

June 4, 2024

Colleen Rollings, P.Eng., PMP., Chair
Halifax Water
Halifax, NS

The regular meeting of the Halifax Water Board will be held virtually on Thursday, June 20, 2024, beginning at 9:00 a.m. Visit www.halifaxwater.ca to register to attend the public portion of the meeting.

AGENDA

In Camera Reports

- 1C Approval of Minutes of the In-Camera Meetings held on February 22, 2024, March 28, 2024, and May 31, 2024.

Motion 1: *That the Halifax Water Board rescind the motion of March 28th to approve the in camera minutes of February 22, 2024.*

Motion 2: *That the Halifax Water Board approve the In-Camera minutes of February 22, 2024, March 28, 2024, and May 31, 2024, attached hereto.*

- 2C Business Arising from Minutes
a)
3C Security Matter
4C Personnel Matter
5C Legal Matter

Regular Reports

1. a) Ratification of In-Camera motions (2 minutes)

Motion: *That the Halifax Water Board ratify the In-Camera Motions.*

1. b) Approval of the order of business and approval of additions and deletions

Motion: *That the Halifax Water Board approve the order of business and approve additions and deletions.*

2. Approval of minutes of the Regular meeting held on Thursday, March 28, 2024 (2 minutes)

Motion: *That the Halifax Water Board approve the minutes of the regular meeting held on March 28, 2024.*

3. Business arising from minutes (2 minutes)
a)

Financial

4.1 Audited Financial Statements for the year ended March 31, 2024 (20 minutes)

Motion: That the Halifax Water Board approve the financial statements of the Halifax Regional Water Commission for the year ended March 31, 2024.

4.2 Audited Pension Statements for the year ended December 31, 2023 (20 minutes)

Motion: That the Halifax Water Board approve the financial statements of the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2023.

4.3 Capital Results for the year ended March 31, 2024 (10 minutes)

4.4 Appointment of Auditors (5 minutes)

Motion: That the Halifax Water Board approve the appointment of Grant Thornton LLP as auditors for the Halifax Regional Water Commission financial statements for the year ended March 31, 2025, and the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2024.

Capital approvals

5.1 Maynard Clement Separation Project – Funding Approval (10 minutes)

Motion: That the Halifax Water Board approve funding in the amount of \$16,508,000 (including net HST) for Phase 1 of the Maynard Lake and Clement Street Wetland Sewer Separation Project.

5.2 Raymond Street and Walker Street Infrastructure Project – Funding Approval (10 minutes)

Motion: That the Halifax Water Board approve the stormwater, water and wastewater infrastructure upgrades in the Raymond Street, Dartmouth area at a total project cost of \$7,053,000 (including net HST).

5.3 Ratification of email vote of May 9, 2024, on the following capital projects: (5 minutes)

Sewer Separation Program – South Park/Cathedral Lane Phase 2 Construction – Additional Funding

Motion: That the Halifax Water Board approve additional funding for the South Park – Cathedral Lane Phase 2 sewer separation project for a revised total project cost of \$5,515,000 including net HST.

Silver Sands Water Supply Plant – Linear Main Extension Along Cow Bay Road – Additional Funding

Motion: That the Halifax Water Board approve additional funding for the Silver Sands Water Supply Plant – Linear Main Extension Along Cow Bay Road for a revised total project cost of \$7,160,000, including net HST.

Other Business

6. Corporate Balanced Scorecard – 2023/24 Program Year-End Results (25 minutes)

Motion: That the Halifax Water Board approve the Corporate Balanced Scorecard results for the 2023/24 fiscal year.

Information Reports

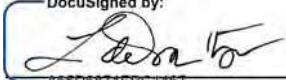
- 1-I Operational Performance Information Report
- 2-I Halifax Regional Water Commission Employees' Pension Plan Financial Report, Q1, 2024
- 3-I HRM Master Trust Investment Performance, Fourth Quarter 2024
- 4-I HRM Master Trust Investment Performance, First Quarter 2024
- 5-I Quarterly Remittance Certification
- 6-I Cost Containment Report

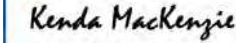
Lorna
Skinner

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Lorna Skinner
Governance Coordination Assistant

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: 
A65D6874EBC1487...
Louis de Montbrun, CPA, CA, Director, Corporate Services/CFO

APPROVED: 
8E084AC815794F6...
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 14, 2024

SUBJECT: **Financial Statements for the year ended March 31, 2024**

ORIGIN

Operational and Regulatory requirement.

RECOMMENDATION

It is recommended the Halifax Regional Water Commission Board approve the financial statements of the Halifax Regional Water Commission for the year ended March 31, 2024.

BACKGROUND

At the June 12, 2024, meeting of the Halifax Water Audit and Finance Committee, the attached report was reviewed, and the Committee approved a motion to recommend the Halifax Water Board approve the financial statements of the Halifax Regional Water Commission for the year ended March 31, 2024.

DISCUSSION

At the time of the meeting of the Audit and Finance Committee there were several outstanding items the auditors were awaiting and an update as of June 14, 2024, is below. A further update will be provided at the time of the meeting:

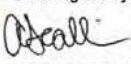
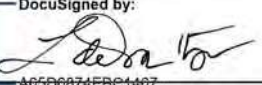
1. Receipt of internal memo relating to capitalized intangibles.
 - a. Memo has been provided to Grant Thornton and Halifax Water awaits their review.
2. Halifax Regional Municipality due to/from confirmation.

3. Completion of test of controls and substantive audit procedures relating to capital work in progress, utility plant in service, intangible assets, balances with HRM, deferred contributions, revenue analytics, journal entry testing, and concluding procedures.
 - a. Grant Thornton has completed the procedures relating to revenue analytics and journal entry testing.
4. Final Grant Thornton review of the audit file, system conversion procedures, and final financial statements.
5. Receipt of legal inquiry responses.
6. Receipt of final updated financial statements.
 - a. There have been no changes to the financial statements since the Committee meeting.

Attached are the draft financial statements of the Halifax Regional Water Commission for the year ended March 31, 2024.


ATTACHMENTS

1. Report to the Halifax Water Audit and Finance Committee re. financial statements of the Halifax Regional Water Commission for the year ended March 31, 2024.
2. Draft financial statements of the Halifax Regional Water Commission for the year ended March 31, 2024.
3. Grant Thornton LLP Audit Findings Report to Audit and Finance Committee.

Report Prepared by:	<p>DocuSigned by:  AFA0090B0B9045C...</p> <p>Alicia Scallion, CPA, CA Manager, Finance</p>
Financial Reviewed by:	<p>DocuSigned by:  A05D0074EBC1407...</p> <p>Louis de Montbrun, CPA, CA Director, Corporate Services/CFO</p>

TO: Chair and Members of the Halifax Regional Water Commission Audit and Finance Committee

SUBMITTED BY: 
A05D0074E8C1407
Louis de Montbrun, CPA, CA
Director, Corporate Services/CFO

APPROVED: 
UC084AC815794F6
Kenda McKenzie, P.Eng.
Acting Chief Executive Officer and General Manager

DATE: June 4, 2024

SUBJECT: Financial Results for the fiscal year ended March 31, 2024

ORIGIN

Financial information reporting.

RECOMMENDATION

It is recommended the Audit and Finance Committee recommend the Halifax Regional Water Commission Board approve the financial statements of the Halifax Regional Water Commission for the year ended March 31, 2024.

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 (HALIFAX) by June 30, 2024, and the Nova Scotia Utility and Review Board (NSUARB) within 180 days of the fiscal year end.

DISCUSSION

Attached are the operating results for Halifax Water for the fiscal year ended March 31, 2024, with comparative figures for March 31, 2023.

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 them based on the NSUARB Water Utility Accounting and Reporting Handbook (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.

The Schedules to the financial statements are prepared in accordance with the NSUARB Handbook.

The following discussion of the operating results reflect direct operating costs by department and allocations among Water, Wastewater and Stormwater services for common costs shared across all the services provided by Halifax Water.

Statement of Financial Position (IFRS) – Page 3 of Attachment 1

Key indicators and balances from the Statement of Financial Position are provided in the following tables.

Table 1: Assets

March 31 (in thousands)	Notes	2024	2023	From Prior Year	
				\$ Change	% Change
Assets					
Current					
Cash and cash equivalents	A	\$ 44,021	\$ 44,596	\$ (575)	(1.3%)
Receivables					
Customer charges and contractual	B	21,546	17,824	3,722	20.9%
Unbilled service revenues	C	20,959	19,265	1,694	8.8%
Halifax Regional Municipality		0	1,953	(1,953)	(100.0%)
Inventory	D	2,364	3,517	(1,153)	(32.8%)
Prepays		1,735	1,282	453	35.3%
		90,625	88,437	2,188	2.5%
Intangible assets	E	35,989	22,807	13,182	57.8%
Capital work in progress	F	114,374	79,447	34,927	44.0%
Utility plant in service	G	1,297,942	1,302,513	(4,571)	(0.4%)
Total assets		1,538,930	1,493,204	45,726	3.1%
Regulatory deferral account		2,044	2,236	(192)	(8.6%)
Total assets and regulatory deferral account		\$ 1,540,974	\$ 1,495,440	\$ 45,534	3.0%

Notes related to Table 1:

- A) *Cash and cash equivalents* have decreased \$0.6 million from the prior year. The total balance of the Regional Development Charge (RDC) reserves, excluding deferred RDCs is \$93.0 million.
- B) *Customer charges and contractual receivables* have increased \$3.7 million from the prior year. The change in trade receivables is driven by the timing of billing cycles, higher service rates due to rate increases and a receivable for stormwater right of way charges for the Province. There are increases in HST receivable due to the volume of invoicing, and a \$0.6 million receivable from Investing in Canada Infrastructure Program (ICIP) affecting the increase in other receivables.

Customer charges and contractual					
	2023/24	2022/23			
	'000	'000	\$ Change	% Change	
Trade receivables	\$ 19,422	\$ 18,246	\$ 1,176	6.4%	
Other receivables	5,140	2,630	2,510	95.4%	
Allowance for doubtful accounts	(3,016)	(3,052)	37	1.2%	
	\$ 21,546	\$ 17,824	\$ 3,722	20.9%	

- C) *Unbilled service revenue* has increased \$1.7 million due to the timing of billing cycles and the increase in rates for Water, Wastewater, and Stormwater services.
- D) *Inventory* has decreased \$1.2 million from the previous year due to a prior year purchase of \$1.6 million in pipe inventory for the Burnside transmission main project that was utilized in the current year.
- E) *Intangible assets* have increased \$13.2 million due to additions of \$16.5 million less amortization of \$3.3 million. The largest addition in the year was the new enterprise resource planning system for \$14.7 million.
- F) The \$34.9 million increase in *capital work in progress* relates to the expenditures up until March 2024 of \$98.2 million compared to \$67.1 million in the prior year less transfers to intangible assets and utility plant in service of \$63.9 million.
- G) *Utility plant in service* has decreased \$4.6 million due to additions of \$47.4 million offset by depreciation of \$51.9 million in the current year.

Additions to Utility Plant in Service and Intangibles	
	Cumulative
	'000
ERP Replacement Project	\$ 14,682
Gravity Sewer Albro Lake to Jamieson Street	8,858
Akerley Reservoir	5,343
Wastewater System Trenchless Rehab Program	2,140
Wastewater Fleet Upgrade Program	1,900
	32,923
<u>All other projects:</u>	
Water	11,320
Wastewater	11,211
Stormwater	1,738
Corporate	6,685
	30,954
Total additions	\$ 63,877

Table 2: Liabilities and Equity

March 31 (in thousands)	Notes	2024	2023	From Prior Year	
				\$ Change	% Change
Liabilities					
Current					
Payables and accruals					
Trade	A	23,393	24,492	(1,099)	(4.5%)
Non-trade	B	5,579	4,717	862	18.3%
Interest on long term debt	C	3,062	2,205	857	38.9%
Halifax Regional Municipality	D	5,047	0	5,047	0.0%
Contractor and customer deposits	E	1,095	2,841	(1,746)	(61.5%)
Current portion of deferred contributed capital	F	19,260	18,836	424	2.3%
Current portion of long term debt	G	39,832	45,962	(6,130)	(13.3%)
Unearned revenue		157	76	81	106.6%
		97,425	99,129	(1,704)	(1.7%)
Deferred contributed capital	F	928,048	919,422	8,626	0.9%
Long term debt	G	196,622	172,489	24,133	14.0%
Employee benefit obligation	H	2,353	8,078	(5,725)	(70.9%)
Total liabilities		1,224,448	1,199,118	25,330	2.1%
Equity					
Accumulated other comprehensive loss		60,396	51,652	8,744	16.9%
Accumulated surplus		256,130	244,679	11,451	4.7%
Total equity		316,526	296,331	20,195	6.8%
Total liabilities and equity		\$ 1,540,974	\$ 1,495,449	\$ 45,525	3.0%

Notes related to Table 2:

A) *Trade payables and accruals* have decreased \$1.1 million from the prior year due to a decrease of \$2.7 million in accrued liabilities. The total amount of fixed asset capitalization was \$63.9 million for the current year while last year's total was \$79.9 million and with higher fixed asset capitalization there tends to be higher accruals.

Payables and Accruals					
	2023/24		2022/23		
	'000	'000	'000	'000	
Trade payables	\$ 14,500	\$ 12,858	\$ 1,642	12.8%	
Trade accrued payables	7,199	10,178	(2,979)	(29.3%)	
Accrued wastewater rebate	1,694	1,456	238	16.3%	
	\$ 23,393	\$ 24,492	\$ (1,099)	(4.5%)	

B) *Non-trade payables* have increased \$0.9 million due to increased rates related to payroll.

C) *Interest on long term debt* has increased \$0.9 million due to an increase in interest rates and debt levels.

- D) *Halifax Regional Municipality payables* have increased \$7.0 million mainly due to \$7.6 million in payables relating to the Cogswell District project and decreases of \$4.1 million in regional development charges receivable from the municipality.

HRM Receivables and Payables					
	2023/24		2022/23		
	'000	'000	'000	'000	
					\$ Change % Change
Receivables	\$ 3,729	\$ 5,097	\$ (1,368)		(26.8%)
RDC	5,661	9,772	(4,111)		(42.1%)
Payables	(14,437)	(12,916)	(1,521)		11.8%
	\$ (5,047)	\$ 1,953	\$ (7,000)		(358.4%)

- E) *Contractor and customer deposits* have decreased \$1.7 million due to a refinement in accounting process to reclass customer credits.
- F) *Deferred contributed capital and current portion of deferred contributed capital* increased \$9.0 million over the prior year due to assets contributed by developers and funded by the RDC of \$24.5 million. In addition, \$3.5 million of the increase relates to capital cost contributions (CCCs), RDC payments and interest earned on RDC balances. This is offset by amortization of \$19.0 million.
- G) *Long term debt and the current portion of long-term debt* have increased \$18.0 million as there was new debt acquired this fiscal year of \$40.0 million compared to the prior year of \$15.7 million. The *current portion* decreased \$6.1 million mainly due to fewer balloon payments due in the next 12 months compared to prior year. There were \$24.2 million of balloon payments in fiscal 2023/24 and \$16.9 million required in 2024/25.

Long Term Debt						
				Total	Total	
	Water	Wastewater	Stormwater	2023/24	2022/23	
Opening long term debt	\$ 86,301	\$ 107,019	\$ 25,131	\$ 218,451	\$ 225,033	
New long term debt	20,235	14,001	5,752	39,988	15,749	
Long term debt repayments	(5,370)	(13,984)	(1,457)	(20,811)	(21,409)	
Less debt issue costs	(535)	(488)	(151)	(1,174)	(922)	
Total long term debt	100,631	106,548	29,275	236,454	218,451	
Less current portion	(13,192)	(21,919)	(4,721)	(39,832)	(45,962)	
Closing long term debt	\$ 87,439	\$ 84,629	\$ 24,554	\$ 196,622	\$ 172,489	

- H) The *employee benefit obligation* decreased \$5.7 million due to an improvement in the fair market value of the pension plan assets.

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 as of March 31, 2024, is as follows:

Debt Servicing Ratio by Service		
	2023/24	2022/23
Water	13.90%	14.67%
Wastewater	19.34%	21.15%
Stormwater	21.91%	25.32%
Combined	17.50%	18.99%

The debt servicing ratio for each service has decreased from the prior year. Debt servicing ratios have decreased from the prior year due to higher revenues. The combined debt servicing ratio of 17.50% is below the maximum 35.00% ratio allowed under the blanket guarantee agreement with Halifax.

Statement of Earnings and Comprehensive Earnings (IFRS) – Page 4 of Attachment 1

Table 3: Summarized Comprehensive Earnings (IFRS)

Summarized Comprehensive Earnings				
	Actual	Actual	From Prior Year	
Notes	2023/24	2022/23	\$ Change	% Change
	'000	'000		
Operating revenues	\$ 171,979	\$ 155,092	\$ 16,887	10.89%
Operating expenditures	165,904	154,733	11,171	7.22%
Earnings from operations before financial and other revenues and expenditures	6,075	359	5,716	1592.20%
Financial and other revenues	19,896	20,145	(249)	(1.24%)
Financial and other expenditures	14,322	13,783	539	3.91%
Earnings for the year before regulatory deferral account depreciation	11,649	6,721	4,928	73.32%
Regulatory deferral account depreciation	(192)	(192)	-	0.00%
Earnings for the year	11,457	6,529	4,928	75.48%
Other comprehensive earnings	8,745	40,425	(31,680)	(78.37%)
Total comprehensive earnings for the year	A \$ 20,202	\$ 46,954	\$ (26,752)	(56.97%)

Notes related to Table 3:

- A) The *total comprehensive earnings* for the year is \$20.2 million, a decrease of \$26.8 million over the prior year. The following is a discussion of factors influencing the change.

Table 4: Operating Revenues:

Operating Revenues					
	Notes	Actual 2023/24 '000	Actual 2022/23 '000	From Prior Year	
				\$ Change	% Change
Consumption revenue	B	\$ 111,933	\$ 99,288	\$ 12,645	12.74%
Base charge revenue		34,516	33,967	549	1.62%
Wastewater rebate		(1,999)	(1,529)	(470)	30.74%
Metered sales total		144,450	131,726	12,724	9.66%
Stormwater site generated charge	C	8,676	6,927	1,749	25.25%
Stormwater right of way	D	6,520	4,475	2,045	45.70%
Public fire protection		8,083	7,744	339	4.38%
Private fire protection		1,698	1,398	300	21.46%
Other operating revenue		2,552	2,822	(270)	(9.57%)
Operating revenue total	A	\$ 171,979	\$ 155,092	\$ 16,887	10.89%

Notes related to Table 4:

Operating revenues are presented above, broken down by type:

- A) *Operating revenues* have increased \$16.9 million as compared to the previous year as discussed below.
- B) *Consumption revenue* has increased \$12.6 million over the prior year due to rate increases for water consumption and wastewater discharge effective April 1, 2023. It has also increased due to an increase in consumption itself of 0.9%. Water rates increased from \$1.017 per cubic meter effective December 1, 2022, to \$1.128 per cubic meter effective April 1, 2023. Wastewater rates increased from \$2.189 per cubic meter effective December 1, 2022, to \$2.259 per cubic meter effective April 1, 2023.

Consumption by Customer Class (m³)				
	2023/24	2022/23	m³ Change	% Change
Commercial	6,983,390	6,714,743	268,647	4.0%
Industrial	1,735,316	1,763,985	(28,669)	(1.6%)
Institutional	3,892,421	3,928,711	(36,290)	(0.9%)
Multi-residential	8,091,245	7,787,904	303,341	3.9%
Residential	12,652,982	12,875,240	(222,258)	(1.7%)
	33,355,355	33,070,583	284,772	0.9%

- C) *Stormwater site generated charge revenue* is \$1.7 million higher than the prior year due to rate increases as both tiered rates for residential customers and the impervious area charge for non-residential customers increased. The impervious area charge increased from \$0.145 per square meter effective December 1, 2022, to \$0.173 per square meter effective April 1, 2023.
- D) *Stormwater right of way charge revenue* has increased \$2.0 million from the prior year due to addition of Province of Nova Scotia and Bridge Commission with an effective date of December 1, 2022, a full year of revenue compared to a prorated amount in the prior year, and an increase in the amount payable by HRM.

Table 5: Operating expenditures:

Operating Expenditures					
	Notes	Actual 2023/24 '000	Actual 2022/23 '000	From Prior Year	
				\$ Change	% Change
Water supply and treatment	B	\$ 14,786	\$ 11,646	\$ 3,140	26.96%
Water transmission and distribution	C	13,768	11,757	2,011	17.10%
Wastewater collection	D	14,554	13,691	863	6.30%
Stormwater collection	E	5,755	4,719	1,036	21.95%
Wastewater treatment	F	24,782	23,420	1,362	5.82%
Engineering and technology services	G	16,053	13,677	2,376	17.37%
Regulatory services	H	5,532	4,434	1,098	24.76%
Customer services		4,631	4,447	184	4.14%
Corporate services		3,114	3,075	39	1.27%
Administration services		6,263	5,578	685	12.28%
Pension services	I	3,012	6,851	(3,839)	(56.04%)
Depreciation and amortization	J	53,654	51,438	2,216	4.31%
	A	\$ 165,904	\$ 154,733	\$ 11,171	7.22%

Notes related to Table 5:

- A) *Operating expenditures* of \$165.9 million are \$11.2 million higher than the prior year.
- B) *Water supply and treatment* expenditures have increased \$3.1M from prior year due to:
- An increase in contract services and equipment repairs and maintenance caused by repairs to equipment at a treatment facility.
 - Electricity costs increased because of rate changes, an increase in heating degree days (days requiring space heating) and an increase in total precipitation throughout the year which impacts electricity demands for pumping stations and treatment facilities.
 - Chemical costs have increased due to an increase in chemical prices. Additionally, flooding events throughout the year impacted water treatment processing and caused an increase in chemical requirements because of backwashing and organics.

- C) *Water transmission and distribution* expenditures have increased \$2.0M from prior year due to an increase in contract services, wages, materials and supplies, and traffic control services which is partially due to repair work related to the Dunbrack Street watermain break.
- D) *Wastewater collection* expenditures have increased \$0.9M from prior year due to:
- An increase in gasoline fuel costs caused by increased fuel prices and the addition of fleet vehicles.
 - Electricity costs have increased as mentioned above due to an increase in rates, heating degree days and precipitation.
 - Vehicle repairs have increased because of an aging fleet as well as an increase in operations staff requiring the use of vehicles.
- E) *Stormwater collection* expenditures have increased \$1.0M from prior year due to an increase in contract services and traffic control which was caused by an increase in ditching work required for recently acquired stormwater infrastructure through the boundary expansion. This infrastructure was in worse condition than initially estimated and required additional work.
- F) *Wastewater treatment* expenditures have increased \$1.4M from prior year due to:
- An increase in biosolids treatment costs driven by higher rates and volume of biosolids being treated.
 - Electricity costs have increased as mentioned above due to an increase in rates, heating degree days and precipitation.
 - Chemical costs have increased because of the full-time usage of carbon in the treatment process and an increase in price and usage of chemicals due to process optimization.
- G) *Engineering and technology services* expenditures have increased \$2.4M from prior year due to an increase in computer software and licenses, network equipment, and salaries.
- H) *Regulatory services* expenditures have increased \$1.1M from prior year due to an increase in salaries and inspection recovery fees.
- I) *Pension services* expenditures have decreased \$3.8M from the prior year as a result of lower accrued pension expense based on actuarial extrapolation.
- J) *Depreciation and amortization* have increased \$2.2M over prior year because of additions to assets including capitalization of the Cayenta ERP system in addition to higher-than-expected new assets added in the prior year.

Table 6: Operating Expenditures by Nature:

Operating Expenditures by Nature					
	Notes	Actual 2023/24 '000	Actual 2022/23 '000	From Prior Year	
				\$ Change	% Change
Salaries and benefits	A	\$ 47,462	\$ 42,473	\$ 4,989	11.75%
Pension	B	3,012	6,851	(3,839)	(56.04%)
Training and conferences		789	681	108	15.86%
Contract services	C	18,208	15,791	2,417	15.31%
Electricity	D	8,476	7,090	1,386	19.55%
Operating supplies	E	17,170	15,351	1,819	11.85%
Professional services		4,840	5,351	(511)	(9.55%)
Chemicals	F	10,747	8,708	2,039	23.42%
Depreciation on assets allocated to departments	G	1,546	999	547	54.75%
Depreciation and amortization	G	53,654	51,438	2,216	4.31%
		\$ 165,904	\$ 154,733	\$ 11,171	7.22%

Notes related to Table 6:

Operating expenditures of \$165.9 million are \$11.2 million higher than the prior year.

Compared to the prior year expenditure types with the largest changes in costs are:

- A) Salaries and benefits increase of \$5.0 million is mainly driven by lower allocation of salaries to capital projects than the prior year along with increases in salary and wage rates.
- B) Pension expense was discussed previously.
- C) Contract services increase of \$2.4 million from prior year is due to increase in contract services for repairs to infrastructure, traffic control services relating to an increase in activity, and an increase in biosolids treatment costs.
- D) Electricity costs have increased \$1.4 million due to rate increases, an increase in heating degree days and an increase in total precipitation throughout the year which impacts electricity demands.
- E) Operating supplies increase of \$1.8 million is due to increases for vehicle repairs and maintenance due to an aging fleet, increasing fuel costs, other equipment repairs, and an increase in software licenses.
- F) Chemicals increase of \$2.0 million is due to increase in chemical prices, flooding events impacting water treatment processing, and an increase in chemical requirements.
- G) Depreciation and amortization increase of \$2.2 million was discussed previously.

Table 7: Financial and other revenues:

Financial and other revenues					
	Actual	Actual	From Prior Year		
Notes	2023/24	2022/23	\$ Change	% Change	
	'000	'000			
Interest	\$ 412	\$ 482	\$ (70)	(14.52%)	
Amortization of contributed capital	18,997	18,793	204	1.09%	
Other	488	870	(382)	(43.91%)	
Total financial and other revenues	A \$ 19,897	\$ 20,145	\$ (248)	(1.23%)	

Notes related to Table 7:

- A) *Financial and other revenues* have reduced from prior year due to less interest revenue earned on lower cash balance and a prior year one-time revenue generating wastewater treatment contract with a visiting marine vessel.

Table 8: Financial and other expenditures:

Financial and other expenditures					
	Actual	Actual	From Prior Year		
Notes	2023/24	2022/23	\$ Change	% Change	
	'000	'000			
Interest	\$ 103	\$ 53	\$ 50	94.34%	
Interest on long term debt	7,276	6,851	425	6.20%	
Amortization of debt discount	222	227	(5)	(2.20%)	
Dividend/grant in lieu of taxes	6,589	6,524	65	1.00%	
Other	132	129	3	2.33%	
Total financial and other expenditures	A \$ 14,322	\$ 13,784	\$ 538	3.90%	

Notes related to Table 8:

- A) *Financial and other expenditures* have increased \$0.5M over the prior year, as interest on long term debt has increased due to more debt and higher interest rates.

Results under NSUARB Handbook as compared to International Financial Reporting Standards

As a rate regulated utility, the Accounting Standards Board (AcSB) requires Halifax Water, to report financial results using IFRS. The NSUARB requires Halifax Water to report in accordance with the NSUARB Handbook. Table 9 below reconciles the results between IFRS and the NSUARB Handbook.

Table 9: Reconciliation IFRS to NSUARB:**Notes related to Table 9:**

Operating revenues are the same under both IFRS and the NSUARB Handbook.

Reconcile IFRS to NSUARB			
		2023/24	2022/23
	Notes	'000	'000
IFRS comprehensive earnings		\$ 20,203	\$ 46,951
Add non-cash pension expense	A	3,012	6,851
Subtract debt principal payments	B	(22,604)	(22,379)
Add depreciation expense on contributed assets	C	18,997	18,793
Subtract amortization of contributed capital	C	(18,997)	(18,793)
Add various depreciation adjustments	D	755	1,247
Subtract other comprehensive income gain	E	(8,745)	(40,426)
NSUARB Loss		\$ (7,379)	\$ (7,756)

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

- A) *Non-cash pension expense* represents the adjustment required to convert to the cash basis for pension accounting used by the NSUARB Handbook.
- B) The *principal payments* on long term debt are recognized as an expense for NSUARB Handbook reporting purposes but are not an expense under IFRS.
- C) *Depreciation expense on contributed assets* is not an expense for NSUARB Handbook purposes for water and wastewater assets, however, it is offset by the removal of the amortization of contributed capital. For stormwater assets, 25% of depreciation on contributed assets is included for NSUARB reporting purposes. 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.
- D) The *various depreciation adjustments* include the add back of gains 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.
- E) *Other comprehensive income gain* represents the impact on income related to the remeasurement of the employee benefit obligation and is a non-cash item therefore not considered an expense for NSUARB Handbook reporting purposes.

Schedule C (pages 25 to 27) of the audited statements presents the Statement of Earnings under the NSUARB Handbook and contains the adjustments referenced above.

Table 10: Operating Results by Service

Operating Results by Service							
	Budget	Actual	Actual	From Prior Year		Actual to Budget	
	2023/24	2023/24	2022/23	\$ Change	% Change	\$ Change	% Change
	'000	'000	'000				
Water	\$ (1,715)	\$ (5,960)	\$ (3,069)	\$ (2,891)	94.20%	\$ (4,245)	247.52%
Wastewater	70	(88)	(1,676)	1,588	(94.75%)	(158)	(225.71%)
Stormwater	(671)	(1,331)	(3,015)	1,684	(55.85%)	(660)	98.36%
Loss (earnings)	\$ (2,316)	\$ (7,379)	\$ (7,760)	\$ 381	(4.91%)	\$ (5,063)	218.61%

The results in Table 10 are explained in more detail in Tables 11 to 13.

Table 11: Operating Results by Service – Water:

Operating Results by Service - Water							
	Budget	Actual	Actual	From Prior Year		Actual to Budget	
Notes	2023/24	2023/24	2022/23	\$ Change	% Change	\$ Change	% Change
	'000	'000	'000				
Operating revenues	A \$ 64,252	\$ 65,354	\$ 59,111	\$ 6,243	10.56%	\$ 1,102	1.72%
Operating expenditures	B 51,974	56,968	48,573	8,395	17.28%	4,994	9.61%
Earnings from operations	12,278	8,386	10,538	(2,152)	(20.42%)	(3,892)	(31.70%)
Financial and other revenues	724	692	789	(97)	(12.29%)	(32)	(4.42%)
Financial and other expenditures	C 14,717	15,038	14,396	642	4.46%	321	2.18%
Loss for the year	\$ (1,715)	\$ (5,960)	\$ (3,069)	\$ (2,891)	94.20%	\$ (4,245)	247.52%

Water services loss has increased from the prior year loss by \$2.9 million due to the following factors:

- A) *Operating revenues* increase of \$6.2 million attributable to the following:
- Increase in base charges and consumption of approximately 0.9% by new and existing customers.
 - Water rates increased from \$0.976 per cubic meter to \$1.017 per cubic meter effective December 1, 2022, and to \$1.128 per cubic meter effective April 1, 2023.
- B) Increase in *operating expenditures* of \$8.4 million because of a \$3.1 million increase in water supply and treatment, \$2.0 million increase in water transmission and distribution, \$1.3 million increase in engineering and technology services, and an increase of \$1.0 million in depreciation and amortization as previously discussed under Notes to Table 5.
- C) Increase in *financial and other expenditures* due to increasing interest rates on long term debt and a higher dividend/grant in lieu of taxes.

Table 12: Operating Results by Service – Wastewater:

Operating Results by Service - Wastewater								
Notes		Budget	Actual	Actual	From Prior Year		Actual to Budget	
		2023/24	2023/24	2022/23	\$ Change	% Change	\$ Change	% Change
		'000	'000	'000				
	Operating revenues	A \$ 89,041	\$ 91,234	\$ 84,196	\$ 7,038	8.36%	\$ 2,193	2.46%
	Operating expenditures	B 71,132	73,244	67,842	5,402	7.96%	2,112	2.97%
	Earnings (loss) from operations	17,909	17,990	16,354	1,636	10.00%	81	0.45%
	Financial and other revenues	266	208	563	(355)	(63.06%)	(58)	(21.80%)
	Financial and other expenditures	C 18,105	18,286	18,593	(307)	(1.65%)	181	1.00%
	Earnings (loss) for the year	\$ 70	\$ (88)	\$ (1,676)	\$ 1,588	(94.75%)	\$ (158)	(225.71%)

Wastewater services loss of \$0.1 million is lower than the prior year loss by \$1.6 million due to the following factors:

- A) *Operating revenues* increase of \$7.0 million is attributable primarily to the increase in the wastewater discharge rate from \$2.073 per cubic meter to \$2.189 per cubic meter effective December 1, 2022, and to \$2.259 per cubic meter effective April 1, 2023 along with an increase in discharge of approximately 2%.
- B) *Operating expenditures* increase of \$5.4 million is due to an increase in chemical and electricity costs as previously discussed.
- C) Decrease in *financial and other expenditures* of \$0.3 million relates to prior year one-time revenue generating wastewater treatment contract with a visiting marine vessel.

Table 13: Operating Results by Service – Stormwater:

Operating Results by Service - Stormwater								
Notes		Budget	Actual	Actual	From Prior Year		Actual to Budget	
		2023/24	2023/24	2022/23	\$ Change	% Change	\$ Change	% Change
		'000	'000	'000				
	Operating revenues	A \$ 15,604	\$ 15,391	\$ 11,782	\$ 3,609	30.63%	\$ (213)	(1.37%)
	Operating expenditures	B 12,850	13,112	11,623	1,489	12.81%	262	2.04%
	Loss from operations	2,754	2,279	159	2,120	1333.33%	(475)	(17.25%)
	Financial and other expenditures	C 3,425	3,610	3,174	436	13.74%	185	5.40%
	Loss for the year	\$ (671)	\$ (1,331)	\$ (3,015)	\$ 1,684	(55.85%)	\$ (660)	98.36%

Stormwater services loss of \$1.4 million is \$1.7 million lower than the prior year loss. The following factors influenced the results:

- A) Increase of \$3.6 million in *operating revenues* due to rate increases effective December 1, 2022, and April 1, 2023, along with the addition of new customers due to the expansion of the stormwater boundary effective June 1, 2022.
- B) Increase of \$1.5 million in *operating expenditures* from prior year due to an increase in contract services and traffic control as previously discussed.
- C) Increase in financial and other expenditures due to increasing interest rates on long term debt and principal payments for new debt.

Table 14: Operating Results by Activity:

Operating Results by Activity								
	Notes	Budget 2023/ 24 '000	Actual 2023/24 '000	Actual 2022/23 '000	From Prior Year		Actual to Budget	
					\$ Change	% Change	\$ Change	% Change
Regulated activities	A	\$ (2,790)	\$ (7,810)	\$ (8,554)	\$ 744	(8.70%)	\$ (5,020)	179.93%
Unregulated activities	B	474	431	794	(363)	(45.72%)	(43)	(9.07%)
Loss for the year		\$ (2,316)	\$ (7,379)	\$ (7,760)	\$ 381	(4.91%)	\$ (5,063)	218.61%

Notes related to Table 14:

- D) *Regulated activities* loss has decreased from the prior year loss by \$0.7 million due to the factors as previously explained including net of increases in revenues and expenditures.
- E) *Unregulated activities* earnings are lower than prior year by \$0.4 million due to prior year one-time revenue generating wastewater treatment contract with a visiting marine vessel.

Attachments

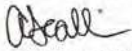
Attachment 1: Financial statements for the fiscal year ended March 31, 2024.

Attachment 2: Report to the Audit and Finance Committee by Grant Thornton LLP.

ITEM #3

Halifax Water Audit and Finance Committee

June 12, 2024

DocuSigned by:

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Report prepared by:
Alicia Scallion, CPA, CA
Manager of Finance (902) 497-9785



Financial Statements

Halifax Regional Water Commission

March 31, 2024



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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)

2024

2023

Assets

Current

Cash and cash equivalents	\$	44,021	\$	44,596
Receivables				
Customer charges and contractual (Note 8)		21,546		17,824
Unbilled service revenues (Note 8)		20,959		19,265
Halifax Regional Municipality		-		1,953
Inventory		2,364		3,517
Prepays		1,735		1,282
		<u>90,625</u>		<u>88,437</u>

Intangible assets (Note 10)		35,989		22,807
Capital work in progress		114,374		79,447
Utility plant in service (Note 11)		<u>1,297,942</u>		<u>1,302,514</u>
Total assets		<u>1,538,930</u>		<u>1,493,205</u>

Regulatory deferral account (Note 5)		2,044		2,236
Total assets and regulatory deferral account	\$	<u>1,540,974</u>	\$	<u>1,495,441</u>

Liabilities

Current

Payables and accruals				
Trade	\$	23,393	\$	24,492
Non-trade		5,579		4,717
Interest on long term debt		3,062		2,205
Halifax Regional Municipality		5,047		-
Contractor and customer deposits		1,095		2,841
Current portion of deferred contributed capital (Note 12)		19,260		18,836
Current portion of long term debt (Note 13)		39,832		45,962
Unearned revenue		157		76
		<u>97,425</u>		<u>99,129</u>

Deferred contributed capital (Note 12)		928,048		919,422
Long term debt (Note 13)		196,622		172,489
Employee benefit obligations (Note 4)		2,353		8,078
Total liabilities		<u>1,224,448</u>		<u>1,199,118</u>

Equity

Accumulated other comprehensive income		60,396		51,651
Accumulated surplus		256,130		244,672
Total equity		<u>316,526</u>		<u>296,323</u>
Total liabilities and equity	\$	<u>1,540,974</u>	\$	<u>1,495,441</u>

Contingent liabilities (Note 3)

Commitments (Note 6)

Approved by the Halifax Regional Water Commission Board

Chair

Vice Chair

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Statement of earnings and comprehensive earnings

Year ended March 31 (in thousands)	2024	2023
Operating revenues		
Water	\$ 54,938	\$ 49,134
Wastewater	89,512	82,592
Stormwater	15,196	11,402
Public fire protection	8,083	7,744
Private fire protection	1,698	1,398
Other operating revenue	2,552	2,819
	<u>171,979</u>	<u>155,089</u>
Operating expenditures (Note 14)		
Water supply and treatment	14,786	11,646
Water transmission and distribution	13,768	11,757
Wastewater collection	14,554	13,691
Stormwater collection	5,755	4,719
Wastewater treatment	24,782	23,420
Engineering and technology services	16,053	13,677
Regulatory services	5,532	4,434
Customer services	4,631	4,447
Corporate services	3,114	3,075
Administration services	6,263	5,578
Pension services	3,012	6,851
Depreciation and amortization	53,654	51,438
	<u>165,904</u>	<u>154,733</u>
Income from operations before financial and other revenues and expenditures	<u>6,075</u>	<u>356</u>
Financial and other revenues		
Interest	412	482
Amortization of deferred contributed capital	18,997	18,793
Other	488	870
	<u>19,897</u>	<u>20,145</u>
Financial and other expenditures		
Interest	103	53
Interest on long term debt	7,276	6,851
Amortization of debt issue costs	222	227
Dividend/grant in lieu of taxes (Note 6)	6,589	6,524
Other	132	129
	<u>14,322</u>	<u>13,784</u>
Earnings for the year before regulatory deferral account depreciation	<u>11,650</u>	<u>6,717</u>
Regulatory deferral account depreciation	<u>192</u>	<u>192</u>
Earnings for the year	<u>11,458</u>	<u>6,525</u>
Other comprehensive earnings		
Items that will not be reclassified subsequently to earnings:		
Re-measurement on defined benefit plans	8,745	40,426
Total comprehensive earnings for the year	<u>\$ 20,203</u>	<u>\$ 46,951</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	Accumulated surplus	Total
Balance, April 1, 2022	\$ 11,225	\$ 238,147	\$ 249,372
Earnings for the year	-	6,525	6,525
Other comprehensive earnings	40,426	-	40,426
Comprehensive earnings for the year	40,426	6,525	46,951
Balance, March 31, 2023	\$ 51,651	\$ 244,672	\$ 296,323
Earnings for the year	-	11,458	11,458
Other comprehensive earnings	8,745	-	8,745
Comprehensive earnings for the year	8,745	11,458	20,203
Balance, March 31, 2024	\$ 60,396	\$ 256,130	\$ 316,526

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Statement of cash flows

Year ended March 31 (in thousands)

2024

2023

Increase (decrease) in cash and cash equivalents

Operating

Comprehensive earnings for the year	\$ 20,203	\$ 46,951
Depreciation and amortization	36,395	33,836
Employee benefit obligation	5,725	(33,872)
Gain on disposal of utility plant in service	8	-
	<u>62,331</u>	<u>46,915</u>

Change in non-cash operating working capital items

Receivables, customer charges and contractual	(3,722)	(1,924)
Receivables, unbilled service revenues	(1,694)	(427)
Receivable from Halifax Regional Municipality	-	(1,102)
Inventory	1,153	(1,475)
Prepays	(453)	1,126
Payables and accruals, trade	(1,099)	1,204
Payables and accruals, non-trade	862	(343)
Payables and accruals, accrued interest on long term debt	857	167
Payable to Halifax Regional Municipality	7,000	-
Contractor and customer deposits	(1,746)	136
Unearned revenue	81	(4)
	<u>1,239</u>	<u>(2,642)</u>
	<u>63,570</u>	<u>44,273</u>

Financing

Proceeds from issuance of long term debt	39,988	15,749
Contributed capital and interest	3,512	29,962
Debt issue costs	(251)	(71)
Principal repayment on Halifax Regional Municipality long term debt	(6,500)	(6,500)
Principal repayments on long term debt	(15,234)	(14,909)
	<u>21,515</u>	<u>24,231</u>

Investing

Proceeds from sale of utility plant in service	75	-
Purchase of capital work in progress, utility plant in service and intangible assets	(85,735)	(89,494)
	<u>(85,660)</u>	<u>(89,494)</u>

Net decrease in cash and cash equivalents (575) (20,990)

Cash and cash equivalents, beginning of year 44,596 65,586

Cash and cash equivalents, end of year \$ 44,021 \$ 44,596

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (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 material accounting policies

(a) Statement of compliance

The financial statements have been prepared in accordance with International Financial Reporting Standards Accounting 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 of Commissioners on **June 20, 2024**.

(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 and other charges, capital expenditures, depreciation rates and accounting matters, Halifax Water is subject to the jurisdiction of the Nova Scotia Utility and Review Board (NSUARB). Rates and other charges charged to and collected from customers are designed to recover the cost of providing the regulated services. Halifax Water is required to prepare submissions in accordance with the Water Utility Accounting and Reporting Handbook (the NSUARB 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. These assets are described as the "regulatory deferral account" and 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. Losses or gains related to assets retired, demolished or sold are charged or credited to the statement of earnings.

(e) Leased assets

Halifax Water makes use of lease arrangements for office space and equipment, and assesses whether a contract is, or contains a lease at the inception of the contract. A lease conveys the right to direct the use and obtain substantially all of the economic benefits of an identified asset for a period of time in exchange for consideration.

At lease commencement date, Halifax Water assess whether the recognition of a right-of-use asset and lease liability would have a material impact on the financial statements.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

2. Summary of material accounting policies (continued)

(e) Leased assets (continued)

A 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). A 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. A 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.

Halifax Water maintains very few lease arrangements and management will assess future leases as they arise to determine whether the impact of the recognition of a right-of-use asset and lease liability on the statements of financial position, where Halifax Water is acting as a lessee, is material to the financial statements. All existing leases have been assessed and recognition in the financial statements has been deemed immaterial.

(f) Deferred contributed capital

Contributions towards capital projects 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.

(g) Cash and cash equivalents

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

(h) Depreciation of utility plant in service

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
Supervisory control and data acquisition (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

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

2. Summary of material accounting policies (continued)

(h) Depreciation of utility plant in service (continued)

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 establishing a depreciation fund as long as net depreciable additions to utility plant in service exceed the depreciation expense included within the rates.

(i) Inventory

Inventory is comprised of direct materials and supplies. Inventory is valued at the lower of cost and net realizable value with cost being determined on the weighted average cost method.

(j) 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 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.

(k) Long term debt

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

(l) 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, unbilled service revenues from Water, Wastewater and Stormwater Services have been earned, but not yet billed due to the timing of the billing cycles. Management estimates the unbilled service revenues 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 based on expected patterns of usage and historical information.
- Recognition and measurement of provisions and contingencies.

Actual results could differ from these estimates.

(m) 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.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

2. Summary of material accounting policies (continued)

(m) Financial instruments (continued)

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 subsequently 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.

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

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.

Subsequent measurement of financial liabilities

Financial liabilities are subsequently measured at amortized cost using the effective interest method. All interest charges are included in interest costs or revenues within the statement of earnings and comprehensive earnings.

(n) 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.

(o) 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.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

2. Summary of material accounting policies (continued)

(o) Impairments (continued)

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.

(p) Intangible assets

Intangible assets include land rights, 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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(q) Employee benefit obligations

Halifax Water accrues 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 Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

2. Summary of material accounting policies (continued)

(q) Employee benefit obligations (continued)

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 pension plan; 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.

(r) 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.

3. Contingent liabilities

Halifax Water has reviewed environmental risk factors at properties owned to determine whether there is an obligation for reclamation. As of the date of issue of the financial statements the likelihood of any related liability is not determinable.

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

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's share of the contributions to the Halifax Regional Municipality Pension Plan (HRM Pension Plan) in the period when Halifax Water is obligated to make contributions for services rendered by the employee. During 2024, Halifax Water funded \$431 (2023 - \$458) in contributions to the HRM Pension Plan. The number of employees included in this plan is 44 (2023 - 48) and this number is reducing over time. As former HRM employees retire, they are replaced with employees in the Halifax Regional Water Commission Employee Pension Plan (the 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 2024, Halifax Water funded \$21 (2023 - \$28) in contributions to these plans. The number of employees included in these plans is 5 (2023 - 6).

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

4. Employee benefit obligations (continued)

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 consecutive years' earnings. The defined benefit pension plan is funded by employer and employee contributions with employees contributing 9.60% (10.34% to December 31, 2021) of pensionable 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, had coverage for extended health, drug, dental and life insurance until age 65 on a 50/50 cost shared basis. Employees who retired after December 31, 2008 have coverage for extended health, drug, dental and life insurance until age 65 on a 100% retiree paid basis. As of March 31, 2024, only pre-July 1998 participants remain, as such the actuarial assumptions for the post-retirement benefits reflect only the remaining health benefit trending percentage. Extended health coverage for 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. 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, and June 20, 2019 for non-union employees, 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.

Information about Halifax Water's plans, based on an actuarial extrapolation of the defined benefit pension plan, and an actuarial valuation of the pre-retirement benefits and the post-retirement benefits as at March 31, 2024, is as follows:

	Defined benefit pension plan		Post-retirement benefits		Pre-retirement benefits		Total	
	2024	2023	2024	2023	2024	2023	2024	2023
Change in accrued benefit obligation								
Balance, April 1	\$ 186,747	\$ 208,627	\$ 290	\$ 310	\$ 1,357	\$ 1,637	\$ 188,394	\$ 210,574
Current service cost	10,710	11,628	-	-	71	89	10,781	11,717
Interest cost	9,245	8,450	12	10	68	62	9,325	8,522
Benefit payments	(6,877)	(6,407)	(39)	(45)	(76)	(273)	(6,992)	(6,725)
Re-measurements – actuarial (gains)/ losses from changes in financial/experience assumptions	-	(35,551)	(51)	15	21	(158)	(30)	(35,694)
Balance, March 31	<u>199,825</u>	<u>186,747</u>	<u>212</u>	<u>290</u>	<u>1,441</u>	<u>1,357</u>	<u>201,478</u>	<u>188,394</u>
Change in fair value of plan assets								
Balance, April 1	180,316	168,624	-	-	-	-	180,316	168,624
Investment income	8,865	6,746	-	-	-	-	8,865	6,746
Administrative expenses	(109)	(149)	-	-	-	-	(109)	(149)
Actual return on plan assets	8,743	4,872	-	-	-	-	8,743	4,872
Benefit payments	(6,877)	(6,407)	(39)	(45)	(76)	(273)	(6,992)	(6,725)
Contributions: Employee	4,505	3,377	-	-	-	-	4,505	3,377
Employer	<u>3,682</u>	<u>3,253</u>	<u>39</u>	<u>45</u>	<u>76</u>	<u>273</u>	<u>3,797</u>	<u>3,571</u>
Balance, March 31	<u>199,125</u>	<u>180,316</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>199,125</u>	<u>180,316</u>
Accrued benefit liability, March 31	\$ 700	\$ 6,431	\$ 212	\$ 290	\$ 1,441	\$ 1,357	\$ 2,353	\$ 8,078

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

4. Employee benefit obligations (continued)

Included in the statement of earnings and comprehensive earnings is pension expense of \$6,514 (2023 - \$10,628).

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

	2024	2023	2024	2023	2024	2023
	Defined benefit pension plan	Defined benefit Pension plan	Post- retirement benefits	Post- retirement benefits	Pre- retirement benefit	Pre- retirement benefit
Discount rate	4.90%	4.90%	4.75%	4.75%	4.90%	3.90%
Expected return on plan assets	4.90%	4.90%	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	0.00%	9.36%	N/A	N/A
Health benefit trending per year	N/A	N/A	6.30%	6.06%	N/A	N/A
Dental benefit trending per year	N/A	N/A	0.00%	4.00%	N/A	N/A

The measurement date used to determine the plan assets and the accrued benefit obligation was March 31, 2024. The most recent actuarial valuation for the defined benefit pension plan was January 1, 2023, with the next actuarial valuation scheduled for January 1, 2025. Going concern extrapolations of the defined benefit pension plan occur annually between the actuarial valuation dates.

The estimated employer contributions expected to be paid to the pension plans for the next fiscal year are \$4,344.

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 2024 is \$192 (2023 - \$192).

	2024	2023
Balance, April 1	\$ 2,236	\$ 2,428
Depreciation	<u>(192)</u>	<u>(192)</u>
Balance, March 31	\$ 2,044	\$ 2,236

6. Commitments

An agreement with HRM for the dividend/grant in lieu of taxes (dividend) for the period from April 1, 2023 through March 31, 2028 was signed in the fiscal year. Dividend payments are approved as part of revenue requirements by the NSUARB. The total amount payable will be calculated based on Property Valuation Services Corporation's (PVSC) assessed value of Halifax Water properties and the property tax rates set by HRM each fiscal year. The assessed value of Halifax Water properties will be reduced by a declining percentage over the five-year period to phase in this new approach. For the fiscal year ended March 31, 2024, the assessed values of the properties were reduced by 8% for the calculation. In addition, the agreement states that the amount payable by Halifax Water to HRM in the fiscal year ending March 31, 2024 shall not exceed \$6,589. The payment will be allocated to each service based on no more than 1.56% times the water rate base, at least 0.25% times the wastewater rate base, and at least 0.25% times the stormwater rate base. In the event these allocations are not sufficient to fund the payment in any given fiscal year, the allocations for wastewater and stormwater will be increased to an amount sufficient to fund the payment.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

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>2024</u>	<u>2023</u>
Long term debt	\$ 236,454	\$ 218,451
Equity	<u>316,526</u>	<u>296,323</u>
Capital under management	<u>\$ 552,980</u>	<u>\$ 514,774</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.

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 fixed rate long-term debt is assumed to approximate its carrying value given the limitations where Halifax Water can obtain long-term debt.

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 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 for non-government balances 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.

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

8. Financial instruments and risk management (continued)

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

	<u>2024</u>	<u>2023</u>
Customer charges, contractual, and unbilled service revenues	\$ 45,521	\$ 40,141
Less: allowance for doubtful accounts	<u>(3,016)</u>	<u>(3,052)</u>
	<u>\$ 42,505</u>	<u>\$ 37,089</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.

Interest risk

Interest risk arises from the possibility that changes in interest rates will cause fluctuations in expenses and/or cash flows associated with Halifax Water's long term debt. 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 Plan and consequently the Plan's surplus. The risk is mitigated by the 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:

	<u>2024</u>	<u>2023</u>
Revenue for provision of Water, Wastewater and Stormwater Services	\$ 7,563	\$ 6,029
Public fire protection revenue	8,083	7,744
Dividend/grant in lieu of taxes	(6,589)	(6,524)
Operating expenditures	<u>(2,428)</u>	<u>(1,015)</u>
Net revenue and expenditures	<u>\$ 6,629</u>	<u>\$ 6,234</u>

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, 2024 is 17.50% (2023 - 18.94%).

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

9. Related party transactions (continued)

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>2024</u>	<u>2023</u>
Compensation and benefits	\$ 1,769	\$ 1,364
Post-employment benefits	<u>118</u>	<u>123</u>
Total compensation	<u>\$ 1,887</u>	<u>\$ 1,487</u>

10. Intangible assets

	<u>2024</u>	<u>2023</u>
Cost		
Balance, April 1	\$ 36,423	\$ 31,967
Additions	<u>16,505</u>	<u>4,456</u>
Balance, March 31	<u>52,928</u>	<u>36,423</u>
Accumulated amortization		
Balance, April 1	13,616	11,162
Amortization	<u>3,323</u>	<u>2,454</u>
Balance, March 31	<u>16,939</u>	<u>13,616</u>
Net book value, March 31	<u>\$ 35,989</u>	<u>\$ 22,807</u>

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

11. Utility plant in service

	Land	Structures and improvements	Treatment and network equipment	Distribution and collection network	Tools and work equipment	Total
Cost						
Balance, April 1, 2023	\$ 25,771	\$ 284,830	\$ 292,869	\$ 1,037,049	\$ 41,861	\$ 1,682,380
Additions	-	6,926	6,390	29,487	4,569	47,372
Disposals	-	-	(245)	-	-	(245)
Balance, March 31, 2024	<u>25,771</u>	<u>291,756</u>	<u>299,014</u>	<u>1,066,536</u>	<u>46,430</u>	<u>1,729,507</u>
Accumulated depreciation						
Balance, April 1, 2023	\$ -	\$ 90,865	\$ 118,184	\$ 149,457	\$ 21,360	\$ 379,866
Depreciation	-	9,301	18,121	17,958	6,497	51,877
Depreciation retired	-	-	(178)	-	-	(178)
Balance, March 31, 2024	<u>-</u>	<u>100,166</u>	<u>136,127</u>	<u>167,415</u>	<u>27,857</u>	<u>431,565</u>
Net book value, March 31, 2024	<u>\$ 25,771</u>	<u>\$ 191,590</u>	<u>\$ 162,887</u>	<u>\$ 899,121</u>	<u>\$ 18,573</u>	<u>\$ 1,297,942</u>

	Land	Structures and improvements	Treatment and network equipment	Distribution and collection network	Tools and work equipment	Total
Cost						
Balance, April 1, 2022	\$ 25,771	\$ 272,587	\$ 282,749	\$ 990,615	\$ 35,554	\$ 1,607,276
Additions	-	12,243	10,120	46,434	6,307	75,104
Disposals	-	-	-	-	-	-
Balance, March 31, 2023	<u>25,771</u>	<u>284,830</u>	<u>292,869</u>	<u>1,037,049</u>	<u>41,861</u>	<u>1,682,380</u>
Accumulated depreciation						
Balance, April 1, 2022	\$ -	\$ 81,781	\$ 102,153	\$ 130,694	\$ 15,255	\$ 329,883
Depreciation	-	9,084	16,031	18,763	6,105	49,983
Depreciation retired	-	-	-	-	-	-
Balance, March 31, 2023	<u>-</u>	<u>90,865</u>	<u>118,184</u>	<u>149,457</u>	<u>21,360</u>	<u>379,866</u>
Net book value, March 31, 2023	<u>\$ 25,771</u>	<u>\$ 193,965</u>	<u>\$ 174,685</u>	<u>\$ 887,592</u>	<u>\$ 20,501</u>	<u>\$ 1,302,514</u>

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

12. Deferred contributed capital	<u>2024</u>	<u>2023</u>
Balance, April 1	\$ 938,258	\$ 908,589
Assets contributed during the year	24,535	18,500
Contributions and interest	3,512	29,962
Amortization	<u>(18,997)</u>	<u>(18,793)</u>
Balance, March 31	947,308	938,258
Less: current portion	<u>(19,260)</u>	<u>(18,836)</u>
	<u>\$ 928,048</u>	<u>\$ 919,422</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	<u>Interest rates</u>	<u>2024</u>	<u>2023</u>
Payable to NS Finance and Treasury Board			
Water	0.565% to 5.460%	\$ 101,166	\$ 86,712
HHSP	2.205% to 2.561%	3,900	4,550
Wastewater	0.565% to 5.460%	96,634	89,859
Stormwater	0.565% to 5.460%	<u>29,427</u>	<u>25,252</u>
		231,127	206,373
Payable to Halifax Regional Municipality			
Wastewater/Stormwater	3.041% to 5.940%	<u>6,500</u>	13,000
		237,627	219,373
Less: debt issue costs		<u>(1,173)</u>	<u>(922)</u>
		236,454	218,451
Less: amount payable within one year		<u>(39,832)</u>	<u>(45,962)</u>
		<u>\$ 196,622</u>	<u>\$ 172,489</u>

During the year Halifax Water acquired \$39,988 in new debt with a ten year term and thirty year amortization period and refinanced \$24,228 in existing debt for the remaining ten year term.

The debentures are repayable in fixed annual principal instalments plus interest payable semi-annually. Interest expensed during the year was \$7,277 (2023 - \$6,851). Principal instalments for the next five years are as follows:

2024/25	\$ 39,832
2025/26	\$ 28,934
2026/27	\$ 16,766
2027/28	\$ 17,687
2028/29	\$ 19,687
Thereafter	\$ 114,721

Halifax Regional Water Commission

Notes to the financial statements

March 31, 2024 (in thousands)

14. Operating expenditures by nature	<u>2024</u>	<u>2023</u>
Salaries and benefits	\$ 47,492	\$ 42,473
Pension	3,012	6,851
Training and conferences	789	681
Contract services	18,208	15,791
Electricity	8,476	7,090
Operating supplies	17,140	15,351
Professional services	4,840	5,351
Chemicals	10,747	8,708
Depreciation on assets allocated to departments	1,546	999
Depreciation and amortization	<u>53,654</u>	<u>51,438</u>
	<u>\$ 165,904</u>	<u>\$ 154,733</u>

15. Comparative figures

Certain of the comparative figures have been reclassified to conform to the financial statement presentation adopted for the current fiscal year.

16. Revenue Deficiency Account

Halifax Water is in the process of establishing an Ambient Temperature District Energy System (DES) and as such, has approval from the NSUARB to establish a Revenue Deficiency Account (RDA). The RDA will accumulate expenditures being made in relation to the DES. Once the DES is operational, RDA amounts will be recovered through the setting of rates which reflect the cost of providing this service together with a provision for the recovery of the amounts accumulated in the RDA over a reasonable period of time. There is no balance in the RDA as of March 31, 2024 as the infrastructure is not yet complete. Capital costs to March 31, 2024 reflected in the total balance of work in progress, are \$1,390.

Halifax Regional Water Commission

Schedule of utility plant in service

Schedule A

Year ended March 31, 2024 (in thousands)

Water

	Land	Structures and improvements	Pumping equipment	Purification equipment	SCADA equipment	Transmission & distribution mains	Services	Meters	Hydrants	Aerotech and small systems	Tools and work equipment	Total
Cost												
Balance, April 1, 2023	\$ 18,215	\$ 131,837	\$ 10,778	\$ 32,106	\$ 12,185	\$ 434,296	\$ 49,019	\$ 19,372	\$ 23,300	\$ 10,048	\$ 39,870	\$ 781,026
Additions	-	6,185	-	774	56	7,893	1,421	-	206	8	9,430	25,973
Disposals	-	-	-	-	-	-	-	-	-	-	(18)	(18)
Balance, March 31, 2024	18,215	138,022	10,778	32,880	12,241	442,189	50,440	19,372	23,506	10,056	49,282	806,981
Accumulated depreciation												
Balance, April 1, 2023	\$ -	\$ 37,900	\$ 8,771	\$ 22,448	\$ 5,919	\$ 110,677	\$ 10,678	\$ 7,621	\$ 5,958	\$ 4,626	\$ 23,203	\$ 237,801
Depreciation	-	2,347	298	1,507	557	5,539	892	909	401	420	4,317	17,187
Depreciation retired	-	-	-	-	-	-	-	-	-	-	(18)	(18)
Balance, March 31, 2024	-	40,247	9,069	23,955	6,476	116,216	11,570	8,530	6,359	5,046	27,502	254,970
Net book value, March 31, 2024	\$ 18,215	\$ 97,775	\$ 1,709	\$ 8,925	\$ 5,765	\$ 325,973	\$ 38,870	\$ 10,842	\$ 17,147	\$ 5,010	\$ 21,780	\$ 552,011
Cost												
Balance, April 1, 2022	\$ 18,215	\$ 122,825	\$ 10,778	\$ 29,411	\$ 11,293	\$ 418,465	\$ 45,052	\$ 19,234	\$ 22,447	\$ 10,048	\$ 35,131	\$ 742,899
Additions	-	9,012	-	2,695	892	15,831	3,967	138	853	-	4,739	38,127
Disposals	-	-	-	-	-	-	-	-	-	-	-	-
Balance, March 31, 2023	18,215	131,837	10,778	32,106	12,185	434,296	49,019	19,372	23,300	10,048	39,870	781,026
Accumulated depreciation												
Balance, April 1, 2022	\$ -	\$ 35,665	\$ 8,468	\$ 21,069	\$ 5,375	\$ 105,279	\$ 9,850	\$ 6,717	\$ 5,581	\$ 4,296	\$ 19,490	\$ 221,790
Depreciation	-	2,235	303	1,379	544	5,398	828	904	377	330	3,713	16,011
Depreciation retired	-	-	-	-	-	-	-	-	-	-	-	-
Balance, March 31, 2023	-	37,900	8,771	22,448	5,919	110,677	10,678	7,621	5,958	4,626	23,203	237,801
Net book value, March 31, 2023	\$ 18,215	\$ 93,937	\$ 2,007	\$ 9,658	\$ 6,266	\$ 323,619	\$ 38,341	\$ 11,751	\$ 17,342	\$ 5,422	\$ 16,667	\$ 543,225

Schedule A is presented in accordance with the NSUARB Handbook.

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

Halifax Regional Water Commission

Schedule of utility plant in service

Schedule A

Year ended March 31, 2024 (in thousands)

Wastewater

	Land	Structures and improvements	Pumping equipment	Purification equipment	SCADA equipment	Collection system	Laterals	Meters	Aerotech and small systems	Tools and work equipment	Total
Cost											
Balance, April 1, 2023	\$ 7,083	\$ 202,942	\$ 29,151	\$ 180,499	\$ 16,040	\$ 355,662	\$ 37,207	\$ 9,109	\$ 12,784	\$ 52,323	\$ 902,800
Additions	-	452	809	3,912	293	7,278	1,684	-	762	9,244	24,434
Disposals	-	-	-	-	-	-	-	-	-	(478)	(478)
Balance, March 31, 2024	7,083	203,394	29,960	184,411	16,333	362,940	38,891	9,109	13,546	61,089	926,756
Accumulated depreciation											
Balance, April 1, 2023	\$ -	\$ 77,345	\$ 11,993	\$ 99,369	\$ 6,049	\$ 84,927	\$ 4,932	\$ 1,857	\$ 5,600	\$ 28,233	\$ 320,305
Depreciation	-	4,007	1,245	9,065	827	5,017	772	457	1,276	4,657	27,323
Depreciation retired	-	-	-	-	-	-	-	-	-	(478)	(478)
Balance, March 31, 2024	-	81,352	13,238	108,434	6,876	89,944	5,704	2,314	6,876	32,412	347,150
Net book value, March 31, 2024	\$ 7,083	\$ 122,042	\$ 16,722	\$ 75,977	\$ 9,457	\$ 272,996	\$ 33,187	\$ 6,795	\$ 6,670	\$ 28,677	\$ 579,606
Cost											
Balance, April 1, 2022	\$ 7,083	\$ 199,497	\$ 26,142	\$ 178,188	\$ 15,954	\$ 349,151	\$ 32,279	\$ 8,971	\$ 12,784	\$ 46,900	\$ 876,949
Additions	-	3,445	3,009	2,311	86	6,511	4,928	138	-	5,423	25,851
Disposals	-	-	-	-	-	-	-	-	-	-	-
Balance, March 31, 2023	7,083	202,942	29,151	180,499	16,040	355,662	37,207	9,109	12,784	52,323	902,800
Accumulated depreciation											
Balance, April 1, 2022	\$ -	\$ 73,004	\$ 10,834	\$ 90,122	\$ 5,146	\$ 80,026	\$ 4,227	\$ 1,407	\$ 5,209	\$ 24,127	\$ 294,102
Depreciation	-	4,341	1,159	9,247	903	4,901	705	450	391	4,106	26,203
Depreciation retired	-	-	-	-	-	-	-	-	-	-	-
Balance, March 31, 2023	-	77,345	11,993	99,369	6,049	84,927	4,932	1,857	5,600	28,233	320,305
Net book value, March 31, 2023	\$ 7,083	\$ 125,597	\$ 17,158	\$ 81,130	\$ 9,991	\$ 270,735	\$ 32,275	\$ 7,252	\$ 7,184	\$ 24,090	\$ 582,495

Schedule A is presented in accordance with the NSUARB Handbook.

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

Halifax Regional Water Commission

Schedule of utility plant in service

Schedule A

Year ended March 31, 2024 (in thousands)

Stormwater

	Land	Structures and improvements	Collection system	Laterals	Tools and work equipment	Total
Cost						
Balance, April 1, 2023	\$ 473	\$ 12,732	\$ 295,041	\$ 5,784	\$ 6,919	\$ 320,949
Additions	-	-	10,498	42	2,192	12,732
Disposals	-	-	-	-	-	-
Balance, March 31, 2024	473	12,732	305,539	5,826	9,111	333,681
Accumulated depreciation						
Balance, April 1, 2023	\$ -	\$ 2,681	\$ 74,819	\$ 925	\$ 4,431	\$ 82,856
Depreciation	-	237	7,186	116	822	8,361
Depreciation retired	-	-	-	-	-	-
Balance, March 31, 2024	-	2,918	82,005	1,041	5,253	91,217
Net book value, March 31, 2024	\$ 473	\$ 9,814	\$ 223,534	\$ 4,785	\$ 3,858	\$ 242,464

	Land	Structures and improvements	Collection system	Laterals	Tools and work equipment	Total
Cost						
Balance, April 1, 2022	\$ 473	\$ 12,732	\$ 279,900	\$ 5,525	\$ 6,388	\$ 305,018
Additions	-	-	15,141	259	531	15,931
Disposals	-	-	-	-	-	-
Balance, March 31, 2023	473	12,732	295,041	5,784	6,919	320,949
Accumulated depreciation						
Balance, April 1, 2022	\$ -	\$ 2,444	\$ 67,865	\$ 812	\$ 3,691	\$ 74,812
Depreciation	-	237	6,954	113	740	8,044
Depreciation retired	-	-	-	-	-	-
Balance, March 31, 2023	-	2,681	74,819	925	4,431	82,856
Net book value, March 31, 2023	\$ 473	\$ 10,051	\$ 220,222	\$ 4,859	\$ 2,488	\$ 238,093

	Water	Wastewater	Stormwater	Total
Collective utility plant in service				
Net book value, March 31, 2024	\$ 552,011	579,606	\$ 242,464	\$1,374,081
Net book value, March 31, 2023	\$ 543,225	\$ 582,495	\$ 238,093	\$1,363,813

Schedule A is presented in accordance with the NSUARB Handbook.

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

Halifax Regional Water Commission

Schedule of long term debt

Schedule B

Year ended March 31, 2024 (in thousands)

	<u>Interest rate</u>	<u>Maturity</u>	<u>Balance Remaining</u>	
			<u>2024</u>	<u>2023</u>
Payable to NS Finance and Treasury Board				
Water				
Debenture 34 B 1	3.041% to 3.190%	2024	\$ 7,520	\$ 8,203
Debenture 35 A 1	2.573% to 2.894%	2025	8,080	8,754
Debenture 36 A 1	2.443% to 2.925%	2026	600	800
Debenture 36 B 1	2.048% to 2.506%	2026	2,820	3,036
Debenture 37 A 1	2.617% to 3.073%	2027	2,450	2,625
Debenture 38 A 1	2.884% to 3.295%	2028	500	700
Debenture 38 B 1	3.048% to 3.389%	2028	4,500	4,800
Debenture 39 A 1	2.205% to 2.561%	2029	8,800	9,350
Debenture 40 A 1	0.995% to 1.879%	2030	10,200	10,800
Debenture 40 B 1	0.565% to 2.376%	2031	9,000	9,500
Debenture 42 A 1	2.575% to 3.782%	2032	12,700	13,138
Debenture 42 B 1	4.177% to 4.116%	2032	4,999	5,367
Debenture 43 A 1	3.550% to 4.714%	2033	5,056	5,562
Debenture 43 B 1	4.897% to 5.460%	2033	3,706	4,077
Debenture 43 B 1	4.897% to 5.460%	2033	20,235	-
Wastewater				
Debenture 34 A 1	3.193% to 3.347%	2024	3,063	3,342
Debenture 34 B 1	3.041% to 3.190%	2024	4,722	5,151
Debenture 35 A 1	2.573% to 2.894%	2025	8,466	9,172
Debenture 36 B 1	2.048% to 2.506%	2026	1,178	1,268
Debenture 37 A 1	2.617% to 3.073%	2027	4,270	4,575
Debenture 38 B 1	3.048% to 3.389%	2028	4,800	5,120
Debenture 39 A 1	2.205% to 2.561%	2029	12,000	12,750
Debenture 40 A 1	0.955% to 1.879%	2030	7,480	8,020
Debenture 40 B 1	0.565% to 2.376%	2031	5,400	5,700
Debenture 42 A 1	2.575% to 3.782%	2032	15,478	17,198
Debenture 42 B 1	4.177% to 4.116%	2032	1,900	2,297
Debenture 43 A 1	3.550% to 4.714%	2033	8,430	9,275
Debenture 43 B 1	4.897% to 5.460%	2033	5,446	5,991
Debenture 43 B 1	4.897% to 5.460%	2033	14,001	-
HHSP				
Debenture 39 A 1	2.205% to 2.561%	2029	3,900	4,550
Stormwater				
Debenture 34 B 1	3.041% to 3.190%	2024	3,247	3,542
Debenture 35 A 1	2.573% to 2.894%	2025	1,938	2,100
Debenture 36 B 1	2.048% to 2.506%	2026	586	630
Debenture 37 A 1	2.617% to 3.073%	2027	280	300
Debenture 38 B 1	3.048% to 3.389%	2028	1,950	2,080
Debenture 39 A 1	2.205% to 2.561%	2029	3,200	3,400
Debenture 40 A 1	0.955% to 1.879%	2030	4,760	5,040
Debenture 40 B 1	0.565% to 2.376%	2031	3,600	3,800
Debenture 42 A 1	2.575% to 3.782%	2032	2,524	2,611
Debenture 43 A 1	3.550% to 4.714%	2033	270	297
Debenture 43 B 1	4.897% to 5.460%	2033	1,320	1,452
Debenture 43 B 1	4.897% to 5.460%	2033	5,752	-
			<u>231,127</u>	<u>206,373</u>
Payable to Halifax Regional Municipality				
Wastewater/Stormwater				
Debenture 24 B 1	5.920% to 5.940%	2024	5,500	11,000
Debenture 34 B 1	3.041% to 3.190%	2024	1,000	2,000
			<u>6,500</u>	<u>13,000</u>
			237,627	219,373
Less: debt issue costs			(1,173)	(922)
			<u>236,454</u>	<u>218,451</u>
Less: amount payable within one year			(39,832)	(45,962)
Total long term debt			<u>\$ 196,622</u>	<u>\$ 172,489</u>

Halifax Regional Water Commission

Schedule of earnings

Schedule C

Year ended March 31, 2024 (in thousands)

Water

	<u>2024</u>	<u>2023</u>
Operating revenues		
Water	\$ 54,938	\$ 49,134
Public fire protection	8,083	7,744
Private fire protection	1,698	1,398
Other operating revenue		
Bulk water stations	257	356
Late payment and connection fees	191	157
Miscellaneous	187	322
	<u>65,354</u>	<u>59,111</u>
Operating expenditures		
Water supply and treatment	14,786	11,646
Water transmission and distribution	13,768	11,757
Engineering and technology services	6,003	4,724
Regulatory services	2,052	1,446
Customer services	2,380	2,218
Corporate services	1,588	1,622
Administration services	3,179	2,974
Depreciation and amortization	13,212	12,186
	<u>56,968</u>	<u>48,573</u>
Earnings from operations before financial and other revenues and expenditures	<u>8,386</u>	<u>10,538</u>
Financial and other revenues		
Interest	300	343
Other	392	446
	<u>692</u>	<u>789</u>
Financial and other expenditures		
Interest on long term debt	2,833	2,434
Repayment of long term debt	6,164	6,148
Amortization of debt issue costs	88	87
Dividend/grant in lieu of taxes	5,824	5,608
Other	129	119
	<u>15,038</u>	<u>14,396</u>
Loss for the year	<u>\$ (5,960)</u>	<u>\$ (3,069)</u>

Schedule C is presented in accordance with the NSUARB Handbook.

Halifax Regional Water Commission

Schedule of earnings

Schedule C

Year ended March 31, 2024 (in thousands)

Wastewater

	<u>2024</u>	<u>2023</u>
Operating revenues		
Wastewater	\$ 89,512	\$ 82,592
Other operating revenue		
Leachate and other contract revenue	551	454
Septage tipping fees	577	598
Over strength surcharge	7	9
Airplane effluent	94	79
Late payment and connection fees	309	247
Miscellaneous	184	217
	<u>91,234</u>	<u>84,196</u>
Operating expenditures		
Wastewater collection	14,554	13,691
Wastewater treatment	24,782	23,420
Engineering and technology services	8,281	6,846
Regulatory services	1,604	1,491
Customer services	2,062	2,044
Corporate services	1,373	1,308
Administration services	2,779	2,344
Depreciation and amortization	17,809	16,698
	<u>73,244</u>	<u>67,842</u>
Earnings from operations before financial and other revenues and expenditures	<u>17,990</u>	<u>16,354</u>
Financial and other revenues		
Interest	112	139
Other	96	424
	<u>208</u>	<u>563</u>
Financial and other expenditures		
Interest on long term debt	3,581	3,668
Repayment of long term debt	13,954	14,021
Amortization of debt issue costs	110	116
Dividend/grant in lieu of taxes	630	778
Other	11	10
	<u>18,286</u>	<u>18,593</u>
Loss for the year	<u>\$ (88)</u>	<u>\$ (1,676)</u>

Schedule C is presented in accordance with the NSUARB Handbook.

Halifax Regional Water Commission

Schedule of earnings

Schedule C

Year ended March 31, 2024 (in thousands)

Stormwater

	<u>2024</u>	<u>2023</u>
Operating revenues		
Stormwater site generated service	\$ 8,676	\$ 6,927
Stormwater right-of-way service	6,520	4,475
Other operating revenue		
Late payment and connection fees	80	262
Miscellaneous	115	118
	<u>15,391</u>	<u>11,782</u>
Operating expenditures		
Stormwater collection	5,755	4,719
Engineering and technology services	1,769	2,107
Regulatory services	1,876	1,497
Customer services	189	185
Corporate services	153	145
Administration services	305	260
Depreciation and amortization	3,065	2,710
	<u>13,112</u>	<u>11,623</u>
Earnings from operations before financial and other expenditures	<u>2,279</u>	<u>159</u>
Financial and other expenditures		
Interest	103	53
Interest on long term debt	862	749
Repayment of long term debt	2,486	2,210
Amortization of debt issue costs	24	24
Dividend/grant in lieu of taxes	135	138
	<u>3,610</u>	<u>3,174</u>
Loss for the year	<u>\$ (1,331)</u>	<u>\$ (3,015)</u>

Schedule C is presented in accordance with the NSUARB Handbook.

Halifax Regional Water Commission

Schedule of earnings

Schedule D

Year ended March 31, 2024 (in thousands)

Regulated activities

	<u>2024</u>	<u>2023</u>
Operating revenues		
Water	\$ 54,938	\$ 49,134
Wastewater	89,512	82,592
Stormwater	15,196	11,402
Public fire protection	8,083	7,744
Private fire protection services	1,698	1,398
Other operating revenue	1,330	1,659
	<u>170,757</u>	<u>153,929</u>
Operating expenditures		
Water supply and treatment	14,781	11,619
Water transmission and distribution	13,768	11,757
Wastewater collection	14,499	13,631
Stormwater collection	5,755	4,719
Wastewater treatment	23,888	22,670
Engineering and technology services	16,053	13,677
Regulatory services	5,532	4,434
Customer services	4,627	4,402
Corporate services	3,095	3,057
Administration services	6,132	5,422
Depreciation and amortization	34,066	31,575
	<u>142,196</u>	<u>126,963</u>
Earnings from operations before financial and other revenues and expenditures	<u>28,561</u>	<u>26,966</u>
Financial and other revenues		
Interest	412	482
Other	11	32
	<u>423</u>	<u>514</u>
Financial and other expenditures		
Interest	103	53
Interest on long term debt	7,276	6,851
Repayment of long term debt	22,604	22,379
Amortization of debt issue costs	222	227
Dividend/grant in lieu of taxes	6,589	6,524
	<u>36,794</u>	<u>36,034</u>
Loss for the year	<u>\$ (7,810)</u>	<u>\$ (8,554)</u>

Halifax Regional Water Commission

Schedule of earnings

Schedule D

Year ended March 31, 2024 (in thousands)

Unregulated activities

	<u>2024</u>	<u>2023</u>
Operating revenues		
Septage tipping fees	\$ 577	\$ 598
Leachate treatment and contract revenue	551	454
Airplane effluent	94	79
Other operating revenue	-	29
	<u>1,222</u>	<u>1,160</u>
Operating expenditures		
Water supply and treatment	5	27
Wastewater treatment	894	750
Wastewater collection	55	60
Customer services	4	45
Corporate services	19	18
Administration services	131	156
Depreciation and amortization	20	19
	<u>1,128</u>	<u>1,075</u>
Earnings from operations before financial and other revenues and expenditures	<u>94</u>	<u>85</u>
Financial and other revenues		
Other	<u>477</u>	<u>838</u>
Financial and other expenditures		
Other	<u>140</u>	<u>129</u>
Earnings for the year	<u>\$ 431</u>	<u>\$ 794</u>

Halifax Regional Water Commission Nova Scotia Utility and Review Board information

Schedule E

Year ended March 31, 2024 (in thousands)

Return on rate base	2024	2023
Rate of return on rate base for Water Service	0.67%	1.32%
Rate of return on rate base for Wastewater Service	5.37%	4.90%
Rate of return on rate base for Stormwater Service	2.98%	0.03%

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 and Stormwater Reserves	Regional Development Charge Water Reserve	Regional Development Charge Wastewater Reserve	Other Capital Reserves	2024 Total	2023 Total
Reserve, April 1	\$ 1,964	\$ 5,836	\$ 85,165	\$ 912	\$ 93,877	\$ 69,961
Contributions and interest	-	4,394	15,054	168	19,615	27,919
Expenditures	-	(9,570)	(7,846)	-	(17,416)	(4,003)
Reserve, March 31	\$ 1,964	\$ 660	\$ 92,373	\$ 1,079	\$ 96,076	\$ 93,877

Summarized consolidated operating results

	2024	2023
Operating revenues	\$ 171,979	\$ 155,089
Operating expenditures	<u>143,324</u>	<u>128,038</u>
Earnings from operations before financial and other revenues and expenditures	28,655	27,051
Financial and other revenues	900	1,352
Financial and other expenditures	<u>36,934</u>	<u>36,163</u>
Loss for the year	\$ (7,379)	\$ (7,760)

Schedule E is presented in accordance with the NSUARB Handbook.

Halifax Regional Water Commission

For the year ended March 31, 2024

Report to the Audit and Finance Committee
Audit Results

June 12, 2024

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Appendices

Appendix A – Independent auditor’s report
Appendix B – Management representation letter
Appendix C – IFRS Accounting developments
Appendix D – Auditing developments

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, 2024. This communication will assist the Audit and Finance 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 and Finance 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
Discussions and communications regarding planning	January 11, 2024
Communication of audit results	June 12, 2024
Report on the March 31, 2024 financial statements	To be determined

Status of our audit

We are in the process of completing 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 that were outstanding as at June 12, 2024:

- Receipt of final updated financial statements (for any final changes after June 6, 2024), if any
- Receipt of outstanding audit support including memo relating to capitalized intangibles, and confirmation of related party balances from HRM
- Completion of test of controls and substantive audit procedures relating to capital work in progress, utility plant in service and intangible assets, in addition to substantive procedures, balances with HRM, deferred contributions, revenue analytics, journal entry testing and concluding procedures
- Final audit manager, partner and EQR review of the audit file, system conversion procedures and final financial statements
- Receipt of legal inquiry responses
- 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

We are executing our audit strategy in accordance with the plan presented to the Audit and Finance Committee on January 11, 2024.

Additionally, we will complete our final communications to KPMG regarding our role as component auditor for their audit of Halifax Regional Municipality, when required.

Independence

We confirm that there have been no changes to our status with respect to independence since we confirmed our independence to you on January 11, 2024.

Audit risks and results

Significant transactions

Area of focus	Matter	Our response and findings
Capital projects	During the year, Halifax Water had significant capital projects ongoing and approximately \$85.7 million in capital additions (comprised of the change in work in progress year over year plus additions to intangibles and utility plant in service), were made to ongoing and completed capital projects.	We performed the following: <ul style="list-style-type: none">• Tested the operating effectiveness of controls over additions to work in progress and capital assets.• On a test basis, examined invoices or other support for additions incurred during the year. We have no findings to report.

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 and Finance Committee.

Area of focus	Matter	Our response and findings
System conversion	In August 2023, Halifax Water transitioned from using SAP to Cayenta Customer Information System (“Cayenta”) as their accounting system.	<p>We performed the following:</p> <ul style="list-style-type: none"> • Tested the conversion of financial data between the legacy and new accounting systems for accuracy and completeness. • Reviewed the IT control environment, assessing the new system for any internal control deficiencies. <p>Based on our review, the conversion of financial information for the purposes of preparing the financial statements appears complete. However, manual journal entries were required in some cases to appropriately reclass balances for financial presentation purposes. As of the date of this report, we have not found any errors in management’s reclasses for financial statement presentation as a result of the system conversion.</p>
Revenue	There are a significant number of transactions in the billing process which leads to a significant risk from a financial reporting perspective. Unbilled services revenue requires management to make estimates to determine the accrual required at year end.	<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. • Analyzed management’s estimate of unbilled services revenue for reasonability including testing of inputs used in forming the estimate. <p>We have no findings to report.</p>
Work in progress and utility plant in service	Halifax Water has a significant balance in utility plant in service 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, examined invoices or other support for additions incurred during the year. <p>We have no findings to report.</p>

Employee benefit obligations

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 9.6% of payroll (effective January 1, 2022).

An extrapolation was performed as at January 1, 2024.

We performed the following:

- Examined the extrapolation report prepared by Halifax Water's independent actuary.
- Verified amounts reported and disclosed in Halifax Water's financial statements are accurate and complete.
- Assessed reasonability of assumptions used in the extrapolation as compared to expectations and market information.
- Performed testing of the data used by the actuary in the performance of their work.
- Confirmed the independence of Halifax Water's actuary and their materiality threshold.

We have no findings to report.

Adjustments and uncorrected misstatements

Adjustments

Based on our audit procedures completed to date, we have no adjustments to report, however we will communicate under separate cover in a letter to management and the Board as required if any findings are identified.

Uncorrected misstatements

Based on our audit procedures completed to date, we have no uncorrected adjustments to report, however we will communicate under separate cover in a letter to management and the Board as required if any findings are identified.

Summary of disclosure matters

Our audit did not identify any unadjusted non-trivial misstatements of disclosure matters as of the date of this report. If in the process of finalizing the audit and the audited financial statements we have findings, we will communicate under separate cover to management and the Board as required.

Other reportable matters

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 Audit and Finance Committee those deficiencies we consider significant. However, a financial statement audit is not designed to provide assurance on internal control.

We will communicate any reportable observations as a result of our audit under separate cover.

Technical updates – highlights

Accounting and Assurance

There have not been any changes in accounting or assurance standards that would have a significant impact on Halifax Water in the current year, except those presented to the Committee as part of the communication on audit planning on January 11, 2024.

Further details of the changes to accounting and assurance standards, including management's preliminary comments on their applicability to Halifax Water, are included in the Appendices. If you have any questions about these changes, we invite you to raise them during our next meeting. We will be pleased to address any questions.

Exposure Draft – Regulatory Assets and Regulatory Liabilities

The International Accounting Standards Board (IASB) met on May 22, 2024 to redeliberate on the proposed guidance on the interaction between the proposals in the Exposure Draft *Regulatory Assets and Regulatory Liabilities* (Exposure Draft) and IAS 12 *Income Taxes* (Agenda Paper 9A); and the proposed amendments to IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* in the Exposure Draft.

Regarding the prospective IFRS Accounting Standard on rate-regulated activities, the IASB tentatively decided to clarify that the income tax consequences of a regulatory asset or regulatory liability might give rise to a separate regulatory asset or regulatory liability; and an entity would determine the tax base of a regulatory asset or regulatory liability by applying the requirements in IAS 12.

Regarding the IFRS accounting standards on accounting policies and changes in accounting estimates, the IASB tentatively decided to retain the proposal in the

Exposure Draft to remove the temporary exception in paragraph 54G of IAS 8. This exception requires an entity developing an accounting policy for regulatory account balances to refer to the Framework for the Preparation and Presentation of Financial Statements instead of the Conceptual Framework for Financial Reporting issued in 2018.

The revised standard is not expected to come in to effect until two years from the date of the release of the final standard; however, is likely to require retroactive application upon adoption. The extent to which the new standard will impact Halifax Water can start to be assessed by management upon the release of the final standard, incorporating the changes from the comment letters.

Appendix A

Draft independent auditor's report

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, 2024, 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 material accounting policy information.

In our opinion, the accompanying financial statements present fairly in all material respects, the financial position of Halifax Water as at March 31, 2024, and its financial performance and its cash flows for the year then ended in accordance with IFRS Accounting Standards as issued by the International Accounting Standards Board (IFRS Accounting Standards).

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 Accounting Standards. Schedules A through E are presented in accordance with the Nova Scotia Utility and Review Board Water Utility Accounting and Reporting Handbook. 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, 2024.

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 Accounting Standards, 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
To be determined

Chartered Professional Accountants

Appendix B

Draft management representation letter

Management Representation Letter

June XX, 2024

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

Dear Mr. Brockway:

We are providing this letter in connection with your audit of the financial statements of **Halifax Regional Water Commission ("Halifax Water")** as of March 31, 2024, 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 Halifax Regional Water Commission in accordance with with IFRS Accounting Standards as issued by the International Accounting Standards Board (IFRS Accounting Standards).

We acknowledge that we have fulfilled our responsibilities for the preparation of the financial statements in accordance with accordance with IFRS Accounting 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 XX, 2024, 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 Halifax Water as at March 31, 2024 and the results of its operations and its cash flows for the year then ended in accordance with IFRS Accounting 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 Halifax Water 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 have been recorded on the books of the Halifax Water.
- 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 Halifax Water 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 Halifax Water'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 methods, significant assumptions and data used by us in making accounting estimates and related disclosures are appropriate to achieve recognition, measurement and disclosure that are in accordance with IFRS Accounting Standards.
- 15 We believe that the significant judgements made in making accounting estimates have taken into account relevant information of which management is aware and that appropriate specialized skills and experience (including third party experts where applicable), has been applied in making the accounting estimates.
- 16 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.
- 17 There are no tangible capital assets belonging to Halifax Water that have not already been capitalized or would need to be capitalized in the future.
- 18 All related party transactions have been appropriately measured and disclosed in the financial statements.
- 19 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.
- 20 There were no business combinations that occurred during the year.
- 21 Any intangibles on the books of Halifax Water are evaluated whenever events or changes in circumstances indicate 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.
- 22 Depreciation and amortization rates have been assessed to ensure they properly reflect the assets' useful lives.
- 23 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.
- 24 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.
- 25 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.
- 26 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, 2024 year-end.

- 27 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.
- 28 Halifax Water has satisfactory title to (or lease interest in) all assets, and there are no liens or encumbrances on Halifax Water's assets nor has any been pledged as collateral.
- 29 We have disclosed to you, and Halifax Water 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.
- 30 The Goods and Services Tax (GST) and Harmonized Sales Tax (HST) transactions recorded by Halifax Water are in accordance with the federal and provincial regulations. The GST and HST liability/receivable amounts recorded by the Halifax Water are considered complete.
- 31 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.
- 32 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.
- 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.

Yours very truly,

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

Alicia Scallion, CPA, CA
Manager of Accounting

Appendix C – IFRS Accounting Standards developments

Accounting – Standards issued by the IASB	Effective date
<p>International Financial Reporting Standards</p> <p>The Accounting Standards Board (AcSB) has issued Part I of the CPA Canada Handbook: International Financial Reporting Standards (IFRS Accounting Standards). The standards are mandatory for all publicly accountable enterprises (PAEs). Other types of entities and organizations have the option of applying IFRS Accounting Standards. The only entities and organizations which are not permitted to apply IFRS Accounting Standards are pension plans and other entities within the scope of Part IV of the Handbook, as well as government not-for-profit organizations (note: other government organizations may only consider IFRS Accounting Standards if the Public Sector Accounting handbook does not meet users' needs).</p> <p>The AcSB incorporates IFRS Accounting Standards as issued by the International Accounting Standards Board (IASB), into Part I of the Handbook without modification.</p>	<p>Mandatory for PAEs interim and annual financial statements for annual periods that began on or after January 1, 2011. There were two exemptions: 1) for specific investment companies, segregated accounts of life insurance enterprises whose mandatory date was for annual periods beginning on or after January 1, 2014 and 2) for entities that have activities subject to rate regulation whose mandatory date was for annual periods beginning on or after January 1, 2015.</p>
<p>Non-current Liabilities with Covenants (Amendments to IAS 1) and Classification of Liabilities as Current or Non-Current (Amendments to IAS 1)</p> <p>IAS 1 <i>Presentation of Financial Statements</i> has been amended to clarify the guidance on whether a liability should be classified as either current or non-current. The amendments clarify the following:</p> <ul style="list-style-type: none">• only covenants that an entity is required to comply with on or before the reporting date will affect the classification of a liability as current or non-current (for example, a covenant based on the entity's financial position at the end of the reporting period, even if it only assessed for compliance after the reporting period)• covenants that an entity is required to comply with only after the reporting period do not affect the classification of a liability (for example, a covenant based on the entity's financial position six months after the end of the reporting period)• settlement includes transfers of cash, equity instruments, other assets or services to the counterparty that result in extinguishment of the liability• entities are required to disclose information that enables users of financial statements to understand the risk that a non-current liability with covenants could become repayable within twelve months after the reporting period (such as information about the covenant, the facts and circumstances that indicate the entity may have difficulty complying with it, and whether the entity would have complied had the covenant been assessed at the end of the reporting period)	<p>Annual periods beginning on or after January 1, 2024.</p> <p>Early adoption is permitted.</p>
<p>Lease Liability in a Sale and Leaseback (Amendments to IFRS 16)</p> <p>IFRS 16 <i>Leases</i> has been amended to clarify how a seller-lessee subsequently measures a sale and leaseback transaction that satisfies the requirements to be accounted for as a sale. The amendments do not prescribe specific measurement requirements for lease liabilities arising from a leaseback. However, the seller-lessee is required to subsequently measure the lease liability in a way that does not recognize any gain or loss related to the right of use it retains.</p> <p>The amendments do not prevent a seller-lessee from recognizing any gain or loss relating to the partial or full termination of a lease into profit or loss.</p>	<p>Annual periods beginning on or after January 1, 2024.</p> <p>Earlier application is permitted.</p>

Accounting – Standards issued by the IASB**Effective date**

Definition of Accounting Estimates (Amendments to IAS 8)

The IASB has issued amendments to IAS 8 *Accounting Policies, Changes in Accounting Estimates and Errors* which introduce a definition of accounting estimates and provide other clarifications to help entities distinguish accounting policies from accounting estimates.

Under the amendments, accounting estimates are defined as “monetary amounts in financial statements that are subject to measurement uncertainty”.

The amendments also emphasize that a change in an accounting estimate that results from new information or new developments is not an error correction, and that changes in an input or a measurement technique used to develop an accounting estimate are considered changes in accounting estimates if those changes in an input or measurement technique are not the result of an error correction.

Annual periods beginning on or after January 1, 2023.

Earlier application is permitted.

Disclosure of Accounting Policies (Amendments to IAS 1)

The IASB has issued amendments to IAS 1 *Presentation of Financial Statements* which require entities to disclose their “material” accounting policy information rather than their “significant” accounting policies. The amendments are intended to help preparers determine which accounting policies to disclose in their financial statements.

The amendments explain that accounting policy information is material if omitting, misstating or obscuring that information could reasonably be expected to influence decisions that the primary users of the financial statements make on the basis of those financial statements. The amendments also clarify that accounting policy information may be material because of its nature, even if the related amounts are immaterial.

The following are examples of when accounting policy information is likely to be material:

- the entity changed its accounting policy and this change resulted in a material change in the financial statements
 - the entity chose the accounting policy from one or more options permitted under IFRS Accounting Standards
 - the accounting policy was developed in accordance with IAS 8 in the absence of an IFRS that specifically applies
 - the entity needed to make significant judgements or assumptions in applying an accounting policy
 - the accounting required for material transactions, other events or conditions is complex and users of the financial statements would otherwise not understand those material transactions, other events or conditions
-

Annual periods beginning on or after January 1, 2023.

Earlier application is permitted.

Appendix D – Auditing developments

Canadian Auditing Standards (CASs) and other Canadian Standards issued by the AASB	Effective date
<p>Issuance of CSQM 1 <i>Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements</i>, CSQM 2 <i>Engagement Quality Reviews</i> and revised CAS 220 <i>Quality Management for an Audit of Financial Statements</i></p> <p>Auditors must effectively manage audit quality, both at the firm level and the engagement level. The IAASB recognised a need to strengthen standards addressing quality control and the AASB implemented similar changes to those made at the international level. In January 2021, the AASB unanimously approved the suite of quality management standards.</p> <p>CSQM 1 introduces a new approach to “managing quality”. Quality management is intended to be proactive in nature and to be a continuous process. Implementing the new standard requires firms to analyse and enhance many of their internal processes to achieve effective quality management. This standard replaces the extant standard, CSQC 1 Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance Engagements</p> <p>CSQM 2 deals specifically with the topic of engagement quality reviews (EQRs), which are performed by firms to obtain an objective evaluation of the significant judgments made by the engagement team and the conclusions reached. The standards setters recognized the importance of EQRs and noted that many stakeholders (including oversight bodies) were concerned that the requirements of CSQM 1 with respect to EQRs were not sufficiently robust. As a result, CSQM 2 was issued. CSQM 1 deals with the topic of when an EQR should be performed, while CSQM 2 covers the appointment and eligibility considerations related to the person performing the EQR and the performance and documentation requirements.</p> <p>CAS 220 was revised to clarify and strengthen the key elements of quality management at the engagement level by:</p> <ul style="list-style-type: none"><li>• emphasizing that the engagement partner is responsible for managing and achieving quality at the engagement level<li>• clarifying the engagement partner’s responsibilities, and acknowledging the engagement partner can assign certain tasks/procedures to members of the engagement team who are appropriately skilled or suitably experienced in managing and achieving quality<li>• modernizing the standard for the evolving environment	<p>CSQM 1 is effective for audits or reviews of financial statements or other assurance engagements as of December 15, 2022 and related services engagements as of December 15, 2023.</p> <p>CSQM 2 is effective for audits or reviews of financial statements with periods beginning on or after December 15, 2022, other assurance engagements beginning on or after December 15, 2022 and related services engagements beginning on or after December 15, 2023.</p> <p>CAS 220 is effective for audits of financial statements for periods beginning on or after December 15, 2022.</p>

Canadian Exposure Drafts issued by the AASB**Effective date**

Potential revisions to CAS 500 Audit Evidence

The current audit evidence standard was issued many years ago. Since then, developments in technology have affected how entities operate and process information and how audits are performed. In December 2020, the IAASB initiated a project to revise the current standard to respond to changes in the business environment. The Exposure Draft proposes several key changes:

- To respond to changes in the information auditors use, including the nature and source of the information, a set of attributes has been developed to enhance the auditor's principle-based judgments related to audit evidence in a wide variety of circumstances. Enhancements and clarifications have also been made regarding the auditor's role when using information prepared by management's expert
- To modernise the standard and support a principles-based approach that recognises the evolution in technology, new application material has been added, including explanations of how automated tools may affect auditor bias and examples that recognise the use of technology by the entity or the auditor
- To foster professional skepticism when making judgments about information to be used as audit evidence and sufficient appropriate audit evidence, language has been added to emphasise the importance of maintaining professional skepticism at various stages, such as when attempting to ensure that audit procedures are being designed and performed in an unbiased manner.

The comment period for the Exposure Draft ended on March 15, 2023. It is expected that the effective date for the revised standard will be for periods beginning in 2025, but the exact effective date will depend on when the standard is approved.

Potential revisions to CAS 570 Going Concern

Auditors are required to obtain sufficient appropriate audit evidence on the appropriateness of management's use of the going concern basis of accounting and conclude on whether a material uncertainty exists in relation to going concern. Financial statement users have raised questions about how much auditors should be able to detect from their audit procedures in this area, and what is communicated to users about the entity's ability to continue as a going concern. This led the IAASB to initiate a project to revise the standard. In April 2023, the IAASB issued its Exposure Draft and the AASB has issued a corresponding Exposure Draft. The Exposure Draft proposes several key changes, which include:

- Defining material uncertainty related to going concern
- Enhancing the risk identification and assessment requirements so they are consistent with those set out in CAS 315 (Revised) *Identifying and Assessing the Risks of Material Misstatement*
- Enhancing the auditor's evaluation of management's going concern assessment, including requirements to support the auditor's application of professional skepticism
- Adding a requirement for the auditor to request management to extend its going concern assessment of the entity to cover at least 12 months from the date of approval of the financial statements if management has not already done so
- Enhancing the auditor's consideration of information related to management's going concern assessment that becomes available to the auditor after the date of the auditor's report but before the date the financial statements are issued
- Adding requirements to enhance communications about going concern in the auditor's report.

The comment period for the Exposure Draft ended on July 31, 2023. It is expected that the effective date for the revised standard will be for periods beginning in 2026, but the exact effective date will depend on when the standard is approved.

Certificate Of Completion

Envelope Id: EC29C238F02D407FB0DF985D2BE0D9F3	Status: Completed
Subject: Complete with DocuSign: Item 4.1 - 2023-24 Audited Financial Statements.pdf	
Source Envelope:	
Document Pages: 71	Signatures: 4
Certificate Pages: 2	Initials: 0
AutoNav: Enabled	Envelope Originator:
Envelope Stamping: Disabled	Lorna Skinner
Time Zone: (UTC-04:00) Atlantic Time (Canada)	450 Cowie Hill Road
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	lornas@halifaxwater.ca
	IP Address: 156.34.29.52

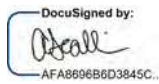
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Status: Original	Holder: Lorna Skinner	Location: DocuSign
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Signer Events

Alicia Scallion
 alicias@halifaxwater.ca
 Security Level: Email, Account Authentication (None)

Signature



Timestamp

Sent: Jun 14, 2024 | 13:59
 Viewed: Jun 14, 2024 | 14:04
 Signed: Jun 14, 2024 | 14:05

Signature Adoption: Uploaded Signature Image
 Using IP Address: 47.55.122.183

Electronic Record and Signature Disclosure:
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Kenda MacKenzie
 mackenk@halifaxwater.ca
 A/General Manager
 Security Level: Email, Account Authentication (None)



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 Resent: Jun 14, 2024 | 16:10
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Signature Adoption: Pre-selected Style
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Electronic Record and Signature Disclosure:
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Louis de Montbrun
 louis.demontbrun@halifaxwater.ca
 Director, Corporate Services/CFO
 Security Level: Email, Account Authentication (None)



Sent: Jun 14, 2024 | 13:59
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 Signed: Jun 14, 2024 | 15:28

Signature Adoption: Drawn on Device
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Electronic Record and Signature Disclosure:
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Intermediary Delivery Events	Status	Timestamp
Certified Delivery Events	Status	Timestamp
Carbon Copy Events	Status	Timestamp

Witness Events	Signature	Timestamp
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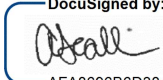
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Envelope Summary Events	Status	Timestamps
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Signing Complete	Security Checked	Jun 14, 2024 15:28
Completed	Security Checked	Jun 14, 2024 16:11

Payment Events	Status	Timestamps
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TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board, as Trustees of the Halifax Regional Water Commission Employees' Pension Plan

SUBMITTED BY: 
Alicia Scallion, CPA, CA
Manager, Finance

APPROVED BY: 
Louis de Montbrun, CPA, CA
Director, Corporate Services / CFO

DATE: June 13, 2024

SUBJECT: **Halifax Regional Water Commission Employees' Pension Plan Financial Statements for the Year Ended December 31, 2023**

ORIGIN

The Halifax Regional Water Commission Board approves the audited financial statements for the Halifax Regional Water Commission Employees' Pension Plan annually.

RECOMMENDATION

It is recommended the Halifax Regional Water Commission Board approve the financial statements of the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2023.

BACKGROUND

At the June 12, 2024, meeting of the Halifax Water Audit and Finance Committee, the attached report was reviewed and the Committee approved a motion to recommend the Halifax Water Board approve the financial statements of the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2023.


ATTACHMENTS

1. Report to the Halifax Water Audit and Finance Committee re. financial statements of the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2023
2. Draft financial statements of the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2023
3. Grant Thornton LLP Audit Findings Report to the Audit and Finance Committee

Report Prepared By:	<p>DocuSigned by: <i>Heather Britten</i> 7F50B0451C00405 Heather Britten, B.Comm, PCP Quality Assurance Officer</p>
Financial Approved By:	<p>DocuSigned by: <i>Alicia Scallion</i> AFA8096B0D3845C Alicia Scallion, CPA, CA Manager, Finance</p>

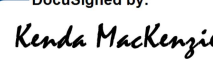
TO: Chair, and Members of the Halifax Regional Water Commission Audit and Finance Committee

SUBMITTED BY:

DocuSigned by:

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

APPROVED BY:

DocuSigned by:

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Kenda MacKenzie, P.Eng.
Acting General Manager/CEO

DATE: June 6, 2024

SUBJECT: **Halifax Regional Water Commission Employees' Pension Plan Financial Statements for the Year Ended December 31, 2023**

ORIGIN

The Halifax Regional Water Commission Employees' Pension Plan (the "Plan") financial statements are audited annually.

RECOMMENDATION

It is recommended that the Audit and Finance Committee recommend that the Halifax Regional Water Commission Board, as Trustees for the Plan, approve the financial statements for the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2023.

BACKGROUND & DISCUSSION

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

DISCUSSION

Attached are the audited financial statements of the Plan for the year ended December 31, 2023, with comparative figures for 2022.

The auditor has indicated that they are prepared to issue an unqualified auditor's report. The auditor's report, on page 1 of the attachment, indicates that the financial statements present fairly, in all material respects, the financial position of the Plan as at December 31, 2023, 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 highlighted in Table 1 below. The surplus as at December 31, 2023 is \$26.9 million and the surplus reported at December 31, 2022 was \$21.2 million, representing an increase of \$5.7 million. This is the result of increases in the fair value of investment assets due to favourable results in the global equity markets throughout 2023. Net assets available for benefits as at December 31, 2023 amounted to \$191.2 million compared to \$175.2 million the prior year, an increase of \$16.0 million or 9.1%. Pension obligations increased \$10.3 million or 6.7% to \$164.3 million as at December 31, 2023, up from \$154.0 million in 2022.

Table 1:

Statement of financial position December 31				
	2023	2022	Change	
			\$	%
Net assets available for benefits	\$ 191,208,897	\$ 175,240,003	\$ 15,968,894	9.1%
Pension obligations	164,295,100	154,048,139	10,246,961	6.7%
Surplus	<u>\$ 26,913,797</u>	<u>\$ 21,191,864</u>	<u>\$ 5,721,933</u>	<u>27.0%</u>

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.

Table 2:

Statement of changes in net assets available for benefits December 31				
	2023	2022	Change	
			\$	%
Revenue	\$ 15,238,773	\$ 155,170	\$ 15,083,603	9720.7%
Expenses	7,242,984	6,204,550	1,038,434	16.7%
Net revenue (expenses)	7,995,789	(6,049,380)	14,045,169	(232.2%)
Contributions	<u>\$ 7,973,105</u>	<u>\$ 6,653,020</u>	<u>\$ 1,320,087</u>	<u>19.8%</u>
Increase in net assets available for benefits	<u>\$ 15,968,894</u>	<u>\$ 603,640</u>	<u>\$ 15,365,255</u>	<u>2545.4%</u>

Of the \$16.0 million increase in net assets available for benefits, contributions of \$8.0 million, plus net revenue of \$8.0 million, account for the increase. Revenue consists of net investment income of \$3.3 million and an increase in the fair value of investment assets of \$12.0 million. Compared to 2022, the change in the fair value of investment assets is higher by \$14.7 million, and net investment income increased \$0.3 million. Assets of the Plan are invested as part of the Halifax Regional Municipality Master Trust and represent 6.62% (2022 - 6.56%) of the Master Trust’s assets.

Expenses reduce net assets available for benefits, with retirement benefit payments being the main expense driver, representing \$5.3 million of the \$7.2 million in expenses reported for 2023. Retirement benefit payments increased \$0.2 million compared to 2022, and is attributed to 6 retirements in 2023 (2022 - 8), a full year of pension payments to the 2022 retirees and annual indexing of pensions. Termination benefit payments are also included in expenses and represent \$1.5 million of reported expenses in 2023, representing an increase of \$0.6 million compared to 2022. Termination benefits were paid in 2023 to 24 former employees (2022 - 16).

Combined contributions from employees and Halifax Water are reported at \$8.0 million in 2023, representing an increase of \$1.3 million or 19.8% compared to 2022. The increase is partially due to \$0.7 million transferred in from other plans plus contributions from new hires and pay increases. Further details with respect to contributions can be found in Note 7 of the financial statements.

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, 2023 was an extrapolation from the actuarial valuation performed January 1, 2022.

Table 3:

Statement of changes in pension obligations				
December 31				
	2023	2022	Change	
			\$	%
Pension obligations, beginning of year	\$ 154,048,139	\$ 144,611,949	\$ 9,436,190	6.5%
Changes in pension obligations				
Changes in actuarial assumptions	\$666,365	613,700	52,665	8.6%
Interest accrued on benefits	9,159,000	8,592,800	566,200	6.6%
Benefits accrued	7,469,700	6,228,900	1,240,800	19.9%
Benefits paid	(\$7,048,104)	(5,999,210)	(1,048,894)	17.5%
	<u>10,246,961</u>	<u>9,436,190</u>	<u>810,771</u>	<u>8.6%</u>
Pension obligations, end of year	<u>\$ 164,295,100</u>	<u>\$ 154,048,139</u>	<u>\$ 10,246,961</u>	<u>6.7%</u>

Pension obligations increased to \$164.3 million in 2023 compared to \$154.0 million in the prior year, an increase of \$10.3 million or 6.7%. Increases to pension obligations came from three sources, benefits accrued of \$7.5 million, interest on accrued benefits of \$9.1 million and an increase in the Provision for Adverse Deviation (PfAD) as required by Nova Scotia funding regulations of \$0.7 million. Reductions to pension obligations totaled \$7.0 million which represents retirement and termination benefit payments in 2023.

BUDGET IMPLICATIONS

There are no budget implications associated with the audited financial statements of the Plan for 2023. Budget implications arise from actuarial valuations. The next actuarial valuation is required at January 1, 2025.

ATTACHMENTS

1. Halifax Regional Water Commission Employees’ Pension Plan Financial Statements as at December 31, 2023.
2. Report to the Audit and Finance Committee – Audit Results, submitted by Grant Thornton

Report Prepared By:	<p>DocuSigned by: <i>Heather Britten</i> 7F50B0451C60405 Heather Britten, B.Comm, PCP Quality Assurance Officer</p>
Financial Approved By:	<p>DocuSigned by: <i>Alicia Scallion</i> AF-A8696B6D3845C Alicia Scallion, CPA, CA Manager, Finance</p>



Financial Statements

Halifax Regional Water Commission

Employees' Pension Plan

December 31, 2023

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Independent auditor's report

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

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**Halifax Regional Water Commission
Employees' Pension Plan
Statement of financial position**

December 31	2023	2022
Assets		
Investment assets	\$ 190,941,027	\$ 175,005,842
Contributions receivable	<u>301,024</u>	<u>264,544</u>
	191,242,051	175,270,386
Liabilities		
Payables and accruals		
Trade	<u>33,154</u>	<u>30,383</u>
Net assets available for benefits (Note 4)	191,208,897	175,240,003
Pension obligations	<u>164,295,100</u>	<u>154,048,139</u>
Surplus	<u>\$ 26,913,797</u>	<u>\$ 21,191,864</u>

On behalf of the Board of Trustees

Trustee

Trustee

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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	2023	2022
Revenue		
Net investment income (Note 6)	\$ 3,257,098	\$ 2,918,862
Changes in the fair value of investment assets	<u>11,981,675</u>	<u>(2,763,692)</u>
	<u>15,238,773</u>	<u>155,170</u>
Contributions (Note 7)		
Participants	4,384,560	3,375,425
Sponsor	<u>3,588,545</u>	<u>3,277,595</u>
	<u>7,973,105</u>	<u>6,653,020</u>
Expenses		
Benefit payments (Note 8)	\$ 7,018,104	5,999,210
Administrative (Note 9)	<u>194,880</u>	<u>205,340</u>
	<u>\$ 7,212,984</u>	<u>6,204,550</u>
Increase in net assets available for benefits	<u>\$ 15,968,894</u>	<u>\$ 603,640</u>
<hr/>		
Net assets available for benefits, beginning of year	\$ 175,240,003	\$ 174,636,363
Increase in net assets available for benefits	<u>15,968,894</u>	<u>603,640</u>
Net assets available for benefits, end of year	<u>\$ 191,208,897</u>	<u>\$ 175,240,003</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	2023	2022
Pension obligations, beginning of year	<u>\$ 154,048,139</u>	<u>\$ 144,611,949</u>
Change in pension obligations		
Changes in actuarial assumptions (Note 5)	666,365	613,700
Interest accrued on benefits	9,159,000	8,592,800
Benefits accrued	7,469,700	6,228,900
Benefits paid (Note 8)	<u>(7,048,104)</u>	<u>(5,999,210)</u>
	<u>10,246,961</u>	<u>9,436,190</u>
Pension obligations, end of year	<u>\$ 164,295,100</u>	<u>\$ 154,048,139</u>

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See accompanying notes to the financial statements.

Halifax Regional Water Commission Employees' Pension Plan Notes to the financial statements

December 31, 2023

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, 2021 as amended and consolidated.

(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 2023 were 9.66% (2022 – 9.60%) of pensionable earnings with the Halifax Regional Water Commission matching employee contributions. Basic contributions from employers and members due to the Plan at the end of the year are recorded on an accrual basis. Pensionable earnings are capped temporarily to a maximum of \$140,945 to December 31, 2023 and will be indexed at a rate of 1% per annum thereafter.

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).

Nova Scotia funding regulations require a "Provision for Adverse Deviation" (PfAD), which is an explicit level of conservatism added to the going concern liabilities of the Plan. The PfAD is based on the riskiness of the asset mix of the Plan, and for the actuarial valuation of January 1, 2022, the PfAD is reported at 7%. As a result, total liabilities are required to be increased 7% in the determination of the Plan's surplus (funded liability/deficit) position (Note 5).

Halifax Regional Water Commission Employees' Pension Plan Notes to the financial statements

December 31, 2023

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:

- i. they have completed 10 years of continuous participation in the Plan;
- ii. they are not in receipt of a salary continuance benefit under an insured plan to which the Halifax Regional Water Commission contributes; and
- iii. 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. For 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 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, 2023

1. Description of the Plan (continued)

(f) Termination of employment

Subject to any statutory limitations, 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:

- i. 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
- ii. 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.

(i) Surplus

Where the Plan is continuing and there is a surplus resulting from an actuarial review, the Halifax Regional Water Commission may decide how the surplus is to be treated. However, no amounts can be paid out of the fund to the employer without prior approval of the Superintendent of Pensions. This was reinforced with Memorandums of Understanding between the Halifax Regional Water Commission and each of the union groups, November 14, 2007, whereby the Halifax Regional Water Commission had to assume responsibility to fund any unfunded liability and/or solvency deficiency arising under the Plan, as required by the Pension Benefits Act of Nova Scotia. Subsequently, special payments required to fund any unfunded liability resulting from an actuarial review, were deposited into a separate fund, to track the unique nature of these contributions into the Plan. As at December 31, 2023, the balance of this fund totals \$33,733,000 consisting of contributions in the amount of \$15,289,000 and investment income/gains (net of expenses) totalling \$18,444,000.

Halifax Regional Water Commission Employees' Pension Plan Notes to the financial statements

December 31, 2023

1. Description of the Plan (continued)

(i) Surplus (continued)

Pursuant to the Memorandums of Understanding (Pensions) between the Halifax Regional Water Commission and each of the two union groups dated June 7, 2019, indexing of pensions to a maximum of 2% would be reinstated once the going concern special payments made by the Halifax Regional Water Commission have been made, subject to the Plan:

- Having a going concern funded ratio of 108% (or above);
- No solvency deficit; and
- So long as the implementation can be affected while maintaining a going concern funded ratio of 108%.

A surplus resulting from the wind-up of the Plan will be used to increase the benefits to the living Members of the Plan (including pensioners) and their beneficiaries to the extent permitted by the Income Tax Act and Regulations. Any balance remaining will be returned to the Halifax Regional Water Commission, however no amounts can be paid out of the fund to the employer without prior approval of the Superintendent of Pensions.

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:

**Halifax Regional Water Commission
Employees' Pension Plan
Notes to the financial statements**

December 31, 2023

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

(a) Financial Instruments (continued)

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.

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.

Halifax Regional Water Commission

Employees' Pension Plan

Notes to the financial statements

December 31, 2023

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

(e) Contributions

Required employee and employer contributions are recorded the month following when the payroll deductions are made. Employee and employer contributions and 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.

(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 judgements, 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 \$164,295,100 (2022 - \$154,048,139) 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, 2023

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 6.62% (December 31, 2022 - 6.56%) of the HRM Master Trust units. The remaining units are held by the Halifax Regional Municipality Pension Plan. 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 (Note 11).

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.

Investment	Asset Class	Market Value
BlackRock Canadian World Index Fund	Global Equities	\$ 9,586,158
BlackRock Alpha Advantage Global Fund	Global Equities	9,194,214
Wellington Management Global Total Return Fund	Foreign Bonds	8,256,277
BlackRock Active Canadian Equity Fund	Canadian Equities	7,144,048
Mawer International Equity Pooled Fund	International Equities	5,512,069
Marathon International Equity Fund	International Equities	4,705,507
UBS (UK) Real Estate Funds Selection Global Ex Canada L.P.	Real Estate - Limited Partnership	4,528,367
		\$ 48,926,630

4. Net assets available for benefits

Allocation of net assets available for benefits

	<u>2023</u>	<u>2022</u>
To pension plan	\$ 190,125,479	\$ 174,333,194
To extra voluntary contribution benefits	792,134	638,584
To individual locked in amounts	<u>291,284</u>	<u>268,225</u>
	<u>\$ 191,208,897</u>	<u>\$ 175,240,003</u>

**Halifax Regional Water Commission
Employees' Pension Plan
Notes to the financial statements**

December 31, 2023

5. Pension obligations

An actuarial valuation of the Plan was performed as at January 1, 2022 by Eckler Ltd.

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:

- i. 40% of members will retire at the age of 65, and 60% will retire at the earliest date of eligibility for an unreduced pension;
- ii. interest rate assumption of 6.35% per annum (2019 - 5.80%);
- iii. salary scale assumption of 3.90% per annum (2019 - 3.90%); and
- iv. life expectancy of participants based upon the CPM-2014 Combined mortality table, with Scale CPM-B (post retirement), no mortality in pre-retirement.

The 2019 interest rate assumption of 5.80% referenced above included an implicit margin for conservatism of 0.60% as determined by the Plan. As a result of the new funding Regulations effective April 1, 2020, the Plan's implicit margin for conservatism has been removed for the actuarial valuation of January 1, 2022, as an explicit level of conservatism has been added through legislation (Note 1).

As a result of the January 1, 2022 actuarial valuation, special payments in respect of going concern liabilities are not required. The next actuarial valuation for the Plan is required to be performed no later than January 1, 2025.

6. Net investment income	<u>2023</u>	<u>2022</u>
Income from investment funds	\$ 3 640 508	\$ 3,307,029
Investment manager fees	<u>(383 410)</u>	<u>(388,167)</u>
	<u>\$ 3,257,098</u>	<u>\$ 2,918,862</u>

**Halifax Regional Water Commission
Employees' Pension Plan
Notes to the financial statements**

December 31, 2023

7. Contributions	<u>2023</u>	<u>2022</u>
Participants' contributions		
Required	\$ 4 272 010	\$ 3,276,762
Voluntary	<u>112 550</u>	<u>98,663</u>
	<u>\$ 4 384 560</u>	<u>\$ 3,375,425</u>
Sponsor's contributions		
Required	<u>\$ 3 588 545</u>	<u>\$ 3,277,595</u>

8. Benefit payments	<u>2023</u>	<u>2022</u>
Retirement benefit payments	\$ 5 380 758	\$ 5,089,704
Termination benefit payments	1 470 618	909,506
Death benefit payment	<u>298 738</u>	<u>-</u>
	<u>\$ 7 048 104</u>	<u>\$ 5,999,210</u>

During 2023, there were 24 termination benefit payments (2022 - 16) and 1 death benefit payments (2022 - 0). Termination benefits are paid out as described in Note 1(f).

9. Administrative expenses	<u>2023</u>	<u>2022</u>
Actuarial and consulting fees	\$ 77 630	\$ 99,522
Audit and accounting fees	9 022	9,446
Bank custodian fees	24 509	20,941
Insurance	11 130	10,600
Miscellaneous	25 170	21,449
Professional fees	44 484	40,534
Registration fees	<u>2 935</u>	<u>2,848</u>
	<u>\$ 194 880</u>	<u>\$ 205,340</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, 2023

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 set formal policies and operating procedures that establish an asset mix among equity, fixed income investments, public market alternatives, private debt, private equity, real estate and infrastructure that require 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 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 the instruments, which total \$190,941,027 at December 31, 2023 (2022 - \$175,005,842). A one percent change (1%) in market risk (holding all variables constant) will impact the fair value of these instruments by approximately \$1,909,500 (2022 - \$1,750,000).

Halifax Regional Water Commission Employees' Pension Plan Notes to the financial statements

December 31, 2023

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, 2023

	<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	\$ 23,154	\$ 33,154	\$ -	\$ -	\$ -

Payments due year ending December 31, 2022

	<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	\$ 30,383	\$ 30,383	\$ -	\$ -	\$ -

**Halifax Regional Water Commission
Employees' Pension Plan
Notes to the financial statements**

December 31, 2023

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, 2023

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Assets				
Pooled fund	\$ -	\$ 190,941,027	\$ -	\$ 190,941,027

Financial assets at fair value as at December 31, 2022

	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Total</u>
Assets				
Pooled fund	\$ -	\$ 175,005,842	\$ -	\$ 175,005,842

There were no transfers between the three levels between December 31, 2022 and December 31, 2023.

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

**Halifax Regional Water Commission
Employees' Pension Plan
Notes to the financial statements**

December 31, 2023

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 in 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.

DRAFT

Halifax Regional Water Commission Employees' Pension Plan

For the year ended December 31, 2023

Report to Audit and Finance Committee
Audit results

June 12, 2024

Tom Brockway, CPA, CA
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Audit risks and results	2
Adjustments and uncorrected misstatements	3
Technical updates – highlights	4

Appendices

Appendix A – Independent auditor’s report
Appendix B – Management representation letter

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 Employees' Pension Plan (the "Plan") for the year ended December 31, 2023. This communication will assist Audit and Finance 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 & Finance Committee and management. 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	January 11, 2024
Communication of audit results	June 12, 2024
Report on the December 31, 2023 financial statements	TBD

Status of our audit

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

We will finalize our report upon resolution of the following items that were outstanding as at June 12, 2024:

- Receipt of the final updated financial statements (for any final changes)
- Receipt of signed management representation letter (a draft has been attached in the appendices)
- Approval of the financial statements by the Board of Trustees
- Final inquiries regarding subsequent events

We have successfully executed our audit strategy in accordance with the plan presented to Audit and Finance Committee on January 11, 2024.

Independence

We confirm that there have been no changes to our status with respect to independence since we confirmed our independence to you on January 11, 2024.

Audit risks and results

Areas of focus

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

Area of focus	Matter	Our response and findings
Pension obligation	<p>A full valuation of the Plan was performed at January 1, 2022. The next actuarial valuation for the Plan is required to be performed no later than January 1, 2025.</p> <p>An extrapolation of the January 1, 2022 actuarial valuation results was performed to January 1, 2024 under going concern assumptions and methodology. This resulted in a pension obligation of \$164,295,100. As of December 31, 2023, the extrapolation of the actuarial valuation results reported a going concern excess of \$25,146,900 per the actuary's report. Certain adjustments were made, such as the fair value adjustment for investment assets, to arrive at the surplus of \$26,913,797 as reported in the 2023 financial statements.</p> <p>There were no required special payments in respect of going concern liabilities during the year as a result of the most recent valuation completed.</p>	<p>We performed the following:</p> <ul style="list-style-type: none">• Examined the valuation report and extrapolation report prepared by the independent actuary;• Assessed the reasonability of assumptions used in the valuation as compared to expectations and market information;• Performed testing of the data used by the actuary in the performance of their work; and• Confirmed the independence and qualifications of the Plan's actuary and materiality threshold. <p>We have no findings to report.</p>
Investments	<p>As at December 31, 2023 the Plan holds an investment balance of \$190,941,027.</p>	<p>We performed the following:</p> <ul style="list-style-type: none">• Agreed amounts to investment statements;• Performed valuation testing of investments;• Verified historical accuracy of balances based on audited HRM financial statements; and• Obtained investment statements subsequent to year end and ensured appropriateness of related disclosures. <p>We have no findings to report.</p>

Adjustments and uncorrected misstatements

Adjustments

We have no adjusted misstatements to report.

Summary of disclosure matters

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

Other reportable matters

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 Audit and Finance Committee those deficiencies we consider significant. However, a financial statement audit is not designed to provide assurance on internal control.

Based on the results of our audit, we did not identify any reportable observations.

Cybersecurity

Cybersecurity is the practice of protecting computers, data and other electronic systems from malicious attacks. As organizations become increasingly dependent on digital technology, the opportunities for cyber-criminals continue to grow. The explosion of data generated by digital technology, combined with a new degree of connectedness among organizations, means there is ripe opportunity for the technologically savvy and criminally minded to take advantage. A breach in cybersecurity could create a reputational risk to you, as well as resulting in financial liabilities.

Accounting & assurance updates

There have been no recent changes to Part IV of the CPA Canada Handbook – Accounting Standards for Pension Plans.

Further details of the changes to assurance standards are included in the Appendices to the Halifax Regional Water Commission's financial statement audit results communication.

Appendix A

Draft Independent Auditor's Report

Independent Auditor's report

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

Grant Thornton LLP
Nova Centre, North Tower
Suite 1000, 1675 Grafton Street
Halifax, NS
B3J 0E9
T +1 902 421 1734
F +1 902 420 1068

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, 2023, 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, 2023, 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.

Appendix B

Draft Management Representation Letter

Management Representation Letter

TBD

Mr. Tom Brockway, CPA, CA
Grant Thornton LLP
Suite 1000, Nova Centre, North Tower
1675 Grafton Street
Halifax, NS B3J 0E9

Dear Mr. Brockway:

We are providing this letter in connection with your audit of the financial statements of **Halifax Regional Water Commission Employees' Pension Plan** (the "Plan") as of December 31, 2023 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, changes in net assets available for benefits and changes in pension obligations in accordance with Canadian accounting standards for pension plans ("ASPP").

We acknowledge that we have fulfilled our responsibilities for the preparation of the financial statements in accordance with Canadian accounting standards for pension plans 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 TBD, 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 as at December 31, 2023, and the changes in net assets available for benefits and changes in pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans, as agreed to in the terms of the audit engagement.

Completeness of information

- 2 We have made available to you all financial records and related data and all minutes of the meetings of trustees and committees, 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 trustee and committee actions are included in the summaries.
- 3 We have provided you with unrestricted access to persons within the entity from whom you determined it necessary to obtain audit evidence.

- 4 We have also made available the Plan instrument and any Plan amendments thereto, the trust agreement and any insurance contracts entered into during the year, including any amendments to comply with applicable laws. The last amendment to the Plan instrument was as of October 7, 2019 and the Plan Text was amended and consolidated effective January 1, 2021. As well we have made available and provided to you all actuarial reports and other reports prepared by the actuary for the Plan and the Plan Sponsor were provided to you.
- 5 There are no material transactions that have not been properly recorded in the accounting records underlying the financial statements.
- 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.
- 11 You provided a non-audit service by assisting us with drafting the financial statements and related notes. In connection with this non-audit service, we confirm that we have made all management decisions and performed all management functions, have the knowledge to evaluate the accuracy and completeness of the financial statements, and accept responsibility for such financial statements.

Fraud and error

- 12 We have no knowledge of fraud or suspected fraud affecting the Plan 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.
- 13 We have no knowledge of any allegations of fraud or suspected fraud affecting the Plan's financial statements communicated by employees, former employees, analysts, regulators or others.
- 14 We acknowledge our responsibility for the design, implementation and maintenance of internal control to prevent and detect fraud.

Recognition, measurement and disclosure

- 15 We believe that the methods, significant assumptions and data used by us in making accounting estimates and related disclosures are appropriate to achieve recognition, measurement and disclosure that are in accordance with Canadian accounting standards for pension plans.

- 16 We believe that the significant judgements made in making accounting estimates have taken into account relevant information of which management is aware and that appropriate specialized skills and experience (including third party experts where applicable), has been applied in making the accounting estimates.
- 17 For non-readily marketable securities, we are in agreement with the methods used to estimate fair value or the approach used by the appraiser.
- 18 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.
- 19 All related party transactions have been appropriately measured and disclosed in the financial statements.
- 20 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.
- 21 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.
- 22 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.
- 23 The Plan has satisfactory title to (or lease interest in) all assets, and there are no liens or encumbrances on the Plan's assets nor has any been pledged as collateral.
- 24 All "off-balance sheet" financial instruments have been properly recorded or disclosed in the financial statements
- 25 We have disclosed to you, and the Plan 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.
- 26 The Plan has complied with the rules and regulations of the Nova Scotia Office of the Superintendent of Pensions and the Canada Revenue Agency to which the Plan is subject.
- 27 We are responsible for the preparation of Plan amendments necessitated by changes in laws or regulations, or required by changes in the operation of the Plan. All amendments required by such changes have been adopted by the Plan.
- 28 All required filing of the Plan (trust) documents with the appropriate agencies have been made.
- 29 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.

- 30 There were no omissions from the participants' data provided to the Plan's actuary for the purpose of determining the actuarial present value of accumulated Plan benefits and other actuarially determined amounts in the financial statements.
- 31 We agree with the actuarial methods and assumptions used by the actuary for funding purposes and for determining accumulated Plan benefits and have no knowledge or belief that such methods or assumptions are inappropriate in the circumstances. We did not give any instructions, nor cause any instructions to be given, to the Plan's actuary with respect to how the valuation should be calculated from the underlying data, and we are not aware of any matters that have impacted the independence or objectivity of the Plan's actuary.
- 32 The defined benefit obligation of the Plan is appropriately measured as the actuarial present value of accrued pension benefits determined by applying best estimate assumptions and the projected benefit method prorated on services in accordance with Section 3462 Employee Future Benefits.
- 33 There have been no changes in:
- (a) the actuarial methods or assumptions used in calculating amounts recorded or disclosed in the financial statements; and
 - (b) Plan provisions between the actuarial extrapolation date and the date of this letter.
- 34 We have no intentions to terminate the Plan.

Other

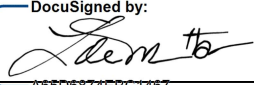
- 35 We have considered whether or not events have occurred or conditions exist which may cast significant doubt on the Plan's ability to continue as a going concern and have concluded that no such events or conditions are evident.


Yours very truly,

Louis de Montbrun, CPA, CA
Director, Corporate Services

Alicia Scallion, CPA, CA
Manager, Finance

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: 
A65D6874EBC1467...
Louis de Montbrun, CPA, CA, Director, Corporate Services/CFO

APPROVED: 
0C084AC815794F6...
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 12, 2024

SUBJECT: **Capital Expenditures for the fiscal year ended March 31, 2024**
Information Report

ORIGIN

Financial information reporting.

BACKGROUND

At the June 12, 2024, meeting of the Halifax Water Audit and Finance Committee (the Committee), the attached capital results report for the fiscal year ended March 31, 2024, was reviewed, and discussed.

DISCUSSION

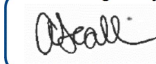
At the Committee meeting, there were no requests for additional information to be brought forward to the Board.

ATTACHMENT

1. Report to the Halifax Water Audit and Finance Committee regarding capital spending results of the Halifax Regional Water Commission for the fiscal year ended March 31, 2024.

Report Prepared by:

DocuSigned by:



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Alicia Scallion, CPA, CA
Manager, Finance

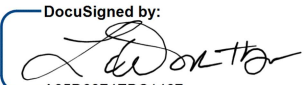
Financial Reviewed by:

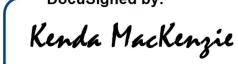
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Louis de Montbrun, CPA, CA
Director, Corporate Services/CFO

TO: Chair and Members of the Halifax Regional Water Commission Audit and Finance Committee

SUBMITTED BY: DocuSigned by:

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

APPROVED: DocuSigned by:

0C084AC815704F6...
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 5, 2024

SUBJECT: **Capital Expenditures for the twelve months ended March 31, 2024**

ORIGIN

The Corporate Balanced Scorecard identifies the percentage of current year capital budget spent by the end of the fiscal year as a critical success factor and sets a target of 70-80%. A new metric was added for the 2023/24 fiscal year which is a target of \$135 million in capital spend during the year.

BACKGROUND

The Halifax Regional Water Commission (Halifax Water) Board is required to review periodic financial information throughout the year. Halifax Water's 2019 Integrated Resource Plan (IRP) identifies a 30-year capital investment plan valued at \$2.7 Billion (net present value – 2019 dollars). In relation to the IRP, the capital budget program focuses on providing required infrastructure for asset renewal, regulatory compliance, and growth. The IRP calls for delivery of an average of \$135 million in capital projects per year. Halifax Water continues to strive to meet these targets.

DISCUSSION

Below is the breakdown by asset class and project status of the expenditures for the fiscal year ended March 31, 2024. Halifax Water has spent \$176.6 million to date on active and closed projects, of which \$98.2 million was spent during the twelve months ended March 31, 2024. Approximately \$50.8 million of the \$98.2 million relates to the 2023/24 capital budget of \$146.7 million, resulting in a year-to-date delivery rate of 34.6% (2022/23 – 35.3%).

ITEM #7

Halifax Water Audit and Finance Committee

June 12, 2024

Halifax Water is trying to improve on annual Integrated Resource Plan (IRP) execution and can measure progress through the number of projects completed annually (close-outs) and the dollar value of projects completed as a percentage of total available capital spend. The total capital budget remaining to be spent at March 31, 2024, is \$205.9 million, compared to \$169.2 million at March 31, 2023, largely due to the 2023/24 annual budget of \$146.7 million compared to an annual budget of \$106.5 million for 2022/23.

The average capital spend per month compared to the previous year has increased from \$7.8 million to \$8.2 million.

Capital Expenditure Report

Budget Category	Total Budget Available	Expenditures to March 31, 2023	Expenditures April 1, 2023 to March 31, 2024	Total Expenditures to March 31, 2024	Remaining Budget Available as of March 31, 2024	Total Expenditures to March 31, 2024 as a Percentage of Total Budget Available
Active						
Water	\$ 108,461,524	\$ 14,420,131	\$ 26,877,233	\$ 41,297,364	\$ 67,164,160	38.1%
Wastewater	114,197,370	19,482,601	14,620,521	34,103,123	80,094,248	29.9%
Stormwater	22,590,443	1,822,488	7,859,825	9,682,314	12,908,130	42.9%
Corporate	73,404,012	10,603,188	17,043,747	27,646,935	45,757,077	37.7%
	\$ 318,653,349	\$ 46,328,408	\$ 66,401,326	\$ 112,729,735	\$ 205,923,614	35.4%
Closed						
Water	\$ 16,663,192	\$ 5,102,486	\$ 11,560,706	\$ 16,663,192	\$ -	-
Wastewater	22,208,394	15,747,941	6,460,453	22,208,394	-	-
Stormwater	1,738,458	4,638	1,733,820	1,738,458	-	-
Corporate	23,267,203	11,204,828	12,062,375	23,267,203	-	-
	\$ 63,877,248	\$ 32,059,893	\$ 31,817,354	\$ 63,877,248	\$ -	-
Total	\$ 382,530,597	\$ 78,388,302	\$ 98,218,681	\$ 176,606,982	\$ 205,923,614	46.2%

The Total Budget Available of \$382.5 million represents total budgets for projects as at the end of March 31, 2024.

Total Expenditures to March 31, 2024, of \$176.6 million include expenditures of \$78.4 million incurred prior to April 1, 2023, and expenditures of \$98.2 million in the current fiscal year. This results in a Remaining Budget Available as of March 31, 2024, of \$205.9 million.

ATTACHMENT

1. Capital Expenditure Report for fiscal year ended March 31, 2024

Report Prepared by:

DocuSigned by:

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Alicia Scallion, CPA, CA

Manager, Finance

Financial Reviewed by:

DocuSigned by:

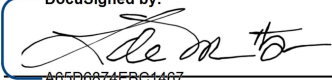
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Louis de Montbrun, CPA, CA

Director, Corporate Services/CFO

Service	Category	Work Order	Closed / Active	Description	Budget	Expenditures
Water Capital Projects	Water - Transmission	300003121	Active	CHAIN CTRL TRANS-PENINSULA LOW UPSIZE	8,868,337	8,811,919
Water Capital Projects	Water - Treatment Facilities	300003362	Active	JDK - PRETREATMENT & CLARIFICATION	8,420,000	33,797
Water Capital Projects	Water - Transmission	300003324	Active	HWY 118 CROS'NG-SHUBIE PK TO DART CROSSING	8,200,000	752
Water Capital Projects	Water - Structures	300002718	Active	COWIE HILL RESERVOIR REHABILITATION	8,137,679	8,138,296
Water Capital Projects	Water - Transmission	300003127	Active	COGSWELL WATER INFRASTRUCTURE	7,765,000	2,120,894
Water Capital Projects	Water - Structures	300003356	Closed	AKERLEY RESERVOIR REPLACEMENT	5,342,682	5,345,128
Water Capital Projects	Water Distribution	300003930	Active	BURNSIDE DR WM 2023 EXTEN (23/24)	5,173,097	5,171,857
Water Capital Projects	Water Distribution	300003766	Active	VIENNA ST WM RENEW RENEWAL	2,086,000	6,266
Water Capital Projects	Water - Treatment Facilities	300003376	Active	LM - CLARIFICATION/PRETREATMENT	2,044,000	1,022
Water Capital Projects	Water - Treatment Facilities	300003363	Active	JDK - CLEARWELL, RESERVOIR & STORAGE	1,899,000	5,688
Water Capital Projects	Water - Structures	300003841	Active	Aerotech Booster Station Replacement	1,800,000	1,965
Water Capital Projects	Water - Treatment Facilities	300003364	Active	JDK - SERVICE WATER SYSTEM UPGRADE	1,727,000	-
Water Capital Projects	Water Distribution	300003910	Closed	Lead Service Line Repl Prog 23/24	1,722,000	1,127,489
Water Capital Projects	Water - Structures	300003359	Active	DAM SAFETY REVIEW-CHAIN LAKE DAM-CAPITAL	1,500,000	679,633
Water Capital Projects	Water - Structures	300003655	Active	DAM SAFETY REV - POCKWOCK LAKE DAM	1,270,000	17,033
Water Capital Projects	Water Distribution	300003764	Closed	BRIARWOOD CRES WM RENEW	1,221,624	1,221,624
Water Capital Projects	Water Distribution	300003761	Active	CHARLOTTE/JAYDEN WM RENEW	1,221,000	14,090
Water Capital Projects	Water - Treatment Facilities	300003377	Active	LM - INTAKE/LOW LIFT PUMP STN	1,179,000	370,384
Water Capital Projects	Water - Treatment Facilities	300003816	Active	Lake Major WSP - Roof Replacement	1,170,000	36,905
Water Capital Projects	Water - Transmission	600002042	Active	COGSWELL WASTEWATER INFRASTRUCTURE	1,132,000	3,054,797
Water Capital Projects	Water Distribution	300003470	Active	JOFFRE STREET WM - PRELIM	1,044,000	1,030,334
					72,922,419	37,189,873
Water Capital Projects				All Other Projects	52,202,297	20,770,682
					125,124,716	57,960,556
Wastewater Capital Projects	Wastewater - Trunk Sewers	600001646	Active	BEDFORD TO HALIFAX TRUNK SEWER UPGRADE	18,625,000	1,689,890
Wastewater Capital Projects	WW Treatment Facilities	600001945	Active	BIOSOLIDIS MANAGEMENT PLAN	10,750,000	2,180,861
Wastewater Capital Projects	WW Treatment Facilities	600002722	Active	MCWWTF Plant Upgrades - Design	9,000,000	3,921
Wastewater Capital Projects	Wastewater - Collection System	600000887	Closed	GRAVITY SEWER ALBRO LAKE TO JAMIESON ST	8,576,238	8,576,238
Wastewater Capital Projects	Wastewater - Structures	600002078	Active	BISSETT PS COMPONENT UPGRADE	7,700,000	316,059
Wastewater Capital Projects	Wastewater - Structures	600002084	Active	UPGRADE QUIGLEY'S CORNER PS	5,928,000	397,303
Wastewater Capital Projects	Wastewater-Forcemains	600002482	Active	390 Waverley Road Forcemain Upgrades	5,920,000	1,772
Wastewater Capital Projects	Wastewater - Collection System	600002225	Active	SOUTH PARK/CATHEDRAL LANE SEWER SEPARATION	4,182,000	5,022,068
Wastewater Capital Projects	Wastewater - Structures	600002082	Active	WILLIAMS'S LAKE PS REHABILITATION	3,914,576	3,914,576
Wastewater Capital Projects	Wastewater - Collection System	600002467	Active	Cogswell Redevelopment - Sewer Relocation	3,650,000	41,671
Wastewater Capital Projects	Wastewater - Collection System	600002477	Active	Mill Cove RDII Reduction Prgm FMZ07&FMZ4	3,475,000	260,847
Wastewater Capital Projects	Wastewater - Collection System	600002681	Active	WW SYSTEM - TRENCHLESS REHAB PRGM 23/24	3,452,000	490,060
Wastewater Capital Projects	Wastewater - Structures	600001337	Active	Autoport Pleasant Street PS Replacement	3,050,000	420,639
Wastewater Capital Projects	Wastewater - Collection System	600002043	Active	PUNCH BOWL PS ELIMINATION	2,920,000	55,441
Wastewater Capital Projects	Wastewater - Collection System	600002449	Closed	WW SYSTEM-TRENCHLESS REHAB PROG 2022-23	2,410,000	2,140,084
Wastewater Capital Projects	Wastewater - Collection System	600002441	Active	JUBILEE RD CN BRIDGE REPLACEMENT - WW	2,000,000	887,413
Wastewater Capital Projects	WW Treatment Facilities	600002100	Active	HWWTFF SLUDGE DEWATERING-FOURNIER PRESS	1,950,000	1,592,980
Wastewater Capital Projects	Wastewater - Collection System	600002769	Active	Integrated Projects 23/24	1,847,000	2,637
Wastewater Capital Projects	Wastewater - Collection System	600002762	Closed	Lateral Replacements WW (Non Tree Roots)	1,820,000	487,409
Wastewater Capital Projects	Wastewater - Collection System	600001861	Closed	BAYERS RD PH 2 SEWER SEPARATION	1,711,359	1,711,359
Wastewater Capital Projects	Wastewater - Structures	600002074	Active	FIRST LAKE PS UPGRADES	1,700,000	151,497
Wastewater Capital Projects	Wastewater - Structures	600002495	Active	Main Street Pumping Station Golf View Dr	1,550,000	89,583
Wastewater Capital Projects	Wastewater - Collection System	600002474	Active	Young St-Sewer Separation-Rte to harbour	1,400,000	43,158
Wastewater Capital Projects	WW Treatment Facilities	600002241	Active	HWWTFF DENSADEGS LAMELLA TUBE SETTLER UPGRADE	1,390,404	1,400,707
Wastewater Capital Projects	WW Treatment Facilities	600002327	Active	MID MUSO WWTF-PRIMARY TREATMENT RBC UPGRADE	1,380,000	1,314,966
Wastewater Capital Projects	WW Treatment Facilities	600002308	Closed	HCWWTF - FINE SCREENS-NEW PLATE SCREENS	1,335,538	1,335,538
Wastewater Capital Projects	Wastewater-Forcemains	600002062	Active	AKERLEY BLVD FORCEMAIN REPLACMENT	1,300,000	169,895
Wastewater Capital Projects	WW Treatment Facilities	600002517	Active	DWWTFF Course Screens Replacement	1,295,000	47,303
Wastewater Capital Projects	Wastewater - Collection System	600002472	Active	Bayers Road Phase 1 - Sewer Separation	1,255,000	29,029
Wastewater Capital Projects	WW Treatment Facilities	600002281	Active	HC PS - PUMP REPLACEMENTS	1,140,000	68,654
Wastewater Capital Projects	WW Treatment Facilities	600002323	Active	MCWWTF-PROCESS UPGRADES-PRELIM/DETAILED	1,000,000	281
Wastewater Capital Projects	Wastewater - Energy	600002447	Active	ENERGY MGMT-CAPITAL PROGRAM (WW) 22/23	1,000,000	-
Wastewater Capital Projects	Wastewater - Collection System	600002458	Active	Eastern Passage Gravity Pressure Sewer	1,000,000	3,873
Wastewater Capital Projects	WW Treatment Facilities	600002703	Active	HWWTFF UV System - New Modular	1,000,000	2,279
Wastewater Capital Projects	WW Treatment Facilities	600002721	Active	MCWWTF Process Upgrades	1,000,000	156,643
					121,627,114	35,006,636
Wastewater Capital Projects				All Other Projects	14,778,650	21,304,881
					136,405,764	56,311,516
Stormwater Capital Projects	Stormwater - Pipes	700001221	Active	COGSWELL INFRASTRUCTURE DESIGN REVIEW SW	3,610,000	1,836
Stormwater Capital Projects	Stormwater - Pipes	700001429	Active	SULLIVAN'S POND STORM SEWER SYS REP-PH 2	1,200,000	513,522
Stormwater Capital Projects	Stormwater - Pipes	700001705	Active	PENHORN LAKE STORMWATER SYSTEM RENEWAL	1,000,000	1,411
					5,810,000	516,769
Stormwater Capital Projects				All Other Projects	18,518,902	10,904,004
					24,328,902	11,420,772
Corporate Capital Projects	Information Technology	300002979	Closed	ERP REPLACEMENT	16,923,200	14,681,580
Corporate Capital Projects	Facilities	300002797	Active	EAST/CENTRAL REGIONAL OPS FACILITY (W)	14,316,231	3,421,790
Corporate Capital Projects	Fleet Upgrade Program	600002694	Closed	FLEET UPGRADE 23/24	3,087,115	1,900,220
Corporate Capital Projects	Information Technology	300003297	Active	CAPITAL PROJECT MANAGEMENT	2,298,803	2,040,692
Corporate Capital Projects	Information Technology	300002982	Active	CUSTOMER TRANSACTIONAL SITE	1,654,900	1,664,655
Corporate Capital Projects	Information Technology	300003772	Active	DA3 - Program & Project	1,615,000	482,441
Corporate Capital Projects	Fleet Upgrade Program	300003839	Closed	Fleet Upgrade Program- Water 23/24	1,279,577	1,130,542
Corporate Capital Projects	Asset Management	600002771	Active	Corporate Flow Monitoring Program	1,200,000	743,031
Corporate Capital Projects	Information Technology	300003398	Active	MONITORING	1,150,000	107,064
Corporate Capital Projects	Information Technology	300003237	Active	DISASTER RECOVERY PROJ - PLANNING PHASE	1,124,000	1,003,243
Corporate Capital Projects	Information Technology	300002975	Active	ANALYTICS DECISION SUPPORT SYSTEM	1,069,000	972,233
Corporate Capital Projects	Fleet Upgrade Program	700001898	Closed	FLEET UPGRADE PROGRAM SW	1,052,961	244,749
					46,770,787	28,388,239
Corporate Capital Projects				All Other Projects	49,900,428	22,525,899
					96,671,215	50,914,138
				Total All Services	382,530,597	176,606,982

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: 
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Louis de Montbrun, CPA, CA, Director, Corporate Services/CFO

APPROVED: 
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Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 12, 2024

SUBJECT: **Appointment of Auditors**

ORIGIN

The Halifax Water Corporate Governance Manual requires the Halifax Water Board to approve the appointment of auditors.

RECOMMENDATION

It is recommended the Halifax Regional Water Commission Board approve the appointment of Grant Thornton LLP as auditors for the Halifax Regional Water Commission financial statements for the year ended March 31, 2025, and the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2024.

BACKGROUND

At the June 12, 2024, meeting of the Halifax Water Audit and Finance Committee (the Committee), the attached report was reviewed and the Committee approved a motion to recommend the Halifax Water Board approve the appointment of Grant Thornton LLP as auditors for the Halifax Regional Water Commission financial statements for the year ended March 31, 2025, and the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2024.

DISCUSSION

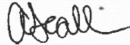
At the meeting of the Audit and Finance Committee the attached report was reviewed and discussed.

ATTACHMENT

1. Report to the Halifax Water Audit and Finance Committee re. Appointment of Auditors

Report Prepared by:

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Alicia Scallion, CPA, CA, Manager, Finance

Financial Reviewed by:

DocuSigned by:

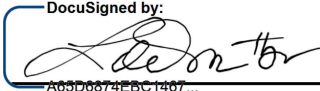



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Louis de Montbrun, CPA, CA

Director, Corporate Services/CFO

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: 
A63D6674EBC1407
Louis de Montbrun, CPA, CA, Director, Corporate Services/CFO

APPROVED: 
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Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 7, 2024

SUBJECT: **Appointment of Auditors**

ORIGIN

The Halifax Water Corporate Governance Manual requires the Halifax Water Board to approve the appointment of auditors.

RECOMMENDATION

It is recommended that the Audit and Finance Committee recommend that the Halifax Regional Water Commission Board appoint Grant Thornton LLP as auditors for the Halifax Regional Water Commission financial statements for the year ended March 31, 2025, and the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2024.

DISCUSSION

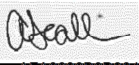
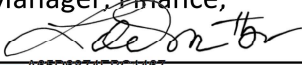
In December 2021, the contract with the existing auditors, Grant Thornton LLP, expired and Halifax Water went through a procurement process to procure external audit services for Halifax Water. The contract was awarded to Grant Thornton LLP for a one-year term, ending December 31, 2022, with an option to renew for four additional one-year terms. This year being the third term for Grant Thornton LLP.

Based on the positive experience with Grant Thornton LLP during the last audits and the competitive contract price for year three of the contract of \$55,400, for both entities, it is recommended that Grant Thornton LLP be appointed as auditors for the Halifax Water financial statements for the year ended March 31, 2025, and the Halifax Regional Water Commission Employees' Pension Plan for the year ended December 31, 2024. The contract price for year three

of the contract is set, but there is potential for additional fees due to changes in auditing standards or when additional audit procedures are required.

ALTERNATIVES

Halifax Water could choose to not renew the contract and go back to the market for Audit Services. This approach is not recommended.

Report Prepared by:	<p>DocuSigned by:  AFA8696B6D3845C...</p> <p>Alicia Scallion, CPA, CA</p>
Financial Reviewed by:	<p>DocuSigned by:  A63D6874EBC1467...</p> <p>Manager, Finance, Louis de Montbrun, CPA, CA Director, Corporate Services/CFO</p>

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: DocuSigned by:
Josh DeYoung
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APPROVED: DocuSigned by:
Kenda MacKenzie
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Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: May 31, 2024

SUBJECT: **Maynard Lake and Clement Street Wetland Sewer Separation**

ORIGIN

Halifax Water 2019 Infrastructure Master Plan

RECOMMENDATION

The Halifax Water Board approve funding in the amount of \$16,508,000 (including net HST) for Phase 1 of the Maynard Lake and Clement Street Wetland Sewer Separation Project.

BACKGROUND

In 2019, the Halifax Water Infrastructure Master Plan (IMP), included the review of the water and wastewater/combined systems owned and operated by Halifax Water. To reduce frequency and volume of combined system overflows, the IMP recommended a sewer separation project in the Old Ferry Road Combined System Overflow (CSO) sewershed.

Maynard Lake and the Clement Street Wetland discharge into the combined system that is tributary to the Old Ferry Road CSO. These two water bodies and associated drainage infrastructure contribute large volumes to the system year-round. Removing the flow from the lake and wetland will reduce overflows at the Old Ferry Road CSO and offset additional flow due to future growth.

DISCUSSION

Removal of Maynard Lake and the Clement Street Wetland from the Old Ferry Road CSO requires the separation of approximately 1,500 m of combined system to remove a drainage area of 109.5 Ha. This

project will result in a dedicated storm system from the Clement Street Wetland to the Old Ferry Road CSO.

Two construction phases are recommended for this project. Phase 1 will be from the Old Ferry Road CSO to the Maynard Lake Outlet. Phase 2 will be from the intersection of Old Ferry Road and Foston Street to Clement Street (See Figure 1). Halifax Water is seeking approval for Phase 1 of the project. Scheduled construction in the area of the Sawmill Creek Storm Sewer Replacement Phase 2 in 2025 will restrict the closure of Old Ferry Road at Pleasant Street and Portland Street, impacting the construction of Phase 1 of this project. There is an option to construct a portion of Phase 1 (Old Ferry Road CSO to Pleasant Street) in 2025, leaving the remaining portion to 2026. To be flexible for the 2025 construction season, the full amount for Phase 1 is being requested.

Phase 1 involves the construction of a new 1,500 mm diameter stormwater system. The existing combined system is utilized where possible, due to horizontal and vertical alignments the existing combined and water systems are realigned where required. The water main on Maynard Street will also be replaced, due to the condition and age, as an asset renewal component of the project.

Attributable to a project of this value and complexity, Halifax Water anticipates a 3 to 6 month long hearing process will form the approval process with the NSUARB. Upon approval by the Halifax Water Board, staff will apply to the NSUARB for approval prior to tendering, to facilitate beginning construction in early spring of 2025.

It is recognized that current market conditions are volatile. Proceeding to approvals prior to obtaining a tender price incurs a risk that the tender price will fall outside of the approved contingencies. After tender closing in the fall of 2024, should project costs exceed the funding allocated in the approval being sought, Halifax Water will evaluate the new project cost and decide whether it is prudent to proceed. If the decision is to proceed, Halifax Water will return to the Board and seek an increase in funding approval from the Halifax Water Board.

BUDGET IMPLICATIONS

Funding in the amount of \$642,000 was previously included in the 2021/2022 Capital Budget under “2.852 - Maynard Lake and Clement Street Wetland Separation”.

Funding in the amount of \$15,241,000 will be included in future 2025/2026 & 2026/2027 Capital Budgets – Wastewater under “2.852 - Maynard Lake and Clement Street Wetland Separation”.

Funding in the amount of \$625,000 for the watermain work will be included in the 2025/2026 Capital Budget – Water.

The sewer separation portion of the project is funded 95% through the Regional Development Charge (RDC). The remaining 5% is funded by Halifax Water.

The watermain works portion of the project is funded through asset renewal.

The proposed expenditure meets the “NO REGRETS- UNAVOIDABLE NEEDS” approach of the 2012 Integrated Resource Plan. The proposed work meets the NR-UN criteria of, “Required to support the Integrated Resource Plan Growth Driver”. The project meets these criteria based on the following: reducing frequency and volume of combined system overflows.

RISK

Deferring project to future years or cancelling the project – The project is required to reduce overflows at Combined System Overflows (CSO) to facilitate growth and meet the objectives of the IRP. Deferral is not recommended.

MILESTONES

The key milestones for this project are as follows:

NSUARB Application Date: Summer 2024

Tender Issue Date: Fall 2024

Start of construction: Spring 2025

Halifax Water Board and NSUARB Application Date for Phase 2: Spring/Summer 2025

ALTERNATIVES

There are no suggested alternatives.

ATTACHMENT

1. Figure 1: Overview of Project
2. Total Project Cost Estimate

Report Prepared by:	<p>DocuSigned by: <i>Meghan Woszczyński</i> EE44E1B06E62440...</p> <hr/> <p>Meghan Woszczyński, M.A.Sc., P.Eng., Project Engineer – Infrastructure Planning, 902-209-3915</p>
Financial Reviewed by:	<p>DocuSigned by: <i>Louis de Montbrun</i> A65D6874EBC1467...</p> <hr/> <p>Louis de Montbrun, CPA, CA Director, Corporate Services/CFO</p>

TOTAL PROJECT COST ESTIMATE

June 11, 2024



Maynard Lake and Clement Street Wetland Sewer Separation

CONSTRUCTION COSTS		
Estimated Construction Cost (Pre-Tender)	Phase 1	\$10,908,341
Consultant Costs (Tender & Construction Phase)	Phase 1	\$315,501
Contingency Class 2: Preliminary Design (15%)		\$1,683,576
Market Volatility Contingency (15%)		\$1,683,576
Construction Costs Sub-Total		\$14,590,995
OTHER COSTS (TAXABLE)		
Consultant Costs (Design)	Phase 1 & 2	\$419,025
Other Costs (Taxable) Sub-Total		\$419,025
Net HST (4.286%)		\$643,329
OTHER COSTS (NON-TAXABLE)		
Internal Halifax Water Costs	Phase 1 & 2	\$436,000
Supporting Investigation Work	Phase 1 & 2	\$245,000
Street and Services Permit	Phase 1	\$10,000
Other Costs (Non-Taxable) Sub-Total		\$691,000
SUB-TOTAL		\$16,344,349
Overhead & Interest (1%)		\$163,443
TOTAL PROJECT COST ESTIMATE		\$16,507,793
TOTAL PROJECT COST ESTIMATE*		\$16,508,000

* Rounded up, excluding HST

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: DocuSigned by:
Josh DeYoung
0BC19767707E488

APPROVED: DocuSigned by:
Kenda MacKenzie
UC084AC815794F6...
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 10, 2024

SUBJECT: **Raymond Street and Walker Street Infrastructure Project**

ORIGIN

2020/21 Capital Budget

RECOMMENDATION

The Halifax Water Board approve the stormwater, water and wastewater infrastructure upgrades in the Raymond Street, Dartmouth area at a total project cost of \$7,053,000 (including net HST).

BACKGROUND

Halifax Water implements an annual stormwater sewer replacement program as part of the utility's overall asset management plan for its stormwater infrastructure. With an inventory of approximately 900 km of stormwater gravity sewers, a subset of sewers needing replacement are identified and prioritized based on their condition.

The Raymond Street stormwater system has been an area of concern for many years and a study completed in 2009 by SNC-Lavalin highlighted the severely deteriorated CSP pipe. This report, along with information supplied by the Halifax Water operations group regarding failing infrastructure, brought this project to the forefront. The review of this available information made it a candidate for the Stormwater Sewer Renewal Program.

Englobe was awarded the consulting services contract using a public RFP process to support the annual Stormwater renewal program in 2020. This program included the investigations, preliminary design, detailed design, and tender phase services for:

- Raymond Street Storm Sewer replacement
- Penhorn Lake outlet stormwater Sewer
- Thistle Street Stormwater Sewer upgrade
- Oathill Lake Stormwater Sewer upgrade

DISCUSSION

The Raymond Street portion of the storm water replacement program examined and investigated the condition of 1230 m of storm water culvert. It was determined that 418 m of the current culvert system is in need of immediate replacement. The existing corrugated steel (CSP) pipe was installed in 1968, with a small section added in 1993. Englobe completed additional CCTV investigations and confirmed the condition assessment performed by SNV-Lavalin in 2009 is still valid.

Englobe began work on the Preliminary design in 2021. When the project reached the 30% design phase, it was determined that the water main in the Lakecrest Drive and Raymond Street area was also in need of replacement. The new water main replacement was included in the project scope through a change order. A portion of the water main is being upgraded this year (2024) and will join the water main being upgraded as part of the project outlined in this report.

As the project moved closer to the detailed design stage, it was determined that the position of the wastewater main was interfering with the proper placement of the new storm water culvert. There were two wastewater mains installed on Raymond Street. One in 1960 and one in 1973. Englobe was instructed through a change order to include the replacement of the wastewater infrastructure into the larger project. The new design consolidates the two wastewater mains into one pipe allowing for a standard, systematic placement, of all three assets in the right-of-way.

The new project design includes the replacement of 390 m of water main, 203 m of wastewater main and 11 no-corrode lateral replacements.

With respect to integration, HRM has agreed to integrate with Halifax Water on the streetscaping portion of the project. Following normal practice, HRM and Halifax Water will cost share (50% for both parties) the base gravels, asphalt, curb, and sidewalk for all reinstatement within the trench limits. HRM will be responsible to pay for 100% of the remaining work to replace the existing road structure, sidewalk, curb, and gutter.

Englobe has completed a 90% design package and carried out all investigations, survey work and a geotechnical investigation as part of the consulting services. Englobe has provided a pre-tender estimated cost to replace the existing infrastructure. The project cost estimate is attached as Raymond Street and Walker Street Infrastructure Project – Total Project Cost Estimate and is considered a Class 2 estimate and includes a 15% contingency allowance.

Halifax Water plans to tender this project in November 2024. Construction is expected to begin in the spring of 2025. The size of the project requires the work to be divided and constructed over two years. The estimated completion timeline of the project is the fall of 2026.

It is recognized that current market conditions are volatile. Proceeding to approvals prior to obtaining a tender price incurs a risk that the tender price will fall outside of approved contingencies and require further approvals. Therefore, an additional 15% contingency was applied to account for this volatility. After tender closing, should the project costs exceed the funding allocated in the approval being sought, Halifax Water will evaluate the new project cost and amend the funding approval request.

Halifax Water will be providing construction phase contract administration and resident inspection services. Halifax Water will be collecting the record information.

BUDGET IMPLICATIONS

Funding in the amount of \$100,000 was previously included in the 2020/2021 Capital Budget under “Raymond Street, Phase 2 – Storm Sewer Rehabilitation”.

Funding in the amount of \$4,435,108 will be included in future 2025/2026 & 2026/2027 Capital Budgets – Stormwater under “Raymond Street / Lakecrest Drive – Storm Sewer Replacement”.

Funding in the amount of \$1,098,836 will be included in future 2025/2026 & 2026/2027 Capital Budgets – Wastewater under “Raymond Street / Lakecrest Drive – Sanitary Sewer Replacement”.

Funding in the amount of \$1,419,056 will be included in future 2025/2026 & 2026/2027 Capital Budgets – Water under “Raymond Street / Lakecrest Drive Storm sewer Replacement - Watermain”.

The project is funded 100% by asset renewal.

The proposed expenditure meets the “NO REGRETS- UNAVOIDABLE NEEDS” approach of the 2012 Integrated Resource Plan. The proposed work meets the NR-UN criteria of “Required to ensure infrastructure system integrity and safety” The project meets these criteria based on the following: The current equipment is failing due to age and end of life (Asset Management) and causing operational issues (Infrastructure System Integrity).

RISK

Deferring the project to future years or canceling the project – There is a significant risk that the current system will reach critical failure and require emergency repair. It is challenging to maintain the existing corrugated steel pipe and allowing the pipe to reach the point of failure will require expensive repairs or replacement.

MILESTONES

The key milestones for this project are as follows:

NSUARB Application Date: Summer 2024
Tender Issue Date: November 2024
Tender Award Date: December 2024
Start of construction: May 2025
Project completion: October 2026

ALTERNATIVES

There are no suggested alternatives to the renewal project. The project is being executed to replace failing infrastructure and renew or rehabilitate system components that by current measures are clearly approaching a condition that could impair normal system operations.

ATTACHMENT

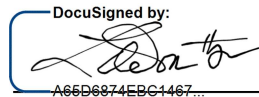
1. **Raymond Street and Walker Street Infrastructure Project - Project Location**
2. **Raymond Street and Walker Street Infrastructure Project – Total Project Cost Estimate**

Report Prepared by:

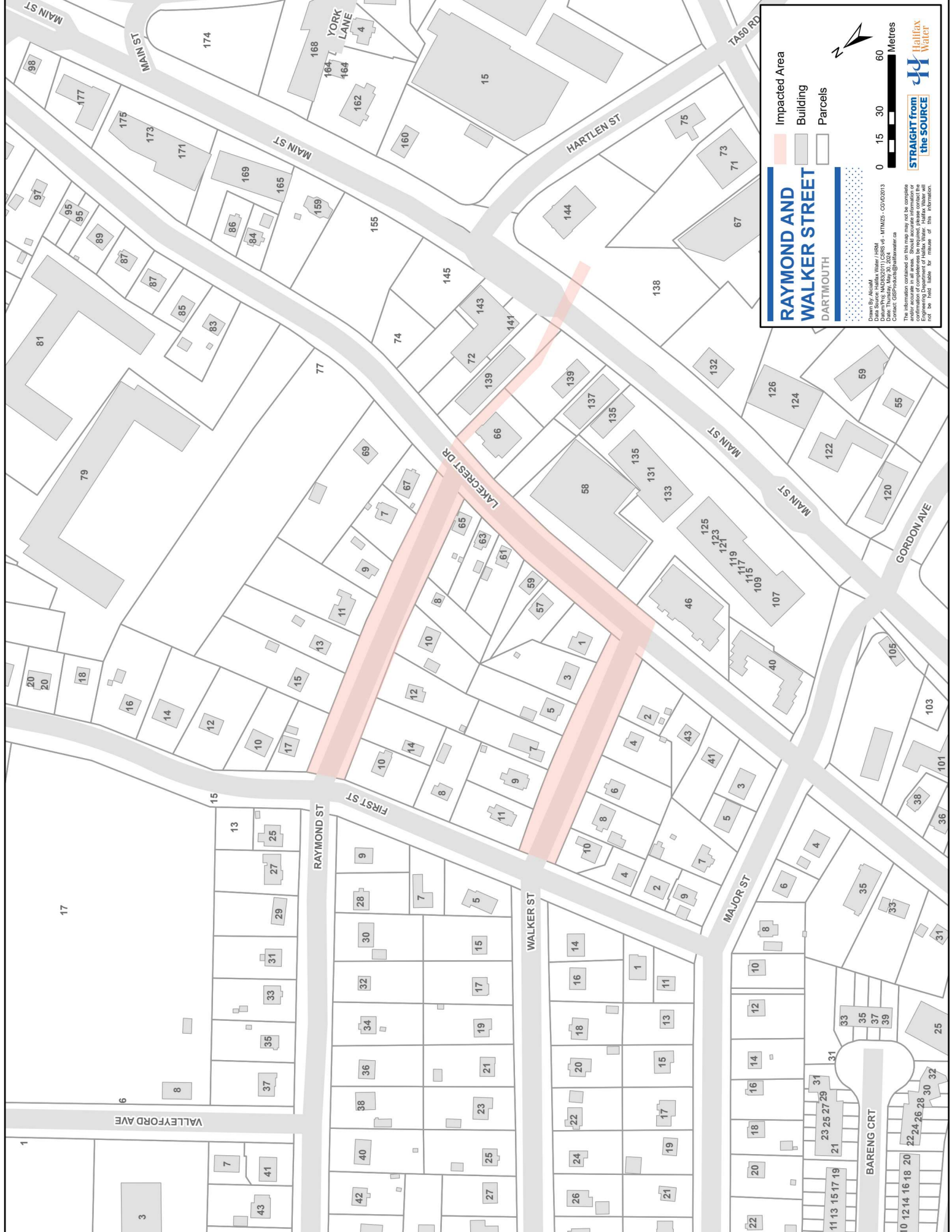


Andrew Snow, P.Eng

Financial Reviewed by:

DocuSigned by:


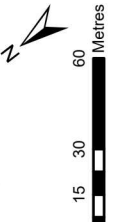
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Louis de Montbrun, CPA, CA
Director, Corporate Services/CFO



RAYMOND AND WALKER STREET

DARTMOUTH

- Impacted Area
- Building
- Parcels



STRAIGHT from the SOURCE
Halifax Water

Data by: Halifax Water / HRM
 Date: 05/2021
 Drawing: MARS0011 / CSRS v6 - MTRZ - COVID19
 Contact: GISProducts@halifaxwater.ca
 The information contained on this map may not be complete and/or accurate in all areas. Should accurate information or Engineering Department of Halifax Water. Halifax Water will not be held liable for misuse of this information.

TOTAL PROJECT COST ESTIMATE


June 3, 2024




Raymond Street and Walker Street Infrastructure Project

CONSTRUCTION COSTS	
Estimated Construction Cost (Pre-Tender)	\$4,885,319
Consultant Costs (Tender and Construction Phase)	\$17,465
Class 2: Preliminary Design (15%)	\$735,418
Market Volatility Contingency (15%)	\$735,418
Construction Costs Sub-Total	\$6,373,619
OTHER COSTS (TAXABLE)	
Consultant Costs (Design)	\$120,241
Flow Monitoring	\$29,233
QA/QC Testing	\$10,000
Other Costs (Taxable) Sub-Total	\$159,474
Net HST (4.286%)	\$280,008
OTHER COSTS (NON-TAXABLE)	
Internal Halifax Water Costs (Project Management & Site Inspection)	\$160,000
Street and Services Permit	\$10,000
Other Costs (Non-Taxable) Sub-Total	\$170,000
SUB-TOTAL	\$6,983,102
Overhead & Interest (1%)	\$69,831
TOTAL PROJECT COST ESTIMATE	\$7,052,933
TOTAL PROJECT COST ESTIMATE (Rounded)	\$7,053,000

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax
Regional Water Commission Board

SUBMITTED BY:  Digitally signed by Reid
Campbell
Date: 2023.11.17
13:56:20 -04'00'

Reid Campbell, P.Eng.
Director, Engineering and Technology Services

APPROVED: Tareq Al-
Zabet  Digitally signed by Tareq
Al-Zabet
Date: 2023.11.17
15:05:55 -04'00'

Tareq Al-Zabet, Ph.D., CRSP, P.Geo, CEO & General Manager

DATE: November 14, 2023

SUBJECT: **Silver Sands Water Supply Plant – Linear Main Extension Along Cow
Bay Road**

ORIGIN

Halifax Water 2019 Integrated Resource Plan.

RECOMMENDATION

The Halifax Water Board approve the linear main extension along Cow Bay Road to the Silver Sands Water Supply Plant at a total project cost of \$6,009,000.00 (including net HST).

BACKGROUND

Halifax Water owns and operates five small community Water Supply Plants (WSPs) throughout HRM. The 2019 Infrastructure Master Plan (IMP) and the Integrated Resource Plan (IRP) determined there are opportunities to connect three of these small systems into the main water distribution networks and decommission the existing small supply plants. This would reduce O&M costs, eliminate life-cycle renewal needs as well as any compliance or capacity upgrades associated with the small WSPs. Decommissioning of these small WSPs is in line with the optimization objectives outlined as part of the IMP's drivers for the water distribution systems. In 2019, Halifax Water connected the Miller Lake system to the Pockwock supply and decommissioned the small

system WSP. In recent years, Halifax Water carried out similar extensions/decommissioning work in the communities of Herring Cove, North Preston and the Lively Subdivision.

DISCUSSION

The Silver Sands private water system was originally constructed by a developer (Silver Sands Limited) in 1974. The private wells and treatment system services customers on Spruce Drive and Cow Bay Road. The Silver Sands Water Utility was set up in 1985 to operate and maintain the system. After municipal amalgamation, in 1996, Halifax Water acquired the system in 1998 and has owned, operated and maintained the system since that time. The existing system currently services 42 customers.

The 2019 IMP recommended that the Silver Sands watermain extension should be part of a long-term planning strategy for the Eastern Passage Area and had recommended a timeline of 2041-2045 for the extension. The IMP had suggested the 2041-2045 timeline in order to provide an opportunity to complete a secondary feed to the Eastern Passage Area (Willowdale/Caldwell Road Connection).

The Willowdale/Caldwell Road connection passes through the Morris Lake East Development area. This area is one of the Special Planning Areas identified as a priority for development by the Provincial-Municipal Housing Task Force. It is anticipated that the secondary feed to Eastern Passage will be proceeding as part of the overall development in the near future.

Since the completion of the IMP, Halifax Water's Operations department has reported a range of technical and regulatory issues associated with the current Silver Sands small system.

These issues include:

- Iron and manganese levels are increasing in the distribution system and are exceeding permitted guidelines.
- Iron and manganese levels are increasing in the raw water and becoming increasingly difficult to treat.
- The filter backwash line has no outlet, has become plugged and is allowing iron and manganese to recirculate to the wells.
- The water withdrawal amounts are exceeding the NSE Withdrawal permit.
- The backwash system does not meet NSE standards with a filter to waste residual disposal system.
- The subdivision is serviced by two active drilled wells. One rehabilitated well supplies the entire system with a second well providing a backup supply. The capacity of these wells is limited. At times, potable water has had to be trucked in and supplied via the clear well during periods of high usage.
- The WSP building and treatment facilities are at the end of service life.

Based on the above-noted operational and regulatory compliance issues, staff determined that the preferred long-term solution is to expedite the timeline for IMP's recommendations to extend the distribution system to Silver Sands and decommission the WSP. This would eliminate the need to upgrade and replace the existing limited and problematic water treatment facility.

The project will include the installation of approximately 1500 metres of new 300mm and 200mm pipe from the end of the existing limits of the watermain on Cow Bay Road, near Samuel Daniel Drive to the location of the existing silver Sands WSP building near Spruce Drive. The project includes new valves, hydrants, and a small building to house distribution equipment (pressure reducing valves, main meter, treatment equipment, and a chlorine residual monitoring and injection system). The existing WSP facility and supply wells will be decommissioned once the new supply is in service.

The water main extension project is within the existing water-only municipal service boundary therefore, no extension of the service boundary is necessary for this project. The single driver for this watermain extension project is to decommission the existing WSP. As such, Halifax Water is not seeking to cost-share with properties that front on the extension, nor is there any obligation on these properties to connect. No public-side water services are included as part of the project costs. If they choose, fronting property owners along the new extension will have the ability to connect to the public main at their cost. They will have the opportunity to arrange an agreement with Halifax Water to have our contractor install the public portion of the service as part of the project, or they may choose to connect a service at a later date with a contractor of their choosing.

Earlier this year, staff issued an RFP for the engineering services related to the Silver Sands Main Extension. DesignPoint was retained to carry out the design. The design work is 90% complete and it is expected that the tender will be issued before the end of 2023. Based on the pre-tender cost estimates, the estimated project cost is \$6,009,000.00 including net HST.

Halifax Water has recently learned, that for a project of this value, it is likely that the NSUARB will dictate a hearing process which is lengthier than a routine approval process. This will make it challenging to begin construction in early spring and complete it in a single construction season. Staff have made additional efforts to submit this for consideration by the Halifax Water Board at its November meeting. Upon approval by the Halifax Water Board, staff will proceed with the tendering process and concurrently submit an application to the NSUARB for approval to minimize, to the degree possible, the approval time.

It is recognized that current market conditions are volatile. Proceeding to approvals prior to obtaining a tender price incurs a risk that the tender price will fall outside of approved contingencies and require further approvals. After tender closing, should project costs exceed the funding allocated in the approval being sought, Halifax Water will evaluate the new project cost and make a determination whether it is prudent to proceed. If the decision is to proceed, Halifax Water will return to the Board and seek an increase in funding via a regular meeting, special

meeting or email vote. Upon Halifax Water Board approval, Halifax Water will then write the NSUARB amending the funding approval request.

BUDGET IMPLICATIONS

Previously approved funding for design phase services in the amount of \$150,000 was included in the 2022/23 capital budget.

Funding in the amount of \$5,859,000 is included in the proposed 2024/2025 capital budget.

The proposed expenditures meet the “No Regrets – Firm Regulatory Requirement” approach of the 2012 Integrated Resource Plan. Firm regulatory requirements refer to projects that are needed to bring Halifax Water into compliance for existing Operating Permits, address current compliance constraints at specific facilities, and meet emerging requirements related to water quality.

RISK

Deferring project to future years – There is a significant risk that the treatment equipment will fail and require immediate replacement. Similarly, there are limitations on the groundwater supply of the existing wells. It has been challenging to maintain compliance with the drinking water regulatory requirements due to aging equipment and deteriorating raw water quality.

Treatment system failure - In the event of this occurrence, there is an alternative to deliver bulk water directly to the clear well, which will keep the system operational in an emergency scenario.

Financial – Investing in upgrades/replacement of the existing WSP is not consistent with long term objective of the IRP. The IRP recommended the elimination of this small system.

MILESTONES

The key milestones for this project are as follows:

Tender Issue Date: December 2023

Tender Closing Date: January 31, 2024

Start of construction: May 1, 2024

Project completion: November 15, 2024

ALTERNATIVES

There are no suggested alternatives to the water main extension. This project is being executed consistent with IMP recommendations and aligns with the overall goal of eliminating small systems water treatment plans where feasible.

ATTACHMENTS

1. Proposed water main extension map
2. Silver Sands WM Extension – Project Cost Estimate



Report Prepared By: _____

Jonathan MacDonald, P.Eng
Manager, Water Infrastructure Planning



Digitally signed by Louis
de Montbrun
Date: 2023.11.17
13:42:41 -04'00'

Financial Reviewed by: _____

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

SILVERSANDS WATER MAIN EXTENSION DISTRIBUTION



Drawn By: Akshay
 Date: 10/20/2023
 Data: NAD83/CSRS v8 - NTM25 - 05/02/2013
 Date Modified: October 30, 2023

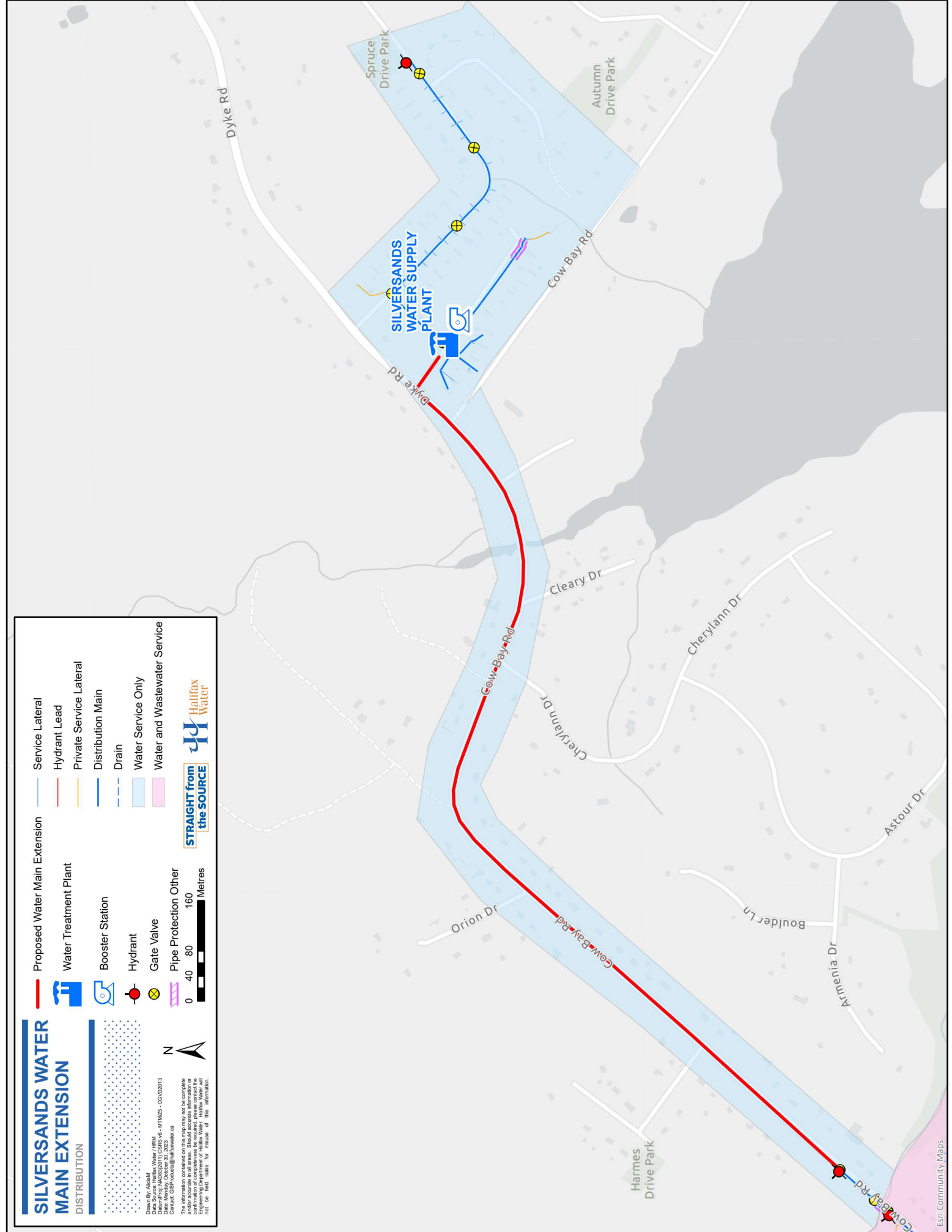
The information contained in this map may not be complete and/or accurate in all areas. Should accurate information or confirmation of completion of this project be required, please contact the project manager for more information. Esri Community Maps



STRAIGHT from the SOURCE



- Service Lateral
- Hydrant Lead
- Private Service Lateral
- Distribution Main
- Drain
- Water Service Only
- Water and Wastewater Service



Silversands Watermain Extension

November 14, 2023


Description	Amount
Estimated Construction Cost - DesignPoint	\$4,854,210.00
Sub-Total	\$4,854,210.00
10% Construction Contingencies	\$485,421.00
Sub-Total	\$5,339,631.00
Internal Halifax Water Costs (Project Management & Site Inspection)	\$20,000.00
QA/QC Testing	\$20,000.00
Halifax Water Consultant Cost for Tender Phase, Construction Admin and Closeout (Design Point)	\$165,534.00
Halifax Water Internal Cost to Date (Concept Design, Detailed Design and Halifax Water staff time - est. up to November /23)	\$162,372.00
Grand Total	\$5,707,537.00
Net HST (4.286%)	\$244,625.04
Overhead/Interest (1%)	\$57,075.37
Total Estimated Project Cost	\$6,009,237.41

Total Estimated Project Cost (Rounded) \$6,009,000.00


Previous Funding (22/23 Capital Budget) \$150,000.00

Total Future Funding Required \$5,859,000.00

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax
Regional Water Commission Board

SUBMITTED BY:  Digitally signed by Reid
Campbell
Date: 2023.11.17
14:05:15 -04'00'

Reid Campbell, P.Eng.
Director, Engineering and Technology Services

APPROVED:  Digitally signed by Tareq
Al-Zabet
Date: 2023.11.17
15:09:30 -04'00'

Tareq Al-Zabet, Ph.D., CRSP, P.Geo, CEO & General Manager

DATE: November 14, 2023

SUBJECT: **Sewer Separation Program
South Park - Cathedral Lane Phase 2 - Construction**

ORIGIN

Capital Planning

RECOMMENDATION

The Halifax Water Board approve funding in the amount of \$4,078,000 for the South Park – Cathedral Lane Phase 2 sewer separation project. Previous funding in the amount of \$93,000 was approved for design for a total project cost of \$4,171,000 inclusive of net HST.

BACKGROUND & DISCUSSION

The sewer separation program within the peninsula of Halifax is an outcome of the Infrastructure Master Plan and the HRM Regional Centre Local Wastewater Servicing Capacity Analysis (LoWSCA). As a foundational component of the Infrastructure Master Plan, a Wet Weather Flow Management Study was completed. It identified cost-effective wet weather management opportunities to recover flow capacity within Halifax Water’s existing system. Opportunities for combined sewer separation, low impact development (LID)/sustainable urban drainage (SUD), and inflow and infiltration reduction opportunities were identified by the Wet Weather Flow Management Study.

The Infrastructure Master Plan identified the optimal strategy to accommodate growth with the goal of “no increase in annual combined sewer overflow (CSO) discharges because of growth”, based on the CCME *Canada-wide Strategy for the Management of Municipal Wastewater Effluent* (2009) guidelines had a substantial influence on the strategy selected.

Generally defined, sewer separation is the establishment of distinct wastewater and stormwater sewers in replacement of a single combined sewer. Sewer separation removes or reduces stormwater flow in the wastewater system. The treatment requirements of wastewater (including combined sewage) result in a higher capital cost to construct and higher cost to operate when compared to the stormwater system.

The first project in the Spring Garden Road pocket was completed in November 2022. The South Park Cathedral Lane - Phase 1 sewer separation project consisted of the installation of approximately 214 m of new storm sewer along South Park Street, University Avenue and then to the intersection of University Avenue and Cathedral Lane.

The proposed “South Park – Cathedral Lane Phase 2” sewer separation project consists of the installation of approximately 280 m of new storm sewer as well as the replacement of approximately 140 m of existing old watermain. The proposed storm sewer will connect to the new storm sewer installed in 2022 near the intersection of University Avenue and Cathedral Lane. In addition, Halifax Water staff have identified an opportunity for further separation within the Halifax Public Gardens. The overflow from an existing pond within the Public Gardens will be redirected to the new storm sewer at the intersection of Cathedral Lane and Spring Garden Road instead of connecting to the combined sewer system, as it is currently. The completion of this work will allow for the separated storm capture along Cathedral Lane and includes roof connections from two (2) large apartment complexes as well as a portion of College Street that drains to the intersection with Cathedral Lane.

This project addresses local and regional sewer capacity issues and is key to facilitating growth. This project is the beginning of the program for the Spring Garden Road pocket and is the downstream receiving storm sewer for future sewer separation along College Street. Being the downstream component makes this project a priority to enable future planned development. This work also leverages previous investments made by Halifax Water with its 2008 Freshwater Brook Sewer Project.

The Infrastructure Master Plan concluded that the majority of the flow reductions, in combined sewer areas, would be achieved through removing surface drainage sources from the wastewater sewer system. It was anticipated the typical scope of work for a given project (street) would be the installation of a shallow storm sewer system to supplement the existing combined sewer. The proposed approach includes large impermeable areas and road rights-of-way and excludes dense residential neighborhoods. This provides sufficient removal of wet weather while minimizing the number of required property reconnections and balances anticipated project cost with flow reduction goals consistent with the approach recommended in the Infrastructure Master Plan.

Subsequent to the Infrastructure Master Plan, a detailed, systemic sewershed analysis resulted in the stormwater collection areas as depicted on Attachment 1 (Map – Cathedral Lane Capture Areas).

Halifax Water has recently learned, that for a project of this value, it is likely that the NSUARB will dictate a hearing process which is lengthier than a routine approval process. This will make it challenging to begin construction in early spring and complete it in a single construction season. Staff have made additional efforts to submit this for consideration by the Halifax Water Board at its November meeting. Upon approval by the Halifax Water Board, staff will proceed with the tendering process and concurrently submit as application to the NSUARB for approval to minimize, to the degree possible, the approval time.

It is recognized that current market conditions are volatile. Proceeding to approvals prior to obtaining a tender price incurs a risk that the tender price will fall outside of approved contingencies and require further approvals. After tender closing, should project costs exceed the funding allocated in the approval being sought, Halifax Water will evaluate the new project cost and make a determination whether it is prudent to proceed. If the decision is to proceed, Halifax Water will return to the Board and seek an increase in funding via a regular meeting, special meeting or email vote. Upon Halifax Water board approval, Halifax Water will then write to the NSUARB amending the funding approval request.

BUDGET IMPLICATIONS

Funding for consulting services in the amount of \$93,000 has been previously approved.

Funding for the South Park – Cathedral Lane Phase 2 sewer separation project in the amount of \$4,078,000 is included in Year 1 of the upcoming 2024/2025 wastewater capital budget.

50% of the project costs are funded through the Regional Development Charge (RDC). The remaining portion is split 50%-50% between Halifax Water and HRM through the LoWSCA program. The portion of work required to accommodate local growth funded by HRM is \$1,042,750.

Funding for the replacement of the existing watermain on Cathedral Lane was previously approved as part of the Phase 1 approval process.

The proposed expenditure meets the “NO REGRETS- UNAVOIDABLE NEEDS” approach of the 2012 Integrated Resource Plan. The proposed work meets the NR-UN criteria of, “Required to support the Integrated Resource Plan Growth Driver and resolves local constraints while also providing benefit to existing customers through the Asset Renewal Driver.

RISK

Deferring project to future years - The project is required in order to address local and regional sewer capacity issues and is key to facilitating growth. Deferral is not recommended.

MILESTONES

The key milestones for this project are as follows:

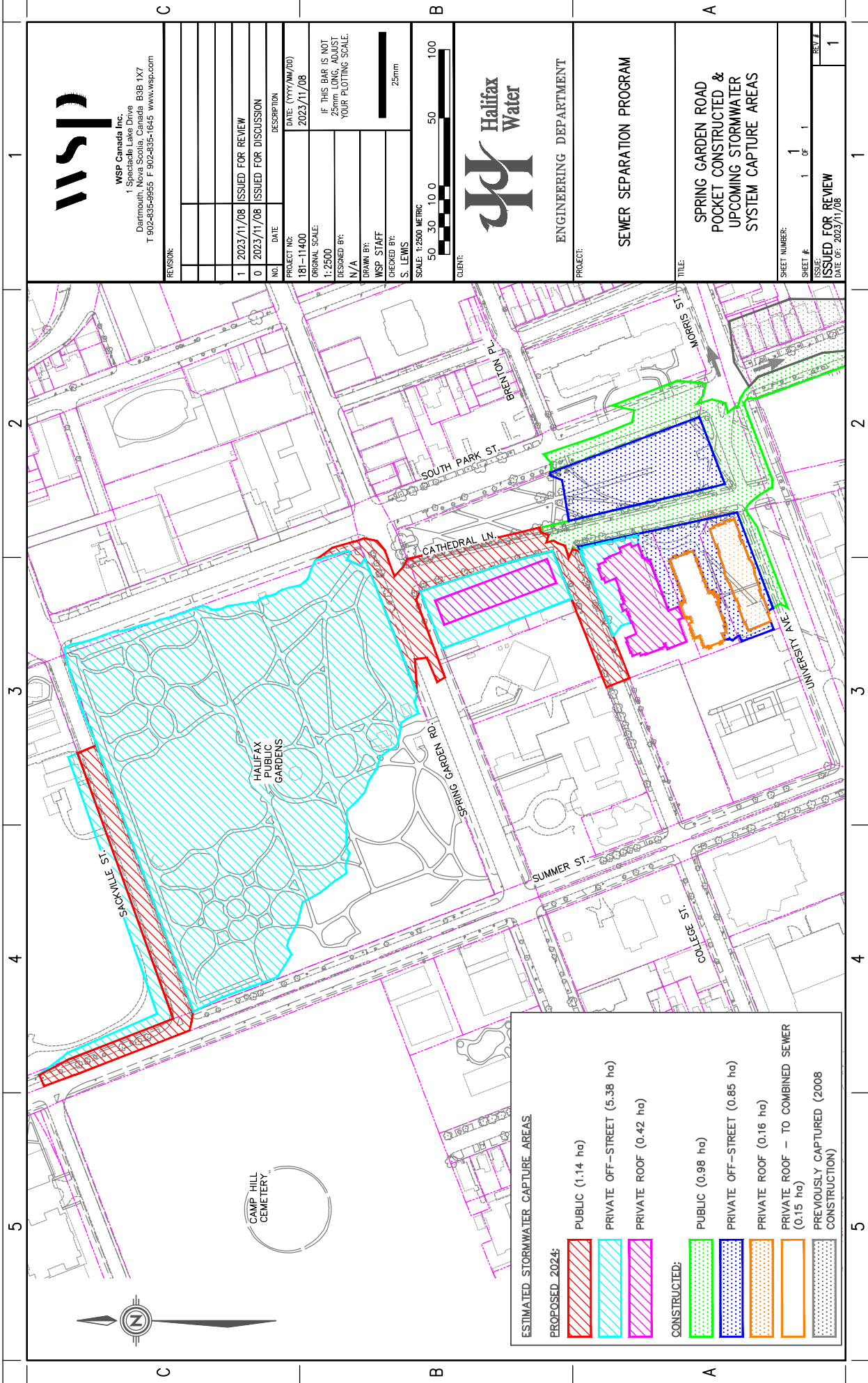
- Tender Issue Date: December 2023
- Tender Award Date: January 31, 2024
- Start of construction: May 1, 2024
- Project completion: November 15, 2024

ATTACHMENTS

- Cost estimate
- Map – South Park-Cathedral Lane capture areas

	
Report Prepared by:	_____
	Tom Gorman, P. Eng Senior Manager, Infrastructure Planning
Financial Reviewed by:	
	Digitally signed by Louis de Montbrun Date: 2023.11.17 13:44:25 -04'00'

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



WSP Canada Inc.
 1 Spectacle Lake Drive
 Dartmouth, Nova Scotia, Canada B3B 1X7
 T 902-835-8965 F 902-835-1645 www.wsp.com

NO.	DATE	DESCRIPTION
1	2023/11/08	ISSUED FOR REVIEW
0	2023/11/08	ISSUED FOR DISCUSSION

PROJECT NO.: 181-11400
 DATE: (YY/MM/DD) 2023/11/08
 ORIGINAL SCALE: 1:2500
 DESIGNED BY: N/A
 DRAWN BY: WSP STAFF
 CHECKED BY: S. LEWIS
 SCALE: 1:2500 METRIC
 50 30 10.0 50 100
 25mm

CLIENT: **Halifax Water**

ENGINEERING DEPARTMENT
 SEWER SEPARATION PROGRAM

TITLE: **SPRING GARDEN ROAD POCKET CONSTRUCTED & UPCOMING STORMWATER SYSTEM CAPTURE AREAS**

SHEET NUMBER:	1	OF	1
ISSUE:	ISSUED FOR REVIEW		
DATE OF:	2023/11/08		
REV. #	1		



TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: 
Kenda MacKenzie, P.Eng., Acting General Manager/CEO

DATE: June 10, 2024

SUBJECT: Corporate Balance Scorecard – Supplementary Report

ORIGIN:

Annual Corporate Performance Measurement.

RECOMMENDATION:

It is recommended that the Halifax Water Board approve the Corporate Balanced Scorecard targets for the 2024/25 fiscal year.

BACKGROUND

Halifax Water has been utilizing a Corporate Balanced Scorecard (CBS) to measure performance since 2001. In March 2002, the Board approved an organizational award program tied to eight OIs which were the most objective and outward looking.

DISCUSSION

Each year, the organizational indicators are reviewed and refined based on operational objectives and approved budgets. The organizational indicators are aligned with the four strategic pillars approved in the 2023/24 Business Plan and align with our purpose and vision statements.

In order for the Organizational Award to be provided to employees, two gateway indicators must be met, the targets for Operating Expense/Revenue ratio and Lost Time Accidents. This year only the Lost Time Accident gateway ratio was met.

This past year was challenging for Halifax Water and its employees with the extreme weather events that impacted its infrastructure and the employees demonstrated amazing resiliency in safely providing their response. At same time employees ensured that the water and wastewater systems met their regulatory compliance parameters providing high quality service to its customers and protecting the environment.

BUDGET IMPLICATIONS

The Gateway indicator for Operating Expense/Revenue was not achieved, therefore the funds for the Organizational Award program are not available.

ALTERNATIVES

None recommended.

ATTACHMENT

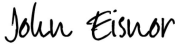
Summary Corporate Balanced Scorecard

Report Prepared by:	<p>DocuSigned by: <i>Kenda MacKenzie</i> 0C084AC815794F6... Kenda MacKenzie, P.Eng. Acting General Manager/CEO, 902-237-7116</p>
Financial Reviewed by:	<p>DocuSigned by: <i>Louis de Montbrun</i> A65D6874EBC1467... Louis de Montbrun, CPA, CA Director, Corporate Services/CFO, 902-490-3685</p>


Corporate Balance Scorecard - Projected Results 2023-2024


Organizational Indicators	Organization Award	2022/23 Results	2023/24		2024/25 Target
			TARGET	RESULTS	
Financial and Regulatory Accountability					
Operating expense/revenue ratio percentage (excluding depreciation)	Gateway	62.0%	60.0%	62.6%	67%
Annual cost per customer connection – Water (excluding depreciation)		\$403	\$438	\$500	\$500
Annual cost per customer connection – Wastewater (excluding depreciation)		\$592	\$627	\$662.00	\$697
Total capital spend in the fiscal year (in millions)		\$93.5	\$135	\$98.2	\$135
Capital budget expenditures - Percentage of budget spend by end of fiscal year		35.3%	70-80%	34.7%	70-80%
Health Safety & Environment					
Average score on internal safety audits		98.0%	90.0%	96.1%	90%
NS Labour and Advanced Education compliance – Number of Incidents with written compliance orders		0	< 2%	0	2
Lost time accidents -Number of accidents resulting in lost time per 100 employees	Gateway	1	3	2.38	2.5
Safe driving - Number of traffic Accidents per 1,000,000 km driven (maximum of 5)	Org. Award	4.31	4	5.34	4
Training - Number of employees trained or re-certified before due date		89.0%	85.0%	86.0%	85%
Percentage of completed safety talks		90.0%	85.0%	88.0%	85%
Percentage of public health and environmental regulatory infractions resulting in a summary offense tickets		0%	< 2%	0%	2%
Percentage of WWTFs complying with NSE approval permits	Org. Award	97%	95%	95%	95%
Number of ICI properties engagements by Pollution Prevention each year		251	250	272	250
Operational Excellence					
Adherence with 5 objectives of Water Safety Plan for all water systems - Percentage of sites achieving targets	Org. Award	93	80	86	80
Bacteriological tests - Percentage free from Total Coliform		99.97%	99.90%	99.88%	99.90%
Water service outages - Number of connection hours/1000 customers		125.74	200	183.05	200
Wastewater service outages – Number of connection hours/1000 customers		1.03	4	0.61	4
Average speed of answer – Percentage of calls answered within 20 seconds		71.1%	70.0%	35.3%	70%
Response time for service connection permits – percentage of formal responses provided from Halifax Water within 3 days or less		N/A *	80.0%	91.0%	80%
Response time for subdivisions involving system extensions – percentage of formal responses from Halifax Water provided within 4 weeks or less review		N/A *	80.0%	92.7%	80%
Water leakage control – target leakage allowance of 160 litres/service connection/day	Org. Award	219	165	238	165
I&I reduction - Number of inspections to identify private property discharge of stormwater into the wastewater system		1387	1200	515	1200
Peak flow reduction from wet weather management capital projects	Org. Award	Data Not Available	5-10 l/sec**	1.7 l/sec**	5-10 l/sec**
Percentage of time GIS and Cityworks are available	Org. Award	99.95%	97.00%	99.87%	97%
Energy management kwh/m ³ reduction associated with capital projects	Org. Award	14.10%	10.00%	14.06%	10%
Bio-solids residual handling - percentage of sludge meeting bio-solids concentration targets	Org. Award	99.5%	95.0%	99.6%	95%
People					
Customer satisfaction about water quality - Percentage from customer survey	Org. Award	88.0%	85.0%	89.0%	85.0%
Customer satisfaction with service - Percentage from customer survey	Org. Award	97.0%	95.0%	95.0%	95.0%
Number of arbitrations divided by total number of grievances		0	0	0.0	0
Percentage of jobs filled with internal candidates		64%	80%	60%	80%
Employee satisfaction survey result		B+	A	B	A
Average number of days absenteeism		9.81	<7	9.5	<7
NOTES:					
* New metrics introduced in 2023/24, no values from previous year.					
** Peak flow reduction - The reduction was 1.7 l/sec for the Crescent Avenue Lining Program. This result was possibly underestimated due to the difference in pre-rehab and post-rehab flow monitoring. This represents a 7% reduction in peak flow which has reduced the high level alarms at the pump station and associated energy consumption.					

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: DocuSigned by:

51DA47B90B56460...
John Eisnor, MASC., P.Eng., Director, Operations


Wendy Krkosek, Ph.D., P.Eng., Director, Regulatory Services

DocuSigned by:

423F18351CA34BE...
Cindy MacLean, Supervisor, Human Resources

APPROVED: DocuSigned by:

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Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 10, 2024

SUBJECT: **Operational Performance Information Report**

ORIGIN

Regular update.

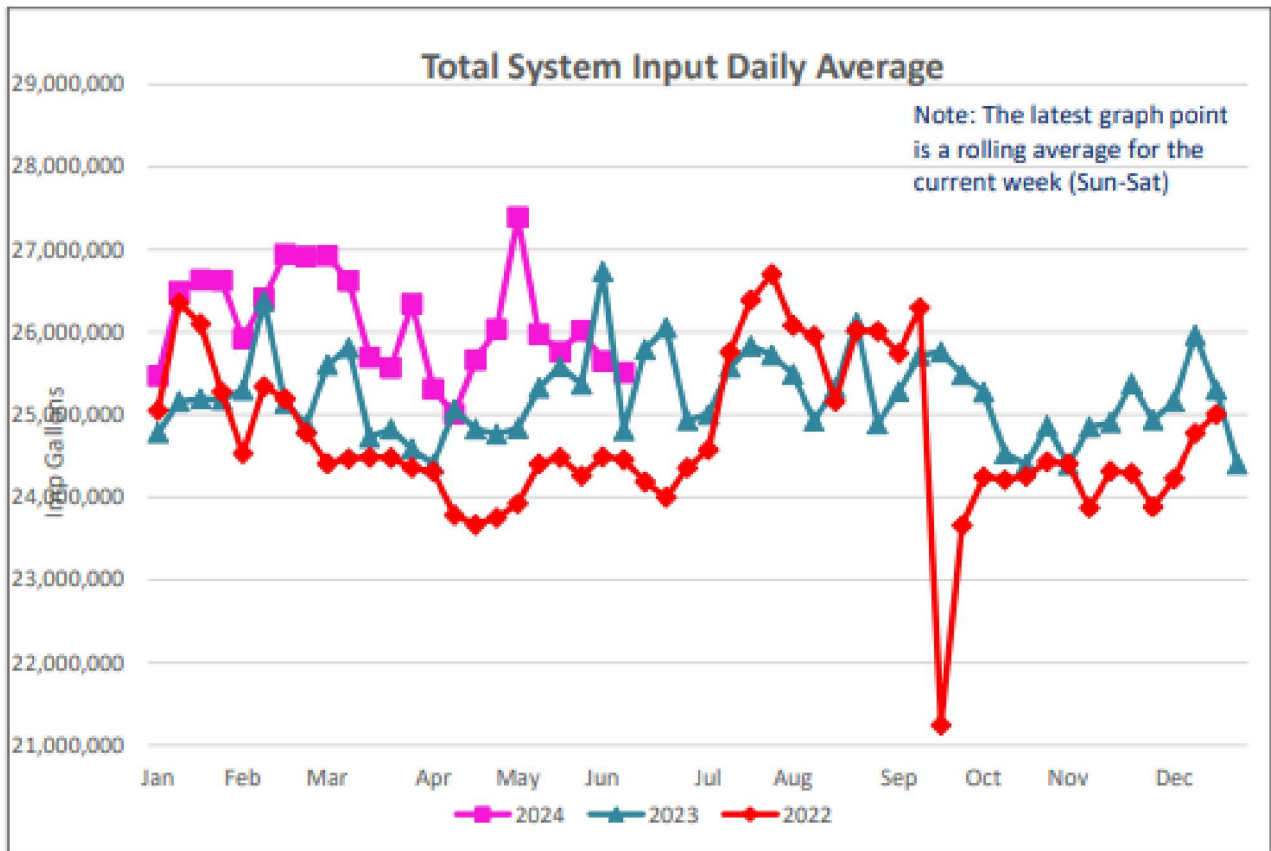
This report provides a high-level overview of operational performance for the utility. The safety statistics results are first, followed by indicators and statistics for water and wastewater.

SAFETY STATISTICS – Q4 – January 1, 2024, to March 31, 2024

Organizational Metrics	Q4 Jan 1 to Mar 31	Year End 2023-24	CBS Target 2023-24
Lost Time Incident Reporting (LTIR) (Lost Time Cases x 200,000 / Total Employee Hours Worked) YTD	2.38	2.38	3
Safe Driving (Number of traffic accidents per 1,000,000 km driven)	5.55	5.55	4
Workplace inspections conducted	39	149	Score
Safety Talks conducted (reported at the end of each quarter)	88%	88%	85%
High Potential/Near Miss	25	87	N/A
Employees on accommodation or gradual return to work	11	47	N/A
WCB claims	3	16	N/A
Work refusals	0	0	N/A
Incidents with written compliance orders	0	0	0-2
Employees trained or recertified before due date	203	86%	85%
<ul style="list-style-type: none"> • Courses Taken 	494	1571	N/A

* Percentage Data generated at year end due to variants in system data (ie. multiple certifications required for one employee)

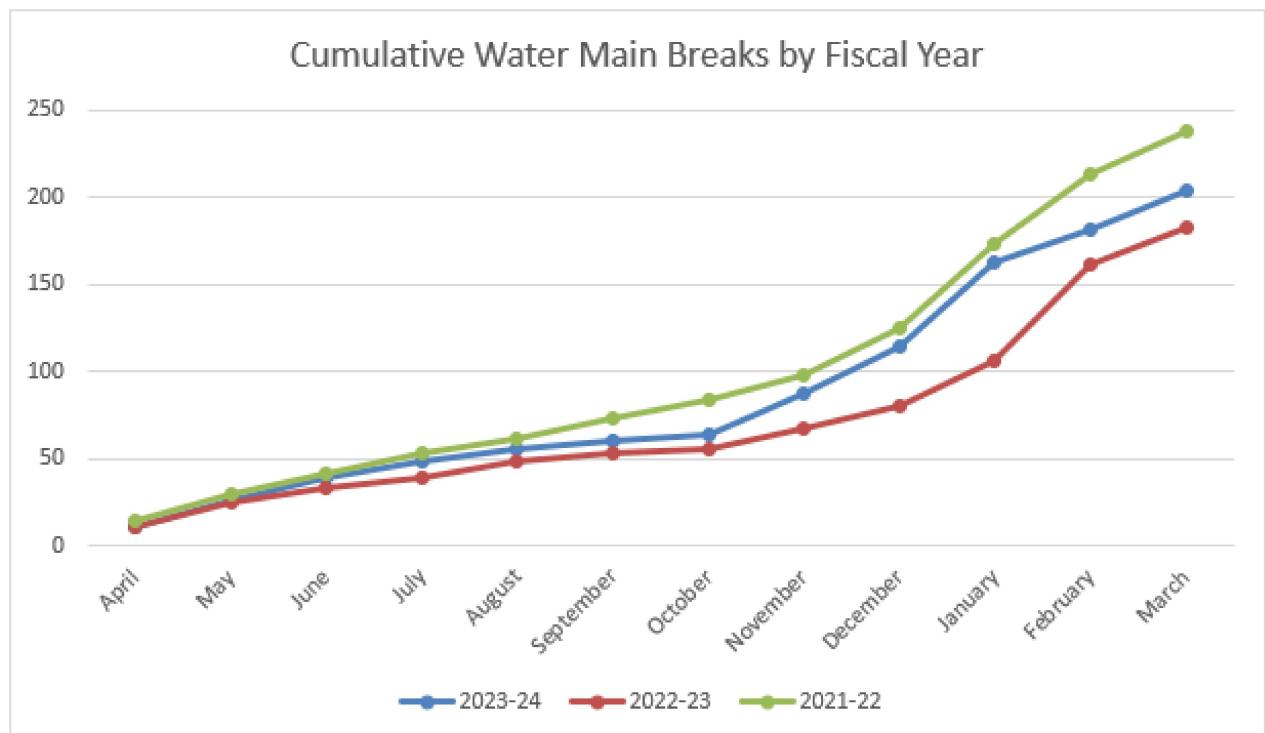
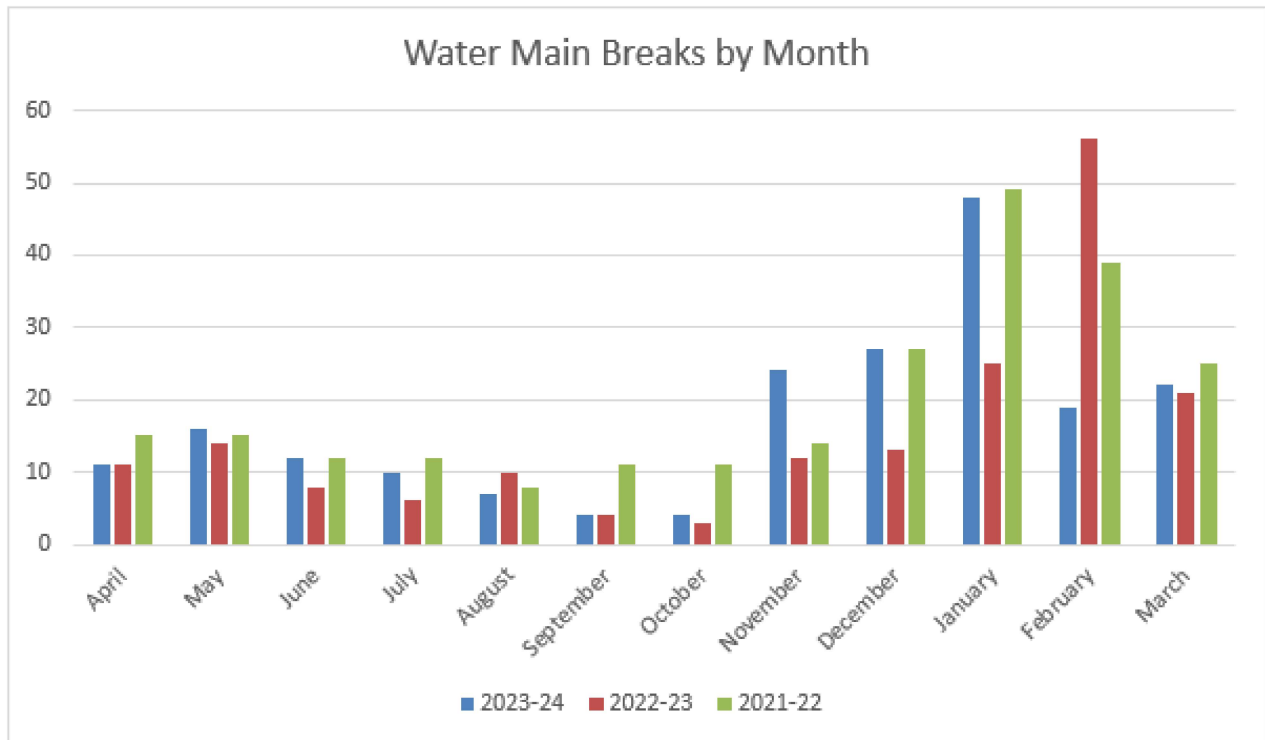
AVERAGE DAILY WATER PRODUCTION



* The decrease from the end of September/beginning of October 2022 is due to the system being out for a significant amount of time during Fiona resulting in data gaps.

Water Accountability
Losses per Service Connection/Day (International Water Association Standard)
<i>Period Ending: March 31, 2024</i>
Real Losses: 238
CBS Target: 160 - 170

REGIONAL WATER MAIN BREAK/LEAK DATA



COMPLIANCE SUMMARY

Water Safety Plan Objectives 2023-2024 Q4				
Objective	Total Sites	% Sites Achieving Target	All Sites: 90th Percentile < 15 µg/L	CBSC Awarded Points
Disinfection	63	100%	---	20
Total Trihalomethanes	25	96%	---	17
Halacetic Acids	21	90%	---	12
Particle Removal	5	97%	---	17
Corrosion Control	123	---	2.25	20
Summary Total				86

Score: 86/100

Bacteriological Results (% Samples absent of Total Coliforms)

99.88%

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 Monthly Compliance Summary																										Toxicity
	January-24								February-24								March-24										
	CBOD ₅ (mg/L)		TSS (mg/L)		E. coli (counts/100mL)		pH		CBOD ₅ (mg/L)		TSS (mg/L)		E. coli (counts/100mL)		pH		CBOD ₅ (mg/L)		TSS (mg/L)		E. coli (counts/100mL)		pH				
	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.			
Halifax	50	46	40	51	5000	0	6.9	6.8	50	30	40	21	5000	0*	6.9	6.8	50	29	40	28	5000	0*	6.9	6.8	Not acutely lethal		
Dartmouth	50	37	40	21	5000	0	6.9	6.8	50	46	40	35	5000	0*	6.9	6.7	50	35	40	37	5000	0*	6.9	6.7	Not acutely lethal		
Herring Cove	50	31	40	30	5000	0	6.9	6.8	50	20	40	12	5000	0*	6.9	6.8	50	15	40	12	5000	0	6.9	6.7	Not acutely lethal		
Eastern Passage	25	8	25	6	200	0	6.9	6.9	25	14	25	14	200	0*	6.9	6.8	25	12	25	11	200	0*	6.9	6.7	Not acutely lethal		
Mill Cove	25	16	25	20	200	13	6.9	6.7	25	18	25	18	200	19	6.9	6.6	25	27	25	45	200	67	6.9	6.7	Not acutely lethal		

Wastewater Treatment Facility	Wastewater Treatment Facility Quarterly Compliance Summary																		Toxicity
	January, February, and March 2024																		
	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)				
NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.		
Springfield	20	3	20	4	200	13	6.9	6.8	-	-	-	-	-	-	-	-	-		
Frame	20	2	20	1	200	10	6.9	7.0	-	-	-	-	-	-	-	-	-		
Middle Musq.	20	5	20	6	200	49	6.9	7.0	-	-	-	-	-	-	-	-	-		
Uplands	20	7	20	6	200	42	6.9	6.9	-	-	-	-	-	-	-	-	-		
Aerotech	5	3	5	1	200	10	6.9	7.1	5.7 W 1.2 S	0.1	0.13	0.03	-	6.5	8.5	Not acutely lethal			
North Preston	10	2	10	4	200	10	6.9	6.8	3	0.4	1.5	0.6	-	-	-	-			
Lockview	20	7	20	7	200	175	6.5-9	6.6	8.0 S	1.8	1.2 S	0.4	-	-	-	-			
Steeves (Wellington)	20	4	20	2	200	10	6.5-9	7.1	14.4 S	0.1	1.0 S	0.1	-	-	-	-			
BLT	15	4	20	15	200	21	6.9	6.9	5 W 3 S	2	3 W 1 S	1	0.02 *	0.10	-	Not acutely lethal			

NOTES & ACRONYMS:

CBOD₅ - Carbonaceous 5-Day Biochemical Oxygen Demand

TSS - Total Suspended Solids

* TRC - Total Residual Chlorine - Bureau Veritas 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

NSECC requires monthly averages be less than the NSECC Compliance Limit for each parameter at Dartmouth, E'n Passage, Halifax, Herring Cove, Mill Cove

NSECC requires quarterly averages be less than the NSECC Compliance Limit for each parameter at Aerotech, Lockview, Middle Musquodoboit, Frame, BLT,

Uplands and Springfield Lake

NSECC requires annual averages be less than the NSECC Compliance Limit for each parameter at North Preston and Steeves

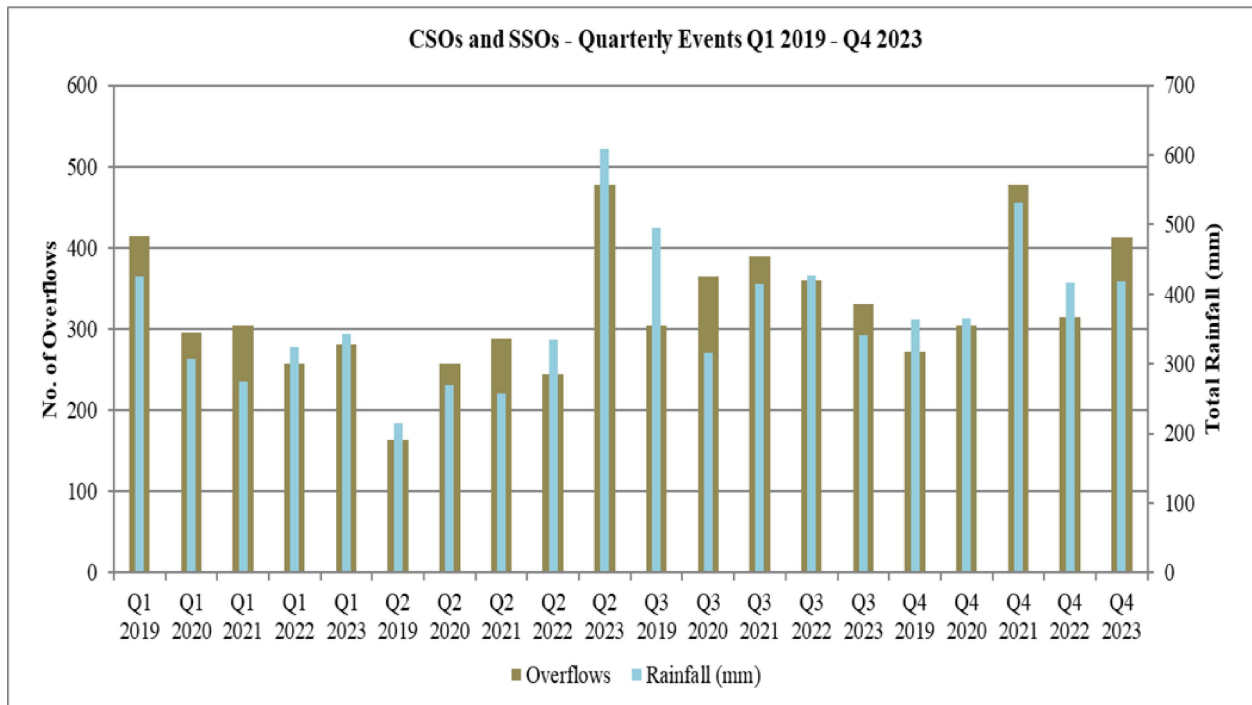
NON-COMPLIANCE EXPLANATIONS:

Halifax WWTF: Operating on single treatment train during emergency work in January.

Mill Cove WWTF: High flows from heavy precipitation reduced the microbiological inventory limiting the process' ability to treat CBOD₅ and decreased settling efficiency resulting in high TSS and CBOD₅ in the effluent.

LEGEND

	NSECC Compliant
	NSECC Non-Compliant



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

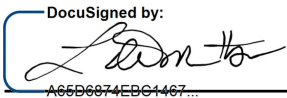
Rainfall data is from Halifax Water’s rain gauge at the Halifax WWTF.

There were thirty overflows in Q4 beginning on days when there was no recorded rainfall, as follows:


1. January 3: The overflows at Old Ferry Rd PS & CSO and Melva St PS & CSO were due to a power outage at DWWTF.
2. January 7: The overflow at Sackville St CSO was due to a blockage caused by debris.
3. January 11: The CSOs at Chain Rock PS & CSO, Duffus St PS & CSO, Pier A PS & CSO, and Maitland St PS & CSO were due to rain on the previous day.
4. January 12: The CSO at Pier A PS & CSO was due to rain on a previous day.
5. January 29: The overflows at Maitland St PS & CSO were due blockages caused by debris.
6. February 6: The overflow at Maitland St PS & CSO was due to a blockage caused by debris.
7. February 10: The CSO at Grove St PS & CSO was due to snow melt and a blockage caused by debris.
8. February 22: The CSO at King St PS & CSO was due to high flows in the system from a nearby watermain break.
9. February 25: The overflows at Maitland St PS & CSO were due blockages caused by debris. The bypass at Eastern Passage WWTF was due to rain on the previous day.

10. March 1: The SSO at Herring Cove PS was due to power outage at the pump station and at the HCWWTF. The CSO at Maitland St PS & CSO was due to rain on the previous day and snow melt.
11. March 2: The bypasses at Mill Cove WWTF were due to rain on a previous day.
12. March 4: The bypass at Mill Cove WWTF was due to rain on the previous day. The overflow at Duffus St PS & CSO was due to an automatic influent gate closure at the Halifax WWTF that resulted from a sudden increase in flows.
13. March 9: The bypass at Mill Cove WWTF was due to rain on the previous day. The CSOs at Chain Rock PS & CSO, Duffus St PS & CSO, Pier A PS & CSO, King St PS & CSO, and Old Ferry Rd PS & CSO were due to a combination of rain on the previous day and power outages.
14. March 31: The overflow at Grove St PS & CSO was due to a blockage caused by debris.

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board as Trustees of the Halifax Regional Water Commission Employees' Pension Plan

SUBMITTED BY: A DocuSigned signature block for Louis de Montbrun. It includes the text 'DocuSigned by:', a handwritten signature, and a long alphanumeric hash: 'A65D6874EBC1467...'.
A65D6874EBC1467...

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

APPROVED: A DocuSigned signature block for Kenda MacKenzie. It includes the text 'DocuSigned by:', a handwritten signature, and a long alphanumeric hash: '8C084AC815794F8...'.
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Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 13, 2024

SUBJECT: **Halifax Regional Water Commission Employees' Pension Plan Financial Report First Quarter, 2024**

ORIGIN

Financial reporting for the Halifax Regional Water Commission Employees' Pension Plan (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, 2024). Favourable or unfavourable variances reported compare actual results to pro-rated budget amounts, for the three (3) month period ending March 31, 2024. Yearend audited results for 2022 and un-audited results for 2023 are shown for comparative purposes. As shown on the statement of changes in net assets available for benefits, net assets available for benefits have increased by \$9.7 million for the three (3) month period ending March 31, 2024. The pro-

rated budget for the period forecasted an increase in net assets of \$2.8 million. Actual results for the period compared to the pro-rated budget result in a favourable variance of \$6.8 million.

The annual budget forecasted revenue of \$10.5 million. Revenue for the period is \$9.1 million, which when compared to the pro-rated revenue budget of \$2.6 million results in a favourable variance of \$6.5 million. Performance of the HRM Master Trust directly drives the revenue figures reported and change in the fair value of investment assets tends to be more volatile compared to contributions and expenses of the Plan. This variance is attributed directly to an increase in the fair value of investment assets of \$8.6 million. Investment income for the period was on budget at \$0.7 million.

Contributions of \$2.1 million are above the pro-rated budget of \$1.9 million by \$0.2 million. This results in a favourable variance of 11% and is due to the number of pays in the first quarter. (I.E., 7 of 26 pay periods paid in the first quarter which represents 27% of the years pays, compared to 25% of the annual budget.)

Expenses of \$1.6 million for the period are lower than the pro-rated budget of \$1.7 million by \$0.1 million or 8%. The main contributor to this variance is termination payouts which are less than the pro-rated budget in the first quarter. Termination payments vary from quarter to quarter and are difficult to predict.

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 31, 2024) have been attached as Appendix D. The primary purpose of the service standard report is to report on the administrative compliance with the Pension Benefits Act of Nova Scotia (the “Act”) respecting the timing of statements or notifications required under the Act, such as:

- Retirement statement to member;
- Notification of options to retiring member;
- Death benefits statement; and
- Statement on termination

A secondary purpose of the report is to provide performance reporting respecting the Plan’s actuaries, for required deliverables based on pre-determined standards. These standards are internal in nature, and mutually agreed upon by the actuary and Halifax Water.

First Quarter results reported in Appendix D show, out of 2 requests submitted for retirement estimates (with options), the retirement package was provided to the member within the prescribed

timelines under the Act, 60 days prior to the Member's intended retirement date. There were 8 terminations during the period, with the terminated employee provided a termination package (with options) within the prescribed timelines under the Act, within 60 days after their termination date.

Performance of the actuary, also reported in Appendix D, shows out of 10 requests in total, the actuary met the pre-determined standard in 7 instances, with average response times for retirement and termination calculation estimates of 10 days. The response time of the actuaries is continuously monitored to ensure required service standards are maintained. Halifax Water will be informed in advance of potential upcoming delays in response times.

ATTACHMENTS

APPENDIX A – Financial Report:

Statement of changes in net assets available for benefits, for the three (3) month period ended March 31, 2024

APPENDIX B – Regulatory Filing Requirements – Q1 2024

APPENDIX C – Administrative Reporting Requirements – Q1 2024

APPENDIX D – Service Standards Report – Q1 2024

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, 2024

Benchmark 25%

	March 31, 2024						Actual (Un-Audited) 2023	Actual (Audited) 2022
	2024 Budget	Actual	Prorated Budget 25%	Actual versus Budget Change				
				\$	%			
Revenue								
Net investment income:								
Total investment income	\$2,800,000	\$705,745	\$700,000	\$5,745	1%	\$3,640,508	\$3,307,029	
Investment manager fees	(\$430,000)	(\$197,323)	(\$107,500)	(\$89,823)	84%	(\$383,410)	(\$388,167)	
Increase (decrease) in the fair value of investment assets	\$8,100,000	\$8,619,969	\$2,025,000	\$6,594,969	326%	\$11,981,675	(\$2,763,692)	
	\$10,470,000	\$9,128,391	\$2,617,500	\$6,510,891	249%	\$15,238,773	\$155,170	
Contributions								
Participants:								
Current service (including Additional Voluntary Contributions)	\$3,890,416	\$1,078,007	\$972,604	\$105,403	11%	\$3,701,095	\$3,375,425	
Reciprocal Transfers	\$0	\$0	\$0	\$0	0%	\$683,465	\$0	
Sponsors:								
Current service	\$3,773,000	\$1,045,109	\$943,250	\$101,859	11%	\$3,588,545	\$3,277,595	
	\$7,663,416	\$2,123,116	\$1,915,854	\$207,262	11%	\$7,973,105	\$6,653,020	
Expenses								
Benefit payments:								
Benefit payments	\$5,536,000	\$1,352,179	\$1,384,000	(\$31,821)	(2%)	\$5,280,758	\$5,089,704	
Termination payments	\$1,000,000	\$158,464	\$250,000	(\$91,536)	(37%)	\$1,470,618	\$909,506	
Death benefit payments	\$0	\$0	\$0	\$0	n/a	\$296,728	\$0	
Administrative:								
Actuarial & consulting fees	\$143,500	\$15,512	\$35,875	(\$20,363)	(57%)	\$77,631	\$99,522	
Audit & accounting fees	\$9,000	\$3,533	\$2,250	\$1,283	57%	\$9,022	\$9,446	
Bank custodian fees	\$26,300	\$7,130	\$6,575	\$555	8%	\$24,509	\$20,941	
Insurance	\$10,600	\$11,130	\$2,650	\$8,480	320%	\$11,130	\$10,600	
Miscellaneous	\$21,200	\$5,524	\$5,300	\$224	4%	\$25,170	\$21,448	
Professional fees	\$44,000	\$15,164	\$11,000	\$4,164	38%	\$44,484	\$40,534	
Registration fees	\$3,000	\$0	\$750	(\$750)	(100%)	\$2,935	\$2,848	
Training (Trustees/ Administration/ Pension Committee)	\$5,000	\$0	\$1,250	(\$1,250)	(100%)	\$0	\$0	
	\$6,798,600	\$1,568,636	\$1,699,650	(\$131,014)	(8%)	\$7,242,985	\$6,204,549	
Increase in net assets available for benefits	\$11,334,816	\$9,682,871	\$2,833,704	\$6,849,167	242%	\$15,968,893	\$603,641	
Net assets available for benefits, beginning of period	\$191,208,896	\$191,208,896				\$175,240,003	\$174,636,362	
Increase (decrease) in net assets available for benefits	\$11,334,816	\$9,682,871				\$15,968,893	\$603,641	
Net assets available for benefits, end of period	\$202,543,712	\$200,891,767				\$191,208,896	\$175,240,003	

Expenses on this statement are reported on a cash basis.

Halifax Regional Water Commission Employees' Pension Plan
Regulatory Filing Requirements - 2024
as at December 31, 2024

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 15, 2024	DB Plan	Filed directly with the Trustee, Northern Trust, for the DB Plan.
			February 15, 2024	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	February 16, 2024	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 30, 2023	DB Plan	2023 audited financial statements were approved by the Halifax Water Audit and Finance Committee on June 12, 2024. Signed financial statements will be submitted to the Superintendent of Pensions once approved by the Halifax Water Board. (Superintendat is notified by letter each year that the financial statements may be later than June 30th due to timing of the Board meeting.)
			June 9, 2023	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 9, 2023	DB Plan	Annual Information Return is in process of being prepared and will be filed prior to June 30th.
			June 9, 2023	DC Plan	Annual Information Return is in process of being prepared and will be filed prior to June 30th.
5 Actuarial Valuation*	Superintendent of Pensions Canada Revenue Agency	September 30th	September 16, 2022 September 16, 2022		Actuarial Valuation was conducted as of January 1, 2022 and has been filed with the Superintendent of Pensions and CRA in September 2022 by Eckler Partner's Ltd.
6 Plan Amendments	Superintendent of Pensions	60 days after the amendment approved by the Board	September 23, 2022	DB Plan	Plan Rules were Amended and Consolidated effective January 1, 2021 and approved by the Halifax Water Board on January 27, 2022. This included amendments 9 through 12, implemented since 2011. Contribution rate changes as determined by the Actuarial Valuation of January 1st, 2022 were submitted to the Superintendent of Pensions and CRA on September 23, 2022.
	Canada Revenue Agency		September 23, 2022		
	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 - 2024
as at December 31, 2024


Report	Filing Deadline/ Recurrence	Date last filed/ Performed		Comments
1 Pensioners' Payroll	Monthly	June 1, 2024		Pensioners are paid the 1st of each month; no exceptions to report for the First Quarter 2024
2 Contributions to the Trustee	Monthly	June 11, 2024	DB Plan	Remittances due to Northern Trust within 30 days of month end; no exceptions to report for the First Quarter 2024.
		January 10, 2024	DC Plan	Remittances due to Industrial Alliance within 30 days of month end; no exceptions to report for the First Quarter 2024.
		n/a	Notional Agreement*	Contributions are not made to an external trustee or custodian. Liability plus interest is reported by Halifax Water annually.
3 Pension Plan Financial Statements	Quarterly	June 20, 2024	DB Plan	Draft 2023 Audited Financial Statements (January - December 2023) approved by the Halifax Water Audit and Finance Committee on June 12, 2024. Provided to the Halifax Water Board for approval on June 20, 2024.
		March 28, 2024	DC Plan	Quarterly statements are not prepared for the Defined Contribution (DC) Plan. A financial report is prepared by Industrial Alliance and that report is filed with the Annual Information Return (AIR) to the regulator annually. The 2023 report was provided to the Halifax Water Board on March 28, 2024.
		n/a	Notional Agreement*	Financial statements not required.
4 Investment Performance Review & Compliance with SIP&P	Quarterly	June 20, 2024	DB Plan	Fourth Quarter 2023 (January - December) Report prepared quarterly by administration staff for the Halifax Water Board of Directors, in conjunction with the quarterly HRM Pension Plan Committee meeting documentation. Statement of Investment Policies & Procedures (SIP&P) is reviewed annually and was last reviewed and approved on December 7, 2023.
5 Annual Pension Statements to Members	June 30th	June 27, 2023	DB Plan	Statements issued annually by June 30th.
		June 27, 2023	DC Plan	Statements issued annually in conjunction with the Defined Benefit (DB) Plan statements. Members also have access to online, real-time reporting.
		June 27, 2023	Notional Agreement*	Statements issued annually in conjunction with the DB Plan statements.
6 Fiduciary Liability Insurance	Annually	October 25, 2023	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 - 2024

Quarter 1 (as at March 31, 2024)									
Transaction	Actuary					HW Staff		Total Average Service Days	Compliance with PBA
	Standard	Total # Completed	# Past Standard	% within Standard	Average Service Days	Total # Completed	Average Service Days		
Retirement Estimates	11 Business Days	2	1	50%	10	2	15	25	Yes
Marriage Breakdown Calculations	15 Business Days								
Post-Retirement Death Letter	15 Business Days								
Pre-Retirement Death Benefit	15 Business Days								
Termination Estimate Calculations - Standard	11 Business Days	8	2	75%	10	8	20	30	Yes
- Non Standard (Incl RTAs)	15 Business Days								
	Total for Actuary	10	3	70%	10	10	18	28	

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board as Trustees of the Halifax Regional Water Commission Employees' Pension Plan

SUBMITTED BY: A DocuSigned signature box containing a handwritten signature in black ink. The signature appears to be 'Louis de Montbrun'. Below the signature is a horizontal line and a small alphanumeric string: 'A65D6874EBC1467...'

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

APPROVED: A DocuSigned signature box containing a handwritten signature in black ink. The signature is 'Kenda MacKenzie'. Below the signature is a horizontal line and a small alphanumeric string: 'UC084AC815794F6...'

Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 14, 2024

SUBJECT: **Halifax Regional Municipality Master Trust Investment Performance, Fourth Quarter, 2023**

ORIGIN

The Halifax Regional Municipality Master Trust (the “Master Trust”) investment performance is reported to the Halifax Regional Water Commission Board as Trustees of the Halifax Regional Water Commission Employees’ Pension Plan periodically throughout the year.

BACKGROUND

None

DISCUSSION

The table below and the attached Investment Report provide a performance update for the Fourth Quarter of 2023 (January to December) for the Master Trust, of which Halifax Regional Water Commission Employees’ Pension Plan (the “Plan”) is a part. The fair value of the investment in the Master Trust is determined and updated at year-end, and the Plan’s share in the Master Trust at December 31, 2023 was 6.62%, totaling \$189.4 million.

The Master Trust earned 3.61% in the Fourth Quarter, which underperformed the Fourth Quarter policy benchmark of 5.49% by 1.88%. The return for the 1-year period ended December 31, 2023

was 9.03%, underperforming the 1-year policy benchmark of 12.37% by 3.34%. Other historical returns are provided in Table 1 below.

Table 1 – Returns

	Current				
	Quarter (Oct - Dec)	1-Year	3 - Year Annualized	4 - Year Annualized	Inception To Date
Fund Return	3.61%	9.03%	6.73%	6.95%	7.14%
Policy Benchmark	5.49%	12.37%	4.78%	5.56%	5.67%
Excess Return	-1.88%	-3.34%	1.95%	1.39%	1.47%

The total fund returns are subject to investment management fees and plan expenses.

As at December 31, 2023, the Master Trust was in compliance with the Statement of Investment Policies and Procedures (SIP&P).

ATTACHMENT

Attachment 1 – HRM Master Trust Investment Performance Q4 2023

Attachment 2 – HRM Master Trust Investment Risk & Analytical Services Q4 2023

Plan Performance

Plan Performance Summary

	Q4	1 year	4 year
Total Plan	3.6%	9.0%	7.0%
Benchmark	5.5%	12.4%	5.6%
Value Add	-1.9%	-3.4%	1.4%

	Q4	1 year	4 year
Equities	5.6%	12.7%	6.3%
Benchmark	8.2%	17.1%	7.8%
Value Add	-2.6%	-4.4%	-1.5%

	Q4	1 year	4 year
Fixed Income	5.0%	6.7%	2.8%
Benchmark	5.7%	7.4%	1.0%
Value Add	-0.7%	-0.7%	1.8%

Plan Performance Summary

	Q4	1 year	4 year
Real Assets	-0.3%	6.7%	
Benchmark	2.1%	8.5%	
Value Add	-2.4%	-1.8%	

	Q4	1 year	4 year
Public Market Alternatives	3.0%	6.5%	
Benchmark	2.1%	8.6%	
Value Add	0.9%	-2.1%	



HRM Master Trust

Investment Risk & Analytical Services

December 31, 2023

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SECTION 1

HRM Master Trust

Investment Risk & Analytical Services

December 31, 2023

Market Overview

MARKET OVERVIEW - FOURTH QUARTER 2023

PROVIDED BY NORTHERN TRUST ASSET MANAGEMENT

MISSION ACCOMPLISHED? ... Entering 2024, the Federal Reserve appears set to proclaim inflationary mission accomplished – and in soft-landing fashion. Investors welcomed the Fed’s evolving message on monetary policy, with global equity markets up 11% (12% in the U.S.) in the quarter. The strong finish to an already strong year was largely driven by the reversal of rising interest rates. After peaking at 4.99% on October 19, 10-year U.S. Treasury yields ended 2023 at 3.88% – interestingly, right near where they started the year. As we progress into 2024, investor attention may shift from the mission to tame inflation to the mission to calm geopolitical tensions.

Is the inflation mission fully accomplished yet? The Fed’s preferred measure of inflation – Core Personal Consumption Expenditures (PCE) – has fallen to 3.2% from a cycle high of 5.6% while the six-month annualized inflation level actually sits below the Fed’s 2% inflation target at 1.9%. The shift in inflation trends has been accompanied by a shift in “Fedspeak” – with Fed Chair Jerome Powell’s cheerful holiday message after the December 13 Fed meeting receiving only modest pushback in subsequent speaking appearances from other Fed officials. Investors are now expecting six rate cuts in 2024, starting in March. That said, the Fed – per its Summary of Economic Projections – is collectively only calling for three cuts this year, while continuing to provide assurance they will see their mission through if inflation shows signs of moving higher again.

Geopolitics: Mission impossible? Should inflation maintain its current trajectory lower, investor attention will stray from monetary policy to focus more directly on ongoing geopolitical tensions – for which near-term resolution appears difficult. Most pressing at the moment is the free movement of goods through the Red Sea, which carries around 12% of global trade. As Iranian-backed Houthi rebels ramp up their attacks on Red Sea-faring vessels, companies (over concern for their employees) are rerouting ships and insurance providers (over concern for their capital) are declining to provide standard coverage. Should the conflict jump the Arabian peninsula to the Strait of Hormuz in the Persian Gulf – where around 20% of global oil passes – the geopolitical challenges will likely become much more acute. Complicating matters further, almost half of the world’s 7.9 billion people will have an election in 2024. The election slate is headlined by the U.S. presidential cycle, kicking off on January 15 with the Iowa Caucuses. Just as important is the January 13 Taiwan presidential election, which risks refreezing recently thawed U.S.-China relations should the pro-independence Democratic Progressive Party nominee, Lai Ching-te, win (as expected). Any escalation in this cold war could quickly jump over the hot wars to the front of the queue as an area of investor concern – certainly with respect to the longer-term financial market outlook.

FOURTH QUARTER 2023 TOTAL RETURNS (%)

The reversal of rising interest rates led most asset classes to finish out 2023 in strong fashion.

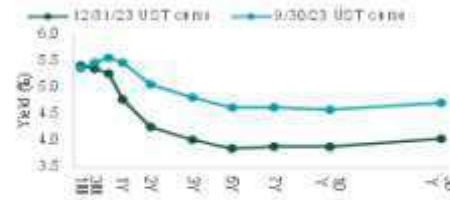


Source: Northern Trust Asset Management, Bloomberg. NR: Natural Resources; GRE: Global Real Estate; GLI: Global Listed Infrastructure.

Interest Rates

Treasury yields moved sharply lower across the quarter after peaking at cycle highs in October. The 2-year yield declined ~80 basis points (bps), with the 10-year yield down ~70 bps. Investors pulled forward expectations for the first Fed rate cut to March (from July), with six cuts expected in 2024 (up from three). The Fed held its policy rate but its broader messaging indicated policy members expect a pivot to lower rates in 2024 as well. Specifically, its latest economic projections call for three rate cuts and a soft-landing-type backdrop in 2024.

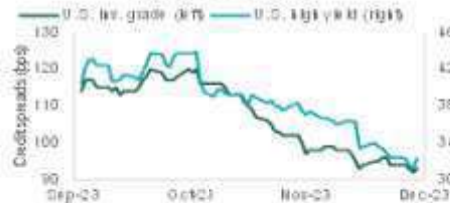
U.S. TREASURY YIELD CURVE



Credit Markets

It was a solid quarter for spread products with help from both lower government bond yields and tighter credit spreads. Investment grade (IG) and high yield (HY) credit spreads widened alongside summing interest rates before spreads firmly tightened alongside the rate reprieve. IG and HY credit spreads narrowed 19 and 73 bps, respectively, with both finishing at levels tighter than long-term averages. From a return standpoint, IG fixed income produced an abnormally robust return of 6.8%. HY also delivered an outsized gain at 7.2%.

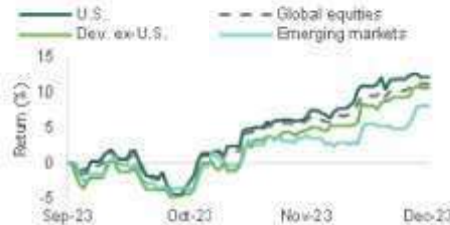
CREDIT SPREADS



Equities

Global equities finished the quarter with an 11.1% gain after surging 15% across November and December. All major regions partook in the rally as growing investor belief in benign inflation led to a dovish repricing in expectations for central bank activity. U.S. equities led the charge amid a durable macro backdrop that allowed for better market breadth. 2024 earnings expectations moved up, but most of the gains were valuation driven. U.S. valuations sit well above the long-term median, while non-U.S. prices are closer to historical norms.

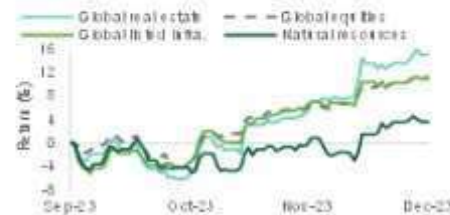
REGIONAL EQUITY INDICES



Real Assets

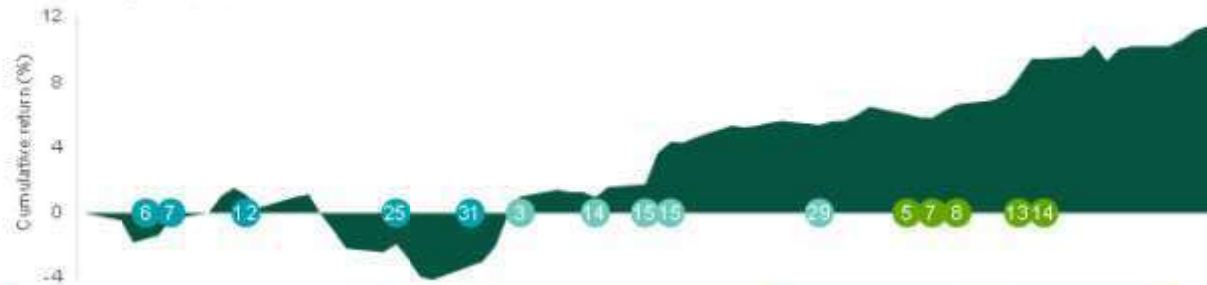
Real estate was a standout performer with a 15% gain. The interest rate rollover amid non-recessionary growth conditions were tailwinds for the asset class, which had lagged global equities the prior six successive quarters. With interest rate support, global infrastructure kept pace with global equities – a respectable outcome given its lower risk profile. Natural resources registered an underwhelming 3.6% gain, with weakness mainly within energy. War-related risk premiums were seemingly overpowered by future demand uncertainty.

REAL ASSET INDICES



MARKET EVENTS

■ 4Q 2023 global equity total return: 11.1%



OCTOBER	NOVEMBER	DECEMBER
<p>6 A blowout increase in U.S. jobs added contributes to intermediate-to-longer term Treasury yields rising to levels last reached in 2007.</p>	<p>1 U.S. equities post a 6% weekly gain and interest rates move sharply lower as the Fed stays on hold and U.S. hiring slows.</p>	<p>5 Moody's lowers its outlook for China's credit rating to negative on debt concerns. Toward the end of the week, Politburo indicates more proactive fiscal policy in 2024.</p>
<p>7 Markets contend with new geopolitical risks after Hamas' surprise attack on Israel; broader escalation risks are contained during the quarter.</p>	<p>14 U.S. inflation decelerates and is milder than expected, especially when accounting for upward impacts due to changes in health care accounting.</p>	<p>7 Comments from BOJ Governor Ueda raise suspicion that the central bank may exit negative interest rates sooner than expected.</p>
<p>12 U.S. headline inflation rises more than expected as the 'super core' measure (core services ex-housing) posts a strong 0.6% monthly increase.</p>	<p>15 President Xi and President Biden meeting is de-escalatory, though it gives little reason to believe that the longer-term strategic rivalry will change course.</p>	<p>8 U.S. jobs report underscores ongoing strength while job openings data released the day before shows a declining supply shortfall.</p>
<p>25 The United Auto Workers (UAW) reaches tentative agreements with Ford Motors and Stellantis that include 25% wage hikes over roughly four years.</p>	<p>15 The U.S. passes a short-term funding bill excluding wartime aid to keep the government funded for roughly two more months.</p>	<p>13 Fed communication suggests rate hikes are done and rate cuts are expected in 2024.</p>
<p>31 The Bank of Japan (BOJ) introduces flexibility around yield curve control, now referring to a 1% yield as a "reference" rather than a "ceiling" for 10-year government bonds.</p>	<p>25 Third quarter U.S. Gross Domestic Product is upwardly revised from 4.9% to 5.2% – the fastest pace in almost two years.</p>	<p>14 The European Central Bank pushes against rate cut expectations; the Bank of England leaves its policy rate unchanged, though three of nine members vote for a rate hike.</p>

IMPORTANT INFORMATION

Indexes used: Bloomberg Barclays (BBC) 1-3 Month UST (Cash); BBC Municipal (Muni); BBC Aggregate (Inv. Grade); BBC TIPS (TIPS); BBC High Yield 2% Capped (High Yield); JP Morgan GBI-EM Global Diversified (Em. Markets Fixed Income); MSCI U.S. Equities IMI (U.S. Equities); MSCI World ex-U.S. IMI (Dev. ex-U.S. Equities); MSCI Emerging Market Equities IMI (Em. Markets Equities); S&P Global Natural Resources (Natural Resources); MSCI ACWI IMI Core Real Estate (Global Real Estate); S&P Global Infrastructure (Global Listed Infrastructure).

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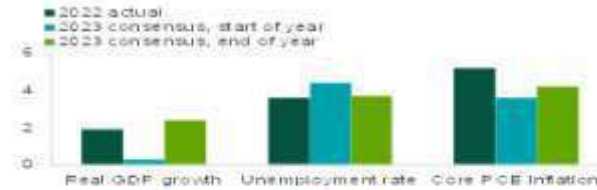
Northern Trust Asset Management is composed of Northern Trust Investments, Inc. Northern Trust Global Investments Limited, Northern Trust Fund Managers (Ireland) Limited, Northern Trust Global Investments Japan, K.K, NT Global Advisors, Inc., 50 South Capital Advisors, LLC, Belvedere Advisors LLC, Northern Trust Asset Management Australia Pty Ltd, and investment personnel of The Northern Trust Company of Hong Kong Limited and The Northern Trust Company.

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Soft Landing in Sight?

U.S. economic resilience remained on center stage in 4Q with 2023 real GDP growth set to finish near 2.5% – a far cry from early-year fears of a recession. Much of the resilience ties back to the U.S. consumer – insulated to a degree from higher rates and supported by a firm labor market. Core inflation continued to move lower with goods deflation helping offset more sticky services inflation. Housing-related inflation is still elevated but it operates on a lag and future moderation is expected given trends in rent over the last year.

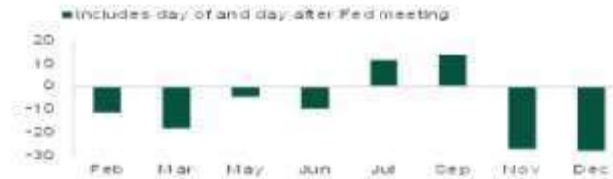
CONSENSUS U.S. ECONOMIC DATA (%)



Season's Greetings from the Fed

The Fed did little to dampen soft landing hopes and the easing in financial conditions. Fed officials expressed more optimism on inflation normalizing without major labor market disruption. In December, Fed Chair Powell implied the Fed is done hiking and offered an optimistic take on inflation progress – leading to sharp further declines in Treasury yields. Outside the U.S., the European Central Bank and Bank of England are also likely done hiking, but face a more delicate situation with weaker growth and higher inflation versus the U.S.

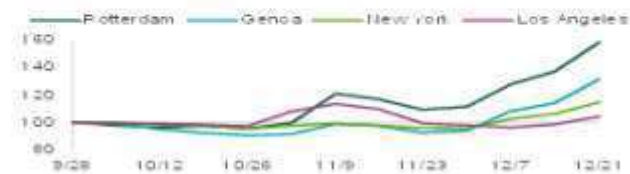
CHANGE IN 10-YEAR TREASURY YIELD (BPS)



Rising Geopolitical Risk

The brutal Hamas attack on Israel led to risk of a broad Middle East conflict and oil supply disruption. The war has been largely contained so far. But the Iran-aligned Houthis picked up attacks on shipping vessels in December, causing re-routing away from the Red Sea. Roughly 30% of container shipping flows through the Suez Canal, including many Asia-to-Europe routes. Although not unusual to see higher prices from Asia in 4Q given holiday trade flows, shipping rates on Asia-to-Europe routes surged, reflecting rising geopolitical risk.

SHIPPING RATES: SHANGHAI TO... (INDEXED TO 100)



Sprint to the Finish Line

Equity market gains broadened in the last two months of 2023 with help from lower interest rates. The average U.S. stock performed well while previously lagging areas (e.g., small caps, regional banks, real estate, unprofitable tech companies) rebounded nicely. The "Magnificent Seven" stocks still held their ground, capping a fantastic run in 2023. This group accounted for roughly 60% of the S&P 500's 26% gain in 2023. Meanwhile, the sharp decline in rates helped long-term Treasuries avoid a third consecutive year of losses.

YEAR-TO-DATE RETURNS AS OF... (%)



Investment Hierarchy

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
HRM Master Trust	2,862,672,016	100.00	0.90	3.61	9.03	9.03	6.73	6.95	7.79	7.14	09/30/1999
<i>HRM Policy Benchmark</i>			1.75	5.49	12.37	12.37	4.78	5.56	6.00	5.67	09/30/1999
<i>Excess Return</i>			-0.85	-1.88	-3.34	-3.34	1.95	1.39	1.79	1.47	09/30/1999
HRM Total Equity	1,360,889,937	47.54	1.71	5.61	12.72	12.72	5.40	6.31	-	7.47	12/31/2015
<i>HRM Total Equity Benchmark</i>			2.50	8.24	17.14	17.14	6.57	7.81	-	8.63	12/31/2015
<i>Excess Return</i>			-0.79	-2.63	-4.42	-4.42	-1.16	-1.50	-	-1.16	12/31/2015
HRM Cdn Equity	111,069,483	3.88	3.57	9.11	12.34	12.34	9.78	7.35	4.97	5.00	03/31/2006
<i>S&P/TSX Composite</i>			3.91	8.10	11.75	11.75	9.59	8.58	7.62	6.23	03/31/2006
<i>Excess Return</i>			-0.34	1.01	0.59	0.59	0.18	-1.23	-2.65	-1.23	03/31/2006
Blackrock	107,954,257	3.77	3.67	8.81	12.29	12.29	10.15	8.93	7.59	8.49	12/31/2003
<i>S&P/TSX Composite</i>			3.91	8.10	11.75	11.75	9.59	8.58	7.62	7.79	12/31/2003
<i>Excess Return</i>			-0.24	0.71	0.54	0.54	0.56	0.35	-0.02	0.70	12/31/2003
P2P Holdings	3,115,226	0.11	0.10	19.64	13.89	13.89	2.70	-7.12	-	-23.93	02/03/2017
<i>S&P/TSX Composite</i>			3.91	8.10	11.75	11.75	9.59	8.58	-	7.74	02/03/2017
<i>Excess Return</i>			-3.81	11.53	2.14	2.14	-6.89	-15.70	-	-31.67	02/03/2017
HRM Global Equity	830,881,305	29.02	2.60	8.59	17.94	17.94	-	-	-	17.94	12/31/2022
<i>HRM Custom Global Equity Index</i>			2.67	8.65	18.65	18.65	-	-	-	18.65	12/31/2022
<i>Excess Return</i>			-0.07	-0.06	-0.70	-0.70	-	-	-	-0.70	12/31/2022
AB EDHEC	147,846,935	5.16	2.70	8.08	15.56	15.56	7.84	7.50	-	8.21	12/31/2015
<i>MSCI World ND</i>			2.03	8.66	20.47	20.47	8.51	9.82	-	9.61	12/31/2015
<i>Excess Return</i>			0.68	-0.58	-4.91	-4.91	-0.67	-2.32	-	-1.40	12/31/2015
Blackrock Global Alpha Advanta	138,934,471	4.85	1.48	10.68	25.91	25.91	-	-	-	9.92	05/25/2021
<i>MSCI ACWI ND</i>			1.92	8.29	18.92	18.92	-	-	-	6.31	05/25/2021
<i>Excess Return</i>			-0.44	2.39	6.98	6.98	-	-	-	3.61	05/25/2021
Blackrock MSCI Small Cap	51,827,668	1.81	6.79	10.09	13.51	13.51	-	-	-	2.76	05/19/2021
<i>MS Wld Small Cap Net Index</i>			6.61	9.69	12.65	12.65	-	-	-	2.26	05/19/2021
<i>Excess Return</i>			0.18	0.39	0.86	0.86	-	-	-	0.50	05/19/2021
Blackrock MSCI World Passive	144,857,173	5.06	2.06	8.79	20.97	20.97	-	-	-	9.28	05/12/2021
<i>MSCI World ND</i>			2.03	8.66	20.47	20.47	-	-	-	8.86	05/12/2021
<i>Excess Return</i>			0.03	0.12	0.51	0.51	-	-	-	0.42	05/12/2021
Global Alpha	51,027,937	1.78	7.93	8.04	6.60	6.60	-	-	-	0.61	03/09/2022
<i>MS Wld Small Cap Net Index</i>			6.61	9.69	12.65	12.65	-	-	-	4.39	03/09/2022
<i>Excess Return</i>			1.33	-1.66	-6.05	-6.05	-	-	-	-3.78	03/09/2022

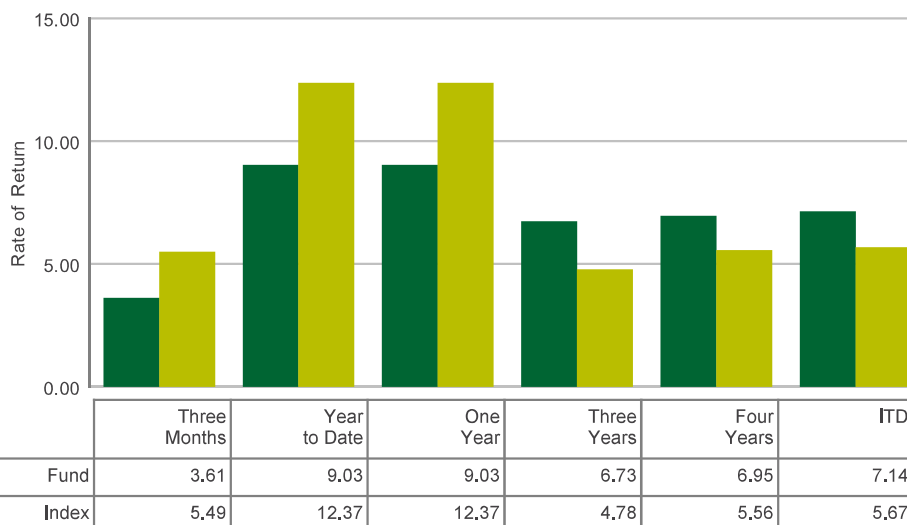
Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
Marathon International Equity	71,105,282	2.48	2.99	6.58	13.65	13.65	-	-	-	3.03	05/28/2021
<i>MSCI EAFE ND</i>			2.42	7.69	15.07	15.07	-	-	-	4.20	05/28/2021
<i>Excess Return</i>			0.57	-1.11	-1.42	-1.42	-	-	-	-1.17	05/28/2021
Mawer International Equity	83,293,142	2.91	2.29	8.53	14.24	14.24	-	-	-	2.11	02/28/2021
<i>MSCI ACWI ex USA ND</i>			2.14	7.04	12.51	12.51	-	-	-	2.32	02/28/2021
<i>Excess Return</i>			0.15	1.48	1.73	1.73	-	-	-	-0.21	02/28/2021
Wellington US Equity	141,988,697	4.96	0.87	7.66	21.28	21.28	12.11	13.42	12.55	13.64	04/30/2011
<i>HRM US Equity</i>			1.67	8.93	22.90	22.90	11.20	12.33	11.75	12.38	04/30/2011
<i>Excess Return</i>			-0.80	-1.27	-1.62	-1.62	0.90	1.09	0.80	1.26	04/30/2011
HRM Emerging Markets	98,276,757	3.43	0.61	3.81	7.23	7.23	-5.04	-0.30	5.03	4.75	09/30/2010
<i>MSCI Emerging Markets ND</i>			1.05	5.20	6.88	6.88	-3.98	0.72	4.90	4.02	09/30/2010
<i>Excess Return</i>			-0.45	-1.39	0.35	0.35	-1.06	-1.02	0.13	0.74	09/30/2010
CC&L Emerging Markets	43,915,240	1.53	1.03	4.88	-	-	-	-	-	-	12/31/2022
<i>MSCI Emerging Markets ND</i>			1.05	5.20	6.88	6.88	-	-	-	6.88	12/31/2022
<i>Excess Return</i>			-0.03	-0.32	-	-	-	-	-	-	12/31/2022
Trinetra Emerg Mrkts Grwth Fnd	54,361,517	1.90	0.27	2.97	4.28	4.28	-5.94	-0.47	-	2.23	08/31/2017
<i>MSCI Emerging Markets ND</i>			1.05	5.20	6.88	6.88	-3.98	0.72	-	2.26	08/31/2017
<i>Excess Return</i>			-0.78	-2.23	-2.60	-2.60	-1.96	-1.18	-	-0.03	08/31/2017
HRM Private Equity	320,662,392	11.20	-0.79	-1.95	2.04	2.04	19.27	16.17	18.82	19.68	09/30/2011
<i>HRM PE Benchmark</i>			2.19	9.19	22.84	22.84	11.67	10.29	7.93	7.67	09/30/2011
<i>Excess Return</i>			-2.98	-11.14	-20.80	-20.80	7.60	5.88	10.89	12.01	09/30/2011
Private Equity	320,662,392	11.20	-0.79	-1.95	2.04	2.04	19.27	16.17	18.82	19.68	09/30/2011
HRM Total Fixed Income	605,224,755	21.14	2.16	4.96	6.73	6.73	1.13	2.78	-	3.08	12/31/2015
<i>HRM FI Benchmark</i>			2.42	5.69	7.39	7.39	-0.11	1.02	-	1.67	12/31/2015
<i>Excess Return</i>			-0.25	-0.73	-0.66	-0.66	1.24	1.76	-	1.41	12/31/2015
Cash and Cash Equivalents	18,465,294	0.65	-0.13	0.73	3.99	3.99	1.59	1.60	2.28	4.31	03/31/2009
<i>3M CAD Bankers Acceptance Rate</i>			0.45	1.38	5.43	5.43	2.94	2.41	1.79	1.56	03/31/2009
<i>Excess Return</i>			-0.59	-0.65	-1.44	-1.44	-1.35	-0.81	0.50	2.75	03/31/2009
Lincluden CDOR	18,465,294	0.65	-0.13	0.73	3.99	3.99	2.29	2.05	1.72	1.72	12/31/2013
<i>3M CAD Bankers Acceptance Rate</i>			0.45	1.38	5.43	5.43	2.94	2.41	1.79	1.79	12/31/2013
<i>Excess Return</i>			-0.59	-0.65	-1.44	-1.44	-0.65	-0.36	-0.07	-0.07	12/31/2013
Global Credit	71,603,518	2.50	1.90	3.94	6.80	6.80	-	-	-	2.56	03/31/2022
<i>Global Credit Custom Benchmark</i>			1.82	3.90	6.53	6.53	-	-	-	2.08	03/31/2022
<i>Excess Return</i>			0.08	0.04	0.27	0.27	-	-	-	0.49	03/31/2022

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
AB Global Credit	71,603,518	2.50	1.90	3.94	6.80	6.80	0.88	1.35	2.86	4.90	03/31/2009
<i>Global Credit Custom Benchmark</i>			1.82	3.90	6.53	6.53	-	-	-	-	03/31/2009
<i>Excess Return</i>			0.08	0.04	0.27	0.27	-	-	-	-	03/31/2009
North American Credit	192,580,431	6.73	2.49	3.95	9.36	9.36	4.70	7.58	-	6.13	12/31/2015
<i>HRM Custom Corporate Benchmark</i>			2.43	5.74	7.16	7.16	-1.60	0.89	-	2.45	12/31/2015
<i>Excess Return</i>			0.06	-1.79	2.20	2.20	6.30	6.69	-	3.68	12/31/2015
Canso	90,574,593	3.16	2.65	4.20	10.88	10.88	5.33	9.71	7.13	8.07	02/28/2010
<i>FTSE TMX Corporate Bond IDX</i>			3.27	7.63	8.37	8.37	-1.23	1.17	3.10	3.67	02/28/2010
<i>Excess Return</i>			-0.62	-3.44	2.51	2.51	6.56	8.54	4.04	4.40	02/28/2010
HRM Corporate Debt	102,005,838	3.56	2.36	3.73	8.12	8.12	3.69	4.29	-	6.31	01/31/2014
<i>FTSE TMX Short Corp BD IDX</i>			1.91	4.78	6.68	6.68	0.49	1.92	-	2.27	01/31/2014
<i>Excess Return</i>			0.45	-1.04	1.44	1.44	3.21	2.38	-	4.04	01/31/2014
Government Bonds	210,647,793	7.36	3.62	8.36	5.76	5.76	-2.70	0.25	-	1.48	12/31/2015
<i>FTSE TMX Government Univers</i>			3.48	8.49	6.11	6.11	-3.36	-0.48	-	1.12	12/31/2015
<i>Excess Return</i>			0.14	-0.13	-0.35	-0.35	0.66	0.73	-	0.36	12/31/2015
Lincluden Gov't	117,585,845	4.11	3.78	8.90	6.77	6.77	-2.68	0.11	2.39	2.40	08/31/2013
<i>FTSE TMX Government Univers</i>			3.48	8.49	6.11	6.11	-3.36	-0.48	2.18	2.18	08/31/2013
<i>Excess Return</i>			0.30	0.41	0.65	0.65	0.68	0.59	0.21	0.22	08/31/2013
Wellington Bond Overlay	93,061,948	3.25	3.42	7.68	3.97	3.97	-2.76	0.40	2.77	2.20	08/31/2012
<i>FTSE TMX Government Univers</i>			3.48	8.49	6.11	6.11	-3.36	-0.48	2.18	1.80	08/31/2012
<i>Excess Return</i>			-0.07	-0.81	-2.14	-2.14	0.60	0.88	0.60	0.40	08/31/2012
Private Debt	111,927,719	3.91	-0.52	2.08	4.02	4.02	10.90	8.79	8.37	0.77	12/31/2011
<i>HRM PD Benchmark</i>			1.85	3.71	14.75	14.75	9.16	8.43	7.20	7.08	12/31/2011
<i>Excess Return</i>			-2.37	-1.63	-10.73	-10.73	1.74	0.36	1.18	-6.31	12/31/2011
Private Debt	111,927,719	3.91	-0.52	2.08	4.02	4.02	10.90	8.79	8.37	0.77	12/31/2011
HRM Real Assets	745,695,267	26.05	-1.55	-0.27	6.72	6.72	-	-	-	6.72	12/31/2022
<i>Rolling CPI 5 year + 5%</i>			0.69	2.08	8.52	8.52	-	-	-	8.52	12/31/2022
<i>Excess Return</i>			-2.24	-2.35	-1.79	-1.79	-	-	-	-1.79	12/31/2022
Infrastructure	333,102,232	11.64	-1.21	2.21	17.34	17.34	13.51	12.78	10.06	18.42	06/30/2011
<i>HRM Infrastructure Index</i>			0.09	1.10	8.55	8.55	10.05	8.97	7.70	7.36	06/30/2011
<i>Excess Return</i>			-1.31	1.11	8.79	8.79	3.46	3.82	2.36	11.07	06/30/2011
Infrastructure	333,102,232	11.64	-1.21	2.21	17.34	17.34	13.51	12.78	10.06	18.42	06/30/2011
Real Estate	412,593,036	14.41	-1.81	-2.17	-0.92	-0.92	9.82	8.50	11.34	11.12	09/30/2011
<i>HRM Real Estate Index</i>			0.09	1.10	8.55	8.55	10.05	8.97	7.70	7.35	09/30/2011
<i>Excess Return</i>			-1.91	-3.27	-9.47	-9.47	-0.24	-0.47	3.64	3.77	09/30/2011
Real Estate	412,593,036	14.41	-1.81	-2.17	-0.92	-0.92	9.82	8.50	11.34	11.12	09/30/2011

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
Public Market Alternatives	133,754,554	4.67	2.01	3.00	6.46	6.46	-	-	-	5.09	02/28/2022
<i>3M CAD Bankers Acceptance R+3%</i>			<i>0.70</i>	<i>2.13</i>	<i>8.58</i>	<i>8.58</i>	-	-	-	<i>7.64</i>	<i>02/28/2022</i>
<i>Excess Return</i>			<i>1.31</i>	<i>0.87</i>	<i>-2.12</i>	<i>-2.12</i>	-	-	-	<i>-2.55</i>	<i>02/28/2022</i>
Public Market Alternatives	133,754,554	4.67	2.01	3.00	6.46	6.46	-	-	-	5.09	02/28/2022
<i>3M CAD Bankers Acceptance R+3%</i>			<i>0.70</i>	<i>2.13</i>	<i>8.58</i>	<i>8.58</i>	-	-	-	<i>7.64</i>	<i>02/28/2022</i>
<i>Excess Return</i>			<i>1.31</i>	<i>0.87</i>	<i>-2.12</i>	<i>-2.12</i>	-	-	-	<i>-2.55</i>	<i>02/28/2022</i>
HRM Operating	17,107,502	0.60	-	-	-	-	-	-	-	-	12/31/2015
Operating Account	17,107,502	0.60	-	-	-	-	-	-	-	-	03/31/2004

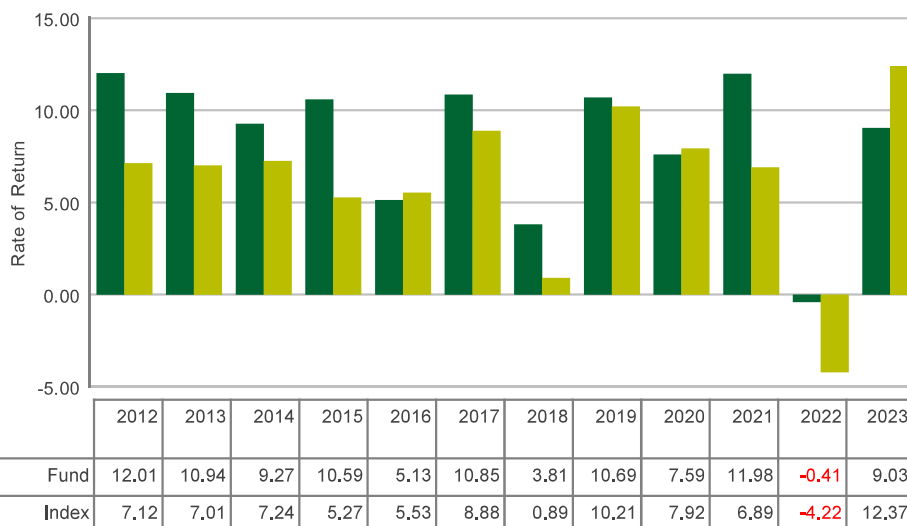
Executive Summary

HRM MASTER TRUST TOTAL FUND NET OF FEES



Index: HRM Policy Benchmark

HRM MASTER TRUST ROLLING YEARS TOTAL FUND NET OF FEES



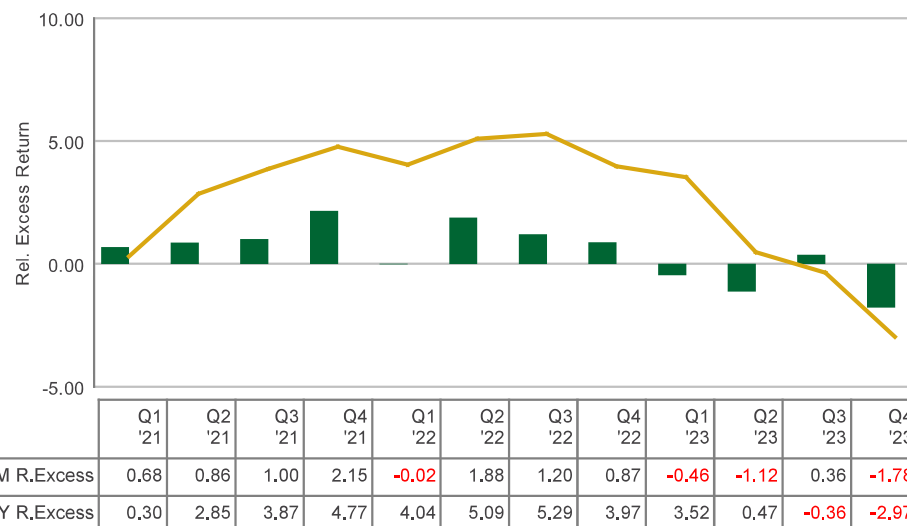
Index: HRM Policy Benchmark

RISK STATISTICS

	3 Mos	1 Yr	4 Yrs
Return	3.61	9.03	6.95
Index Return	5.49	12.37	5.56
Excess Return	-1.88	-3.34	1.39
Standard Deviation	-	3.66	5.34
Index Standard Deviation	-	5.89	6.30
Tracking Error	-	3.02	2.45
Information Ratio	-	-1.10	0.57
Sharpe Ratio	-	1.31	1.02
Index Sharpe Ratio	-	1.38	0.65
Jensen's Alpha	-	0.20	2.14
Relative Volatility (Beta)	-	0.57	0.79
R Squared	-	0.81	0.85
Beginning MV (in 000s)	2,760,482	2,635,823	2,234,775
Net Contributions (in 000s)	2,641	-9,896	-50,744
Income (in 000s)	22,428	54,589	220,193
Appreciation (in 000s)	77,121	182,157	458,448
Ending MV (in 000s)	2,862,672	2,862,672	2,862,672

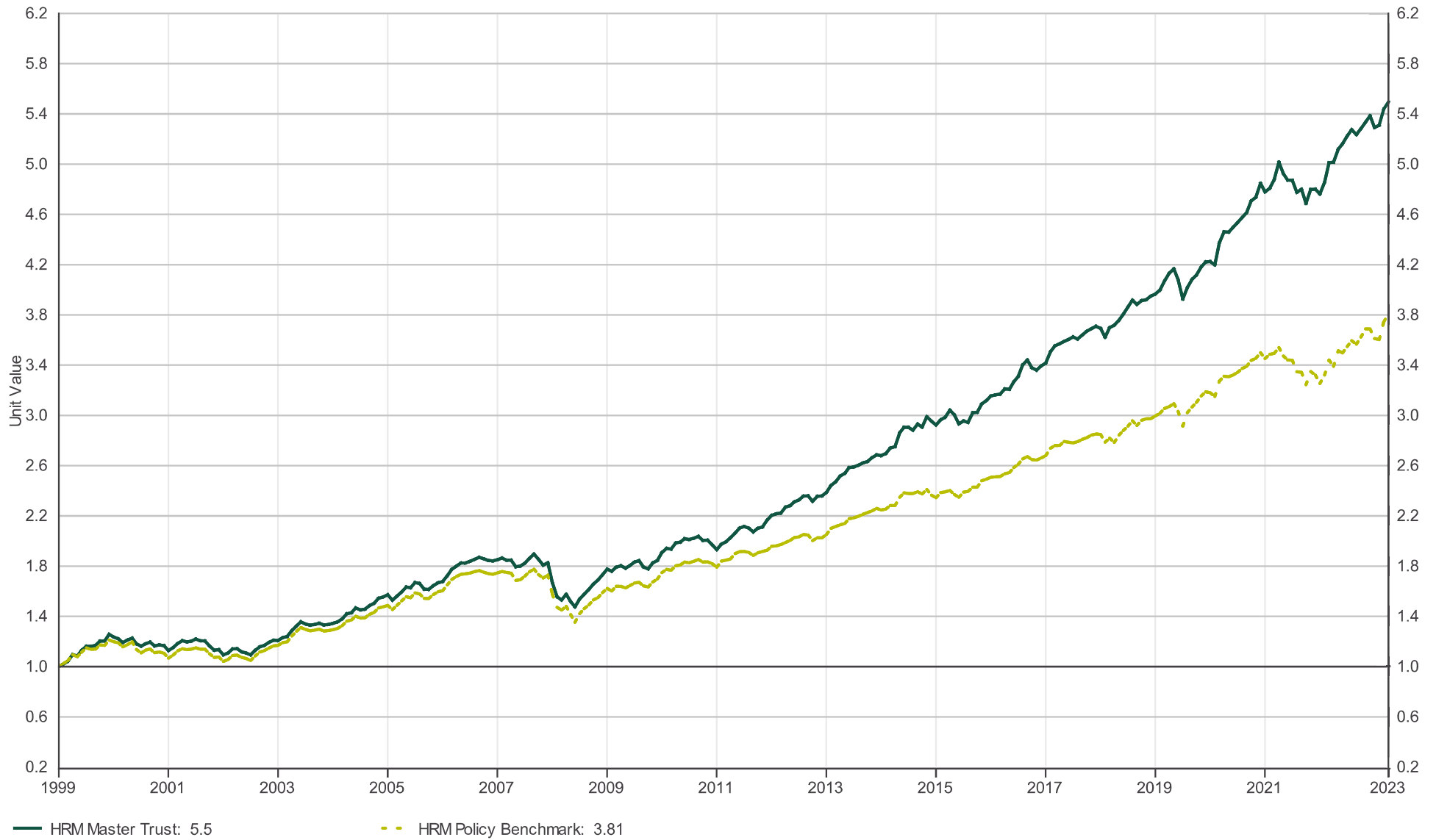
Index: HRM Policy Benchmark. Risk Free Index: JP Morgan 3 month Cash (CAD)
 Category: Total Fund Net of Fees. Calculation Frequency: Monthly

HRM MASTER TRUST ROLLING QUARTERS TOTAL FUND NET OF FEES



Index: HRM Policy Benchmark

Growth Over Time - Inception to Date



Risk Statistics

	One Year	Three Years	Four Years	Seven Years	Ten Years	ITD
Return	9.03	6.73	6.95	7.57	7.79	7.14
Index Return	12.37	4.78	5.56	5.99	6.00	5.67
Excess Return	-3.34	1.95	1.39	1.57	1.79	1.47
Relative Excess Return	-2.97	1.86	1.32	1.49	1.69	1.39
Internal Rate of Return	9.04	6.74	6.95	7.57	-	-
Index Internal Rate of Return	12.41	4.79	5.58	6.02	-	-
Risk-free Return	4.24	1.54	1.49	1.60	1.45	2.38
Standard Deviation	3.66	4.73	5.34	4.64	4.54	6.00
Index Standard Deviation	5.89	5.93	6.30	5.20	4.73	6.08
Tracking Error	3.02	2.63	2.45	2.28	2.22	1.85
Relative Tracking Error	2.97	2.60	2.42	2.26	2.20	1.85
Information Ratio	-1.10	0.74	0.57	0.69	0.80	0.79
Relative Information Ratio	-1.00	0.72	0.54	0.66	0.77	0.75
Sharpe Ratio	1.31	1.10	1.02	1.29	1.40	0.79
Index Sharpe Ratio	1.38	0.55	0.65	0.84	0.96	0.54
M Squared	11.94	8.04	7.93	8.29	8.05	7.20
Sortino Ratio	1.98	1.90	1.64	2.14	2.45	1.14
Index Sortino Ratio	2.81	0.92	1.04	1.37	1.60	0.75
Treynor Ratio	8.44	7.17	6.89	7.39	7.41	5.04
Jensen's Alpha	0.20	2.74	2.14	2.32	2.35	1.58
Relative Volatility (Beta)	0.57	0.72	0.79	0.81	0.86	0.94
R Squared	0.81	0.80	0.85	0.80	0.78	0.91
Up Market Capture Ratio	64.07	93.00	92.33	100.29	112.19	125.42
Down Market Capture Ratio	39.26	60.91	70.51	71.17	78.63	95.42

SECTION 2

Appendix

Investment Risk & Analytical Services

December 31, 2023

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TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board as Trustees of the Halifax Regional Water Commission Employees' Pension Plan

SUBMITTED BY: A DocuSigned signature box containing a handwritten signature in black ink and the text 'DocuSigned by: Louis de Montbrun' above it. Below the signature is a long horizontal line and a small alphanumeric string 'A65D6874EBG1467...'.
A65D6874EBG1467...

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

APPROVED: A DocuSigned signature box containing a handwritten signature in black ink and the text 'DocuSigned by: Kenda MacKenzie' above it. Below the signature is a long horizontal line and a small alphanumeric string '8C084AC815794F8...'.
8C084AC815794F8...

Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 14, 2024

SUBJECT: **Halifax Regional Municipality Master Trust Investment Performance, First Quarter, 2024**

ORIGIN

The Halifax Regional Municipality Master Trust (the “Master Trust”) investment performance is reported to the Halifax Regional Water Commission Board as Trustees of the Halifax Regional Water Commission Employees’ Pension Plan periodically throughout the year.

BACKGROUND

None

DISCUSSION

The table below and the attached Investment Report provide a performance update for the First Quarter of 2024 (January to March) for the Master Trust, of which Halifax Regional Water Commission Employees’ Pension Plan (the “Plan”) is a part. The fair value of the investment in the Master Trust is determined and updated at year-end, and the Plan’s share in the Master Trust at December 31, 2023 was 6.62%, totaling \$189.4 million.

The Master Trust earned 4.78% in the First Quarter, which underperformed the First Quarter policy benchmark of 5.55% by 0.77%. The return for the 1-year period ended March 31, 2024, was

9.72%, underperforming the 1-year policy benchmark of 13.39% by 3.67%. Other historical returns are provided in Table 1 below.

Table 1 – Returns

	Current				
	Quarter (Jan - Mar)	1-Year	3 - Year Annualized	4 - Year Annualized	Inception To Date
Fund Return	4.78%	9.72%	7.84%	9.60%	7.27%
Policy Benchmark	5.55%	13.39%	6.36%	8.39%	5.85%
Excess Return	-0.77%	-3.67%	1.47%	1.21%	1.43%

The total fund returns are subject to investment management fees and plan expenses.

As at March 31, 2024, the Master Trust was in compliance with the Statement of Investment Policies and Procedures (SIP&P).

ATTACHMENT

Attachment 1 – HRM Master Trust Investment Performance Q1 2024

Attachment 2 – HRM Master Trust Investment Risk & Analytical Services Q1 2024

Plan Performance

Plan Performance Summary

	Q1	1 year	5 year	10 year
Total Plan	4.8%	9.7%	7.9%	8.0%
Benchmark	5.6%	13.4%	6.7%	6.3%
Value Add	-0.8%	-3.7%	1.2%	1.7%

	Q1	1 year	5 year	10 year
Equities	8.9%	17.2%	8.7%	
Benchmark	10.0%	20.7%	10.2%	
Value Add	-1.1%	-3.5%	-1.5%	

	Q1	1 year	5 year	10 year
Fixed Income	0.1%	4.3%	2.8%	
Benchmark	0.3%	4.9%	1.3%	
Value Add	-0.2%	-0.6%	1.5%	

Plan Performance Summary

	Q1	1 year	5 year	10 year
Real Assets	1.6%	3.5%		
Benchmark	2.1%	8.6%		
Value Add	-0.5%	-5.1%		

	Q1	1 year	5 year	10 year
Public Market	2.1%	5.4%		
Alternatives				
Benchmark	2.0%	8.6%		
Value Add	0.1%	-3.2%		



**The investment office is working with Northern Trust to calculate 5- and 10-year return numbers for the Real Assets portfolio. Long-term return numbers for real estate and infrastructure are listed separately on slide 15.*



HRM Master Trust

Investment Risk & Analytical Services

March 31, 2024

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SECTION 1

HRM Master Trust

Investment Risk & Analytical Services

March 31, 2024

Market Overview

IMPORTANT INFORMATION

Indexes used: Bloomberg Barclays (BBC) 1-3 Month UST (Cash); BBC Municipal (Muni); BBC Aggregate (Inv. Grade); BBC TIPS (TIPS); BBC High Yield 2% Capped (High Yield); JP Morgan GBI-EM Global Diversified (Em. Markets Fixed Income); MSCI U.S. Equities IMI (U.S. Equities); MSCI World ex-U.S. IMI (Dev. ex-U.S. Equities); MSCI Emerging Market Equities IMI (Em. Markets Equities); S&P Global Natural Resources (Natural Resources); MSCI ACWI IMI Core Real Estate (Global Real Estate); S&P Global Infrastructure (Global Listed Infrastructure).

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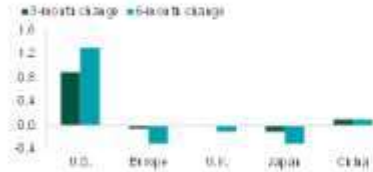
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U.S. Economic Resilience on Repeat

U.S. economic resilience is still in the spotlight with solid labor markets and a relatively healthy consumer backdrop. Recession talk has diminished with more bearish economic prognosticators either removing recession predictions or extending to 2025 or later. The U.S. growth trajectory has stood out versus its global peers with noticeable upward revisions to consensus 2024 forecasts and the Fed's economic projections. Outside the U.S., the economic outlook has stabilized, including a rebound in manufacturing PMI data.

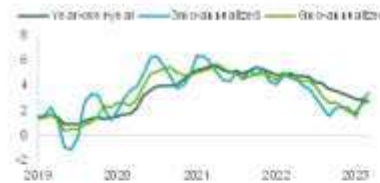
CHANGE IN 2024 CONSENSUS GDP GROWTH (%)



A Bumpy Path to 2% Inflation

U.S. inflation appears to be on a trajectory towards 2% with some fits and starts along the way. Firmer inflation readings in January and February were relatively well-digested by both central bankers and financial markets. Disinflation in core goods has stalled somewhat while services remains stickier including the long-anticipated (and still waiting) downturn in housing-related inflation. Nonetheless, core inflation has continued to move lower on a year-over-year basis – albeit at a slower pace – from a peak of over 5% to the current level of 2.8%.

CORE PCE INFLATION (%)



Monetary Policy Patience

Most major developed market central banks were on-hold in 1Q. Improving economic growth and elevated-but-moderating inflation have allowed central bankers to be patient as they navigate the transition from rate hikes to rate cuts. That being said, Japan is on a different path and the Bank of Japan (BOJ) raised rates by 10 basis points in March to end the era of negative-rate policy. Investors expect about 20 basis points (bps) more of BOJ tightening in 2024 – in contrast to ~70-90 bps of easing from its primary developed market peers.

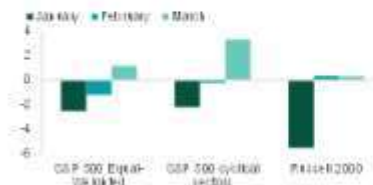
EXPECTED 2024 CENTRAL BANK ACTIVITY (BPS)



Another Double-Digit Quarter for the S&P 500

Market concentration remains top of mind but a singular focus on the "Magnificent 7" does not capture the full story. On one hand, the "Magnificent 7" gained 17% in 1Q (~36% of the S&P 500's return) and tech-related earnings growth was a key source of strength in 4Q2023 earnings season. However, equity market breadth improved throughout the quarter with cyclical sectors among the top performers (energy, financials, etc.) – supported by the improving macroeconomic backdrop and declining interest rate volatility.

RELATIVE RETURNS VS S&P 500 IN 1Q2024 (%)



MARKET EVENTS

■ 1Q 2024 global equity total return: 8.3%



JANUARY	FEBRUARY	MARCH
<p>5 The U.S. December jobs report is solid. More jobs are added than expected (216k versus 175k), the unemployment rate is unchanged (3.7%) and wages grow 4.1% year-over-year.</p>	<p>1 Concerns of systemic risk in the commercial real estate (CRE) sector resurface after New York Community Bancorp (NYCB; down 42%) reports losses from its CRE portfolio.</p>	<p>5 At the annual National People's Congress, China reveals 2024 targets mostly consistent with the prior year: -5% growth, 3% inflation and a 3% fiscal deficit.</p>
<p>12 Tensions escalate in the Middle East after the U.S. and U.K. carry out joint airstrikes against Houthi targets. Oil prices rise following the operation.</p>	<p>2 The U.S. releases a strong jobs report with 353k jobs added and upward prior-month revisions. Wages accelerate and the unemployment rate holds.</p>	<p>12 U.S. CPI comes in warmer than expected for the second month in a row. Energy prices help push up headline CPI to 3.2% y/y from 3.1% y/y.</p>
<p>18 The European Central Bank and Fed official messaging leans towards being in no rush to cut rates in the very near term while also highlighting the risk of easing policy too soon.</p>	<p>13 U.S. CPI prints hotter than expected at 3.1% y/y versus 2.9% expected. Core CPI also comes in hotter than expected at 3.9% y/y and is unchanged from the prior reading.</p>	<p>15 The initial results of the Shunto negotiations show an average wage hike of 5.3%. The initial results point to the biggest Japan wage hikes in over 30 years.</p>
<p>24 The People's Bank of China delivers a surprise 50-basis point (bp) cut to its reserve requirement ratio as part of a broader effort to stabilize its economy and financial markets.</p>	<p>21 NVIDIA (NVDA) posts a "beat earnings and raise guidance" quarter that supports broader market enthusiasm surrounding artificial intelligence.</p>	<p>18 The Bank of Japan raises its target policy rate by 10 bps to 0.0-0.1%. It marks the first hike in 17 years and the end to its negative interest rate regime that had been in place since 2016.</p>
<p>26 The Fed's preferred price measure, Personal Consumption Expenditures (PCE), contains no major surprises and shows continued progress on disinflation.</p>	<p>22 The U.S. manufacturing Purchasing Managers' Index (PMI) rebounds to 51.5 while the services PMI eases but remains strong at 51.3.</p>	<p>20 The Fed maintains a three-cut projected baseline for this year. The median growth forecast is upgraded to 2.1% from 1.4%, while core inflation was slightly raised to 2.6% from 2.4%.</p>

MARKET OVERVIEW - FIRST QUARTER 2024

PROVIDED BY NORTHERN TRUST ASSET MANAGEMENT

CONTINUED U.S. EXCEPTIONALISM

2024 saw the strongest start for U.S. large cap stocks since the pandemic. Stocks were up 10.6% as measured by the S&P 500. This was on the heels of strong risk asset returns in the fourth quarter of last year. Returns were positive for equities in most major regions but U.S. stocks continued to outperform international markets. The only major stock market to outperform the U.S. was Japan, which gained 10.6% in U.S. dollar terms and 18.8% in local currency terms. Emerging market stocks saw positive but lackluster returns of 2.2% primarily driven by weakness in China equities which fell 2.2% (in U.S. dollar terms). Strength in the U.S. dollar (up roughly 3%) did not help international equity returns for U.S.-based investors. Within the U.S., large cap stocks continued to outperform more interest-rate-sensitive small cap stocks and growth stocks outperformed value. Nominal Treasury yields rose in the first quarter led primarily by an increase in real yields as economic growth continued to surprise on the upside. Inflation expectations also rose. Except for modestly positive returns for cash and high yield bonds, fixed income sector returns were slightly negative. High yield was the best-performing sector within fixed income, as all-in yields made up for the backup in interest rates. Within real assets, returns were strongest for natural resources while global real estate gave back some of its gains from last year.

Strength in domestic equities was driven by continued resilience of the U.S. economy and the improving earnings outlook. While the prior quarter saw fears of recession recede, this quarter markets were encouraged by the resiliency of the U.S. economy in the face of restrictive monetary policy. The current Fed funds rate is nearly 300 basis points higher than the Fed's estimate of the longer-run neutral policy rate. Markets were also likely encouraged by the dovish narrative from the Fed – which has essentially signaled an end to the hiking cycle and potentially the start of easing this summer. Progress on inflation towards the end of last year was substantial and this led to market expectations of as much as six rate cuts at the beginning of this year. However, progress towards the Fed's stated goal of 2% inflation stalled in the first two months of the year with both January and February experiencing higher than expected inflation. These strong inflation readings forced the forward rates markets to rein in expectations of several cuts and they are now closer to our expectations of three cuts this year. Risk assets have taken the reduction in expected rate cuts in stride but it remains to be seen whether lofty valuations, worries of lingering inflation and therefore higher for longer rates, test the resiliency of stock markets.

FIRST QUARTER 2024 TOTAL RETURNS (%)

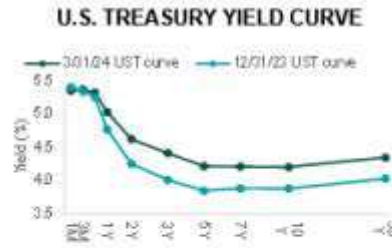
The 60/40 portfolio got off to a strong start to the year with equities continuing to rise and fixed income only slightly lower.



Source: Northern Trust Asset Management, Bloomberg. NR: Natural Resources; GRE: Global Real Estate; GLI: Global Listed Infrastructure. Indexes are gross of fees. Past performance is not indicative or a guarantee of future results. Index performance returns do not reflect any management fees, transaction costs or expenses. It is not possible to invest directly in any index.

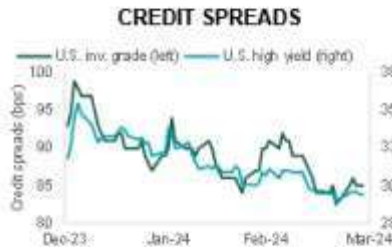
Interest Rates

Treasury yields two years and out rose ~30-40 basis points (bps) and market expectations for 2024 Fed rate cuts repriced from over six to under three. Investors are split on if the first cut will occur in June versus later in the year. In response to upside surprises on both growth and inflation data during the quarter, monetary policymakers communicated an unhurried transition to rate cuts. Nonetheless, the Fed's base case remains for lower inflation and multiple rate cuts before year end as risks to achieving its goals come into better balance.



Credit Markets

Spreads incrementally tightened across the quarter reflecting a durable macroeconomic backdrop and supportive technicals. Investment grade (IG) spreads tightened 8 bps to 85 bps and high yield (HY) spreads tightened 24 bps to 299 bps. For both asset classes, spreads now sit ~40% below their monthly average since 1999. From a return standpoint, tighter spreads within IG fixed income failed to overcome duration headwinds from higher interest rates and the asset class lost 0.8%. HY still managed to gain 1.5%.



Equities

Global equities had another robust quarter at +8.3%. U.S. equities led the major regions with a 10.0% gain as equity investors embraced higher odds of a soft landing. Developed ex-U.S. equities were also solid at +5.3% on the quarter. Emerging market equities gained 2.2%, but China equities suffered a roughly 2% loss. For the most part, the global equity gains were driven by valuation expansion. Despite higher interest rates, investor expectations for a global earnings growth acceleration and several central bank easing cycles remain in place.



Real Assets

The real assets we track lagged global equities by 6-to-9%. Global real estate (-0.5%) was the only one to end in the red. Listed infrastructure (+1.3%) and natural resources (+2.2%) earned small positive gains. Macro forces were likely at play, including higher rates and risk-on sentiment weighing on relative infrastructure returns. Metals bogged down natural resources, which eventually found its footing on a firmer growth outlook. Idiosyncratic impacts also likely played a role with decent sector-level dispersion within each asset class.



Investment Hierarchy

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
HRM Master Trust	2,992,180,477	100.00	1.85	4.78	4.78	9.72	7.84	9.60	7.99	7.27	09/30/1999
<i>HRM Policy Benchmark</i>			1.86	5.55	5.55	13.39	6.36	8.39	6.30	5.85	09/30/1999
<i>Excess Return</i>			-0.01	-0.77	-0.77	-3.67	1.47	1.21	1.69	1.43	09/30/1999
HRM Total Equity	1,484,978,872	49.63	3.12	8.90	8.90	17.24	7.13	13.48	-	8.35	12/31/2015
<i>HRM Total Equity Benchmark</i>			3.08	10.01	10.01	20.73	8.60	15.43	-	9.61	12/31/2015
<i>Excess Return</i>			0.04	-1.11	-1.11	-3.48	-1.47	-1.95	-	-1.26	12/31/2015
HRM Cdn Equity	117,851,378	3.94	3.30	6.19	6.19	15.40	9.10	15.68	5.06	5.28	03/31/2006
<i>S&P/TSX Composite</i>			4.14	6.62	6.62	13.96	9.11	16.99	7.67	6.52	03/31/2006
<i>Excess Return</i>			-0.84	-0.43	-0.43	1.44	-0.01	-1.32	-2.61	-1.24	03/31/2006
Blackrock	52,720,422	1.76	3.94	6.60	6.60	15.30	9.42	17.18	7.70	8.73	12/31/2003
<i>S&P/TSX Composite</i>			4.14	6.62	6.62	13.96	9.11	16.99	7.67	8.04	12/31/2003
<i>Excess Return</i>			-0.20	-0.02	-0.02	1.34	0.31	0.19	0.02	0.69	12/31/2003
EdgePoint	61,447,532	2.05	-	-	-	-	-	-	-	0.60	03/14/2024
P2P Holdings	3,675,293	0.12	6.36	17.98	17.98	51.80	7.07	4.59	-	-21.41	02/03/2017
<i>S&P/TSX Composite</i>			4.14	6.62	6.62	13.96	9.11	16.99	-	8.42	02/03/2017
<i>Excess Return</i>			2.22	11.36	11.36	37.84	-2.04	-12.40	-	-29.84	02/03/2017
Transition Account	8,131	0.00	-	-	-	-	-	-	-	-	02/25/2021
HRM Global Equity	923,065,571	30.85	3.20	11.09	11.09	23.02	-	-	-	24.13	12/31/2022
<i>HRM Custom Global Equity Index</i>			3.09	10.69	10.69	22.42	-	-	-	24.37	12/31/2022
<i>Excess Return</i>			0.11	0.40	0.40	0.61	-	-	-	-0.23	12/31/2022
AB EDHEC	164,367,575	5.49	3.52	11.17	11.17	21.67	10.03	15.19	-	9.34	12/31/2015
<i>MSCI World ND</i>			2.98	11.74	11.74	25.10	11.31	17.03	-	10.78	12/31/2015
<i>Excess Return</i>			0.54	-0.57	-0.57	-3.43	-1.28	-1.84	-	-1.44	12/31/2015
Blackrock Global Alpha Advanta	159,063,599	5.32	4.42	14.49	14.49	32.04	-	-	-	14.31	05/25/2021
<i>MSCI ACWI ND</i>			2.90	11.04	11.04	23.21	-	-	-	9.70	05/25/2021
<i>Excess Return</i>			1.52	3.45	3.45	8.83	-	-	-	4.61	05/25/2021
Blackrock MSCI Small Cap	55,488,688	1.85	3.41	7.06	7.06	16.58	-	-	-	4.98	05/19/2021
<i>MS Wld Small Cap Net Index</i>			3.66	7.13	7.13	15.86	-	-	-	4.54	05/19/2021
<i>Excess Return</i>			-0.24	-0.07	-0.07	0.72	-	-	-	0.45	05/19/2021
Blackrock MSCI World Passive	161,970,651	5.41	2.99	11.81	11.81	25.59	-	-	-	12.72	05/12/2021
<i>MSCI World ND</i>			2.98	11.74	11.74	25.10	-	-	-	12.30	05/12/2021
<i>Excess Return</i>			0.01	0.07	0.07	0.49	-	-	-	0.42	05/12/2021
Global Alpha	55,968,218	1.87	4.16	9.68	9.68	11.18	-	-	-	5.14	03/09/2022
<i>MS Wld Small Cap Net Index</i>			3.66	7.13	7.13	15.86	-	-	-	7.38	03/09/2022
<i>Excess Return</i>			0.50	2.55	2.55	-4.68	-	-	-	-2.24	03/09/2022

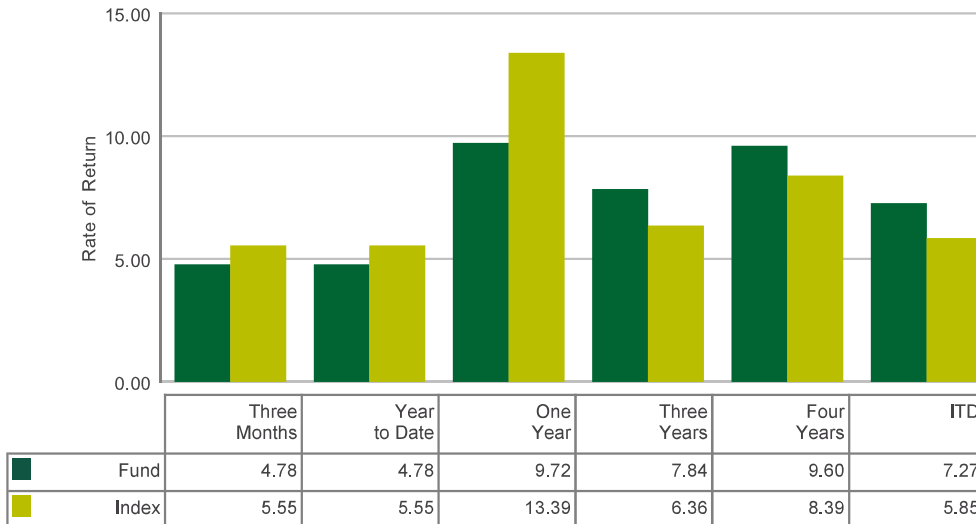
Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
Marathon International Equity	77,503,148	2.59	3.66	9.00	9.00	15.41	-	-	-	5.92	05/28/2021
<i>MSCI EAFE ND</i>			3.05	8.56	8.56	15.31	-	-	-	6.87	05/28/2021
<i>Excess Return</i>			0.61	0.43	0.43	0.10	-	-	-	-0.94	05/28/2021
Mawer International Equity	90,231,852	3.02	3.87	8.33	8.33	14.98	4.48	-	-	4.62	02/28/2021
<i>MSCI ACWI ex USA ND</i>			2.89	7.44	7.44	13.25	4.48	-	-	4.53	02/28/2021
<i>Excess Return</i>			0.98	0.89	0.89	1.73	0.00	-	-	0.09	02/28/2021
Wellington US Equity	158,471,840	5.30	0.89	11.61	11.61	28.96	14.00	23.35	13.68	14.32	04/30/2011
<i>HRM US Equity</i>			2.98	13.46	13.46	29.87	13.71	22.78	12.97	13.23	04/30/2011
<i>Excess Return</i>			-2.09	-1.85	-1.85	-0.91	0.29	0.58	0.71	1.10	04/30/2011
HRM Emerging Markets	103,403,048	3.46	2.71	5.22	5.22	8.29	-2.86	6.11	5.18	5.06	09/30/2010
<i>MSCI Emerging Markets ND</i>			2.24	5.06	5.06	8.14	-2.68	6.55	5.07	4.32	09/30/2010
<i>Excess Return</i>			0.47	0.16	0.16	0.15	-0.18	-0.45	0.12	0.74	09/30/2010
CC&L Emerging Markets	47,383,789	1.58	1.97	7.90	7.90	16.73	-	-	-	-	12/31/2022
<i>MSCI Emerging Markets ND</i>			2.24	5.06	5.06	8.14	-	-	-	9.72	12/31/2022
<i>Excess Return</i>			-0.27	2.84	2.84	8.58	-	-	-	-	12/31/2022
Trinetra Emerg Mrkts Grwth Fnd	56,019,259	1.87	3.34	3.05	3.05	2.06	-3.99	4.74	-	2.61	08/31/2017
<i>MSCI Emerging Markets ND</i>			2.24	5.06	5.06	8.14	-2.68	6.55	-	2.94	08/31/2017
<i>Excess Return</i>			1.10	-2.01	-2.01	-6.09	-1.30	-1.82	-	-0.33	08/31/2017
HRM Private Equity	340,658,875	11.38	2.97	5.31	5.31	6.74	20.69	16.00	18.87	19.74	09/30/2011
<i>HRM PE Benchmark</i>			3.14	12.28	12.28	27.56	15.46	13.10	9.01	8.51	09/30/2011
<i>Excess Return</i>			-0.17	-6.97	-6.97	-20.81	5.23	2.90	9.86	11.23	09/30/2011
Private Equity	340,658,875	11.38	2.97	5.31	5.31	6.74	20.69	16.00	18.87	19.74	09/30/2011
HRM Total Fixed Income	609,258,662	20.36	0.48	0.13	0.13	4.30	1.20	3.09	-	3.00	12/31/2015
<i>HRM FI Benchmark</i>			0.59	0.30	0.30	4.92	0.72	0.86	-	1.66	12/31/2015
<i>Excess Return</i>			-0.10	-0.17	-0.17	-0.62	0.48	2.23	-	1.35	12/31/2015
Cash and Cash Equivalents	25,777,993	0.86	0.35	1.69	1.69	4.61	2.18	2.78	2.31	4.35	03/31/2009
<i>HRM Canadian 91 Day T-Bill</i>			0.37	1.24	1.24	5.41	-	-	-	-	03/31/2009
<i>Excess Return</i>			-0.02	0.45	0.45	-0.80	-	-	-	-	03/31/2009
Lincluden CDOR	25,777,993	0.86	0.35	1.69	1.69	4.61	2.94	1.42	1.85	1.84	12/31/2013
<i>Canadian 91 Day T-Bill (CAD)</i>			0.37	1.24	1.24	4.84	2.63	2.02	1.41	1.40	12/31/2013
<i>Excess Return</i>			-0.02	0.45	0.45	-0.23	0.31	-0.60	0.43	0.44	12/31/2013
Global Credit	72,253,355	2.41	0.76	0.91	0.91	6.22	-	-	-	2.70	03/31/2022
<i>Global Credit Custom Benchmark</i>			0.74	0.63	0.63	5.39	-	-	-	2.13	03/31/2022
<i>Excess Return</i>			0.02	0.28	0.28	0.82	-	-	-	0.57	03/31/2022

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
AB Global Credit	72,253,355	2.41	0.76	0.91	0.91	6.22	1.29	3.60	2.69	4.88	03/31/2009
<i>Global Credit Custom Benchmark</i>			0.74	0.63	0.63	5.39	-	-	-	-	03/31/2009
<i>Excess Return</i>			0.02	0.28	0.28	0.82	-	-	-	-	03/31/2009
North American Credit	194,534,803	6.50	0.90	1.86	1.86	8.69	4.21	8.80	-	6.17	12/31/2015
<i>HRM Custom Corporate Benchmark</i>			0.62	0.69	0.69	5.47	-0.19	1.70	-	2.46	12/31/2015
<i>Excess Return</i>			0.29	1.17	1.17	3.22	4.40	7.10	-	3.71	12/31/2015
Canso	93,082,301	3.11	1.24	2.77	2.77	9.90	4.37	12.25	7.19	8.13	02/28/2010
<i>FTSE TMX Corporate Bond IDX</i>			0.54	0.07	0.07	5.50	-0.03	1.83	2.80	3.61	02/28/2010
<i>Excess Return</i>			0.70	2.70	2.70	4.40	4.39	10.42	4.39	4.53	02/28/2010
HRM Corporate Debt	101,452,502	3.39	0.59	1.04	1.04	7.60	4.04	4.27	6.25	6.26	01/31/2014
<i>FTSE TMX Short Corp BD IDX</i>			0.58	0.86	0.86	5.54	0.94	2.29	2.31	2.30	01/31/2014
<i>Excess Return</i>			0.01	0.18	0.18	2.06	3.10	1.98	3.94	3.95	01/31/2014
Government Bonds	207,149,835	6.92	0.52	-1.66	-1.66	0.28	-1.62	-1.23	-	1.23	12/31/2015
<i>FTSE TMX Government Univers</i>			0.48	-1.66	-1.66	0.95	-2.04	-1.65	-	0.88	12/31/2015
<i>Excess Return</i>			0.05	-0.00	-0.00	-0.68	0.41	0.42	-	0.35	12/31/2015
Lincluden Gov't	115,561,734	3.86	0.55	-1.72	-1.72	1.43	-1.51	-0.89	1.96	2.18	08/31/2013
<i>FTSE TMX Government Univers</i>			0.48	-1.66	-1.66	0.95	-2.04	-1.65	1.74	1.96	08/31/2013
<i>Excess Return</i>			0.07	-0.06	-0.06	0.48	0.53	0.76	0.23	0.21	08/31/2013
Wellington Bond Overlay	91,588,101	3.06	0.49	-1.58	-1.58	-1.47	-1.89	-2.00	2.27	2.01	08/31/2012
<i>FTSE TMX Government Univers</i>			0.48	-1.66	-1.66	0.95	-2.04	-1.65	1.74	1.61	08/31/2012
<i>Excess Return</i>			0.01	0.07	0.07	-2.42	0.14	-0.35	0.54	0.40	08/31/2012
Private Debt	109,542,677	3.66	-0.46	-0.23	-0.23	1.91	10.23	6.62	7.89	0.73	12/31/2011
<i>HRM PD Benchmark</i>			0.73	2.02	2.02	12.54	9.32	8.56	7.24	7.10	12/31/2011
<i>Excess Return</i>			-1.19	-2.25	-2.25	-10.63	0.91	-1.94	0.65	-6.37	12/31/2011
Private Debt	109,542,677	3.66	-0.46	-0.23	-0.23	1.91	10.23	6.62	7.89	0.73	12/31/2011
HRM Real Assets	759,018,073	25.37	0.75	1.64	1.64	3.47	-	-	-	6.73	12/31/2022
<i>Rolling CPI 5 year + 5%</i>			0.70	2.10	2.10	8.59	-	-	-	8.55	12/31/2022
<i>Excess Return</i>			0.05	-0.46	-0.46	-5.12	-	-	-	-1.82	12/31/2022
Infrastructure	344,160,974	11.50	0.82	2.82	2.82	10.19	14.07	11.52	9.97	18.29	06/30/2011
<i>HRM Infrastructure Index</i>			0.70	2.10	2.10	7.95	9.79	9.16	7.61	7.38	06/30/2011
<i>Excess Return</i>			0.12	0.72	0.72	2.24	4.28	2.36	2.37	10.91	06/30/2011
Infrastructure	344,160,974	11.50	0.82	2.82	2.82	10.19	14.07	11.52	9.97	18.29	06/30/2011
Real Estate	414,857,099	13.86	0.69	0.70	0.70	-1.44	10.19	8.34	11.34	10.95	09/30/2011
<i>HRM Real Estate Index</i>			0.70	2.10	2.10	7.95	9.79	9.16	7.61	7.37	09/30/2011
<i>Excess Return</i>			-0.01	-1.41	-1.41	-9.39	0.40	-0.82	3.73	3.57	09/30/2011
Real Estate	414,857,099	13.86	0.69	0.70	0.70	-1.44	10.19	8.34	11.34	10.95	09/30/2011

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
Public Market Alternatives	121,876,045	4.07	1.19	2.12	2.12	5.44	-	-	-	5.52	02/28/2022
<i>Canadian 91 Day T-Bill +3%</i>			<i>0.61</i>	<i>1.99</i>	<i>1.99</i>	<i>8.56</i>	-	-	-	<i>7.70</i>	<i>02/28/2022</i>
<i>Excess Return</i>			<i>0.58</i>	<i>0.13</i>	<i>0.13</i>	<i>-3.12</i>	-	-	-	<i>-2.18</i>	<i>02/28/2022</i>
Public Market Alternatives	121,876,045	4.07	1.19	2.12	2.12	5.44	-	-	-	5.52	02/28/2022
<i>Canadian 91 Day T-Bill +3%</i>			<i>0.61</i>	<i>1.99</i>	<i>1.99</i>	<i>8.56</i>	-	-	-	<i>7.70</i>	<i>02/28/2022</i>
<i>Excess Return</i>			<i>0.58</i>	<i>0.13</i>	<i>0.13</i>	<i>-3.12</i>	-	-	-	<i>-2.18</i>	<i>02/28/2022</i>
HRM Operating	17,048,825	0.57	-	-	-	-	-	-	-	-	12/31/2015
Operating Account	17,048,825	0.57	-	-	-	-	-	-	-	-	03/31/2004

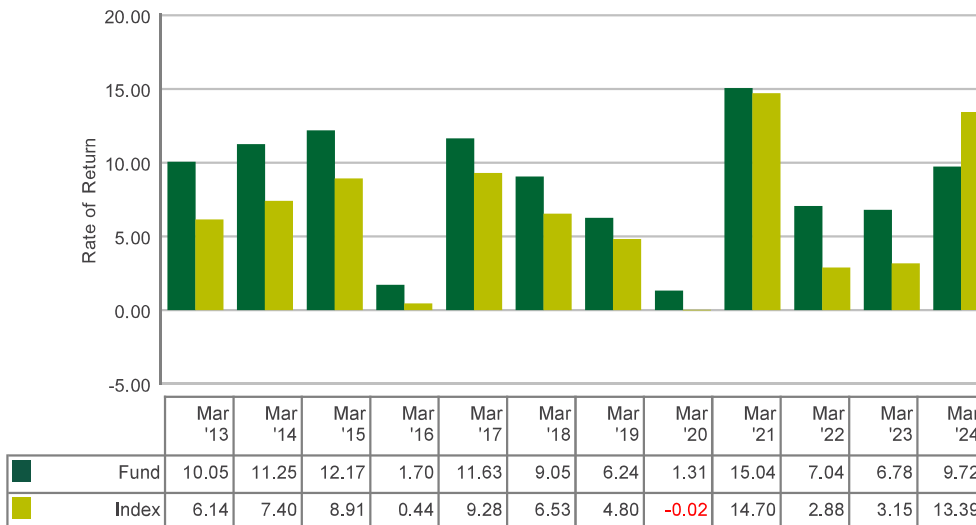
Executive Summary

HRM MASTER TRUST TOTAL FUND NET OF FEES



Index: HRM Policy Benchmark

HRM MASTER TRUST ROLLING YEARS TOTAL FUND NET OF FEES



Index: HRM Policy Benchmark

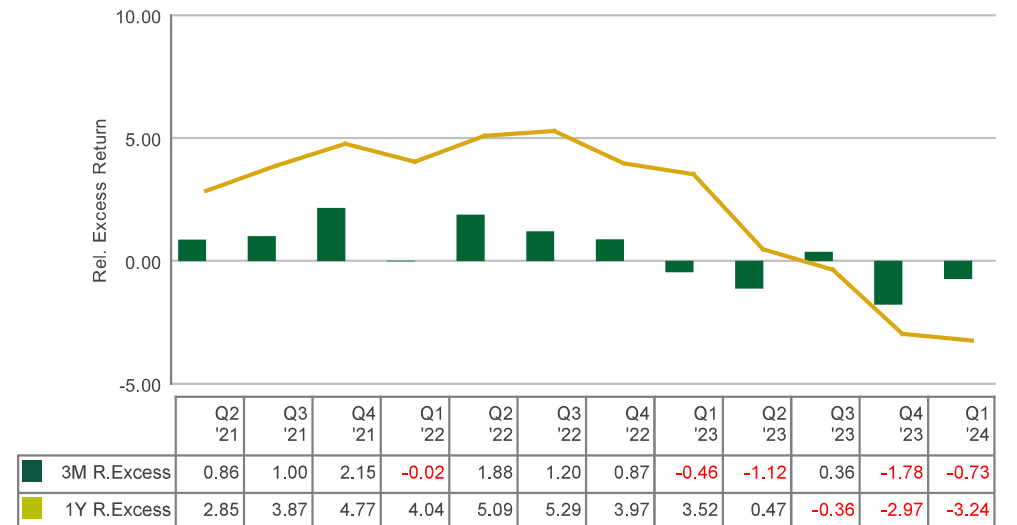
RISK STATISTICS

	3 Mos	1 Yr	4 Yrs
Return	4.78	9.72	9.60
Index Return	5.55	13.39	8.39
Excess Return	-0.77	-3.67	1.21
Standard Deviation	-	3.91	4.77
Index Standard Deviation	-	5.43	5.89
Tracking Error	-	2.24	2.47
Information Ratio	-	-1.64	0.49
Sharpe Ratio	-	1.27	1.67
Index Sharpe Ratio	-	1.59	1.14
Jensen's Alpha	-	-0.73	2.79
Relative Volatility (Beta)	-	0.67	0.74
R Squared	-	0.88	0.82
Beginning MV (in 000s)	2,862,672	2,737,345	2,122,874
Net Contributions (in 000s)	-6,674	-10,038	-56,630
Income (in 000s)	10,892	56,824	217,850
Appreciation (in 000s)	125,291	208,050	708,086
Ending MV (in 000s)	2,992,180	2,992,180	2,992,180

Index: HRM Policy Benchmark. Risk Free Index: JP Morgan 3 month Cash (CAD)

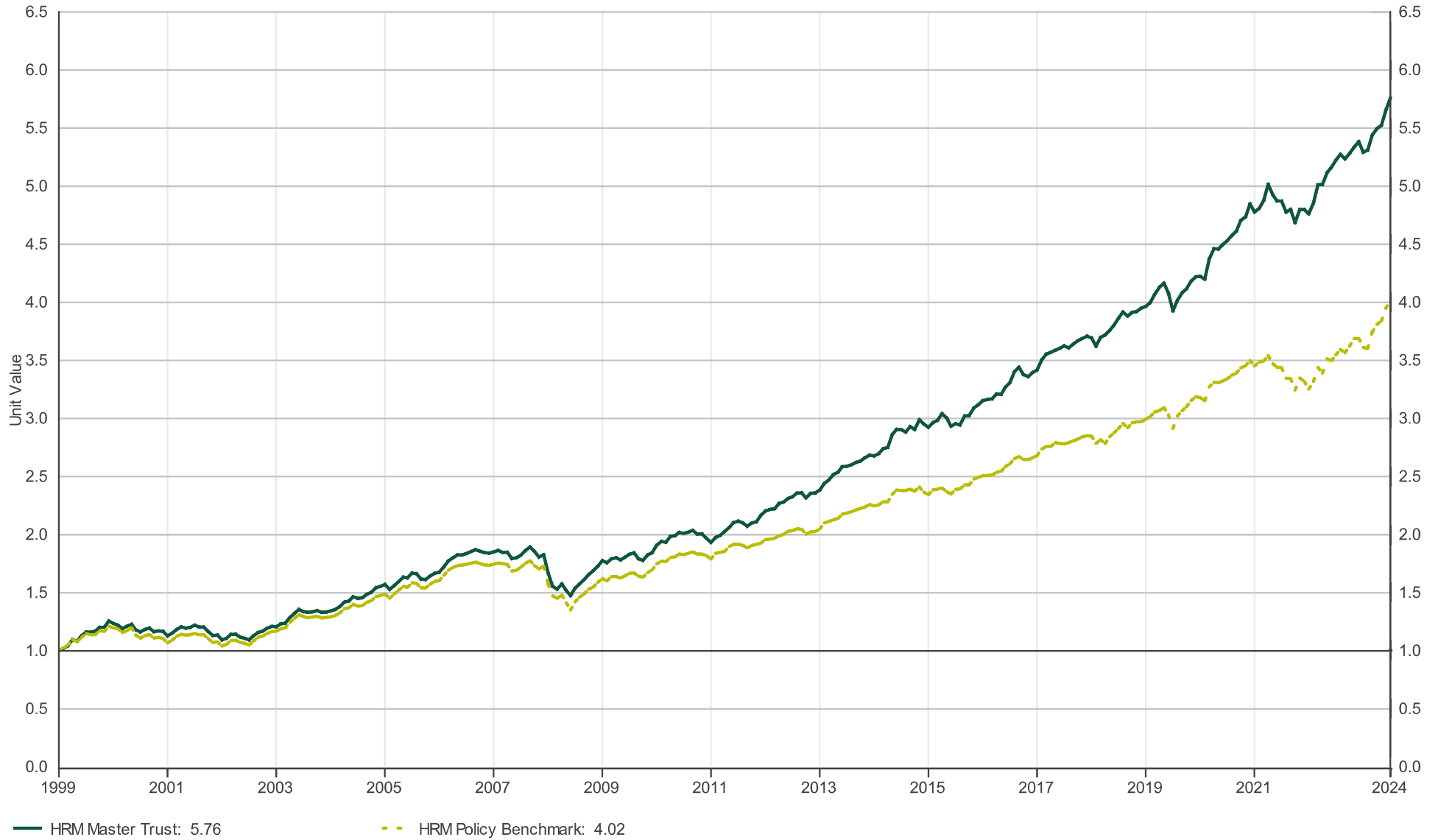
Category: Total Fund Net of Fees. Calculation Frequency: Monthly

HRM MASTER TRUST ROLLING QUARTERS TOTAL FUND NET OF FEES



Index: HRM Policy Benchmark

Growth Over Time - Inception to Date



Risk Statistics

	One Year	Three Years	Four Years	Seven Years	Ten Years	ITD
Return	9.72	7.84	9.60	7.81	7.99	7.27
Index Return	13.39	6.36	8.39	6.37	6.30	5.85
Excess Return	-3.67	1.47	1.21	1.45	1.69	1.43
Relative Excess Return	-3.24	1.38	1.11	1.36	1.59	1.35
Internal Rate of Return	9.72	7.83	9.61	7.81	-	-
Index Internal Rate of Return	13.43	6.37	8.43	6.38	-	-
Risk-free Return	4.76	1.93	1.65	1.75	1.54	2.41
Standard Deviation	3.91	4.88	4.77	4.67	4.57	5.99
Index Standard Deviation	5.43	6.13	5.89	5.28	4.79	6.08
Tracking Error	2.24	2.66	2.47	2.28	2.23	1.85
Relative Tracking Error	2.20	2.63	2.44	2.26	2.21	1.84
Information Ratio	-1.64	0.55	0.49	0.63	0.76	0.77
Relative Information Ratio	-1.47	0.53	0.46	0.60	0.72	0.73
Sharpe Ratio	1.27	1.21	1.67	1.30	1.41	0.81
Index Sharpe Ratio	1.59	0.72	1.14	0.87	0.99	0.57
M Squared	11.65	9.35	11.47	8.61	8.29	7.34
Sortino Ratio	2.06	2.16	3.33	2.17	2.49	1.17
Index Sortino Ratio	3.08	1.26	2.18	1.44	1.67	0.79
Treynor Ratio	7.38	8.16	10.69	7.56	7.56	5.15
Jensen's Alpha	-0.73	2.58	2.79	2.26	2.30	1.55
Relative Volatility (Beta)	0.67	0.72	0.74	0.80	0.85	0.94
R Squared	0.88	0.81	0.82	0.81	0.78	0.91
Up Market Capture Ratio	71.84	89.47	91.05	98.65	110.36	124.35
Down Market Capture Ratio	72.05	61.07	60.42	71.17	78.63	95.42

SECTION 2

Appendix

Investment Risk & Analytical Services

March 31, 2024

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Halifax Water Compliance Statement
Quarterly Certification

For the period of January 1, 2024, to March 31, 2024

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 significant legal claims have been disclosed.



Kenda MacKenzie, P.Eng.
Acting CEO and General Manager

DocuSigned by:



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

Dated:

June 12, 2024

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 Halifax Regional Water Commission.

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

Quarterly Remittance Certification

Appendix II

Period: January to March 2023/2024

<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	<u>\$5,273,596.89</u>	_____
Other Payroll				
Northern Trust	1215	HW Pension Plan	<u>\$ 2,123,116.06</u>	_____
Northern Trust	1216	HRM Pension Plan	<u>\$ 228,144.92</u>	_____
Manulife Financial	1171	Bedford Pension Plan	<u>\$ 2,237.06</u>	_____
Industrial Alliance	2971	DCPP	<u>\$ 20,727.20</u>	_____
Medavie Blue Cross	340, 3101	Health, Dental, Life, LTD	<u>\$ 891,471.57</u>	_____
SSQ Insurance	429	AD&D	<u>\$ 6,170.16</u>	_____
CUPE	160	Union Dues 1431	<u>\$ 40,254.60</u>	_____
CUPE	3517	Union Dues 227	<u>\$ 65,734.96</u>	_____

Other payroll items remitted in accordance with stated requirements:

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)	<u>\$ (3,226,339.28)</u>	_____
Receiver General	210	WCB subcontractors	<u>\$ 279.66</u>	_____

Exceptions, errors and/or late remittances

TO: Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: 
DocuSigned by:
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Louis de Montbrun, CPA, CA

APPROVED: 
DocuSigned by:
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Director, Corporate Services/CFO
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

DATE: June 3, 2024

SUBJECT: **2023/2024 Cost Containment Report**

Information Report

ORIGIN

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

BACKGROUND

The process for cost containment as approved by the Halifax Water Board on October 3, 2013, called for the implementation of a number of recommended actions that would assist Halifax Water in addressing the NSUARB's 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 HRWC 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 operating costs of the utility, with this report to be filed no later than June 30 of each year.

DISCUSSION

A Summary Report - Cost Containment Initiatives for 2023/24 is attached, with updated information as of June 3, 2024. This report shows the cost containment initiatives effecting operations for 2023/24 as a

result of new initiatives implemented during the year and ongoing initiatives from fiscal years 2013/14 to 2022/23 inclusive. The inclusion of initiatives and amounts from prior years reflects an intentional focus on sustainable results over the long term. Estimated cost savings for 2023/24 are \$5.7 million as outlined by category in Figure #1 below:

Figure #1

Procurement Strategies	\$ 464,996	8.3%
Human Resource Strategies	\$ 2,401,216	42.7%
Information Technology Strategies	\$ 108,700	1.9%
Facilities/Process Strategies	\$ 2,600,349	46.2%
Reduce Paper and Printing Costs	\$ 37,467	0.7%
Technology and Business Process Changes	\$ 12,000	0.2%
	<u>\$ 5,624,729</u>	<u>100.0%</u>

As shown above, cost containment initiatives are impacted mostly in the areas of Human Resources, Facilities/Process, and Procurement Strategies. Under Human Resource Strategies, the effects of pension plan re-design initiated in 2015/16 is one of the main contributors to cost containment savings in the current year. Annual savings related to pension plan re-design approximates \$1.7 million, which represents 70.7% of the savings within Human Resource Strategies and 30.0% of the total projected cost savings for 2023/24. In response to questions and concerns raised at the Audit and Finance Committee, it was decided to remove the line item indicating a deferral of staffing within Corporate Services of \$100,000.

Facilities/Process Strategies contain initiatives of varying nature, however one of the main contributors in this category is Halifax Water's Energy Efficiency Program. Projects under this Program account for approximately \$1.6 million of projected savings for the current year, representing 61.1% of savings within the category and 27.7% of the total projected savings for 2023/24.

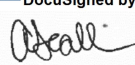
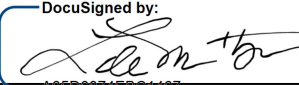
New cost containment initiatives implemented during the 2023/24 fiscal year result in projected cost savings of approximating \$0.5 million and are highlighted for ease of reference on the Summary Report - Cost Containment Initiatives attached. Cost savings from these initiatives are of a one-time or ongoing nature and fall within the Facilities/ Process Strategies category and the Human Resource category. Of the \$0.5 million in new cost containment initiatives, \$0.4 million relate to capital strategies.

BUDGET IMPLICATIONS

Available information on cost containment initiatives were taken into consideration in developing the 2024/25 budget. Initiatives that impact future fiscal periods will be incorporated into budget cycles and processes of these future periods as those implementing the cost containment measures will ensure they are captured when completing their budgets.

ATTACHMENT

1. Summary Report – Cost Containment Initiatives

Report Prepared by:	<p>DocuSigned by:  AFA8696B6D3845C...</p> <p>Alicia Scallion, CPA, CA Manager, Finance, (902) 497-9785</p>
Financial Reviewed by:	<p>DocuSigned by:  A65D6874EBC1467...</p> <p>Louis de Montbrun, CPA, CA Director, Corporate Services/CFO</p>

#	Initiative	Comments	Year Initiated	2023/24 Cost Savings
1 General Budget Strategies				
Sub-total				\$0
2 Procurement Strategies				
	Customer account collections	Coordination of collection services related to closed customer accounts in conjunction with the Provincial Public Procurement Act, rather than outsourcing to private organizations.	2014/15	\$10,000
	Lab Testing	Savings as a result of contract tendering.	2013/14	\$60,000
	NSPI rate reclassification	Eastern Passage Wastewater Treatment Facility (WWTF).	2014/15	\$16,000
	NSPI rate reclassification	Duffus Street Pumping Station.	2015/16	\$15,000
	Garbage collection - JD Kline Plant	A request for proposal (RFP) was put out to consolidate the garbage collection, which resulted in a cost savings with respect to internal staff hours and use of HW vehicles.	2016/17	\$1,370
	Equipment calibration	Internal staff are now able to calibrate fixed gas detectors instead of outsourcing this to a MSA Safety Inc. technician service provider.	2019/20	\$3,000
	In-house training	Developed in-house method to purge primary sludge discharge line from primary gallery to the sludge holding tank. As a result, an external contractor is no longer required to perform this work. This is on a 3-year cycle.	2019/20	\$0
	Elimination of a customer satisfaction survey	HW performed two customer surveys annually. Upon review it was determined there was a redundancy in questions asked between the two surveys therefore, it was decided to consolidate the questioning into one.	2020/21	\$5,319
	Reduction in fleet repair costs	Savings associated with the removal of 16 units from the fleet as a direct result of the Municipal Auditor General's (MAG) audit of fleet in 2019, and subsequent action taken by Fleet Utilization Management for HW, for units that did not meet the minimum fleet utilization standards.	2020/21	\$41,500
	Reduction in depreciation costs related to Fleet	As recommended in the 2019 MAG Fleet Use Audit, the Fleet Upgrade Capital Program was reduced in 2021/22 by \$1.1 million resulting in savings associated with depreciation costs over the next 5-years estimated at \$0.2 million per year.	2021/22	\$218,000
	Reduction in depreciation costs related to discounted meter purchase	As the AMI metering project was concluding, an opportunity to purchase AMI meters in bulk became available to take advantage of significant price savings from a capital perspective.	2021/22	\$1,254
	Reduction in depreciation costs related to Fleet	An adjustment was made to the Sewer Jet Replacement Program whereby, rather than replace an existing unit, it was decided to replace the truck chassis along with a complete rebuild of the tank, pumps and body assembly. Cost of a new unit would approximate \$0.55 million compared to a budgeted cost of \$0.28 million for the alternative chosen.	2021/22	\$55,000
	Operational cost savings related to purchase of a single axle, hydro excavation unit	After an successful pilot with a single axle, hydro excavation unit, it was decided to purchase the rental unit. It is expected the savings as a result of purchasing the unit versus outsourcing the work will be in the range of \$28-\$42 thousand per year, over a 7-year period.	2021/22	\$28,000
	Procurement of annual audit fees	Reduction in the annual audit fees through a request for proposal (RFP) process. The contract term is for a 5-year period, and assuming an inflation factor of 2% over fees of the prior year, potential savings over the term could approximate \$41 thousand.	2021/22	\$6,555
	Reduction in license fees	Renewal of AutoCAD license contract for 3 years to avoid annual increases of 2.5% per year for a savings of \$12k over the three years. Also dropped two more expensive licenses for an immediate savings of \$21 thousand. These actions result in cost savings of \$25 thousand in 2022/23 and \$4 thousand in subsequent two years.	2022/23	\$4,000
Sub-total				\$464,997

Halifax Water
Summary Report - Cost Containment Initiatives
2023/2024
Fiscal Year

#	Initiative	Comments	Year Initiated	2023/24 Cost Savings
3	Human Resource Strategies			
	Pension plan re-design	Through the collective bargaining process, HW was able to negotiate pension plan re-design to make the plan more sustainable. Earnings were capped at the 2015 CRA maximum from 2016 through 2023 then indexed at 1%, the final year average adjusted from five to seven years, and conditional indexing changed from a maximum of 2% to 1% for post-2015 effective January 1, 2015.	2015/16	\$1,700,000
	Workload, labor force assessment	January 1, 2016 saw the elimination of the administrative assistant within Regulatory Services. In 2021 the administrative assistant for Corporate Services began to be shared between the two departments. Cost savings have been adjusted to reflect this.	2015/16	\$14,250
	Workload, labor force assessment	November 2016 saw the elimination of a Compliance Sampling position as a result of a reduction in sampling requirements.	2016/17	\$81,966
	Modifications to the Pre-Retirement Leave Program	In June 2019, employees were given the opportunity to withdraw their accrued benefit under the Pre-Retirement Leave Program in the form of a lump-sum payment, rather than continuing to accrue a benefit under a modified program. The Pre-Retirement Leave Program had been closed to new, non-union employees hired after March 31, 2018, and is now effectively closed for all other employees hired after June 7, 2018.	2019/20	\$260,000
	Pension plan contribution rate	Through the 2022 actuarial valuation, the pension plan contribution rate decreased from 10.34% to 9.60% effective January 1, 2022.	2022/23	\$250,000
	Re-structuring within Wastewater Treatment	Due to the reorganization of the Wastewater Treatment section of the Operations department, one full time Supervisor position was eliminated. One supervisor is now responsible for the management of two plants (Herring Cove and Timberlea).	2022/23	\$95,000
Sub-total				\$2,401,216
4	Information Technology Strategies			
	Xerox managed print solutions	Rationalization and replacement of photocopiers and printers.	2013/14	\$20,000
	Network	Change in cost model by Eastlink, giving HW the new pricing.	2013/14	\$80,000
	Telephone land lines	Rationalization of services and eliminate duplication of resources as required.	2013/14	\$8,700
Sub-total				\$108,700
5	Facilities/Process Strategies			
	Lab Testing	Price benefits from purchasing product from a different source mainly affecting the Harbour Solution Plants.	2013/14	\$105,000
	Waste oil boiler system - Herring Cove WWTF	New system to allow the use of waste oil from Metro Transit as an alternative heating source.	2014/15	\$15,000
	System sampling for HPC's	Sampling was reduced from weekly to monthly.	2014/15	\$8,025
	Decommissioning of the Bedford South pumping station	The developer driven system expansion will permit the use of gravity and pressure reduction rather than the pumping station.	2014/15	\$15,000
	Lighting upgrades - Bennery Lake WSP		2014/15	\$4,793
	Insulation upgrades - Bennery Lake WSP		2014/15	\$36,000
	Lighting upgrades - Eastern Passage WWTF		2014/15	\$7,880
	Lighting upgrades - Dartmouth WWTF		2014/15	\$22,542
	Lighting upgrades - Herring Cove WWTF		2014/15	\$13,744
	Lighting upgrades - Halifax WWTF		2014/15	\$29,845
	Lighting upgrades - Aerotech BPF		2014/15	\$19,109
	HVAC upgrades - Eastern Passage WWTF		2014/15	\$20,711
	HVAC upgrades - Roach's Pond pumping station		2014/15	\$13,500
	MCC 190 cooling and heat recovery - Halifax WWTF		2014/15	\$13,164
	Aeration system upgrades - Eastern Passage WWTF		2014/15	\$76,382
	Orchard Park in-line turbine project		2014/15	\$16,412
	Wind farm - Pockwock WSP	Net annual royalty from Pockwock Wind Farm energy production, HST not included.	2014/15	\$133,924
	Biogas CHP system - Mill Cove		2014/15	\$86,000
	E-delivery	Transitioning from traditional billing methods to e-delivery.	2014/15	\$20,000
	Change in Recycling Pickups	By changing the schedule for recycling pickups from bi-weekly to every three (3) weeks, the anticipated annual savings will range from \$2,500 to \$2,700.	2015/16	\$2,700
	Highway #7 Booster Station Upgrade	Expected energy savings.	2015/16	\$14,300
	Dartmouth WWTF - UV Channel Isolation	Expected energy savings.	2015/16	\$59,460
	Halifax WWTF - Fixed Compressed Air Leaks	Expected energy savings.	2015/16	\$2,293
	Halifax WWTF - UV Channel Isolation	Expected energy savings.	2015/16	\$62,115
	Herring Cove WWTF - MCC 190 Cooling/Heat Recovery	Expected energy savings.	2015/16	\$8,496
	Process alternative	A centrifuge was rented for the Mill Cove WWTF (with the option to purchase) on a trial basis to dewater liquid sludge that typically would be transported to the Aerotech WWTF. The transport of the liquid sludge resulted in lower overtime costs, as well as reducing the time available for HW truck to service other facilities. This process assisted the Aerotech WWTF in reaching its compliance goals and reduced overtime costs by an estimated 50%. This equipment will enable HW to proceed with a digester clean out project, which would otherwise be sub-contracted at a cost of \$0.2 million.	2015/16	\$40,000
	Process change	It was decided that flanges for meter sizes greater than 2" would be the responsibility of the customer, since when meters are replaced, the flanges are not replaced.	2015/16	\$4,854
	UV disinfection shutdown - HHSP and Eastern Passage WWTFs	Annual shutdown of UV disinfection system resulted in cost savings associated with electrical energy savings, peak demand reduction.	2016/17	\$262,516
	Halifax WWTF - Carbon Scrubber By-Pass		2016/17	\$55,083

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	Tools developed internally	Tools developed internally to install new operating nuts on buried valves. Previously nuts were lost on buried valves resulting in a need to excavate the valve and install new nuts. Cost savings are achieved regarding excavation and reinstatement.	2016/17	\$20,000
	Utilization of industrial water	A new filter system was installed at the Eastern Passage WWTF that provides the capability to use the current industrial water system rather than potable water to deliver water to the polymer feed systems.	2016/17	\$26,000
	Herring Cove WWTF - Carbon Scrubber By-Pass		2017/18	\$4,086
	Servicing oxygen monitors in-house	Technical Service staff have been trained by the manufacturer to service the fleet of personal gas monitors in-house, specifically the replacement of the oxygen sensor. These monitors, 165 in total, are used by all operation and treatment departments throughout the organization.	2018/19	\$30,000
	Pumping Station Starters (4160V)	The pumping station starters were upgraded to vacuum starters, thus eliminating the need for annual servicing of the starters to be outsourced. Any maintenance can now be handled by in-house industrial electricians.	2018/19	\$1,500
	Automated Flushing Stations	Automated flushing stations are now used to ensure the proper chlorine residuals are achieved in all areas of the transmission and distribution system. Previously this operation was performed manually on a daily basis from approximately June to September. As a result labor and vehicle costs have been reduced accordingly.	2018/19	\$8,000
	Corrosion Sampling	Corrosion sampling in the distribution system was reduced from bi-weekly to monthly in June 2018, since enough baseline data has been collected and there are no immediate plans to change corrosion control in the near future.	2018/19	\$12,600
	Alternative product	An alternative timing belt was introduced to replace the normal v-belt/sheave configuration, which reduced slippage between the v-belts and sheaves resulting in a reduction in power demand. The product has been installed at both the Halifax and Herring Cove WWTF, with the expectation of implementation at other wastewater and water facilities.	2018/19	\$40,000
	Dosage Optimization	Desiccant filters were fitted to the polymer totes to prevent warm, moist air from contaminating the polymer dosed to thicken centrifuge and drum thickener solids. The polymer no longer reacts early with water before being dosed, thus allowing the optimization of the dose and preventing polymer waste, leading to reduced consumption.	2019/20	\$20,000
	Polymer optimization	Began polymer optimization in an effort to ensure good quality biosolids as well as a good quality centrate without having excess amounts of polymer. Were able to reduce the feed rate from 60% to 21%.	2019/20	\$15,000
	Improvements to aeration train	Installed a curtain in the aeration train to enable better mixing of the microorganisms with the chemical, thereby reducing chemical costs and providing better quality treatment.	2019/20	\$15,000
	Optimization of polymer dosing (Mill Cove)	By implementing daily jar testing to determine the startup dose setpoint, polymer dosing was optimized.	2019/20	\$22,450
	Belt drive change-out (Mill Cove)	Replacing the belt drive with a synchronous chain drive on a 30 horsepower blower resulted in a cost savings associated with energy consumption.	2019/20	\$1,375
	Upgrading equipment (Mill Cove)	Upgrading the water flow meter used in the dilution of polymer resulted in lowering water usage in the process by approximately 20,000 litres per day.	2019/20	\$12,775
	Fan belt/ pulley replacements - Mill Cove WWTF	Expected energy savings - based on 12,750 kWh.	2019/20	\$1,300
	Fan belt/ pulley replacements - Dartmouth WWTF	Expected energy savings - based on 177,980 kWh.	2019/20	\$20,000
	Preventative maintenance program established	A preventative maintenance program was created in conjunction with HW operations staff to clean centrifuge centrate lines weekly at a cost of \$235. Clogging of centrate in the centrate lines was being experienced resulting in a backup in the centrifuge drum and bio-solids bin. Every 2-3 weeks it was costing approximately \$1,000 to remove obstructions by an outside contractor, in addition to internal staff time and equipment.	2020/21	\$10,000
	Centrifuge adjustments	Adjustments to the weir plate on both centrifuges at the dewatering facility allows more water to escape during the dewatering process, resulting in a product that is 6% dryer on average. Having a more compacted product results in fewer trucks going to the N-Viro facility saving on tipping fees. In addition, solids in the resulting product is now over 28% which is subject to a reduced rate, a savings of approximately \$12/ tonne.	2020/21	\$15,000
	Chemical substitution	Carbon source (Micro C) is a proprietary compound used as a food supply for micro-organisms in the denitrification process at the Aerotech WWTF, which is effective but quite expensive. HW has been able to source beer wort from a local brewery as a substitute for Micro C. Beer wort is a waste product in brewing beer which is high in carbon.	2020/21	\$85,000
	Reduction in heating fuel costs	The installation of a 18,000 BTU heat pump in the admin area of the Leachate Facility, coupled with repairs to an existing unit in the lab area, resulted in heating fuel savings.	2020/21	\$5,000
	Solar PV - COMFIT/ Renewable Energy Generation	Operational at the Halifax WWTF.	2020/21	\$30,133
	Fan belt/ pulley replacements - Eastern Passage WWTF	Expected energy savings - based on 118,348 kWh.	2020/21	\$13,366
	Harbour Solution Plants - Ventilation Air Heat Recovery	Expected energy savings for the Halifax, Dartmouth and Herring Cove WWTF.	2015/16	\$132,728
	Utilizing alternative assets to perform similar duties	Rather than using vacuum trucks to get loads of digested waste from Mill Cove on days when they are unable to centrifuge, the 2 new dump trucks from Aerotech are used. This will be done initially during long weekends and holidays when no dumping is available through the RE Group, at an estimated daily savings of \$750.	2021/22	\$8,250
	The production of biogas used to heat the digesters, and all facility buildings	Both the Mill Cove and Timberlea WWTF's have anaerobic digesters which produce biogas or renewable natural gas (RNG) which is used to heat the digesters as well as all the facility buildings.	2021/22	\$383,170
	Reduction in the usage of caustic	The pH set point was reduced from 7.1 to 6.8 in order to reduce the amount of caustic soda consumed, while still enduring nitrification in the bioreactors. Usage was monitored over a 6-week period, and the savings are estimated to be in the range of 30%.	2021/22	\$30,000
	450 Cowie - Lighting Control Upgrades	Expected energy savings - Based on 169,785 kWh.	2022/23	\$17,620
	455 Cowie - Lighting Control Upgrades	Expected energy savings - Based on 189,939 kWh.	2022/23	\$19,681
	Activated Sludge Training	Activated Sludge Training is a requirement for staff working in advanced primary treatment facilities in preparation for certification exams. The HW Lab Analyst has developed and delivered this training to external organizations and can deliver the training at virtually no cost to HW. External organizations typically charge \$517.50 per student for the full day course.	2023/24	\$10,350
	McGee Hydrant	HRM typically identifies 3-4 hydrants per year that need to be relocated for street recapitalization projects. Recent pricing has been about \$15,000 per hydrant.	2023/24	\$12,500
	Brunswick Street	Central Water Services moved H22064 on McGee Drive for \$2,500 by request of HRM. During the Cogswell Project, a section of Brunswick Street was found to have an extensive buildup of legacy material deposits. This material could have caused a significant discolored water event. Dexter quoted a price of \$170k for replacement of 27m of main. West Water Services with support from WW/SW collections will replace the main later in March using internal resources.	2023/24	\$110,000

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	Internal Hydrovac	West Water Services has been completing a significant amount of exploratory hydro excavations to confirm service material. A third party contractor is generally used for this work. For approximately 4 weeks this winter, East and West WW/SW collections assisted to provide the hydrovac unit. The third party contractor hourly unit rate was \$230.00/hr, the HW unit rate is \$66.00/hr. This is a savings of \$1,300 per day on an 8 hour day.	2023/24	\$26,240
	Lab Training	Due to the number of recently hired Process Technicians and staff changes, there is a need to provide Wastewater Laboratory Training to new staff and as a refresher for more experienced staff. The HW Lab Analyst has developed and delivered this training to external organizations, as a contractor for both MPWWA and ACWWA, and can deliver the training at virtually no cost to HW. The course and curriculum has been accepted by NSECC and is eligible for Continuing Education Units (CEUs). These organizations typically charge \$517.50 per student for the full day course.	2023/24	\$10,350
	Combination Sewer Cleaners	We have done this rebuild process 3 times with an RFP. Essentially we are adding a new chassis to an existing fleet unit and rebuilding the body. These units cost \$700K new and we can rebuild and re-chassis them once at the 10 to 12 year mark for \$350K.	2023/24	\$250,000
	Effluent leachate samples	No longer required to collect and submit effluent leachate samples to lab on a monthly basis. NS Environment approved the change. These costs were recovered by from HRM annually, however eliminating this requirement has eased the workload and stress on our compliance staff.	2023/24	\$5,589
	Aerotech WWTF - Solar PV - COMFIT/ Renewable Energy Generation	Operational at the Aerotech WWTF.	2023/24	\$6,438
Sub-total There will only be 2 bidders from the local market (SNT Solutions & Joe Johnson Equip.) as this is a relatively specialized field.				\$2,600,349
6 Reduce Paper and Printing Costs				
	Electronic HRWC Board Packages	Send Board packages out electronically rather than issuing hard copies.	2013/14	\$7,500
	Changes to document archiving	Transitioning file storage from outside contractor to public resources.	2013/14	\$3,175
	Changes to document archiving	Transitioning file storage from outside contractor to public resources.	2016/17	\$9,000
	Cost reduction associated with off-site storage	There has been an effort to reduce the number of boxes (documents) stored in facilities such as Iron Mountain, by sorting and purging documents in accordance with the document retention policy of the Commission.	2018/19	\$10,000
	Cost reduction associated with the Annual Report	The annual report for the year ended March 31, 2019 saw the number of copies produced drop from 275 copies in the previous year to 150 copies. This represents not only a cost savings but also an environmental benefit associated with paper reduction.	2019/20	\$936
	Paperless payroll	All payroll timesheets and approvals now completed electronically. Pay statements also available online saving on paper, envelopes, and mailing costs.	2020/21	\$4,804
	Cost reduction associated with off-site storage	Due to further reductions in the number of boxes (documents) stored in facilities such as Iron Mountain, additional savings have been realized.	2022/23	\$2,052
Sub-total				\$37,467
7 Technology and Business Process Changes				
	Cost Reduction for Dispute Resolution Officer	Reduction in costs resulting from efficiency gains from process enhancement and strong financial management relating to the Dispute Resolution Officer.	2022/23	\$12,000
Sub-total				\$12,000
				\$5,724,729