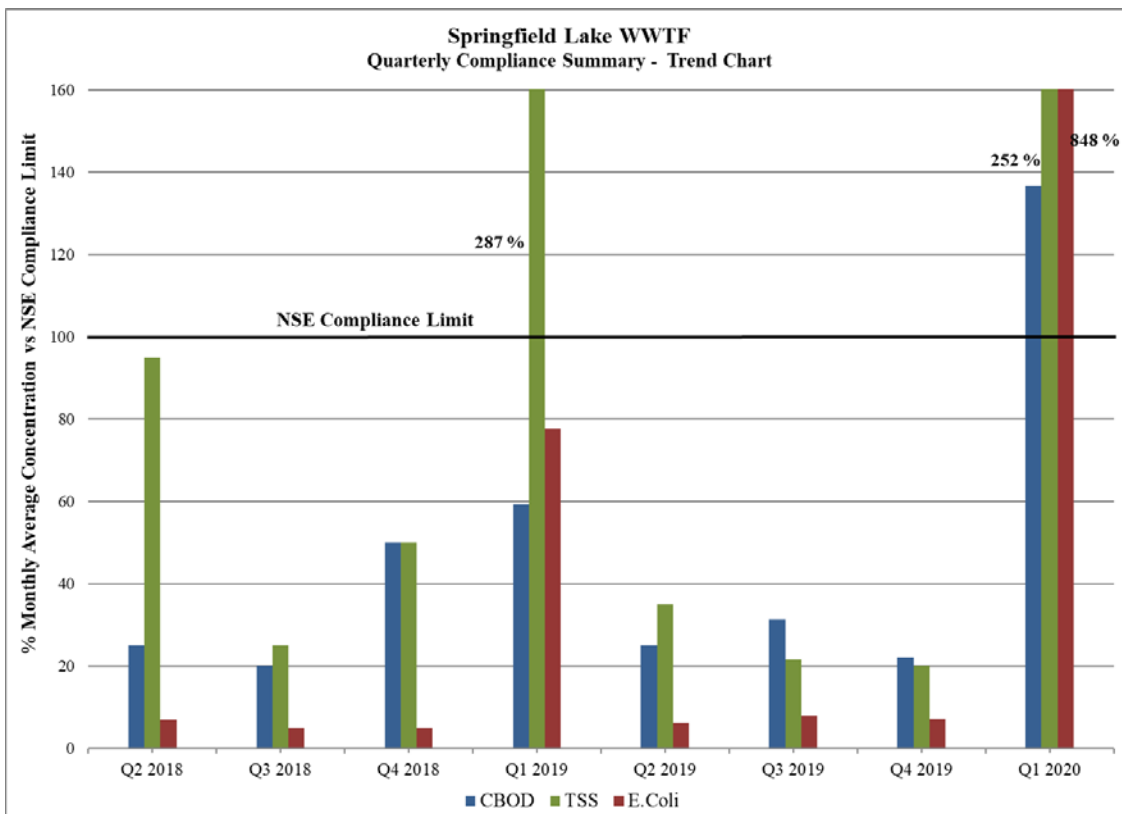
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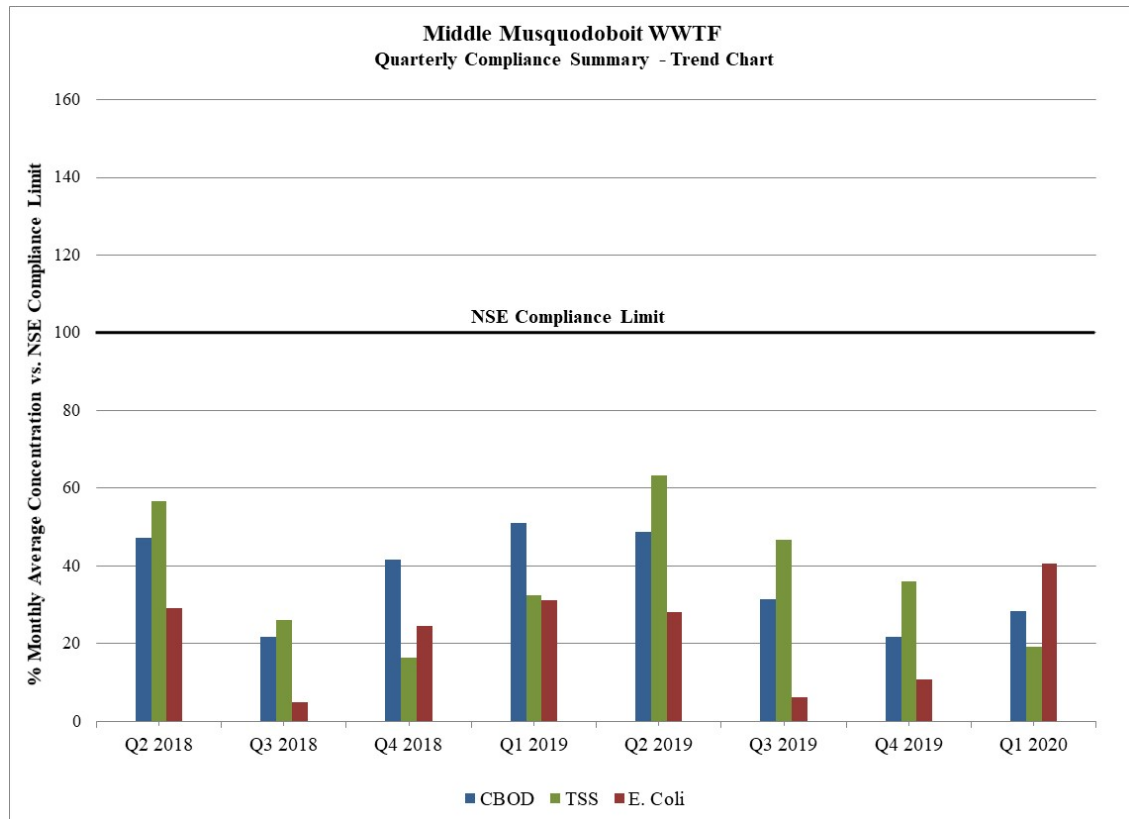
Lower numbers represent better performance.



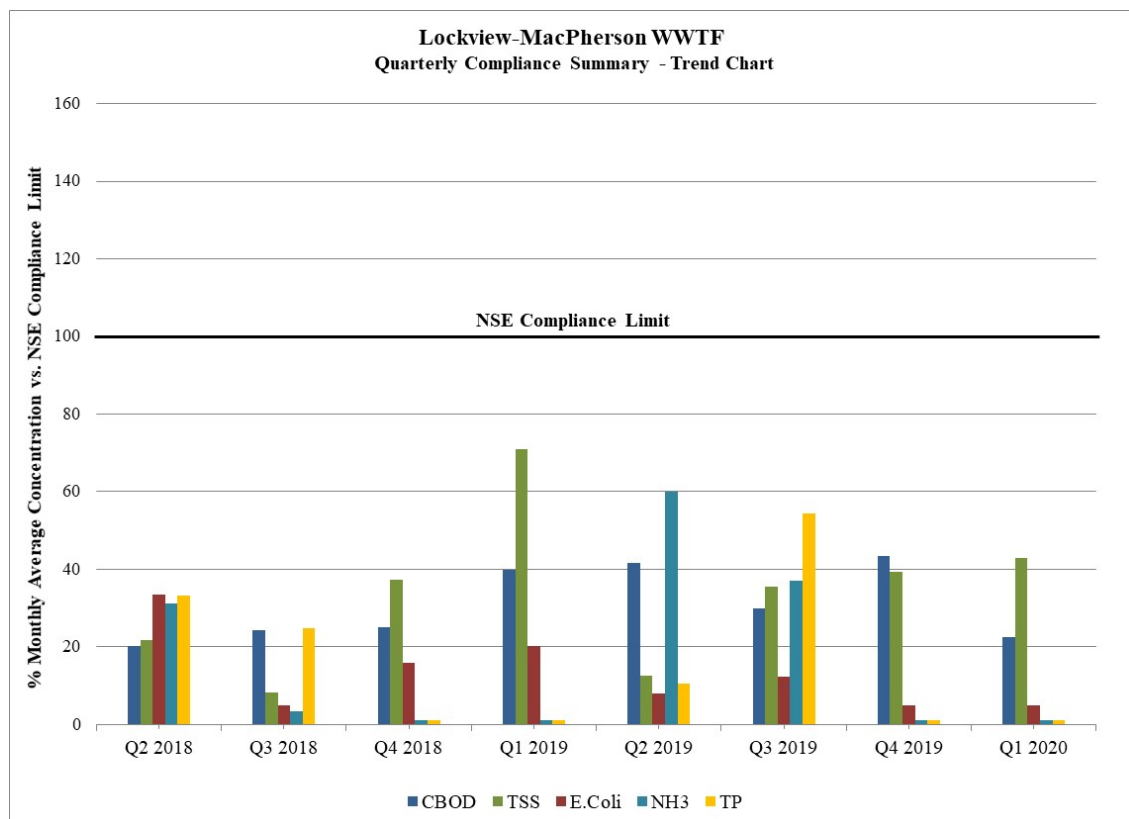
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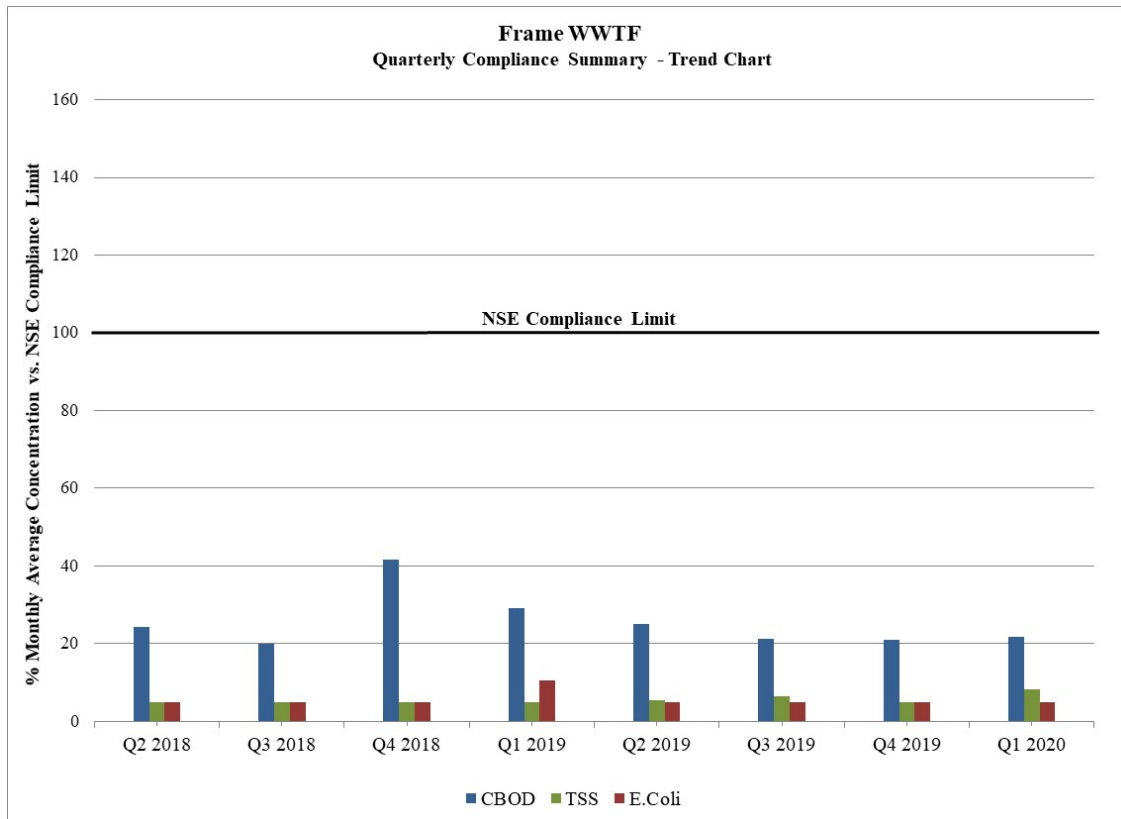
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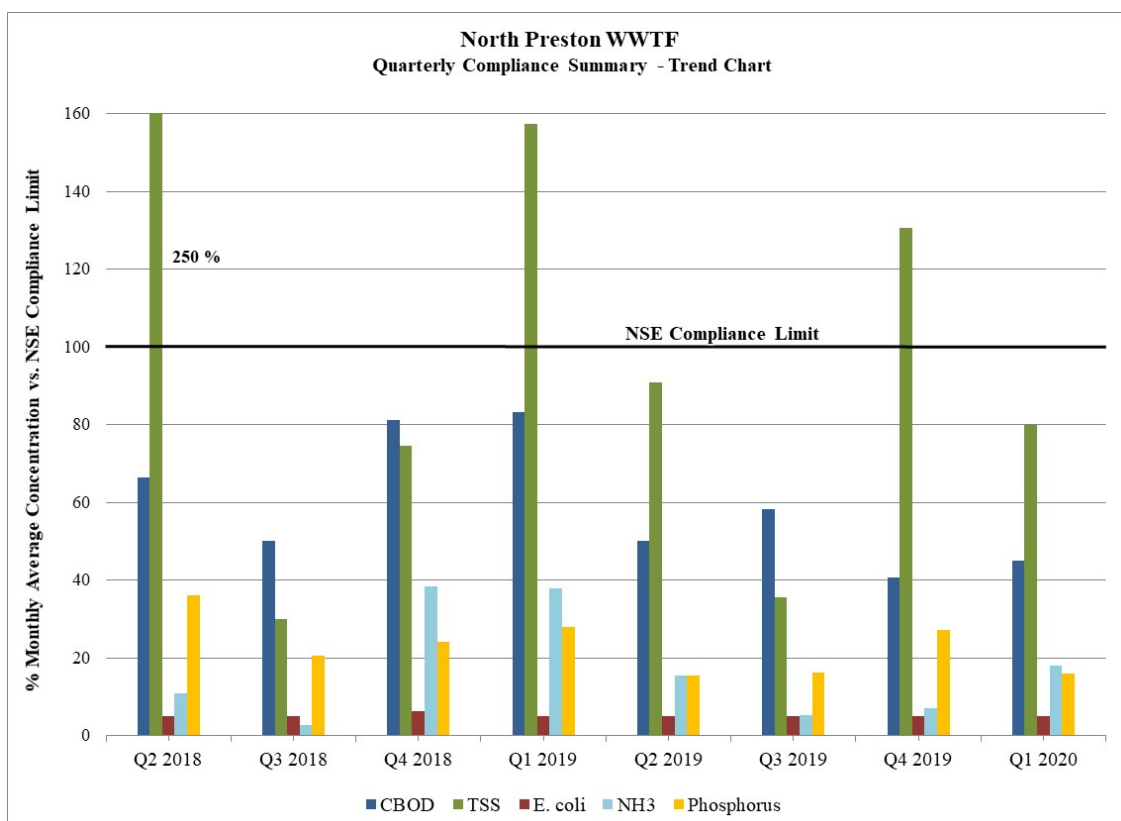
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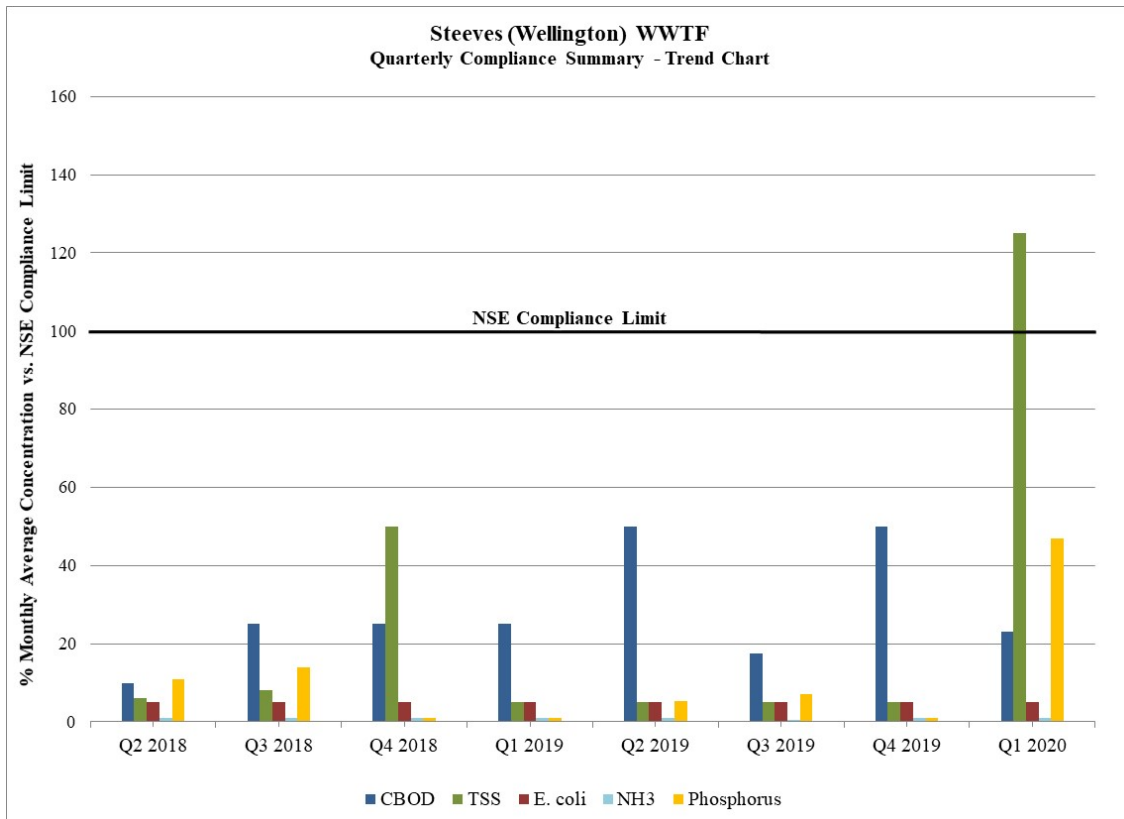
Lower numbers represent better performance.



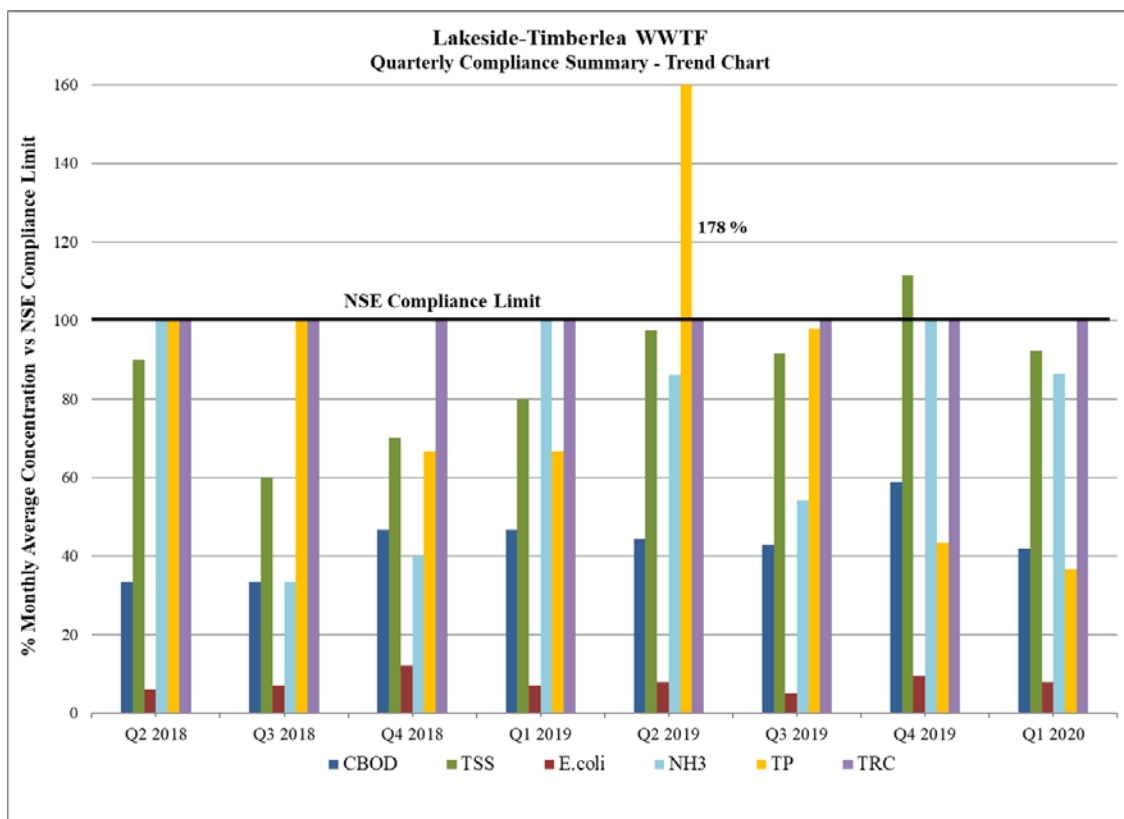
Lower numbers represent better performance.



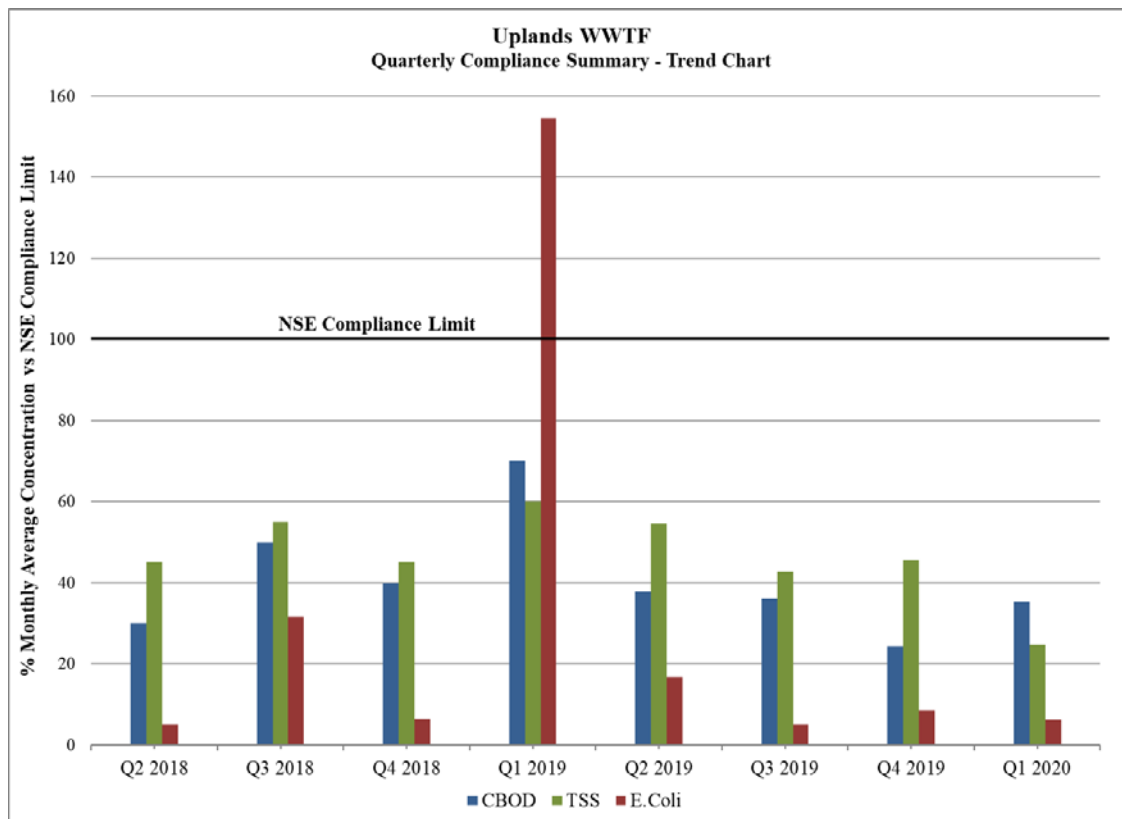
Lower numbers represent better performance.



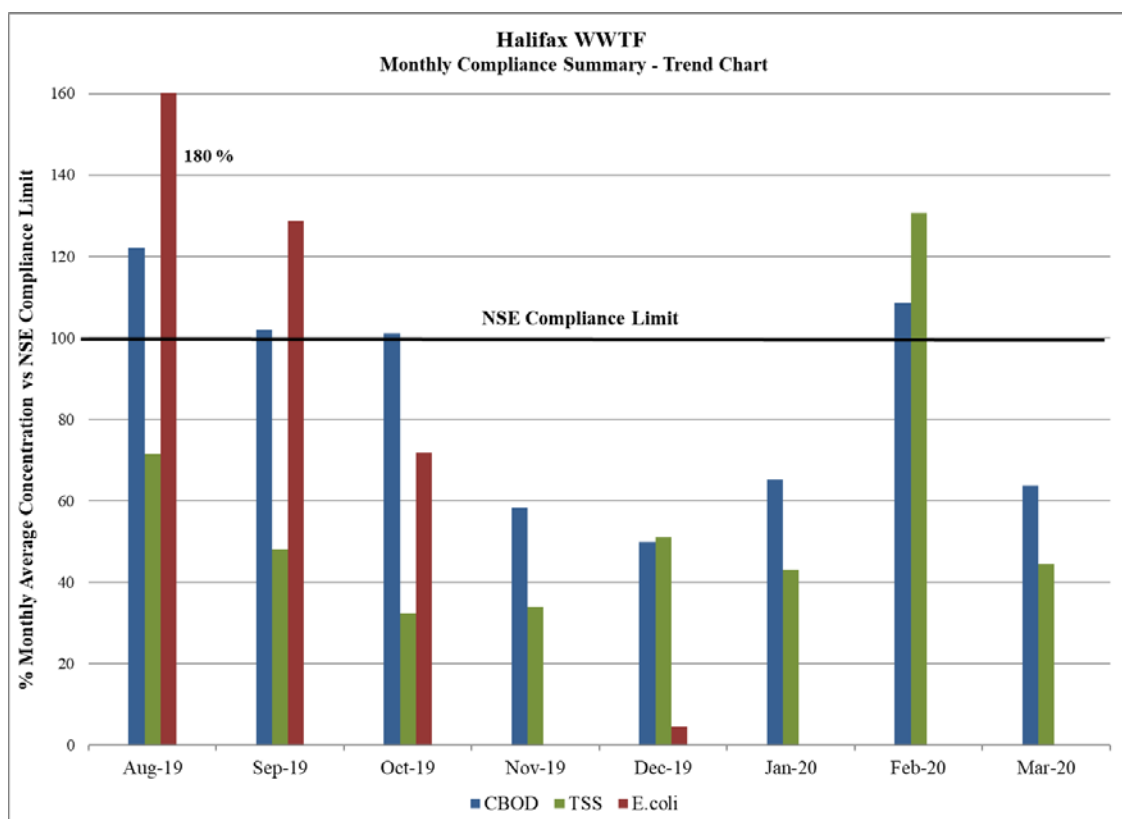
Lower numbers represent better performance.



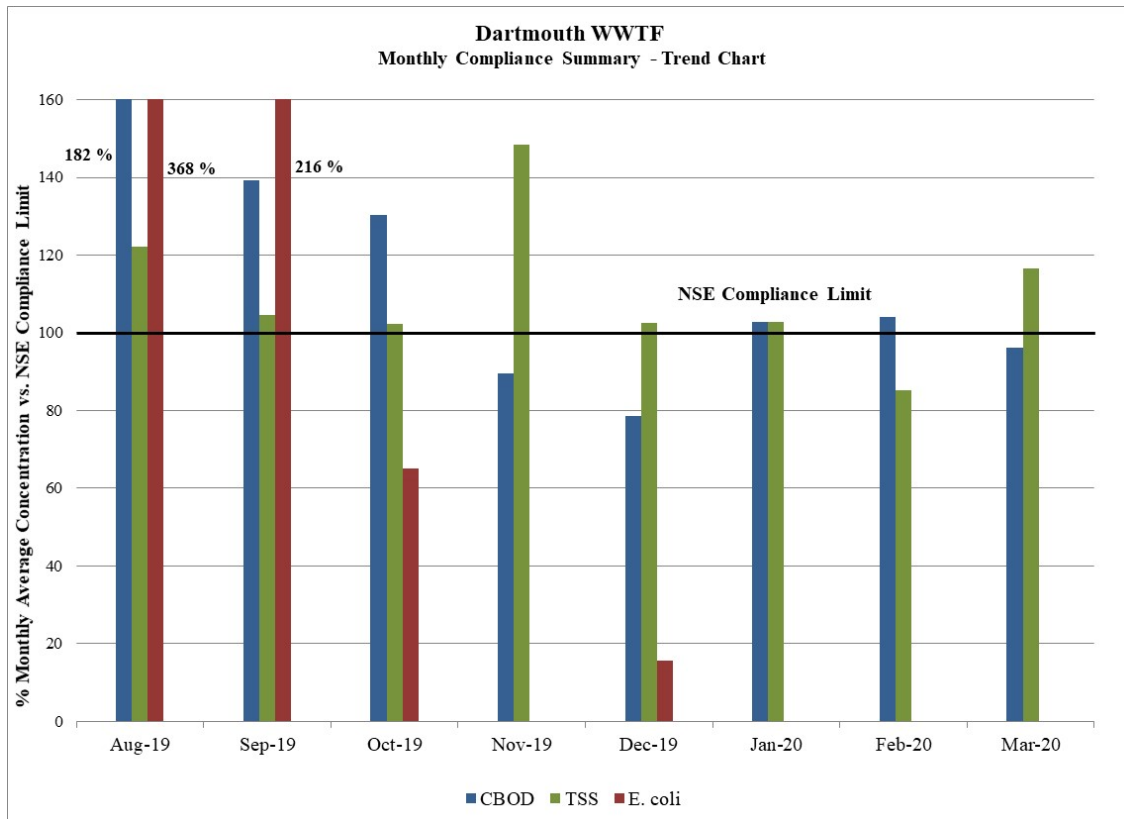
Lower numbers represent better performance.



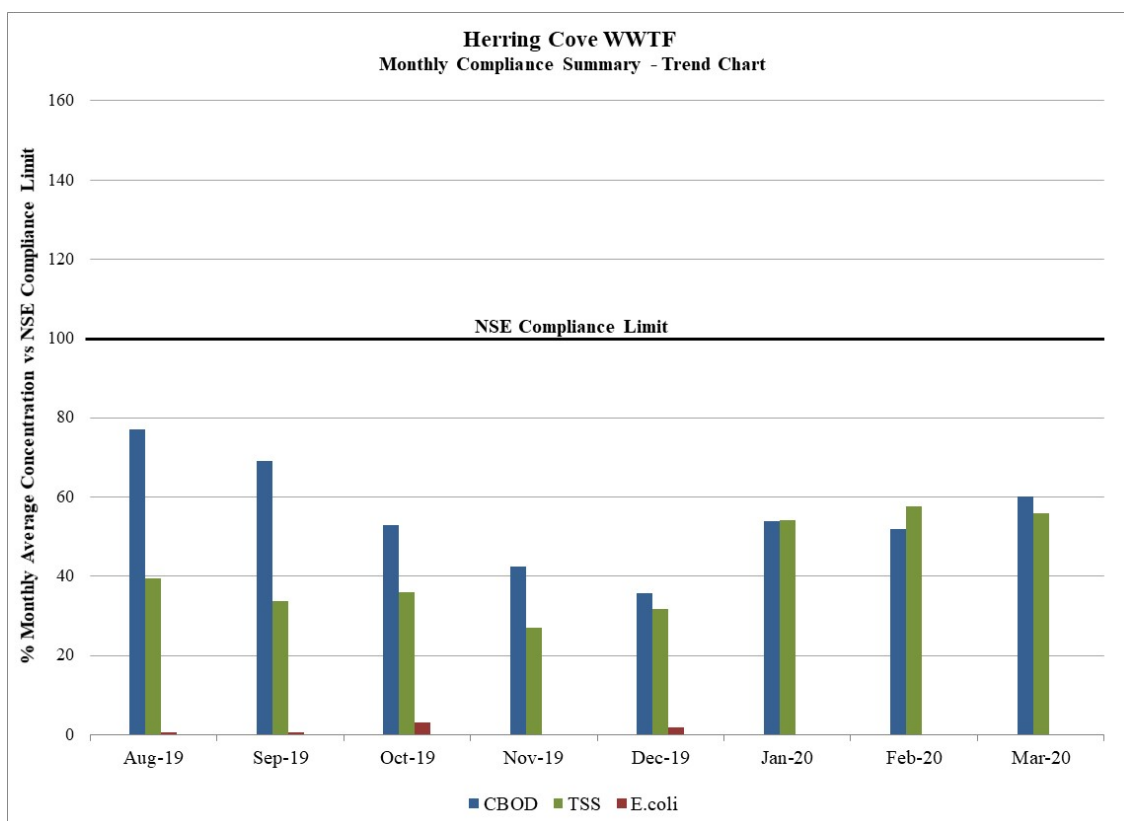
Lower numbers represent better performance.



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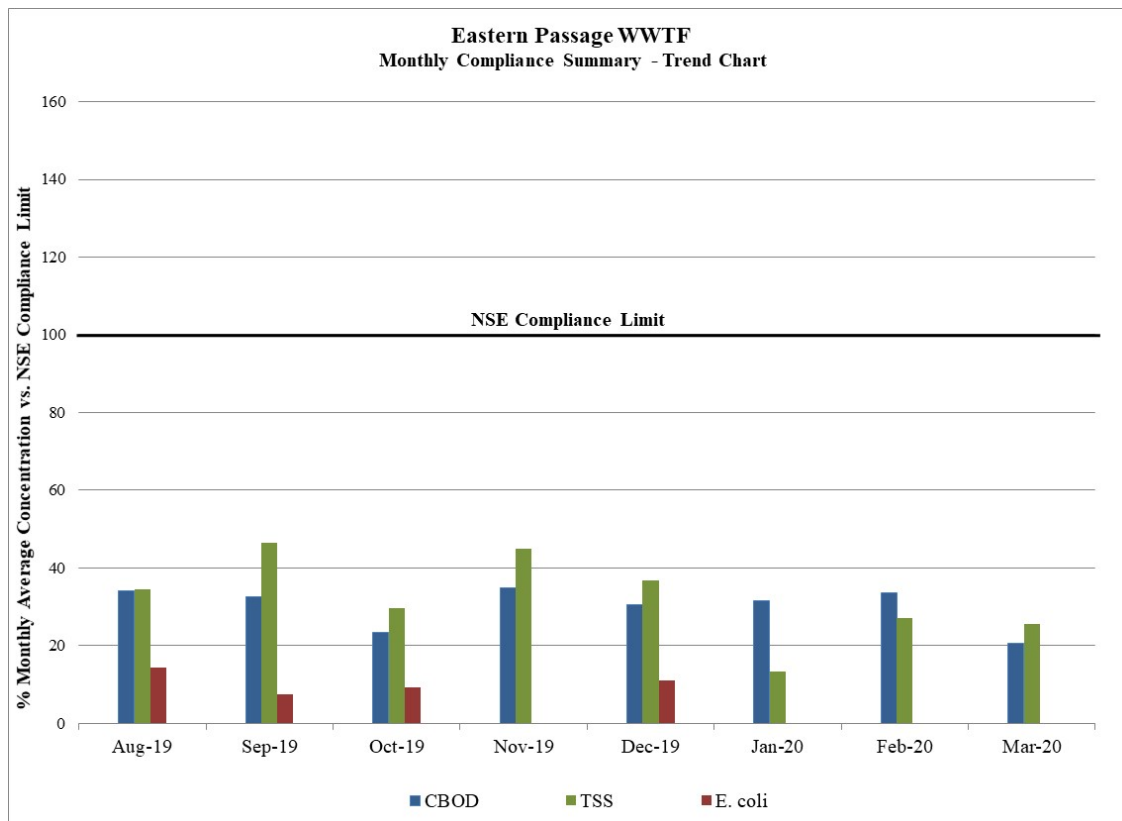
Lower numbers represent better performance.

ITEM# 1-I

HRWC Board

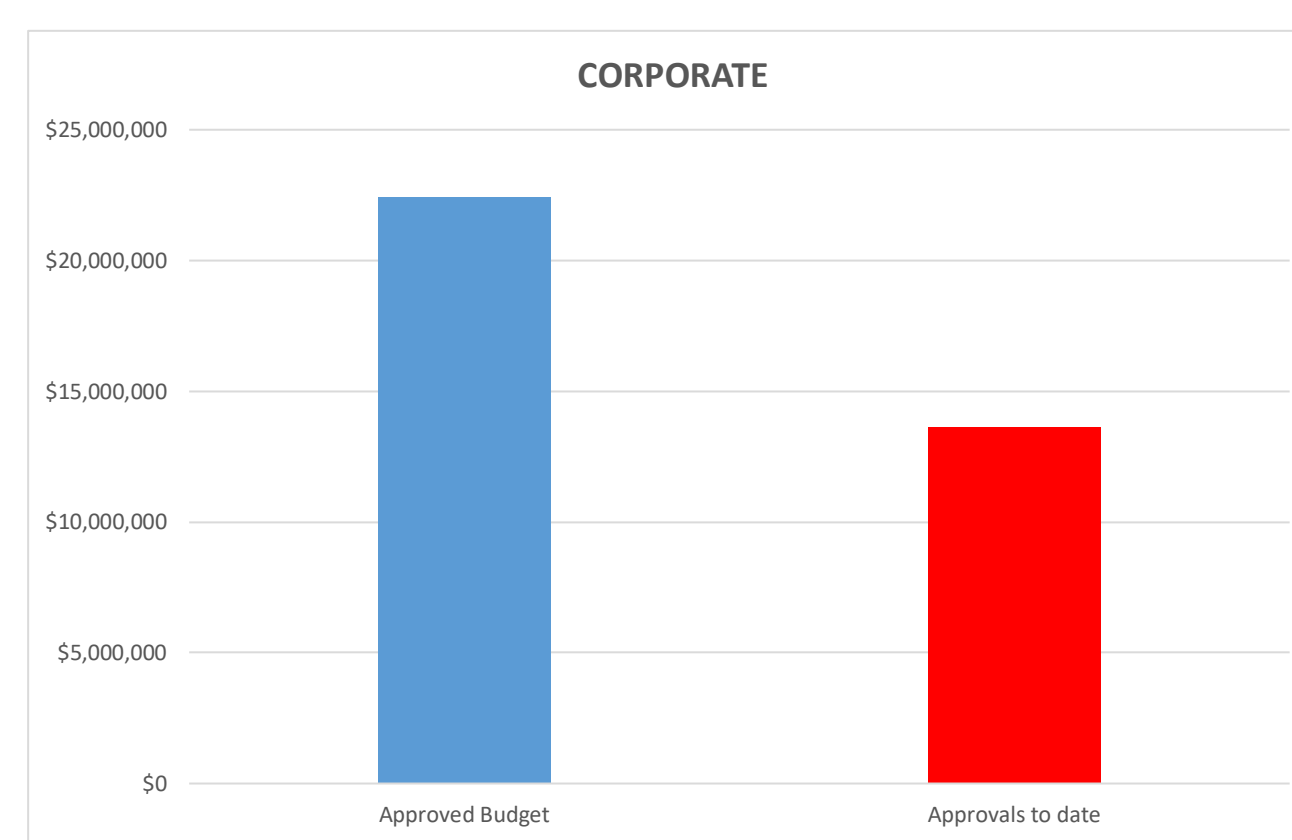
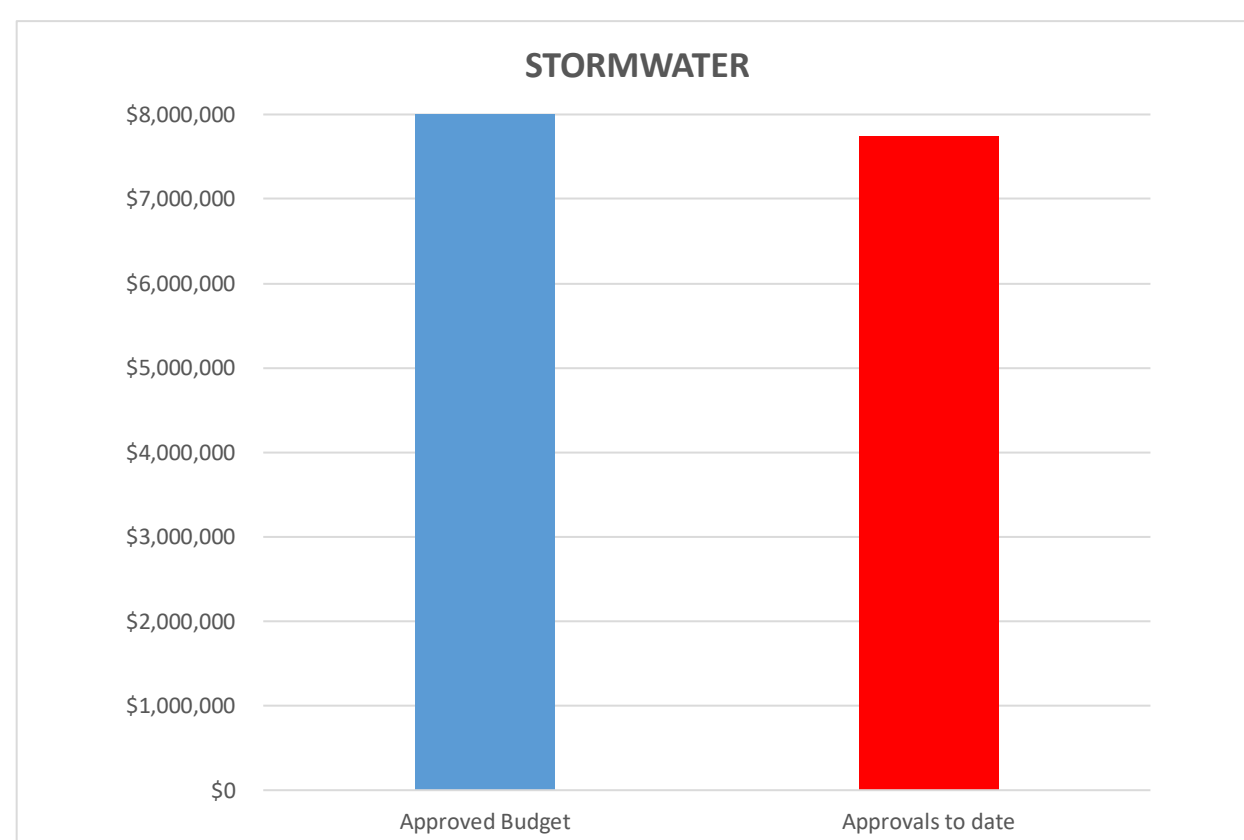
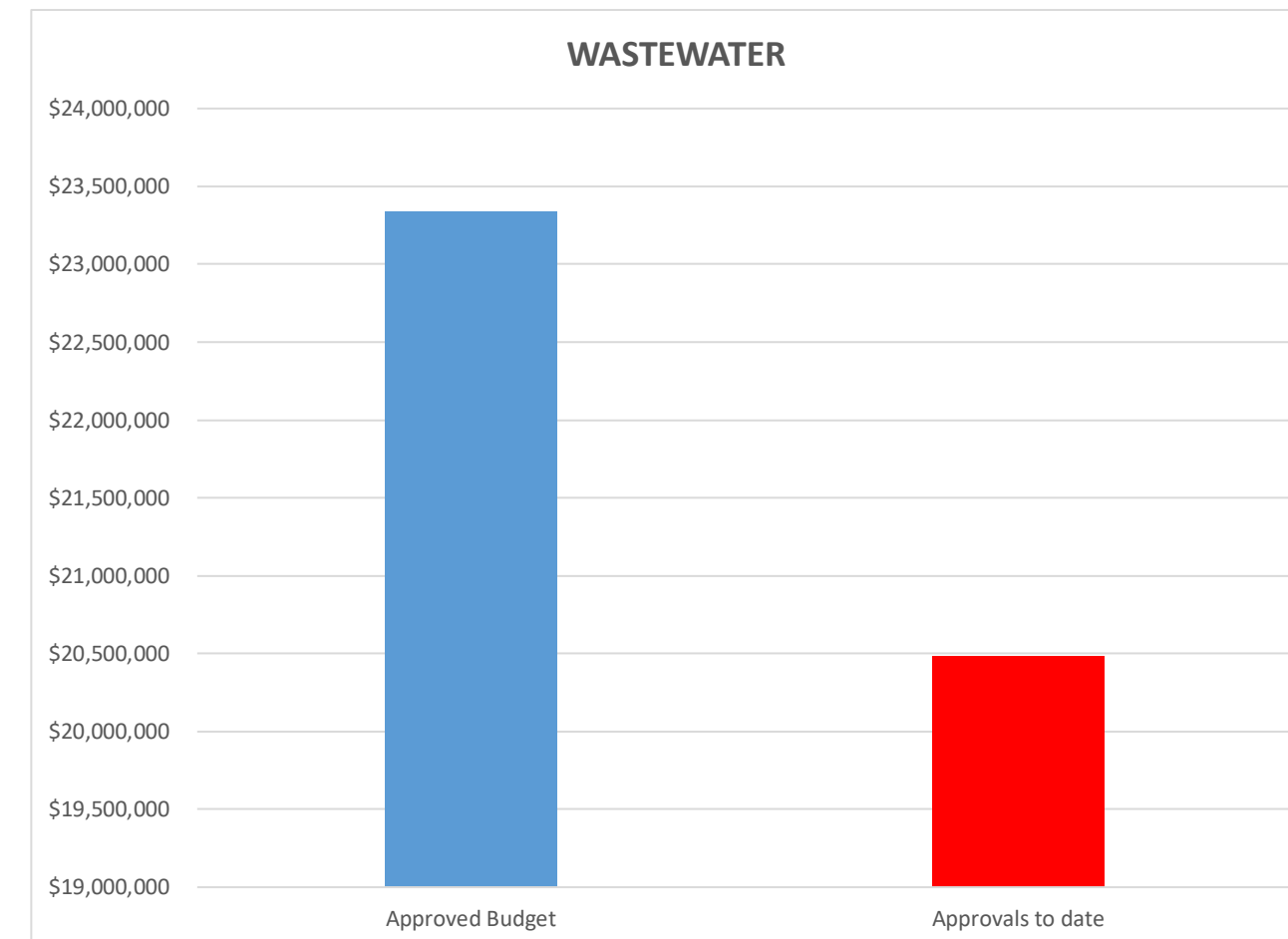
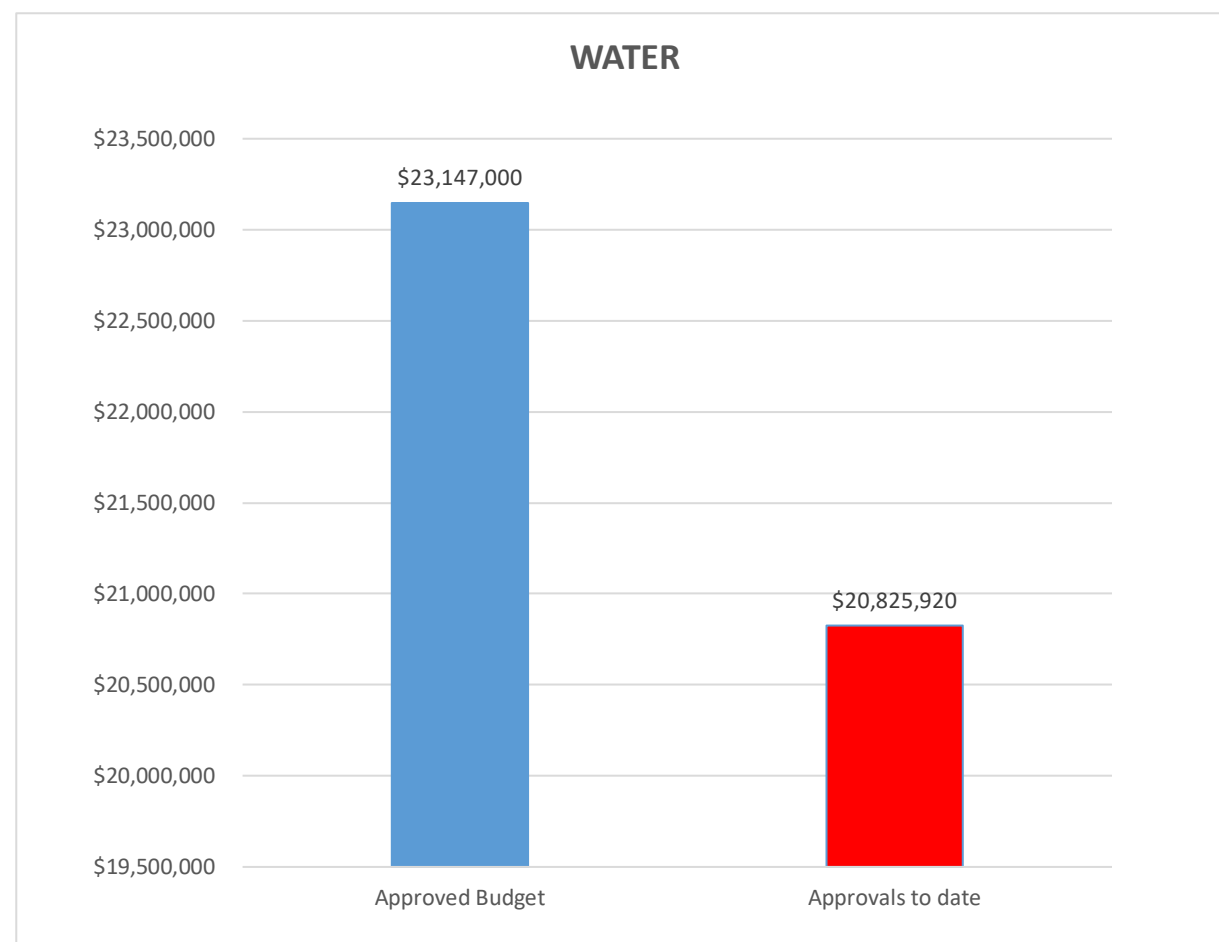
June 25, 2020

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Lower numbers represent better performance.

CAPITAL BUDGET APPROVALS TO DATE - 2019 -2020



WATER

Approved Budget	\$23,147,000
Approvals to date	\$20,825,920

CORPORATE PROJECTS

Approved Budget	\$22,427,000
Approvals to date	\$13,634,038

WASTEWATER

Approved Budget	\$23,336,000
Approvals to date	\$20,479,826

Total Budget:	\$77,348,000
Total To Date:	\$62,680,784

STORMWATER

Approved Budget	\$8,438,000
Approvals to date	\$7,741,000

Total %	81%
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Original Signed By:

Report Approved:
Jamie Hannam

Date

HRWC Board Report #2-1
Capital Projects Funding Approvals 2019-2020

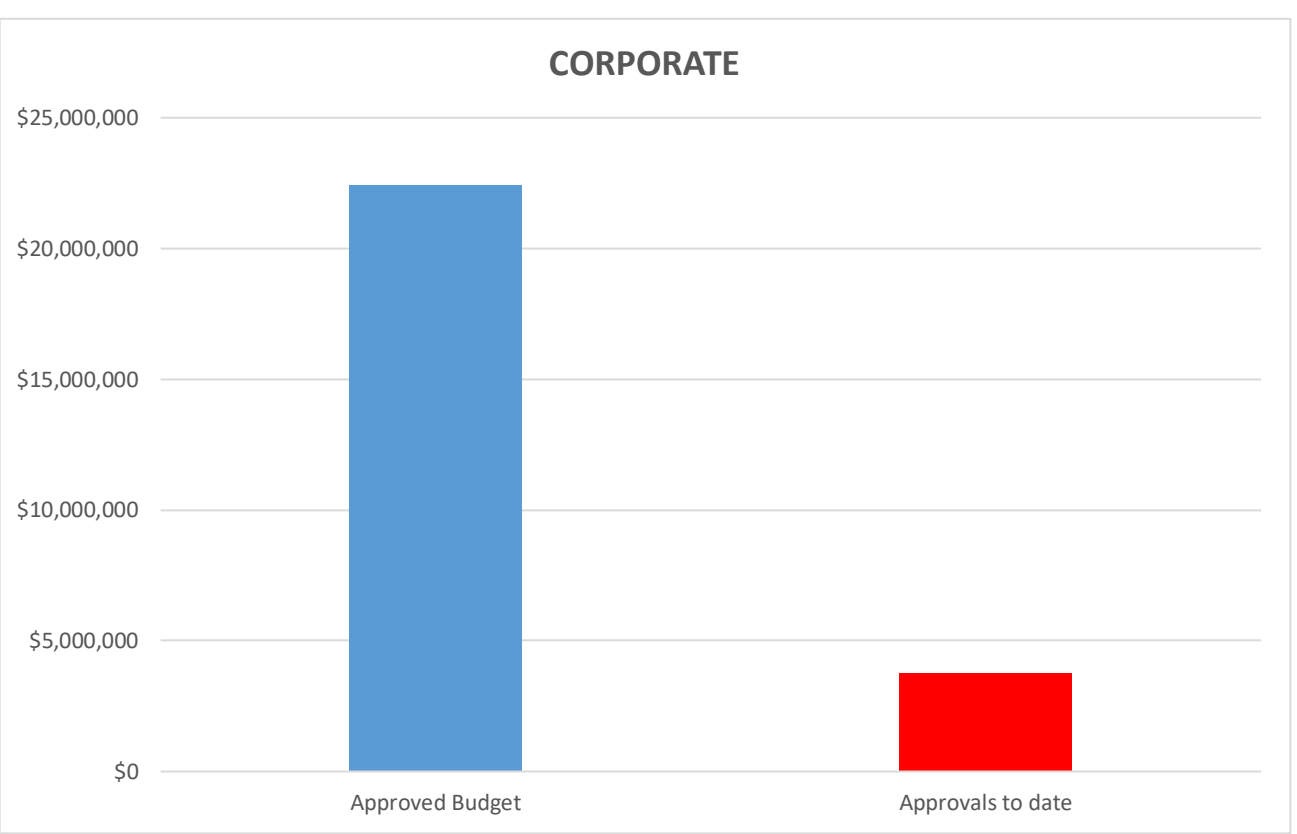
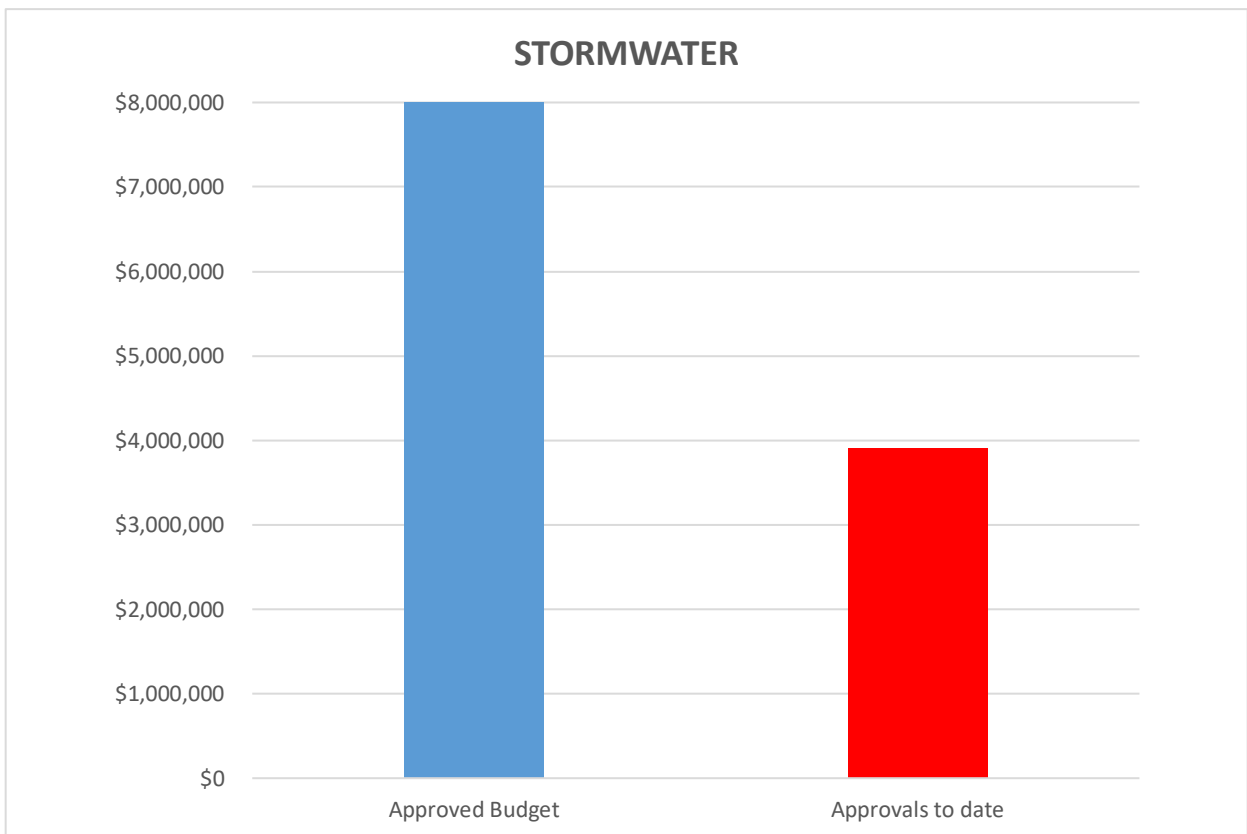
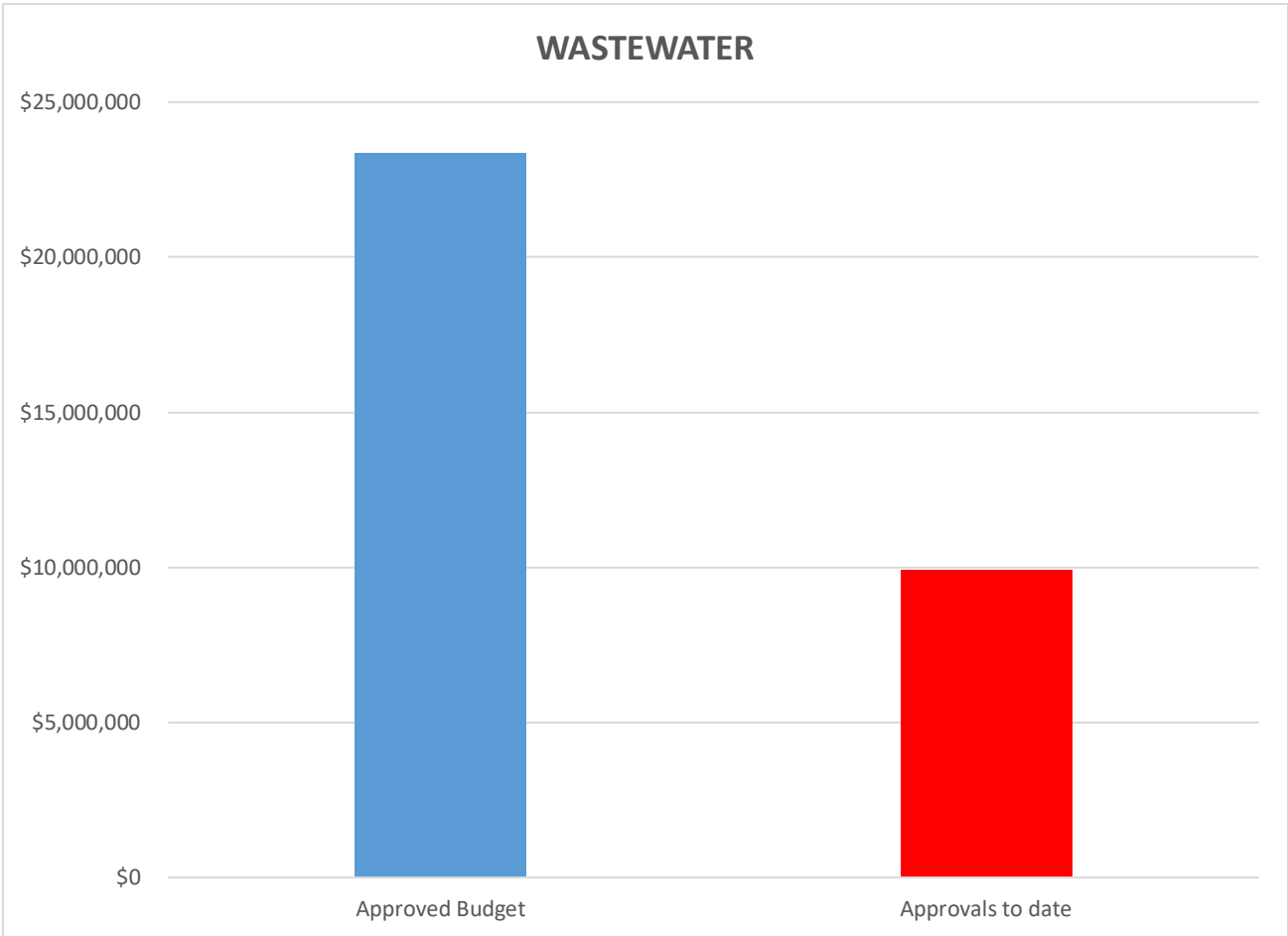
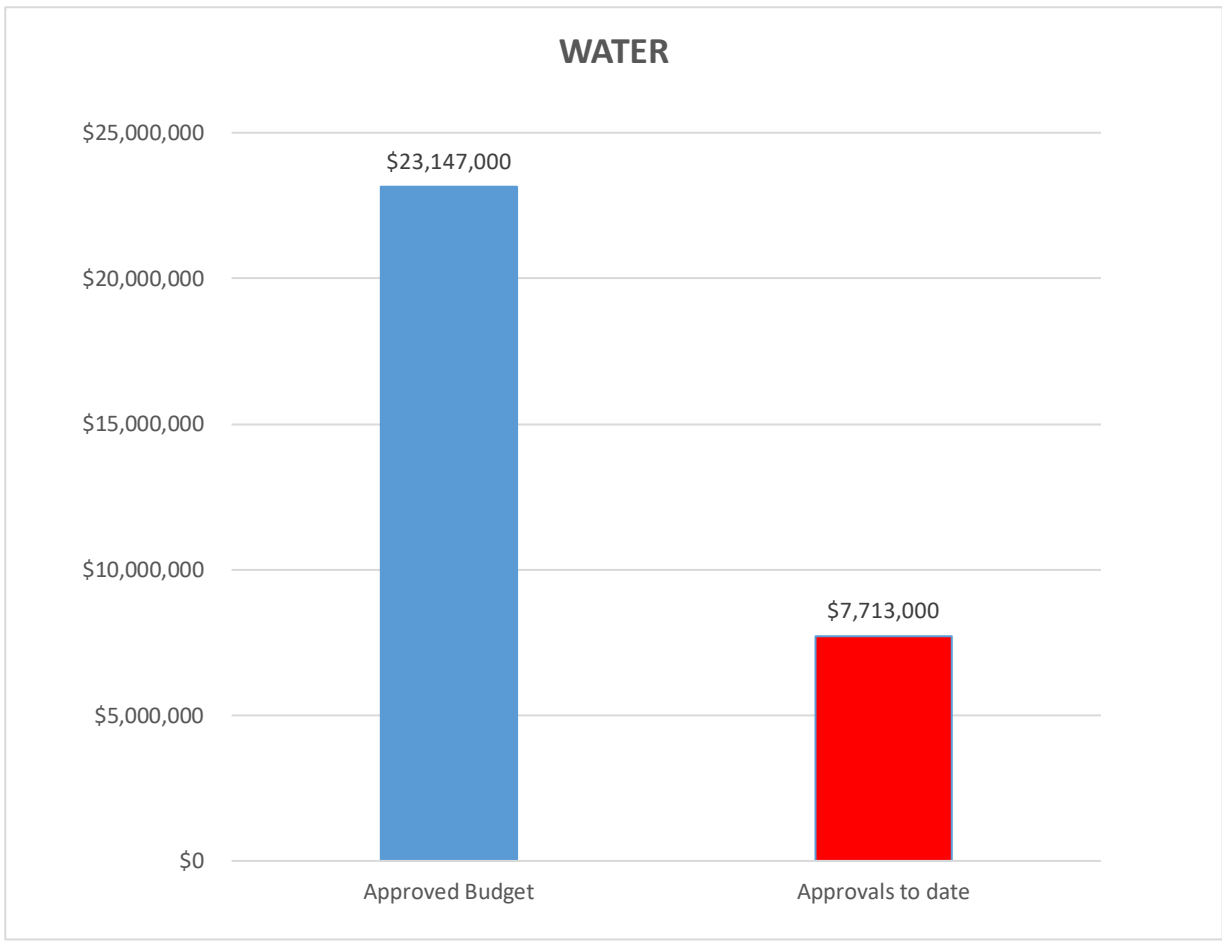
Category	Total Approved	Net Impact on Budget	Approval Date
Water			
Collection System			
Scotia Drive Duffus Drive Watermain Interconnection	\$26,000	\$0	18-May-19
Culverts/Ditches			
Quarry Road Integrated Project - Additional Funding Component Water	\$213,000	\$0	9-Jan-40
Distribution			
Automated Flushing Program	\$20,000	\$20,000	18-Mar-19
Coburg Road Bridge Watermain Replacement	\$40,000	\$40,000	3-Sep-19
Hydrants	\$75,000	\$75,000	3-May-19
Lead Service Line Replacement Program	\$1,000,000	\$1,000,000	3-May-19
Service Lines Renewals	\$100,000	\$100,000	3-May-19
Valve Renewal	\$125,000	\$125,000	3-May-19
Water Distribution - Main Renewal Program	\$1,839,000	\$1,839,000	28-Feb-19
Sewer Separation Program Construction of Romans Federal Avenues	\$1,459,000	\$1,459,000	
Watermain Renewal Program	\$2,435,920	\$2,435,920	5-Jun-19
Old Sackville Road - Sackville River Crossing Watermain Replacement	\$65,000	\$0	
Lake Major Dam - Fish Ladder Flow Monitoring	\$30,000	\$0	5-Mar-20
Southill Drive Water Main Renewal IP	\$75,000	\$0	5-Mar-20
Energy			
Bennery Lake WSP - Tank Insulation Repairs			
Bennery Lake WSP MCC Replacement	\$150,000	\$150,000	3-Sep-19
Lake Major WSP Process Area HVAC Upgrades	\$60,000	\$60,000	3-Dec-19
Equipment			
Miscellaneous Equipment Replacement	\$50,000	\$50,000	3-May-19
Lake Major WSP - Purchase New Microscope	\$20,000	\$20,000	6-Nov-19
Facility			
Lake Major Dry Polymer Feed System	\$120,000	\$0	1-Aug-19
Lake Major WSP Butterfly Valve Replacement Program	\$120,000	\$0	26-Aug-19
JD Kline WSP Raw Water Pump Station HVAC Controls	\$75,000	\$0	
Quinpool Road Bridge WM Renewal	\$40,000	\$0	20-Apr-20
Land			
Bennery Lake Watershed Land			
Lake Major Watershed - Glasgow Lands			
Watershed Land Acquisition			
Security			
Security Upgrade Program	\$50,000	\$50,000	6-Aug-19
Structures			
Dam Safety Review	\$210,000	\$210,000	7-Nov-19
Lake Major Dam Monitoring Program	\$40,000	\$40,000	11-Sep-19
Robie 2 Emergency Pump Meter Installation	\$21,000	\$21,000	1-Apr-19
Transmission			
Bedford West CCC - Various Phases			
Cogswell Interchange Water Transmission Main Realignments	\$150,000	\$150,000	9-Jul-19
Critical Valve Replacements 2019	\$225,000	\$225,000	18-Mar-19
Halifax Peninsula Transmission Main Project	\$398,000	\$398,000	27-Sep-19
Lakeside Timberlea CCC			
Lucasville Road Transmission Main - Phase 1	\$6,702,000	\$6,702,000	0-Jan-00
MacIntosh Estates Phase 1 Oversizing	\$100,000	\$100,000	15-Apr-19
Port Wallace Transmission Main - Caledonia Section	\$120,000	\$120,000	27-Mar-19
Treatment Facilities			
Aerotech Booster Station Capital Upgrades			
Bennery Lake Access Road Upgrade	\$100,000	\$100,000	17-Apr-19
Bennery Lake Filter Influent Valves	\$64,000	\$64,000	18-Mar-19
Bennery Lake Sludge Valve Replacement Program	\$7,000	\$7,000	18-Mar-19
Bennery Lake Surge Anticipator Valve Replacement	\$20,000	\$20,000	18-Mar-19
Chlorine Analyzer Replacement Program	\$16,000	\$16,000	18-Mar-19
JD Kline Back Up Power Supply Study	\$25,000	\$25,000	23-Oct-19
JD Kline Building Envelope Upgrades	\$100,000	\$100,000	17-Sep-19
JD Kline Caustic Tank Liner Replacements	\$16,000	\$16,000	20-Mar-19
JD Kline Effluent Valve Actuator Replacement Program	\$200,000	\$200,000	20-Mar-19
JD Kline Low Lift Pump #3			
JD Kline Low Lift Station Crane Renewal	\$75,000	\$75,000	20-Mar-19
JD Kline Low Lift Station Roof Fan Shroud Replacement	\$21,000	\$21,000	20-Mar-19
JD Kline New Alum Chemical Supply	\$15,000	\$15,000	20-Mar-19
JD Kline New Lime Blower System	\$35,000	\$35,000	27-Mar-19
JD Kline Pilot Plant Upgrades	\$200,000	\$200,000	26-Mar-18
JD Kline Pre-Mix Area Mixers Upgrade	\$90,000	\$90,000	8-Apr-19
JD Kline Process Upgrades	\$250,000	\$250,000	26-Nov-19
JD Kline Purchase New Microscope	\$17,000	\$17,000	20-Mar-19
JD Kline Raw Water Intake Traveling Screen Replacement Program	\$245,000	\$245,000	8-Apr-19
JD Kline Raw Water Pump Station Electrical Room Ventilation	\$50,000	\$50,000	16-Sep-19
JD Kline Raw Water Pump Station Window/Wall/Building Envelope	\$50,000	\$50,000	23-Oct-19
JD Kline Replace C02 Feeders	\$475,000	\$475,000	15-Aug-19

Category	Total Approved	Net Impact on Budget	Approval Date
JD Kline Replace Floc Tank Valve	\$35,000	\$35,000	20-Mar-19
JD Kline Replace Westinghouse Electrical Panels	\$8,000	\$8,000	20-Mar-19
JD Kline Roof Replacement	\$270,000	\$270,000	1-May-19
JD Kline Upgrade the PCL	\$420,000	\$420,000	6-May-20
JD Kline Upgrades to the Process Wastewater Lagoons	\$150,000	\$150,000	20-Mar-19
Lake Major Butterfly Valve Replacement Program	\$200,000	\$200,000	20-Mar-19
Lake Major C02 System Replacement Construction	\$215,000	\$215,000	23-May-19
Lake Major Clarifier Repair			
Lake Major Filtration System Replacement			
Lake Major Lab Relocation	\$235,000	\$235,000	20-Mar-19
Lake Major Overall Process and Design Study	\$230,000	\$230,000	18-Jun-19
Lake Major Purchase Spectrophotometers	\$15,000	\$15,000	20-Mar-19
Lake Major Replace Contactors in the MCC	\$34,000	\$34,000	20-Mar-19
Lake Major Replace the Lime Feed and Delivery System	\$120,000	\$120,000	27-Mar-19
Miller Lake Small System Public Main Extension Miller Lake Road	\$495,000	\$495,000	12-Apr-19
Purchase and Install TOC Analyzers WSP Facilities	\$90,000	\$90,000	18-Mar-19
Purchase and Install Water Quality Sonde Equipment	\$70,000	\$70,000	20-Mar-19
Reservoir Mixing and Residual Management Upgrade Program	\$150,000	\$150,000	10-Apr-19
Silversands WSP - Electrical/Architectural Upgrades	\$150,000	\$150,000	3-Sep-19
Lake Major Purchase Turbidimeter	\$18,000	\$18,000	20-Mar-19
Lake Major Dry Polymer Feed System Replacement	\$305,000	\$305,000	14-Aug-19
Lake Major WSP - New Alum Tank	\$155,000	\$155,000	3-Dec-19
Peninsula Transmission Main	\$211,000	\$0	
Burnside to Bedford Connector Transmission Main - Design Service	\$90,000	\$0	
Lake Major - Isolating the Treatment Trains	\$230,000	\$0	10-Apr-20
Water Total	\$22,120,920	\$20,825,920	
Wastewater			
Collection System			
Bayers Rd Phase 2 - Sewer Separation	\$1,390,000	\$1,390,000	10-Mar-20
Bedford West Collection System CCC	\$20,000	\$20,000	30-May-19
Cogswell Redevelopment Sewer Relocation	\$170,000	\$170,000	
Fairview, Clayton Park Bridgeview I/I Reduction	\$2,500,000	\$2,500,000	
Integrated Wastewater Projects Program	\$1,315,000	\$1,315,000	28-Feb-19
Lateral Replacements WW (non-tree roots)	\$1,685,000	\$1,685,000	3-May-19
Lateral Replacements WW (tree roots)	\$526,000	\$526,000	3-May-19
Main Street Sewer Main Replacement	\$100,000	\$100,000	19-Feb-19
Manhole Renewals WW	\$20,000	\$20,000	3-May-19
Romans - Federal Avenues Sewer Separation	\$2,456,000	\$2,456,000	16-Oct-19
Sewer Relocation at South Street CN Bridge	\$25,000	\$25,000	15-Apr-19
Wanda Lane Sanitary Sewer Replacement	\$1,050,000	\$1,050,000	5-Jun-19
Wastewater System Trenchless Rehabilitation Program	\$2,913,026	\$2,603,026	22-May-79
Wet Weather Management Program	\$440,000	\$250,000	4-Oct-39
WRWIP Project Bayers Rd Phase 1 - Sewer Separation			
Coronation Avenue WW IP	\$94,000	\$0	25-Mar-20
Energy			
HHSP - BAS+ HVAC Recommissioning	\$50,000	\$50,000	1-May-19
NSPI Meter Relocations	\$25,000	\$25,000	15-Apr-19
Pump Station HVAC Retro-Commissioning Program	\$145,000	\$100,000	28-Jan-20
Wastewater Pumping Station Performance Testing	\$250,000	\$250,000	0-Jan-00
Cogswell District Energy System - Engineering Consulting Services	\$150,000	\$0	3-Sep-19
Halifax WWTF Flow Splitting Computational Fluid Dynamics (CFD) Analysis	\$35,000	\$0	11-Sep-19
Dartmouth WWTF - New CSA Approved Raw Water Pumps	\$225,000	\$0	11-Sep-19
Equipment			
I&I Reduction (SIR) Program Flow Meters and Related Equipment	\$25,000	\$25,000	3-May-19
Miscellaneous Equipment Replacement	\$120,000	\$120,000	3-May-19
Mill Cove WWTF New Yard Tractor	\$10,000	\$0	27-Sep-19
Wastewater CCTV Equipment Replacement	\$183,000	\$183,000	6-Nov-19
Facility			
Community Wastewater Treatment Facilities: Personal Monitoring Devices	\$15,000	\$0	20-Jun-19
DWWTF New Air Compressors	\$55,000	\$0	25-Jun-19
Halifax WWTF South Access Gate Rehabilitation	\$16,000	\$0	30-Jul-19
Eastern Passage WWTF Plant Optimization Funding Increase	\$18,000	\$0	17-Oct-19
DWWTF Old Raw Water Pump Rebuild & Storage Container	\$0	\$0	23-Oct-19
Forcemains			
Beaver Crescent PS - FM Replacement	\$532,000	\$500,000	23-May-19
Caldwell Road ARV/MH Replacement	\$75,000	\$75,000	28-Feb-19
Security			
Security Upgrade Program	\$200,000	\$200,000	6-Aug-19
Structures			
Autoport Pleasant Street PS Replacement			
CSO Upgrade Program			
Duffus PS CSO - Modification	\$50,000	\$50,000	18-Jun-19
Emergency Pumping Station Pump Replacements	\$250,000	\$250,000	31-May-19
Fairfield Holding Tank Rehabilitation	\$41,435	\$25,000	8-Aug-39
Fish Hatchery FM - ARV Chamber Water Proofing	\$25,000	\$25,000	28-Feb-19
Pump Station Elimination - Concept Design	\$25,000	\$25,000	12-Mar-19
Russell Lake PS Upgrade			
Upper Water Street PS CSO Replacement			

Category	Total Approved	Net Impact on Budget	Approval Date
Wastewater Pumping Station Component Replacement Program - Central	\$250,000	\$250,000	1-May-19
Wastewater Pumping Station Component Replacement Program - East	\$200,000	\$200,000	24-Jul-19
Wastewater Pumping Station Component Replacement Program - West	\$200,000	\$200,000	24-Jul-19
Windmill Road PS Replacement			
Treatment Facilities			
Aerotech WWTF Asset Renewal Program	\$50,000	\$50,000	5-Jun-19
Aerotech WWTF Upgrade and Expansion Project Extra Cost	\$500,000	\$500,000	15-Apr-19
Building Cleaning and Corrosion Protection	\$485,000	\$245,000	2-Feb-40
Carbon Media Replacement	\$21,000	\$21,000	5-Feb-20
Dartmouth WW Treatment Facility Coagulant Dosing Pump Replacements	\$40,000	\$40,000	17-Oct-19
Dartmouth WW Treatment Facility Densadeg Flow Meters	\$119,300	\$119,300	0-Jan-00
Dartmouth WW Treatment Facility Duct Work Replacement	\$25,000	\$25,000	8-Apr-19
Easement for Sewer and Access			
Eastern Passage WWTF Atlas Copco Blowers Spare VFD	\$20,000	\$20,000	8-Apr-19
Eastern Passage WWTF Drum Thickener Overhaul Spare Parts	\$15,000	\$15,000	8-Apr-19
Eastern Passage WWTF Outfall Inspection and Warning Signage	\$15,000	\$15,000	26-Apr-19
Eastern Passage WWTF Primary Sludge Pumps Spare Parts	\$15,000	\$15,000	8-Apr-19
Eastern Passage WWTF Process Upgrade Program	\$50,000	\$50,000	17-Oct-19
Eastern Passage WWTF RAS Pumps Spare Parts	\$40,000	\$40,000	8-Apr-19
Eastern Passage WWTF Yard Lighting	\$35,000	\$35,000	8-Apr-19
Emergency Wastewater Treatment Facility equipment replacements	\$337,000	\$337,000	16-Sep-19
Grit Pump Replacement	\$75,000	\$75,000	15-Apr-19
Halifax WWTF AHU Coil Replacement	\$45,000	\$45,000	18-Jun-19
Halifax WWTF Duct work Replacement	\$50,000	\$50,000	8-Apr-19
Halifax WWTF New Raw Water Pumps	\$56,000	\$275,000	10-Jun-19
Herring Cove Wastewater Treatment Facility Duct Work Replacement Program	\$25,000	\$25,000	8-Apr-19
HHSP - OCS Wet Scrubber Chlorine Analyzers	\$125,000	\$125,000	29-May-19
HSPs - Outfall Inspection Program	\$20,000	\$20,000	26-Apr-19
Management Plan	\$60,000	\$60,000	17-Oct-19
Mill Cove WW Treatment Facility Digester Mixers Failure Analysis	\$20,000	\$20,000	21-May-19
Mill Cove WW Treatment Facility Lining of Supernatant Pump Croc	\$50,000	\$50,000	21-May-19
Mill Cove WW Treatment Facility New Lab Cabinets and Countertops	\$69,500	\$60,000	18-Apr-19
Mill Cove WW Treatment Facility Process Upgrades - Preliminary & Detailed Design	\$150,000	\$150,000	17-Oct-19
Mill Cove WW Treatment Facility Replace Oxygen Analyzer	\$75,000	\$75,000	21-May-19
Mill Cove WW Treatment Facility South Secondary Clarifier Recoat/Replace Mechanisms	\$100,000	\$100,000	17-Oct-19
Mill Cove WW Treatment Facility South Secondary Splitter Box Rehabilitation	\$30,000	\$30,000	21-May-19
Plant Optimization Audit Program	\$125,000	\$125,000	23-May-19
Springfield Lake and North Preston - Driveway Replacement	\$15,000	\$15,000	23-May-19
Timberlea WWTF Asset Renewal Program	\$50,000	\$50,000	17-Oct-19
Eastern Passage WWTF Rebuild Centrifuge 801	\$50,000	\$50,000	8-Apr-19
Dartmouth WWTF Grit Pump replacement	\$37,500	\$0	18-Jun-19
Aerotech BFP LBB Refurbishment	\$130,000	\$0	8-Jul-19
HHSPs - Neutral Grounding Investigation	\$8,500	\$8,500	3-Dec-19
Emergency Pumping Station Pump Replacements - Duffus Street	\$126,000	\$126,000	8-Jan-20
Solar PV Project - Construction and Commissioning	\$220,000	\$0	
WW Collections - Wastewater Trenchless Rehabilitation Program (155K), WWT Mill Cove WWTF - Replace Chlorine Analyzer (\$31,500), and WW Eastern Passage WWTF Replace Yard lighting)	\$220,000	\$0	17-Dec-19
WWTF Dartmouth WWTF Densadeg Flow Diversion Vanes & CFD Analysis	\$26,000	\$0	
Eastern Passage WWTF - Primary Sludge Pumps Spare Parts	\$13,000	\$0	
Aerotech WWTF - Unloading Area Catch Basin	\$33,500	\$0	28-Jan-20
HHSP's Neutral Grounding Investigation - Additional Funding	\$21,500	\$0	3-Feb-20
Trunk Sewers			
Fairview Cove Trunk Sewer	\$600,000	\$600,000	11-Apr-19
Sackville Trunk Sewer - Condition Assessment	\$155,000	\$155,000	2-Jul-19
WW & Trunk Sewer Condition Assessment	\$84,610	\$0	13-May-20
Wastewater Total	\$22,507,871	\$20,479,826	
Stormwater			
Collection System			
Lakecrest Drive CMP Replacement	\$65,000	\$0	15-Apr-20
Joe Street Additional Integrated Project	\$62,000	\$0	18-May-19
Pernix Crt Additional Integrated Project	\$17,000	\$0	18-May-19
Athorpe Street Additional Integrated Project	\$10,000	\$0	18-May-19
Forestglen Drive Additional Integrated Project	\$44,000	\$0	18-May-19
Lakeview Drive Additional Integrated Project	\$31,000	\$0	18-May-19
Gottingen Street Additional Integrated Project	\$43,000	\$0	18-May-19
Eastview Drive Additional Integrated Project	\$15,000	\$0	18-May-19
Quaker Cres Additional Integrated Project	\$23,000	\$0	18-May-19
Paula Drive - Culvert Replacement Project	\$65,000	\$0	
Culverts/Ditches			
Bundy Lane near civic 79	\$34,000		
Coronet Avenue driveway culvert replacement project	\$100,000	\$100,000	30-Jul-19
Driveway Culvert Replacements	\$812,000	\$812,000	8-May-19
Frederick Drive at Dyke Road	\$37,000		
Highway 2, near civic 1380	\$200,000	\$170,000	25-Jun-19
Lucasville Road Sta 0+910 near civic 1155	\$38,000	\$38,000	15-Apr-19
Lucasville Road Sta 1+595 at Third Street	\$38,000	\$38,000	15-Apr-19
Lucasville Road Sta 2+695 near civic 758	\$38,000	\$38,000	15-Apr-19
Lucasville Road Sta 2+850 near civic 749 and 743	\$38,000	\$38,000	15-Apr-19

Category	Total Approved	Net Impact on Budget	Approval Date
Millers Road near civic 1			
Murray Road at Caldwell Road			
Parkway Drive and Atholea Drive	\$35,000		
Stormwater Survey and Studies Program			
Kipawa Crescent - Culvert Replacement Design Phase	\$31,000	\$0	1-Apr-19
Yankeetown Road near civic 16 (project is deferred to next budget year)	\$88,000	\$88,000	15-Apr-19
Kingswood Drive near civic 10	\$34,000	\$0	30-Jul-19
Kingswood Drive near civic 60	\$34,000	\$0	30-Jul-19
Sewer Separation Program - Bayers Road Phase II Project - Detailed Engineering Design	\$75,000	\$0	31-Jul-19
Seth Aaron Drive near civic 40	\$37,000	\$0	30-Jul-19
Dartmoor Crescent Integrated Project Culvert Replacements	\$134,000	\$0	3-Oct-19
Sunrise Hill SW IP 19/20	\$82,000	\$0	1-Oct-19
Pipes			
Catchbasin Renewals SW	\$60,000	\$60,000	3-May-19
Celtic Drive Storm Sewer Renewal	\$120,000	\$120,000	22-Feb-19
Cogswell Redevelopment SW Sewer Relocation	\$300,000	\$300,000	12-Jul-19
Drainage Remediation Program Surveys/Studies			
Everette Street at Bonnie Brae Drive Drainage Upgrade			
Integrated Stormwater Projects	\$1,200,000	\$1,200,000	28-Feb-19
Lakecrest Drive CMP Replacement	\$65,000	\$65,000	15-Apr-20
Lateral Replacements SW	\$12,000	\$12,000	3-May-19
Manhole Renewals SW	\$15,000	\$15,000	3-May-19
National Disaster Mitigation Program			
Stormwater Pipe Condition Inspections (CSP)	\$100,000	\$100,000	15-Apr-19
Wanda Lane Deep Storm Sewer	\$205,000	\$205,000	5-Jun-19
Wanda Lane Storm System Upgrade	\$210,000	\$210,000	5-Jun-19
Dorothy SW Integrated Project	\$22,000	\$0	
Structures			
Clement St. Berm	\$82,000	\$82,000	1-Oct-19
Ellenvale Run Retaining Wall System Phase 2	\$2,220,000	\$2,220,000	15-Apr-19
Ellenvale Run Retaining Wall System Phase 3 (Wanda Lane)	\$1,830,000	\$1,830,000	5-Jun-19
Stormwater Total	\$8,701,000	\$7,741,000	
Corporate			
Equipment			
Audio/Video Equipment for Online Meetings	\$12,000	\$0	
Facility			
Building Capital Improvements	\$98,500	\$98,500	19-Sep-19
East/Central Regional Operational Facility			
Fleet			
Fleet - Stormwater	\$295,000	\$295,000	3-May-19
Fleet - Wastewater	\$1,180,000	\$1,180,000	3-May-19
Fleet - Water	\$385,000	\$385,000	3-May-19
GIS			
Engineering Drawing Database			
GIS Application Support Program	\$120,000	\$120,000	0-Jan-00
GIS Data Build			
GIS Data Project			
GIS Hardware/Software Program			
Sewer Service Entry			
Water Data Base Model			
Information Technology			
Analytics Decision Support System	\$225,000	\$225,000	23-Sep-19
Approval Forms Framework	\$415,000	\$415,000	9-Apr-39
Computer Maintenance Management System (CMMS) Enhancements	\$1,000,000	\$1,000,000	24-Jun-19
Customer Portal	\$220,000	\$220,000	19-Sep-19
Customer Transactional Site			
Data Governance	\$150,000	\$150,000	29-May-19
Desktop Computer Replacement Program	\$290,000	\$290,000	3-May-19
Document/Content Management	\$100,000	\$100,000	12-Dec-19
IT Foundations	\$200,000	\$200,000	1-Nov-19
IT Server Hosting	\$240,000	\$240,000	21-Feb-20
Migrate to Office 365	\$250,000	\$250,000	9-Dec-19
Mobile Devices and Applications	\$200,000	\$200,000	0-Jan-00
New payroll System	\$600,000	\$600,000	30-Apr-19
Permit Approvals	\$1,360,000	\$770,000	12-Dec-19
Regulatory Reporting	\$33,000	\$33,000	30-Jul-19
SAP S4 Hana Upgrade	\$348,000	\$348,000	15-May-19
Stormwater Billing Support	\$225,000	\$225,000	2-Apr-20
Telephony	\$90,000	\$90,000	1-Nov-19
Water/Wastewater Data Quality Software Replacement	\$582,960	\$582,960	11-Mar-20
Asset Registry			

CAPITAL BUDGET APPROVALS TO DATE - 2019 -2020



WATER		
Approved Budget		\$23,147,000
Approvals to date		\$7,713,000

WASTEWATER		
Approved Budget		\$23,336,000
Approvals to date		\$9,901,000

STORMWATER		
Approved Budget		\$8,438,000
Approvals to date		\$3,908,000

CORPORATE PROJECTS	
Approved Budget	\$22,427,000
Approvals to date	\$3,750,000

Total Budget:	\$77,348,000
Total To Date:	\$25,272,000

Total %	33%
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Original Signed By:

Report Approved:

Jamie Hannam

Date

HRWC Board Report #2-1
Capital Projects Funding Approvals 2020-2021

Category	Total Approved	Net Impact on Budget	Approval Date
Water			
Distribution			
Automated Flushing Program	\$20,000	20000	5-Mar-20
Coburg Road Bridge Watermain Replacement	\$300,000	300000	5-Mar-20
Lead Service Line Replacement Program	\$170,000	170000	12-Mar-20
Water Distribution - Main Renewal Program	\$3,093,000	3093000	0-Jan-00
~ Valves Renewals			
~ Hydrants Renewals			
~ Service Lines Renewals			
South Street CN Bridge Watermain Installation	\$25,000	25000	5-Mar-20
Water Sampling Station Relocation Program	\$10,000	10000	5-Mar-20
Meadowbrook PRV Chamber - Replace PRV Valves	\$35,000	35000	5-Mar-20
Fall River Rechlorination Station	\$25,000	25000	28-Feb-20
Spring Garden Road - Main Renewal - Design	\$37,000	37000	5-Mar-20
Energy			
Energy Management Capital Program (Water)		100000	
Chamber HVAC Retro-Commissioning Program		100000	
Equipment			
Miscellaneous Equipment Replacement			
Leak Detection Equipment	\$8,000	8000	5-Mar-20
Purchase Hydraulic Saws			
Land			
Watershed Land Acquisition			
Security			
Security Upgrade Program	\$50,000	50000	7-Apr-20
Structures			
Eaglewood Pumping Station - New Pump Control Panel	\$35,000	35000	28-Feb-20
Steel Reservoir Climbing Systems - Safety Upgrades	\$225,000	225000	3-Mar-20
Bedford South (Hemlock) Reservoir CCC			
Cowie Hill Reservoir Replacement - Design	\$200,000	200000	5-Mar-20
Meadowbrook Reservoir Overflow Pipe Replacement	\$70,000	70000	28-Feb-20
Mount Edward Control Chamber - Extension of Power Supply	\$20,000	20000	28-Feb-20
Lake Major Dam - Site Improvements	\$240,000	240000	5-Mar-20
Beaver Bank Booster Station - Pump Upgrades	\$30,000	30000	10-Apr-20
Transmission			
Bedford West CCC - Various Phases			
Lakeside Timberlea CCC			
Critical Valve Replacements 2020			
Chain Control Valve Upgrade Program	\$45,000	45000	5-Mar-20
Transmission Main Monitroing System Pilot			
Chain Control Transmission - Peninsula Low Upsize - Design			
Chain Control Transmission - Peninsula Intermediate Upsize - Design			
Herring Cove Road Looping-McIntosh Street			
Tacoma PRV Chamber			
Port Wallace Transmission Main - Main Street to Caledonia Road			
North End Feeder Replacement - Design			
Cogswell Interchange - Water Transmission Main Realignments			
Treatment Facilities			
Aerotech Booster Station Capital Upgrades			
JD Kline WSP - Process Upgrades - Phase 1 - New Clarifier and Pre-Treatment			
JD Kline WSP - Process Upgrades - Phase 1 - Backwash Optimization			
JD Kline WSP - Process Upgrades - Phase 1 - Building Improvements			
JD Kline WSP - Raw Water Valve Actuators Replacement	\$100,000	100000	24-Mar-20
JD Kline WSP - Caustic Tank Liner Replacements	\$25,000	25000	5-Mar-20
JD Kline WSP - Low Lift Pump Replacements			
JD Kline WSP - Replace Westinghouse Electrical Panels	\$8,000	8000	21-Mar-20
JD Kline WSP - Alum Tank Liner Replacement			
J D Kline WSP - New Ultrasonic Level Transmitter	\$10,000	10000	5-Mar-20
JD Kline WSP - Replace Floc Tank Valve Actuators	\$35,000	35000	5-Mar-20
J D Kline WSP - Replace Filter Isolation Gates Program	\$300,000	300000	5-Mar-20
Lake Major WSP - Phase 1 - Temporary Side Stream			
Lake Major WSP - Phase 1 - New Clarifiers and Pre-Treatment	\$250,000	250000	21-Mar-20
Lake Major WSP - Phase 1 - Filtration System Replacement			
Lake Major WSP - Phase 1 - Raw Water Pump Station			
Lake Major WSP - Phase 1 - Building Additions			
Lake Major WSP - Butterfly Valve Replacement Program	\$350,000	350000	21-Mar-20
Lake Major WSP - New Boat Launch	\$42,000	42000	5-Mar-20
Lake Major WSP - Replace Fluoride Tank and Piping	\$250,000	250000	5-Mar-20
Lake Major WSP - Sludge Drying Beds Improvements			
Lake Major WSP - Roof Replacement			
Lake Major WSP - Emergency Pumps - Sitework Preparations			
Lake Major WSP - Fuel Storage for Generator at Low Lift Station			
Bennery Lake WSP - Surge Anticipator Valves Replacement			

Category	Total Approved	Net Impact on Budget	Approval Date
Bennery Lake WSP - Access Road Upgrade	\$1,280,000	1280000	
Bomont Equipment Upgrade	\$150,000	150000	25-Apr-20
Pump Replacement Program - Small Systems	\$45,000	45000	28-Feb-20
Reservoir Mixing and Residuals Management Upgrade Program	\$300,000	30000	26-May-20
Water Total	\$7,783,000	7713000	
Wastewater			
Collection System			
Bedford West Collection System CCC			
Lateral Replacements WW (tree roots)			
Manhole Renewals WW			
Sewer Relocation at South Street CN Bridge			
Wet Weather Management Program	\$350,000	350000	6-May-20
Integrated Wastewater Projects - Program	\$715,000	715000	10-Feb-20
Wastewater System - Trenchless Rehabilitation Program	\$3,000,000	3000000	
Albro Lakes Watershed Separation	\$387,000	387000	25-May-20
Local Network Upgrades on Beaver Bank Road - Design	\$176,000	176000	18-Feb-20
Cogswell Redevelopment - Sewer Relocation			
Punch Bowl PS Elimination	\$100,000	100000	18-Feb-20
Hines Road Rider Sewer Extension			
Lateral Replacements WW (non tree roots)			
Wyse Road Separation Phase 1	\$43,000	43000	25-May-20
Young Street - Sewer Separation			
South Park Street - Sewer Separation			
College Street - Sewer Separation			
Prince Albert Road Sewer Separation - Side Streets	\$325,000	325000	10-Feb-20
Shore Road Bridge Replacement WW Integrated Project	\$175,000	175000	21-Mar-20
Energy			
NSPI Meter Relocations			
HHSP - BAS + HVAC Recommissioning			
Equipment			
I&I Reduction (SIR) Program Flow Meters and Related Equipment			
Miscellaneous Equipment Replacement			
Duffus Street PS Flow Meter Replacement			
Forcemains			
Akerley Blvd Forcemain Replacement	\$65,000	65000	18-Feb-20
Pumping Station Oil Tank Replacements			
Morris Lake Forcemain Investigation and Rehabilitation			
New Timberlea Pump Station Forcemain System - Design			
Security			
Security Upgrade Program	\$200,000	200000	17-Mar-20
Structures			
Autoport Pleasant Street PS Replacement			
CSO Upgrade Program			
Duffus PS CSO - Modification			
Emergency Pumping Station Pump replacements			
Windmill Road PS Replacement	\$1,355,000	1355000	7-May-20
Wastewater Pumping Station Component Replacement Program - West Region			
Wastewater Pumping Station Component Replacement Program - East Region			
Wastewater Pumping Station Component Replacement Program - Central Region			
Jamieson Pumping Station - Automatic Bar Screen	\$60,000	60000	3-Mar-20
Fairfield Holding Tank - Concept Design	\$150,000	150000	28-Feb-20
Bruce Street Pumping Station Relocation	\$150,000	150000	21-Feb-20
Wastewater Pumping Station Generator Plug/Switch Installations			
First Lake Pumping Station Upgrades	\$70,000	70000	14-Apr-20
PS Control Panel / Electrical Replacement	\$100,000	100000	24-Mar-20
Armscrest Pumping Station - Piping and Valve Upgrades			
Bissett PS Component Upgrade			
Roach's Pond PS Component Upgrade	\$550,000	550000	17-Apr-20
William's Lake PS Rehabilitation	\$100,000	100000	21-Mar-20
Upgrade Quigley's Corner Pumping Station			
Optimize Quigley's Corner Pumping Station			
New Timberlea Pumping Station - Design			
Treatment Facilities			
Emergency Wastewater Treatment Facility equipment replacements	\$155,000	155000	14-May-20
HHSP - OCS Wet Scrubber Chlorine Analyzers	\$40,000	40000	7-Apr-20
Plant Optimization Audit Program			
Wastewater Research Program Pilot Plant			
HSPs - OCS H2S Analyzers			
Duct Work Replacement			
Raw Water Pump Refurbishment	\$50,000	50000	27-Apr-20
Fixed Gas Meters - Replacement	\$150,000	150000	27-Apr-20
New Coagulant Dosing System			
New Polymer Dosing System			
Sludge Pumps - New Mechanical Seals	\$160,000	160000	11-Jan-61
Densadeg Hydraulic Optimization	\$100,000	100000	2-Apr-20
Grit System - Parts Replacements and New Screws	\$50,000	50000	27-Apr-20
Sludge Dewatering - Fournier Press Upgrades	\$50,000	50000	27-Apr-20
Industrial Water System Replacement	\$150,000	150000	11-Jan-61

Category	Total Approved	Net Impact on Budget	Approval Date
Fine Screens - New Perforated Plate Screens			
Densadegs - CFD Analysis and Flow Diversion Vanes			
Heat Exchangers - Refurbishment	\$80,000	80000	14-Sep-40
Desadegs - Lamella Tube Settler Replacements	\$300,000	300000	7-May-20
Ballasted Flocculation Pilot	\$75,000	75000	14-May-20
Duct Work Replacement Program			
Spare Sludge Tank mixer	\$25,000	25000	1-May-20
Waste Oil System - New Waste Oil Tank	\$15,000	15000	1-May-20
Electrical System - Spare Transfer Switch	\$40,000	40000	1-May-20
Secondary Launder Covers			
Road Rehabilitation	\$25,000	25000	13-May-20
Bioreactors - Short Circuiting Modifications			
Lab - HVAC Modifications			
Centrifuge - Rebuild	\$50,000	50000	13-May-20
Grit System - Chain and Bucket Replacement	\$50,000	50000	13-May-20
Springfield Lake - Driveway Replacement	\$15,000	15000	13-May-20
Building Upgrades			
Conveyor CS1 Liners	\$30,000	30000	13-May-20
Biofilter Media	\$50,000	50000	13-May-20
Dryer Upgrades	\$70,000	70000	13-May-20
Trunk Sewers			
Odour Level of Service and Optimization Review	\$100,000	100000	25-Apr-20
Fairview Cove Trunk Sewer - Design			
Wastewater Total	\$9,901,000	9901000	
Stormwater			
Culverts/Ditches			
CORONET AVENUE DRIVEWAY CULVERT REPLACEMENT PROJECT			
Driveway Culvert Replacements	\$1,200,000	1200000	
KIPAWA CRESCENT			
COLE HARBOUR ROAD, near civic 1560			
ST MARGARET'S BAY ROAD, near civic 2797			
BLUE FOREST LANE, near civic 42			
DEVIL'S HILL ROAD at BOULDERBROOK LANE			
31 KETCH HARBOUR RD, near civic 832			
WAVERLEY ROAD, near civic 832			
Pipes			
Catchbasin Renewals SW			
Lateral Replacements SW			
Manhole Renewals SW			
Stormwater Pipe Condition Inspections (CSP)			
Integrated Stormwater Projects - Program	\$608,000	608000	14-May-20
Sullivan's Pond Storm Sewer System Replacement - Phase 2 Irishtown Rd to Harbour	\$25,000	25000	25-May-20
Raymond Street, Phase 2 - Storm Sewer Rehabilitation			
Cogswell Redevelopment - SW Sewer Relocation	\$175,000	175000	21-Mar-20
Rocky Lake and Bedford Highway Intersection Storm Sewer Upgrade			
Thistle Street Storm Drainage System Upgrade - Preliminary Engineering			
Stormwater System Upgrade near Civic #1681 Waverley Road			
Structures			
Ellenvale Run Retaining Wall System Phase 4	\$1,900,000	1900000	
Stormwater Total	\$3,908,000	3908000	
Corporate			
Facility			
Building Capital Improvements			
East/Central Regional Operational Facility			
Energy Management Capital Program			
Fleet			
Fleet - Stormwater			
Fleet - Wastewater			
Fleet - Water			
GIS			
Engineering Drawing Database			
GIS Application Support Program	\$65,000	65000	6-Apr-20
GIS Hardware/Software Program			
Sewer Service Entry			
GIS Data Program			
GIS Data Build - Services (ICI)			
GIS Data Project (CAD schematic retirement)	\$150,000	150000	28-Apr-20
Utility Network Modeling/Data Modeling			
Stormwater Billing Imagery Acquisition and Analysis	\$90,000	90000	14-May-20
Information Technology			
Analytics Decision Support System			
Customer Portal			
Desktop Computer Replacement Program			
New Payroll System			
Asset Condition			
Capital Planning			
Computerized Maintenance Management System (CMMS) Enhancements	\$200,000	200000	20-Apr-20
Disaster Recovery			

Category	Total Approved	Net Impact on Budget	Approval Date
Document Management Sharepoint Rollout			
Full Enterprise Data Warehouse	\$200,000	200000	20-Apr-20
Network Upgrades			
SAP Rate Structure Support			
Enterprise Resource Planning Solution			
Security Projects	\$190,000	190000	25-May-20
SCADA & Other			
GPS Units - Replacement	\$70,000	70000	21-Feb-20
SCADA Control System Enhancements	\$100,000	100000	14-Apr-20
ICS Cyber Security Enhancements	\$100,000	100000	17-Apr-20
Halifax Harbour Solutions Radio Upgrade	\$60,000	60000	13-May-20
Wastewater Community Plants SCADA System Relocation	\$45,000	45000	25-Apr-20
PI System Enhancements	\$100,000	100000	20-Apr-20
Customer Meters - New and Replacement			
Asset Management			
Corporate Flow Monitoring Program	\$1,870,000	1870000	
Storm Sewer Condition Assessment	\$95,000	95000	1-Apr-20
Wastewater Sewer Condition Assessment	\$215,000	215000	1-Apr-20
Vulnerability to Climate Change Risk Assessment-Asset Class Pilot			
Outfall Assessment Project			
SSO Management Program			
System Constraints Analysis HRM (was East Additional Flow Monitoring)			
Safe Yield Study	\$200,000	200000	26-May-20
New Hydraulic Model (infoWater)			
Transmission Main Risk Assessment and Prioritization Framework			
Corporate Total	\$3,750,000	3750000	
Grand Total	\$25,342,000	25272000	#####

ITEM # 3-I

HRWC Board

25-Jun-20

FINANCIAL REPORT - Bank Balance

Consolidated Bank Balance

As Of:	June 10, 2020	\$45,892,534
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Investment Rate of Return:

For month of:	May 2020	0.079%
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Annual:		0.948%
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**Halifax Water Compliance Statement
Quarterly Certification**

For the period of January 1, 2020 to March 31, 2020

We hereby certify that the Halifax Regional Water Commission is current in making all statutory remittances for payroll taxes, Harmonized Sales Tax and other remittances as required under the laws of the Government of Canada and its Provinces (the significant remittances are noted in the appendix) and that all legal claims have been disclosed.

Original Signed By:

Cathie O'Toole, MBA, FCPA, FCGA, ICD.D
General Manager

Original Signed By:

Louis de Montbrun, CPA, CA
Director, Corporate Services/CFO

Dated:

June 19, 2020

Halifax Water Compliance Statement
Quarterly Certification
Appendix I

Significant statutory remittances for payroll taxes, Harmonized Sales Tax and other remittances as required under the laws of the Government of Canada and its Provinces for the HRWC

Statutory Payroll Remittances

- **Canada Revenue Agency (CRA)** - Statutory employee payroll deductions and employer related contributions for:
 - Income Tax
 - Canada Pension Plan (CPP)
 - Employment Insurance (EI)
- **Workers' Compensation Board of Nova Scotia (WCB)** – Employer remittance based on employee payroll

Other Payroll Remittances

- **Northern Trust** - Employee payroll deductions and employer contributions to Halifax Water and HRM defined benefit pension plans
- **Industrial Alliance** – employer and employee contributions to defined contribution pension plan
- **Medavie Blue Cross & SSQ** – employee payroll deductions and employer related contributions for Health & dental, LTD, and Life benefit coverage, and payroll deductions for AD&D
- **Canadian Union of Public Employees** – Employee payroll deductions of union dues
 - CUPE Local 227
 - CUPE Local 1431

HST and Other Remittances

- **Canada Revenue Agency (CRA)** - Harmonized Sales Tax (HST) is filed online and a refund issued as HST paid is greater than HST collected
- **Workers' Compensation Board of Nova Scotia (WCB)** – Remittance for sub-contractors

ITEM # 4-I

HRWC BOARD

June 25, 2020

Quarterly Remittance Certification**Appendix II**Period: January to March 2020

<u>Vendor</u>	<u>Vendor #</u>	<u>Items Remitted</u>	<u>Total remitted</u>	<u>Exceptions</u>
Statutory Payroll Remittances				
CRA	174	Tax, CPP, EI, WCB	\$ 3,372,903.35	
Other Payroll				
Northern Trust	1215	HW Pension Plan	\$ 1,442,307.20	
Northern Trust	1216	HRM Pension Plan	\$ 246,397.49	
Manulife Financial	1171	Bedford Pension Plan	\$ 1,762.20	
Industrial Alliance	2971	DCPP	\$ 2,276.30	
Medavie Blue Cross	340, 3101	Health, Dental, Life, LTD	\$ 601,257.03	
SSQ Insurance	429	AD&D	\$ 4,931.18	
CUPE	160	Union Dues 1431	\$ 26,252.39	
CUPE	161	Union Dues 227	\$ 49,504.34	
Other payroll not noted				
United Way, Credit Union, Garnishments (WCB, CRA, Family Court, Sherriff's Office), Water for People, Salvation Army, Racially Visible Caucus				
HST and Other				
CRA	N/A	HST (refunds)	\$ (2,155,467.37)	
Receiver General	210	WCB subcontractors	\$ 869.54	

Exceptions, errors and/or late remittances

TO: Craig MacMullin, MBA, CPA, CGA, Chair, and Members of the
Halifax Regional Water Commission Board

SUBMITTED BY: Original Signed By: _____
Louis de Montbrun, CPA, CA
Director, Corporate Services/CFO

APPROVED: Original Signed By: _____
Cathie O'Toole, MBA, FCPA, FCGA, ICD.D
General Manager

DATE: June 15, 2020

SUBJECT: 2019/20 Cost Containment

INFORMATION REPORT

ORIGIN

- The Cost Containment Process as approved by the Halifax Regional Water Commission Board (the “Board”), October 3, 2013.
- April 14, 2015, Nova Scotia Utility and Review Board (NSUARB) Decision - HRWC General Rate Application (M06540).

BACKGROUND

The process for cost containment as approved by the Board on October 3, 2013, called for the implementation of several recommended actions that would assist Halifax Water in addressing the NSUARB request for a more rigorous approach to cost containment. One key recommendation was the establishment of a reporting structure whereby, “*on a quarterly basis, the monthly financial report of the Board will also include an update on Cost Containment Initiatives*”.

In the Decision on the 2015 Rate Hearing, the NSUARB directed Halifax Water to file annual reports on its efforts to contain the operating costs of the utility, with this report to be filed no later than June 30 of each year.

DISCUSSION

A summary report of cost containment initiatives for the 2019/20 is attached, with updated information as at June 12, 2020. The report shows cost containment initiatives effecting operations for 2019/20 because of new initiatives implemented during the year, along with amounts of an ongoing nature from fiscal years 2013/14 to 2018/19 inclusive. The inclusion of initiatives and amounts from prior years reflects an intentional focus on sustainable results over the long term. The estimated cost savings to 2019/20 is \$6.9 million, as outlined by category in Figure #1 below:

Figure #1

Procurement Strategies	\$1,289,204	18.7%
Human Resource Strategies	\$3,442,061	50.0%
Information Technology Strategies	\$108,700	1.6%
Facilities/Process Strategies	\$1,899,505	27.6%
Reduce Paper and Printing Costs	\$38,415	0.6%
Technology and Business Process Change	\$112,138	1.6%
	<u>\$6,890,023</u>	<u>100.0%</u>

As shown above, cost containment initiatives are impacted most in the areas of Human Resources, Facilities/Process and Procurement Strategies. Under Human Resource Strategies, the effects of the pension plan re-design initiated in 2015/16 is one of the main contributors to cost containment savings for the current year. Annual savings related to pension plan re-design approximates \$1.7 million, which represents 49% of the savings within Human Resource Strategies, and 25% of the total projected savings for 2019/20. An actuarial valuation performed on the pension plan January 1, 2019 resulted in the plan experiencing its first surplus since the year 2000. As a result, Halifax Water was no longer required to make special payments to cover the unfunded liability, creating a savings of \$0.8 million annually. This represents savings within Human Resource Strategies of 24%, and 12% of the total projected savings for 2019/20. The next actuarial valuation is January 1, 2022.

Facilities/Process Strategies contain initiatives of varying nature, however a main contributor in this category is Halifax Water's Energy Efficiency Program. Projects under this program represent approximately \$1.1 million or 55% of savings reported within the Facilities/Process Strategies, and 15% of the total projected savings for 2019/20. Some of the prominent initiatives under the program related to energy savings include the annual shutdown of the ultraviolet disinfection systems (\$0.2 million), heat recovery processes (\$0.1 million), and lighting upgrades at various facilities.

ITEM # 5-I

HRWC Board

June 25, 2020

New cost containment initiatives implemented during 2019/20 resulted in cost savings amounting to \$0.7 million. These initiatives are highlighted for ease of reference on the Summary Report – Cost Containment Initiatives attached. Cost savings resulting from these new initiatives fall within the following categories, ranked in order of cost savings:

- Procurement Strategies \$0.3 million
- Human Resource Strategies \$0.3 million
- Facilities/Process Strategies \$0.1 million

The 2 significant initiatives during 2019/20 were:

1. Procurement Strategies - \$0.3 million

By taking advantage of competitive pricing in the marketplace, savings were realized with respect to the removal and disposal of process residuals from the Lake Major water treatment plant. The project was originally budgeted over 5 years; however, the task was accomplished over a 3-year period.

2. Human Resource Strategies - \$0.3 million

Modifications to the Pre-Retirement Leave Program were implemented whereby the program was closed to new entrants, and a gradual phase out of the program for remaining employees. During the year employees were offered a one-time, lump-sum payout respecting their accrued benefit. Of 441 employees eligible, approximately 324 (73%) opted for the immediate payout of their accrued benefit. This eliminated further accrual of service on a go-forward basis for employees opting a payout and will reduce any associated impact on future operating budgets.

From a capital perspective, the following initiatives resulted in significant savings during 2019/20:

- Wastewater Collections in the West Region undertook a pilot program, delivering culvert replacement project on Paula Drive in conjunction with an ongoing capital project. Rather than sub-contracting the work to a third party, the work was performed in-house using available resources, which resulted in a cost savings of \$41 thousand.
- Through resource sharing between Water Services and West Wastewater Collections in the West Region, a compressor/dump truck became a surplus vehicle from an operational needs' perspective. As a result, this vehicle was able to be re-assigned to Water Services in the Central Region, as a replacement for a similar unit budgeted in the 2020/21 Fleet Upgrade Program. Saving as a result of this initiative approximates \$100 thousand.

BUDGET IMPLICATIONS

Available information on cost containment initiatives were taken into consideration when the 2019/20 budget was developed. Initiatives that impact future fiscal periods will be incorporated into future periods.

ATTACHMENTS

Summary Report – Cost Containment Initiatives

Report Prepared by: Original Signed By: _____

Allan Campbell, B.Comm, CPA, CMA
Manager, Finance, (902) 490-4288

TO: Craig MacMullin, MBA, CPA, CGA, Chair, and Members of the
Halifax Regional Water Commission Board

SUBMITTED BY: Original Signed By: _____
Louis de Montbrun, CPA, CA,
Director, Corporate Services / CFO

APPROVED: Original Signed By: _____
Cathie O'Toole, MBA, CPA, CGA, ICD.D
General Manager

DATE: June 1, 2020

SUBJECT: **Halifax Regional Water Commission Employees' Pension Plan
Financial Report First (1st) Quarter, 2020**

INFORMATION REPORT

ORIGIN

Financial reporting for the Halifax Regional Water Commission Employees' Pension Plan (hereinafter called the "Plan").

BACKGROUND

The Board is required to review the periodic (quarterly) financial results of the Plan throughout the year.

DISCUSSION

The attached statement of changes in net assets available for benefits (Appendix A) outlines the annual budget for the Plan and actual financial performance for the First Quarter (January 1 to March 31, 2020). Favourable or unfavourable variances reported compare actual results to pro-rated budget amounts, for the three (3) month period ended March 31st, 2020. Yearend audited results for 2018 and un-audited 2019 are shown for comparative purposes.

As shown on the statement of changes in net assets available for benefits, net assets available for benefits have decreased by \$6.7 million for the three (3) month period ending March 31, 2020. The pro-rated budget forecasted an increase in net assets available of \$1.7 million. Actual results for the period of (\$6.7) million compared to the budget of \$1.7 million results in an un-favourable variance in the amount of (\$8.4) million.

The annual budget forecasted revenue of \$6.0 million. Revenue for the period was (\$7.0) million, which when compared to the pro-rated budget of \$1.5 million results in an un-favourable variance of (\$8.5) million. Revenue is affected largely by the performance of the HRM Master Trust, and change tends to be more volatile compared to contributions and expenses of the Plan. This variance is attributed directly to the significant decrease in the fair value of the investment assets for the First Quarter. The decrease in the fair value of investment assets for the period totaled (\$7.6) million compared to the pro-rated budget of \$0.8 million, a difference of (\$8.4) million. Investment income for the period performed below expectations, showing an un-favorable variance of (\$0.1) million or (10%).

Contributions of \$1.5 million are tracking slightly lower than expected, down \$0.1 million compared to the pro-rated budget of \$1.6 million. This variance is mainly attributed to timing of staffing increases and pay changes.

Expenses of \$1.2 million for the period are lower than the pro-rated budget of \$1.4 million resulting in a favourable variance of \$0.2 million or 16%. The main contributor to this variance is termination payments which are lower than the pro-rated budget estimate.

SERVICE STANDARDS

Tracking of Regulatory Filing Requirements, Administrative Reporting Requirements and Service Standards for actuarial calculation requests is ongoing. The reports for Regulatory Filing Requirements and Administrative Reporting Requirements are attached as Appendix B and Appendix C respectively, and document administrative compliance within the various levels of reporting for the period.

Service Standard results for the First Quarter (January 1st to March 31st, 2020) have been attached as Appendix D. The intent of the service standards report is to set a standard number of days for which calculations can be provided to members when actuarial calculations are requested. The service standard includes both estimated number of days required by the current actuarial service provider, Eckler Partners Ltd., and estimated Halifax Water staff time.

The overall results outlined for the First Quarter as reported in Appendix D show, out of 7 requests, five were delivered within the standard days proposed under the threshold limits. Response time of the actuary continues to improve compared to prior reports showing 5 of the 7 requests came in within the service standard. For the actuary, average service days

for Retirement Estimates and Termination Estimates were 7 days and 10 days respectively compared to a standard of 11.

For the administrative staff, response time ranged from 8 - 24 days compared to the standard of 12 days. Of the 7 requests, 5 came in within the standard. Average days for Retirement Estimates and Termination Estimates were 9 days and 14 days respectively compared to a standard of 12 days. It is important to note that the urgency of requests is considered by administrative staff resulting in some requests being deferred while other tasks take priority.

After reviewing results over the past 2 years, with regards to standards and administrative processes, changes have been implemented for 2020 in an effort to enhance service standard reporting taking into account types of requests and circumstances that may affect timing of responses. Discussions have taken place with internal staff, focusing on efficiency and process improvement. The response time from Eckler has shown improvement, exhibiting their commitment to respond within the prescribed service standards set.

ATTACHMENTS

APPENDIX A – Financial Report:

Statement of changes in net assets available for benefits, for the three (3) month period ended March 31, 2020

APPENDIX B – Regulatory Filing Requirements – 2020

APPENDIX C – Administrative Reporting Requirements – 2020

APPENDIX D – Service Standards Report - 2020

Report Prepared by:	Original Signed By:
	_____ Heather S. Britten, B.Comm. Quality Assurance Officer (902) 490-1895

Halifax Regional Water Commission Employees' Pension Plan
Statement of changes in net assets available for benefits
For the three (3) month period ended March 31, 2020

	March 31, 2020					Actual	Actual
				Variance		(Un-Audited)	(Audited)
	2020		Prorated	Actual versus Prorated Budget		2019	2018
	Budget	Actual	Budget	Favourable (Unfavourable)			
			25%	\$	%		
Revenue							
Net investment income:							
Total investment income	\$3,240,000	\$725,268	\$810,000	(\$84,732)	(10%)	\$3,644,079	\$2,939,026
Investment manager fees	(\$230,000)	(\$39,892)	(\$57,500)	\$17,608	(31%)	(\$202,574)	(\$165,670)
Increase (decrease) in the fair value of investment assets	\$3,000,000	(\$7,643,886)	\$750,000	(\$8,393,886)	(1119%)	\$10,642,209	\$1,763,098
	<u>\$6,010,000</u>	<u>(\$6,958,510)</u>	<u>\$1,502,500</u>	<u>(\$8,461,010)</u>	<u>(563%)</u>	<u>\$14,083,715</u>	<u>\$4,536,454</u>
Contributions							
Participants:							
Current service (including additional voluntary contributions)	\$3,236,000	\$739,217	\$809,000	(\$69,783)	(9%)	\$3,463,328	\$2,845,791
Sponsors:							
Current service	\$3,155,000	\$721,650	\$788,750	(\$67,100)	(9%)	\$2,972,138	\$2,578,842
Unfunded liability	\$0	\$0	\$0	\$0	#DIV/0!	\$0	\$825,200
	<u>\$6,391,000</u>	<u>\$1,460,867</u>	<u>\$1,597,750</u>	<u>(\$136,883)</u>	<u>(9%)</u>	<u>\$6,435,466</u>	<u>\$6,249,833</u>
Expenses							
Benefit payments:							
Benefit payments	\$4,642,000	\$1,123,600	\$1,160,500	\$36,900	3%	\$4,226,855	\$3,848,218
Termination payments	\$800,000	\$20,299	\$200,000	\$179,701	90%	\$960,187	\$79,849
Death benefit payments	\$0	\$0	\$0	\$0	n/a	\$0	\$0
Administrative:							
Actuarial & consulting fees	\$75,000	\$11,598	\$18,750	\$7,152	38%	\$118,659	\$50,409
Audit & accounting fees	\$9,000	\$0	\$2,250	\$2,250	100%	\$8,530	\$8,441
Bank custodian fees	\$25,000	\$7,622	\$6,250	(\$1,372)	(22%)	\$28,636	\$32,303
Insurance	\$9,000	\$8,760	\$2,250	(\$6,510)	(289%)	\$8,760	\$8,347
Miscellaneous	\$15,000	\$5,977	\$3,750	(\$2,227)	(59%)	\$20,610	\$16,195
Professional fees	\$15,000	\$3,106	\$3,750	\$644	17%	\$23,261	\$13,440
Registration fees	\$3,000	\$0	\$750	\$750	100%	\$2,500	\$2,337
Training (Trustees/ Administration/ Pension Committee)	\$2,000	\$0	\$500	\$500	100%	\$0	\$0
	<u>\$5,595,000</u>	<u>\$1,180,962</u>	<u>\$1,398,750</u>	<u>\$217,788</u>	<u>16%</u>	<u>\$5,397,997</u>	<u>\$4,059,539</u>
Increase (decrease) in net assets available for benefits	<u>\$6,806,000</u>	<u>(\$6,678,605)</u>	<u>\$1,701,500</u>	<u>(\$8,380,105)</u>	<u>(493%)</u>	<u>\$15,121,184</u>	<u>\$6,726,748</u>
<hr/>							
Net assets available for benefits, beginning of period	\$141,579,813	\$141,579,813				\$126,458,630	\$119,731,882
Increase (decrease) in net assets available for benefits	<u>\$6,806,000</u>	<u>(\$6,678,605)</u>				<u>\$15,121,184</u>	<u>\$6,726,748</u>
Net assets available for benefits, end of period	<u>\$148,385,813</u>	<u>\$134,901,208</u>				<u>\$141,579,813</u>	<u>\$126,458,630</u>

For the purposes of this statement, expenses are reported on a cash basis. Comparative years are reported on an accrual basis as that is how they are reported on the financial statements.

Halifax Regional Water Commission Employees' Pension Plan
Regulatory Filing Requirements - 2020
as at March 31, 2020

Report	Regulatory Body	Filing Deadline	Date last filed		Comments
1 Annual Form 3 - Summary of Contributions	Superintendent of Pensions	60 days after the beginning of each fiscal year	February 19, 2020	DB Plan	Filed directly with the Trustee, Northern Trust, for the DB Plan.
			February 18, 2020	DC Plan	Filed directly with the Trustee, Industrial Alliance, for the DC Plan.
2 Pension Plan Income Tax Return (T3)	Canada Revenue Agency	March 31st	March 13, 2020	DB Plan	CRA requires Northern Trust as the custodian to prepare and file T3 Income Tax Returns each year. Information obtained from HRM Pension Plan quarterly report.
3 Pension Plan Audited Financial Statements	Superintendent of Pensions	6 months after the Plan's fiscal year end	June 25, 2019	DB Plan	Audited financial statements were completed and approved by the HW Board on June 20th, 2019.
			June 12, 2019	DC Plan	Audited financial statements are not prepared for this pension plan. However, Industrial Alliance provides a Financial Report detailing all pertinent details of the plan. This report is submitted to the regulatory body prior to June 30th each year.
4 Annual Information Returns (AIR)	Superintendent of Pensions	June 30th	June 12, 2019	DB Plan	
			June 12, 2019	DC Plan	
5 Actuarial Valuation*	Superintendent of Pensions Canada Revenue Agency	September 30th	September 27, 2019 September 27, 2019		Actuarial Valutaion was conducted as of January 1, 2019.
6 Plan Amendments	Superintendent of Pensions	60 days after the amendment approved by the Board	September 27, 2019	DB Plan	Amendment #12 approved by the Board June 20, 2019; Submitted to the Superintendent September 27, 2019. The amendment was pursuant to the contribution rate change as dictated by the Actuarial Valuation of January 1, 2019.
	Canada Revenue Agency		September 27, 2019		
	Superintendent of Pensions Canada Revenue Agency	60 days after the amendment approved by the Board	n/a	DC Plan	All documents relating to the registration of the DC Plan were received by the Superintendent October 6, 2017.

* Actuarial Valuations are required at a minimum every three (3) years.

** Notional Agreements were implemented during 2017 with an effective date for January 1, 2017. Notional Agreements are not registered therefore not subject to reporting requirements to a regulatory body.

Halifax Regional Water Commission Employees' Pension Plan
Administrative Reporting Requirements - 2020
as at March 31, 2020

Report	Filing Deadline/ Recurrence	Date last filed/ Performed		Comments
1 Pensioners' Payroll	Monthly	June 1, 2020		Pensioners are paid the 1st of each month; no exceptions to report for the First Quarter 2020.
2 Contributions to the Trustee	Monthly	May 20, 2020	DB Plan	Remittances due to Northern Trust within 30 days of monthend; no exceptions to report for First Quarter 2020.
		January 15, 2020	DC Plan	Remittances due to Industrial Alliance within 30 days of monthend; no exceptions to report for First Quarter 2020.
		n/a	Notional Agreement*	
3 Pension Plan Financial Statements	Quarterly	June 25, 2020	DB Plan	First Quarter (January - March 2020)
		n/a	DC Plan	Quarterly statements are not prepared for the DC Plan. A financial report is prepared by Industrial Alliance and that report is filed with the AIR to the regulator.
		n/a	Notional Agreement*	Financial statements not required.
4 Investment Performance Review & Compliance with SIP&P	Quarterly	June 25, 2020	DB Plan	4th Quarter (October - December 2020)
				Report prepared quarterly by administration staff for the HW Board of Directors, in conjunction with the quarterly HRM Pension Plan Committee meeting documentation. SIP&P is reviewed annually and was last reviewed and approved on December 5, 2019.
5 Annual Pension Statements to Members	June 30th	June 18, 2019	DB Plan	Statements issued annually by June 30th.
		June 18, 2019	DC Plan	Statements issued annually in conjunction with the DB Plan statements. Members also have access to online, real-time reporting.
		June 18, 2019	Notional Agreement*	Statements issued annually in conjunction with the DB Plan statements.
6 Fiduciary Liability Insurance	Annually	November 13, 2019	DB Plan	Reviewed and renewed annually by administration staff. The policy period expires November 30 each year.

* Notional Agreements were implemented during 2017 with an effective date for January 1, 2017. Notional Agreements are not registered therefore not subject to reporting requirements to a regulatory body.

Halifax Regional Water Commission Employees' Pension Plan
Service Standards Report - 2020

Quarter 1 (as at June 4, 2020)			Eckler				HW Staff				Total Average Service Days
Transaction	Standard		Total # Completed	# Past Standard	% with Standard	Average Service Days	Total # Completed	# Past Standard	% with Standard	Average Service Days	
Retirement Estimates	23	Business Days	2	0	100%	7	2	0	100%	9	16
Marriage Breakdown Calculations	33	Business Days	0	0			0	0			0
Post-Retirement Death Letter	10	Business Days	0	0			0	0			0
Pre-Retirement Death Benefit	33	Business Days	0	0			0	0			0
Termination Estimates/ Calculations											
- Standard	23	Business Days	5	2	60%	10	5	2	60%	14	24
- Non Standard (incl RTAs)	33	Business Days	0	0			0	0			0
Total			7	2	71%	17	7	2	71%	23	
			Total # Completed		# Past Standard		% within Standard				
Combined Total (Eckler & Halifax Water)			7		2		71%				

TO: Craig MacMullin, MBA, CPA, CGA, Chair, and Members of the
Halifax Regional Water Commission Board

SUBMITTED BY: Original Signed By: _____
Louis de Montbrun, CPA, CA
Director, Corporate Services / CFO

APPROVED: Original Signed By: _____
Cathie O'Toole, MBA, FCPA, FCGA, ICD.D
General Manager

DATE: June 19, 2020

SUBJECT: HRM Pension Plan Investment Performance - Fourth (4th) Quarter,
2019

INFORMATION REPORT

ORIGIN

The Pension Plan investment performance is reported to the Commission periodically throughout the year.

BACKGROUND

None

DISCUSSION

The tables below and the attached Investment Report provide a performance update for the 4th Quarter of 2019 (October to December) for the Halifax Regional Municipality (HRM) Pension Plan Master Trust, of which Halifax Regional Water Commission (HRWC) is a part. The fair value of the investment in the Master Trust is determined and updated at year-

ITEM # 7-I

HRWC Board

June 25, 2020

end, and HRWC's share of the total HRM Master Trust at December 31, 2019 was 6.3%, totaling \$141.5 million.

The total fund returned 4.0% in the 4th Quarter, which outperformed the policy benchmark of 2.5% by 1.5%. The return for the one-year period ended December 31, 2019 is 10.7%, outperforming the policy benchmark of 10.3% by 0.4%. Other historical returns are provided in Table 1 below.

Table 1 – Returns

	Current				Since
	Quarter		3 - Year	4 - Year	Inception
	(Oct to Dec)	1-Year	Annualized	Annualized	(Oct 1999)
Fund Return	4.0%	10.7%	8.4%	7.6%	7.2%
Policy Benchmark	2.5%	10.3%	6.6%	6.4%	5.7%
Excess Return	1.5%	0.4%	1.8%	1.2%	1.5%

The total fund return is subject to investment management fees and plan expenses. The HRM Pension Plan performs an analysis with respect to the Master Trust to show the potential downside return risk under different scenarios. The four (4) most recent scenarios analyzed provide context as to the performance of the Master Trust during previous periods of market turmoil, and are identified in Table 2 below:

Table 2 – Stress Testing

Scenario:	Projected Return
	of Master Trust
2008 Financial Crisis	(22.3%)
2002 Accounting Scandals	(10.5%)
2011 Debt Ceiling Crisis	(8.2%)
1987 Black Monday	(6.3%)

As at December 31, 2019, the Master Trust was in compliance with the Statement of Investment Policies and Procedures (SIP&P), and a summary of the asset mix is provided in Table 3 below:

Table 3 – Asset Mix, as at September 30, 2019

Asset:	Actual	Policy
Cash & Equivalents	0.8%	0.0%
Canadian Equity	4.9%	5.3%
Global Equity	30.4%	27.6%
Fixed Income	32.6%	38.7%
Minimum Target Return	31.3%	28.4%

ATTACHMENT

Halifax Regional Municipality Pension Plan Investment Report 4th Quarter, 2019.

Report Prepared by:	Original Signed By: _____ Heather S. Britten, B. Comm. Quality Assurance Officer (902) 490-1895
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ITEM #7-I
HRWC Board
June 26, 2020
ATTACHMENT



Investment Report

Q4 2019

Consent Agenda Item No. 1



Executive Summary

Compliance

- As at December 31, 2019, the Master Trust (MT) was in compliance with the SIP&P.

Funded Status

- As at December 31, 2018, the going concern funded ratio and transfer ratio were 93.1% and 64.2% respectively.*

Master Trust Performance (net of fees)

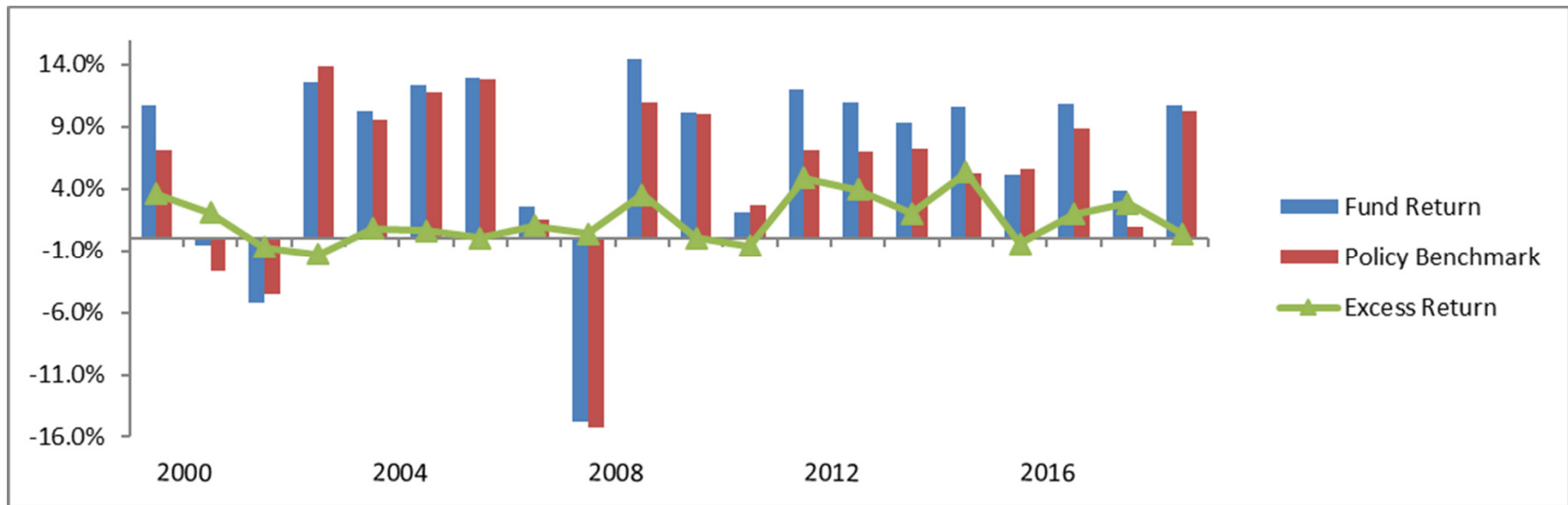
- In Q4, the MT earned 4.02%, outperforming the policy benchmark return by 1.51%.
- For the one-year period ending December 31, 2019, the MT earned 10.69% outperforming the policy benchmark by 0.41%.
- The MT earned an annualized return of 7.57% over the 4-year period ending December 31, 2019, outperforming the policy benchmark by 1.21% annualized.
- Since inception (October 1999), the MT earned 7.18% annualized, outperforming the Plan's long-term rate objective of 6.10%. The table on the next slide summarizes the calendar year returns for the MT.

*Per Eckler Valuation Report as at December 31, 2018. Assumes a going concern discount rate of 6.10%. This discount rate is reflected in performance reporting starting in Q3 2019.



Executive Summary – Cont.

Calendar Returns (net of fees)



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Fund Return	10.71%	-0.56%	-5.21%	12.60%	10.27%	12.38%	12.88%	2.60%	-14.83%	14.47%	10.12%	2.11%	12.01%	10.94%	9.27%	10.59%	5.13%	10.85%	3.81%	10.69%
Policy Benchmark	7.12%	-2.64%	-4.50%	13.91%	9.50%	11.76%	12.85%	1.58%	-15.20%	10.92%	10.08%	2.71%	7.12%	7.01%	7.24%	5.27%	5.55%	8.91%	0.96%	10.28%
Excess Return	3.59%	2.08%	-0.71%	-1.31%	0.77%	0.62%	0.03%	1.02%	0.37%	3.55%	0.04%	-0.60%	4.89%	3.93%	2.03%	5.32%	-0.42%	1.94%	2.85%	0.41%



Executive Summary – Cont.

Added Value

- In Q4 of 2019, the MT outperformed its policy benchmark by 1.51%. Attribution: Minimum Target Return +1.43%, Universe Bonds +0.18%, Global Credit +0.09%, EAFE Equity +0.02%, US Equity -0.01%, Canadian Equity -0.02%, Emerging Equity -0.07%, and World Equity -0.11%.

Q4 Updates

- Committed EUR 15 million to a European real estate fund focused on value-add opportunities. We have a prior relationship with the General Partner through an infrastructure mandate.
- Committed EUR 15 million to a global private credit fund focused on preferred equity opportunities in private equity portfolios. We have a long standing relationship with the General Partner through investments in three prior funds and two co-investments.
- Co-invested USD 5 million in a direct secondary transaction focused on a US outpatient rehabilitation services business.



Total Fund Net Returns

As of December 31, 2019

	Q4	1-Year	3-Year Annualized	4-Year Annualized	Since Inception (Oct 1999)
Fund Return	4.02%	10.69%	8.40%	7.57%	7.18%
Policy Benchmark*	2.51%	10.28%	6.63%	6.36%	5.70%
Excess Return	1.51%	0.41%	1.77%	1.21%	1.48%

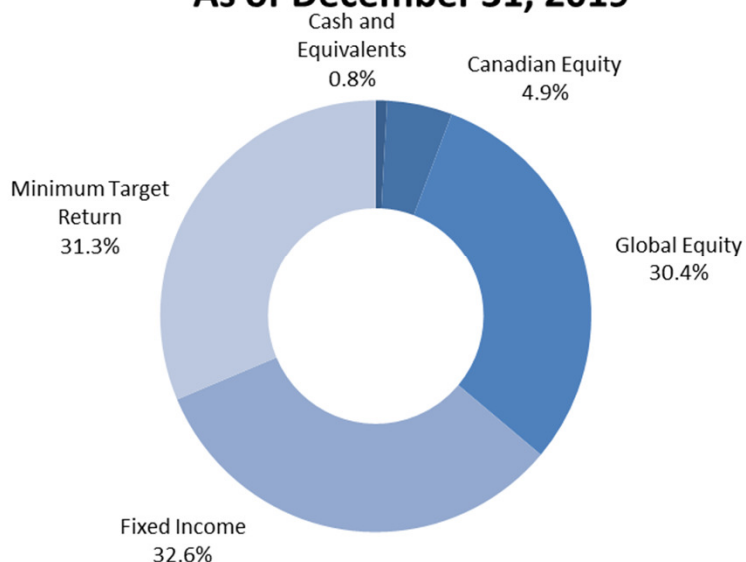
*Effective December 31, 2019, the Policy Benchmark is 3.3% S&P/TSX Index + 2.0% S&P/TSX 60 + 4.9% S&P 500 Index (\$USD) + 8.3% MSCI EAFE Index (\$CAN) + 4.1% MSCI Emerging Markets (\$CAN) + 10.3% MSCI World (\$CAN) +17.4% FTSE TMX Canada Universe Bond + 21.3% 3 Month Bankers Acceptance + 28.4% Minimum Target Return.

Fund returns are shown net of fees and expenses

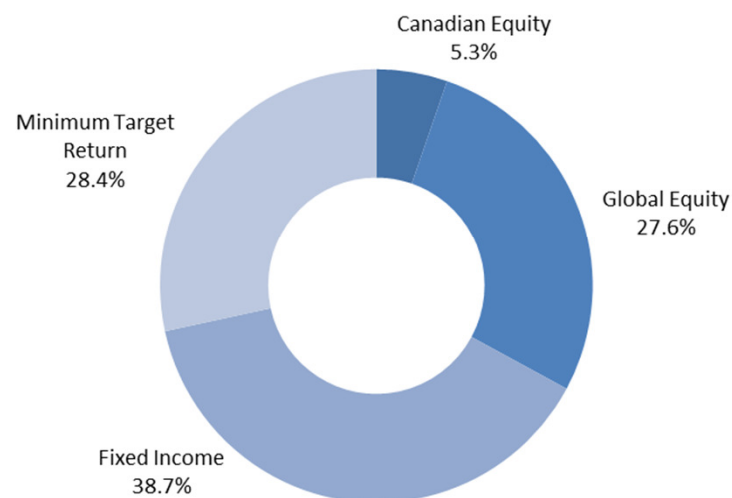


Asset Mix

**Asset Mix
As of December 31, 2019**



**Asset Mix Policy
As of December 31, 2019**



*Effective December 31, 2019, the Policy Benchmark is 3.3% S&P/TSX Index + 2.0% S&P/TSX 60 + 4.9% S&P 500 Index (\$USD) + 8.3% MSCI EAFE Index (\$CAN) + 4.1% MSCI Emerging Markets (\$CAN) + 10.3% MSCI World (\$CAN) + 17.4% FTSE TMX Canada Universe Bond + 21.3% 3 Month Bankers Acceptance + 28.4% Minimum Target Return.



Equity Market Index Returns

As of December 31, 2019

Index	Q4	1-Year	3-Year Annualized	4-Year Annualized
Canadian Equity (S&P/TSX Composite Index)	3.17%	22.88%	6.89%	10.28%
US Equity (S&P 500 C\$)	6.83%	24.84%	13.99%	12.48%
US Equity (S&P 500 U\$)	9.07%	31.49%	15.27%	14.43%
EAFE Equity (MSCI EAFE C\$)	5.94%	15.85%	8.34%	5.53%
Emerging Markets (MSCI EM C\$)	9.54%	12.43%	10.33%	9.57%
World Equity (MSCI World C\$)	6.32%	21.22%	11.32%	9.39%

*Source: Northern Trust

In the fourth quarter:

- US equities made robust gains as trade uncertainty lessened with the US and China's phase one trade deal announcement.
- Emerging market equities posted a strong gain, benefiting from an easing in geopolitical concerns and outperformed World equities.



Public Equity – Q4 Summary

- The MT's Equity portfolio returned 5.63% during the quarter, underperforming the equity policy benchmark return of 6.49% by 0.86%, primarily due to underperformance of Emerging and World equities.

As of December 31, 2019 (C\$ returns)

	Q4			One year		
	Plan	Benchmark	Relative Performance	Plan	Benchmark	Relative Performance
Canadian Equity	2.42%	2.90%	-0.48%	21.90%	22.52%	-0.62%
US Equity	8.42%	9.07%	-0.65%	31.62%	31.49%	0.13%
EAFE Equity	5.91%	5.94%	-0.03%	16.08%	15.85%	0.23%
Emerging Equity	7.41%	9.54%	-2.13%	14.51%	12.43%	2.08%
World Equity	4.87%	6.32%	-1.45%	19.63%	21.22%	-1.59%
Total	5.63%	6.49%	-0.86%	19.85%	20.53%	-0.68%

*Source: Northern Trust



Bond Market Returns

As of December 31, 2019

Index	Q4	1-Year	3-Year Annualized	4-Year Annualized
Canadian Universe Bonds (FTSE TMX Canada Universe Bond)	-0.85%	6.87%	3.57%	3.09%
Canadian Government Bonds (FTSE TMX Canada Universe Government)	-1.20%	6.42%	3.36%	2.73%
Canadian Corporate Bonds (FTSE TMX Canada Universe Corporate)	0.06%	8.05%	4.14%	4.03%

- Corporate bonds have outperformed Government bonds and the broader Universe over the Q4, 1-year, 3-year and 4-year periods.
- In Q4, Government bond prices fell globally as yields climbed. Short duration assets outperformed long-term ones as curves steepened. Due to tightening corporate spreads, Corporate bonds outperformed Government bonds.



Public Fixed Income – Q4 Summary

- The MT's diversified Fixed Income portfolio earned 0.23%, which outperformed its benchmark return of -0.10% by 0.33%.

As of December 31, 2019 (C\$ returns)

	Q4			One year		
	Plan	Benchmark	Relative Performance	Plan	Benchmark	Relative Performance
Canadian Corporate Bond	1.38%	0.06%	1.32%	6.11%	8.05%	-1.94%
Government Bond	-1.48%	-1.20%	-0.28%	5.89%	6.42%	-0.53%
Global Credit Absolute Return	0.51%	0.50%	0.01%	3.20%	2.04%	1.16%
Total	0.23%	-0.10%	0.33%	4.63%	4.28%	0.35%

*Source: Northern Trust

- In Q4, strong performance by our Canadian Corporate bond portfolio increased returns relative to the overall fixed income benchmark.



Private Market (MTR) – Summary

- The Minimum Target Return portfolio (private investment portfolio) returned 6.34% in Q4, versus a benchmark of 1.49%, outperforming by 4.85%.

As of December 31, 2019 (C\$ returns)

	Q4	1-Year	3-Year Annualized	4-Year Annualized	Since Inception (Oct 1999)
MTR Return	6.34%	8.44%	12.02%	10.63%	12.88%
Policy Benchmark	1.49%	6.10%	6.23%	6.30%	6.49%
Excess Return	4.85%	2.34%	5.79%	4.33%	6.39%

The policy benchmark for the private investment portfolio is the Going Concern Discount rate. The 2019 rate is 6.1%, 2018 is 6.2%, 2017 is 6.4%, 2016 is 6.5%, 2015 is 6.55%, 2014 is 6.5%, 2013 is 6.25%, 2007-2012 is 6.75% and prior to 2007 is 7.4% respectively.



Liquidity

	Actual 2019 Amounts (\$ mln)
Contributions**	\$ 101.2
Dividend & Distribution Income	\$ 15.9
Interest Income	\$ 12.3
Other Income	\$ 0.4
Benefit Payments**	-\$ 108.2
Expenses	-\$ 7.4
Total Annual Net CF	\$ 14.2
Liquid Investments*	\$ 1,481.9
Actual Net Distributions	\$ 168.8
Actual Net Capital Calls	-\$ 132.5
Total CF + Liquid Investments + Private Sales – Capital Calls	\$ 1,532.4

* Liquid investments as at February 20, 2020. Includes all publicly traded equity and fixed income investments

** Contributions and Benefit Payments are based on actual 2019 amounts

*** Income and expenses are based on actual 2019 amounts

TO: Craig MacMullin, MBA, CPA, CGA, Chair, and Members of the
Halifax Regional Water Commission Board

SUBMITTED BY: Original Signed By:
Cathie O'Toole, MBA, FCPA, FCGA, ICD.D, General Manager

DATE: June 22, 2020

SUBJECT: **COVID-19 Business Impacts**

INFORMATION REPORT

ORIGIN

Enterprise Risk Management

BACKGROUND

On March 24, 2020, the Medical Officer of Health, under the authority of the *Health Protection Act*, 2004, c. 4, s.1, s.32 issued an order relating to the pandemic, with various amendments from time to time (Order). Section 11 of the Order exempts "Municipal Utilities such [as] water, wastewater and storm water" from certain restrictions contained in the Order. The operations of Halifax Water are deemed to be an essential service during the continuation of the state of emergency. This Order, as it relates to municipal water and wastewater utilities, remains in place.

Halifax Water has generally maintained its level of service related to the provision of water and wastewater throughout the state of emergency.

DISCUSSION

Halifax Water took immediate action in response to the pandemic. On April 1, 2020 Halifax Water announced measures to assist customers by suspending collection activities, re-connecting disconnected customers, waiving interest during the state of emergency, and offering flexible payment arrangements. With these measures in place, the utility then focused on determining what else could be done to support customers, and the local economy.

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HRWC Board

June 25, 2020

As a provider of an essential service, Halifax Water's focus throughout the response to COVID-19 has been to maintain service levels, protect its employees and customers and carry forward with necessary capital work. Halifax Water employs approximately 500 people, with a \$96 million-dollar capital budget and a \$155 million-dollar operating budget for this year. Not only does the utility provide essential services during a time when they are needed the most, but it also provides significant local economic stimulus that that benefits the economy of Halifax which in turn is of benefit to its customers.

On February 10, 2020 Halifax Water filed a two-year rate application with the Nova Scotia Utility and Review Board (NSUARB) for increases in water and wastewater rates. As a result of COVID-19, Halifax Water has subsequently modified that request. If approved by the NSUARB, the utility will maintain the current rates for water service for two years, and for wastewater service this fiscal year. A rate increase for wastewater service is required on April 1, 2021 so that Halifax Water can continue to provide its level of service. This strategy results in less capacity to manage financial risk, particularly with respect to its wastewater service.

Halifax Water does not assume this risk lightly. The pandemic has caused heightened uncertainty. However, two important facts remain consistent:

1. Halifax Water services are essential and will always be required.
2. Many of the costs to provide water and wastewater service are fixed, tied to long term contracts, and based on maintaining and operating assets that are already constructed and in service.

Throughout the response to COVID-19, Halifax Water has not laid off any of its full-time workforce, although two temporary employment contracts were terminated somewhat earlier than expected due to COVID-19. Halifax Water reorganized the way it provides its services. Many employees of Halifax Water are working from home. The field service personnel were divided into two shifts during April and May, so that at any given time, half of the work force was available. In June, field service personnel returned to a more normal work schedule.

Although exempted from the provisions of the Order, Halifax Water has taken numerous steps to mitigate the risk of its employees being impacted by COVID-19, such as, enhanced cleaning, use of additional personal protective equipment, revised standard operating procedures, limiting gatherings of staff and restricting the number of people in vehicles.

This has increased the costs incurred by the utility as two vehicles may now be required to be dispatched to a service call. Despite field staff being split into two shifts, Halifax Water has only seen a reduction in kilometers driven of 15% from March 2020 to April 2020. With a return to more normal operations for field staff, it is expected the kilometers driven will return to normal levels in the next couple of months.

ITEM # 8-I

HRWC Board

June 25, 2020

The Order does not impact the ability of construction of current capital projects to continue at this time. Those capital projects which were in progress prior to the Order are continuing. Halifax Water has binding contracts with these contractors.

Halifax Water is also continuing necessary planning for future projects required to address its ongoing and continuing infrastructure deficits. The Halifax Regional Municipality (“municipality”) revised their 2020/21 Capital and Operating Budgets, resulting in two integrated projects being deferred to 2021/22: Cogswell redevelopment and water main renewal on Drummond Street

BUDGET IMPLICATIONS

In general, because the essential services provided by Halifax Water continue to be provided to the same standard and service level as prior to the Order, the key budget assumptions regarding expenses have not been impacted by the pandemic. The observation of Halifax Water, since the Order, is that if there is any change in costs of the utility it is likely to be an overall increase in those costs (e.g., additional cleaning, additional requirements for personal protective equipment, additional vehicle use, increase costs for some products due to supply chain impacts).

Halifax Water has been closely tracking the water consumption and has observed changes in consumption patterns for individual customer classes. Overall consumption has decreased slightly, and if consumption returns to levels consistent with 2019/20 as of September 1, 2020, the annual decrease would be approximately 1.4%.

A decrease in consumption poses a financial risk to the utility. However, Halifax Water is of the view that the current decreases in consumption are relatively minimal and will be transitory. With the recent easing of some restrictions, increased business activity, and many programs and supports in place to stimulate the economy and help businesses adjust to operating in compliance with COVID-19 public health requirements, it is anticipated that by September 2020 consumption of water and wastewater service will return to more normal patterns.

A decrease in consumption of 1.4% does not result in significant operating cost savings, as many of the utility’s costs are fixed. As a result of increased financial risk, Halifax Water will be closely monitoring projections during 2020/21. Halifax Water has a cost containment identification and reporting process, through which any cost savings in 2020/21 will be recognized.

Report Prepared by: Original Signed By:

Cathie O’Toole, MBA, FCPA, FCGA, ICD.D, General Manager

Original Signed By:

Louis de Montbrun, CPA, CA, Director of Corporate Services/CFO

TO: Craig MacMullin, MBA, CPA, CGA, Chair, and Members of the
Halifax Regional Water Commission Board

SUBMITTED BY: Original Signed By: _____
Reid Campbell, P. Eng., Director, Water Services

APPROVED: Original Signed By: _____
Cathie O'Toole, MBA, FCPA, FCGA, ICD.D
General Manager

DATE: June 22, 2020

SUBJECT: **2019/2020 Lead Service Line Replacement Program**

INFORMATION REPORT

ORIGIN

August 22nd, 2017 NSUARB Decision - HRWC Lead Service Line (LSL) Replacement Program (M07891).

BACKGROUND

In October 2016, the Halifax Water Board approved a business plan for a new approach to LSL replacement, consistent with the National Drinking Water Advisory Council (NDWAC) recommendations to the USEPA. On August 22, 2017, the Nova Scotia Utility and Review Board issued an order granting Halifax Water authority to undertake emergency LSL renewals to the water meter at utility cost and to provide a 25% rebate (up to a maximum of \$2500) to homeowners undertaking an LSL replacement. This report will provide an annual update to the Halifax Water Board and the Nova Scotia Utility and Review Board on the LSL replacement program.

PROGRAM OVERVIEW

Halifax Water's approach to manage its customer's exposure to lead is designed to be consistent with the NDWAC recommendations, which have been endorsed by the American Water Works Association, to the degree they can be applied in Canada and do not conflict with local regulatory requirements. The 5 pillars of the approach and progress made towards this approach are described below:

1) Lead Service Line Inventory

Halifax Water is currently working to consolidate all existing records pertaining to service line composition in an effort to identify all lead service lines. There are 25,851 service connections within the lead boundary area, 17,051 in Halifax (14,459 domestic services where lead could have been used) and 8,840 in Dartmouth. To date, efforts have been focused on the following tasks:

- **Digitizing Existing Service Card Records for Electronic Access**

There are a total of 17,051 service records that have been identified in Halifax within the existing lead service line boundary. This includes commercial and larger services that are greater than 2 inches which would not have been constructed of lead. The Water Quality Department continues to scan and QA/QC the remaining records in Halifax, while all service records in Dartmouth remain to be digitized.

- **Creating a LSL Information Database**

In the fall of 2018, Halifax Water's GIS department completed upgrades to Halifax Water's existing drinking water service lateral database (Forms) to allow for lead related information (i.e. replacements, maintenance, inspections, observations, etc.) to be stored and queried. The next phase of this project began in May 2019. This involves the review of all service records within Halifax Water's existing lead service line boundary to ensure all pertinent information is present for each record. This involves the review of the digital records and comparing them to existing physical records (i.e. service cards, drawings, etc.), field identification through the meter replacement project (described below) and corporate knowledge, with the intent of filling any data gaps to facilitate the determination of service line material, and ensuring the digital record is the authoritative source for lateral information, eliminating the need to keep maintaining paper service cards. A term position within GIS started working on this project in May 2019 and it is expected to complete records within the west lead boundary in 2020. The term position is working efficiently and now has summer support from June 2020 to September 2020 from two summer students.

- **Customer Connect Project**

As part of the Customer Connect Advanced Metering Infrastructure (AMI) project, staff from our installation contractor, Neptune TG were inside the premise for each of our approximately 80,000 customers, with project completion in February 2020. Throughout the AMI project Neptune TG identified a total of 1226 private lead service lines. The AMI figure (Figure 1) displays the location of private lead service as captured by Neptune TG as of February 19, 2020. The private service composition data is being uploaded into Halifax Water's database for service line information (HW Forms), where it can be readily available and incorporated into the authoritative source of information for each individual service line as described above. It is expected that the number of identified private lead service lines through this process is an underestimate of the actual total as there are many instances where the service line entering the home is not visible and a copper connection can be seen at the meter, but the service line further back is comprised of lead.

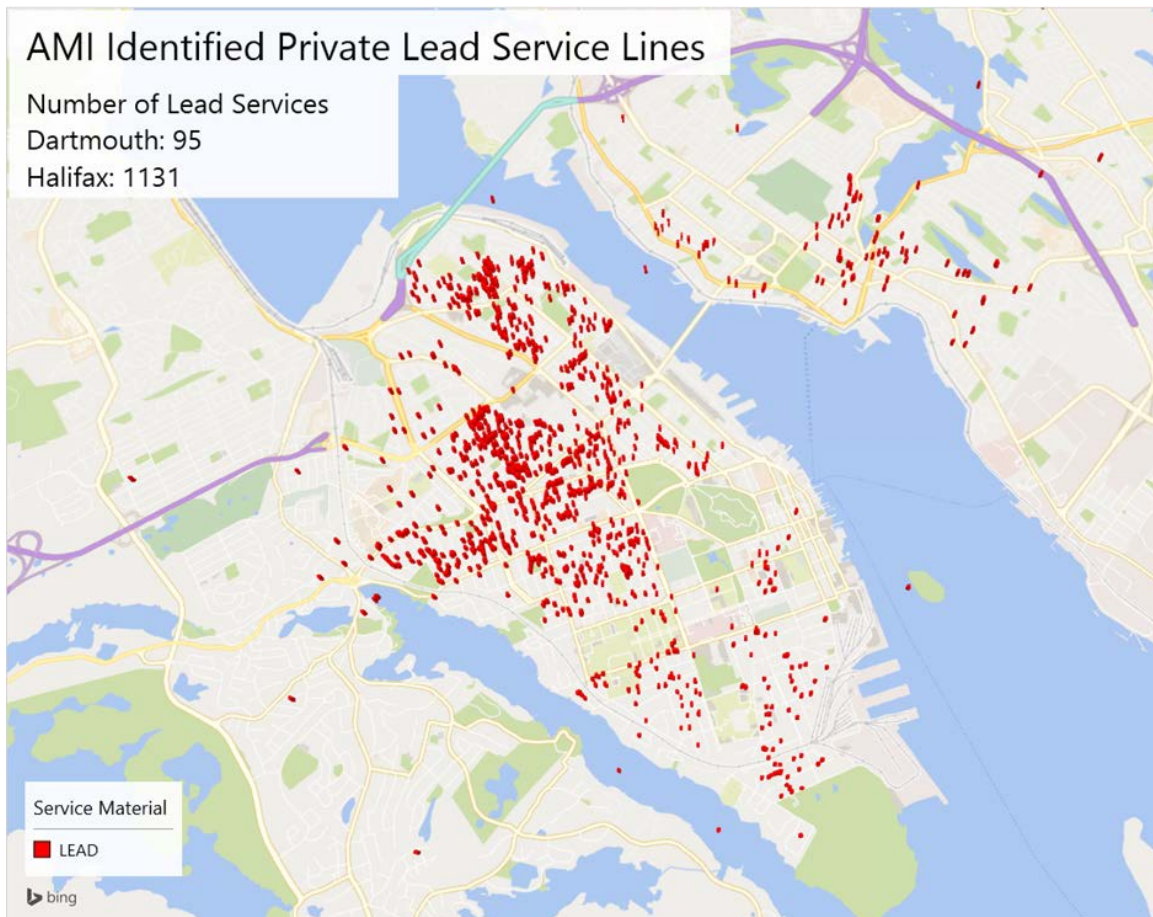


Figure 1 – Lead service lines identified in the home as part of the Customer Connect Advanced Metering Installation project as of project completion. Data reported from Neptune TG on February 19, 2020.

- **Lead Service Line Boundary**

In February 2018 Halifax Water digitized a boundary encompassing peninsular Halifax, old sections of water distribution infrastructure connecting to the old Chain Lake Water Supply Plant, and the area of Dartmouth within the boundary of the Highway of Heroes (Hwy #111). Halifax Water was conservative in their approach to publishing a lead service line boundary at the time, due to the uncertainty in private service records in regard to material composition. With the completion of the AMI project, consultation with the Superintendents of the distribution networks and other senior distribution operations staff and use of historical records, a more accurate boundary was determined (Figure 1). On January 10, 2020 the lead service line boundary was modified and published for public reference.



Figure 2 – Lead Service Line Boundary changes. Old version (left) published on February 20, 2018 and new version (right) published on January 10, 2020.

At the time of the 2017 Application to the NSUARB, the LSL inventory estimate was 2,500 public and greater than 10,000 private LSLs. Over the past few years through identification of the private side material during meter replacement as part of the AMI Customer Connect project, comparison of all digital and physical records for each civic address (currently in progress) and use of hydro-excavation of the service box to confirm accuracy of the inventory prior to LSLR, the LSL estimate as of January 2020 is 2,000 public and 3,500 private LSLs.

2) Lead Service Line Replacement

Halifax Water is working to increase both public and private replacements by:

- Removing barriers to private replacement, which involves informing the public about the health implications of lead service lines, simplifying the process for homeowners, and providing financial assistance mechanisms.
- Halifax Water has been working with HRM over the past 3 years to maximize lead service line replacements in conjunction with paving projects. Below are some of the challenges encountered through this effort to integrate with HRM:
 - I. Despite the 25% rebate and significant outreach in the past two construction seasons, Halifax Water has not been able to achieve a significant level of customer commitment to integrating LSLR into paving projects. In 2019/20, Halifax Water was only able to renew 4 of a possible 77 public LSLs that were part of HRM paving projects due to low customer uptake.
 - II. Low uptake is believed to be due to cost barriers and lack of mechanism for Halifax Water to compel replacement for HRM paving projects. The customer needs to initiate the renewal of their portion for Halifax Water to complete the

public renewal to eliminate an increased public health risk from conducting partial replacements.

- III. With no mechanism to compel customer participation, Halifax Water conducts each public renewal reactively and at increased unit cost compared to incorporating renewals into a larger capital project and achieving cost savings through economy of scale and cost sharing opportunities with HRM for reinstatement.
 - IV. Some customers do not take action to initiate renewals until the paving projects begin or even after project completion. This delay in participation then either leads to delays in HRM paving projects or cuts to new asphalt, both of which lead to additional costs.
- Emergency Full Renewals –There were eleven emergency renewals conducted in the 2019/20 fiscal year.
 - I. Four were the result of a leak on the public service line resulting in a disturbance of the private lead service line.
 - II. One was the result of a lead line replacement on the public when records indicated that the private was copper. Once excavation began, the private side was determined to be lead.
 - III. One was the result of incorrect locates.
 - IV. Four were the result of a disturbance by Halifax Water operations staff (sewer replacement and valve work).
 - V. One was the result of an external contractor breaking the service line. Halifax Water did not pay for this renewal.
 - Halifax Water is working to reduce the inventory of customers who have a public lead service line but copper private service line. To make this process more efficient, Halifax Water now hydro-excavates the service box prior to renewal to confirm material, as past practice has shown that sometimes copper is found despite lead being shown on records. This practice reduces costs as it avoids unnecessary excavation and it also eliminates the possibility of creating an emergency renewal as described above. There are currently approximately 110 public lead only services remaining in Halifax Water Inventory.
 - Halifax Water implemented the LSL rebate program immediately after the NSUARB Order of August 22, 2018. A summary of the distribution costs for private LSLR since program inception is shown in Figure 3.

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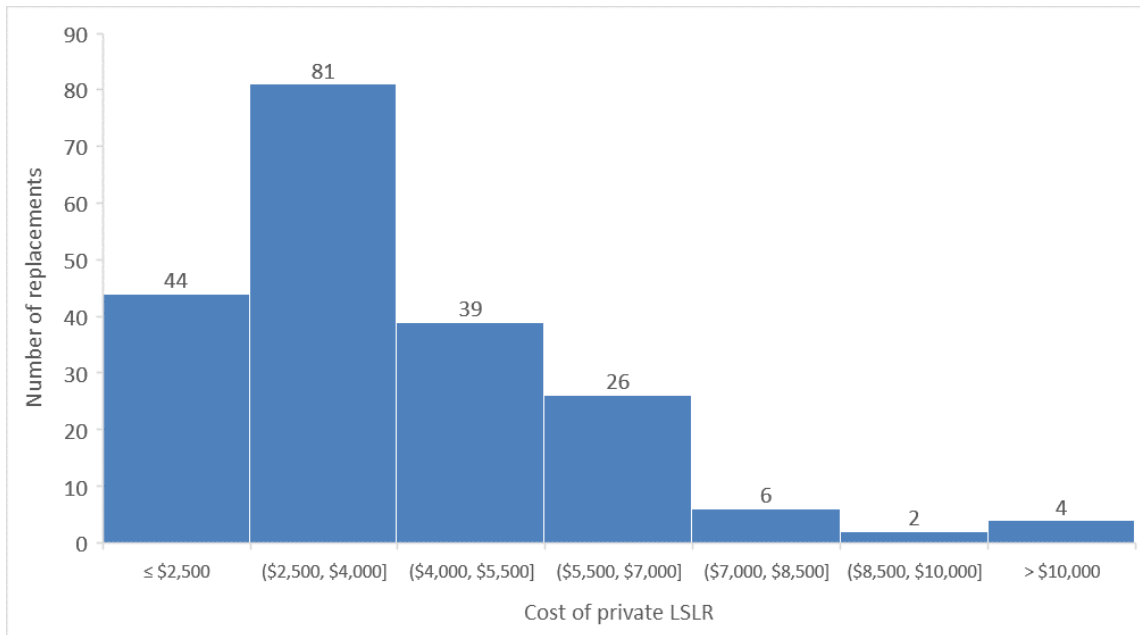


Figure 3 – Histogram showing the distribution of cost for private LSLR based on 202 approved rebates between September 2017 and January 2020.

- Figure 4 shows the number of replacements that have occurred as part of the program since 2011/12. This period encompasses the introduction of authorized contractors to replace the public portion in 2016/17 which allows for the entire LSL to be replaced in a single day, minimizing public health impacts, and simplifying the process for the homeowners.

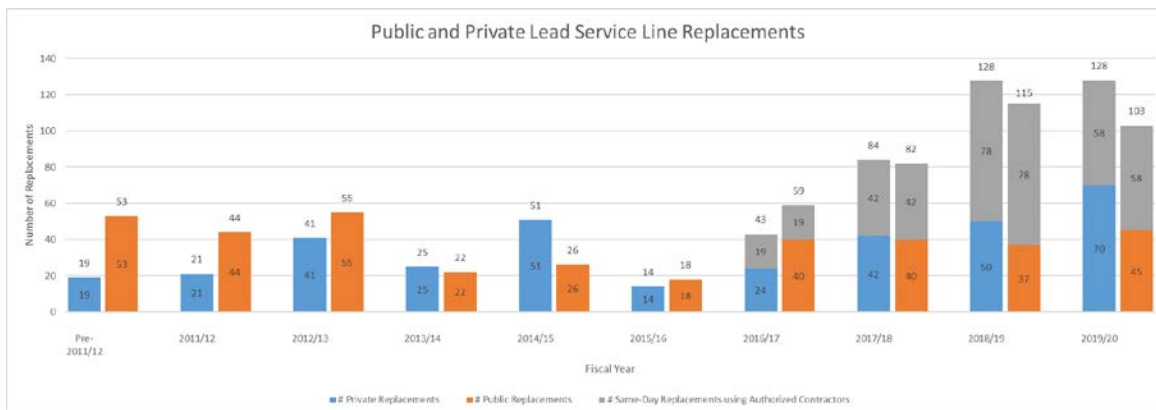


Figure 4 – Number of public (orange) and private (blue) service lines replaced by fiscal year. Grey bars indicate residents who used the same day authorized contractor program to renew both public and private service lines in the same day.

Lead Service Line Replacements – Path Forward:

Based on the challenges experienced in integrating with HRM paving projects and achieving uptake in private LSLR, in February 2020, two separate submission were made to the Nova Scotia Utility and Review Board requesting the ability to conduct lead service renewal from the main to the meter at utility expense.

- I. The first application, M09586, was filed on February 11, 2020 and requested the ability to replace lead service lines from the main to the meter at utility expense for several capital projects for the 2020 construction season, namely Berlin St., Drummond Crt. And Leaman St. These streets will be undergoing necessary water main renewal, which requires disconnection of service from the exiting main and reconnection to the new water main, thus resulting in disturbance to lead service lines. This disturbance is unavoidable and poses an increased public health risk. On March 12, 2020 Halifax Water received a decision letter granting approval for LSLR at Halifax Water expense for both the public and private portions of the service line for these specific capital projects, based on the information provided in the letter.
 - a. Halifax Water has been working with HRM on the Berlin St. project, the contract has been awarded and construction will proceed shortly. Halifax Water has hydro-excavated service boxes to confirm material of both portions, sent homeowners information letters on the upcoming project and what to expect, and mailed an Agreement for Water Service Connection Replacement form to gain consent to proceed with the project. Customer feedback of the project to date has been very positive.
 - b. The Drummond Court and Leaman Street projects have been delayed to next construction season.
- II. On November 28, 2019, the Halifax Water Board approved a staff report which included a request for changes to the regulations to allow for utility payment of both the public and private portions of the service line through several proposed programs including: replacements through integration with HRM paving projects, customer initiated renewal programs, and targeted programs for sensitive communities or high density areas. A corresponding application was submitted to the Nova Scotia Utility and Review Board in February 2020, as part of the general rate application. Appendix 9 of the rate application includes a full lead service line replacement report outlining reasons for the proposed changes as well as proposed program enhancements and costs associated with the proposed enhancements. A major benefit of the proposed enhancements includes providing Halifax Water with control of the replacement timeline. Annual replacements can be scaled to match budget availability and program replacement goals will be in Halifax Water control as opposed to relying on private uptake in the program. New timelines for project completion with the proposed enhancements are 2038 compared to the current goal of 2050, which is not achievable at the current uptake rate.

The public NSUARB hearing regarding Halifax Water's rate application and proposed changes to regulations was held on June 1, 2020. A decision is expected by September of 2020. Both the Consumer Advocate and Board consultants recommended approval of the changes to the lead service line program. Halifax Water staff are developing a lead program manual in preparation for a decision to facilitate the transition to an enhanced program. Halifax Water is seeking input from Public Health on risk assessment methods for determining the prioritization process for the proposed customer-initiated renewal program. Halifax Water will also work with HRM on developing an effective method for incorporating LSLR into paving projects, including establishing planning horizons, and developing processes to effectively achieve program goals for both parties.

3) Public Outreach

Halifax Water is working on increasing customer awareness and engagement in the lead service line replacement program, particularly with respect to health implications of lead and processes for renewal, including the rebate and loan program. The following tasks have been conducted to increase awareness and engagement:

- Upon application by a homeowner for a LSL renewal, they are contacted by program staff. At this time, they are advised of sampling programs, provided with information on the renewal, post renewal maintenance and provided with a National Sanitation Foundation [NSF] certified pitcher filter for temporary use for cooking and drinking during the period of increased lead, post renewal. They are also provided with 7 replacement filters.
- Customers who inquire about lead service line replacement or who take out a permit to renew are notified of the current Rate Application and implications to future private replacements to ensure transparency and to avoid customer regret if a favorable decision is granted by the NSUARB. This may result in fewer private renewals this fiscal year.

Table 1 – Number of filter kits provided to residents as part of the LSL replacement program.

	2017/18	2018/19	2019/20
Total Filter Kits Provided	140	176	161

- Lead information has been migrated to Halifax Water's new website, www.halifaxwater.ca/lead-drinking-water
- Three videos are available to view on the LSL program website. These videos include information on how to test your water for lead, how to identify a lead service line, and how to replace your lead service line.
- A web application allows for customers to determine if they are in the lead boundary area. This application has been posted on the lead website.

- In the 2018/19 Fiscal year we received 300 lead inquiries from homeowners or tenants. In 2019/2020 Fiscal year we received 426 lead inquiries from homeowners or tenants. The number of inquiries spiked in 2019/2020 as a result from a collaborative news article which was released in November 2019 in all media across the country. Figure 5 below shows the impact of the media release on visits to our lead service line boundary app online.

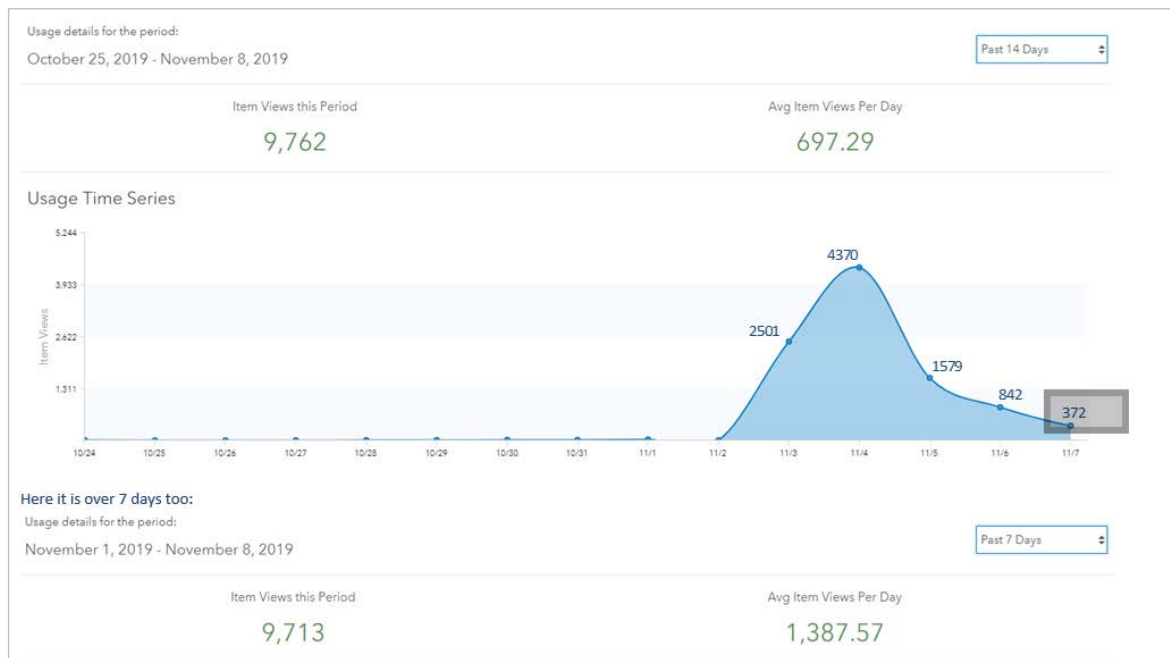


Figure 5 – Number of visits to the online Lead Service Line Boundary web app the week prior to and the week of the media release. The first article was published on November 2nd, 2019, with the National articles published on November 4th, 2019.

4) Corrosion Control and Water Quality Monitoring

Halifax Water and Dalhousie University continue to conduct research to optimize and monitor corrosion control treatment. Outcomes of research have led to greater effectiveness and reduced cost for corrosion control treatment at both JD Kline and Lake Major treatment plants. Further research is underway into seasonal optimization of corrosion control and the use of less expensive, bulk commodity chemicals for corrosion control. Initial research results indicate that the zinc in the current corrosion control product plays an important role in calcium release from cement lined pipes. Following is a summary of routine corrosion control sampling.

- Distribution Coupon Monitoring**

Since 2002 Halifax Water's (HW) water quality group has maintained 10 coupon racks throughout the Pockwock Lake and Lake Major distribution systems. There are six coupon racks in the Pockwock distribution system and four in the Lake Major

distribution system. Each rack has a metal coupon for lead, copper, and mild steel, and are sampled quarterly.

- **Distribution Corrosion Control Monitoring**

Corrosion monitoring has been taking place throughout the Pockwock and Lake Major distribution systems since 2004. Parameters measured are alkalinity, aluminum, manganese, iron, zinc, phosphate, o-phosphate, sulphate, turbidity, pH, free chlorine, temperature, conductivity, and oxidation reduction potential (ORP).

- **Lead Rack Monitoring**

In December 2018 Halifax Water began monthly sampling at four “lead racks” in our distribution system. Each lead rack consists of 4 segments of lead pipe harvested from lead service line renewals, configured to permit sampling of the stagnated water in each pipe running on a 6-hour stagnation cycle. The goal of the lead racks is to be able to monitor full scale response to changes in corrosion control and seasonality of corrosion control. The racks are located in the Halifax and Dartmouth distribution system, in areas where lead service lines are known or suspected to exist. One Halifax rack is currently located in the Robie reservoir chamber. The second Halifax rack will be installed at Halifax wastewater treatment plant once COVID-19 restrictions are lifted and access to plants is available. The Dartmouth racks are located in the Micmac chamber and Park Avenue wastewater pumping station.

5) Customer Sampling

Halifax Water has several customer sampling programs for lead in drinking water. These programs are outlined below:

- **Customer Request Lead Sampling**

Halifax Water provides complimentary lead testing for customers who have a known or suspected lead service line, and who live in a house built prior to 1960 within the lead service boundary, consistent with Health Canada protocols. Results are sent to the customer once they are available. Figure 6 describes the number of addresses where customer request kits that have been analyzed since 2016. For the 2019/20 fiscal year 196 sample kits were analyzed. This program has been on hold since the State of Emergency was called in Nova Scotia, but a list is being kept for residents who have requested a kit and Halifax Water is working on a process to relaunch this program as restriction ease.

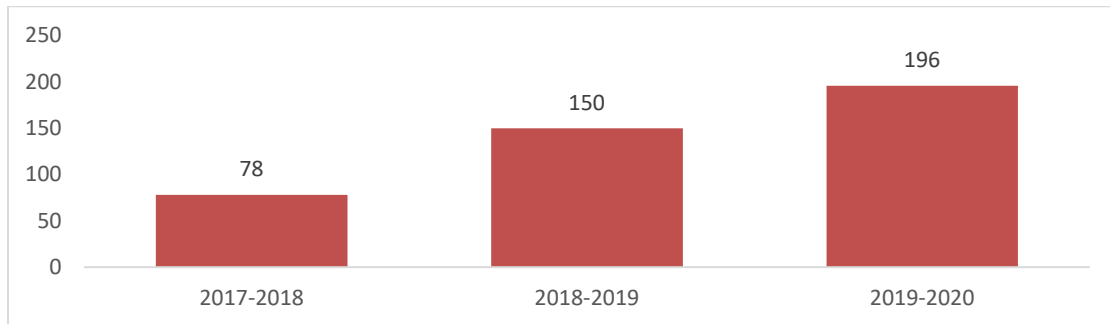


Figure 6 – Customer request lead sample kits analyzed in the last three fiscal year

- **Lead Service Line Replacement Monitoring program**

This program, carried out in conjunction with Dalhousie University, monitors lead levels prior to and after a lead service line replacement. Samples are taken prior to replacement and following replacement at 72 hours, 1, 3, and 6 months. Homeowners are encouraged to participate in the monitoring program following a service line replacement, as it allows them to have a better understanding of the lead levels in their home. When a permit is issued for a private lead service renewal, the homeowner is contacted by email or phone to encourage their participation in the LSL monitoring program and inform them of the Filter Program (see Public Involvement above). In 2018/19, there was a total of 24 LSLR participants and 9 participants associated with the Water Research Foundation 4713. Project (see description below). In 2019/20, there was a total of 18 LSLR participants.

- **Annual Health Canada Residential Monitoring Program**

Halifax Water conducts an annual residential sampling program to monitor the effectiveness of the corrosion control program by sampling lead and copper levels in customers' homes throughout the distribution system as per Health Canada protocol. Once per year, 100 homes are tested on a volunteer basis. This program will likely change in 2020/21 in response to recent changes to the Health Canada guideline for lead and anticipated requirements from Nova Scotia Environment which have yet to be released.

- **Water Research Foundation Project 4713**

This project aimed to understand the impacts of, and develop, an optimized protocol for conducting high velocity flushing after lead service line replacement to minimize lead exposure. Halifax Water committed to conducting in depth sampling for 10 full service line replacement as a partner in this project; 10 sites were enrolled in the program and 9 sites completed the program requirements. This program is complete, and we are awaiting the final report.

Financial

Table 2 – Summary of lead program costs from April 1, 2017 to March 31, 2020. Public lead service line replacement is a capital cost and all other costs are operational.

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	2017/18	2018/19	2019/20
Customer Request Lead Sampling	\$ 4,914	\$ 13,305	\$15,092
LSL Replacement Monitoring Program	\$ 12,285	\$ 14,636	\$ 6863
Pitcher Filter Kits	\$ 10,271	\$ 11,759	\$ 10,878
Communications	\$ 11,900	\$ 2,607 ¹	\$ 23.00 ¹
Staff	\$ 148,758	\$ 228,016	\$ 246, 988
Public Lead Service Line Replacement	\$ 550,112	\$ 1,124,473	\$ 917,917
Lead Service Line Rebate	\$ 14,107	\$ 102,333	\$81,111
Total	\$ 752,347	\$ 1,497,129	\$ 1,031,884

¹ The majority of communications have been done in house in since 2018.

Summary

Table 3 - Summary of statistics of the lead program since inception in 2017.

	2017/18	2018/19	2019/20
Public replacements	82 ¹	115	103
Private replacements	84 ¹	128	128
Rebates	18	105	89
Emergency replacements to the meter	2	7 ²	11 ⁵
Lead program inquiries	263	300	426
Filter kits issued	140	158	161
Customer request lead sample kits analyzed	78	150	196
	Average Cost	Average Cost	Average Cost
Public replacement	\$ 8,067 ⁴	\$ 11, 468 ³	\$ 11,648 ⁶
Private replacement (based on rebates)	\$ 3,188	\$ 3,940	\$ 3703
Rebate	\$ 738	\$ 974	\$ 911
Emergency replacement	\$ 14, 860	\$ 11,413.45 ²	\$ 11,443.9 ⁵
	Total Cost	Total Cost	Total Cost
Public replacement	\$ 550,112	\$ 1,124,473	\$ 917,917
Private replacement based on rebate applications	\$ 88,318	\$ 429,529.26	\$ 324,444
Rebate	\$ 14,108	\$ 102,333	\$ 81,111
Emergency replacement	\$ 29,720	\$ 79,894.18	\$ 125,883.23 ⁵

¹ Numbers are different than report provided to UARB in 2018 due to review of historical records.

² One renewal was the result of issues encountered during an AMI meter replacement. Neptune covered the cost of the renewal therefore the cost is not included in this table.

³ Based on review of 70 contractor invoices.

⁴ Based on review of 48 contractor invoices.

⁵ One renewal was the result of issues encountered during construction from a 3rd party (covered cost of the renewal therefore the cost is not included in this table).

⁶ Based on review of 80 invoices

Report Prepared by: Original Signed By:

Wendy Krkosek, Water Quality Manager – 902-483-4432

TO: Craig MacMullin, MBA, CPA, CGA, Chair, and Members of the
Halifax Regional Water Commission Board

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James Campbell, Manager of Public Relations and
Communications

APPROVED: Original Signed By: _____
Cathie O'Toole, MBA, FCPA, FCGA, ICD.D
General Manager

DATE: June 22, 2020

SUBJECT: Corporate Social Responsibility and Diversity Update

INFORMATION REPORT

ORIGIN

Enterprise Risk Management

BACKGROUND

Recent world events such as COVID-19 and the Black Lives Matter movement have increased the focus on the many barriers and hurdles experienced by visible minorities, vulnerable, marginalized, and other populations subject to systemic discrimination.

The purpose of this report is to provide the Halifax Water Board with an overview of on-going corporate social responsibility initiatives which may serve as a basis for future discussion of potential enhancements. Periodically reviewing and assessing corporate social responsibility initiatives is an important means of maintaining relevance and ensuring Halifax Water reflects the values and diversity of the community it serves and maintains a positive reputation with customers and stakeholders.

PROGRAM OVERVIEW

Halifax Water has many community-focused initiatives that fall under corporate social responsibility including:

- The Help to Others (H2O) Fund which assists low income customers. The Fund has dispersed over \$190,000 since its launch in 2011.
- Corporate donations and sponsorships which assist various non-profit groups that align with corporate objectives.
- For 2019/20, Employee fundraising saw over \$21,000 raised in support of United Way Halifax, Water for People, Bryony House, Feed Nova Scotia, Souls Harbour Mission, Hope Cottage, Spin4Kids, the Purple Ribbon Campaign and the Bluenose Marathon & Truck Convoy in support of Special Olympics Nova Scotia.
- Halifax Water's Community Water Station program to support special events has been in place since 2009.

Since 2008 Halifax Water has offered Scholarships for NSCC students, with accompanying work-terms: ***Robert T. Peacock Achievement Award*** = One \$2,000 award each Fall - This award is open to second year students enrolled full-time in the Environmental Engineering Technology program at NSCC. Preference will be given to visible minorities. Students are encouraged to self-identify.

First Nations (Jipuktuk etli apatua'timk) Award = One \$4,000 award each Spring and one \$4,000 award each Fall - This award is open to First Nations, Metis and Inuit students who reside in Atlantic Canada and are entering full-time studies in the Civil Engineering Technology, Environmental Engineering Technology, and Electronic Engineering Technology programs at NSCC.

Halifax Water Achievement Award = One \$2,000 award each Fall - This award is open to any student enrolled full-time in the Civil Engineering Technology program at NSCC.

Arnold D. Johnson Sr. Award for Water Resources = One \$3,600 award each Spring - This award is open to Indigenous African Nova Scotian students entering full-time studies in the Environmental Engineering Technology program at NSCC.

Women in Non-Traditional Careers (new for 2020/21) = One \$2,000 award each Fall. This award is open to women entering one of the following programs at NSCC: Plumbing, Electrical Construction and Industrial - Diploma, Civil Engineering Technology, Environmental Engineering Technology, Geographic Information Systems Advanced Diploma, or Geographic Information Systems Technician.

Additionally, Halifax Water has operational programs such as the Lead Service Line (LSL) replacement program and the Private Lateral Replacement Assistance Program (PLRAP) which also are beneficial to low-income or vulnerable populations.

Halifax Water is proud to support its community in these ways and will continue to do so moving forward. However, in light of current events surrounding COVID-19 and Black Lives Matter, Halifax Water recognizes that changes should be implemented in 2020/21.

COVID-19

As a result of COVID-19 and on-going public health requirements, the Halifax Emergency Management Office and Halifax Regional Libraries, and some other non-project organizations such as Hope Cottage have partnered with Halifax Water to provide water stations for hand-washing and drinking water. Halifax Water is entering into agreements with these organizations to install external water stations. The respective properties they are connected to assumes responsibility for payment of the water consumed through the station.

There are three important benefits through these initiatives:

- Increased handwashing as a measure to prevent COVID-19 is essential for all residents, and especially so for the homeless population, as temporary shelter arrangements established in response to COVID-19 are winding down during the summer months.
- The cost of purchasing bottled water by organizations that support the homeless population during summer months is significant. It is more cost effective for organizations such as Hope Cottage to provide re-fillable water bottles and a Halifax Water water station.
- All water stations will be Halifax Water branded, providing a public and visible demonstration of our commitment to our community.

Diversity

Halifax Water is committed to ensuring the workplace is civil and respectful to all employees, and fostering diversity throughout its workforce, in all its forms.

Halifax Water implemented a harassment policy in 1998, which was updated to a broader Respectful Workplace Policy in 2007. In 2017/18 an external consultant was engaged to review civility and respect in the workplace, which included a survey of all employees to gauge areas of strength or opportunity. A committee with representation from CUPE Local 1431, CUPE Local 227, non-union and management employees was created to review the results from the employee survey. This led to the committee updating the Respectful Workplace Policy. As a result of that work, in September 2019 the policy in its current form was approved, with a new title - Civility and Respect in the Workplace Policy.

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In 2015/16 all employees participated in mandatory training on civility and respect in the workplace, and there was increased communication on the policies and procedures to bring forward concerns and have them resolved. As a result, Halifax Water saw an increase in informal and formal complaints, which may have gone unreported previously. Internal and external investigations were conducted. Resolutions included mediation, coaching, performance management, training and in some cases discipline or termination.

In the Fall of 2019, Psychological Safe Workplace training was provided to all Managers and Supervisors. This training will be rolled out to the entire organization in 2020.

As the organization focused on improving civility and respect in the workplace, the importance of diversity was noted, as diverse organizations often have higher levels of civility and respect in the workplace.

In 2018, the Halifax Water Employee Survey included questions around diversity. Results for 2018 indicated 56% of the employee base agreed that the workplace reflects diverse cultural backgrounds; and 45% believed that employee policies are applied fairly. Results for 2019 saw an improvement in both categories, with 61% of employees agreeing that the workplace reflects diverse cultural backgrounds, and 53% of employees believing employee policies are applied fairly. These are two areas that Halifax Water is committed to improving.

In 2019, the Halifax Water Executive Team met with the Director of the Halifax Regional Municipality's Diversity and Inclusion Office to explore the services offered and understand how Halifax Water could align activities with HRM's Diversity and Inclusion Framework.

The recent local and international events surrounding Black Lives Matter has prompted Halifax Water to reflect on how systemic racism and unconscious bias impacts the organization and recognize the need for additional work on diversity and inclusion. Plans for 2020/21 include:

- Initiating recurring "Diversity Moments" in the internal Halifax Water monthly employee newsletter to raise awareness and celebrate diversity.
- Implementing mandatory unconscious bias training for all employees.
- In collaboration with Union leadership, examine the recruitment process with a diversity lens, to ensure a diverse range of applicants.
- In collaboration with Union leadership, examine the possibility of designating a percentage of summer student and work term positions for diverse candidates.
- Reviewing the Civility and Respect in the Workplace policy to ensure it remains a relevant and effective tool for employees to raise concerns.

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- Reviewing the informal and formal investigation process quality and timeliness.
- Enhancing diversity related questions within the employee survey and solicit suggestions from staff on how Halifax Water can improve its support for and promotion of diversity.

BUDGET IMPLICATIONS

N/A

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