

August 22, 2024

The regular meeting of the Halifax Water Board will be held virtually on Thursday, September 26, 2024, beginning at 9:00 a.m. Visit [www.halifaxwater.ca](http://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 Meeting held on Thursday, June 20, 2024 and special meeting of July 9, 2024

**Motion:** *That the Halifax Water Board approve the In-Camera minutes of June 20, 2024 and the special meeting of July 9, 2024.*

- 2C Business Arising from Minutes  
3C Security Matter (Verbal)  
4C Personnel Matter (Verbal)  
5C Capital Matter

### Regular Reports

1. a) Ratification of In-Camera motions

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

- 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, June 20, 2024

**Motion:** *That the Halifax Water Board approve the minutes of the June 20, 2024, regular meeting.*

3. Business arising from minutes  
a) None

## Financial Reports

4.1 Operating results as of July 31, 2024

4.2 Capital expenditures as of July 31, 2024

4.3 Fall 2024 Debenture

**Motion:** That the Halifax Water Board approve:

1. Approve the financing of \$65,000,000 with a thirty-year amortization term and finance over ten years. The maximum all-inclusive rate is not to exceed 6.5%; and
2. Approve the re-financing of \$14,080,529 with a ten-year amortization term and financing over ten years, with an all-inclusive rate not to exceed 6.5%.

4.4 Capital Projects Spending Summary 2023/2024

**Motion:** That the Halifax Water Board approve for filing with the NSUARB, the capital project spending summary for the period April 1, 2023, to March 31, 2024, and the capital project spending over \$1,000,000 summary for the period April 1, 2023, and March 31, 2024.

4.5 Update on Timelines for Regional Development Charge, Integrated Resource Plan and Rate Application (Verbal)

## Capital Reports

5.1 Windsor Street Exchange Redevelopment Project – Update (Verbal)

5.2 Water Supply Enhancements Program (WSEP) - Update (Verbal)

5.3 District Energy System (DES) Boundary Extension Request

**Motion:** That the Halifax Water Board direct the A/General Manager to request that Halifax Regional Council:

1. Authorize the Halifax Regional Water Commission to operate the Cogswell District Energy System within the “non-mandatory” connection zone as depicted in Figure 2 of this report, in addition to the existing mandatory connection zone.
2. Direct the Mayor to write a letter to the Province of Nova Scotia requesting legislative amendments to the Halifax Regional Municipality Charter and Halifax Regional Water Commission Act, to:
  - a) expand the boundary of the Cogswell District Energy System to include the “non-mandatory” connection zone depicted in Figure 2 of this report;
  - b) authorize the municipality to pass by-laws with respect to both the mandatory and non-mandatory connection zones; and
  - c) extend the application of Halifax Water’s statutory limitations of liability to the provision of incidental business, including district energy services.

## Other Business

### 6. Corporate Governance Manual & Signing Authority Guidelines

**Motion:** *That the Halifax Water Board approve:*

1. *Approve amendments to the Corporate Governance Manual as shown in Attachment A; and*
2. *Authorize the General Manager to oversee and update the Signing Authority Guidelines as a corporate operational policy.*

## Information Reports

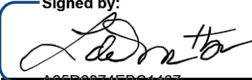
- 1-I Operational Performance Information Report
- 2-I Halifax Water Compliance Statement – Quarterly Certification
- 3-I Halifax Water 2023/2024 Annual Report
- 4-I Halifax Water Employees’ Pension Plan Performance – Quarterly Update
- 5-I Asset Management Policy Review
- 6-I Pockwock Boil Order Advisory Investigation
- 7-I Spring 2024 Debenture Utilization


*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:**   
Signed by: A05D0874EBC1407...  
 Louis de Montbrun, CPA, CA Director, Corporate Services/CFO

**APPROVED:**   
Signed by: 0C084AC845794F6...  
 Kenda MacKenzie, P.Eng., Acting CEO & General Manager

**DATE:** September 26, 2024

**SUBJECT:** **Operating Results for the 4 months ended July 31, 2024**

**ORIGIN**

Financial information reporting.

**BACKGROUND**



At the September 4, 2024, meeting of the Halifax Water Audit and Finance Committee (the Committee), the attached financial information report for the four months ended July 31, 2024, was reviewed and discussed.

**DISCUSSION**

No additional information was requested to be brought forward to the Halifax Water Board meeting following the discussion of the attached at the Committee meeting.

**ATTACHMENT**

1. Halifax Water Audit and Finance Committee Report - Operating Results for the 4 months ended July 31, 2024.

Report Prepared by:	 <small>Signed by: AFA8C90B0D3045C...</small> Alicia Scallion, CPA, CA, Manager, Finance
Financial Reviewed by:	 <small>Signed by: A05D0874EBC1407...</small> 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:**

Signed by:  
  
A65D6874EBC1467...  
\_\_\_\_\_  
Louis de Montbrun, CPA, CA  
Director, Corporate Services/CFO

**APPROVED:**

Signed by:  
  
0C084AC815794F6...  
\_\_\_\_\_  
Kenda McKenzie, P. Eng  
Acting Chief Executive Officer and General Manager

**DATE:** August 30, 2024

**SUBJECT:** Operating results for the 4 months ended July 31, 2024

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**ORIGIN**

Financial Information Reporting.

**DISCUSSION**

Attached are the operating results for the four (4) months ended July 31, 2024, with comparative figures for July 31, 2023.

**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.

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.

## Assets:

July 31 (in thousands)	2024	2023	March 31 2024	From Prior Year \$ Change	% Change
<b>Assets</b>					
<b>Current</b>					
Cash and cash equivalents	\$ 39,722	\$ 29,176	\$ 44,021	\$ 10,546	36.1%
Receivables					
Customer charges and contractual	13,696	17,593	21,546	(3,897)	(22.2%)
Unbilled service revenues	21,288	21,006	20,959	282	1.3%
Halifax Regional Municipality	5,024	3,648	0	1,375	37.7%
Inventory	2,589	2,266	2,364	322	14.2%
Prepays	2,349	1,072	1,735	1,277	119.1%
	84,668	74,762	90,625	9,906	13.2%
Capital work in progress	139,727	100,298	114,374	39,429	39.3%
Utility plant in service	1,416,965	1,364,806	1,374,665	52,160	3.8%
Total assets	1,641,360	1,539,866	1,579,665	101,494	6.6%
Regulatory deferral account	1,965	2,172	2,044	(207)	(9.5%)
<b>Total assets and regulatory deferral account</b>	<b>\$ 1,643,325</b>	<b>\$ 1,542,038</b>	<b>\$ 1,581,709</b>	<b>\$ 101,287</b>	<b>6.6%</b>

- Customer charges and contractual receivables have decreased \$3.9 million from the prior year. The change in receivables is driven by the timing of billing cycles, and an unbilled receivable for stormwater right of way charges for the Province.
- Unbilled service revenue has increased \$0.2 million due to the timing of billing cycles.
- Prepays has increased by \$1.3 million due to the payment of HRM insurance premiums in the month of July compared to the month of July in the previous year.

## Liabilities:

July 31 (in thousands)	2024	2023	March 31 2024	From Prior Year \$ Change	% Change
<b>Liabilities</b>					
<b>Current</b>					
Payables and accruals					
Trade	19,752	20,751	23,393	(1,000)	(4.8%)
Non-trade	5,571	2,770	5,579	2,802	101.2%
Interest on long term debt	1,942	1,600	3,062	341	21.3%
Halifax Regional Municipality	0	0	5,047	0	0.0%
Contractor and customer deposits	1,220	259	1,095	962	371.4%
Current portion of long term debt	39,832	45,962	39,832	(6,130)	(13.3%)
Unearned revenue	(4,653)	(4,793)	157	139	(2.9%)
	63,663	66,550	78,163	(2,886)	(4.3%)
Long term debt	204,946	164,742	196,622	40,204	24.4%
Deferred contributions	108,345	100,996	97,673	7,349	7.3%
Total liabilities	376,955	332,288	372,458	44,667	13.4%
<b>Equity</b>					
Accumulated capital surplus	1,254,302	1,154,838	1,195,019	99,464	8.6%
Accumulated operating surplus	4,879	46,492	9,233	(41,612)	(89.5%)
Operating surplus used to fund capital	12,380	12,380	12,380	0	0.0%
Deficiency of revenues over expenditures	(6,742)	(3,960)	(7,381)	(2,782)	70.3%
Total equity	1,264,820	1,209,749	1,209,251	55,070	4.6%
<b>Total liabilities and equity</b>	<b>\$ 1,641,775</b>	<b>\$ 1,542,038</b>	<b>\$ 1,581,709</b>	<b>\$ 99,737</b>	<b>6.5%</b>

Payables and Accruals				
	2024/25	2023/24		
	'000	'000	\$ Change	% Change
Trade payables	\$ 9,930	\$ 9,784	\$ 146	1.5%
Trade accrued payables	8,794	10,449	(1,655)	(15.8%)
Accrued wastewater rebate	1,028	519	509	98.2%
	<b>\$ 19,752</b>	<b>\$ 20,751</b>	<b>\$ (1,000)</b>	<b>(4.8%)</b>

- Trade payables and accruals have decreased \$1 million from the prior year due to a decrease of \$1.7 million in accrued liabilities. This decrease is due to the timing of invoices related to capital projects.

HRM Receivables and Payables				
	2024/25	2023/24		
	'000	'000	\$ Change	% Change
Receivables	\$ (410)	\$ 2,342	\$ (2,752)	(117.5%)
RDC	7,165	5,972	1,193	20.0%
Payables	(1,731)	(4,666)	2,935	(62.9%)
	<b>\$ 5,024</b>	<b>\$ 3,648</b>	<b>\$ 1,375</b>	<b>37.7%</b>

### **Statement of Earnings (NSUARB) – pages 4 through 9 of Attachment 1**

Summarized Statement of Earnings							
	Budget	Actual	Actual	From Prior Year		Actual to Budget	
	2024/25	2024/25	2023/24	\$ Change	% Change	\$ Change	% Change
	'000	'000	'000				
Operating revenues	\$ 172,059	\$ 57,712	\$ 57,337	\$ 375	0.65%	\$ (114,347)	(66.46%)
Operating expenditures	150,859	49,424	49,696	(272)	(0.55%)	(101,434)	(67.24%)
Earnings from operations before and other revenues and expenditures	21,201	8,288	7,641	647	8.47%	(12,913)	(60.91%)
Financial and other revenues	1,126	213	282	(70)	(24.74%)	(913)	(81.12%)
Financial and other expenditure	41,033	13,692	11,887	1,805	15.18%	(27,340)	(66.63%)
Loss for the year	<b>\$ (18,706)</b>	<b>\$ (5,192)</b>	<b>\$ (3,964)</b>	<b>\$ (1,228)</b>	<b>30.98%</b>	<b>\$ 13,515</b>	<b>(72.25%)</b>

### **Operating Revenues:**

#### **Water**

- Water revenue has increased \$0.1M from prior year due to an increase in consumption.
- Miscellaneous revenues of \$0.1M have increased from prior year due to an increase in drawing review fees over prior year.

#### **Wastewater**

- Wastewater revenue is comparable to last year.
- Septage tipping revenues of \$0.3M are higher than prior year because of higher septage tipping volumes this year compared to last.

#### **Stormwater**

- Stormwater site generated service revenue has increased \$0.1M due to the expansion of the stormwater service area.
- Miscellaneous revenues have increased over prior year due to an increase in drawing review fees.

## Operating Expenditures:

### Water

Operating Results by Service - Water							
	Budget 2024/25 '000	Actual 2024/25 '000	Actual 2023/24 '000	From Prior Year		Actual to Budget	
				\$ Change	% Change	\$ Change	% Change
Operating revenues	\$ 65,480	\$ 21,777	\$ 21,705	\$ 72	0.33%	\$ (43,703)	(66.74%)
Operating expenditures	58,189	21,773	20,704	1,069	5.16%	(36,416)	(62.58%)
Earnings from operations	7,290	4	1,000	(997)	(99.61%)	(7,286)	(99.95%)
Financial and other revenues	830	175	219	(44)	(20.15%)	(655)	(78.89%)
Financial and other expenditure	17,353	6,004	4,676	1,328	28.40%	(11,349)	(65.40%)
Loss for the year	\$ (9,233)	\$ (5,825)	\$ (3,456)	\$ (2,369)	68.53%	\$ 3,408	(36.91%)

- Water supply and treatment has increased \$0.9M over prior year due to an increase in chemical costs and equipment repairs and maintenance.
- Engineering and technology services expenditures are \$3.3M higher than prior year as the allocation between Water, Wastewater and Stormwater was reassessed during the 2023/24 budget process. A higher percentage of costs is allocated to Wastewater in the current year.
- Depreciation and amortization is \$2.9M lower than the prior year due to the prior year figure over-depreciating following the system conversion, which was corrected in later months.

### Wastewater

Operating Results by Service - Wastewater							
	Budget 2024/25 '000	Actual 2024/25 '000	Actual 2023/24 '000	From Prior Year		Actual to Budget	
				\$ Change	% Change	\$ Change	% Change
Operating revenues	\$ 90,952	\$ 30,550	\$ 30,395	\$ 154	0.51%	\$ (60,403)	(66.41%)
Operating expenditures	78,542	23,068	24,711	(1,643)	(6.65%)	(55,474)	(70.63%)
Earnings (loss) from operations	12,410	7,481	5,684	1,797	31.62%	(4,929)	(39.71%)
Financial and other revenues	296	37	63	(26)	(40.74%)	(258)	(87.37%)
Financial and other expenditure	19,703	6,517	6,078	438	7.21%	(13,186)	(66.93%)
Earnings (loss) for the year	\$ (6,998)	\$ 1,002	\$ (331)	\$ 1,333	(402.40%)	\$ 8,000	(114.32%)

- Wastewater treatment expenditures have increased from the prior year \$0.7M due to a increase in biosolids treatment and chemical costs.
- Engineering and technology services expenditures are \$0.3 lower than prior year as the allocation between Water, Wastewater and Stormwater was reassessed during the 2023/24 budget process.
- Administration services are consistent with prior year.
- Depreciation and amortization is \$3.0M lower than prior year due to the prior year figure over-depreciating following the system conversion, which was corrected in later months.

## Stormwater

Operating Results by Service - Stormwater							
	Budget 2024/25 '000	Actual 2024/25 '000	Actual 2023/24 '000	From Prior Year		Actual to Budget	
				\$ Change	% Change	\$ Change	% Change
Operating revenues	\$ 15,627	\$ 5,386	\$ 5,237	\$ 149	2.84%	\$ (10,242)	(65.54%)
Operating expenditures	14,127	4,583	4,280	302	7.07%	(9,544)	(67.56%)
Loss from operations	1,500	803	956	(154)	(16.06%)	(698)	(46.49%)
Financial and other expenditure	3,976	1,171	1,133	39	3.42%	(2,805)	(70.54%)
Loss for the year	\$ (2,476)	\$ (368)	\$ (176)	\$ (192)	109.19%	\$ 2,108	(85.12%)

- Stormwater collection costs are slightly higher than budget due to several heavy rain events in the summer months.
- Allocated costs for Engineering and technology, Regulatory, Customer, Corporate and Administration services lower than the prior year and below budget.

## Combined Overall Expenditures

- Overall costs in Engineering and technology services, Regulatory compliance services, Customer services and Corporate services are collectively \$2.9M higher than the prior year due to increases in staffing. Updating of the costs and allocations to account for the re-organization of sub-departments is still underway resulting in variances relative to prior year and budget.
- Administration services expenditures are slightly lower than prior year primarily due to salaries and staffing vacancies and changes.

## Non-operating Revenues

- Interest revenues are allocated to each service and the RDC reserves based on the accumulated surplus/deficit. As Stormwater services is in a deficit position, it is charged interest. No interest revenue has been recorded while the allocation is under review. A higher cash balance to support capital expenditures is expected to offset declines in interest rates.
- Other revenues are slightly ahead of budget and the prior year due to higher lease, rental and energy generation revenues.

## Non-operating Expenditures

- Debt appropriation expenditures are \$1.3M higher than the prior year due to an increase in interest rates on new debt and principal repayments.
- Dividend/grant in lieu of taxes is \$0.7M higher than the prior year due to a the revised agreement with HRM.

## Attachments

Attachment 1: Operating Results for July 31, 2024.

Attachment 2: HRM-HRWC Grant in Lieu Agreement

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Report prepared by:

Signed by:

*Michelle Bennett*

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Michelle Bennett, BComm  
Manager of Accounting (782) 641-5972

**HALIFAX WATER**  
**UNAUDITED STATEMENT OF FINANCIAL POSITION - IFRS**  
**July 31, 2024 (in thousands)**

July 31 (in thousands)	2024	2023	March 31 2024	From Prior Year \$ Change	% Change
<b>Assets</b>					
<b>Current</b>					
Cash and cash equivalents	\$ 39,722	\$ 29,176	\$ 44,021	\$ 10,546	36.1%
Receivables					
Customer charges and contractual	13,696	17,593	21,546	(3,897)	(22.2%)
Unbilled service revenues	21,288	21,006	20,959	282	1.3%
Halifax Regional Municipality	5,024	3,648	-	1,375	37.7%
Inventory	2,589	2,266	2,364	322	14.2%
Prepays	2,349	1,072	1,735	1,277	119.1%
	<u>84,668</u>	<u>74,762</u>	<u>90,625</u>	<u>9,906</u>	<u>13.2%</u>
Intangible assets	34,622	22,807	35,989	11,814	51.8%
Capital work in progress	139,727	100,298	114,374	39,429	39.3%
Utility plant in service	1,269,043	1,302,232	1,297,942	(33,188)	(2.5%)
Total assets	<u>1,528,060</u>	<u>1,500,099</u>	<u>1,538,931</u>	<u>27,961</u>	<u>1.9%</u>
Regulatory deferral account	1,964	2,172	2,045	(208)	(9.6%)
<b>Total assets and regulatory deferral account</b>	<u>\$ 1,530,024</u>	<u>\$ 1,502,271</u>	<u>\$ 1,540,975</u>	<u>\$ 27,753</u>	<u>1.8%</u>
<b>Liabilities</b>					
<b>Current</b>					
Payables and accruals					
Trade	19,752	20,752	23,393	(1,001)	(4.8%)
Non-trade	5,571	2,770	5,579	2,802	101.2%
Interest on long term debt	1,942	1,600	3,062	341	21.3%
Halifax Regional Municipality	0	0	5,047	0	0.0%
Contractor and customer deposits	1,220	259	1,095	962	371.4%
Current portion of deferred contributed capital	19,260	37,672	19,260	(18,412)	(48.9%)
Current portion of long term debt	39,832	45,962	39,832	(6,130)	(13.3%)
Unearned revenue	(4,653)	(4,792)	157	138	(2.9%)
	<u>82,923</u>	<u>104,224</u>	<u>97,423</u>	<u>(21,300)</u>	<u>(20.4%)</u>
Deferred contributed capital	928,969	908,810	928,048	20,159	2.2%
Long term debt	204,946	164,742	196,622	40,204	24.4%
Accrued post-retirement benefits	211	290	211	(79)	(27.1%)
Accrued pre-retirement benefits	1,256	1,340	1,441	(84)	(6.3%)
Deferred pension liability	2,226	9,569	700	(7,342)	(76.7%)
Employee benefit obligation	3,694	11,199	2,353	(7,505)	(67.0%)
Total liabilities	<u>1,220,533</u>	<u>1,188,974</u>	<u>1,224,445</u>	<u>31,558</u>	<u>2.7%</u>
<b>Equity</b>					
Accumulated other comprehensive loss	60,395	51,650	60,395	8,745	16.9%
Accumulated surplus	249,096	261,646	256,135	(12,551)	(4.8%)
Total equity	<u>309,491</u>	<u>313,297</u>	<u>316,530</u>	<u>(3,806)</u>	<u>(1.2%)</u>
<b>Total liabilities and equity</b>	<u>\$ 1,530,024</u>	<u>\$ 1,502,271</u>	<u>\$ 1,540,975</u>	<u>\$ 27,753</u>	<u>1.8%</u>

**HALIFAX WATER**  
**UNAUDITED STATEMENT OF EARNINGS AND COMPREHENSIVE EARNINGS - ALL SERVICES - IFRS**  
**APRIL 1, 2024 - JULY 31, 2024 (4 MONTHS)**  
**ACTUAL YEAR TO DATE COMPLETE: 33.33%**

	ACTUAL YEAR TO DATE		APR 1/24 MAR 31/25	ACTUAL YEAR TO DATE	From Prior Year		Actual to Budget	
	THIS YEAR '000	LAST YEAR '000	BUDGET '000	as % of BUDGET	\$ Change	% Change	\$ Remaining	% Remaining
<b>Operating revenues</b>								
Water	\$ 18,228	\$ 18,161	\$ 54,832	33.24%	\$ 66	0.36%	\$ (36,605)	(66.76%)
Wastewater	29,882	29,865	89,330	33.45%	18	0.06%	(59,447)	(66.55%)
Stormwater	5,246	5,192	15,379	34.11%	55	1.05%	(10,133)	(65.89%)
Public fire protection	2,694	2,694	8,083	33.33%	0	0.00%	(5,389)	(66.67%)
Private fire protection	572	555	1,721	33.25%	17	3.10%	(1,149)	(66.75%)
Other operating revenue	1,090	873	2,714	40.15%	217	24.86%	(1,624)	(59.85%)
	<b>57,712</b>	<b>57,340</b>	<b>172,059</b>	<b>33.54%</b>	<b>372</b>	<b>0.65%</b>	<b>(114,347)</b>	<b>(66.46%)</b>
<b>Operating expenditures</b>								
Water supply and treatment	4,823	3,894	13,661	35.31%	929	23.86%	(8,838)	(64.69%)
Water transmission and distribution	4,224	4,128	14,066	30.03%	97	2.34%	(9,842)	(69.97%)
Wastewater collection	4,875	4,606	14,346	33.98%	269	5.84%	(9,471)	(66.02%)
Stormwater collection	2,182	1,599	5,816	37.52%	583	36.45%	(3,634)	(62.48%)
Wastewater treatment	7,889	7,185	26,368	29.92%	705	9.81%	(18,479)	(70.08%)
Engineering and technology services	7,544	4,619	17,757	42.48%	2,925	63.33%	(10,213)	(57.52%)
Regulatory compliance services	1,627	1,070	5,922	27.47%	557	52.00%	(4,295)	(72.53%)
Customer services	1,095	1,354	4,507	24.29%	(259)	(19.13%)	(3,412)	(75.71%)
Corporate services	809	1,095	3,743	21.61%	(286)	(26.13%)	(2,934)	(78.39%)
Administration services	1,477	1,510	10,267	14.39%	(33)	(2.16%)	(8,790)	(85.61%)
Pension services	1,527	3,138	2,889	52.84%	(1,612)	(51.35%)	(1,362)	(47.16%)
Depreciation and amortization	19,516	17,840	53,666	36.37%	1,677	9.40%	(34,149)	(63.63%)
	<b>57,588</b>	<b>52,037</b>	<b>173,008</b>	<b>33.29%</b>	<b>5,551</b>	<b>10.67%</b>	<b>(115,420)</b>	<b>(66.71%)</b>
<b>Earnings (loss) from operations before financial and other revenues and expenditures</b>	<b>124</b>	<b>5,303</b>	<b>(948)</b>	<b>(13.12%)</b>	<b>(5,178)</b>	<b>(97.65%)</b>	<b>1,073</b>	<b>(113.12%)</b>
<b>Financial and other revenues</b>								
Interest	0	107	511	0.00%	(107)	(100.00%)	(511)	(100.00%)
Amortization of contributed capital	6,816	6,611	19,260	35.39%	205	3.10%	(12,444)	(64.61%)
Other	213	175	615	34.58%	37	21.40%	(402)	(65.42%)
	<b>7,028</b>	<b>6,893</b>	<b>20,386</b>	<b>34.48%</b>	<b>135</b>	<b>1.96%</b>	<b>(13,358)</b>	<b>(65.52%)</b>
<b>Financial and other expenditures</b>								
Interest	0	27	128	0.00%	(27)	(100.00%)	(128)	(100.00%)
Interest on long term debt	2,811	2,350	9,375	29.99%	461	19.63%	(6,564)	(70.01%)
Amortization of debt discount	79	72	245	32.28%	7	10.37%	(166)	(67.72%)
Dividend/grant in lieu of taxes	2,856	2,170	7,031	40.62%	686	31.62%	(4,175)	(59.38%)
Other	36	32	175	20.60%	4	11.84%	(139)	(79.40%)
	<b>5,783</b>	<b>4,651</b>	<b>16,955</b>	<b>34.11%</b>	<b>1,132</b>	<b>24.33%</b>	<b>(11,172)</b>	<b>(65.89%)</b>
<b>Earnings for the year before other comprehensive earnings</b>	<b>\$ 1,370</b>	<b>\$ 7,545</b>	<b>\$ 2,482</b>	<b>55.19%</b>	<b>\$ (6,175)</b>	<b>(81.84%)</b>	<b>\$ (1,112)</b>	<b>(44.81%)</b>
<b>Other comprehensive earnings</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>	<b>0</b>	<b>0.00%</b>
<b>Total comprehensive earnings for the year</b>	<b>\$ 1,370</b>	<b>\$ 7,545</b>	<b>\$ 2,482</b>	<b>55.19%</b>	<b>\$ (6,175)</b>	<b>(81.84%)</b>	<b>\$ (1,112)</b>	<b>(44.81%)</b>



**HALIFAX WATER**  
**UNAUDITED STATEMENT OF FINANCIAL POSITION - NSUARB**  
July 31, 2024 (in thousands)

July 31 (in thousands)	2024	2023	March 31 2024	From Prior Year \$ Change	% Change
<b>Assets</b>					
Current					
Cash and cash equivalents	\$ 39,722	\$ 29,176	\$ 44,021	\$ 10,546	36.1%
Receivables					
Customer charges and contractual	13,696	17,593	21,546	(3,897)	(22.2%)
Unbilled service revenues	21,288	21,006	20,959	282	1.3%
Halifax Regional Municipality	5,024	3,648	0	1,375	37.7%
Inventory	2,589	2,266	2,364	322	14.2%
Prepays	2,349	1,072	1,735	1,277	119.1%
	<u>84,668</u>	<u>74,762</u>	<u>90,625</u>	<u>9,906</u>	<u>13.2%</u>
Capital work in progress	139,727	100,298	114,374	39,429	39.3%
Utility plant in service	1,416,965	1,364,806	1,374,665	52,160	3.8%
Total assets	<u>1,641,360</u>	<u>1,539,866</u>	<u>1,579,665</u>	<u>101,494</u>	<u>6.6%</u>
Regulatory deferral account	1,965	2,172	2,044	(207)	(9.5%)
<b>Total assets and regulatory deferral account</b>	<b>\$ 1,643,325</b>	<b>\$ 1,542,038</b>	<b>\$ 1,581,709</b>	<b>\$ 101,287</b>	<b>6.6%</b>
<b>Liabilities</b>					
Current					
Payables and accruals					
Trade	19,752	20,751	23,393	(1,000)	(4.8%)
Non-trade	5,571	2,770	5,579	2,802	101.2%
Interest on long term debt	1,942	1,600	3,062	341	21.3%
Halifax Regional Municipality	0	0	5,047	0	0.0%
Contractor and customer deposits	1,220	259	1,095	962	371.4%
Current portion of long term debt	39,832	45,962	39,832	(6,130)	(13.3%)
Unearned revenue	(4,653)	(4,793)	157	139	(2.9%)
	<u>63,663</u>	<u>66,550</u>	<u>78,163</u>	<u>(2,886)</u>	<u>(4.3%)</u>
Long term debt	204,946	164,742	196,622	40,204	24.4%
Deferred contributions	108,345	100,996	97,673	7,349	7.3%
Total liabilities	<u>376,955</u>	<u>332,288</u>	<u>372,458</u>	<u>44,667</u>	<u>13.4%</u>
<b>Equity</b>					
Accumulated capital surplus	1,254,302	1,154,838	1,195,019	99,464	8.6%
Accumulated operating surplus	4,879	46,492	9,233	(41,612)	(89.5%)
Operating surplus used to fund capital	12,380	12,380	12,380	0	0.0%
Deficiency of revenues over expenditures	(5,192)	(3,960)	(7,381)	(1,232)	31.1%
Total equity	<u>1,266,370</u>	<u>1,209,749</u>	<u>1,209,251</u>	<u>56,620</u>	<u>4.7%</u>
<b>Total liabilities and equity</b>	<b>\$ 1,643,325</b>	<b>\$ 1,542,038</b>	<b>\$ 1,581,709</b>	<b>\$ 101,287</b>	<b>6.6%</b>

**HALIFAX WATER**  
**UNAUDITED STATEMENT OF EARNINGS - ALL SERVICES - NSUARB**  
**APRIL 1, 2024 - JULY 31, 2024 (4 MONTHS)**  
**ACTUAL YEAR TO DATE COMPLETE: 33.33%**

	ACTUAL YEAR TO DATE		APR 1/24 MAR 31/25 BUDGET '000	ACTUAL YEAR TO DATE as % of BUDGET	From Prior Year		Actual to Budget	
	THIS YEAR '000	LAST YEAR '000			\$ Change	% Change	\$ Remaining	% Remaining
<b>Operating revenues</b>								
Water	\$ 18,228	\$ 18,161	\$ 54,832	33.24%	\$ 66	0.36%	\$ (36,605)	(66.76%)
Wastewater	29,882	29,865	89,330	33.45%	18	0.06%	(59,447)	(66.55%)
Stormwater site generated service	3,074	3,020	8,864	34.69%	55	1.80%	(5,789)	(65.31%)
Stormwater right of way service	2,172	2,172	6,515	33.33%	0	0.00%	(4,344)	(66.67%)
Fire protection (public and private)	3,267	3,249	9,804	33.32%	17	0.53%	(6,537)	(66.68%)
Other services and fees	589	540	1,551	37.95%	48	8.96%	(962)	(62.05%)
Late payment and other connection fees	204	105	640	31.86%	99	94.40%	(436)	(68.14%)
Miscellaneous	297	228	524	56.81%	70	30.55%	(226)	(43.19%)
	<b>57,712</b>	<b>57,340</b>	<b>172,059</b>	<b>33.54%</b>	<b>372</b>	<b>0.65%</b>	<b>(114,347)</b>	<b>(66.46%)</b>
<b>Operating expenditures</b>								
Water supply and treatment	4,823	3,894	13,661	35.31%	929	23.86%	(8,838)	(64.69%)
Water transmission and distribution	4,224	4,128	14,066	30.03%	97	2.34%	(9,842)	(69.97%)
Wastewater collection	4,875	4,606	14,346	33.98%	269	5.84%	(9,471)	(66.02%)
Stormwater collection	2,182	1,599	5,816	37.52%	583	36.45%	(3,634)	(62.48%)
Wastewater treatment	7,889	7,185	26,368	29.92%	705	9.81%	(18,479)	(70.08%)
Engineering and technology services	7,544	4,619	17,757	42.48%	2,925	63.33%	(10,213)	(57.52%)
Regulatory compliance services	1,627	1,070	5,922	27.47%	557	52.00%	(4,295)	(72.53%)
Customer services	1,095	1,354	4,507	24.29%	(259)	(19.13%)	(3,412)	(75.71%)
Corporate services	809	1,095	3,743	21.61%	(286)	(26.13%)	(2,934)	(78.39%)
Administration services	1,477	1,510	10,267	14.39%	(33)	(2.16%)	(8,790)	(85.61%)
Depreciation and amortization	12,879	18,637	34,406	37.43%	(5,757)	(30.89%)	(21,526)	(62.57%)
	<b>49,424</b>	<b>49,696</b>	<b>150,859</b>	<b>32.76%</b>	<b>(272)</b>	<b>(0.55%)</b>	<b>(101,434)</b>	<b>(67.24%)</b>
<b>Earnings from operations before financial and other revenues and expenditures</b>	<b>8,288</b>	<b>7,644</b>	<b>21,201</b>	<b>39.09%</b>	<b>644</b>	<b>8.43%</b>	<b>(12,913)</b>	<b>(60.91%)</b>
<b>Financial and other revenues</b>								
Interest	0	107	511	0.00%	(107)	(100.00%)	(511)	(100.00%)
Other	213	175	615	34.58%	37	21.40%	(402)	(65.42%)
	<b>213</b>	<b>282</b>	<b>1,126</b>	<b>18.88%</b>	<b>(70)</b>	<b>(24.74%)</b>	<b>(913)</b>	<b>(81.12%)</b>
<b>Financial and other expenditures</b>								
Interest	0	27	128	0.00%	(27)	(100.00%)	(128)	(100.00%)
Interest on long term debt	2,811	2,350	9,375	29.99%	461	19.63%	(6,564)	(70.01%)
Repayment on long term debt	7,910	7,235	24,078	32.85%	674	9.32%	(16,168)	(67.15%)
Amortization of debt discount	79	72	245	32.28%	7	10.37%	(166)	(67.72%)
Dividend/grant in lieu of taxes	2,856	2,170	7,031	40.62%	686	31.62%	(4,175)	(59.38%)
Other	36	32	175	20.60%	4	11.84%	(139)	(79.40%)
	<b>13,692</b>	<b>11,886</b>	<b>41,033</b>	<b>33.37%</b>	<b>1,806</b>	<b>15.19%</b>	<b>(27,340)</b>	<b>(66.63%)</b>
<b>Earnings (loss) for the year</b>	<b>\$ (5,192)</b>	<b>\$ (3,960)</b>	<b>\$ (18,706)</b>	<b>27.75%</b>	<b>\$ (1,232)</b>	<b>31.11%</b>	<b>\$ 13,515</b>	<b>(72.25%)</b>

**HALIFAX WATER**  
**UNAUDITED STATEMENT OF EARNINGS - WATER - NSUARB**  
**APRIL 1, 2024 - JULY 31, 2024 (4 MONTHS)**  
**ACTUAL YEAR TO DATE COMPLETE: 33.33%**

	ACTUAL YEAR TO DATE		APR 1/24 MAR 31/25 BUDGET '000	ACTUAL YEAR TO DATE as % of BUDGET	From Prior Year		Actual to Budget	
	THIS YEAR '000	LAST YEAR '000			\$ Change	% Change	\$ Remaining	% Remaining
<b>Operating revenues - Water</b>								
Water	\$ 18,228	\$ 18,161	\$ 54,832	33.24%	\$ 66	0.36%	\$ (36,605)	(66.76%)
Public fire protection	2,694	2,694	8,083	33.33%	0	0.00%	(5,389)	(66.67%)
Private fire protection	572	555	1,721	33.25%	17	3.10%	(1,149)	(66.75%)
Bulk water stations	83	151	369	22.43%	(68)	(45.00%)	(286)	(77.57%)
Late payment and other connection fees	61	29	205	29.50%	31	105.46%	(145)	(70.50%)
Miscellaneous	139	116	269	51.86%	24	20.37%	(129)	(48.14%)
	<b>21,777</b>	<b>21,707</b>	<b>65,480</b>	<b>33.28%</b>	<b>70</b>	<b>0.32%</b>	<b>(43,703)</b>	<b>(66.74%)</b>
<b>Operating expenditures - Water</b>								
Water supply and treatment	4,823	3,894	13,661	35.31%	929	23.86%	(8,838)	(64.69%)
Water transmission and distribution	4,224	4,128	14,066	30.03%	97	2.34%	(9,842)	(69.97%)
Engineering and technology services	4,562	1,214	6,412	71.14%	3,348	275.72%	(1,850)	(28.86%)
Regulatory compliance services	805	919	1,647	48.86%	(114)	(12.43%)	(842)	(51.14%)
Customer services	558	706	2,299	24.29%	(147)	(20.87%)	(1,741)	(75.71%)
Corporate services	413	559	1,909	21.61%	(146)	(26.13%)	(1,496)	(78.39%)
Administration services	753	755	5,236	14.39%	(1)	(0.19%)	(4,483)	(85.61%)
Depreciation and amortization	5,635	8,530	12,959	43.48%	(2,896)	(33.94%)	(7,325)	(56.52%)
	<b>21,773</b>	<b>20,704</b>	<b>58,189</b>	<b>37.42%</b>	<b>1,069</b>	<b>5.16%</b>	<b>(36,416)</b>	<b>(62.58%)</b>
<b>Earnings from operations before financial and other revenues and expenditures</b>	<b>4</b>	<b>1,002</b>	<b>7,290</b>	<b>0.05%</b>	<b>(999)</b>	<b>(99.61%)</b>	<b>(7,286)</b>	<b>(99.95%)</b>
<b>Financial and other revenues</b>								
Interest	0	78	372	0.00%	(78)	(100.00%)	(372)	(100.00%)
Other	175	141	458	38.25%	34	24.03%	(283)	(61.75%)
	<b>175</b>	<b>219</b>	<b>830</b>	<b>21.11%</b>	<b>(44)</b>	<b>(20.15%)</b>	<b>(655)</b>	<b>(78.89%)</b>
<b>Financial and other expenditures</b>								
Interest on long term debt	1,275	805	4,109	31.03%	470	58.46%	(2,834)	(68.97%)
Repayment on long term debt	2,219	1,948	6,997	31.71%	270	13.87%	(4,779)	(68.29%)
Amortization of debt discount	32	28	112	28.34%	4	14.45%	(81)	(71.66%)
Dividend/grant in lieu of taxes	2,445	1,865	6,005	40.72%	580	31.13%	(3,560)	(59.28%)
Other	34	30	130	25.78%	4	12.85%	(97)	(74.22%)
	<b>6,004</b>	<b>4,675</b>	<b>17,353</b>	<b>34.60%</b>	<b>1,329</b>	<b>28.42%</b>	<b>(11,349)</b>	<b>(65.40%)</b>
<b>Loss for the year</b>	<b>\$ (5,825)</b>	<b>\$ (3,453)</b>	<b>\$ (9,233)</b>	<b>63.09%</b>	<b>\$ (2,372)</b>	<b>68.68%</b>	<b>\$ 3,408</b>	<b>(36.91%)</b>

**HALIFAX WATER**  
**UNAUDITED STATEMENT OF EARNINGS - WASTEWATER - NSUARB**  
**APRIL 1, 2024 - JULY 31, 2024 (4 MONTHS)**  
**ACTUAL YEAR TO DATE COMPLETE: 33.33%**

	ACTUAL YEAR TO DATE		APR 1/24 MAR 31/25 BUDGET '000	ACTUAL YEAR TO DATE as % of BUDGET	From Prior Year		Actual to Budget	
	THIS YEAR '000	LAST YEAR '000			\$ Change	% Change	\$ Remaining	% Remaining
<b>Operating revenues - Wastewater</b>								
Wastewater	\$ 29,882	\$ 29,865	\$ 89,330	33.45%	\$ 18	0.06%	\$ (59,447)	(66.55%)
Leachate and other contract revenue	179	163	507	35.31%	16	9.79%	(328)	(64.69%)
Septage tipping fees	250	208	570	43.87%	42	20.05%	(320)	(56.13%)
Overstrength surcharge	65	0	0	0.00%	65	0.00%	65	0.00%
Airplane effluent	12	18	105	10.99%	(7)	(37.32%)	(93)	(89.01%)
Late payment and other connection fees	100	63	253	39.56%	37	59.63%	(153)	(60.44%)
Miscellaneous	61	79	187	32.79%	(18)	(22.53%)	(126)	(67.21%)
	<b>30,550</b>	<b>30,396</b>	<b>90,952</b>	<b>33.59%</b>	<b>153</b>	<b>0.50%</b>	<b>(60,403)</b>	<b>(66.41%)</b>
<b>Operating expenditures - Wastewater</b>								
Wastewater collection	4,875	4,606	14,346	33.98%	269	5.84%	(9,471)	(66.02%)
Wastewater treatment	7,889	7,185	26,368	29.92%	705	9.81%	(18,479)	(70.08%)
Engineering and technology services	2,407	2,664	9,335	25.79%	(256)	(9.62%)	(6,928)	(74.21%)
Regulatory compliance services	392	(508)	1,889	20.73%	899	(177.13%)	(1,497)	(79.27%)
Customer services	493	592	2,029	24.30%	(99)	(16.71%)	(1,536)	(75.70%)
Corporate services	357	483	1,651	21.61%	(126)	(26.13%)	(1,294)	(78.39%)
Administration services	651	682	4,528	14.38%	(31)	(4.54%)	(3,877)	(85.62%)
Depreciation and amortization	6,004	9,008	18,396	32.64%	(3,003)	(33.34%)	(12,392)	(67.36%)
	<b>23,068</b>	<b>24,711</b>	<b>78,542</b>	<b>29.37%</b>	<b>(1,643)</b>	<b>(6.65%)</b>	<b>(55,474)</b>	<b>(70.63%)</b>
<b>Earnings from operations before financial and other revenues and expenditures</b>	<b>7,481</b>	<b>5,685</b>	<b>12,410</b>	<b>60.29%</b>	<b>1,796</b>	<b>31.60%</b>	<b>(4,929)</b>	<b>(39.71%)</b>
<b>Financial and other revenues</b>								
Interest	0	29	139	0.00%	(29)	(100.00%)	(139)	(100.00%)
Other	37	34	157	23.83%	4	10.40%	(119)	(76.17%)
	<b>37</b>	<b>63</b>	<b>296</b>	<b>12.63%</b>	<b>(26)</b>	<b>(40.74%)</b>	<b>(258)</b>	<b>(87.37%)</b>
<b>Financial and other expenditures</b>								
Interest on long term debt	1,262	1,300	4,122	30.62%	(38)	(2.90%)	(2,860)	(69.38%)
Repayment on long term debt	4,871	4,481	14,587	33.40%	391	8.72%	(9,716)	(66.60%)
Amortization of debt discount	38	36	104	36.89%	3	7.54%	(66)	(63.11%)
Dividend/grant in lieu of taxes	342	259	844	40.51%	83	31.87%	(502)	(59.49%)
Other	3	3	45	5.61%	0	0.00%	(42)	(94.39%)
	<b>6,517</b>	<b>6,078</b>	<b>19,703</b>	<b>33.07%</b>	<b>438</b>	<b>7.21%</b>	<b>(13,186)</b>	<b>(66.93%)</b>
<b>Earnings (loss) for the year</b>	<b>\$ 1,002</b>	<b>\$ (330)</b>	<b>\$ (6,998)</b>	<b>(14.32%)</b>	<b>\$ 1,332</b>	<b>(403.31%)</b>	<b>\$ 8,000</b>	<b>(114.32%)</b>

HALIFAX WATER  
 UNAUDITED STATEMENT OF EARNINGS - STORMWATER - NSUARB  
 APRIL 1, 2024 - JULY 31, 2024 (4 MONTHS)  
 ACTUAL YEAR TO DATE COMPLETE: 33.33%

	ACTUAL YEAR TO DATE		APR 1/24 MAR 31/25 BUDGET '000	ACTUAL YEAR TO DATE as % of BUDGET	From Prior Year		Actual to Budget	
	THIS YEAR '000	LAST YEAR '000			\$ Change	% Change	\$ Remaining	% Remaining
<b>Operating revenues - Stormwater</b>								
Stormwater site generated service	\$ 3,074	\$ 3,020	\$ 8,864	34.69%	\$ 55	1.80%	\$ (5,789)	(65.31%)
Stormwater right of way service	2,172	2,172	6,515	33.33%	0	0.00%	(4,344)	(66.67%)
Late payment and other connection fees	43	13	181	23.76%	30	241.81%	(138)	(76.24%)
	<b>5,386</b>	<b>5,237</b>	<b>15,627</b>	<b>34.46%</b>	<b>149</b>	<b>2.84%</b>	<b>(10,242)</b>	<b>(65.54%)</b>
<b>Operating expenditures - Stormwater</b>								
Stormwater collection	2,182	1,599	5,816	37.52%	583	36.45%	(3,634)	(62.48%)
Engineering and technology services	574	741	2,010	28.58%	(166)	(22.44%)	(1,436)	(71.42%)
Regulatory compliance services	430	659	2,386	18.04%	(229)	(34.70%)	(1,956)	(81.96%)
Customer services	44	56	179	24.33%	(13)	(22.80%)	(135)	(75.67%)
Corporate services	40	54	183	21.66%	(14)	(26.13%)	(143)	(78.34%)
Administration services	72	73	503	14.39%	(0)	(0.19%)	(431)	(85.61%)
Depreciation and amortization	1,240	1,099	3,050	40.67%	142	12.88%	(1,810)	(59.33%)
	<b>4,583</b>	<b>4,280</b>	<b>14,127</b>	<b>32.44%</b>	<b>302</b>	<b>7.07%</b>	<b>(9,544)</b>	<b>(67.56%)</b>
<b>Earnings from operations before financial and other revenues and expenditures</b>	<b>803</b>	<b>956</b>	<b>1,500</b>	<b>53.51%</b>	<b>(154)</b>	<b>(16.06%)</b>	<b>(698)</b>	<b>(46.49%)</b>
<b>Financial and other expenditures</b>								
Interest	0	27	128	0.00%	(27)	(100.00%)	(128)	(100.00%)
Interest on long term debt	274	246	1,144	23.95%	28	11.60%	(870)	(76.05%)
Repayment on long term debt	820	806	2,493	32.88%	13	1.66%	(1,674)	(67.12%)
Amortization of debt discount	9	8	28	30.95%	1	8.88%	(20)	(69.05%)
Dividend/grant in lieu of taxes	69	46	182	37.71%	23	50.17%	(114)	(62.29%)
	<b>1,171</b>	<b>1,133</b>	<b>3,976</b>	<b>29.46%</b>	<b>39</b>	<b>3.42%</b>	<b>(2,805)</b>	<b>(70.54%)</b>
<b>Earnings (loss) for the year</b>	<b>\$ (368)</b>	<b>\$ (176)</b>	<b>\$ (2,476)</b>	<b>14.88%</b>	<b>\$ (192)</b>	<b>109.19%</b>	<b>\$ 2,108</b>	<b>(85.12%)</b>

**HALIFAX WATER**  
**UNAUDITED STATEMENT OF EARNINGS - REGULATED AND UNREGULATED ACTIVITIES - NSUARB**  
**APRIL 1, 2024 - JULY 31, 2024 (4 MONTHS)**  
**ACTUAL YEAR TO DATE COMPLETE: 33.33%**

	ACTUAL YEAR TO DATE		APR 1/24 MAR 31/25 BUDGET '000	ACTUAL YEAR TO DATE as % of BUDGET	From Prior Year		Actual to Budget	
	THIS YEAR '000	LAST YEAR '000			\$ Change	% Change	\$ Remaining	% Remaining
<b>REGULATED ACTIVITIES</b>								
<b>Operating revenues</b>								
Water	\$ 18,228	\$ 18,161	\$ 54,832	33.24%	\$ 66	0.36%	\$ (36,605)	(66.76%)
Wastewater	29,882	29,865	89,330	33.45%	18	0.06%	(59,447)	(66.55%)
Stormwater	5,246	5,192	15,379	34.11%	55	1.05%	(10,133)	(65.89%)
Public fire protection	2,694	2,694	8,083	33.33%	0	0.00%	(5,389)	(66.67%)
Private fire protection	572	555	1,721	33.25%	17	3.10%	(1,149)	(66.75%)
Miscellaneous	649	483	1,532	42.37%	166	34.37%	(883)	(57.63%)
	<b>57,272</b>	<b>56,950</b>	<b>170,878</b>	<b>33.52%</b>	<b>322</b>	<b>0.56%</b>	<b>(113,606)</b>	<b>(66.48%)</b>
<b>Operating expenditures</b>								
Water supply and treatment	4,823	3,889	13,661	35.30%	934	24.01%	(8,838)	(64.70%)
Water transmission and distribution	4,224	4,128	14,066	30.03%	97	2.34%	(9,842)	(69.97%)
Wastewater collection	4,856	4,577	14,285	34.00%	279	6.09%	(9,429)	(66.00%)
Stormwater collection	2,182	1,599	5,816	37.52%	583	36.45%	(3,634)	(62.48%)
Wastewater treatment	7,668	6,871	25,571	29.99%	797	11.60%	(17,903)	(70.01%)
Engineering and technology services	7,544	4,619	17,757	42.48%	2,925	63.33%	(10,213)	(57.52%)
Regulatory compliance services	1,627	1,070	5,922	27.47%	557	52.00%	(4,295)	(72.53%)
Customer services	1,077	1,382	4,467	24.11%	(305)	(22.05%)	(3,390)	(75.89%)
Corporate services	805	1,091	3,730	21.57%	(286)	(26.24%)	(2,925)	(78.43%)
Administration services	1,449	1,479	10,130	14.30%	(29)	(1.99%)	(8,681)	(85.70%)
Depreciation and amortization	12,873	18,629	34,371	37.45%	(5,757)	(30.90%)	(21,498)	(62.55%)
	<b>49,127</b>	<b>49,333</b>	<b>149,776</b>	<b>32.80%</b>	<b>(206)</b>	<b>(0.42%)</b>	<b>(100,649)</b>	<b>(67.20%)</b>
<b>Earnings from operations before financial and other revenues and expenditures</b>	<b>8,144</b>	<b>7,617</b>	<b>21,101</b>	<b>38.60%</b>	<b>528</b>	<b>6.93%</b>	<b>(12,957)</b>	<b>(61.40%)</b>
<b>Financial and other revenues</b>								
Interest	0	107	511	0.00%	(107)	(100.00%)	(511)	(100.00%)
Other	5	4	28	16.98%	1	28.44%	(23)	(83.02%)
	<b>5</b>	<b>111</b>	<b>539</b>	<b>0.89%</b>	<b>(106)</b>	<b>(95.69%)</b>	<b>(534)</b>	<b>(99.11%)</b>
<b>Financial and other expenditures</b>								
Interest	0	27	128	0.00%	(27)	(100.00%)	(128)	(100.00%)
Interest on long term debt	2,811	2,350	9,375	29.99%	461	19.63%	(6,564)	(70.01%)
Repayment on long term debt	7,910	7,235	24,078	32.85%	674	9.32%	(16,168)	(67.15%)
Amortization of debt discount	79	72	245	32.28%	7	10.37%	(166)	(67.72%)
Dividend/grant in lieu of taxes	2,856	2,170	7,031	40.62%	686	31.62%	(4,175)	(59.38%)
	<b>13,656</b>	<b>11,854</b>	<b>40,858</b>	<b>33.42%</b>	<b>1,802</b>	<b>15.20%</b>	<b>(27,201)</b>	<b>(66.58%)</b>
<b>Earnings (loss) for the year - Regulated</b>	<b>\$ (5,507)</b>	<b>\$ (4,126)</b>	<b>\$ (19,217)</b>	<b>28.66%</b>	<b>\$ (1,381)</b>	<b>33.46%</b>	<b>\$ 13,710</b>	<b>(71.34%)</b>

HALIFAX WATER  
 UNAUDITED STATEMENT OF EARNINGS - REGULATED AND UNREGULATED ACTIVITIES - NSUARB  
 APRIL 1, 2024 - JULY 31, 2024 (4 MONTHS)  
 ACTUAL YEAR TO DATE COMPLETE: 33.33%

	ACTUAL YEAR TO DATE		APR 1/24 MAR 31/25 BUDGET '000	ACTUAL YEAR TO DATE as % of BUDGET	From Prior Year		Actual to Budget		
	THIS YEAR '000	LAST YEAR '000			\$ Change	% Change	33	% Remaining	
<b>UNREGULATED ACTIVITIES</b>									
<b>Operating revenues</b>									
Septage tipping fees	\$ 250	\$ 208	\$ 570	43.87%	\$ 42	20.05%	\$ (320)	(56.13%)	
Leachate and other contract revenue	179	163	507	35.31%	16	9.79%	(328)	(64.69%)	
Airplane effluent	12	18	105	10.99%	(7)	(37.32%)	(93)	(89.01%)	
Miscellaneous	0	0	0	0.00%	0	0.00%	0	0.00%	
	<b>441</b>	<b>390</b>	<b>1,182</b>	<b>37.28%</b>	<b>51</b>	<b>13.05%</b>	<b>(741)</b>	<b>(62.72%)</b>	
<b>Operating expenditures</b>									
Water supply and treatment	1	5	0	0.00%	(5)	(86.46%)	1	0.00%	
Wastewater treatment	221	313	797	27.70%	(93)	(29.59%)	(576)	(72.30%)	
Wastewater collection	18	28	61	29.92%	(10)	(35.42%)	(43)	(70.08%)	
Sponsorships and donations	18	(24)	80	22.62%	42	(174.27%)	(62)	(77.38%)	
Corporate services	4	4	13	34.10%	0	0.00%	(9)	(65.90%)	
Administration services	28	28	97	28.69%	0	0.00%	(69)	(71.31%)	
Depreciation and amortization	7	7	34	19.42%	(1)	(8.15%)	(28)	(80.58%)	
	<b>297</b>	<b>362</b>	<b>1,083</b>	<b>27.42%</b>	<b>(66)</b>	<b>(18.09%)</b>	<b>(786)</b>	<b>(72.58%)</b>	
<b>Earnings from operations before financial and other revenues and expenditures</b>	<b>144</b>	<b>27</b>	<b>99</b>	<b>144.90%</b>	<b>116</b>	<b>426.19%</b>	<b>45</b>	<b>44.90%</b>	
<b>Financial and other revenues</b>									
Other - leases and rentals	122	90	368	33.21%	32	35.42%	(246)	(66.79%)	
Other - energy projects	86	81	219	39.14%	4	5.48%	(133)	(60.86%)	
	<b>208</b>	<b>171</b>	<b>587</b>	<b>35.42%</b>	<b>36</b>	<b>21.25%</b>	<b>(379)</b>	<b>(64.58%)</b>	
<b>Financial and other expenditures</b>									
Other	36	32	175	20.60%	4	11.84%	(139)	(79.40%)	
	<b>36</b>	<b>32</b>	<b>175</b>	<b>20.60%</b>	<b>4</b>	<b>11.84%</b>	<b>(139)</b>	<b>(79.40%)</b>	
<b>Earnings for the year - Unregulated</b>	<b>\$ 315</b>	<b>\$ 166</b>	<b>\$ 511</b>	<b>61.78%</b>	<b>\$ 149</b>	<b>89.54%</b>	<b>\$ (195)</b>	<b>(38.22%)</b>	
<b>Total earnings (loss) for the year (Regulated and Unregulated)</b>	<b>\$ (5,192)</b>	<b>\$ (3,960)</b>	<b>\$ (18,706)</b>	<b>27.75%</b>	<b>\$ (1,232)</b>	<b>31.11%</b>	<b>\$ 13,515</b>	<b>(72.25%)</b>	

**THIS AGREEMENT made as of the Effective Date.**

**BETWEEN:**

**HALIFAX REGIONAL MUNICIPALITY, a body corporate (HRM)**

**OF THE FIRST PART**

**- and -**

**HALIFAX REGIONAL WATER COMMISSION, a body corporate (Halifax Water)**

**OF THE SECOND PART**

**WHEREAS** HRM and Halifax Water entered into an agreement dated the 29<sup>th</sup> day of August 2001, as amended by an agreement dated the 15<sup>th</sup> day of May 2007, on the subject of dividends and grants in lieu of taxes payable by Halifax Water to HRM. The parties then entered into two successive five-year agreements. On the 20<sup>th</sup> day of October 2020, the parties entered into the most recent agreement, which will expire on March 31, 2023;

**AND WHEREAS** the parties wish to enter into a new agreement (this “Agreement”) with respect to the payment by Halifax Water to HRM of an amount calculated in accordance with section 3 below (per section 92(1) and 92(2) of the *HRM Charter* and sections 20(3), 20(4), 22 and 23 of the *Halifax Regional Water Commission Act*), which amount represents:

- (i) grants in lieu of taxes on taxable assets used to provide water service of Halifax Water within the geographical boundaries of HRM, and
- (ii) dividends, paid from the surplus of Halifax Water’s undertaking for the general purposes of HRM, related to stormwater and wastewater services.

**NOW THEREFORE WITNESSETH** in consideration of one dollar (\$1.00) and for other good and valuable consideration as hereinafter set forth the parties do agree as follows:

1. This Agreement is effective on April 1, 2023 (the “Effective Date”).
2. This Agreement will be in effect from the Effective Date to the end of fiscal year 2027/28 and shall renew annually on April 1 thereafter, unless notice is given by one party at least 90 days prior to renewal. A fiscal year runs from April 1 of a year to March 31 of the following year.
3. For each fiscal year of the Agreement, Halifax Water shall pay to HRM a payment calculated as follows:

$\Sigma [(A-B) \times C = D]$
-------------------------------



A.	The assessed value of Halifax Water properties
<b>Less</b>	
B.	8% of A in 2023/24 6% of A in 2024/25 4% of A in 2025/26 2% of A in 2026/27 0% in 2027/28 and each fiscal year thereafter
<b>Multiplied by</b>	
C.	Property tax rates set by HRM each fiscal year applicable to each property
<b>Equals</b>	
D.	Payment from Halifax Water to HRM

4. For the purposes of this Agreement, the assessed value of Halifax Water properties will include the value of all Halifax Water residential, commercial and resource properties within the geographic boundaries of HRM, taxable and exempt, as assessed by the Property Valuation Service Corporation (PVSC) for that fiscal year. Halifax Water and HRM have the ability to appeal the valuations set by PVSC, as prescribed by PVSC’s appeal procedures. Changes to the valuation of Halifax Water property resulting from appeals shall be applied to the annual amounts payable pursuant to this Agreement.
5. Notwithstanding Section 3, the amount payable by Halifax Water to HRM in fiscal year 2023/24 shall not exceed \$6,589,000.
6. For the purpose of Halifax Water calculating its rates, Halifax Water shall allocate payments made pursuant to this Agreement to each service as follows:
  - (i) no more than 1.56% times the water rate base,
  - (ii) at least 0.25% times the wastewater rate base,
  - (iii) at least 0.25% times the stormwater rate base,

and in the event these allocations are not sufficient to fund the payment in any given fiscal year as calculated pursuant to section 3 of this Agreement, the allocations for wastewater and stormwater will be increased to an amount sufficient to fund the payment.
7. This Agreement, and the amounts payable by Halifax Water to HRM hereunder are subject to the review and approval of the Nova Scotia Utility and Review Board (NSUARB). Halifax Water will use good faith efforts and take all feasible steps to disclose all necessary evidence and present cogent submissions to the NSUARB to obtain approval for the execution of this Agreement in advance of March 31, 2023.
8. HRM covenants and agrees, as and when appropriate, to nominate Halifax Water projects for:
  - (i) funding programs sponsored by the federal and/or the provincial government that are tailored to water, wastewater and stormwater assets; and
  - (ii) other funding programs sponsored by the federal and/or provincial government in recognition

of the existing infrastructure deficit faced by both HRM and Halifax Water, as part of HRM's infrastructure list.

- 9. This Agreement may be executed in multiple counterparts, each of which shall be deemed to be an original for all purposes. This Agreement may be executed by facsimile or reproduction signature and the Parties shall recognize such execution as valid and binding execution.

HRM and Halifax Water have caused this Agreement to be signed by their duly authorized representatives on the dates set forth below.

**HALIFAX REGIONAL MUNICIPALITY**



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Witness  
name: Gerald Power

for Halifax Regional Municipality  
name: Cathie O'Toole  
title: CAO  
date: February 7, 2023

**HALIFAX REGIONAL WATER COMMISSION**

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Witness  
name: Lorna Skinner

for Halifax Regional Water Commission  
name: Louis de Montbrun  
title: Acting General Manager  
date: February 17, 2023

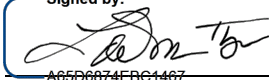
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Witness  
name:

for Halifax Regional Water Commission  
name:  
title:  
date:

**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:**   
0C084AC813794F6...  
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

**DATE:** September 26, 2024

**SUBJECT:** **Capital Expenditures for the four months ended July 31, 2024**

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**ORIGIN**

Financial information reporting.

**BACKGROUND**

At the September 4, 2024, meeting of the Halifax Water Audit and Finance Committee (the Committee), the attached capital results report for the four months ended July 31, 2024, was reviewed, and discussed.

**DISCUSSION**

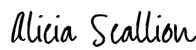
At the Committee meeting, there were no requests for additional information to be brought forward to the Board.

**ATTACHMENT**

1. Report to the Halifax Water Audit and Finance Committee - Capital Expenditures for the four months ended July 31, 2024.

Report Prepared by:

Signed by:



AFA8698B6D3843C...  
Alicia Scallion, CPA, CA

Manager, Finance

Financial Reviewed by:

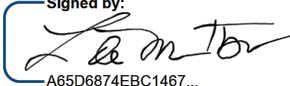
Signed by:

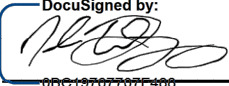


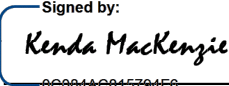
A65D6874EBC1467...  
Louis de Montbrun, CPA, CA

Director, Corporate Services/CFO

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

**SUBMITTED BY:**   
Signed by:  
A65D6874EBC1467...  
\_\_\_\_\_  
Louis de Montbrun, CPA, CA  
Director, Corporate Services

  
DocuSigned by:  
0BC197077077486...  
\_\_\_\_\_  
Josh DeYoung, P.Eng.  
Director, Engineering & Capital Infrastructure

**APPROVED:**   
Signed by:  
0C004AC015794F6...  
\_\_\_\_\_  
Kenda MacKenzie, P.Eng.  
Acting Chief Executive Officer and General Manager

**DATE:** August 28, 2024

**SUBJECT:** Capital Expenditures for the four months ended July 31, 2024

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**ORIGIN**

The Corporate Balanced Scorecard (CBS) 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%. There is an additional CBS 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). 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

# ITEM #6

## Halifax Water Audit and Finance Committee

September 4, 2024

million in capital projects per year. Halifax Water's annual capital budget, and capability to deliver capital projects, has not yet reached this level.

### DISCUSSION

Below is the breakdown by asset class and project status of the expenditures for the four months ended July 31, 2024. Halifax Water has spent \$136.7 million to date on active projects, of which \$24.9 million was spent during the four months ended July 31, 2024.

Halifax Water is continuing to work 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 July 31, 2024 is \$220.8 million, a decrease of \$81.1 million from July 31, 2023.

The average capital spend per month compared to prior year has increased from \$5.7 million to \$6.2 million. Achievement of targets for this fiscal year will be dependent on the timing of several large projects. A decision from the NSUARB on the Burnside Operations Centre has been received and the project team is working to understand the implications of the decision and move the project forward, the Biosolids Processing Facility procurement process is underway and the Fairview Cove Trunk Sewer is intended to be tendered in early 2025 pending finalization of land agreements with stakeholders. The timing of each project achieving milestones, given their size, will have a large influence on capital spending this year.

### Capital Expenditure Report

Budget Category	Total Budget Available	Expenditures to March 31, 2024	Expenditures April 1, 2024 to July 31, 2024	Total Expenditures to July 31, 2024	Remaining Budget Available as of July 31, 2024	Total Expenditures to July 31, 2024 as a Percentage of Total Budget Available
<b>Active</b>						
Water	\$ 108,177,160	\$ 41,297,364	\$ 6,936,535	\$ 48,233,899	\$ 59,943,261	44.6%
Wastewater	127,659,248	34,103,123	8,427,755	42,530,877	85,128,371	33.3%
Stormwater	27,235,130	9,682,314	1,965,323	11,647,637	15,587,493	42.8%
Corporate	94,319,077	27,646,935	7,547,791	35,194,726	59,124,351	37.3%
District Energy	1,030,000	-	-	-	1,030,000	0.0%
	<b>\$ 358,420,615</b>	<b>\$ 112,729,735</b>	<b>\$ 24,877,403</b>	<b>\$ 137,607,138</b>	<b>\$ 220,813,477</b>	<b>38.4%</b>

The Total Budget Available of \$358.4 million represents total approved budgets as at the end of July 31, 2024.

# ITEM #6

## Halifax Water Audit and Finance Committee

September 4, 2024

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Total Expenditures to July 31, 2024, of \$137.6 million include expenditures of \$112.7 million incurred prior to April 1, 2024, and expenditures of \$24.9 million in the current fiscal year. This results in a Remaining Budget Available as of July 31, 2024, of \$220.8 million.

Report prepared by:

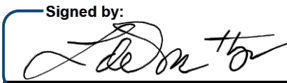
Signed by:

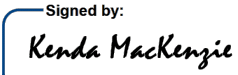
*Michelle Bennett*

0293B54B1309429...

Michelle Bennett, Manager of Accounting (Term), (782)-641-5972

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

**SUBMITTED BY:**   
Signed by:  
A85D6874EBC1487...  
Louis de Montbrun, CPA, CA Director, Corporate Services/CFO

**APPROVED:**   
Signed by:  
0C084AC845794F6...  
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

**DATE:** September 26, 2024

**SUBJECT:** **Fall 2024 Debenture**

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### **ORIGIN**

Halifax Regional Water Commission (Halifax Water) participation in the Fall 2024 Nova Scotia Finance and Treasury Board Municipal Finance Division (NSFTB) debenture issue secure debt financing for 2023/24 additions to utility plant in service and re-finance a balloon payment on existing debt.

### **RECOMMENDATION**

It is recommended that the Halifax Water Board approve the following motions:

1. Approve the financing of \$65,000,000 with a thirty-year amortization term and finance over ten years. The maximum all-inclusive rate is not to exceed 6.5%.
2. Approve the re-financing of \$14,080,529 with a ten-year amortization term and financing over ten years, with an all-inclusive rate not to exceed 6.5%.

### **BACKGROUND**

At the September 4, 2024, meeting of the Halifax Water Audit and Finance Committee (the Committee), the attached 2024 Fall Debenture report was reviewed and discussed. The Committee recommended that the Halifax Water Board approve the recommendation above.

**DISCUSSION**

No additional information was requested to be brought forward to the Halifax Water Board meeting following the discussion of the attached at the Committee meeting.

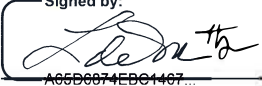
**ATTACHMENT**

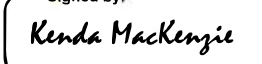
1. Report to the Halifax Water Audit and Finance Committee - Fall 2024 Debenture

Report Prepared by:	<p>Signed by: <i>Alicia Scallion</i> AFA8898B8D3845C...</p> <hr/> <p>Alicia Scallion, CPA, CA, Manager, Finance</p>
Financial Reviewed by:	<p>Signed by: <i>Louis de Montbrun</i> A65D8874E8C1467</p> <hr/> <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:** Signed by:  
  
A66D6874EBC1467...  
Louis de Montbrun, CPA, CA, Director, Corporate Services/CFO

**APPROVED:** Signed by:  
  
0C084AC815794F6...  
Kenda MacKenzie, P.Eng., CEO & General Manager

**DATE:** August 29, 2024

**SUBJECT:** **Fall 2024 Debenture**

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**ORIGIN**

Halifax Regional Water Commission (Halifax Water) participation in the Fall 2024 Nova Scotia Finance and Treasury Board Municipal Finance Division (NSFTB) debenture issue secure debt financing for 2023/24 additions to utility plant in service and re-finance a balloon payment on existing debt.

**RECOMMENDATION**

It is recommended that the Halifax Water Audit and Finance Committee recommend the Board approve the following motions:

1. Approve the financing of \$65,000,000 with a thirty-year amortization term and finance over ten years. The maximum all-inclusive rate is not to exceed 6.5%.
2. Approve the re-financing of \$14,080,529 with a ten-year amortization term and financing over ten years, with an all-inclusive rate not to exceed 6.5%.

**BACKGROUND**

Halifax Water is legally required to borrow through the NSFTB. The borrowing proposed in this report is estimated using the One Year Business Plan, the approved Operating and Capital Budgets for 2024/25, and the rate schedule approved by the Nova Scotia Utility and Review Board.

**DISCUSSION**

The 2024/25, Operating Budget was prepared based on issuing new debt in the Fall of 2024 of \$80.0 million to finance water, wastewater, and stormwater additions to utility plant in service. The \$80.0 million will be applied to water, wastewater, and stormwater as follows:

Water            \$35.0 million

Wastewater     \$35.0 million

Stormwater     \$10.0 million

Halifax Water obtained a portion of the new debt in the Spring of 2024 as follows:

Water            \$6.0 million

Wastewater     \$6.0 million

Stormwater     \$3.0 million

In addition to funding the new capital assets, refinancing of \$14.1 million is required in the Fall of 2024 for a balloon payment.

The balloon payment due relates to debt issued in fiscal 2014/15 of \$28.2 million which was acquired to fund water, wastewater, and stormwater capital expenditures. The debenture was issued for a ten-year term with a twenty-year amortization. The 2014/15 debenture of \$28,161,059 issued on November 17, 2014, had an all-in interest rate of 2.73%. Halifax Water's current Weighted Average Cost of Debt is 3.59%.

In the recommendation, Halifax Water uses a rate of 6.5% as recommended by NSFTB. This would be the upper limit that Halifax Water can finance debt. If the actual interest rate is greater than 6.5%, a revised report will be required for the Board. If the actual interest rate is lower than 6.5%, a revised report is not required.

The final interest rates and timing of the debt issues will not be known with certainty until NSFTB concludes the formal debenture process.

Halifax Water's debt is covered by a blanket guarantee approved by Halifax Regional Municipality (HRM) Council in September 2014. The blanket guarantee will apply to all Halifax Water debt with a condition that Halifax Water must maintain a debt service ratio of 35% or less. Halifax Water's debt service ratio is 21.11% as of July 31, 2024. The debt service ratio is calculated as the cost of debt interest, principal and discount payments divided by the total Operating Revenue as found on the income statement (NSUAR format).

Halifax Water's outstanding debt on July 31, 2024 (including the current portion) was \$244.8 million, and debt is projected to be \$285.5 by March 31, 2025, assuming the aforementioned new debt is acquired, and the balloon payment refinanced.

**BUDGET IMPLICATIONS**

The 2024/25 budget includes \$33.7 million in debt servicing costs. Halifax Water's capital financing strategy is designed to maintain a debt service ratio of 35% or less; and to use a mixture of infrastructure funding, development related charges (reserves), depreciation, and debt.

The budget was based on an all-inclusive rate of 5.00% on both new and refinanced debt. The Spring 2024 debenture had an all-inclusive rate of 4.71% and the expectation is the Fall refinancing will be similar.

By issuing \$15.0 million of debt in the Spring of 2024, principal and interest costs will have increased over what had been budgeted by \$0.5 million (\$0.2 million in principal and \$0.3 million in interest).

**ALTERNATIVES**

1. Halifax Water could choose not to refinance the 2024 Fall balloon payment. This would lower the cash balance by \$14.1 million and may have an impact on the ability to fund capital. For this reason, Halifax Water has chosen to refinance the balloon payment.
2. Halifax Water could finance an amount different than \$65.0 million. If Halifax Water chooses to finance less debt, approximately \$0.2 million would be saved for every \$5.0 million of debt. Principal costs would decrease \$0.1 million from budget, and interest would decrease \$0.1 million from budget.

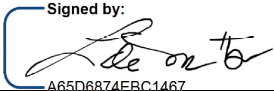
Attachment 2 provides a cash flow estimate for the 2024/25 fiscal year. The model estimates capital expenditures for the year to be \$140.0 million based on the Integrated Resource Plan required spend of \$135.0 million plus a target increase.

**ATTACHMENTS**

1. Borrowing Resolution for \$79,080,529 million of debt.
2. Cash Flow Model for 2024/25 based on approved Operating and Capital Budgets and anticipated cash flow.

Report Prepared by:

p.p.

Signed by:  
  
A65D6874EBC1467

Alicia Scallion, CPA, CA, Manager, Finance, 902-497-9785

HALIFAX REGIONAL WATER COMMISSION  
BORROWING RESOLUTION

WHEREAS the Halifax Regional Water Commission (Halifax Water), is incorporated under the provisions of the *Halifax Regional Water Commission Act*, Ch. 55 of the Acts of 2007 (the “Act”);

AND WHEREAS the Act provides that Halifax Water has power to borrow such sums as may be authorized and approved by the Board of the Commission for the purposes of the Commission, subject to the approval of the Nova Scotia Utility and Review Board;

AND WHEREAS Halifax Water wishes to borrow \$14,080,529 for the purpose of refinancing balloon payments for their remaining 10-year amortization period;

AND WHEREAS Halifax Water wishes to borrow \$65,000,000 for the purpose of financing regular additions to utility plant in service for a 30-year amortization period;

AND WHEREAS a blanket guarantee for Halifax Water Debt was approved by the Halifax Regional Municipality on September 23, 2014.

BE IT RESOLVED THAT:

1. Under the authority of Section 16 of the *Act*, Halifax Water borrow from the Nova Scotia Finance and Treasury Board Municipal Finance Division, for the purpose set forth above, a sum or sums not exceeding \$65,000,000 with a thirty-year amortization term and finance over ten years and a sum or sums not exceeding \$14,080,529 with a ten-year amortization term and finance over ten years. The maximum all-inclusive rate is not to exceed 6.5% percent;
2. The sum noted above be borrowed by the issue of debentures of Halifax Water to such an amount as Halifax Water deems necessary and that the debentures be arranged with the Nova Scotia Finance and Treasury Board Municipal Finance Division, with interest to be paid semi-annually and principal payments made annually; and
3. This resolution remains in force for a period of not more than 12 months from the passing of this resolution.

I certify the above to be a true copy of a Resolution approved at a meeting of the Halifax Water Board of Directors held on September 26, 2024.

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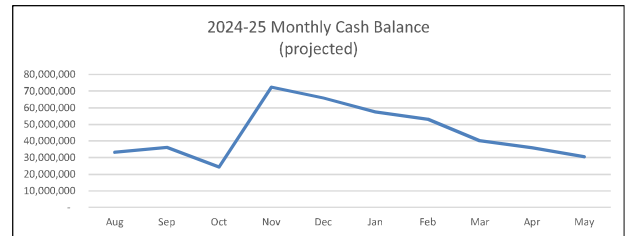
Kenda MacKenzie  
Acting CEO and General Manager

**Halifax Water**  
**Cash Flow Model for 2024-25**

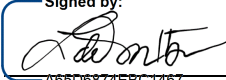
	2024/25 Budget	Adjustments for Cash Flow	2024/25 Cash Flow	2024/25 Budget Aug	2024/25 Budget Sep	2024/25 Budget Oct	2024/25 Budget Nov	2024/25 Budget Dec	2024/25 Budget Jan	2024/25 Budget Feb	2024/25 Budget Mar	2025/26 Estimate Apr	2025/26 Estimate May
Operating Revenue	172,059,302	-	172,059,302	13,621,735	28,220,215	13,621,735	13,121,735	13,121,735	12,821,735	12,821,735	12,821,735	13,121,735	13,121,735
Operating Expenses	(116,431,358)	-	(116,431,358)	(10,785,947)	(9,485,947)	(9,485,947)	(9,485,947)	(9,485,947)	(10,785,947)	(9,485,947)	(9,485,947)	(9,485,947)	(9,485,947)
Non Operating Revenue	998,115	-	998,115	83,176	83,176	83,176	83,176	83,176	83,176	83,176	83,176	83,176	83,176
Non Operating Expenses	(75,310,227)	21,162,584	(54,147,643)	(14,583)	(5,677,933)	(5,988,610)	(24,070,205)	(14,583)	(480,252)	(14,583)	(7,046,035)	(14,583)	(14,583)
<b>Operations Total</b>	<b>(18,684,168)</b>	<b>21,162,584</b>	<b>2,478,416</b>	<b>2,904,382</b>	<b>13,139,512</b>	<b>(1,769,646)</b>	<b>(20,351,240)</b>	<b>3,704,382</b>	<b>1,638,713</b>	<b>3,404,382</b>	<b>(3,627,070)</b>	<b>3,704,382</b>	<b>3,704,382</b>
Capital Expenditures (incl CCC projects)	(152,497,000)	12,097,000	(140,400,000)	(11,700,000)	(11,700,000)	(11,700,000)	(11,700,000)	(11,700,000)	(11,700,000)	(11,700,000)	(11,700,000)	(11,700,000)	(11,700,000)
New Long Term Debt	96,865,129	(726,488)	96,138,640	-	-	-	78,487,426	-	-	-	-	-	-
Other Incoming Cash (Build Can, RDC, etc)	20,000,000	-	20,000,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000	1,700,000
Changes in working capital	-	-	-	-	(100,000)	(50,000)	(50,000)	(50,000)	(50,000)	2,000,000	800,000	2,000,000	800,000
<b>Net Cash Flow</b>	<b>(54,316,040)</b>	<b>32,533,095</b>	<b>(21,782,944)</b>	<b>(7,095,618)</b>	<b>3,039,512</b>	<b>(11,819,646)</b>	<b>48,086,185</b>	<b>(6,345,618)</b>	<b>(8,411,287)</b>	<b>(4,595,618)</b>	<b>(12,827,070)</b>	<b>(4,295,618)</b>	<b>(5,495,618)</b>
Opening Cash Balance			-	40,170,740	33,075,121	36,114,633	24,294,987	72,381,172	66,035,554	57,624,267	53,028,649	40,201,578	35,905,960
Ending Cash Balance				33,075,121	36,114,633	24,294,987	72,381,172	66,035,554	57,624,267	53,028,649	40,201,578	35,905,960	30,410,341


- Notes
- Adjustments for Cash Flow include removing the non cash portion of the Pension Expense, Depreciation, and Debt Discount
  - Debt principle and interest payments are included in the Non Operating Expenses category
  - Capital Expenditures includes an estimated capital spend of \$140.0 million based on IRP expected level of spend
  - The new Long Term Debt anticipated in this forecast is for \$15.0m in new debt in May plus a \$2.7m balloon renewal and \$65.0m in new debt in October plus a \$13.9m balloon renewal
  - Other Incoming Cash includes \$20.0 million in RDC Collections

- Opening Cash Balance highlighted in green
- Closing Cash Balance highlighted in blue



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

**SUBMITTED BY:**   
Signed by: \_\_\_\_\_  
A65D6874EBC1467...

**APPROVED:**   
Signed by: \_\_\_\_\_  
0C084AC815794F6...

**DATE:** September 26, 2024

**SUBJECT:** **Capital Projects Spending Summary - 2023/24**

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**ORIGIN**

Financial information reporting.

**BACKGROUND**

At the September 4, 2024, meeting of the Halifax Water Audit and Finance Committee (the Committee), the attached report was discussed.

**RECOMMENDATION**

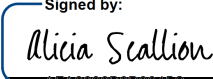
It is recommended the Halifax Water Board approve for filing with the NSUARB, the capital project spending summary for the period April 1, 2023, to March 31, 2024, and the capital project spending over \$1,000,000 summary for the period April 1, 2023, and March 31, 2024.

**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 - Capital Project Spending Summary – 2023/24.


Report Prepared by:   
AFA8696B6D3845C...  
Alicia Scallion, CPA, CA  
Manager, Finance

Financial Reviewed by:   
A65D6874EBC1487...  
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:**

Signed by:  


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

**APPROVED:**

Signed by:  


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

**DATE:** September 4, 2024

**SUBJECT:** **Capital Project Spending Summary – 2023/24**

---

### **ORIGIN**

Nova Scotia Utility and Review Board (NSUARB) requirement for reconciliation of Capital Budget expenditures.

### **BACKGROUND**

The Halifax Water Board approves an annual Capital Budget for capital projects. The specific funding for individual projects is further approved by the General Manager, Halifax Water Board, and the NSUARB as required based on total project cost, as per the Capital Funding Approval Policy.

### **RECOMMENDATION**

It is recommended the Halifax Water Audit and Finance Committee recommend to the Halifax Water Board to approve for filing with the NSUARB the capital project spending summary for the period April 1, 2023, to March 31, 2024, and the capital project spending over \$1,000,000 summary for the period April 1, 2023, and March 31, 2024.

### **DISCUSSION**

During the 2023/24 fiscal year, a series of capital projects were completed, placed in service, and “closed out” from a fiscal work order perspective. These projects were funded from the 2023/24 Capital Budget, previous years’ capital budgets for projects with multi-year delivery timelines, and surpluses from previously closed projects or projects that have been deferred or cancelled. Approvals for projects drawing funding from the surpluses were obtained in accordance with the Capital Funding Approval Policy.

# ITEM #8

## Halifax Water Audit and Finance Committee September 4, 2024

The first attached report entitled, “Capital Spending Summary - April 1, 2023 - March 31, 2024”, identifies all capital projects funded from the Halifax Water Capital Budget that were completed prior to March 31, 2024. For water projects, the total expenditure for these completed projects totals \$39,789,990 with an aggregate net surplus of \$7,654,859 (13.94%) relative to the total funding approvals. For wastewater projects, the total expenditure for these completed projects totals \$8,853,564, with an aggregate net deficit of \$2,504,133 (11.98%). For stormwater projects, the total expenditure for these completed projects totals \$6,091,069, with an aggregate net deficit of \$2,015,990 (104.89%).

The second attached report entitled, “Capital Project Spending Summary – Projects Over \$1,000,000, April 1, 2023, to March 31, 2024”, identifies all capital projects funded from the Halifax Water Capital Budget that were completed prior to March 31, 2024, and required specific NSUARB approval based on the \$1,000,000 threshold. For water projects, the total expenditure for these completed projects totals \$29,270,322 with an aggregate net surplus of \$4,850,678. For wastewater projects, the total expenditure for this completed project totals \$1,335,538 with an aggregate net surplus of \$164,462.

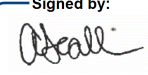
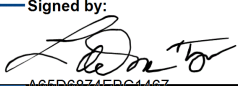
Halifax Water’s Capital Funding Policy requires all material funding increases for capital projects to be approved at the time of the funding need. This process promotes fiscal accountability and improves management of available funds. It should be noted that the threshold for NSUARB approval increased from \$250,000 to \$1,000,000 on October 30, 2019.

The net surpluses will be utilized as a capital funding source in future years, and for funding adjustment to projects as required, subject to the required Halifax Water Board and NSUARB approvals.

### **ATTACHMENTS**

Attachment 1 - Capital Project Spending Summary, April 1, 2023 – March 31, 2024

Attachment 2 - Capital Project Spending over \$1,000,000, April 1, 2023 - March 31, 2024

Report Prepared By:	<p>Signed by:  AFA8696B6D3845C...</p> <p>Alicia Scallion, CPA, CA Manager, Finance (902) 497-9785</p>
Financial Review By:	<p>Signed by:  A65B6874EBC1467...</p> <p>Louis de Montbrun, CPA, CA Director, Corporate Services/CFO (902) 490-3685</p>

Project Number	Project Name	NSUARB Approval Date	NSUARB Matter Number	Amount Spent: Cumulative to March 31/24	Project Budget	Over Budget	(Under Budget)
300002367	Lake Major WSP - Process Area HVAC Upgrades			\$54,979	\$100,000		-\$45,021
300002718	Cowie Hill Reservoir Replacement	Apr 8/21 & Nov 24/21	M09997 & M10305	\$8,137,679	\$8,710,000		-\$572,321
300002728	LYLE ST PS UPGRADES			\$260,748	\$235,000	\$25,748	\$6,000
300003121	CHAIN CTRL TRANS-PENINSULA LOW UPSIZE - Churchill Drive Corridor	Aug 22/22	M10687	\$8,868,337	\$9,805,000		-\$936,663
300003148	Beaver Bank Booster Station - Pump Upgrades			\$295,142	\$460,000		-\$164,858
300003151	J.D. Kline WSP - BUILDING IMPROVEMENTS			\$333,812	\$110,000	\$223,812	\$0
300003246	Silversides Pumping Station - Pump Upgrades Design			\$771,200	\$725,000	\$46,200	\$0
300003327	Peninsula TM Replacement-Windsor Street to Superstore Property			\$0	\$475,000		-\$475,000
300003356	Akerley Reservoir Rehabilitation - Design Work	Mar 4/22	M10446	\$5,342,682	\$8,520,000		-\$3,177,318
300003380	Bennery Lake WSP - MCC Splash Protection			\$8,029	\$50,000		-\$41,971
300003384	Small Systems WSP - Silver Sands - New water storage tank			\$0	\$35,000		-\$35,000
300003419	Springfield Lake Servicing Study			\$208,731	\$150,000	\$58,731	\$0
300003437	J.D. Kline WSP - WSP BOILER CIRCULATOR PUMP			\$5,357	\$35,000		-\$29,643
300003474	LEWIS STREET WM			\$876,234	\$835,000	\$41,234	\$0
300003476	PRV CHAMBER - GALLERY CRES - SACKVILLE			\$652,075	\$631,000	\$21,075	\$0
300003477	PINEHILL DR PRV CHAMBER REPLACEMENT			\$725,240	\$715,000	\$10,240	\$0
300003569	ROBIE CONTR CHAMBER - PENINSULA HIGH PRV			\$158,907	\$112,000	\$46,907	\$0
300003615	Small Systems WSP - Collins Park WSP - CHEMICAL STORAGE BUILDING			\$0	\$26,000		-\$26,000
300003617	POCKWOCK LAKE/LAKE MAJOR STEAM GAGING			\$0	\$250,000		-\$250,000
300003727	BEAVERBANK RD WM REPL - DESIGN PHASE			\$1,446,322	\$723,000	\$723,322	\$0
300003732	WSP - GATES AND FENCING UPGRADES WSP			\$85,004	\$100,000		-\$14,996
300003741	CONNAUGHT & ALMON TRAFFIC LIGHTS W			\$140,194	\$115,000	\$25,194	\$0
300003760	PAULINE CRES WM RENEW			\$766,134	\$793,000		-\$26,866
300003763	MELROSE AVE WM RENEW			\$794,914	\$845,000		-\$50,086
300003764	BRIARWOOD CRES WM RENEW	Jul 19/22	M11200	\$1,221,624	\$1,386,000		-\$164,376
300003765	SOUTH ST BLENNHEIM WM RENEW			\$676,928	\$726,000		-\$49,072
300003767	ARCHIBALD AIKENS WM RENEW			\$734,654	\$789,000		-\$54,346
300003785	Pen Intermediate Looping Windsor St 2023			\$650,290	\$702,000		-\$51,710
300003817	Computer Replacement Program			\$398,063	\$400,000		-\$1,937
300003923	WSP - PUMP & EQ OVERHAULS PRGM FOR WSPS 23/24			\$424,388	\$410,000	\$14,388	\$0
300003930	Burnside Dr WM - 2023 Exten (23/24)	Nov 4/21 - Mar 15/22 -	M10304 / M10490 /	\$5,700,000	\$5,700,000		\$0
300003931	ArcGIS Monitor Implementation	Mar 27/23 - Apr 21/23	M11060 / M11006	\$33,629	\$40,000		-\$6,371
<b>Water Capital Difference</b>				<b>\$39,771,294</b>	<b>\$44,718,000</b>	<b>\$1,226,849</b>	<b>-\$6,173,556</b>
						<b>Net Water</b>	<b>-\$4,946,706</b>
600002142	OUTFALL ASSESSMENT PROJECT			\$8,271	\$120,000		-\$111,729
600002143	SSO MANAGEMENT PROGRAM			\$58,636	\$65,000		-\$6,364
600002451	CSO MANAGEMENT STUDY			\$0	\$50,000		-\$50,000
600002640	CONNAUGHT & ALMON TRAFFIC LIGHTS WW			\$190,002	\$191,000		-\$998
700001917	Storm Sewer Condition Assessment			\$197,082	\$195,000	\$2,082	\$0
800000037	EMO GIS Project			\$0	\$25,000		-\$25,000
800000044	Lake Major WSP - Industrial Lawn Tractor			\$26,726	\$25,000	\$1,726	\$0
800000115	Caledonia Road TM Ph 1 - Add'l			\$200,026	\$150,322	\$50,000	\$0
600002242	Herring Cove WWTF - DENSADEG LAMELLA TUBE SETTLER UPG			\$609,467	\$575,000	\$34,467	\$0
600002268	Allison Drive PS Elimination			\$5,228	\$75,000		-\$69,772
600002270	Joseph Howe/Dutch Village Road Catchbasin Disconnections			\$415,099	\$445,000		-\$29,901
600002289	Halifax WWTF - SS Pipe Replacement Program			\$241,753	\$200,000	\$41,753	\$0
600002294	Halifax WWTF - New Densadeg Drain Lines			\$86,635	\$75,000	\$11,635	\$0
600002301	Dartmouth WWTF - Replace Generator Generator			\$0	\$290,000		-\$290,000
600002302	Dartmouth WWTF - SS Pipe Work Replacement Program			\$221,071	\$400,000		-\$178,929
600002308	Herring Cove WWTF - Fine Screens - New Perforated Plate Screens	Jul 26/22	M10650	\$1,335,538	\$1,500,000		-\$164,462
600002311	Herring Cove WWTF - Densadeg Launder Weir Levelling			\$51,129	\$50,000	\$1,129	\$0
600002312	Herring Cove WWTF - Alum Storage Containment Upgrades			\$251,038	\$190,000	\$61,038	\$0
600002407	FREDERICK STREET WW IP 22/23			\$0	\$186,000		-\$186,000
600002443	WWTF - Emergency Wastewater Treatment Facility Equipment Replacements			\$1,031,709	\$500,000	\$531,709	\$0
600002446	Timberlea WWTF - WWTF ASSET RENEWAL PROGRAM			\$318,012	\$275,000	\$43,012	\$0
600002453	Dartmouth WWTF - RAW WATER PARTS			\$115,575	\$57,750	\$57,825	\$0
600002455	WW Community Plant SCADA 22/23			\$151,710	\$186,000		-\$34,290
600002464	Wet Weather Management Program 22/23			\$270,175	\$350,000		-\$79,825
600002491	Sackville Street CSO - Screen Rebuild			\$88,209	\$110,000		-\$21,791
600002506	Halifax WWTF - Raw Water Pumps - VFD Replacement			\$93,688	\$120,000		-\$26,312
600002524	Herring Cove WWTF - Replace Fournier Press Flywheel Covers			\$27,710	\$25,000	\$2,710	\$0
600002526	Herring Cove WWTF - Carbon Scrubber FRP Exhaust Damper Repla			\$13,069	\$50,000		-\$36,931
600002530	Eastern Passage WWTF - UV System UPS			\$0	\$80,000		-\$80,000
600002531	Eastern Passage WWTF - Polymer Bay Heater Upgrades			\$8,265	\$15,000		-\$6,735
600002536	Aerotech WWTF - Dewatering - HVAC System Improvements			\$17,041	\$60,000		-\$42,959
600002541	Aerotech Biosolids Processing Facility - CS1 - Screw & Liner Replacement			\$214,929	\$200,000	\$14,929	\$0
600002542	Aerotech Biosolids Processing Facility - Biofilter - Slatted Floor Replacement			\$32,921	\$50,000		-\$17,079
600002543	SECURITY UPGRADE PROGRAM WW 22/23			\$113,575	\$200,000		-\$86,425
600002563	Dartmouth WWTF - DENSADEG MIXER GEAR REBUILD			\$46,866	\$75,000		-\$28,134
600002582	Dartmouth WWTF - SEEPEX PUMPS - SPARE PARTS			\$27,971	\$35,000		-\$7,029
600002660	Eastern Passage WWTF - Secondary Clarifier Flight Drive System			\$129,158	\$80,000	\$49,158	\$0
600002661	Mill Cove WWTF - MCC Switchgear Replacement			\$66,219	\$90,000		-\$23,781
600002662	Dartmouth WWTF - UV Crane Upgrade			\$58,636	\$65,000		-\$6,364
600002664	PAULINE CRES WW IP			\$64,000	\$64,000		\$0
600002669	MELROSE AVE WW IP			\$107,336	\$111,000		-\$3,664
600002672	BRIARWOOD CRES BRIAR PL WW IP			\$75,027	\$92,000		-\$16,973
600002704	Halifax WWTF - Replace Garage Bay Doors			\$72,097	\$125,000		-\$52,903
600002705	Halifax WWTF - Coarse Screen Room - Regrade Floor Inside Berm			\$36,243	\$50,000		-\$13,757
600002710	Dartmouth WWTF - Replace Workshop Bay Door			\$33,354	\$30,000	\$3,354	\$0
600002712	Dartmouth WWTF - Repair Exterior Door Thresholds			\$15,126	\$25,000		-\$9,874
600002713	Dartmouth WWTF - OCS - Carbon Cannister Replacements			\$273,179	\$255,000	\$18,179	\$0
600002717	Herring Cove WWTF - Epoxy Coat Floor			\$14,891	\$15,000		-\$109
600002718	Herring Cove WWTF - Walk Behind Floor Scrubber			\$11,077	\$15,000		-\$3,923
600002719	Herring Cove WWTF - Replace Exterior Rear Doors			\$5,423	\$10,000		-\$4,577
600002726	Mill Cove WWTF - Air Actuated Pumps/Compressors			\$0	\$90,000		-\$90,000
600002734	Timberlea WWTF - RBC Air Scour Blower - VFD Replacement			\$9,099	\$10,000		-\$901
600002736	Timberlea WWTF - New Forklift			\$0	\$40,000		-\$40,000
600002738	Community WWTF - Fall River WWTF - Replace Sand Filter Media			\$10,171	\$100,000		-\$89,829
600002743	Mobile Bypass Pump			\$0	\$215,000		-\$215,000
600002744	Mobile Generator Purchase			\$117,026	\$140,000		-\$22,974
600002746	Lateral Lining Equipment			\$0	\$320,000		-\$320,000
600002747	Push Camera			\$35,713	\$27,000	\$8,713	\$0
600002750	Emergency Pumping Station Pump Replacements			\$496,442	\$300,000	\$196,442	\$0
600002756	WWTF - Emergency WWTF Equipment Replacements			\$562,402	\$550,000	\$12,402	\$0
600002783	WW MISC REPAIRS - JULY 2023 FLOOD			\$154,959	\$0	\$154,959	\$0
800000010	Dartmouth WWTF - Hoist Way Cover Repl			\$36,691	\$75,000		-\$38,309
800000058	Bioxide Tank Replacement			\$0	\$30,000		-\$30,000
<b>Wastewater Capital Difference</b>				<b>\$8,853,564</b>	<b>\$10,060,072</b>	<b>\$1,298,509</b>	<b>-\$2,504,133</b>
						<b>Net Wastewater</b>	<b>-\$1,205,624</b>
700001446	Culvert Replacement - WAVERLEY RD, near civic 832			\$48,282	\$38,000	\$10,282	\$0
700001559	Bayne St Stormwater System Upgrade - Preliminary Engineering			\$0	\$75,000		-\$75,000

Project Number	Project Name	NSUARB Approval Date	NSUARB Matter Number	Amount Spent: Cumulative to March 31/24	Project Budget	Over Budget	(Under Budget)
700001560	Kempt Road Stormwater System Upgrade - Preliminary Engineering			\$0	\$75,000		-\$75,000
700001667	MONAGHAN STREET SW IP 22/23			\$48,878	\$50,000		-\$1,122
700001707	43 FLAT LAKE DRIVE			\$22,143	\$25,000		-\$2,857
700001709	9 FLAT LAKE DRIVE			\$22,859	\$30,000		-\$7,141
700001710	1 WINDSOR DR			\$11,086	\$25,000		-\$13,914
700001711	51 BUCKINGHAM DRIVE			\$64,025	\$35,000	\$29,035	\$0
700001720	FREDERICK DRIVE AT DYKE RD			\$0	\$93,000		-\$93,000
700001723	SHORE RD, NEAR CIVIC 2269			\$11,920	\$62,000		-\$50,080
700001724	RILEY RD, NEAR CIVIC 135			\$58,678	\$87,000		-\$28,322
700001727	SIME CRT, NEAR CIVIC 5			\$112,087	\$115,000		-\$2,913
700001861	PAULINE CRES SW IP			\$22,920	\$79,000		-\$56,080
700001869	ISLEVILLE ST SW IP			\$62,724	\$65,000		-\$2,276
700001893	Lateral Replacements SW Program - East			\$1,265	\$0	\$1,265	\$0
700001907	Culvert Replacement - Philip Drive, near civic 196			\$10,479	\$55,000		-\$44,521
700001908	Culvert Replacement - Robinson Drive, near civic 77			\$0	\$60,000		-\$60,000
700001914	Culvert Replacement - Glenwood Drive, near civic 120			\$78,946	\$65,000	\$13,946	\$0
700001915	Culvert Replacement - Glenwood Drive, near civic 80			\$24,914	\$65,000		-\$40,086
700001916	Culvert Replacement - Glenwood Drive, near civic 55			\$42,429	\$65,000		-\$22,571
700001925	HAMMONDS PLAINS RD CULVERT (2023 Fire)			\$226,750	\$0	\$226,750	\$0
700001926	29 PARKLEA DR CROSS CULVERT REPL			\$54,506	\$50,000	\$4,506	\$0
700001927	60 PARKLEA DR CROSS CULVERT REPL			\$58,434	\$60,000		-\$1,566
700001928	174 PARKLEA DR CROSS CULVERT REPL			\$66,087	\$80,000		-\$13,913
700001929	255 PARKLEA DR CROSS CULVERT REPL			\$52,717	\$58,000		-\$5,283
700001930	271 PARKLEA DR CROSS CULVERT REPL			\$52,850	\$62,000		-\$9,150
700001933	DRIVEWAY CULVERT - JULY 2023 FLOOD			\$617,143	\$0	\$617,143	\$0
700001934	CROSS CULVERT - JULY 2023 FLOOD			\$108,934	\$0	\$108,934	\$0
700001935	SW MISC REPAIRS - JULY 2023 FLOOD			\$675,255	\$0	\$675,255	\$0
800000015	15 French Village Station Road (Flood)			\$395,840	\$0	\$395,840	\$0
800000016	46 Kipawa Crescent (Flood)			\$467,735	\$0	\$467,735	\$0
800000026	2465 Hammonds Plain Cross Culvert Replacement			\$511,671	\$440,000	\$71,671	\$0
800000032	Briarwood Cres SW IP			\$6,423	\$8,000	\$0	-\$1,577
<b>Stormwater Capital Difference</b>				<b>\$3,937,990</b>	<b>\$1,922,000</b>	<b>\$2,622,362</b>	<b>-\$606,372</b>
						<b>Net Stormwater</b>	<b>\$2,015,990</b>
<b>Net Difference</b>				<b>\$52,562,848</b>	<b>\$56,700,072</b>	<b>\$5,147,720</b>	<b>-\$9,284,061</b>
						<b>Net Total</b>	<b>-\$4,136,341</b>

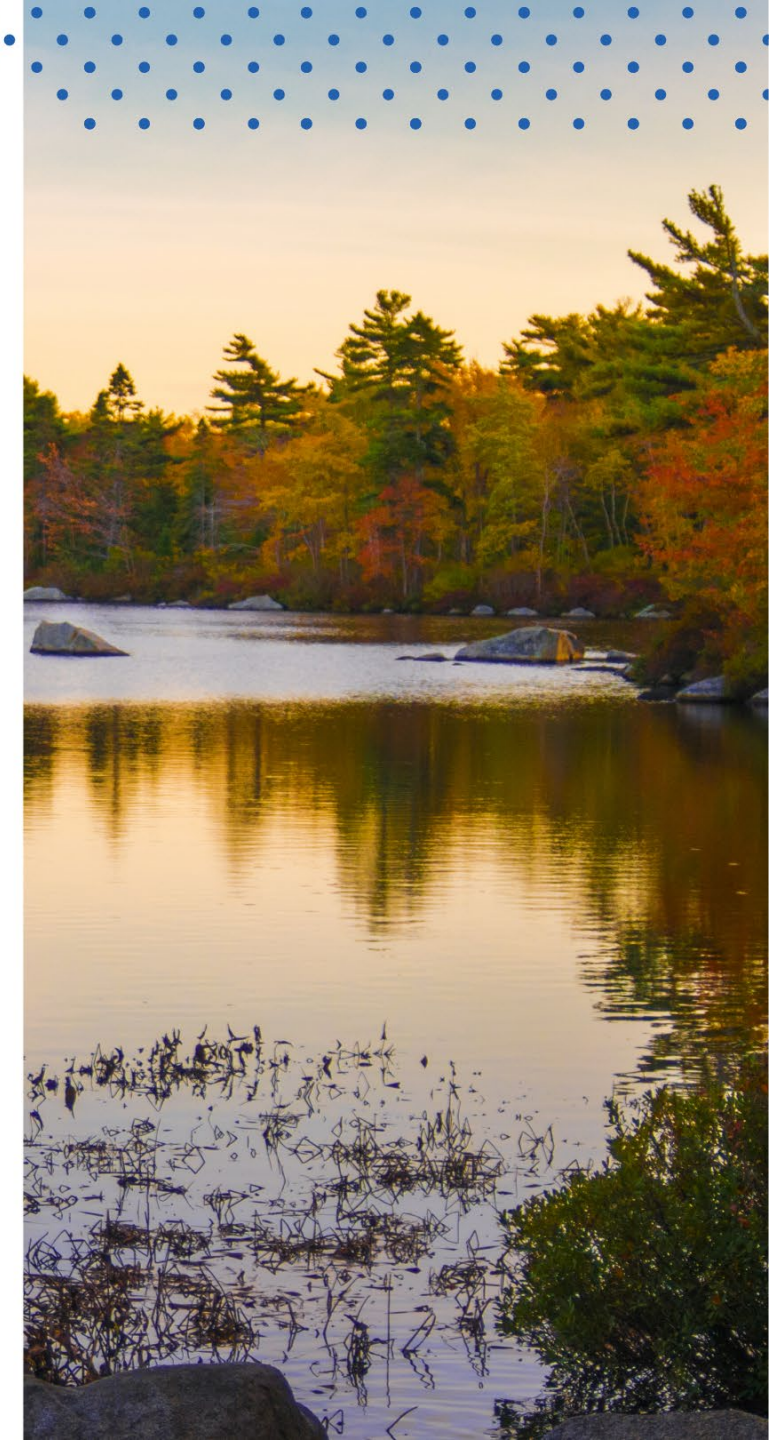


# Item 4.5 – Update RDC, IRP, GRA

Halifax Water Board

September 26, 2024

**STRAIGHT from  
the SOURCE**



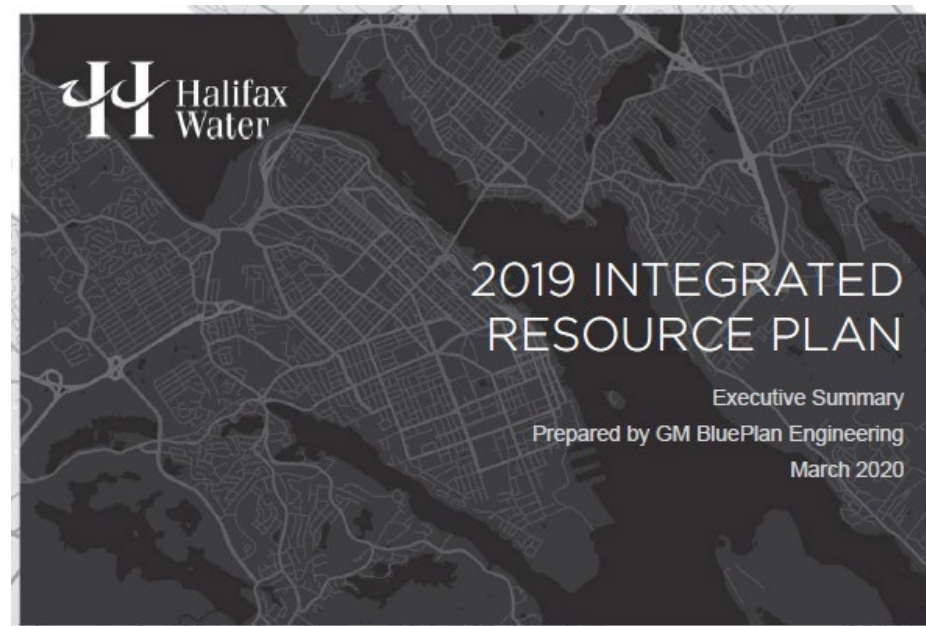
# Regional Development Charge (RDC)

- Charges applied at the Building Permit Stage on net new increases in residential units & non-residential area
- Established in 2014; 1st – 5-year update 2019 (approved 2021); next 5-year update October 31, 2025
  - Annual increases for CPI in April
  - Impacted by the Provincial freeze – HRM Charter, Section 236A
  - Annual review for +/-15%
  - Added WSEP costs water increase 76.07% & wastewater 8.17%
- In light of the freeze and gap last submission and approval
- Submit Application March 31, 2025
- Will involve significant stakeholder engagement
- IRP will not be completed
- Adjust non-residential methodology



# Integrated Resource Plan (IRP)

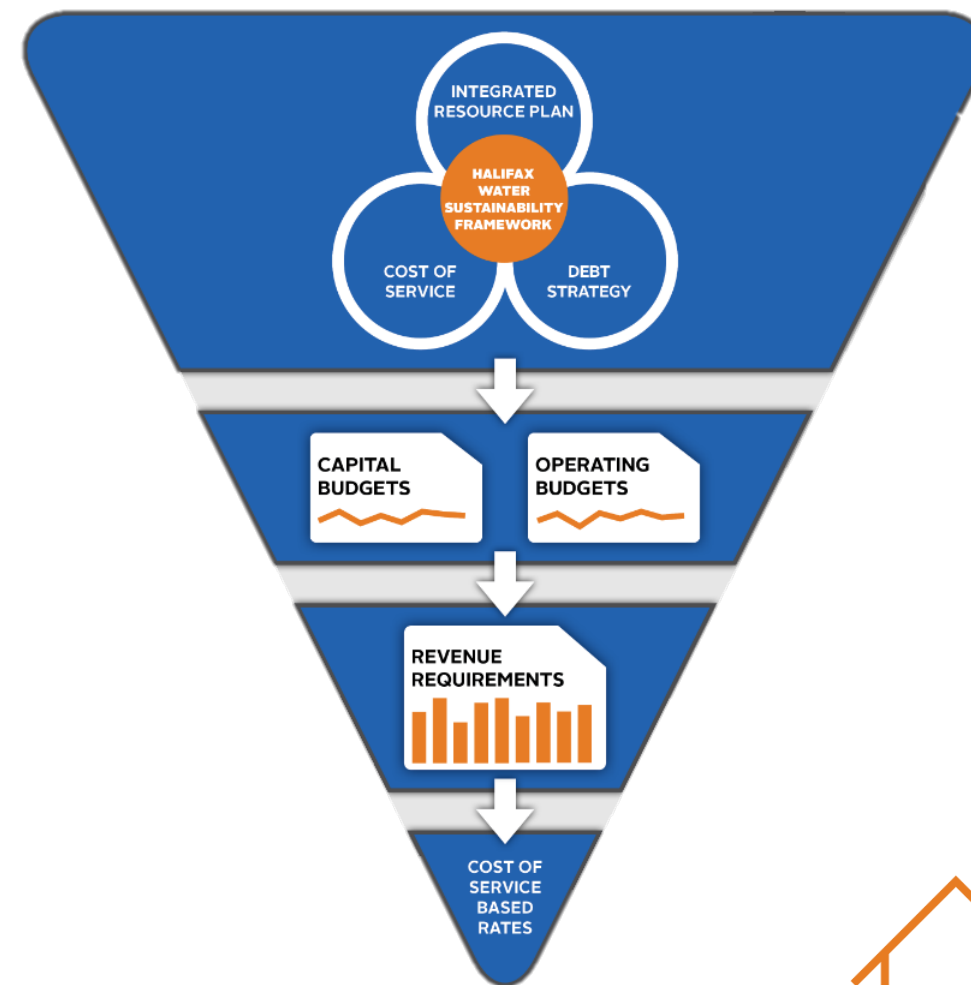
- First IRP 2012; updated in 2019
- RFP issued for this update – will take 2 years
- Asset Renewal/Compliance/Growth
- Basis for everything Halifax Water does
  
- Anticipated Growth
- Growth Servicing Study
  
- Board Consultants workshop last week





# General Rate Application (GRA)

- Submission Fall 2024 (previous 2022)
- Normal strategy is to request approval of 2-year rates (process is very expensive)
- Looking to establish a methodology for longer-term rates, similar to RDC
- Stakeholder engagement will be required.





# *Questions*

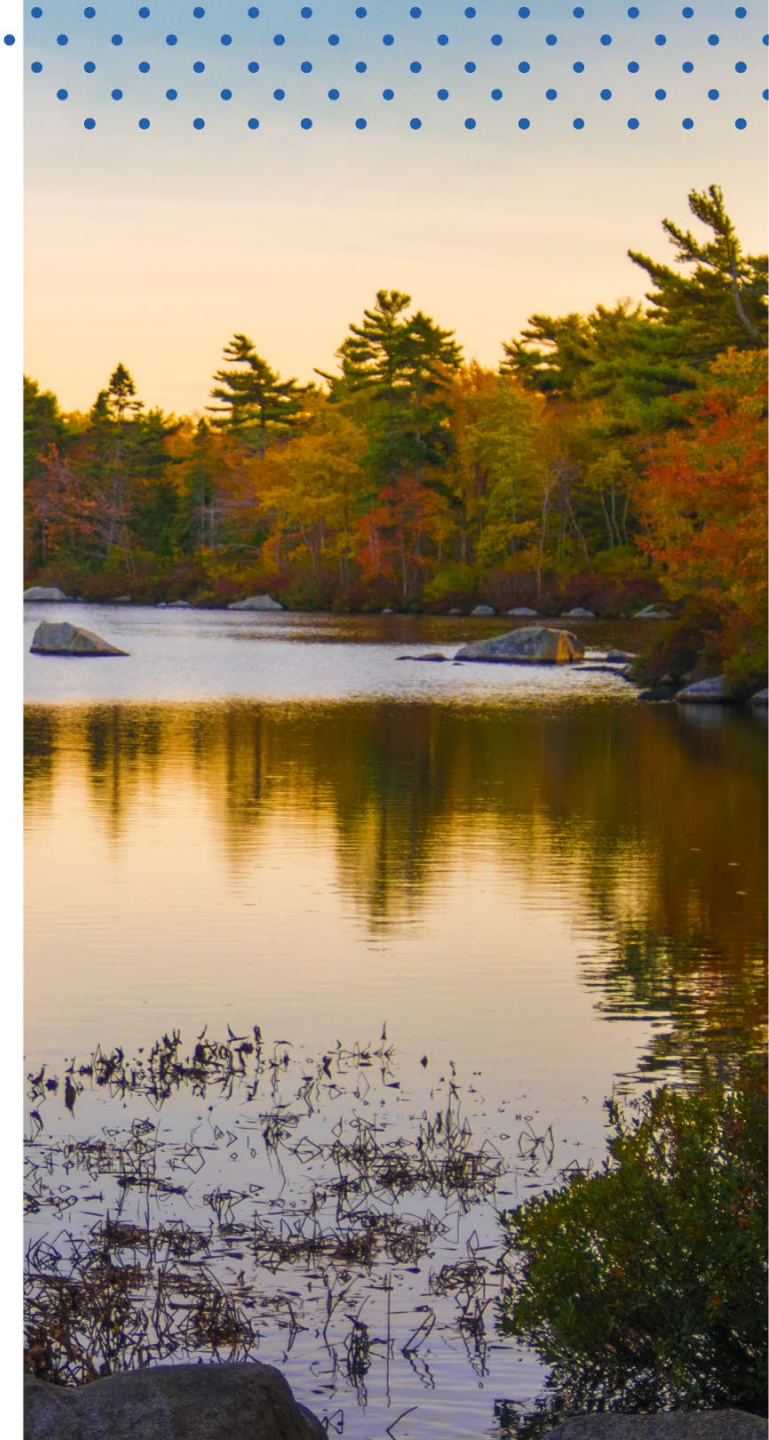


# Windsor Street Exchange Redevelopment Project

Halifax Water Board Meeting

September 2024

**STRAIGHT from  
the SOURCE**



# Project Background

- HRM led project to improve traffic flow through the Windsor Street Exchange
- HRM obtained Transportation Canada funding and HRM Regional Council approved project in August 2019
- HRM project kickoff March 2020
- Around this time Halifax Water initiated and completed preliminary design work:
  - North End Feeder Replacement (Integrated Resource Plan Project)
  - Young Street Sewer Separation (Integrated Resource Plan Project)
- HRM completed functional design August 2022
- Halifax Water was involved in value engineering study of design options (Aug 2023 – Spring 2024)



# Project Background

- In Fall 2023, HRM proceeded with a progressive design build model for project delivery
- Final concept design endorsed by HRM Regional Council in June 2024
- RFQ process was completed by HRM to pre-qualify design-build contractors
- RFP issued for qualified design-build contractors in Aug 2024
- RFP responses anticipated by September 20, 2024





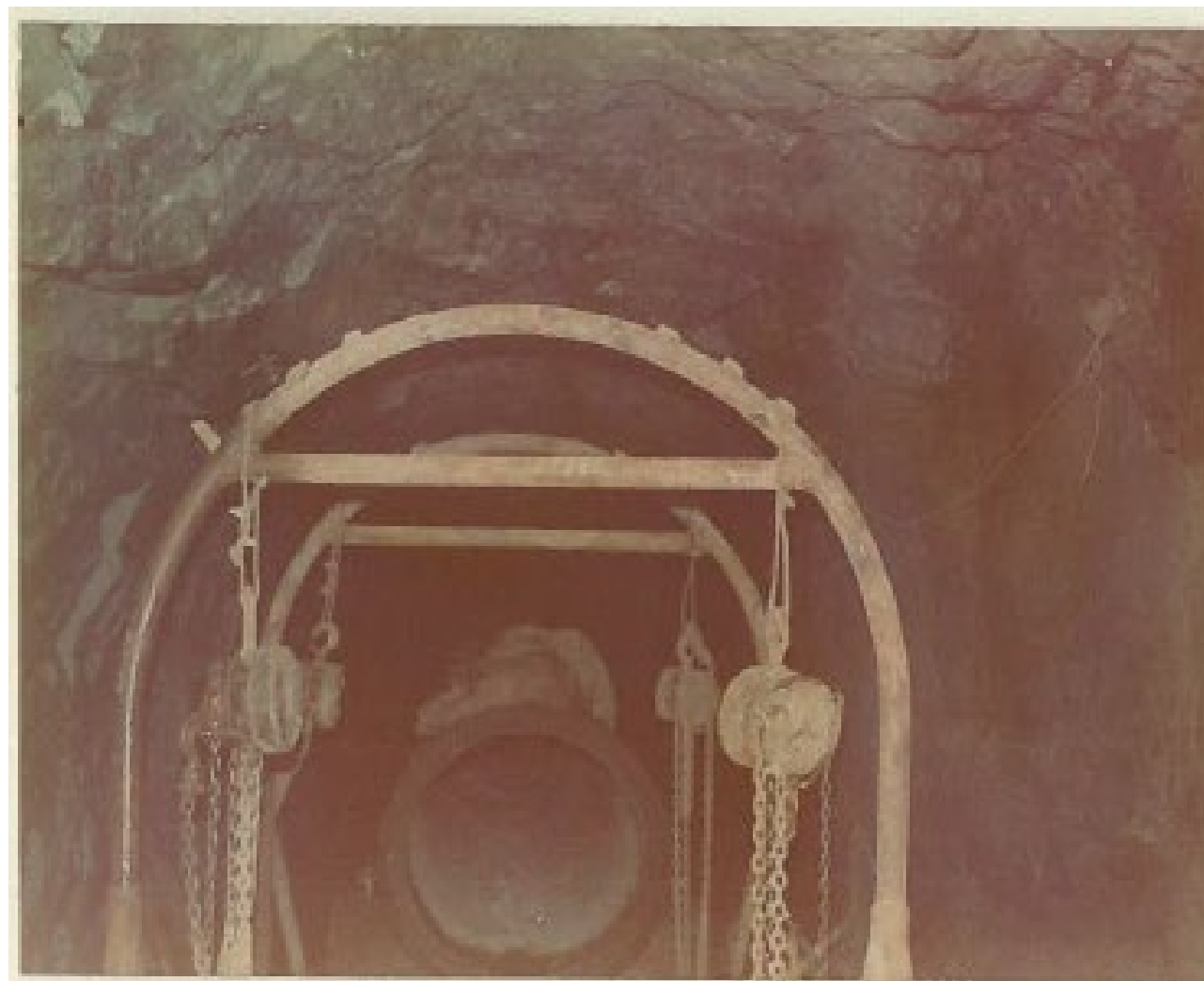
# Project Limits



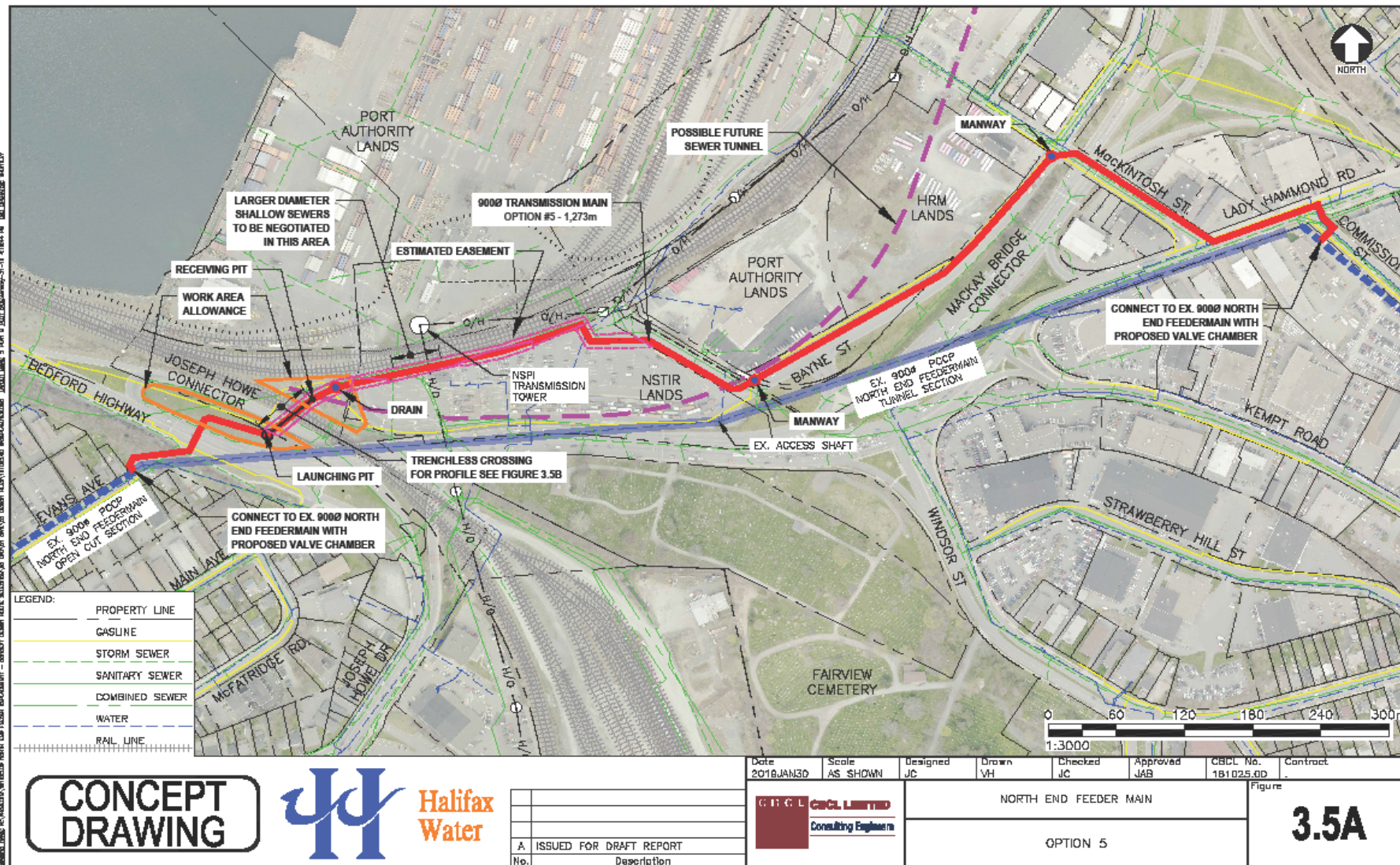


# North End Feeder Replacement (IRP)

- Installed in 1974/1975
- Strongest water supply to North end of Peninsular Halifax
- Tunnel from end of Evans Avenue to Commission Street (50ft-115ft)
- 900mm PCCP C301(L)
- Concept route study completed in October 2019
- CBCL were retained in 2020 for concept design development, detailed design and construction phase services
- Install new pipe using conventional open cut as much as possible
- Project was identified in 2019 IMP – Peninsula Supply Strategy:
  - Recommended twinning high-risk portion of North End Feeder



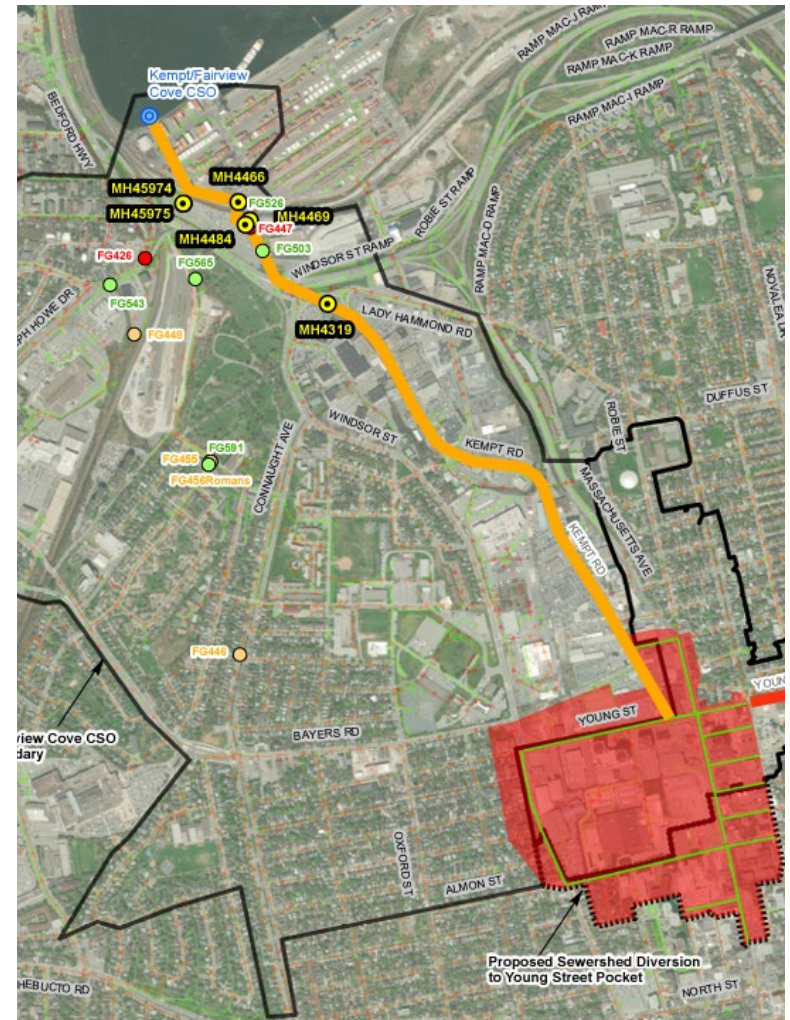
# North End Feeder Replacement





# Young Street Sewer Separation (IRP)

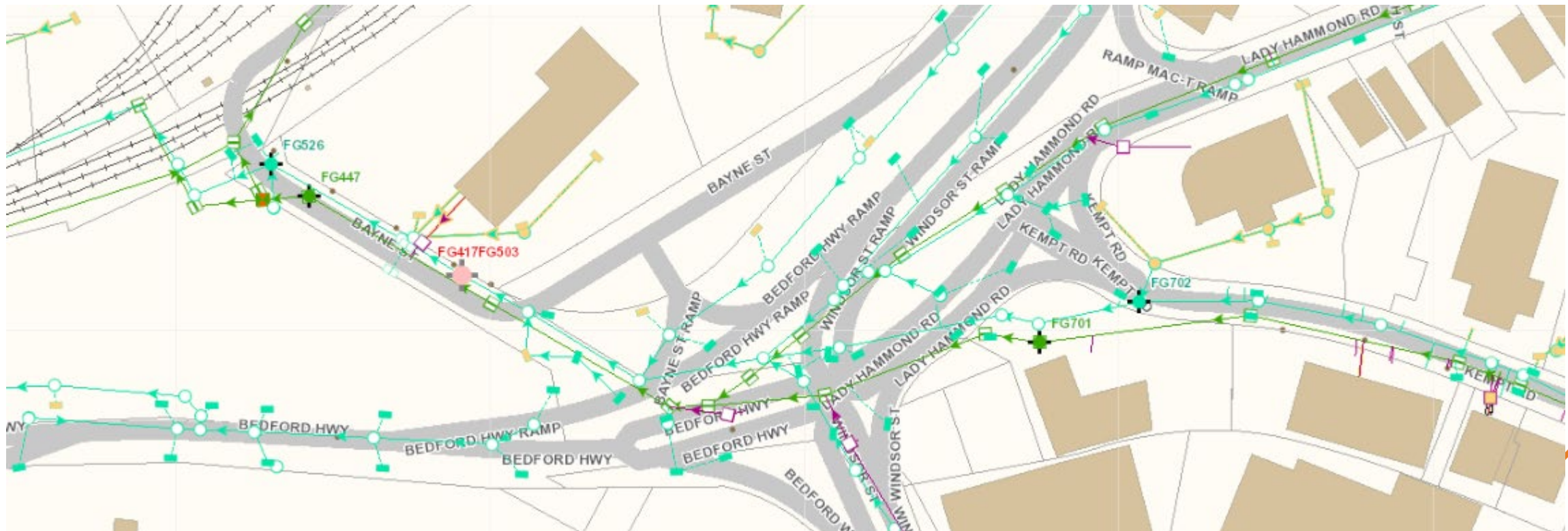
- Identified in the Infrastructure Master Plan of the IRP
- Young Street Pocket (red) is a growth intensification area identified by Halifax
- Kempt Road is the preferred stormwater route
  - Allows for the separation of the pocket and Kempt Road along the route
- Working with WSP Consultants for the feasibility study and concept design





# Existing Wastewater and Stormwater Infrastructure

- Upsize and improve stormwater conveyance through the Windsor Street Exchange area
- Review wastewater and combined system size, adjust sizing as required to allow capacity for growth.



# Benefits of Project Integration

- Regular program for project integration for asset renewal – common practice with Halifax
- Cost savings to Halifax Water & HRM
  - Streetscape reinstatement
  - Traffic control, mobilization, contractor overheads and project management
- Bylaw S-300 (Order of the Engineer)
  - A future Halifax Water project could not start until 2030



# Next Steps

- Application to NSUARB for design funding (~\$3.5M)
  - North End Feeder concept and detailed design
  - Young Street Sewer Separation concept and detailed design
  - Windsor Street Exchange design
- Continue design process
  - North End Feeder
  - Young Street Sewer Separation
- Participate in Progressive Design-Build process with HRM's successful proponent



# Questions?





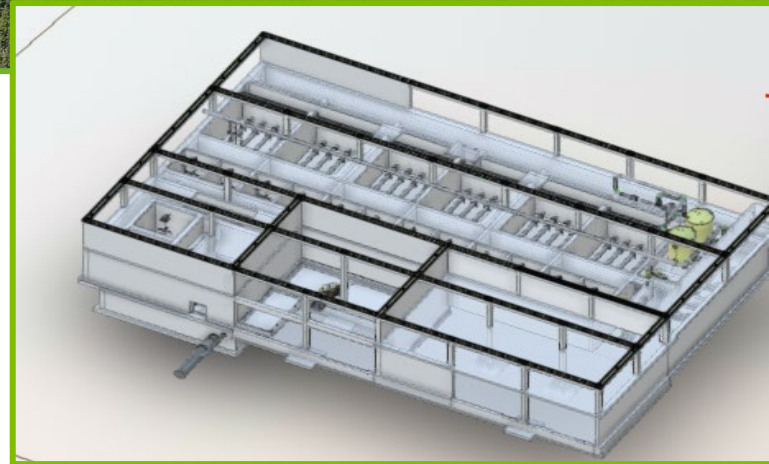


# Water Supply Enhancement Program (WSEP)

Project: JDK800.10 Pretreatment & Clarification

WSEP Updates

September 2024




**STRAIGHT from  
the SOURCE**


# Water Supply Enhancement Program (WSEP)



# March 2023 Approval

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

**SUBMITTED BY:**  Digitally signed by Reid Campbell  
Date: 2023.03.17 11:38:35 -03'00'  
Reid Campbell, M.Eng., P.Eng., Director, Engineering & Technology Services

**APPROVED:**  Louis de Montbrun  
Date: 2023.03.17 11:42:04 -03'00'  
Louis de Montbrun, CPA, CA, Acting General Manager/CEO

**DATE:** March 10, 2023

**SUBJECT:** **Water Supply Enhancement Program – JDK800.10 – Pretreatment and Clarification – Detailed Design & Early Works**

## ORIGIN

The Halifax Water 2021/22, 2022/23 and 2023/24 Capital Budgets.

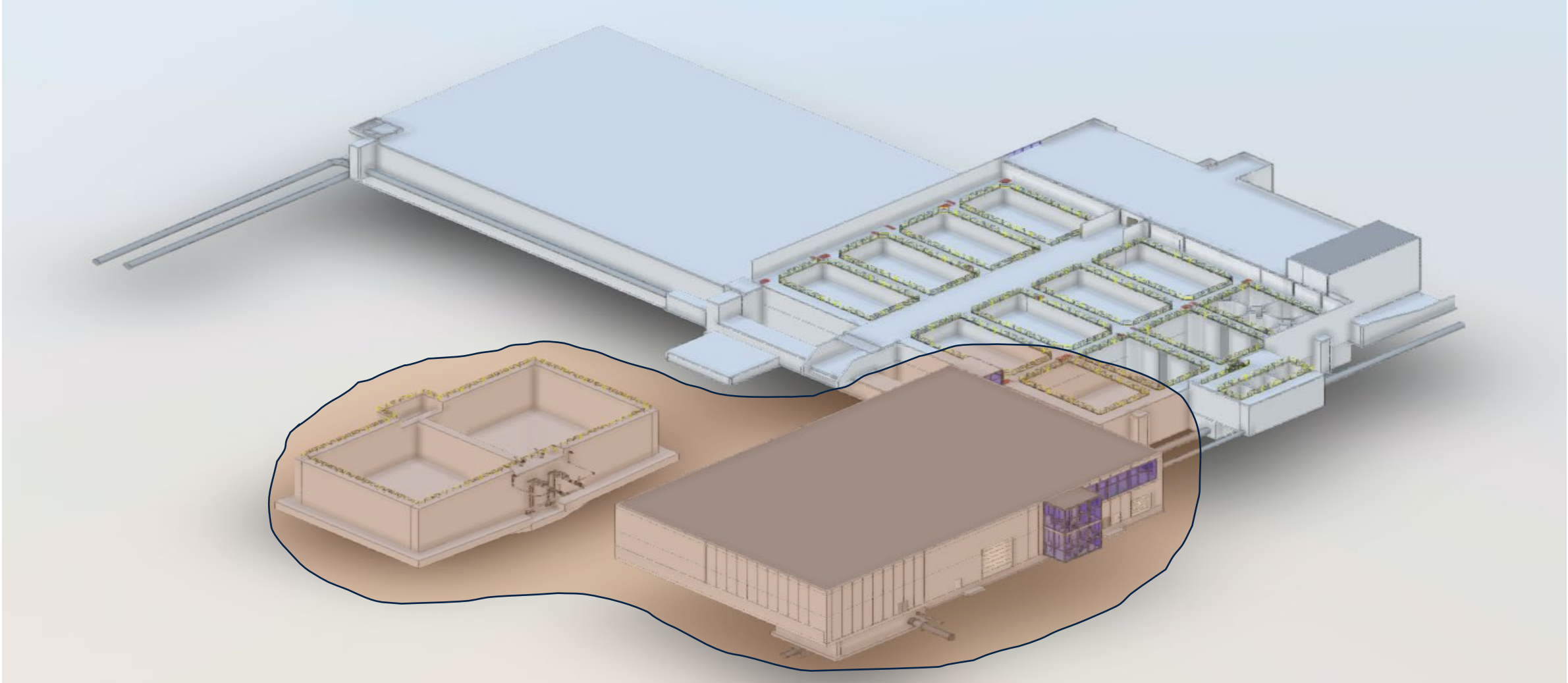
## RECOMMENDATION

The Halifax Water Board approve funding for the **Water Supply Enhancement Program – JDK800.10 – Pretreatment and Clarification – Detailed Design & Early Works** project at an estimated cost of \$7,300,000.

<b>A - SCADA Tower Relocation</b>	
Supply and install new SCADA Tower	\$ 450,000
Foundations, U/G Ductwork and Electrical	\$ 200,000
Removal of Existing Tower	\$ 50,000
Contingency (10%)	\$ 70,000
Subtotal	\$ 770,000
<b>B - Rock Removal/Building Pad Construction</b>	
Mobilization	\$ 30,000
Rock Removal (9,500 m <sup>3</sup> @ \$75/m <sup>3</sup> )	\$ 712,500
Overburden Removal (12,000 m <sup>3</sup> @ \$25/m <sup>3</sup> )	\$ 300,000
Processing and Placement of Structural Fill (9,500 m <sup>3</sup> @ \$15/m <sup>3</sup> )	\$ 142,500
Stockpiling and Removal of Excess Material	\$ 80,000
Contingency (10%)	\$ 126,500
Subtotal	\$ 1,391,500
<b>C - Raw Water Transmission</b>	
Raw Water Piping (1,000 m @ 900 mm)	\$ 2,050,000
Contingency (10%)	\$ 205,000
Subtotal	\$ 2,255,000
<b>D - Detailed Engineering Design</b>	
Consulting Fees for detailed design and tender services	\$ 2,242,650
Subtotal	\$ 2,242,650
Sub-total (A+B+C+D)	\$ 6,659,150
Program Management (3%)	\$ 208,337
Halifax Water Staff Time (1%)	\$ 66,591
Net HST (4.286%)	\$ 285,411
Interest & Overhead (1%)	\$ 66,591
FUNDING REQUEST TOTAL	\$ 7,286,081
Rounded to nearest hundred-thousand	\$ 7,300,000



# JDK – Current Design Basis



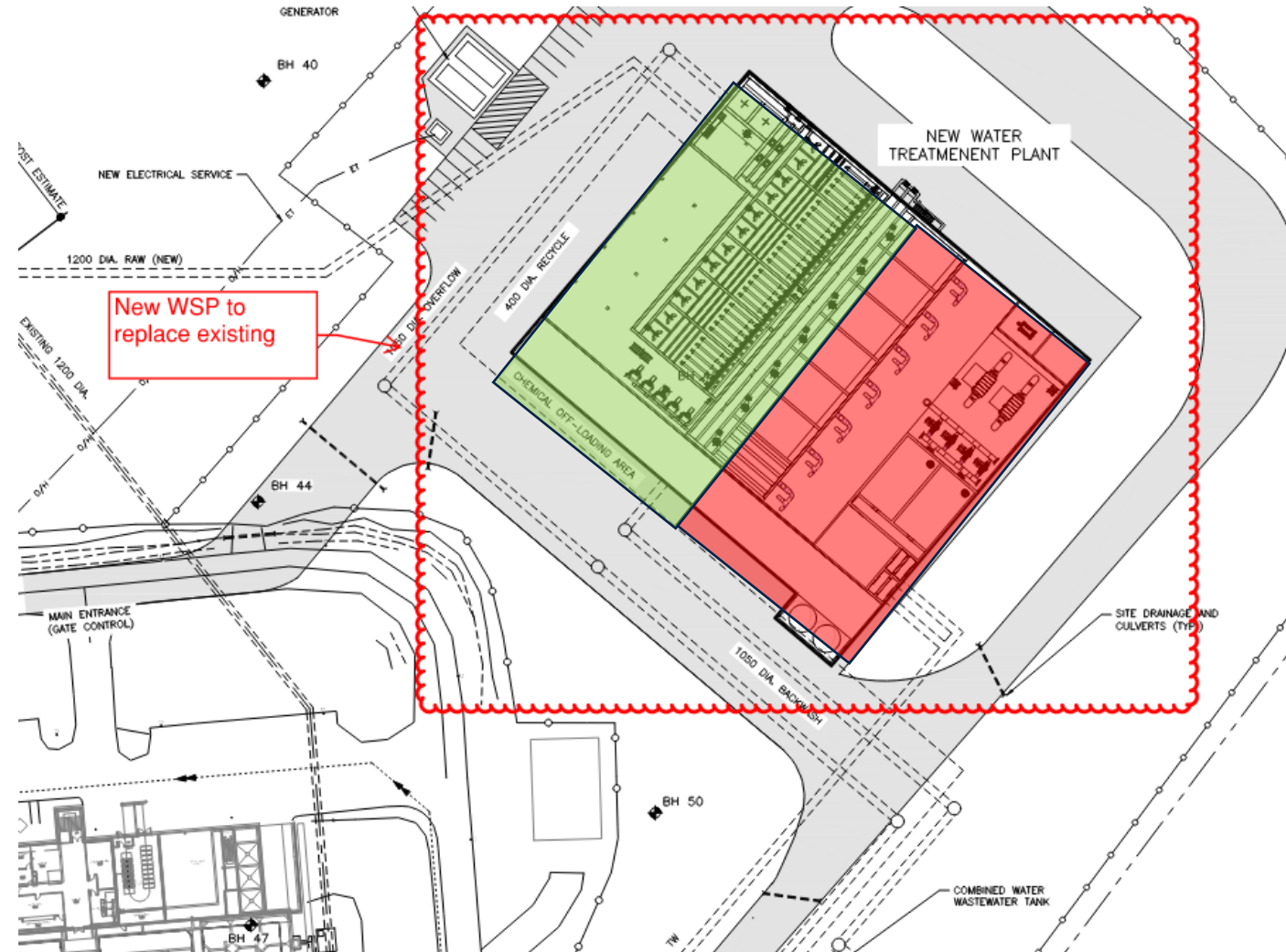


# Emergence of Critical Risks

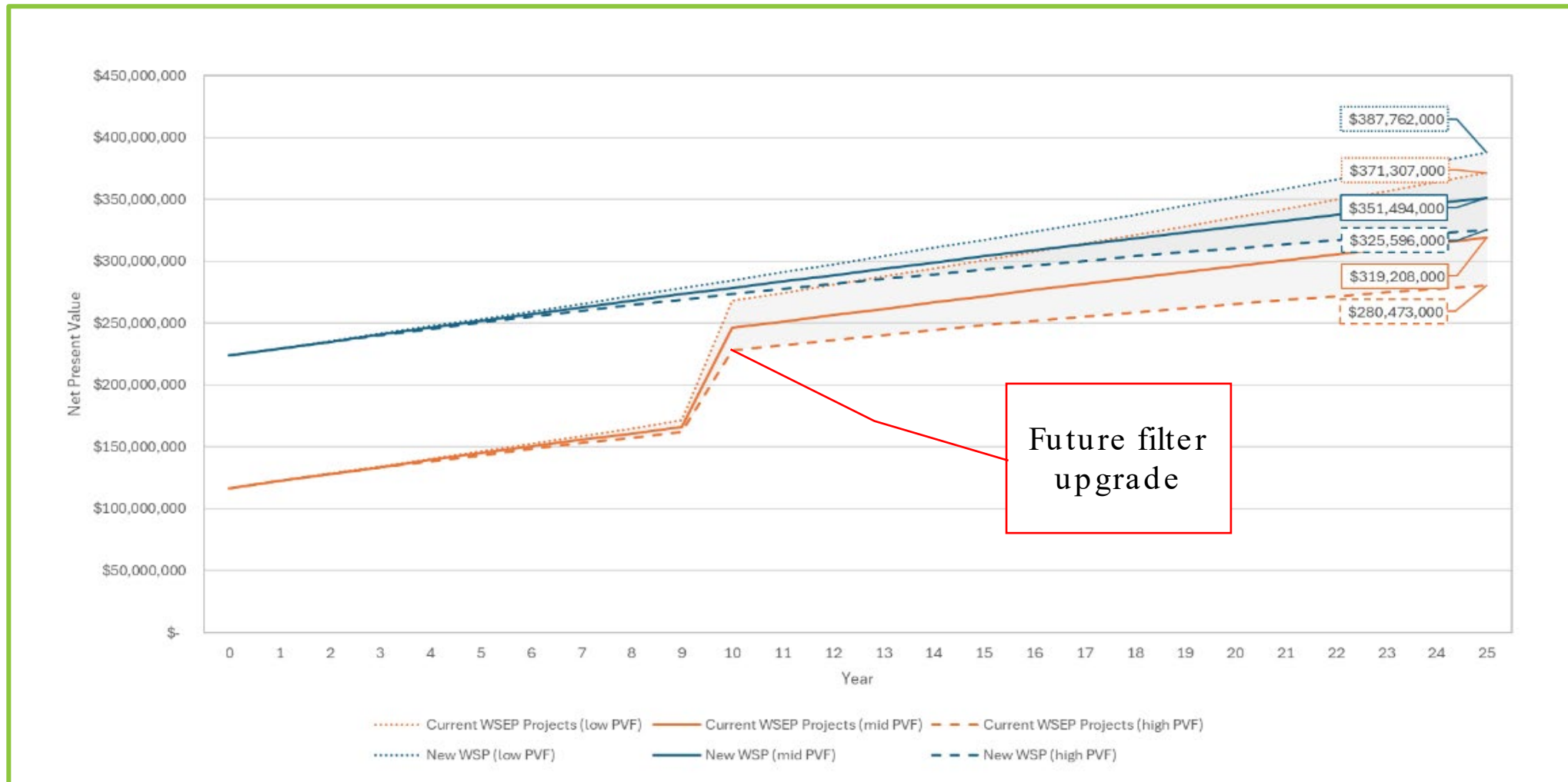
- Clearwell Conversion to Pipe Gallery
- Operating plant at Half Filter capacity (8 to 4 (3) filters)
- Proximity to Critical Infrastructure
- Clearwell Isolation
- Future Process Enhancements
- Backwash Setup
- Cost (Change Orders)
- Available Property
- Recent Boil Water Advisory

# JDK – New Plant Concept

- New facility to northeast of existing.
- Same DAF pretreatment and washwater recycle tankage.
- New filter plant and chemical feed systems.



# JDK – Lifecycle Comparison



# Next Steps

- Workshop with Design Team and Steering Committee
- Update to the HRWC Board (on-going updates)
- Update to the NSUARB



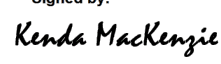
**TO:** Colleen Rollings, P.Eng., PMP., Chair and Members of the Halifax Regional Water Commission Board

**SUBMITTED BY:**

DocuSigned by:  


0BC19767707F486...  
Josh DeYoung, P.Eng., Director of Engineering & Capital Infrastructure

**APPROVED:**

Signed by:  


0C084AC015794F0...  
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

**DATE:** August 28, 2024

**SUBJECT:** **Cogswell District Energy System – Non-Mandatory Zone**

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#### **ORIGIN**

1. Halifax Regional Municipality (HRM) Cogswell Redevelopment project initiation.
2. Halifax Water Board Report, Item 7, June 30, 2016
3. Halifax Water Board Report, Item 6-I, June 21, 2018
4. Halifax Water Board Report, Item 9-I, January 19, 2019
5. Halifax Water Board Report, Item 6-I, March 28, 2019
6. Halifax Water Board Report, Item 1, August 28, 2019
7. Halifax Water Board Report, Item 5C, January 30, 2020
8. Halifax Water Board Report, Item 5.2, March 24, 2022

#### **RECOMMENDATION**

It is recommended that the Halifax Water Board direct the A/General Manager to request that Halifax Regional Council:

1. Authorize the Halifax Regional Water Commission to operate the Cogswell District Energy System within the “non-mandatory” connection zone as depicted in Figure 2 of this report, in addition to the existing mandatory connection zone.
2. Direct the Mayor to write a letter to the Province of Nova Scotia requesting legislative amendments to the *Halifax Regional Municipality Charter* and *Halifax Regional Water Commission Act*, to:

- a. expand the boundary of the Cogswell District Energy System to include the “non-mandatory” connection zone depicted in Figure 2 of this report;
- b. authorize the municipality to pass by-laws with respect to both the mandatory and non-mandatory connection zones; and
- c. extend the application of Halifax Water’s statutory limitations of liability to the provision of incidental business, including district energy services.

## **BACKGROUND**

The Cogswell District Energy System (DES) is currently under construction. Upon completion it will transfer waste energy to and from the sewage treatment system to the distribution piping system to be used to heat and cool nearby residential and commercial buildings. This DES will have a lower energy and utility cost and significantly lower greenhouse gas emissions than the other common heating sources including electric baseboard, air source heat pumps, gas, and oil heating.

The “Cogswell District Energy Boundary” is an area delineated by the map, attached as Schedule D to the HRM Charter (Figure 1). The HRM Charter allows the municipality to pass certain by-laws with respect to the DES within the Cogswell District Energy Boundary, including the authority to require mandatory connections. On August 18, 2020, HRM adopted [By-law D-500](#) which requires all new buildings constructed within the Cogswell District Energy Boundary to be connected to the DES.

In a letter to the HRM CAO on August 22, 2023, Halifax Water stated that property owners outside the Cogswell District Energy Boundary have expressed interest in future voluntary connections. In this letter Halifax Water proposed creating a second distinct boundary in which connection to the DES would be optional (Figure 2) and requested support and assistance from HRM in expanding this boundary.



Figure 1, left: Cogswell District Energy Boundary per s. 3(jb) of HRM Charter.

Figure 2, right: Existing mandatory Boundary (red); Proposed Non-mandatory Boundary (blue).



On August 6, 2024, HRM announced the Downtown Gateway Comprehensive Plan. The Downtown Gateway area (Figure 3) is approximately 5.87 hectares of underutilized municipally owned lands located within the Halifax's North End, and generally bounded by Cogswell Street, Rainnie Drive, and Gottingen Street (including the Halifax Regional Police HQ property). The Downtown Gateway is included in the request to expand the Cogswell DES Boundary and includes potential customers that have previously expressed interest in connecting to the DES. The Downtown Gateway Plan, along with Halifax Water's request to expand the Cogswell District Energy Boundary, represents a unique generational opportunity to further expand and connect future developments to the DES.



Figure 3: Downtown Gateway Conceptual Master Plan

## **DISCUSSION**

Subject to the supervision and regulation of the Utility & Review Board, Halifax Water is authorized pursuant to subsection 7(1)(a) of the *Halifax Regional Water Commission Act*, to own or operate water, wastewater and stormwater systems and facilities for customers within HRM. Subsection 7(1)(c) provides that that Halifax Water may also, subject to the approval and direction of Regional Council, engage in incidental business activities, including the generation of heat or electricity in whole or in part from by-products of any of those operations.

Halifax Water has obtained approval from both the UARB and Regional Council to operate the Cogswell DES within the Cogswell District Energy Boundary. Within this boundary, connection is mandatory (in accordance with By-Law D-500). In order to serve customers outside this boundary, Halifax Water requires

further approvals from Regional Council and the UARB. In addition to obtaining these approvals, there are certain shortcomings in the existing legislative framework that should be addressed.

In 2017, through [Bill 82](#), the Province of Nova Scotia made amendments to the *Halifax Regional Municipality Charter* granting Regional Council the authority to pass certain by-laws with respect to the DES within the “Cogswell District Energy Boundary”. As described in the explanatory note for Bill 82, the primary purpose of the Charter amendments was to provide “authority for Halifax Regional Municipality to require that any future development in the Cogswell Redevelopment Area be connected to a district energy system to be established for that area.” Council’s jurisdiction is limited to the “Cogswell District Energy Boundary”, as that area is defined in the *HRM Charter*. Council cannot, therefore, currently amend By-Law D-500 to apply beyond the existing boundary.

On [August 18, 2020](#), HRM adopted the [District Energy By-Law \(D-500\)](#). The primary functions of By-law D-500 are to:

- Mandate the connection to DES within the Cogswell District Energy Boundary; and
- Grant the General Manager of Halifax Water the “powers of the engineer” within the Cogswell District Energy Boundary.

Section 9 and 10 of the *Halifax Regional Water Commission Act* authorizes the General Manager of Halifax Water to exercise the powers, privileges and immunities of the Municipal Engineer under the HRM Charter (including the power to enter a property for the purpose of inspection or enforcement), but only with respect to “water, watershed protection, wastewater and stormwater services, systems and facilities that are within the subject-matter and territorial jurisdiction of the Commission.” Section 9 and 10 of the *Halifax Regional Water Commission Act* makes no reference to “incidental business activities” such as a district energy system. Subsequent to the passing of Bill 82, clause 188(1)(lb) of the *HRM Charter* now allows HRM to pass by-laws authorizing the General Manager of the Halifax Regional Water Commission to exercise the powers and authorities of the General Manager set out in Sections 9 and 10 of the *Halifax Regional Water Commission Act* in respect of the district energy system -- but again, HRM’s jurisdiction is limited to the Cogswell District Energy Boundary as it is currently defined. Without a further legislative amendment, the General Manager of Halifax Water would not expressly have the powers of the Municipal Engineer with respect to the DES within the voluntary connection zone.

Additionally, it is unclear whether the limitations of liability in the *Halifax Regional Water Commission Act*, as currently drafted, would be applicable to Halifax Water’s district energy activities. Both HRM and Halifax Water benefit from certain limitations of liability in their respective statutes. For example, sections 26 through 32 of the *Halifax Regional Water Commission Act* exempts Halifax Water in certain circumstances from liability regarding negligence, breakage or interruption, nuisance, failure to provide or maintain a service, overflows and inspections. Several of these provisions, however, state that they pertain only to water, wastewater and stormwater services.

### **BUDGET IMPLICATIONS**

The scope of work for HRM’s contract with Dexter Construction for the Cogswell project (Tender #21-003) includes the installation of DES infrastructure for Halifax Water. Halifax Water is paying for the cost of the DES infrastructure within the mandatory Cogswell District Energy Boundary; however, HRM is currently floating the cost of that portion of the DES infrastructure that extends outside of the mandatory boundary (approximately \$710,000). The UARB determined that it was premature for the cost of that portion of the DES infrastructure to be borne by mandatory connection ratepayers. Halifax Water will reimburse HRM for these costs if, when, and to the extent that it receives regulatory approval to do so. Halifax Water requires legislative amendments and HRM’s approval to expand its operations to the non-mandatory zone in order to make a new application to the UARB.



The District Energy Utilities' financial model has been updated to confirm the non-mandatory zone expansion is financially prudent. Including non-mandatory buildings currently planning connection that front DES mains further improves the project's financial position.

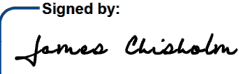
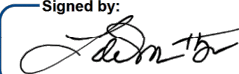
**RISK**

In November 2021, Halifax Water and the Province executed a funding contribution agreement under the Investing in Canada Infrastructure Program (ICIP), Green Infrastructure, Climate Change Mitigation. This agreement included an estimated contribution by the Province of Nova Scotia and Canada of \$10,263,267, or 73.33% of the total expected project cost. This agreement requires that the project be completed by the current target date of March 31, 2027, and includes commitments to connect the DES to the six new buildings identified within the mandatory connection boundary, the start of operation of the DES, and was based on achieving or exceeding the project's GHG emission reduction targets. Failure to achieve these milestones may result in a partial or complete loss of funding, significantly impacting the project's financial position. Expansion of the Cogswell District Energy Boundary will help to improve project economics and will help to strengthen the project's already positive financial position.

It is possible that some of the issues identified in this report can be addressed through the Rules & Regulations that will eventually be approved by the UARB or through customer agreements with property owners in the non-mandatory area. It would be preferable, however, to obtain clarification through the legislative amendments referenced above, particularly as it relates to Halifax Water's limitations of liability.

**ATTACHMENTS**

1. Halifax Water Letter to HRM CAO, August 23, 2023

Report Prepared by:	<p>Signed by:  0C0EBDCFE010430...</p> <p>James Chisholm, P. Eng., Project Engineer - District Energy</p>
Financial Reviewed by:	<p>Signed by:  A65D6874EBC1467...</p> <p>Louis de Montbrun, CPA, CA Director, Corporate Services/CFO</p>

August 22, 2023

Ms. Cathie O'Toole  
Chief Administrative Officer  
Halifax Regional Municipality  
PO Box 1749  
Halifax, NS, B3J 3A5

**Re: Cogswell District Energy System  
Expansion of the Cogswell District Energy Boundary**

Dear Ms. O'Toole,

This letter is to request the support and assistance from HALIFAX in expanding the current boundary for the Cogswell District Energy System.

Following the recent Nova Scotia Utility and Review Board Decision (M10525) to approve the Cogswell DES, Halifax Water is further developing plans for the DES within the boundary as depicted in Appendix D of the *Halifax Regional Municipality Charter (DES Boundary)*. This appendix is attached for ease of reference.

Halifax Water has had numerous inquiries regarding possible connection of mixed-use commercial/residential developments located outside the current DES Boundary.

Halifax Water is requesting support and assistance from HALIFAX in expanding the DES Boundary as noted in the attached Proposed Expanded DES Boundary. We propose two distinct service areas for the Cogswell DES:

1. The current DES boundary (shaded in red), which includes mandatory connection as per By-Law D-500;
2. The secondary DES boundary (shaded in blue), which would not mandate connection.

Expanding the boundary to include the secondary location presents a unique opportunity that will allow Halifax Water to optimize the economic, social, and environmental benefits to the local community, while also further demonstrating both Halifax Water's and HALIFAX's commitment to HalifACT 2050 and addressing climate change in HRM and in Nova Scotia.

Halifax Water will work with HALIFAX staff in whatever manner determined appropriate in order to effect the suggested changes to the DES Boundary. We look forward to hearing from you and to collaborating on this important initiative.

Yours truly,

Tareq Al-Zabet

Tareq Al-Zabet (Aug 22, 2023 16:01 ADT)

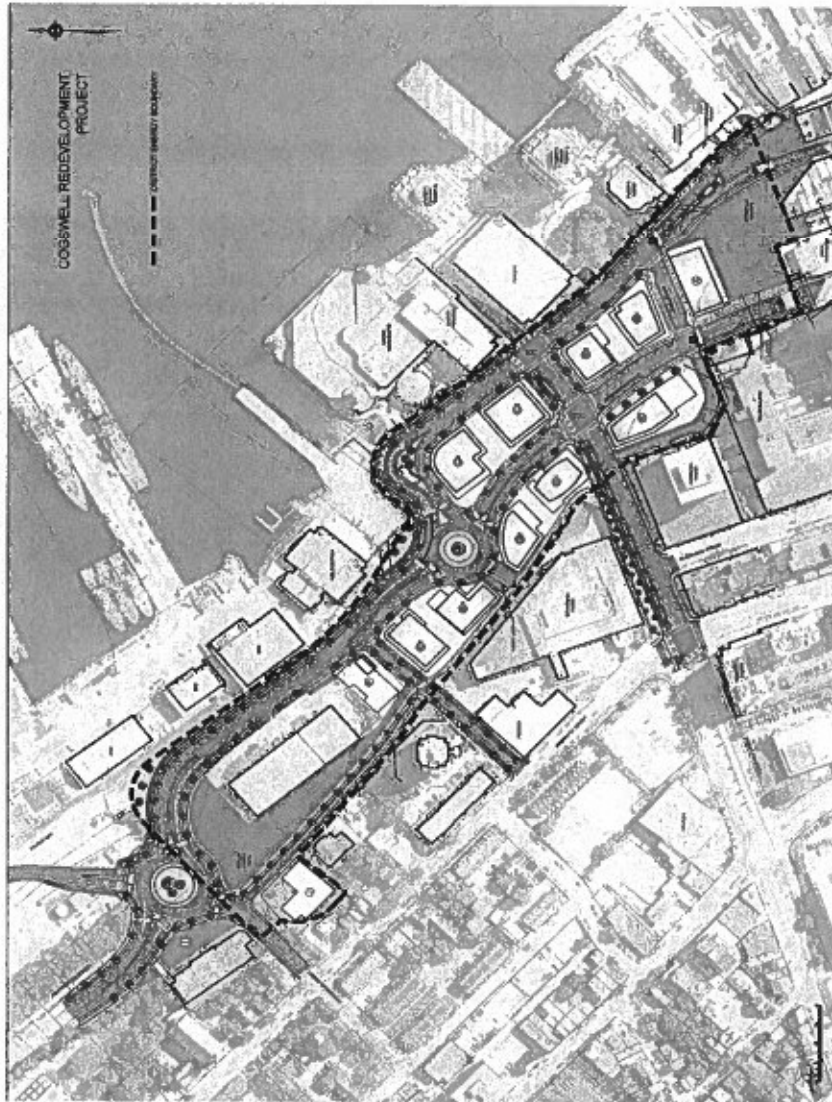
Tareq Al-Zabet, Ph.D., CRSP, P.Ge

Chief Executive Officer and General Manager, Halifax Water

Attachments:

1. HRM Charter Chapter 39 of the Acts of 2008 - Schedule D
2. Proposed Expanded DES Boundary

SCHEDULE D




2018, c. 9, s. 6.

APRIL 12, 2023





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

**APPROVED BY:**   
Signed by:  
*Kenda MacKenzie*  
0C884AC815794F0...  
Kenda MacKenzie, P.Eng., Acting General Manager/CEO

**DATE:** September 26, 2024

**SUBJECT:** **Corporate Governance Manual & Signing Authority Guidelines**

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**ORIGIN:**

Regular review and update of Halifax Water policies.

**RECOMMENDATION:**

It is recommended that the Halifax Water Board:

1. Approve amendments to the *Corporate Governance Manual* as shown in Attachment A; and
2. Authorize the General Manager to oversee and update the *Signing Authority Guidelines* as a corporate operational policy.

**BACKGROUND**

Periodically Halifax Water reviews governance and internal controls to strengthen internal control environment, assist with risk management, provide clarity for staff, and increase efficiency.

For the reasons described in this report, staff are recommending that the *Corporate Governance Manual* be updated to:

- Clarify the process for calling special meetings and facilitate e-voting for urgent matters arising between regularly scheduled Board meetings;
- Remove restrictions on the ability of Board members to abstain from voting; and
- Clarify the powers and responsibilities of the General Manager vis-à-vis the Board, in accordance with the *Halifax Regional Water Commission Act*.

Staff are also recommending that, on a go-forward basis, the General Manager be empowered to oversee and update Halifax Water's *Signing Authority Guidelines* as-and-when required (as a corporate operational policy rather than a board-approved policy), subject to any restrictions on the General Manager's authority set out in the *Corporate Governance Manual* and any other policies approved by the Board.

**DISCUSSION**

The Halifax Water Board has the ultimate responsibility for the good governance and management of the organization. It is the Board’s fiduciary responsibility to ensure that the resources of the organization are well managed by implementing necessary checks and balances. Section 5 of the *Halifax Regional Water Commission Act* provides that “The Commission Board may from time to time make such by-laws, rules, regulations and policies not inconsistent with this Act or the Public Utilities Act, as it deems necessary or proper for the management of its affairs.” To this end, the Board approved a *Corporate Governance Manual* in 2016. The Manual has since been updated by the Board in 2020, 2021 and 2023.

The purpose of the *Corporate Governance Manual* is to ensure that Halifax Water has effective corporate governance systems to guide the organization in achieving its corporate objectives. The *Manual* is a supplement to the *Act* and the common law principles of corporate governance.

**Special Meetings and E-Voting**

The *Halifax Regional Water Commission Act* provides that a quorum of four voting Commissioners is required to conduct business, however it does not specify how board meetings are to be called. Section 6.2 of the *Corporate Governance Manual* currently provides that:

At the discretion of the Chair, and in consultation with the General Manager and/or Secretary, a minimum of five Board meetings shall be held each fiscal year, not including the annual general meeting. These meetings may follow the Template Board Meeting Business Cycle (Appendix VII).

The Board and Board Committees may meet and/or render decisions in person, virtually, by telephone or via other forum that allows for effective meetings and decision-making.

While the above-referenced wording is relatively broad and flexible, staff recommend that the *Corporate Governance Manual* be updated to specifically contemplate the process for calling “special meetings” and for the use of e-voting in limited circumstances.

In accordance with section 6.10 of the *Corporate Governance Manual*, the Board uses *Robert’s Rules of Order* to conduct its proceedings. Section 9 of *Robert’s Rules* describes special meetings as follows:

A *special meeting* (or *called meeting*) is a separate session of a society held at a time different from that of any regular meeting, and convened only to consider one or more items of business specified in the call of the meeting. Notice of the time, place, and purpose of the meeting, clearly and specifically describing the subject matter of the motions or items of business to be brought up, must be sent to all members a reasonable

number of days in advance. The reason for special meetings is to deal with matters that may arise between regular meetings and that require action by the [Board] before the next regular meeting, or to dedicate an entire session to one or more particular matters.

To provide added clarity to Halifax Water's process for calling special meetings, staff are recommending that section 6.2 of the *Corporate Governance Manual* be updated as follows:

Special meetings may be called by the Chair, the Executive Committee, or upon the written request of any 4 Board members. The purpose of the meeting shall be stated in the call, which shall be sent to all members at least 3 days before the meeting.

Additionally, there are some circumstances in which it is not practical to convene a formal meeting, particularly for minor, but urgent administrative matters, such as the approval of increased funding for projects where the bid price exceeds the amount previously approved by the Board. The Board has, on occasion, approved such matters informally via email or e-voting. In accordance with Roberts Rules, any decisions made in this manner must be ratified at the next formal meeting of the Board in order to become official. It is therefore recommended that the following wording also be added to section 6.2 of the Governance Manual:

In exceptional circumstances and situations of unforeseen urgency, the Board may conduct business through email or electronic voting. Any motions approved through email or electronic voting must be ratified at the next regularly scheduled board meeting to ensure they are formally recorded and validated.

### **Abstentions from Voting**

Section 6.11 of the Corporate Governance Manual currently provides that "Commissioners may only abstain from a vote in a case of a conflict of interest recognized by the Chair."

Staff are recommending that this restriction be removed as it is an unnecessary rule and generally inconsistent with the procedures contemplated in *Robert's Rules of Order*. While rare, in addition to recusing themselves due to a conflict of interest, there may be other valid reasons why a Commissioner might deem it appropriate to abstain from voting on a particular matter. Additionally, despite the existing rule, a Commissioner could effectively abstain from a vote simply by leaving the meeting for that particular item.

In accordance with section 6.11, motions are carried by a majority of votes cast (not a majority of members present, as the latter would effectively treat abstentions as negative votes).



**Responsibilities and Authority of the General Manager**

The powers and responsibilities of the General Manager vis-à-vis the Halifax Water Board are set out in the *Halifax Regional Water Commission Act* and supplemented by policies of the Board including the *Corporate Governance Manual*.

Subsection 8(2) of the *Act* states that: “The authority and responsibilities of the General Manager in relation to the Commission Board and Commission employees are the same as those of a municipality’s chief administrative officer in relation to a municipal council and municipal employees under the Charter, with such changes as the context requires.” Relevant provisions of *the Halifax Regional Municipality Charter* include section 34 (Council and Chief Administrative Officer relationship), and section 35 (Responsibilities of Chief Administrative Officer). Section 34(1) of the HRM Charter provides that:

The Chief Administrative Officer is the head of the administrative branch of the government of the Municipality and is responsible to the Council for the proper administration of the affairs of the Municipality in accordance with the by-laws of the Municipality and the policies adopted by the Council.

Likewise, the General Manager is the head of the administrative branch of Halifax Water and responsible to the Halifax Water Board for the proper administration of the affairs of the Commission, in accordance with the policies adopted by the Board.

Section 35(2) of the HRM Charter enumerates a list of specific delegated authorities of the Chief Administrative Officer, such as the authority to make expenditures, dispose of surplus property, enter into leases, determine wages for staff, and to commence and settle legal proceedings on behalf of the Municipality. Each of these is subject, however, to policies adopted by the Council of the Municipality – meaning that Council can put restrictions or limitations on the CAO’s delegated authority. Similarly, the Halifax Water Board can put restrictions and limitations on the General Manager’s delegated authority.

Section 4.1 of Halifax Water’s *Corporate Governance Manual* outlines in broad strokes how the Board’s authority is shared with, and delegated to, the General Manager. To provide added clarity on the scope and extent of the General Manager’s authority, staff are recommending that this section of the *Corporate Governance Manual* be updated to also reflect the *specific* authorities of the General Manager that arise as a result of the aforementioned statutory provisions. In particular it is recommended that the following wording (which is mostly verbatim from section 35 of the *HRM Charter*) be added to the *Manual*:

1. Make or authorize expenditures, and enter into contracts on behalf of the Commission, for anything required for the Commission where the amount of the expenditure is budgeted;

2. Sell personal property belonging to the Commission that, in the opinion of the General Manager is obsolete, unsuitable for use, surplus to requirements of, or no longer needed by, the Commission;
3. Personally, or by an agent, negotiate and execute leases of real property owned by the Commission that are for a term not exceeding one year, including renewals;
4. Establish departments of the Commission's administration;
5. Adopt a system of classification of positions of the Commission's officers and employees and specify offices that must not be filled by the same person;
6. Determine the salaries, wages and emoluments to be paid to the Commission's officers and employees, including payment pursuant to a classification system;
7. Authorize, in the name of the Commission, the commencement or defence of a legal action or proceedings before a court, board or tribunal, including reporting the commencement of the legal action, defence or proceeding to the Commission at the next Board meeting;
8. Settle a legal action or proceeding, for amounts up to and including \$100,000,
9. Approve real property acquisitions and disposals for amounts up to and including \$1,000,000.

Each of the above referenced delegations of authority to the General Manager is subject to policies, such as Capital Funding Approval Policy and Procurement Policy, adopted by the Board, and the Board is free to modify or limit any of them at its discretion if it wishes to do so (either through further edits to the *Corporate Governance Manual*, or through the adoption of separate Board-approved policies).

With respect to item #8 above, staff recommend that the General Manager be authorized to approve legal settlements up to \$100,000, as this is consistent with the limit of the CAO's authority pursuant to HRM's Administrative Order #49 respecting the Settlement of Actions, Proceedings and Claims.

Item #9 above (i.e., authority to approve property transactions up to \$1,000,000) is not a direct reference to wording in section 34 or 35 of the HRM Charter, however it is consistent with the authority currently granted to the General Manager in the *Signing Authority Guidelines*. For comparison, the CAO of HRM has authority to approve property acquisitions and disposals up to \$1,500,000 pursuant to HRM's Administrative Order #2018-004-ADM respecting Real Property Transactions.

#### **Signing Authority Guidelines**

In November 2019, the Board approved *Signing Authority Guidelines* for Halifax Water, which set out approval and signing authorities for various transactions and activities. It applies to both regulated and unregulated transactions. The *Signing Authority Guidelines* were last updated by the Board in September 2021. A copy of the current *Signing Authority Guideline* is provided for reference purposes in Attachment B. While it was approved as a Board policy, there are legislative and operational reasons why it is more appropriate for the *Signing Authority Guidelines* to be maintained by the General Manager as a corporate policy going forward.

As stated previously in this report, the General Manager is the head of the administrative branch of Halifax Water and is responsible to the Halifax Water Board for the proper administration of the affairs of the Commission, subject to policies adopted by the Board. The *Corporate Governance Manual* is the prime policy tool for the Board to ensure appropriate governance and accountability of the Commission. Through the *Corporate Governance Manual*, the Board establishes the scope of the General Manager's responsibilities, along with any limitations on the General Manager's delegated authorities. The General Manager is ultimately accountable for all matters within their delegated responsibility and authority.

The current *Signing Authority Guidelines* include a hierarchy of six levels of approval/signing authority, listed by job function. The *Guidelines* state that staff cannot delegate an authority to a lower-level authority. While this is an appropriate accountability mechanism within the policy, it should be up to the General Manager to determine and assign responsibility for each activity/transaction. Many of the activities/transactions contemplated in the *Guidelines* are quite specific (e.g., authority to sign a sprinkler and BFP approval letter). Given the granular nature of the *Guidelines*, it is not pragmatic or efficient to require Board approval whenever a new activity/transaction needs to be added or whenever the level of

authority required for a particular activity/transaction needs to be changed.

Allowing the General Manager to update and maintain the *Signing Authority Guidelines* as necessary would be consistent with the authority that the Board has already broadly delegated to the General Manager through the *Corporate Governance Manual* to develop and maintain corporate policies. Section 4.1 of the *Corporate Governance Manual* provides that: “Further to the [*Halifax Regional Water Commission*] Act, the General Manager is conferred with full authority, scope and executive powers by the Board to carry out the following responsibilities:

- ... (f) Ensure policies and procedures are developed, maintained, disclosed and updated as appropriate, ...”
- ... (m) Delegate such duties and responsibilities as appropriate to ensure effective day-to-day operations, ...

Should the Board approve the recommendation to convert the *Signing Authority Guidelines* into a corporate policy under the purview of the General Manager, some of the potential adjustments include:

- New sections related to property transactions and legal matters (both of which would be subject to any limitations on the General Manager’s authority set out in the *Corporate Governance Manual*);
- Shifting of some authority levels for certain transactions (e.g. Level 4 to Level 5); and
- Housekeeping edits to enhance clarity.

### **BUDGET IMPLICATIONS**

There are no human resource or budget implications associated directly with this report. The recommended updates to the *Corporate Governance Manual* are sufficient to ensure adequate internal control and meet operational requirements.



### **ALTERNATIVES**

The Halifax Water Board could modify or reject the proposed amendments to the *Corporate Governance Manual*.

The Halifax Water Board could reject the proposal to convert the *Signing Authority Guidelines* from a Board-approved policy to a corporate GM-approved policy. Should the Board exercise this option, staff will return to the Board with proposed amendments to the current Board-approved *Signing Authority Guidelines*.

### **ATTACHMENT**

- Attachment A – Proposed revisions to the *Corporate Governance Manual*
- Attachment B – Current *Signing Authority Guidelines*

Report Prepared by:	<p>Signed by: </p>
	<p>A65D6874EBC4467... Louis de Montbrun, CPA, CA Director, Corporate Services/CFO, 902-490-3685</p>
Financial Reviewed by:	<p>Signed by: </p>
	<p>A65D6874EBC4467... Louis de Montbrun, CPA, CA Director, Corporate Services/CFO, 902-490-3685</p>



# Halifax Water

## Corporate Governance Manual

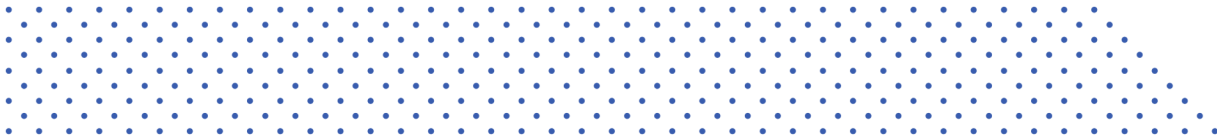
Approved ~~November 23, 2023~~ September 26, 2024



**STRAIGHT from  
the SOURCE**

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# Halifax Water

## Corporate Governance Manual Approved ~~November 23, 2023~~ September 26, 2024

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### 1. INTRODUCTION

#### 1.1 Legislative Authority

Halifax Water is a corporation continued by the [Halifax Regional Water Commission Act](#), S.N.S. 2007 c. 55, as amended ([Act](#)) for the purpose of acquiring, owning and operating water, wastewater and stormwater systems, facilities and utilities. In accordance with the [Act](#), Halifax Water is governed by a Board of Commissioners appointed by Halifax Regional Municipality (HALIFAX) Council.

#### 1.2 Background

Halifax Water has provided potable water and fire protection services to the residents of the former City of Halifax since 1945. In 1996, in conjunction with the Halifax metro municipal amalgamation, the utility took on a regional mandate with the transfer of water assets from the City of Dartmouth and the Halifax County Municipality to Halifax Water. On August 1, 2007, HALIFAX transferred its municipal wastewater and stormwater assets to Halifax Water, at which time these services became regulated under the *Public Utilities Act*, R.S.N.S. 1989, c. 380, as amended.

#### 1.3 Purpose of this Manual

The purpose of this Corporate Governance Manual (Manual) is to ensure that Halifax Water has effective corporate governance systems to guide the organization in achieving its corporate objectives. This Manual is a supplement to the [Act](#) and the common law principles of corporate governance.

#### 1.4 Approval of the Corporate Governance Manual

The Halifax Water Board of Commissioners (Board) is the approving authority for this Manual and will review it annually or as the Board considers necessary.

### 2. OBJECTIVES AND ACCOUNTABILITY

#### 2.1 Objectives for governance

Halifax Water's objectives for governance are to ensure that:

- a. the Board is representative of and accountable to its stakeholders;
- b. accountability, consultation, respect and transparency are reflected in the governance of Halifax Water; and
- c. Commissioners are accountable, qualified and possess the necessary skills to direct and guide Halifax Water to effectively manage its opportunities, risks, and ongoing needs.

### 2.2 Accountability

The Board is accountable to stakeholders for fulfilling the roles and responsibilities set out in the Act and this Manual.

### 2.3 Governance Style

The Board of Commissioners will govern in accordance with the [Act](#) and this Manual. In carrying out its roles and responsibilities pursuant to the Act and this Manual, the Board and the Commissioners shall consider the following:

- a. All interactions are respectful, courteous, and civil,
- b. Respect confidentiality of people and transparency of process,
- c. Be accountable for your actions and behaviours,
- d. Provide a safe, accessible work environment,
- e. Promote an inclusive environment,
- f. Treat employees and customers equitably,
- g. Lead by example, and
- h. Be positive and collaborative.

Commissioners, including non-voting Commissioners, shall participate in discussion as equals and dissenting points of view shall be encouraged for full exploration of an issue. Commissioners shall participate respectfully and productively in any discussion.

## 3. **BOARD OF COMMISSIONERS**

### 3.1 Appointment and Term of Commissioners

Commissioners of the Board are appointed and hold office in accordance with the [Act](#).

### 3.2 Role and Responsibilities of the Board of Commissioners

Further to the [Act](#), the Board has the following governance responsibilities:

- a. Oversee and approve, as appropriate:
  - i. the financial management, including setting the budget and appointing auditors,
  - ii. organizational performance measures and objectives,
  - iii. the mission, vision, and values,
  - iv. strategic plans and budgets,
  - v. the development of by-laws and policies,
  - vi. the budget for the Board and its Committees,
  - vii. the remuneration and expenses policy for Commissioners,
  - viii. standards for Commissioner conduct and ethics, including this Manual,
  - ix. the creation of and terms of reference for Board Committees,
  - x. protocols, registers, policies for the identification and management of risks,

- b. Appoint:
  - i. the Board Chair and Vice-Chair;
  - ii. the Secretary and Treasurer;
  - iii. the General Manager;
- c. Approve and adjust as appropriate the terms of employment and remuneration of the General Manager, as negotiated and recommended by the Executive Committee;
- d. Review and evaluate the General Manager's performance annually;
- e. Delegate to the General Manager, Committees or others such powers and duties as deemed necessary to assist in fulfilling these responsibilities.

### 3.3 Appointment of Chair and Vice-Chair

It has been customary that the Chair is appointed from among the private resident Commissioners and the Vice Chair from the HALIFAX Council Commissioners. The term of office of the Chair and Vice Chair are as approved by the Board.

### 3.4 Role and Responsibilities of the Chair

Further to the [Act](#), the Chair of the Board has the following responsibilities:

- a. Lead, facilitate and encourage fulfillment of the various roles and responsibilities set out in this Manual,
- b. Set the time and place for all meetings of the Board, in consultation with the Board and the General Manager,
- c. Ensure that all business set out in the agenda of the Board meetings is discussed and, if necessary, brought to resolution,
- d. Make all Commissioners aware of the General Manager's terms of employment and annual evaluation, and
- e. Promote an environment where Commissioners exhibit positive, informed and inclusive attitudes towards each other.

### 3.5 Role and Responsibilities of the Vice Chair

Further to the [Act](#), the Vice Chair has the following responsibilities:

- a. Exercise the roles and responsibilities of the Chair during an absence or vacancy in the office of the Chair, and
- b. Provide support to the Chair as needed.

### 3.6 Role and Responsibilities of the HALIFAX Staff Commissioner

Further to the [Act](#), the Commissioner appointed as HALIFAX staff representative has the following responsibilities:

- a. Act in accordance with the Commissioner Code of Conduct (Appendix I), including acting in the best interest of Halifax Water and reporting conflicts as they arise,
- b. Attend all Board meetings, unless otherwise provided leave of the Board,
- c. Provide notification to the Chair or the Secretary of any absence from a meeting as soon as possible in advance of that meeting,
- d. Participate in training and development, as appropriate, including attendance at workshops, conferences and seminars relevant to governance, and
- e. Sharing information between the Board and HALIFAX, as needed and without breaching confidentiality, for the purpose of facilitating operations of either Halifax Water or HALIFAX.

### 3.7 Role and Responsibilities of Commissioners

Further to the [Act](#), Commissioners have the following responsibilities:

- a. Act in accordance with the Commissioner Code of Conduct (Appendix I), including acting in the best interest of Halifax Water and reporting conflicts as they arise,
- b. Act as an agent and trustee of Halifax Water in the execution of its mandate and the protection of its assets,
- c. Participate respectfully in deliberations with fellow Commissioners,
- d. Support final decisions and/or motions adopted by the Board,
- e. Review all briefing material sent out prior to all meetings,
- f. Attend all Board meetings and all Committee meetings, unless otherwise provided leave of the Board,
- g. Provide notification to the Chair or the Secretary of any absence from a meeting as soon as possible in advance of that meeting,
- h. Sit on Board Committees, as required and approved by the Board,
- i. Maintain confidentiality of corporate information as required and/or directed,
- j. Participate in training and development, as appropriate, including attendance at workshops, conferences and seminars relevant to governance, and
- k. Foster a culture that embraces and promotes diversity, equity, fairness, human dignity, inclusion and workplace belonging. \_\_\_\_\_

### 3.8 Board Committees

The Board approves following committees and their attached terms of reference:

- a. Executive Committee (Appendix II),
- b. Audit and Finance Committee (Appendix III),
- c. Environment, Health and Safety Committee (Appendix IV), and
- d. Enterprise Risk Management Committee (Appendix V).

### 3.9 Role and Responsibilities of Board Committee Chairs

Further to the terms of reference for each Board Committee, Committee Chairs have the following responsibilities:

- a. Preside over Committee meetings,
- b. Establish meeting agendas in consultation with the Chief Executive Officer
- c. Fill any vacant position(s) on the Committee in a timely manner,
- d. Report to the Board the activities, decisions and recommendations of the Committee, and
- e. Promote an environment where Commissioners exhibit positive, informed and inclusive attitudes towards each other.

### 3.10 Commissioner Code of Conduct

The Commissioner Code of Conduct (Appendix I), shall be reviewed and signed by each Commissioner following appointment or re-appointment and otherwise annually.

### 3.11 Confidentiality of Information

Halifax Water is subject to the freedom of information and protection of privacy provisions of Part XX of the [Municipal Government Act](#). Commissioners and the Board shall uphold and protect the confidentiality of information received through the Board, including, but not limited to:

- a. The content of any Halifax Water customer file,
- b. *In camera* deliberations and/or decisions,
- c. Personnel matters, and
- d. Sensitive commercial information.

Any disclosure of non-confidential information should be limited to such individuals as are necessary to assist Commissioners in effectively carrying out their functions as Commissioners.

### 3.12 Conflict of Interest

Where a conflict of interest, as defined in the Commissioner Code of Conduct (Appendix I), is declared by a Commissioner or the Chair, the conflicted Commissioner must refrain from voting on and participating in any way in any matter directly or indirectly related to the subject matter of the conflict. This includes refraining from any attempt to influence decision making on any such matter.

## 4. GENERAL MANAGER, SECRETARY AND TREASURER

### 4.1 Role and Responsibilities of the General Manager

The General Manager is accountable to the Board and shall be evaluated in accordance with the General Manager performance management process established by the Board of Commissioners.

Further to the Act, and subject to any other applicable policies passed by the Board, the General Manager is conferred with full authority, scope and executive powers by the Board to carry out the following responsibilities:

- a. Act in the best interest of Halifax Water,
- b. Provide strategic leadership and vision to Halifax Water,
- c. Supervise and manage the day-to-day operations of Halifax Water in a responsible and sustainable manner, including effectively staffing the organization,
- d. Develop and implement appropriate plans and budgets,
- e. Encourage and facilitate effective relationships with stakeholders, including development of an effective communications strategy,
- f. Ensure policies and procedures are developed, maintained, disclosed and updated as appropriate,
- g. Promote a culture of integrity, accountability, respect and civility,
- h. Ensure legal, regulatory and environmental compliance,
- i. Advise the Chair and/or the Board in a timely manner of any risks, issues, events or pending matters that may impact the Board's roles or responsibilities,
- j. Recommend organizational performance measures to the Board,
- k. Attend all Board and Board Committee meetings in a non-voting, *ex officio* capacity,
- l. Present to the Board an annual succession plan for key positions within Halifax Water, which includes a plan for temporary acting capacity,
- m. Delegate such duties and responsibilities as appropriate to ensure effective day-to-day operations,
- n. Foster a culture that embraces and promotes diversity, equity, fairness, human dignity, inclusion and workplace belonging,
- o. Promote a workplace where employees exhibit positive, informed and inclusive attitudes towards each other, ~~and~~
- p. Make or authorize expenditures, and enter into contracts on behalf of the Commission, for anything required for the Commission where the amount of the expenditure is budgeted,
- q. Sell personal property belonging to the Commission that, in the opinion of the General Manager is obsolete, unsuitable for use, surplus to requirements of, or no longer needed by, the Commission,
- r. Personally, or by an agent, negotiate and execute leases of real property owned by the Commission that are for a term not exceeding one year, including renewals;
- s. Establish departments of the Commission's administration,
- t. Adopt a system of classification of positions of the Commission's officers and employees and specify offices that must not be filled by the same person,
- u. Determine the salaries, wages and emoluments to be paid to the Commission's officers and employees, including payment pursuant to a classification system,
- v. Authorize, in the name of the Commission, the commencement or defence of a legal action or proceedings before a court, board or tribunal, including reporting the



- commencement of the legal action, defence or proceeding to the Commission at the next Board meeting,
- w. Settle a legal action or proceeding, for amounts up to and including \$100,000,
- x. Approve real property acquisitions and disposals for amounts up to and including \$1,000,000, and
- e.—
- p-y. Any such other duties as the Board may direct or delegate from time to time.

#### 4.2 Limitations of the General Manager

The General Manager shall not cause or allow any practices, activity, decision or organizational circumstances which are contrary to an approved motion of the Board, unlawful or in violation of commonly acceptable business or professional ethics.

The General Manager is not authorized to utilize funds in a manner contrary to the law or regulatory requirements.

#### 4.3 Appointment of Secretary

The Board appoints General Counsel of Halifax Water as Secretary to the Board, who shall hold this position until such time as the Board, by resolution, determines otherwise.

### 4.4 Role and Responsibilities of the Secretary

The Secretary reports to the Chair and Committee Chairs on matters relating to the Board or Board Committees and to the General Manager for day-to-day operational matters.

Further to the [Act](#), the Secretary has the following responsibilities:

- a. Notify Commissioners of meetings and communications as directed by the Chair or the General Manager,
- b. Attend all Board and Board Committee meetings in a non-voting, *ex officio* capacity,
- c. Provide advice to the Board, Chair and/or Board Committees on governance or other issues, as needed,
- d. Maintain all official results of the Board and Board Committees, including policy decisions and minutes of all official meetings,
- e. Distribute to Commissioners all relevant Board materials and documents as directed by the Chair, the Committee Chairs, or the General Manager,
- f. Organize logistical support for Board and Board Committee meetings, including training and development events,
- g. Provide other support functions to the Board and the Chair, as needed;
- h. Provide support to the General Manager and Treasurer, as needed.

### 4.5 Appointment of Treasurer

The Board appoints the Chief Financial Officer of Halifax Water as Treasurer to the Board, who shall hold this position until such time as the Board, by resolution, determines otherwise.

### 4.6 Role and Responsibilities of the Treasurer

The Treasurer reports to the Chair and Committee Chairs on matters relating to the Board or Board Committees and to the General Manager for day-to-day operational matters.

Further to the [Act](#), the Treasurer has the following responsibilities:

- a. Manage the finances of Halifax Water,
- b. Implement appropriate systems of internal financial controls,
- c. Manage organizational risk, from a financial perspective,
- d. Develop long term financial plans and rate strategies to ensure adequate cash flow,
- e. Administer the Halifax Water Employees' Pension Plan and support the Board in their role as Administrators and Trustees of the Pension Plan,
- f. Treasury operations and controls,
- g. Manage daily cash balances,
- h. Track and analyze actual revenues and expenses against the annual budget,
- i. Liaise with bankers, auditors and regulators, as appropriate,
- j. Provide reports to the Board relating to the finances of Halifax Water,

- k. Attend all Board and Audit and Finance Committee meetings in a non-voting, *ex officio* capacity,
- l. Inform the Board of key financial events, trends, concerns, and fiscal health, and
- m. Report any fraud, significant policy violations or legislative non-compliance to the Chair of the Audit Committee and General Manager.

### 5. PENSION GOVERNANCE

The Board is responsible for the administration of the Halifax Water Employees' Pension Plan, including establishing the Pension Plan's governance framework and policies. The Board is responsible for approving amendments to the Pension Plan text, the trust agreements, contribution rates and funding, the audited financial statements, actuarial valuations and assumptions.

### 6. OPERATIONS

#### 6.1 Board Agendas

Board meeting agendas shall be established in consultation with the Board Chair and Vice Chair, the General Manager and Secretary.

The Board approves the meeting agenda at the commencement of each meeting.

Sufficient time shall be allocated for the meeting as a whole and for individual agenda items to enable all views to be heard and considered before a decision is taken.

Items requested by Commissioners may be added to the agenda with the approval of the Board. Such items may be discussed at the meeting introduced, deferred to another meeting, and/or referred to staff.

The Chair or the Board may refer any matter on the agenda to a Board Committee, as appropriate.

#### 6.2 Meetings

At the discretion of the Chair, and in consultation with the General Manager and/or Secretary, a minimum of five Board meetings shall be scheduled and held each fiscal year, not including the annual general meeting. These meetings may follow the Template Board Meeting Business Cycle (Appendix VII).

The Board and Board Committees may meet and/or render decisions in person, virtually, by telephone or via other forum that allows for effective meetings and decision-making.

Special meetings may be called by the Chair, the Executive Committee, or upon the written request of any 4 Board members. The purpose of the meeting shall be stated in the call, which shall be sent to all members at least 3 days before the meeting.

In exceptional circumstances and situations of unforeseen urgency, the Board may conduct business through email or electronic voting. Any motions approved through email or electronic voting must be ratified at the next regularly scheduled board meeting to ensure they are formally recorded and validated.

### 6.3 Annual General Meeting

The Board shall hold an annual general meeting (AGM) once per year, which shall be open to the public. The agenda of the AGM shall include presentation of strategic initiatives, major capital initiatives, and year-end financial results.

### 6.4 Open Board Meetings

Halifax Water promotes a high degree of openness and transparency to maintain the confidence of stakeholders. Halifax Water Board meetings are open to the public, which is accomplished by allowing members of the public to attend in-person meetings, live-broadcasting meetings where possible, and/or posting audio/video recordings of Board meetings on the Halifax Water website in a timely manner.

All Board meeting agendas and materials will be available to the public via the Halifax Water website.

Only at the AGM will members of the public be provided an opportunity to speak and/or ask questions of the Board or Halifax Water staff. At all other public meetings of the Board, members of the public are permitted to observe only. Members of the public may request meetings with Halifax Water staff at any time.

Meetings of Board Committees are not open to the public.

### 6.5 In Camera Board Meetings

Board meetings are open to the public, with the exception of the following matters, which shall be discussed and deliberated *in camera*:

- a. Acquiring or disposing of property,
- b. Personnel matters,
- c. Labour relations issues,
- d. Specific customer case files,
- e. Contract negotiations,
- f. Litigation and potential litigation,
- g. Legal advice,
- h. Security, and
- i. Other confidential matters designated by the Board of Commissioners.

*In camera* meetings may be attended by the General Manager, Secretary and Treasurer. The Board may meet without Halifax Water staff, as necessary and approved by the Chair of the Board.

Minutes or motions of any Board *in camera* sessions shall be kept separate from published Board minutes and motions.

### 6.6 Board Committees

The Board may establish standing or ad hoc committees as required to fulfill its responsibilities. Board Committees shall have terms of reference approved by the Board, setting out, among other things, the composition of the Committee.

### 6.7 Authority to Preside

The Chair of the Board shall preside at all meetings of the Board, except when absent or unable to preside.

Where the Chair is absent or is unable to preside at any meeting of the Board, the Vice Chair shall preside at that meeting of the Board.

Where the Chair and Vice Chair are absent or unable to preside any meeting of the Board, the Chair shall appoint a Commissioner of the Board to preside at that meeting.

### 6.8 Quorum

In accordance with the [Act](#), a quorum of the Board is four voting Commissioners.

### 6.9 Attendance

Commissioners are expected to attend all Board or Committee meetings. In accordance with the [Act](#), a Commissioner of the Board shall cease to be a Commissioner after absence from three consecutive meetings without leave of the Board.

A Commissioner participating virtually or via conference call is deemed present at the meeting.

Any Commissioner unable to attend a Board meeting shall give prior notice to the Chair and/or the Secretary.

The Chair or the Board, in consultation with the General Manager, may invite stakeholders or experts to Board or Board Committee meetings, whether *in camera* or open to the public.

### 6.10 Meeting Conduct

The Board shall use Robert's Rules of Order to conduct its proceedings.

### 6.11 Motions and Voting

Motions require a mover and a seconder from the voting Commissioners.

Motions are carried by majority vote.

~~Commissioners may only abstain from a vote in a case of a conflict of interest recognized by the Chair.~~

### 6.12 Meeting Materials

The Secretary shall ensure distribution of all available materials relevant to the meeting agenda to all Commissioners.

### 6.13 Minutes

The Secretary or staff designate shall record minutes of all Board and Board Committee meetings, which shall include:

- a. the date and location of the meeting,
- b. attendance of Commissioners, staff and any other presenters,
- c. decisions including approval of agenda, previous minutes and motions,
- d. any specific reference, comment or discussion point requested for inclusion by a Commissioner, and
- e. action items for follow up.

Minutes of *in camera* sessions and Board Committee meetings are confidential.

### 6.14 Commissioner Orientation

Each new Board Commissioner shall receive, as soon as practicable upon appointment, an orientation to the Board and Halifax Water, which may include items such as:

- a. the [Act](#), other relevant legislation and regulations,
- b. an overview of Halifax Water including relevant financial, statistical and operational information,
- c. this Manual,
- d. the Commissioner Code of Conduct,
- e. an overview of the General Manager evaluation process and remuneration,
- f. the Halifax Water Employees' Pension Plan and the Board's role as Administrator and Trustee of the Pension Plan, and
- g. other material, as appropriate.

### 6.15 Commissioner Education

The Board recognizes the importance of providing ongoing training, development and education for its Commissioners on water, wastewater and stormwater issues as well as governance roles and responsibilities.

To facilitate ongoing education, Halifax Water may, from time-to-time, retain membership in relevant professional organizations providing educational opportunities. Commissioners are

encouraged to participate in opportunities relevant to the work of the Board identified by the Chair and/or the General Manager.

### 6.16 Remuneration and Expenses

Commissioners are compensated in accordance with approved policies of the Board.

The *per diem* rate shall be reviewed and approved by the Board annually, based on a comparison group of similar boards.

Commissioners shall be reimbursed by Halifax Water for reasonable expenses incurred on Board business in accordance with Halifax Water's Employment Expense Reimbursement Policy, which shall be reviewed and confirmed by the Treasurer.

### 6.17 Post-Appointment

Commissioners agree:

- a. within six months after leaving office, to not accept appointment to a board of directors with which Halifax Water has had dealings during the six-month period immediately prior to leaving office (excepting employment unrelated to the business of Halifax Water);
- b. to not act for, or on behalf of, any person or entity, in respect of any ongoing negotiations before the Board; and
- c. to not draw on privileged information, or on the services of Halifax Water's employees, in an effort to secure future employment.



# Appendix I

## Commissioner Code of Conduct

### Halifax Water Commissioner Code of Conduct

#### Purpose

The purpose of this code of conduct is to set Halifax Water's expectation for Commissioners to conduct themselves in an ethical and businesslike manner.

Commissioners are expected to exercise their duties and responsibilities set out in the *Halifax Regional Water Commission Act (Act)* and in the Halifax Water Corporate Governance Manual (Manual) honestly, in good faith, in the best interests of Halifax Water, which supersedes the personal interest of any individual Commissioner.

This code of conduct provides guidance to Commissioners on appropriate behaviours and on recognizing and properly managing conflicts of interest fairly and expeditiously.

#### Key Responsibilities

Commissioners are expected to:

- a. conduct themselves in a manner that instills public confidence in the conduct of Halifax Water,
- b. exercise their duties and responsibilities with the degree of care, diligence and skill expected of a competent and prepared director of a board of a public entity,
- c. act with honesty and integrity,
- d. be respectful of others and their opinions,
- e. be independent and impartial,
- f. not be influenced by self-interest, outside pressure, expectation of reward or fear of criticism,
- g. owe primary business loyalty to Halifax Water,
- h. avoid conflicts of interest,
- i. disclose any perceived or real conflicts of interest to the Chair of the Board or the Secretary,
- j. work collaboratively with the Chair of the Board to resolve and/or manage conflicts of interest,
- k. foster a culture that embraces and promotes diversity, equity, fairness, human dignity, inclusion, and workplace belonging, and
- l. comply with all other relevant policies and governance documents.

#### Conflict of Interest

A conflict of interest arises when a Commissioner is placed in a situation where their personal or financial interest, or that of a family member or a close, personal contact, conflicts with the interests of Halifax Water or with the Commissioner's responsibility to Halifax Water.

Conflicts can be actual, potential and/or perceived.

The standard that will be applied to determine whether a conflict of interest exists is that of an independent observer who might reasonably question whether the Commissioner's actions or decisions are determined by or could result in a gain or benefit to the Commissioner, family member or close, personal contact.

A conflict of interest depends on the situation, and not on the character or actions of the Commissioner.

### **Duty to Disclose**

Commissioners must make written, full, timely and ongoing disclosure of conflicts of interest to the Chair of the Board or the Secretary.

This code and the attached acknowledgement form must be reviewed and completed by every Commissioner upon being appointed to the Board. Thereafter, ongoing, written disclosure must be made by Commissioners as conflicts of interest arise.

Early disclosure of conflicts of interest is key to successful resolution.

### **Deemed Conflicts**

A conflict of interest will arise in the following situations:

- When the Commissioner has a financial interest, beyond any compensation approved by the Board, in the outcome of a decision of Halifax Water.
- When the Commissioner is related to, in a close relationship, or in a financial relationship with a supplier or contractor conducting business with Halifax Water.
- When the Commissioner accepts a gift, payment or service in connection with their position on the Board that exceeds \$250 in value.
- When the Commissioner uses information gained from their position on the Board for personal gain.
- When the decision of the Board relates to a family member and/or close, personal contact of a Commissioner.
- When the Commissioner offers or accepts monetary or other gifts or payment from an external source in connection with their position on the Board.

Any other situation that could lead to a conflict of interest must be disclosed by the Commissioner, in accordance with this policy, and discussed with the Board Chair or the Secretary.

## Commissioner Code of Conduct Acknowledgment

I \_\_\_\_\_(print name), have read and understand the Commissioner Code of Conduct.

I confirm that I have declared and/or will declare any and all actual, potential and/or perceived conflicts in accordance with the Commissioner Code of Conduct.

I agree to:

1. Exercise the powers of my office and fulfil my responsibilities honestly, in good faith and in the best interests of Halifax Water.
2. Carry out my duties and responsibilities as a Board member in a diligent, reasonable and prudent manner.
3. Keep confidential all information which comes to my attention and possession in my capacity as a Board member unless the Board of Directors determines such information to have a status other than confidential.
4. Conduct myself respectfully, having respect for others, their opinions and the collective decisions of the Board.
5. Declare any conflict of interest immediately upon it coming to or being brought to my attention.
6. Offer my resignation as a Board member upon the Board resolving that I have breached the Commissioner Code of Conduct.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Witness: \_\_\_\_\_

Date: \_\_\_\_\_

**Appendix II  
Executive Committee  
Terms of Reference**

## Halifax Water Board Executive Committee Terms of Reference

### 1. Role

The role of the Executive Committee (Committee) is to provide oversight over Halifax Water Board (Board) governance and functions and to foster effective relationships between the Board and Halifax Water senior management.

### 2. Composition and Operations

1. This Committee shall consist of the Chair of the Board, the Vice-Chair of the Board and one member of the Board who shall be a public representative.
2. The General Manager and Secretary shall be non-voting, *ex officio* members of this Committee. The Secretary shall act as recording secretary.
3. It is customary for the Chair of the Board to be the Chair of this Committee. The Committee may appoint any member as the Chair of this Committee, as appropriate.
4. Quorum for meetings shall be two voting members.
5. Members may attend meetings in person, via telephone or virtually.
6. The Committee shall meet at least four times per year. The Chair, in consultation with the General Manager, may cancel a meeting at their discretion.

### 3. Duties and Responsibilities

In fulfilling its role, the Committee shall:

1. Oversee the governance of the Board, Board members and Board committees;
2. Monitor and assess the relationship between the Board and Halifax Water senior management and make recommendations to the Board, where necessary, to ensure the independence of the Board;
3. Review annually the performance of the Board, Board members and Board committees;
4. Recommend and approve, where necessary, education for the Board and/or Board members;
5. Oversee and make recommendations to the Board on the selection and appointment of the Board Chair and a succession plan for the Board Chair;

6. The Board members of the Committee will oversee and make recommendations to the Board on the selection, performance management, and compensation of the General Manager;
7. Set the schedule and agenda for Board meetings;
8. Liaise with external bodies, as necessary, such as Halifax Regional Municipality (HRM);
9. Make recommendations to HALIFAX regarding the recruitment and appointment of Board members, including competency requirements;
10. Make recommendations to the Board regarding Board member compensation, including the Board Chair and committee chairs.
11. Review and approve the Halifax Water Board member insurance policy;

In fulfilling its role and responsibilities, the Committee may:

12. Consult with stakeholders or experts, upon consultation with and in collaboration with the General Manager.

#### 4. **Accountability**

The Committee is accountable to the Board.

#### 5. **Review**

The Committee shall review these terms of reference at least once annually and recommend any changes to the Board for approval.



**Appendix III  
Audit and Finance Committee  
Terms of Reference**

**Halifax Water Board**  
**Audit and Finance Committee**  
**Terms of Reference**

**1. Role**

The role of the Audit and Finance Committee (Committee) is to assist the Halifax Water Board (Board) in overseeing:

1. Halifax Water's financial results, internal controls and independent auditors; and
2. The Halifax Regional Water Commission Employee's Pension Plan (Pension Plan) financial reporting and audit process.

**2. Composition and Operations**

1. This Committee shall consist of at least three Board members.
2. The General Manager, Treasurer and Secretary are non-voting, *ex officio* members of this Committee.
3. The Committee shall elect a Chair from amongst its members.
4. Quorum for meetings shall be two members. Members may attend meetings in person, via telephone or virtually.
5. Halifax Water shall assign an employee as the staff liaison to the Committee, who shall be a non-voting member of the Committee.
6. The Committee shall meet at least four times per year. The Chair, in consultation with the staff-liaison, may cancel a meeting at their discretion.

**3. Duties and Responsibilities**

In fulfilling its role, the Committee shall:

1. Review and monitor the Halifax Water and the Halifax Water Employee Pension Plan (Pension Plan) financial information, management certifications, internal controls and other financial reporting for accuracy, fairness and appropriateness;
2. Review and recommend for approval by the Board any significant changes to accounting policies or practices and/or internal control procedures;
3. Monitor the independent audit and recommend for approval by the Board the associated financial statements relating to either Halifax Water or the Pension Plan;
4. Identify and review any significant financial risks to Halifax Water, and report to the Board as appropriate;

5. Review and monitor the progress of plans developed in response to any internal or external audits, and report to the Board as appropriate;

In fulfilling its role and responsibilities, the Committee may:

6. Investigate any matter relating to Halifax Water financial control processes or internal controls;
7. Seek explanation from Halifax Water management of any significant financial variance between reporting periods; and
8. Consult with stakeholders or experts, upon consultation with and in collaboration with the General Manager.

#### 4. **Accountability**

The Committee is accountable to the Board.

#### 5. **Review**

The Committee shall review these Terms of Reference at least once annually and recommend any changes to the Board for approval.

**Appendix IV**  
**Environment, Health and Safety Committee**  
**Terms of Reference**

**Halifax Water Board**  
**Environment, Health and Safety Committee**  
**Terms of Reference**

**1. Role**

The role of the Environment, Health and Safety Committee (Committee) is to monitor compliance with and make recommendations to the Halifax Water Board (Board) on organizational policies, standards and practices relating to the environment, occupational health and safety, and organizational security.

**2. Composition and Operations**

1. This Committee shall consist of at least three Board members.
2. The General Manager and Secretary are non-voting, *ex officio* members of this Committee.
3. The Committee shall elect a Chair from amongst its members.
4. Quorum for meetings shall be two members. Members may attend meetings in person, via telephone or virtually.
5. Halifax Water shall assign an employee as the staff liaison to the Committee, who shall be a non-voting member of the Committee.
6. The Committee shall meet at least four times per year. The Chair, in consultation with the staff-liaison, may cancel a meeting at their discretion.

**3. Duties and Responsibilities**

In fulfilling its role, the Committee shall:

1. Review and monitor compliance with environmental, occupational health and safety and organizational security related regulatory requirements, including sufficiency of resource allocation;
2. Review quarterly and annual environmental, occupational health and safety and organizational security reports;
3. Receive regular updates from the staff liaison and/or management relating to environmental, occupational health and safety and organizational security issues and/or incidents;
4. Review the results of environmental, occupational health and safety and organizational security audits, whether internal or external;
5. Review the organizational Environmental Management System;

6. Be aware of organizational controls in place to detect environmental, occupational health and safety and organizational security weaknesses;
7. Recommend, where appropriate, internal or external investigation of environmental and/or occupational health and safety issues;
8. Report to and make recommendations to the Board, as appropriate;

In fulfilling its role and responsibilities, the Committee may:

9. Consult with stakeholders or experts, upon consultation with and in collaboration with the General Manager.

#### 4. **Accountability**

The Committee is accountable to the Board.

#### 5. **Review**

The Committee shall review these Terms of Reference at least once annually and recommend any changes to the Board for approval.

**Appendix V**  
**Enterprise Risk Management Committee**  
**Terms of Reference**



**Halifax Water Board**  
**Enterprise Risk Management Committee**  
**Terms of Reference**

**1. Role**

The role of the Enterprise Risk Management Committee (Committee) is to assist the Board in fulfilling its oversight responsibilities of Halifax Water's risk management practices, procedures and policies.

**2. Composition and Operations**

1. This Committee shall consist of the chair of the Executive Committee, the chair of the Environmental Health and Safety Committee, and the chair of the Audit and Finance Committee.
2. The Committee shall elect a Chair from amongst its members.
3. The General Manager, Treasurer and Secretary shall be non-voting, *ex officio* members of this Committee.
4. Quorum for meetings shall be two voting members.
5. Members may attend meetings in person, via telephone or virtually.
6. The Committee shall meet at least four times per year. The Chair, in consultation with the General Manager may cancel a meeting at their discretion.
7. Halifax Water shall assign an employee as the staff liaison to the Committee, who shall be a non-voting member and the recording secretary of the Committee.

**3. Duties and Responsibilities**

In fulfilling its role, the Committee shall:

1. Provide input to the General Manager regarding and recommend to the Board approval of Halifax Water's risk management policy and plan, including:
  - a. Risk assessment;
  - b. Risk appetite and tolerance;
  - c. Risk matrix;
  - d. Risk management framework;
2. Review Halifax Water's risk management policy and plan at least annually;
3. Regularly monitor Halifax Water's risk profile and exposure to risk, and advise the Board as appropriate;
4. Review and assess the effectiveness of Halifax Water's risk management processes and recommend for approval by the Board any changes, as appropriate;

5. Promote open discussion of risk;

In fulfilling its role, the Committee may:

6. Request further information from the General Manager relating to any risk or potential risk facing Halifax Water;
7. Request input from other Board committees; and
8. Consult with stakeholders or experts, upon consultation with and in collaboration with the General Manager.

#### 4. **Accountability**

The Committee is accountable to the Board.

#### 5. **Review**

The Committee shall review these terms of reference at least once annually and recommend any changes to the Board for approval.

**Appendix VI**  
**Template Board Meeting Business Cycle**

## Halifax Water Template Board Meeting Business Cycle

	June	September	November	January	March
<b>Business Decisions and Key Information</b>	Audited financial statements Corporate balanced scorecard results Benefit plan renewals or adjustments if required Accountability report Cost containment report Lead service line renewal program report Capital cost contribution program report	Completed capital projects for previous fiscal year Annual report Fall debenture Asset renewal management plan report	Enterprise risk management update (review of risks and risk tolerance) Special Utility and Review Board applications, if required	Annual business plan Annual operating budget Annual capital budget Customer survey results Employee survey results	Corporate balanced scorecard targets Spring debenture Employee survey results General Manager performance evaluation
	Capital approvals Quarterly operating results New policies and amendment of existing policies requiring Board approval				
<b>Pension</b>	Audited pension financial statements Actuarial valuation, if a valuation year			Pension plan budget Assumptions to be used in actuarial valuation, if a valuation year	
	Quarterly pension plan performance Quarterly pension investment performance				
<b>Info Reports</b>	Financial and capital budget updates Bank balance Quarterly compliance statement				

**Other Meetings:**

AGM	Strategic initiatives Major capital initiatives Year-end financial results	July, or as otherwise scheduled by the Board
Other Meetings	Ratification of collective agreements Special rate or regulatory applications Commissioner training Governance and strategy workshops	As needed in February, April, May, October or December.

## **SIGNING AUTHORITY GUIDELINE**

### **Purpose and Scope**

In October 2020, Halifax Water Board updated the Governance Manual to provide direction and clarity on the roles and responsibilities of the Board and staff to reflect current practices. This Signing Authority Guideline builds on that direction and clarity and ensures the efficient operation of Halifax Water by identifying appropriate delegation of authority required for various transactions and activities.

### **Guideline Statement**

Accountability for the management of the property, assets, financial and human resources of Halifax Water rests with the General Manager and the Board. This Guideline aids in administering this accountability, safeguarding utility resources by establishing and maintaining sound business controls for contractual commitments, management of risk and proper use of resources. This Guideline identifies signature authority delegations for various Halifax Water transactions, approvals and other decisions.

### **Levels of Signature Authority**

Signature Authority levels are as follows:

- Level 1: Board Chair, Board Vice-Chair
- Level 2: General Manager, Corporate Treasurer
- Level 3: Directors, General Counsel, Senior Managers
- Level 4: Superintendents, Managers, Operation Engineers
- Level 5: Supervisors, Intermediate Engineers
- Level 6: Technical Staff, Junior Engineers

Staff cannot delegate an authority under this Guideline to a lower level authority. Any delegation as 'acting' status includes the signature authority delegations in this Guideline.

For transactions not specifically listed in the Signing Authority Guideline, please seek advice from the General Manager, Corporate Secretary or Treasurer.

The following table provides a detailed listing of applicable transactions and the required signing authority levels.

**Accounting & Finance**

Budget transfer request	Level 4
Delegation authority request	Level 4
Establish petty cash fund	Level 4
Establish account or program	Level 4
Financial information provided to actuaries	Level 3
Correspondence with CRA	Level 2
Financial statements	Level 2
Management representation letter	Level 2
Financial review of board reports	Level 3
Correspondence regarding pension	Level 3
Pension annual information return	Level 2
Journal entries	Level 4
Confirmation letter	Level 4
Annual indexation for pensioners	Level 2
SAP – new cost centres or general ledger accounts	Level 4
SAP – FI/CO/AA modules	Level 4
SAP – creation of new orders	Level 4
SAP – MM module	Level 4
Purchase card administration	Level 5
Lead service rebate	Level 4
Wastewater rebate	Level 4
Lateral loan program	Level 4
Capital cost contribution invoicing / refund	Level 4
Regional development charge invoicing / refund	Level 4

**Contracts, Agreements and Legal Submissions**

Agreement/Contract/MOU => \$5,000,000	Level 1
Agreement/Contract/MOU => \$250,000 and < \$5M	Level 2
Agreement/Contract/MOU < \$250,000	Level 3
MOU – non-monetary	Level 3
Collective agreement	Level 2
Employment contract	Level 3
Banking contract	Level 2
Debenture agreement	Level 2
MOU and LOU's with union	Level 3
Water systems agreement	Level 2
Submission to Municipal Auditor General (not including staff responses to specific requests for information)	Level 2
Submission to WCB	Level 2
Application (initiating proceedings) to NSUARB	Level 2
IRs to NSUARB	Level 3
Appeal to NSUARB	Level 3
Easement agreement	Level 2
Temporary access agreement	Level 2
Lease	Level 2

Non-disclosure agreement	Level 3
Lien	Level 2
Data licensing contract	Level 3

**Customer Service and Billing**

Water shut off – regulatory non-compliance	Level 4
Water shut off – collection	Level 4
Non-payment letter	Level 4
Acceptance of payment arrangement	Level 4
Stormwater exemption	Level 4
SAP – changes to billing	Level 4
Adjustment to customer account	Level 4

**Human Resources**

In-range progression	Level 2
Appointment letter	Level 3
Professional development plan	Level 5
Position description	Level 2
Confirmation of employment letter	Level 6
LTD benefit application	Level 4
Life insurance claim application	Level 4
Annual adjustments to non-union compensation	Level 2
Payroll approval	Level 4
Discipline letter - warning	Level 4
Discipline letter - suspension	Level 3
Discipline letter - termination	Level 2
VIP – payroll changes	Level 4
Return to work accommodation	Level 4

**Procurement**

Pre-tender review approval letter	Level 5
Tender document	Level 4
Request for proposal	Level 3
RFP / Tender evaluation	Level 4
Technical study / report (from consultant)	Level 3
Award letter	Level 5
Alternative purchase arrangement	Level 2

**Regulatory**

Compliance agreement	Level 3
Enforcement action	Level 3
Corrective action agreement	Level 4
Corrective action required	Level 5
Temporary discharge agreement	Level 5
Requests for customer action / information	Level 6
Distribution of educational material / notice	Level 6
Service connection inspection	Level 6



Subdivision approval letter – concept	Level 4
Subdivision approval letter – preliminary	Level 4
Subdivision approval letter – final	Level 4
Building permit approval letter	Level 5
New service application approval letter	Level 5
Demolition or development permit approval letter	Level 5
Planning application letter	Level 5
Domestic meter and BFP approval letter	Level 5
Sprinkler and BFP approval letter	Level 5
Change in meter size approval	Level 6
Temporary meter approval	Level 6
Clearance letter	Level 6
Inter-office memo infrastructure acceptance	Level 6
Infrastructure acceptance	Level 4
Design and construction specification variance	Level 4
BFP testers list	Level 5
Drainage complaint letter	Level 4

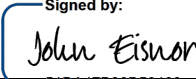
**Stormwater / Water/ Wastewater Operations**

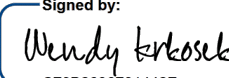
Locate certification	Level 6
Repair letter to customer	Level 4
Planned service interruption letter to customer	Level 4

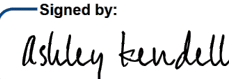
**Travel and Expenses - Executive Level**

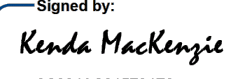
Travel for GM	Level 1
Travel for directors	Level 2
Travel claims/reimbursement for GM	Level 1
Travel claims/reimbursements for directors	Level 2

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

**SUBMITTED BY:**   
Signed by:  
31DA47B30B50460...  
John Eisnor, MASC., P.Eng., Director, Operations

  
Signed by:  
C70B2696701442F...  
Wendy Krkosek, Ph.D., P.Eng., Acting Director, Regulatory Services

  
Signed by:  
BF59C3192F994B9...  
Ashley Kendell, CPHR., Director, People & Culture

**APPROVED:**   
Signed by:  
9C984AC94E794F6...  
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

**DATE:** September 16, 2024

**SUBJECT:** **Operational Performance Information Report**

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**ORIGIN**

Regular update.

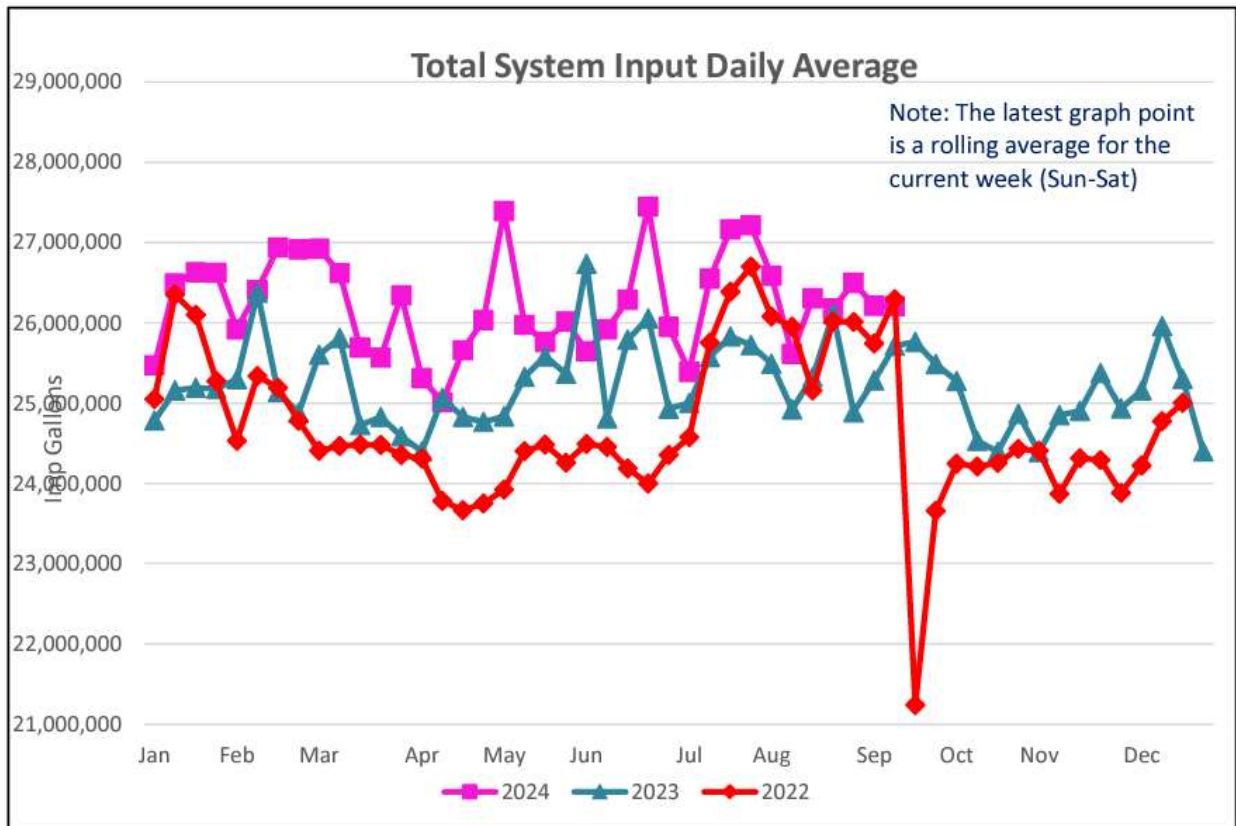
This report provides a high level overview of operational performance for the utility. The safety statistics results are first, followed by indicators and statistics for water and wastewater.

**SAFETY STATISTICS – Q1 – April 1, 2024 to June 30, 2024**

<b>Organizational Metrics</b>	<b>Q1 Apr 1 to Jun 30</b>	<b>CBS Target 2024-25</b>
Lost Time Incident Reporting (LTIR) (Lost Time Cases x 200,000 / Total Employee Hours Worked) YTD	2.68	2.5
Safe Driving (Number of traffic accidents per 1,000,000 km driven)	9.8	4
Workplace inspections conducted	26	Score
Safety Talks conducted (reported at the end of each quarter)	19	85%
High Potential/Near Miss	40	N/A
Employees on accommodation (new/total)	2/10	N/A
Employees on gradual return to work (non-WCB)	0	N/A
WCB claims	6	N/A
Work refusals	0	N/A
Incidents with written compliance orders	0	0-2
Employees trained or recertified before due date	147	85%
<ul style="list-style-type: none"> <li>• Courses Taken</li> </ul>	386	N/A

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

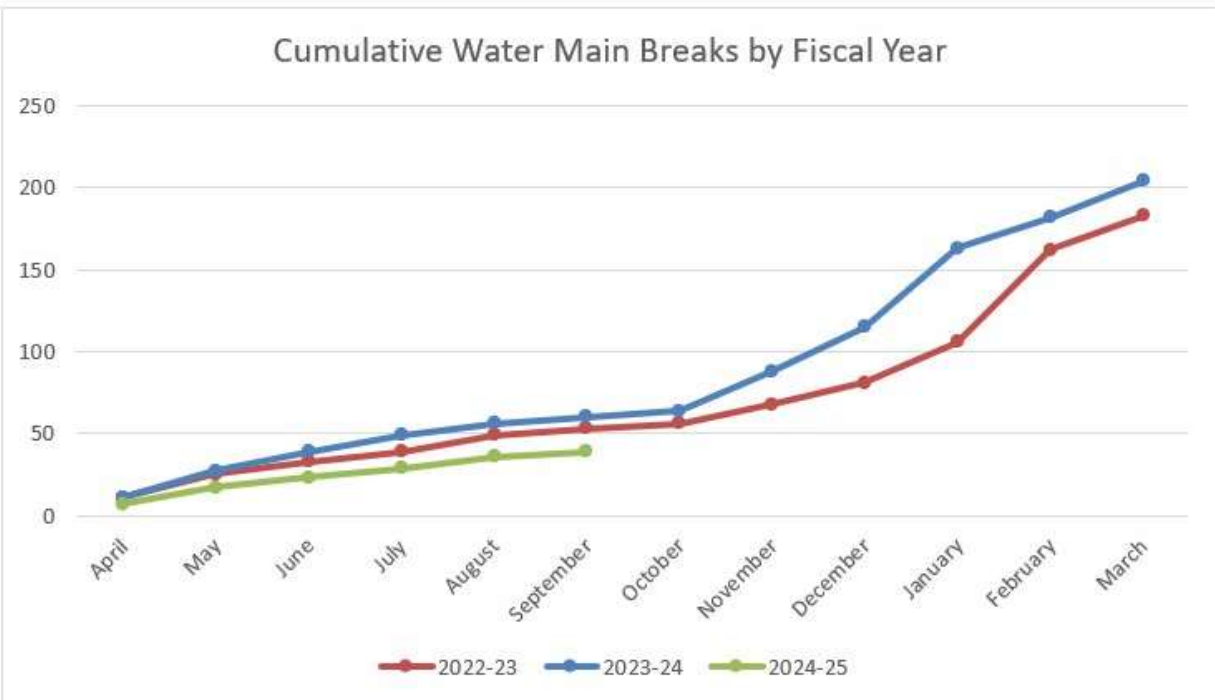
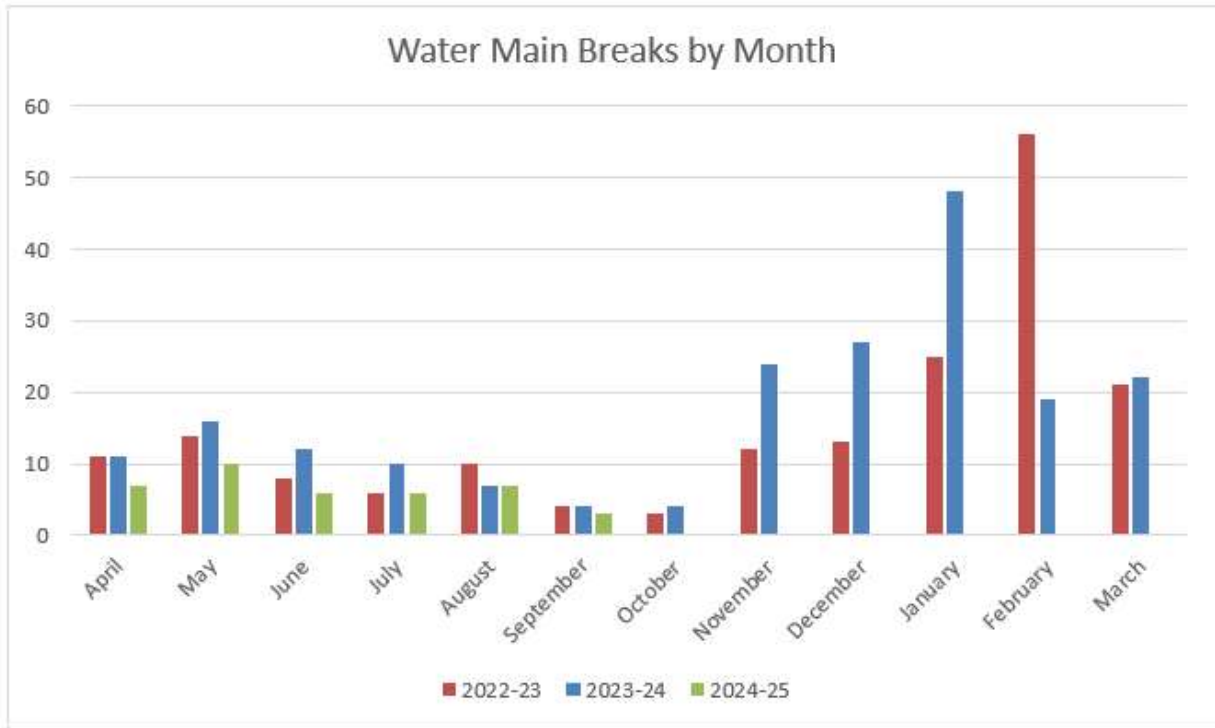
**AVERAGE DAILY WATER PRODUCTION**



\* 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.

<b>Water Accountability</b>
<b>Losses per Service Connection/Day (International Water Association Standard)</b>
<i>Period Ending: June 30, 2024</i>
Real Losses: <i>Data unavailable at this time</i>
CBS Target: 160 - 170

REGIONAL WATER MAIN BREAK/LEAK DATA



**COMPLIANCE SUMMARY**

<b>Water Safety Plan Objectives 2024-2025 Q1</b>				
Objective	Total Sites	% Sites Achieving Target	All Sites: 90th Percentile < 15 µg/L	CBSC Awarded Points
Disinfection	63	98%	---	18
Total Trihalomethanes	26	96%	---	17
Haloacetic Acids	23	87%	---	10
Particle Removal	5	100%	---	20
Corrosion Control	123	---	2.25	20
Summary Total				85

Score: 85/100

Bacteriological Results (% Samples absent of Total Coliforms) 100.00%

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
	April-24								May-24								June-24								
	CBOD <sub>5</sub> (mg/L)		TSS (mg/L)		E. coli (counts/100mL)		pH		CBOD <sub>5</sub> (mg/L)		TSS (mg/L)		E. coli (counts/100mL)		pH		CBOD <sub>5</sub> (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	67	33	50	27	5000	0*	6-9	6.8	67	49	50	24	5000	18964	6-9	6.8	67	52	50	28	5000	167059	6-9	7.0	Not acutely lethal
Dartmouth	50	38	40	31	5000	0*	6-9	6.7	50	59	40	22	5000	52	6-9	6.7	50	54	40	21	5000	45	6-9	6.8	Not acutely lethal
Herring Cove	50	20	40	17	5000	0*	6-9	6.8	50	40	40	27	5000	12	6-9	6.8	50	29	40	17	5000	10	6-9	6.8	Not acutely lethal
Eastern Passage	25	9	25	8	200	0*	6-9	6.8	25	11	25	25	200	70	6-9	7.2	25	7	25	7	200	98	6-9	7.1	Not acutely lethal
Mill Cove	25	23	25	22	200	26	6-9	6.6	25	20	25	18	200	12	6-9	6.5	25	8	25	7	200	10	6-9	6.5	Not acutely lethal

\*Seasonal Disinfection in effect November 1 through April 30.  
E.coli is not measured during Seasonal Disinfection except HCWWTF December 25 to January 2.

Wastewater Treatment Facility	Wastewater Treatment Facility Quarterly Compliance Summary																Toxicity
	April, May, and June 2024																
	CBOD <sub>5</sub> (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	7	20	12	200	335	6-9	6.9	-	-	-	-	-	-	-	-	-
Frame	20	2	20	1	200	10	6-9	6.9	-	-	-	-	-	-	-	-	-
Middle Musq.	20	20	20	28	200	189	6-9	7.0	-	-	-	-	-	-	-	-	-
Uplands	20	6	20	9	200	49	6-9	6.7	-	-	-	-	-	-	-	-	-
Aerotech	5	2	5	1	200	10	6-9	7.1	5.7 W 1.2 S	0.1	0.13	0.07	-	6.5	8.2	Not acutely lethal	
North Preston	10	2	10	3	200	10	6-9	6.6	3	0.1	1.5	0.7	-	-	-	-	
Lockview	20	3	20	5	200	26	6.5-9	6.6	8.0 S	1.7	1.2 S	0.3	-	-	-	-	
Steeves (Wellington)	20	2	20	1	200	10	6.5-9	7.0	14.4 S	0.1	1.0 S	0.1	-	-	-	-	
BLT	15	3	20	12	200	10	6-9	6.9	5 W 3 S	2	3 W 1 S	0	0.02 *	0.10	-	Not acutely lethal	

**NOTES & ACRONYMS:**

CBOD<sub>5</sub> - 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, En 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: Repeated issues with west side UV lamps, impacting the effectiveness of the UV system.

Dartmouth WWTF: High influent BOD. Treatment ability to remove soluble and colloidal BOD lower than for non-soluble BOD.

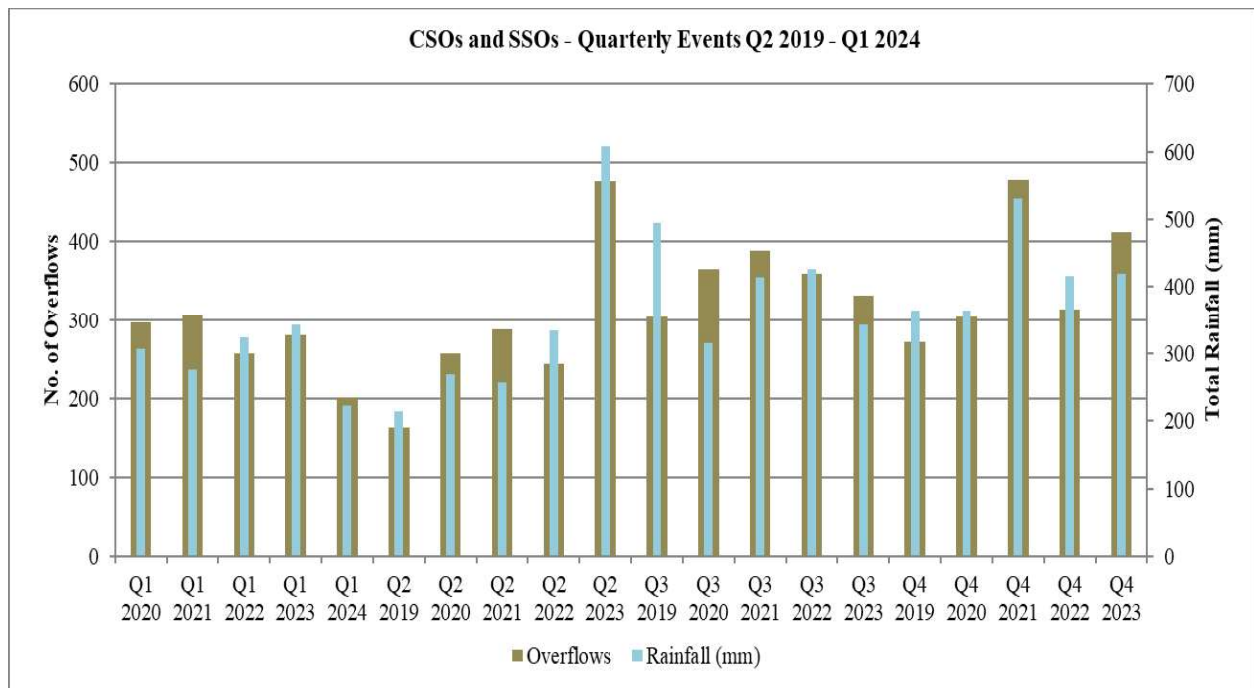
Springfield Lake WWTF: Due to a dirty UV test Port. Vac truck was used to clean contact chamber, more frequent cleanings of UVs implemented.

Middle Musq. WWTF: Relining of the aeration pond resulted in elevated TSS in May and June.

**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 eight overflows in Q1 beginning on days when there was no recorded rainfall, as follows:

1. April 1: The SSOs at Mill Cove WWTF were due to excessive flows in the system from rain on the previous day.
2. April 10: The SSOs at Bluewater Rd PS and Weybridge Lane PS were due to an influx of water from a watermain break.
3. April 14: The CSOs at Jamieson St PS & CSO, Maitland St PS & CSO, and Old Ferry Road PS & CSO were due to rain on the previous day.

June 17: The CSO at Duffus St PS & CSO was due to pumps not being restarted promptly upon completion of maintenance.

**Halifax Water Compliance Statement**  
**Quarterly Certification**

**For the period of April 1, 2024, to June 30, 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.

Signed by:  
*Kenda MacKenzie*  
9C084AC815794F6...  
Kenda MacKenzie, P.Eng.  
Acting CEO and General Manager

Signed by:  
*Louis de Montbrun*  
A65D6874EBC1467...  
Louis de Montbrun, CPA, CA  
Director, Corporate Services/CFO

Dated:

September 18, 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



2023/24



# Annual Report

MARCH 31, 2024

**Forces of Nature**

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[www.halifaxwater.ca](http://www.halifaxwater.ca)

## Get in Touch

**24-Hour Emergency Line:** 902-420-9287

**Customer Care Centre:** 902-420-9287

[customercare@halifaxwater.ca](mailto:customercare@halifaxwater.ca)

### Office Hours:

Monday - Friday

8:30 AM - 4:30 PM

450 Cowie Hill Road, Halifax, NS

**Website:** [halifaxwater.ca](http://halifaxwater.ca)

### Social Media:

**X** @HalifaxWater

**Facebook** @HalifaxWater

**YouTube** @HalifaxWater

**LinkedIn** HalifaxWater

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# About Us

Halifax Water is a proud steward of the water cycle, providing clean water to customers, and safely conveying it back to the source.

## PURPOSE

to supply and safeguard sustainable, high-quality water services.

## VISION

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



## VALUES

### Relationships

We nurture relationships with our customers, our team members, and the environment. We are engaged in the neighbourhoods we serve, and we support continual learning across our team.

### Innovation

We are among the top utilities across the continent, and we are known on the global stage. We always ask, "how can we improve efficiency, sustainability, creativity and the customer experience?"

### Accountability

We refuse to cut corners. We check in with our excellence standards regularly and look to one another for support. Safety steers our decision-making. We are driven to make our policies, decisions, and projects as clear as our drinking water.

### Protection

Halifax Water protects the health and well-being of our population. We exist to guard natural resources, finding ways to sustain our communities and environment.



# Our Leaders

BOARD OF COMMISSIONERS March 31, 2024



**Colleen Rollings**  
P.Eng., PMP,  
Board Chair



**Cathy Deagle Gammon**  
Vice Chair



**Cathie O'Toole**  
CAO HALIFAX



**Mimi Kolomytsev**



**Becky Kent** Councillor



**Patty Cuttall** Councillor



**Kostia Zaharov**  
P.Eng., PMP, MBA



**Paul Russell** Councillor

EXECUTIVE STAFF March 31, 2024



**Kenda MacKenzie**  
P.Eng.,  
General Manager and CEO (Acting)



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



**Reid Campbell**  
M.Eng., P.Eng.  
Director, Engineering &  
Technology Services



**Colin Waddell**  
CEng MIET, CMgr MCMI,  
BSc., MIOI  
Acting Director, Operations



**Ashley Kendell**  
BBA, CPHR  
Director, People and Culture



**Colin Taylor**  
LLB  
General Counsel

# Message from the Chair



**Colleen Rollings,**  
P.Eng., PMP  
Chair of Halifax Water Board of  
Commissioners

I am honoured to continue to serve as the Chair of the Halifax Water Board of Commissioners. The Board is proud to support Halifax Water's focus on delivering reliable service for customers and our community. Throughout fiscal 2023/24, Halifax Water remained steadfast to its mandates while managing challenging events such as wildfires and flash floods and unprecedented growth within HALIFAX.

There were some changes to the Board throughout the fiscal year. On behalf of the Board, I would like to express our sincere thank you to those that dedicated service to Halifax Water: Councillor Pamela Lovelace for a three-year term ending November 2023, Commissioner Mimi Kolomytsev and Commissioner Kostia Zaharov for two-year terms ending early in April 2024.

We were pleased to welcome Councillor Paul Russell to the Board in December 2023. The role of CAO designate was shared by Denise Schofield, Peter Duncan, and HALIFAX CAO Cathie O'Toole throughout the year.

This past year, Halifax Water experienced changes in its leadership. Kenda MacKenzie, P.Eng., was appointed Acting General Manager and CEO in late January 2024. The Board is proud to support the leadership of Ms. MacKenzie and the entire Halifax Water team. A search for a permanent General Manager and CEO is planned for Fall 2024.

The organization remains committed to building a more robust and diverse culture that reflects our community.

Halifax Water continues to focus on people while maintaining its services. Through its capital work, it provides a significant local economic benefit for a fast-growing municipality. As it works to meet HALIFAX's needs, the utility now has approximately 600 employees, a \$146.7 million capital budget, and a \$172.2 million operating budget for fiscal 2023/24. Investing in these critical water, wastewater, and stormwater services will benefit residents and businesses and provide economic and environmental health benefits for years to come.

On behalf of the Board of Commissioners, I want customers to know that we are committed to responsible governance and oversight for Halifax Water. As a Board, we understand the challenges of running a modern water utility, and for that, we extend our deepest admiration and appreciation to every Halifax Water employee. Keep up the great work.

# Message from the General Manager and CEO (Acting)



**Kenda MacKenzie**  
*P.Eng.*  
*General Manager and CEO (Acting)*

As a responsible water utility, the Halifax Water team is committed to safeguarding our resources and managing our infrastructure harmoniously with the surrounding environment. However, harmony with nature has its challenges, and sometimes, its full force is meant to remind us just how powerful it is – which was the case in fiscal 2023/24.

From extreme wildfires (in May) to flash floods (July and August), our employees faced many “forces of nature” this past year. But while Mother Nature may have caused some terrible damage throughout our communities, our teams worked safely to maintain service for our customers. Our employees continually show that they are also forces of nature and a team to be proud of.

In 2023/24, Halifax Water met all its obligations

under the Halifax Regional Water Commission Act and the Public Utilities Act. In addition to its obligations through legislation, the utility complied with most of its operating permits for its water and wastewater systems for the fiscal year ending March 31, 2024.

We continue to focus on our Water Supply Enhancement Program, which will require hundreds of millions of dollars in new investment over the next decade. Through this work, we can address aging infrastructure and prepare for population growth and more stringent regulations with a more resilient and adaptable water supply system.

At our wastewater facilities, achieving regulatory compliance requires a disciplined approach that considers weather influences, equipment efficiency, and customer compliance with Halifax Water Regulations. Through this discipline, Halifax Water achieved 95% sample compliance with Nova Scotia Environment and Climate Change requirements at the wastewater treatment facilities, consistent with the prior year.

Halifax Water’s purpose is to supply and safeguard sustainable, high-quality water services. I am proud to say that our team has done a great job delivering services for our customers this past year.

Throughout fiscal 2023/24, the Nova Scotia Utility and Review Board (NSUAR) approved some significant applications for Halifax Water. This included the approval to construct the Port Wallace Transmission Main, replace to the Silvers Sands Water Supply Facility with a connection to the Lake Major system, and to start detailed design work on the Pretreatment and Clarification

components for the next phase of the Water Supply Enhancement Program.

All these projects ensure asset renewal, support growth in our community, and help us achieve compliance as we embark on updating Halifax Water’s Integrated Resource Plan (IRP), which will map out our expected infrastructure requirements for the next 30 years.

As we continue to advance our plans and meet our mandates, Halifax Water continues to face the challenges of increased cost pressures driven by inflation, contract costs, and an increasingly tight labour market. We recognize that we are not the only organization experiencing these financial pressures and are committed to containing costs and delivering cost-effective service for our customers.

Thank you to all Halifax Water employees, who are forces of nature at being steadfast in their commitment to serving our customers and our municipality.





# Responding to Forces of Nature

## Hammonds Plains Wildfire

On the afternoon of May 28, a massive wildfire broke out in the Tantallon area. The fire destroyed about 200 buildings, including 151 homes, and forced the evacuation of more than 164,000 people. In coordination with the Emergency Operations Centres, Halifax Water replaced a critical cross culvert that ran underneath Hammonds Plains Road, which had been destroyed in the fire.

On June 1, Halifax Water crews assisted the Halifax Regional Fire Department in safely disconnecting a fire hydrant that a pumper truck was connected to. The crews quickly disconnected the truck from the hydrant so the team could continue fighting the fire.

## July Flooding

On the afternoon of Friday, July 21, Nova Scotia

experienced an extreme weather event that continued into early Sunday morning. More than 250 mm of rain fell in some areas.

The resulting flash flooding caused substantial interruption to service and significant damage to wastewater and stormwater systems. Throughout the weekend, Halifax Water was inundated with hundreds of customer calls and messages on social media regarding washouts, manhole covers and flooding.

While the Halifax peninsula and Dartmouth areas received limited damage, assessing the impacts continued for weeks. Hundreds of driveway culverts were washed out, and the priority was to ensure customers regained access to their properties.

In the first week reinstatement activities began Sunday, July 23, with an estimated 35 driveways made passable.



# Operational Excellence

2023/24 was another challenging year due to the impacts of the severe weather in our region. The Halifax Water Engineering and Capital Infrastructure Group continued to develop and implement the recommendations of Halifax Water's Integrated Resource Plan, which identifies key capital upgrades required to accommodate the anticipated short-term and long-term growth in Halifax. Some milestones for 2023/24 included the tender and award of contracts for constructing transmission main segments, progress on Cogswell Development and various emergency response efforts to support infrastructure needs during the floods and fires.



### Dunbrack Street Water Main Repair

On Saturday, July 22, Halifax Water coordinated a 36" water main repair at the intersection of Walter Havill Drive and Dunbrack Street. During extreme rain and soggy conditions, the team safely repaired a major pipe section that supplies water to Spryfield and the Herring Cove area. Through wind and rain, crews successfully executed a coordinated effort to manage traffic control, maintain water service, ensure water supply for fire protection, and then chlorinate and flush the line before bringing it back into service without impacting the environment.

These challenging initiatives exemplify how Halifax Water works together as a team to supply and safeguard sustainable, high-quality water services, even in the toughest circumstances.

### Hammonds Plains Road Stormwater Culvert Replacement

During the July extreme rainfall and flooding event, a critical piece of stormwater infrastructure that allows water to flow beneath Hammonds Plains Road was damaged. Crews made temporary repairs immediately after the flood, and the cross culverts were replaced in October 2023.



### Flash Flood at Farmer's Wastewater Pumping Station

On Sunday, July 23, following the recession of the flash flood waters on Hammonds Plains Road, Staff safely entered Farmers Dairy Lane to assess the condition of a medium-sized wastewater pumping station that lost communication during the storm from earlier in the weekend. Flash flood waters in this area surged far beyond normal levels. Farmers Dairy Lane and the building that operates the wastewater pumping system were almost under nine feet of water. The generator inside the building kept the system operating until it was completely submerged under water on Friday night.

Central Operations initiated emergency response measures to stop the uncontrolled wastewater flow that was now occurring. Staff were dispatched from East and West Operations to assist Central Operations, and crews worked tirelessly to stop the wastewater outflow into the local waterways. Up to seven vacuum trucks worked simultaneously around the clock to manage the inflow to this station.

For several days, staff worked extended hours through hot July temperatures to complete the job. Three days after the flooding, the station was running on automatic generator power.







# Capital Projects Supporting Asset Renewal

## Enterprise Resource Planning

In August 2023, Halifax Water launched Cayenta ERP as its primary management system for accounting, budgeting, work order management, customer records, billing, and inventory. This cost-effective enterprise management solution was implemented to replace SAP. The new solution will better support project integration to ensure the best value for our customers.

# Infrastructure Renewal Statistics

<b>Water Mains Replaced</b>	2.0 KM
<b>Wastewater/Stormwater Mains Reinforced</b>	0.8 KM
<b>Wastewater/Stormwater Mains Replaced</b>	0.11 KM

# Capital Projects Supporting Growth

## Gallery Crescent PRV

A new pressure-reducing valve (PRV) chamber was constructed on Gallery Crescent, to improve the resiliency of the water distribution system in Middle and Lower Sackville. The Gallery PRV can be a parallel or backup supply to Sackville High School.

## Burnside Drive Watermain Extension

In order to create a more robust water disruption system, a Bedford-Burnside interconnection has been proposed. This 30 inch diameter water main will help me with supply objectives and support the overall system supply strategy. There are significant benefits the commissioning of this interconnection will provide including A Bedford-Burnside system interconnection, a 30-inch (750mm) diameter watermain, is proposed to meet the supply objectives for the Lake Major system. It is part of the overall system supply strategy, and there are significant benefits that the commissioning of this interconnection would provide:

- Allows for improved operation of the Akerley Reservoir, which is currently only supplied via the Caledonia Road transmission main. There would be less reliance on Topsail Chamber, and the connection would strengthen the overall Lake Major system.
- Minimizes transmission upgrades needed within the Lake Major network.
- Helps provide resiliency to the Lake Major system.
- Provides opportunities for some limited emergency water supply to the Pockwock system.

The transmission main corridor is along the Highway 107 Connector, which links Bedford to Burnside. The IRP identified the project's second phase as being the section of the transmission

main through Bedford between Duke Street and the Sackville Supply Connection.

## Silverside Water Booster Station Upgrade

This project upgraded the water booster station that provides water services to the Waverley community. A backup generator was installed to improve resiliency and reliability of water services in the area. Nova Scotia Power installed new utility poles and powerlines to support the upgrades to the booster station.

## Windsor Street Water Main Upgrade

Almost 50% of the Peninsula growth is proposed in the Young Street area. Upsizing the existing watermains along Young Street, Robie Street, Windsor Street, and Almon Street to 20-inch (500 mm) diameter is required to accommodate the expected growth in population.

In 2023, Halifax Water upgraded the Windsor Street watermain between Young Street and Cork Street.

## Churchill Drive Water Replacement

Significant growth is anticipated on the Halifax Peninsula in the next thirty years. The existing transmission mains that support the Peninsula area (Robie, Chain Control, MacDonald Bridge) have been identified as needing replacement. Starting at Chebucto Road, the replacement water transmission mains will run under the CN Railway, along the entire length of Churchill Drive (through Upper Flynn Park) and end at the intersection with Quinn Street.



# Capital Projects Supporting Energy Reduction

Wastewater Treatment requires a significant amount of energy and Halifax Water continues to find opportunities to reduce energy demand.

### Solar Project - Aerotech WWTF

In July 2020, Halifax Water was awarded funding through the Investment in Canada Infrastructure Program (ICIP). Since August 24th, 2023, the Aerotech WWTF Solar PV (solar photovoltaic)

System has been producing clean electricity. The system generates 125 kW peak AC power, has an expected lifespan of 30 years, and contains a whopping 384 x 440 Watt solar PV modules. The system will provide approximately 15% of the plant's annual energy consumption, and at peak power output, it will provide approximately 50% of the plant's average electrical demand. The ICIP funded 73% of the project cost.



# Wastewater Treatment Facility Enhancements & Research

As climate change intensifies and populations grow, more stringent effluent regulations are on the horizon. Halifax Water must adapt proactively to these evolving challenges. To this end, Halifax Water has advanced several wastewater treatment projects in partnership with Dalhousie University, supported by a

Natural Science and Engineering Research Council of Canada (NSERC) Collaborative Research & Development Grant and an NSERC Alliance Grant for Innovation in Climate Change Adaptation in Water and Wastewater Treatment. Below are some key examples of this work:

### Chemically Enhance Primary Treatment Optimization at Dartmouth WWTF

Our wastewater treatment facilities generate large volumes of complex data that technicians could use for process optimization. However, this data often contains significant noise, making it challenging to identify the optimal path. In collaboration with Dalhousie University, we developed a probabilistic model, or decision tree, to guide staff through decision-making processes by presenting potential outcomes and their likelihood of success at each step.



Biological Aerated Filtration (BAF) Pilot Testing



### Bench-scale pilot plant – Biological Aerated Filtration (BAF) for treatment upgrades

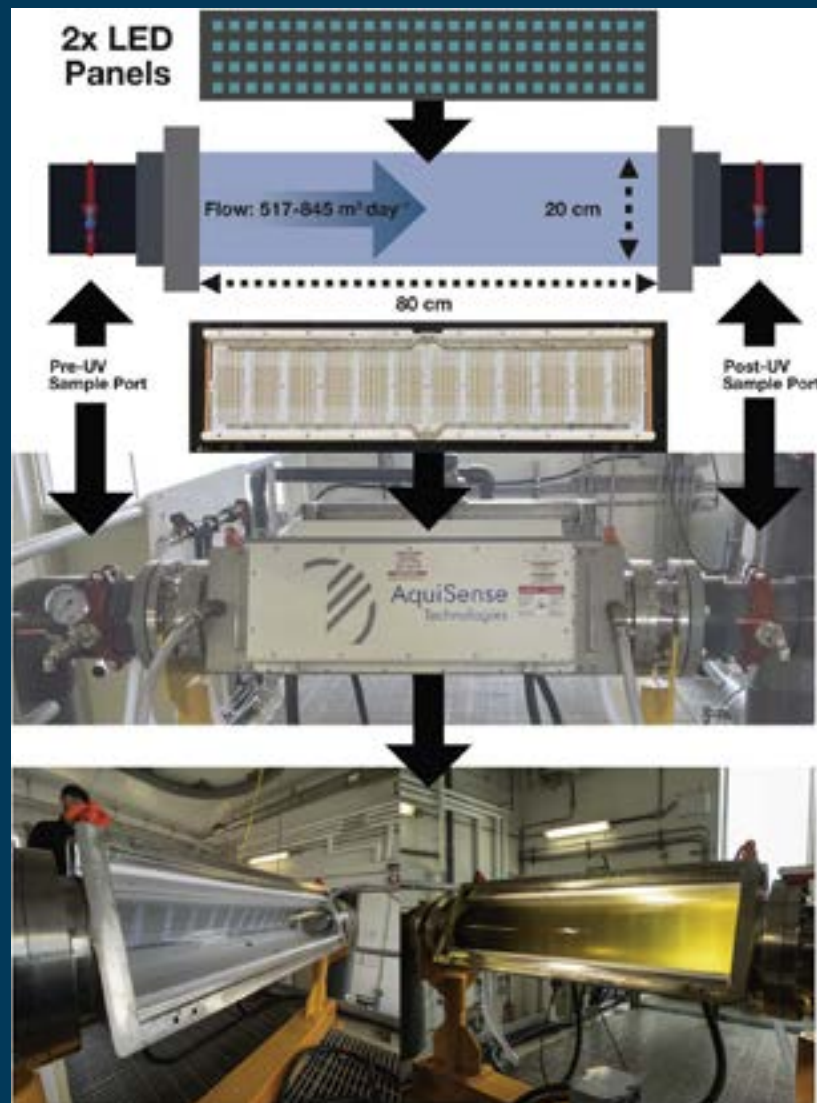
Upcoming regulations will necessitate secondary treatment at the wastewater treatment facilities along the Halifax harbour. This study

aimed to (1) assess whether BAF could be integrated into an existing full-scale WWTP as a secondary treatment process to reduce effluent contaminants, and (2) optimize BAF performance by adjusting reactor operations to maximize contaminant removal and minimize operational costs.

### UV-LED at Eastern Passage WWTF

Dalhousie University and Halifax Water collaborated to test the world's first full-scale 280 nm UV-LED reactor for wastewater disinfection. The results established that UV-LEDs are an effective at-scale wastewater disinfectant, comparable to conventional low-pressure UV systems, while using significantly less energy. This innovation also reduces our environmental impact.

By integrating advanced technologies and data-driven approaches, we are improving the efficiency and effectiveness of our wastewater treatment processes and future-proofing our operations to ensure we continue to meet the needs of our community in a sustainable and responsible manner.



## Biosolids Processing Facility

The Aerotech Biosolids Processing Facility (BPF) is in the Aerotech Industrial Park in Goffs, NS. The facility receives and processes dewatered sludge, or biosolids, from Halifax Water's wastewater treatment facilities. Biosolids are currently processed using the N-Viro alkaline stabilization process to produce a Canadian Food Inspection Agency-registered fertilizer sold for use on non-food-bearing crops.

The IRP, completed in 2019 and subsequent analyses by Halifax Water staff predict that by 2046, Halifax Water will need to process more than double the current quantity of biosolids. This is due to population growth and the installation of secondary treatment processes at the Halifax, Dartmouth, and Herring Cove wastewater treatment facilities. This forecast exceeds the production capacity of the current BPF.

A new facility requires detailed planning to ensure that it is cost-effective for

our customers and remains environmentally friendly. The procurement process is currently underway to execute a Design, Build, Operate and Maintain agreement. The request for proposal portion of this process is expected to be completed in 2024/25 fiscal year.

The new facility is expected to include capabilities for enhanced resource recovery. Biosolids will be processed to stabilize the material and recover renewable natural gas (RNG), and produce fertilizer and agricultural supplements that will be sold to the local natural gas grid and agricultural sector. The facility is anticipated to produce more than 35,000 tonnes per year of fertilizer and over 200,000 gigajoule per year of RNG at full capacity.



# Driveway & Cross Culvert Maintenance Program

Halifax Water owns and maintains a large inventory of driveway and cross culverts within the service boundary set by HALIFAX. Cross culverts direct stormwater across HALIFAX owned streets and driveway culverts convey stormwater across customer driveways. As these culverts reach the end of their service life, they are identified for replacement. Halifax Water currently budgets \$1.2M for driveway culvert replacements and \$3.0M for cross culvert

replacements on an annual basis.

In 2023/24 Halifax Water replaced 161 driveway culverts and 17 cross culverts. Driveway culverts are primarily replaced by Operations staff while cross culverts are replaced using a blend of Operations and contractors. To ensure we provide value to our stormwater customers, culverts are grouped together for replacement at the same time for efficiency.



# Wet Weather Management Program

Halifax Water's Wet Weather Management Program (WWMP) is a significant initiative that is focused on reducing wet weather flows that enter and can overwhelm our wastewater system. The current WWMP is based on data collected for the 2019 IRP and focuses on the priority WWTF sewersheds: Mill Cove, Halifax, Dartmouth and Easter Passage.

These sewersheds will continue to be the priority over the next several years. Currently, of the over 100 flow meters in place through Asset Management, 61 are dedicated to the WWMP to understand the influence of wet

weather on flows in the sewersheds and to help direct Sanitary Sewer Evaluation Survey (SSES) activities for the program.

Of the 61 WWMP areas, 37 have active Decision Matrix Reports (DMRs) being worked on. The DMRs are used to identify deficiencies in an area and provide a recommended rehabilitation strategy. Following rehabilitation efforts, post-rehab flow monitoring analysis is used to verify results and identify when further work is required, or an area is completed. The following SSES activities were completed in 2023/24:

**33 km**

Of mainline CCTV inspection

**25 km**

Of smoke testing investigations

**275**

Wastewater lateral inspections



A source of inflow and infiltration from the wastewater lateral



In 2023/24, there were no large-scale WWMP-led capital projects completed; however, there were numerous small-scale rehabilitation repairs completed internally by Halifax Water Operations.

Fish Hatchery: 36 public side defects were repaired of 155 identified (23%).	Loon Lake: 13 public side defects of 23 identified (57%), and of 23 identified (57%) were repaired.	Eastern Passage: 10 public side defects were repaired, of 46 identified (22%).	Fairview, Old Clayton Park and Bridgeview: 20 public side defects, and of 28 identified (71%) were repaired.
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In addition to public side defects, 380 private side defects were identified in 2023/24. Further action is planned to rehabilitate private side defects in 2024/25.



Catch Basin smoke test



Manhole smoke test

# Water Supply Enhancement Program

The J.D. Kline and Lake Major Water Supply Plants (WSPs) have reliably delivered high-quality water to Halifax Water customers for many years. However, aging infrastructure, changing source water conditions, and climate impacts have increasingly challenged the treatment processes at both WSPs. This is particularly evident at the J.D. Kline, where harmless natural taste and odour-causing compounds have periodically appeared in the water source and have been noticeable to customers.

To ensure a continued reliable supply of safe, high-quality drinking water and compliance with current and future regulatory requirements, the J.D. Kline and Lake Major WSPs will undergo capital renewal, upgrades, and enhancements over the next ten years. The Water Supply Enhancement Program (WSEP) consolidates numerous projects at J.D. Kline WSP and Lake Major WSP into one comprehensive program.

This integrated approach aims to minimize potential impacts on services and customers.

## High-Level Goals of the WSEP:

- Review J.D. Kline and Lake Major WSPs for the next operating horizon, considering design life spans of 20-50 years.
- Add treatment process resiliency at both WSPs to adapt to evolving source water quality changes due to climate change, including increased levels of organic matter, biological activity, metals, minerals, algae, and algal by-products.

- Improve the reliability of both plants to meet future challenges related to water quantity or quality objectives.
- Execute the program efficiently and in a coordinated manner with shared design principles and strategic compatibilities to streamline long-term operations between the facilities.

Progress has been made on background work and concept design development for a new raw water pump station at Lake Major. Further investigations and discussions are ongoing for the two pretreatment and clarification projects at both facilities. This will ensure the current design efforts provide the most resiliency in terms of treatment, long-term operation, and plant safety. These are among the initial projects to be executed through the WSEP.





# Source Water Quality Monitoring

The water quality of many lakes in Nova Scotia is changing due to lake recovery and climate change. Changing temperature and precipitation patterns, both timing and frequency, can also change source water quality. Lake Recovery is the process by which improved air emissions standards have reduced acid rain levels. As a result, water quality in lakes around Nova Scotia and Atlantic Canada is recovering from historical acidification. Changes are both chemical and biological in nature and include an increase in pH, increase in natural organic matter concentration, changes in concentration of metals and changes to the types of plants and animals our lakes can support.

At Halifax Water, lake recovery and climate change have resulted in changes in natural organic matter, pH (potential hydrogen), taste and odour (geosmin), colour, and algal activity. In 2023/24, climate change impacts were particularly notable with several severe weather events in the Halifax area. Low precipitation levels and dry conditions in the spring months led to the largest wildfires in Nova Scotia's history in May 2023, although no burning occurred in the watersheds surrounding Halifax Water drinking water supplies. This was followed by the wettest modern-day summer with severe rainfall and flood events experienced in June, July, and August resulting in record breaking precipitation levels. As a result of these significant precipitation events, natural organic matter levels measured in Lake Major and Pockwock Lake water supplies increased significantly and acutely in comparison to previous years.

Ensuring we have industry-leading source water monitoring approaches for both long-term and seasonal monitoring for harmful algal blooms caused by cyanobacteria (blue-green algae) continues to be a priority at Halifax Water to ensure the safety of our drinking water. Halifax Water has been collecting data for many years, enabling us to plan appropriately to ensure robust treatment to manage future water quality. Halifax Water continues to enhance and develop this important program through research partnerships with the Water Research Foundation and the Dalhousie/ Halifax Water NSERC Alliance "Partnership for Innovation in Climate Change Adaptation in Water & Wastewater Treatment". The evolution of Halifax Water's source water protection and seasonal algal monitoring programs ensures Halifax Water has industry-leading tools in place to assess risk, respond quickly to water quality changes and ensure continued delivery of high-quality drinking water for our customers.



Taking a source water sample

# Get the Lead Out

Removing lead service lines (LSL) from the water system is a top priority for Halifax Water. The Halifax Water Get the Lead Out program will replace all LSL by 2038.

## Get the Lead Out Water Service Line Inventory as of April 1, 2024

Service Line Material	Public Portion (Owned by Halifax Water)	Private Portion (Owned by the property owner)
Lead	1,123	2,571
Unknown Material	2,146	5,213

Several initiatives are underway to improve inventory accuracy. These include a records review process, a machine learning model to predict service line material, and service box hydro-excavation to visually determine the water service line type.

## Get the Lead Out Statistics as of April 1, 2024

Year	Public LSL Goal	Public LSLs (Actual)	Private LSL Goal	Private LSLs Replaced (Actual)
2023/2024	120	72	200	131

Resource constraints in operations for investigating service line material through hydro-excavation, led to delays in planning, tendering, and contracting replacements in 2023/24. A harsher winter also shortened the construction season. For these reasons fewer replacements occurred within the fiscal year.

Lead service line replacements were coordinated with HALIFAX's street paving and renewal schedule to minimize disruption to the community and be cost-effective for ratepayers. A limited number of individual replacements were also completed based on customer application to the program, with priority given

to customers who are most at risk from lead exposure. Replacements are completed at no cost to the property owner (up to a maximum of \$10,000, taxes included).

Halifax Water is on track to meet the program goal of removing all lead service lines by 2038. The figure above shows lead service line replacements as of April 1, 2024. The average cost of public replacement in 2023/24 was \$8,690, while the average cost of private side lead service line replacement was \$6,291.

# Water Loss Control

Halifax Water owns, maintains and operates 1580 KM of water mains throughout our service area. Finding and fixing leaks reduces water loss and the related costs of treating and distributing that water. This work is done to ensure our customers continue to receive good value for water services.

American Water Works Association Manual 36, the industry standard in effective water loss control programs, identifies four key focus areas of a successful program:

- Speed and Quality of Repair
- Pressure Management
- Active Leakage Control
- Asset management, renewal, replacement

Halifax Water actively engages strategies and programs in all these areas. This includes two, and exciting projects have been completed in the past year.

## Peninsula High Pressure Zone Management

A new control valve and meter were installed to better regulate pressures in the higher grounds of the Halifax Peninsula. Previously water

pressure was managed by a reservoir in Fairview. This added level of control allows pressures in the zone to be fine-tuned through basic pressure management, balancing customer needs and system management best practices. To further enhance the advance pressure management, the system where reacts based on demand, it will lower pressure during a low demand period, therefore lessing stress on the infrastructure in that zone.

## Takadu - Active Leakage Control

Knowing a water main leak has occurred is the critical first step toward a timely repair and minimizing loss through an extended leak run time. Halifax Water has an extensive network of sensors monitoring flow, pressure and other details in the system. However, timely analysis and decision-making from the mountain of data can be challenging. Halifax Water is currently piloting Takadu, a software that applies advanced analytics to the data and can provide smart alerts to system anomalies within hours of their first occurrence. This software has identified and tracked numerous events since implementation, resulting in less water loss.

# Burnside Operations Centre

In May 2023, Bird-Chandos Joint Venture (BCJV) was selected as the successful proponent for the new facility's first phase (design validation). The selection was based on a rigorous, fair, and transparent procurement process to find the best value for the utility's customers.

As an Integrated Project Delivery (IPD) contract, this agreement has multiple partners, including BCJV, Group2 Architecture, FBM, CBCL, and

Atlantica Mechanical Contractors.

This agreement is specific to the initial design validation phase. It will provide Halifax Water with confidence that this new facility can meet the desired services, function, and flow within the schedule and target cost. Pending approval from the NSUARB, the project is expected to begin in 2024.

# IT Strategic Plan

Halifax Water is making strides in executing a Five-Year Information and Technology Plan for 2023-2028. All year one projects have started, and eleven projects have completed, including the following:

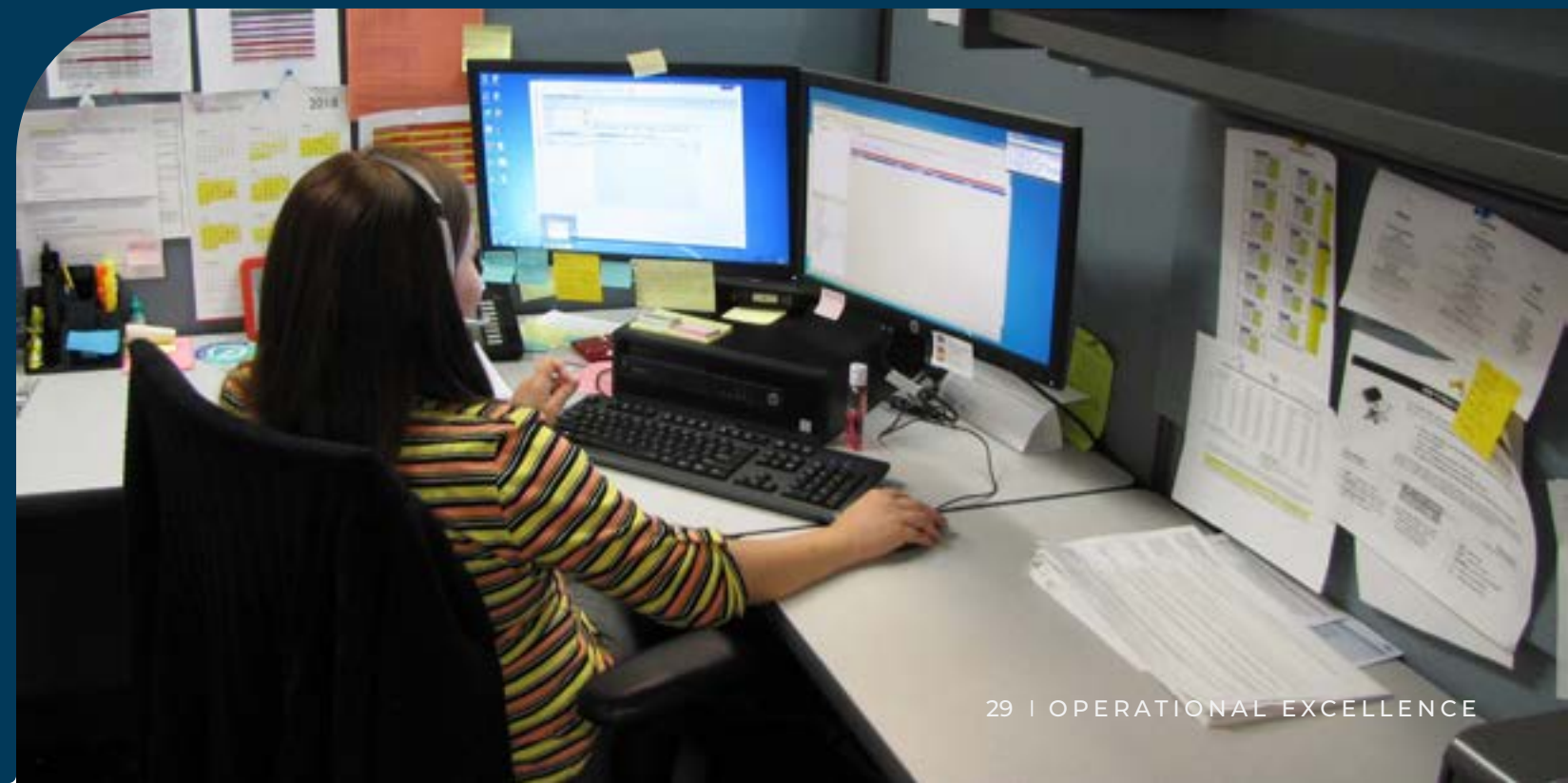
1. Customer relationship management software upgrade
2. Bill printing procurement
3. New document management software implementation
4. Insights data and analytics software procurement
5. Insights data warehouse Implementation
6. Insights dashboard reports
7. Computer maintenance management software upgrade
8. 2023 New technology business cases
9. New customer call system software implementation
10. New capital planning management software implementation
11. Radio Network Upgrade

The Information and Technology Plan instituted

a process, which generated sixty-seven new technology ideas. These ideas will help shape our future projects and investment plans. We are exploring and testing innovations like Microsoft Copilot, large language models, and automation software. Halifax Water is also starting to research and evaluate ocular mixed reality, digital twins, and building information systems.

The Cyber Security Program underwent an audit by the Municipal Auditor General (MAG), which resulted in forty-seven recommendations. The MAG expects Halifax Water to initiate 80% of these by September 2024. In response, our Cyber Security team developed a comprehensive action plan to address all recommendations by March 2025. As of the end of March 2024, Halifax Water has already started on 91% of the recommendations.

The Information and Technology Plan is designed to keep Halifax Water at the forefront of innovation, enhancing our operations and elevating our customer service.







# Intelligent Water

The five-year Information and Technology Plan for 2023-2028 identified a need to create a data, analytics, and visualization program to boost efficiency in our daily operations and improve long-term planning. This program establishes the infrastructure to gather and integrate data from all parts of our organization, paving the way for more informed decision-making and enhanced performance.

In 2023/2024, the program generated corporate and operational dashboards providing information to:

- Monitor and target water loss,
- Monitor water quality,
- Monitor waste water parameter,
- Leverage customer metering data to see trends and alerts, and
- Monitor financial capital trends.

In addition, the program is leveraging automation software to minimize manual data entry, such as for source water sampling.

The next phase of the program involves procuring advanced data, analytics, and

visualization software. This software will enhance data accessibility and integration across the organization, supporting more efficient operations. The software will improve Halifax Water's ability to:

- Provide alerts on unusual activity in the water or wastewater systems, such as water quality parameters, water flow or pressure deviations, or uncontrolled wastewater discharges.
- Predict when maintenance is required on assets,
- Calculate future water demand by using consumption and demand forecasting using forecasting algorithms, and
- Improve customer interaction by enabling our customer care staff to have dashboards with unified views of data such as service requests, work orders, flow and pressure alerts, leakage, and sensor malfunction.

We will continue to advance new opportunities to use data, analytics, and visualization to improve operational efficiency

# Customer Care Centre Performance

	Calls offered	Calls answered	Calls abandoned	Abandon rate	Calls answered within 20 seconds	Average speed of answer (seconds)
<b>2023/2024</b>	68,349	49,156	19,493	29%	35%	483
<b>2022/2023</b>	63,264	60,194	3071	5%	71%	67
<b>2021/2022</b>	73,336	67,871	5465	7%	60%	106

Our customer care staff is dedicated to providing high-quality service, even at the most challenging times. If there is any doubt about this, then the fiscal 2023/24 challenges are a perfect example. They dealt with many challenges, including introducing new technology, the aftermath of severe weather events, and the failure of telephony software. While the team focused on customers, extended wait times and longer call durations were unavoidable.

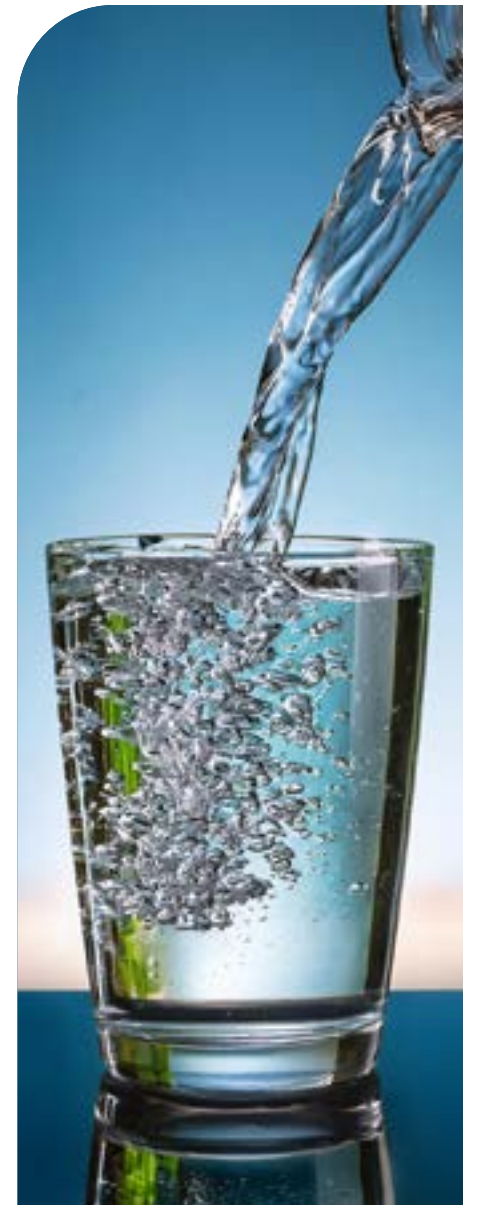
In July and August, historic flash floods hit HRM, significantly affecting our infrastructure and resulting in call volumes 22% higher than the same time last year. The complexity of issues and the information needed for responses compounded the response times.

While customer calls were

increasing, Halifax Water introduced a new ERP system in August 2023 which required additional time and resources typical of the challenges of implementing and learning a new system.

As these challenges were being addressed, the team experienced a short-term failure in its call centre telephony software in February 2024. This was a significant challenge to our ability to answer calls from customers. To improve our service, Halifax Water replaced the call centre software and created a platform to improve our ability to engage customers through email.

While there were some significant challenges in 2023/24, the team remained focused, finding solutions and supporting customers positively.



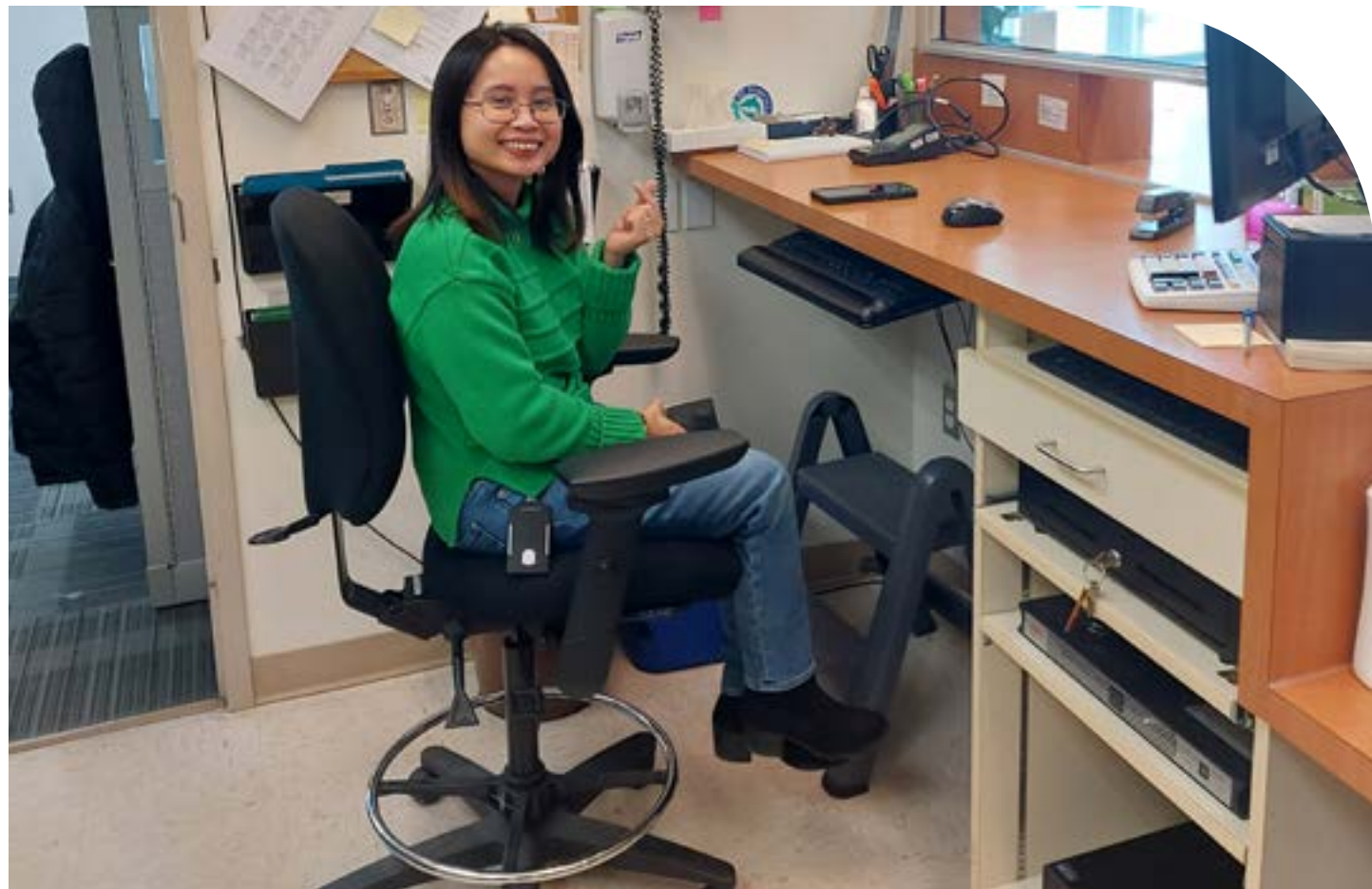


# Customer Connect Project Update

Halifax Water continues to develop and improve Customer Connect, an online customer portal, as part of an ongoing commitment to meet the needs of customers.

At the end of fiscal 2023/24:

- 36,678 total users registered to date: an increase of approx. 4,500 users from March 2023.
- 5,449 customers registered during the fiscal year.
- A leak and high consumption alert system was introduced in the portal in December 2021.
- There were 4,695 leak alerts and 5,216 high consumption alerts sent to customers in the last fiscal year compared to 3,599 leak alerts and 4,242 high consumption alerts in the prior year.
- An average of 24,230 customers logged in each month, compared to 23,200 in the previous year.



## Health, Safety & Environment



# Climate Action Plan

In 2023/24, Halifax Water completed its first Climate Action Plan (CAP) to help the utility prepare for the increasing and changing forces of nature. The CAP provides a longer-term framework on how to prepare Halifax Water for climate resiliency, exercising fiscal responsibility and continuing to provide customers with high-quality water, wastewater, and stormwater services.

As part of the CAP development, Halifax Water's 'current emissions' were calculated for 2021, establishing a 'baseline' year of emissions against which future scenarios could be compared. The CAP modelled the existing and potential future scenarios for mitigation actions to reduce greenhouse gas emissions. A breakdown of emissions by source is shown in Figure 1. The modelling acknowledges the previous and ongoing mitigation activities that Halifax Water has performed and planned for the future.

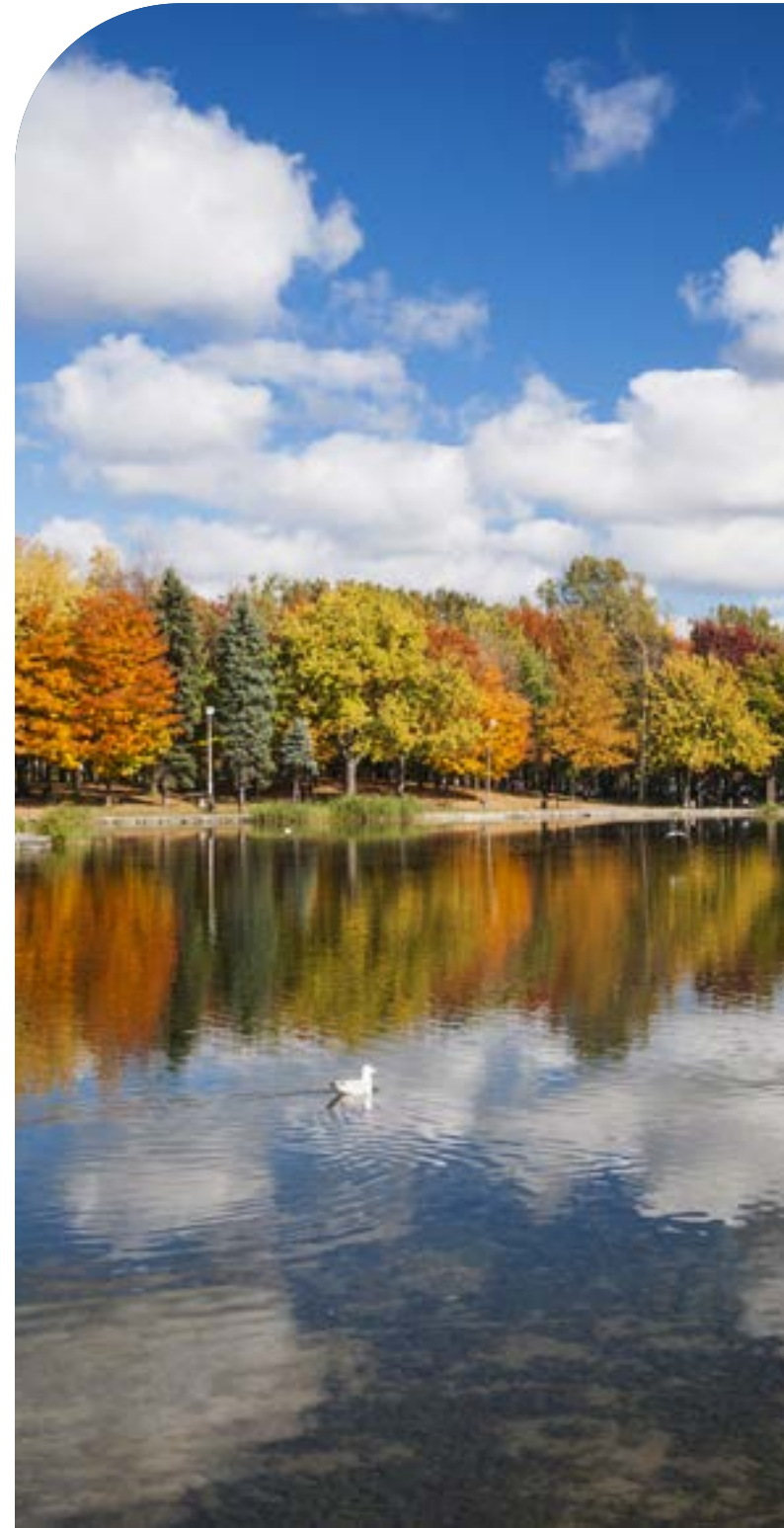


Figure 1. 2021 Emissions Sources for Halifax Water

The adaptation component of the CAP focused on outlining what is required for Halifax Water to be resilient to the impacts of climate change and ensure its assets can provide the required services in a changing climate. Eleven climate change hazards were evaluated based on assessments of historical events and future climate projections. These climate change

hazards will guide further risk assessments and adaptation actions.

The resulting CAP is a strategic document which will guide Halifax Water's mitigation and adaptation decisions to address the effects of climate change.



## Environmental Management System Update

Halifax Water's Environmental Management System (EMS) is a comprehensive and structured approach to environmental stewardship. It comprises procedures, detailed records, and processes designed to address environmental issues while maintaining adherence to regulatory standards. The EMS is a commitment to operational sustainability and employee involvement in environmental responsibilities.

This past year, Halifax Water depots at Mann Street, Park Avenue, Neptune Crescent, and Bissett Road, were all successfully certified as ISO 14001. This milestone signifies that all Halifax Water facilities achieved an ISO-registered EMS, marking a unified approach in our environmental efforts.

Looking ahead, Halifax Water aims to incorporate the EMS into our Water Distribution and Wastewater & Stormwater Collections Systems. This strategic initiative will enhance the integration of EMS practices across the entire organization.





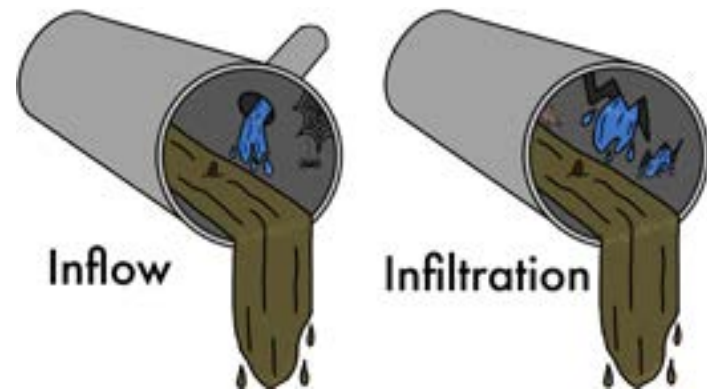


# Environmental Engineering

## Environmental Compliance

The Inflow & Infiltration (I&I) and Pollution Prevention (P2) Programs enforce the quantity and quality of discharge from customer connections into Halifax Water’s wastewater and stormwater systems.

## Inflow & Infiltration (I&I) Reduction Program



Halifax Water staff work with private property owners to reduce I&I.

In 2023/24, the I&I team worked closely with the Engineering & Capital Infrastructure to ensure that private sources of I&I were being addressed during the planning and delivery of capital projects. The I&I team also began revising and refreshing its education material, culminating in developing a new website resource (<https://www.halifaxwater.ca/inflow-infiltration>) for customers with I&I related questions and concerns. Implementation of a Campus Program

has begun, and staff are working with campus properties to achieve compliance with Halifax Water’s regulations. Work also continued developing a New Service Account Compliance Program (NSAC), which will link private property I&I compliance with creating a new service account with Halifax Water.

## P2 Program

The P2 Program identifies and addresses instances of noncompliant discharges entering Halifax Water’s wastewater and stormwater systems.

P2 staff inspected, investigated, and engaged 272 industrial, commercial, and institutional (ICI) customers in 2023/24. The P2 team responded to numerous spills and other non-compliant discharges into wastewater and stormwater systems. These discharges ranged from construction site dewatering to wastewater-to-stormwater cross-connections. The team successfully identified and resolved seven of these cross-connections in the past year. Construction dewatering cases have increased by 150% over last year. The P2 team also worked with HRM on improving the water quality at First Lake in Halifax by helping identify and rectify sources of quality impairment originating from the wastewater system.



# Safety Update

Continuous improvement remains at the core of Halifax Water’s Safety Program in 2023/24. The restructured Joint Occupational Health and Safety Committee (JOHSC) and the new Safety Excellence Committee (SEC) function well. Monthly Operational Safety Meetings, co-led by Managers and Designated Safety Representatives, help raise knowledge and awareness of safety incidents and JOHSC / SEC activities across the organization. Another accomplishment through a collaboration with CUPE National was Halifax’s Water First Safety Training Symposium.

A gap analysis and preliminary work were completed as part of transitioning from the

current Operational Health and Safety (OHS) Manual to a structured Safety Management System (SMS—ISO 45001). This will continue in collaboration with the EMS ISO 14001 Program for the next few years.

The reporting and tracking of Near Miss (NM) incidents have increased and the lessons learned from these incidents are now being applied to assist in mitigating future risks before there is the potential for injuries. In 2023/24, there were 97 NM incidents, which has been the best result in reporting NMs. Our Lost Time Injury Frequency Rate was 2.38 and was below the target established in Halifax Water’s Corporate Balance Scorecard. For Reference see page 75.



# Cogswell District Energy System



NSURB approved the Cogswell District Energy System (DES) in 2023. With this approval, Halifax Water can move forward using thermal energy recovered from effluent at the Halifax WWTF to provide heating and cooling services to new buildings proposed for the Cogswell redevelopment area.

This project aligns with Halifax Water's purpose, vision, and environmental objectives. It will significantly contribute to the goals of HALIFAX's "HalifACT 2050" initiative, providing long-term GHG emission reductions within the downtown core.

Over the past year, considerable progress has been made in the development of the district energy system. Most of the distribution piping system has been installed, with installation on track for completion in late 2024. Additionally, Halifax Water completed and received approval of its interim cost of service manual. Significant pre-design work has also been completed for the Energy Centre, with detailed design expected to start in 2025.

To date, the following milestones have been achieved for the DES:

- Completed an initial feasibility study for the DES



- Completed the detailed design of the linear infrastructure
- Developed a financial model and business case analysis for the new utility
- Evaluated the business case based on several operating and ownership scenarios
- Conducted a by-law review of other Canadian jurisdictions implementing similar district energy utilities
- Assisted HALIFAX in making charter changes to allow district energy within the municipality
- Supported the enactment of By-Law D-500, Respecting District Energy
- Secured project funding through the Investing in Canada Infrastructure Program
- Created a detailed DES information package for stakeholders and developers
- Received approval from the NSUARB for related capital expenditures and establishing a regulated district energy utility service within Halifax Water
- Finalized a cost-sharing agreement for the DES distribution piping system with HALIFAX

to operation including:

- Complete detailed designs and construct the remaining DES infrastructure, including the DES and the Energy Transfer Stations (Establishment of the final DES regulations.
- Design of rate structure



The following DES activities will be required prior





## Financial Overview

Halifax Water received a clean audit opinion on the financial statements for the fiscal year ended March 31, 2024. The financial statements are presented in accordance with International Financial Reporting Standards (IFRS). Halifax Water also produces financial information in the format required by the NSUARB) in accordance with its Water Utility Accounting and Reporting Handbook (Handbook).

The financial statements prepared under IFRS are used primarily for consolidation with the HALIFAX's financial statements. In contrast, the financial information prepared under the

Handbook is used for setting water, wastewater and stormwater rates.

Summary financial information is presented on the next pages.

The financial statements contain the independent auditor's report issued by Grant Thornton LLP, IFRS statements and schedules containing financial information prepared in accordance with the Handbook. The audited financial statements can be located at [halifaxwater.ca/publications-reports](https://halifaxwater.ca/publications-reports)

## Financial & Regulatory Accountability



### Summarized Statement of Earnings Comparison to Budget (Handbook)

	2023/24	2023/24	2022/23	Budget/Actual	Budget/Actual	Actual/Actual	Actual/Actual
	'000	'000	'000	\$ Variance	% Variance	\$ Change	% Change
Operating revenues	\$168,897	\$171,979	\$155,089	\$3,082	1.8%	\$16,890	10.9%
Operating expenditures	135,956	143,324	128,038	7,368	5.4%	15,286	11.9%
Earnings from operations	32,941	28,655	27,051	(4,286)	(13.0%)	1,604	5.9%
Financial and other revenues	990	900	1,352	(90)	(9.1%)	(452)	(33.4%)
Financial and other expenditures	36,247	36,934	36,163	687	1.9%	771	2.1%
Loss for the year	\$(2,316)	\$(7,379)	\$(7,760)	\$(5,063)	218.6%	381	(4.9%)

The key differences between the IFRS and Handbook financial statements are related to reporting requirements for the recognition of various expenditures as follows:

- The re-measurement of the defined benefit plans is not considered an expense for the Handbook and could result in either positive or negative impacts on income;
- Principal payments on long-term debt are an expense for the Handbook but not under IFRS;
- Depreciation expense on contributed assets is not an expense for the Handbook for water and wastewater assets. For stormwater assets, 25% of depreciation on contributed assets is included for the Handbook;
- Amortization of contributed capital is not considered revenue under the Handbook; and,
- Various depreciation adjustments, including the add-back of losses on the disposal of utility plant in service, componentization of assets and shorter useful lives, results in higher depreciation under IFRS than under the Handbook.

### Reconciliation IFRS to Handbook Results

	2023/24	2022/23
	'000	'000
IFRS comprehensive earnings	\$20,203	\$46,951
Add non-cash pension expense	3,012	6,851
Subtract debt principal payments	(22,604)	(22,379)
Add depreciation expense on contributed assets	18,997	18,793
Subtract amortization of contributed capital	(18,997)	(18,793)
Add various depreciation adjustments	755	1,243
Subtract other comprehensive income gain	(8,745)	(40,426)
NSUARB Loss	\$(7,379)	\$(7,760)



Under IFRS, the comprehensive earnings are \$20.2M. After the adjustments described above, the loss for the year under the Handbook is \$7.4M. From a budget perspective, the loss was more due to operating expenditures being higher than budget in areas such as electricity, chemicals, contract services and salaries and benefits.

Water services loss of \$6.0M was \$2.9M higher than the prior year loss and \$4.2M more than budget. The primary difference from the prior year was an increase in operating costs for chemicals and electricity relating to price and usage increases, contract services, and an increase in salaries and benefits due to new positions and overtime. The increases in expenditures were offset by an increase in revenues resulting from rate and consumption increases.

Wastewater services loss of \$0.1M is less than the prior year loss by \$1.6M and \$0.2M lower than budget. The primary difference from the prior year was an increase in operating costs for chemicals and electricity relating to price and usage increases, and an increase in biosolids treatment costs. The increases in expenditures were offset by an increase in revenues resulting from rate and consumption increases.

Stormwater services loss of \$1.3M decreased from the prior year loss by \$1.7M and was \$0.7M more than budget. Operating revenues increased more than operating expenditures due to boundary expansion and higher rates. Expenditures increased due to higher contract services and traffic control relating to an increase in ditching work.

### Operating Results by Service (Handbook)

	Budget	Actual	Actual	2023/24	2023/24	Actual/Actual	Actual/Actual
	2023/24	2023/24	2022/23	Budget/Actual	Budget/Actual	Actual/Actual	Actual/Actual
	'000	'000	'000	\$ Variance	% Variance	\$ Change	% Change
Water	\$(1,715)	\$(5,960)	\$(3,069)	\$(4,245)	247.5%	\$(2,891)	94.2%
Wastewater	70	(88)	(1,676)	(158)	(225.7%)	1,588	(94.7%)
Stormwater	(671)	(1,331)	(3,015)	(660)	98.4%	1,684	(55.9%)
Loss	\$(2,316)	\$(7,379)	\$(7,760)	\$(5,063)	218.6%	\$381	(4.9%)

## REVENUE

Operating revenues increased from the prior year by \$16.9M. Consumption increased by 0.9% on a volumetric basis resulting in an increase in consumption revenue. Base charge revenue increased slightly due to new customers and rate increases. Overall, the main contributing factor to the increase in operating revenues was the approval of rate increases for water consumption and wastewater discharge effective April 1, 2023. Water rates increased from \$1.017 per cubic meter effective December 1, 2022 to \$1.128 per cubic meter and wastewater rates increased from \$2.189 per cubic meter effective December

1, 2022 to \$2.259 per cubic meter. Stormwater rates also increased effective April 1, 2023, contributing to the overall increase in operating revenues. Stormwater site generated charge revenue is \$1.7M more than the prior year due to the rate increases and the stormwater boundary expansion which also contributed to the \$2.0M increase in the stormwater right of way revenue.

The wastewater rebate, which is available to certain large customers whose wastewater is a lower proportion of their consumed water, increased \$0.5M from the prior year.

### Operating Revenues

	Budget 2023/24 '000	Actual 2023/24 '000	Actual 2022/23 '000	2023/24 Budget/Actual \$ Variance	2023/24 Budget/Actual %Variance	Actual/Actual \$ Change	Actual/Actual % Change
<b>Consumption revenue</b>	<b>\$108,392</b>	<b>\$111,933</b>	\$99,288	\$3,541	3.3%	\$12,645	12.7%
<b>Base charge revenue</b>	<b>34,356</b>	<b>34,516</b>	33,967	160	0.5%	549	1.6%
<b>Wastewater rebate</b>	<b>(1,629)</b>	<b>(1,999)</b>	(1,532)	(370)	22.7%	(467)	30.5%
<b>Metered sales total</b>	<b>141,119</b>	<b>144,450</b>	131,723	3,331	2.4%	12,727	9.7%
<b>Stormwater site generated charge</b>	<b>8,873</b>	<b>8,676</b>	6,927	(197)	(2.2%)	1,749	25.2%
<b>Stormwater right of way</b>	<b>6,515</b>	<b>6,520</b>	4,475	5	0.1%	2,045	45.7%
<b>Public fire protection</b>	<b>8,083</b>	<b>8,083</b>	7,744	-	0.0%	339	4.4%
<b>Private fire protection</b>	<b>1,652</b>	<b>1,698</b>	1,398	46	2.8%	300	21.5%
<b>Other operating revenue</b>	<b>2,655</b>	<b>2,552</b>	2,822	(103)	(3.9%)	(270)	(9.6%)
<b>Operating revenue total</b>	<b>\$168,897</b>	<b>\$171,979</b>	\$155,089	3,082	1.8%	\$16,890	10.9%

## EXPENDITURES

### Operating Expenditures

Operating expenditures for 2023/24 are \$143.3M, an increase of \$15.3M or 11.9% compared to the prior year. The drivers of the increase include depreciation and amortization expense, chemical and electricity costs due to usage and price increases, contract services and traffic control costs, and salaries and benefits related to new positions and overtime.



### Operating Expenditures

	Budget 2023/24 '000	Actual 2023/24 '000	Actual 2022/23 '000	2023/24 Budget/Actual \$ Variance	2023/24 Budget/Actual % Variance	Actual/Actual \$ Change	Actual/Actual % Change
Water supply and treatment	\$ 12,621	\$ 14,786	\$ 11,646	\$ 2,165	17.2%	\$ 3,140	27.0%
Water transmission and distribution	13,203	13,768	11,757	565	4.3%	2,011	17.1%
Wastewater collection	13,554	14,554	13,691	1,000	7.4%	863	6.3%
Stormwater collection	5,382	5,755	4,719	373	6.9%	1,036	22.0%
Wastewater treatment	25,065	24,782	23,420	(283)	(1.1%)	1,362	5.8%
Engineering and technology services	14,009	16,053	13,677	2,044	14.6%	2,376	17.4%
Regulatory services	5,060	5,532	4,434	472	9.3%	1,098	24.8%
Customer services	4,526	4,631	4,447	105	2.3%	184	4.1%
Corporate services	3,655	3,114	3,075	(541)	(14.8%)	39	1.3%
Administration services	6,197	6,263	5,578	66	1.1%	685	12.3%
Depreciation and amortization	32,684	34,086	31,594	1,402	4.3%	2,492	7.9%
<b>Operating expenditures total</b>	<b>\$ 135,956</b>	<b>\$ 143,324</b>	\$ 128,038	7,068	<b>5.4%</b>	\$ 15,286	11.9%

### Financial and Other Expenditures

Reported financial and other expenditures totaled \$36.9M in 2023/24, an increase of \$0.8M or 2.1% compared to the prior year. The increase relates to increasing interest rates for long-term debt and long-term debt repayments.

### Financial and other expenditures

	Budget 2023/24 '000	Actual 2023/24 '000	Actual 2022/23 '000	2023/24 Budget/ Actual \$ Variance	2023/24 Budget/ Actual % Variance	Actual/ Actual \$ Change	Actual/ Actual % Change
Interest	\$ 39	\$ 103	\$ 53	\$ 64	164.1%	\$ 50	94.3%
Interest on long term debt	7,051	7,276	6,851	225	3.2%	425	6.2%
Repayment on long term debt	22,191	22,604	22,379	413	1.9%	225	1.0%
Amortization of debt discount	202	222	227	20	9.9%	(5)	(2.2%)
Dividend/grant in lieu of taxes	6,589	6,589	6,524	-	0.0%	65	1.0%
Other	175	132	129	(43)	(24.6%)	3	2.3%
<b>Financial and other expenditures total</b>	<b>\$ 36,247</b>	<b>\$ 36,926</b>	\$ 36,163	\$ 679	1.9%	\$ 763	2.1%

## Financial and Other Revenues

Reported financial and other revenues totaled \$0.9M in 2023/24, a decrease of \$0.5M or 33.4% compared to the prior year. The decrease relates to a prior year one-time revenue generating wastewater treatment contract with a visiting marine vessel.

### Financial and other revenues

	Budget 2023/24	Actual 2023/24	Actual 2022/23	2023/24 Budget/ Actual	2023/24 Budget/ Actual	Actual/ Actual	Actual/ Actual
	'000	'000	'000	\$ Variance	% Variance	\$ Change	% Change
Interest	\$ 363	\$ 412	\$ 482	\$ 49	13.50%	\$ (70)	(14.5%)
Other	627	488	870	(139)	(22.17%)	(382)	(43.9%)
Financial and other revenues total	\$ 990	\$ 900	\$ 1,352	\$ (90)	(9.1%)	\$ (452)	(33.4%)

## Regulated Activities

Activities regulated by the NSUARB show a loss of \$7.8M, representing an decrease of \$0.7M compared to the prior year loss.

## Unregulated Activities

Earnings from unregulated activities decreased by \$0.4M from the prior year due to a prior year one-time revenue generating wastewater treatment contract with a visiting marine vessel.

### Results by Activity

	Budget 2023/24	Actual 2023/24	Actual 2022/23	2023/24 Budget/ Actual	2023/24 Budget/ Actual	Actual/ Actual	Actual/ Actual
	'000	'000	'000	\$ Variance	% Variance	\$ Change	% Change
Regulated activities	\$ (2,790)	\$ (7,810)	\$ (8,554)	\$ (5,020)	179.9%	\$ 744	(8.7%)
Unregulated activities	474	431	794	(43)	(9.1%)	(363)	(45.7%)
Loss	\$ (2,316)	\$ (7,379)	\$ (7,760)	\$ (5,063)	(38.05%)	\$ 381	(4.9%)



## Assets

### Cash and cash equivalents

Cash and cash equivalents balance of \$44.0M is slightly lower than the prior year but remains healthy.

The liquidity on the balance sheet (ratio of current assets divided by current liabilities) is 1.16 (per NSUARB Handbook reporting).

### 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
All other projects:	
Water	11,320
Wastewater	11,211
Stormwater	1,738
Corporate	6,685
	30,954
Total additions	\$ 63,877

## Liabilities

### Debt

Debt continues to be an important funding source for Halifax Water's capital program. Total long-term debt is \$236.5M. New debt of \$40.0M was received in fiscal 2023/24, and repayments during the year were \$21.7M.

The debt service ratio of 17.50% is well below the maximum 35.00% ratio allowed under the blanket guarantee agreement with HALIFAX.

## Utility Plant in Service

Utility plant in services assets, net of accumulated depreciation, are \$1,297.9M and is \$4.6M or 0.4% lower than last year. Total of new assets capitalized in the fiscal year were \$63.9M. At the end of the fiscal year, there was \$114.4M in capital work in progress, compared to \$79.4M last year.

### Capital Work in Progress

	Cumulative '000
Chain Control Transmission Peninsula	\$ 8,812
Cowie Hill Reservoir	8,138
Burnside Drive Watermain Extension	5,172
South Park/Cathedral Lane Sewer Separation	5,022
William's Lake Pump Station	3,915
	31,059
All other projects:	
Water	19,975
Wastewater	25,966
Stormwater	9,727
Corporate	27,647
	83,315
Capital work in progress	\$ 114,374





# Audited Financial Statements

## ABBREVIATED FINANCIAL OVERVIEW (IFRS)

### FINANCIAL OVERVIEW

#### Abbreviated Financial Overview (IFRS)

	March 31, 2024	March 31, 2023		
	'000	'000	\$ Change	% Change
<b>ASSETS</b>				
Current				
Cash and cash equivalents	\$ 44,021	\$ 44,596	\$ (575)	(1.3%)
Receivables	42,505	39,042	3,463	8.9%
Inventory and prepaids	4,099	4,799	(700)	(14.6%)
<b>Total current assets</b>	<b>\$ 90,625</b>	<b>\$ 88,437</b>	<b>\$ 2,188</b>	<b>2.5%</b>
Utility plant in services				
Cost	1,729,357	1,682,380	46,977	2.8%
Accumulated depreciation	(431,415)	(379,866)	(51,549)	13.6%
Net utility plant in service	1,297,942	1,302,514	(4,572)	(0.4%)
Intangible assets	35,989	22,807	13,182	57.8%
Capital work in progress	114,374	79,447	34,927	44.0%
<b>Total non-current assets</b>	<b>1,448,305</b>	<b>1,404,768</b>	<b>43,537</b>	<b>3.1%</b>
Regulatory deferral account	2,044	2,236	(192)	(8.6%)
<b>Total assets and regulatory deferral account</b>	<b>\$ 1,540,974</b>	<b>\$ 1,495,441</b>	<b>\$ 45,533</b>	<b>3.0%</b>
<b>LIABILITIES AND EQUITY</b>				
Payables, deposits and unearned revenue	\$ 38,333	\$ 34,331	\$ 4,002	11.7%
Long term debt	236,454	218,451	18,003	8.2%
Deferred contributed capital	947,308	938,258	9,050	1.0%
Employee benefit obligations	2,353	8,078	(5,725)	(70.9%)
<b>Total liabilities</b>	<b>1,224,448</b>	<b>1,199,118</b>	<b>25,330</b>	<b>2.1%</b>
<b>Total equity</b>	<b>316,526</b>	<b>296,323</b>	<b>20,203</b>	<b>6.8%</b>
<b>Total liabilities and equity</b>	<b>\$ 1,540,974</b>	<b>\$ 1,495,441</b>	<b>\$ 45,533</b>	<b>3.0%</b>
	<b>2024</b>	2023		
	<b>'000</b>	'000	\$ Change	% Change
<b>EARNINGS AND COMPREHENSIVE EARNINGS</b>				
Operating revenues	\$ 171,979	\$ 155,089	\$ 16,890	10.9%
Operating expenditures (excluding depreciation and amortization)	(112,250)	(103,295)	(8,955)	8.7%
Depreciation and amortization	(53,654)	(51,438)	(2,216)	4.3%
Loss from operations	6,075	356	5,719	1606.5%
Financial and other revenues	19,897	20,145	(248)	(1.2%)
Financial and other expenditures	(14,322)	(13,784)	(538)	3.9%
Earnings for the year	11,650	6,717	4,933	73.4%
Regulatory deferral account depreciation	(192)	(192)	0	0.0%
Re-measurement on defined benefits plans	8,745	40,426	(31,681)	(78.4%)
<b>Total comprehensive earnings for the year</b>	<b>\$ 20,203</b>	<b>\$ 46,951</b>	<b>\$ (26,748)</b>	<b>(57.0%)</b>

## ABBREVIATED FINANCIAL OVERVIEW (HANDBOOK)

### FINANCIAL OVERVIEW

#### Abbreviated Financial Overview (Handbook)

	March 31, 2024	March 31, 2023		
	'000	'000	\$ Change	% Change
<b>ASSETS</b>				
Current				
Cash and cash equivalents	\$ 44,021	\$ 44,596	\$ (575)	-1.3%
Receivables	42,505	39,042	3,463	8.9%
Inventory and prepaids	4,099	4,799	(700)	-14.6%
<b>Total current assets</b>	<b>\$ 90,625</b>	<b>88,437</b>	<b>\$ 2,188</b>	<b>2.5%</b>
Utility plant in services				
Cost	2,067,939	2,004,775	63,164	3.2%
Accumulated depreciation	(693,275)	(640,962)	(52,313)	8.2%
Net utility plant in service	1,374,664	1,363,813	10,851	0.8%
Capital work in progress	114,374	79,447	34,927	44.0%
<b>Total non-current assets</b>	<b>1,489,038</b>	<b>1,443,260</b>	<b>45,778</b>	<b>3.2%</b>
Regulatory deferral account	2,044	2,236	(192)	-8.6%
<b>Total assets and regulatory deferral account</b>	<b>\$ 1,581,707</b>	<b>\$ 1,533,933</b>	<b>\$ 47,774</b>	<b>3.1%</b>
<b>LIABILITIES AND EQUITY</b>				
Payables, deposits and unearned revenue	\$ 38,333	\$ 34,331	\$ 4,002	11.7%
Long term debt	236,454	218,451	18,003	8.2%
Deferred contributions	97,673	94,210	3,463	3.7%
<b>Total liabilities</b>	<b>372,460</b>	<b>346,992</b>	<b>25,468</b>	<b>7.3%</b>
<b>Total equity</b>	<b>1,209,247</b>	<b>1,186,941</b>	<b>22,306</b>	<b>1.9%</b>
<b>Total liabilities and equity</b>	<b>\$ 1,581,707</b>	<b>\$ 1,533,933</b>	<b>\$ 47,774</b>	<b>3.1%</b>
	<b>2024</b>	2023		
	<b>'000</b>	'000	\$ Change	% Change
<b>SUMMARIZED STATEMENT OF EARNINGS</b>				
Operating revenues	\$ 171,979	\$ 155,089	\$ 16,890	10.9%
Operating expenditure (excluding depreciation and amortization)	(109,238)	(96,444)	(12,794)	13.3%
Dividend/grant in lieu of taxes	(6,589)	(6,524)	(65)	1.0%
Depreciation and amortization	(34,086)	(31,594)	(2,492)	7.9%
Earnings from operations	22,066	20,527	1,539	7.5%
Financial and other revenues	900	1,352	(452)	-33.4%
Financial and other expenditures	(30,345)	(29,639)	(706)	2.4%
<b>Loss for the year</b>	<b>\$ (7,379)</b>	<b>\$ (7,760)</b>	<b>\$ 381</b>	<b>-4.9%</b>



# Cost Containment

Cost containment continues to be a focus for Halifax Water and contributes to our ability to maintain affordable rates.

The process for cost containment 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.

A formal cost containment program has been in place since 2013 and initiatives from fiscal 2013/14 to 2023/24 resulted in total annual savings of \$5.6M.

Cost containment initiatives have had the most significant impact in the areas of Human Resources, Facilities/Process Strategies, and Procurement Strategies. The pension plan re-design initiated in 2015/16 is one of the main contributors to cost containment savings. Annual

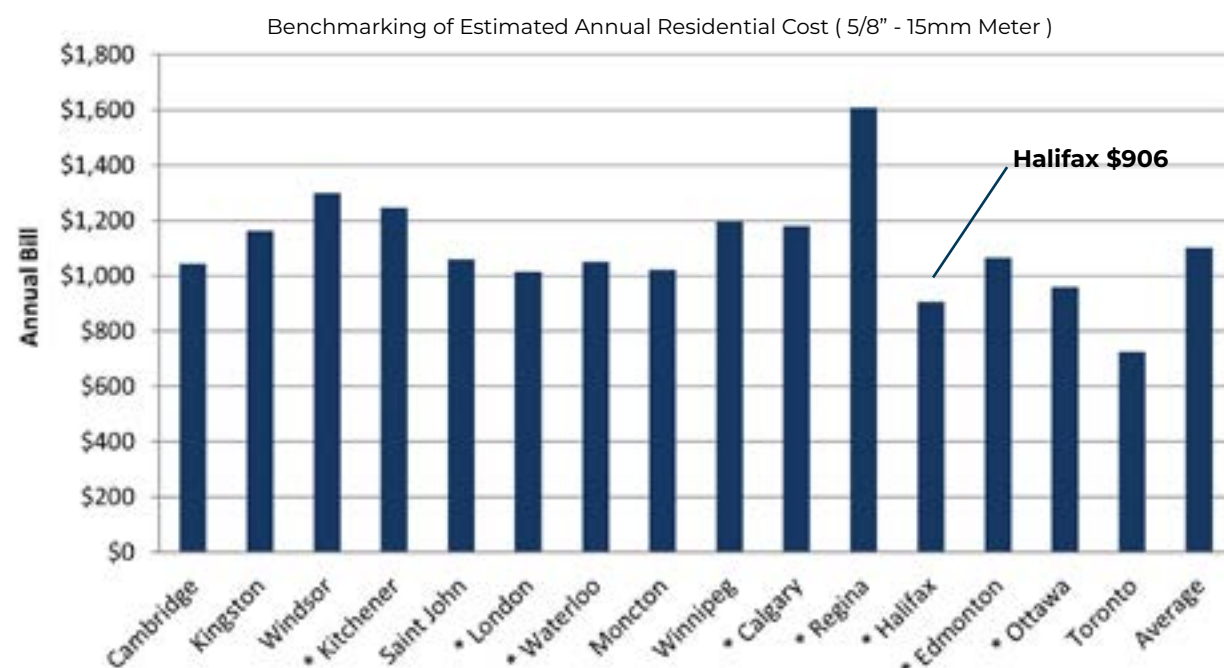
savings related to pension plan re-design are approximately \$1.7M.

Facilities/Process Strategies initiatives vary; and Halifax Water's Energy Efficiency Program is a significant contributor. Projects under this program represent savings of approximately \$1.6 million for 2023/24 and include energy savings programs such as:

- The renewable natural gas (RNG) utilized at the Mill Cove and Timberlea Wastewater Treatment Facilities (WWTFs) (\$0.4M).
- The annual shutdown of the ultraviolet disinfection systems at the Harbour Solutions and Eastern Passage WWFT (\$0.3M).
- Heat recovery processes at the Harbour Solutions WWTFs (\$0.1M).
- Lighting upgrades at various other facilities.

In addition, there were new one-time and ongoing cost saving items of \$0.4M in Facilities/Process Strategies.

## Benchmarking of Estimated Annual Residential Cost



\* Includes Water, Wastewater and Stormwater; all others are Water and Wastewater only (Toronto is Water only)





# Pension Plan Actuarial Valuation & Financial Position

All Halifax Water employees are members of one of two defined benefit pension plans.

Employees that transferred from the Halifax Regional Municipality (HRM), of which 43 remain, are members of the HRM Pension Plan. Halifax Water is obligated to make contributions for these employees' service to the HRM Pension Plan.

For all other employees, Halifax Water maintains the Halifax Regional Water Commission Employees' Pension Plan (HRWC Employees' Pension Plan). The financial results of the pension plan are audited each year at December 31st. Abbreviated results of the audited financial statements are shown below:

Statement of Financial Position	December 31, 2023 '000	December 31, 2022 '000
Assets	\$ 191,209	\$ 175,240
Liabilities	(164,295)	(154,048)
Surplus	\$ 26,914	\$ 21,192
Surplus %	116.4%	113.8%

The Plan's funded ratio has increased from 113.8% to 116.4% since December 31, 2022, but still recording a decrease from the last actuarial valuation at January 1, 2022. The decrease is primarily related to volatile market conditions throughout 2022 resulting in, lower than expected gains on investments. The markets started to show some recovery in late 2022 and have continued to show favourable returns throughout 2023, which contributed to the

increase in the funded ratio.

In 2023, the net assets available for benefits increased to \$191.2M from \$175.2M in 2022. The increase was mainly due to revenue and contributions flowing into the plan amounting to more than the benefit payments and expenses coming out of the plan throughout the year. Abbreviated statement of changes in net assets available for benefits is shown below:

## Net Assets Available for Benefits at the Year ended December 31

	2023	2022
	'000	'000
Revenue	\$ 15,239	\$ 155
Contributions	7,973	6,653
Expenses	7,243	6,204
<b>Increase in net assets available for benefits</b>	<b>\$ 15,969</b>	<b>\$ 604</b>

The financial statements for the HRWC Employees' Pension Plan are audited by Grant Thornton LLP and can be located at [halifaxwater.ca/publications-reports](https://halifaxwater.ca/publications-reports). The financial statements contain the independent auditor's report issued by Grant Thornton LLP.



# Cogswell Redevelopment Update

The Cogswell District Project (CDP) is a municipal-led initiative designed to connect downtown with the north end and waterfront, creating a stronger, more inclusive network of communities. The project is entering its fourth year of construction. Phase II of construction is now underway. Additional temporary roads have been constructed to facilitate north-south bound traffic through the site. Albemarle Street infrastructure has been completed and reopened to flow through traffic in June 2024. New water, wastewater, stormwater and district energy (DES) mains are being installed along the new Barrington Street as they remove the overpasses and ramps.

The Nova Scotia Utility and Review Board approved \$19,500,000 for the CDP Water, Wastewater & Stormwater infrastructure. The CDP has an overall estimated cost of approximately \$122.6M and is expected to span fiscal years 2021-22 to 2025-26. HALIFAX have finalized a cost-sharing arrangement for our customers.





# Regional Development Charge Stakeholder Engagement

Halifax Water oversees the development and collection of water and wastewater Regional Development Charges (RDCs). These fund upgrades to regional water and wastewater systems to facilitate projected population growth in the servicing boundary. The Regional Development Charge program is cost-neutral and provides central services for the projected growth of HALIFAX.

The table below shows the cumulative accounting of all RDC received and invested in infrastructure at the end of the fiscal year on March 31, 2024.

## Collections and Expenditures

Regional Development Charge (RDC)	Regional Development Charges Collected	Interest	Merchant Fees	RDC Funds Invested in Infrastructure	Remaining RDC Funds available for Future Investment in Infrastructure
<b>Water</b>	\$16,202,966	\$362,332	\$70,027	\$15,836,363	\$658,908
<b>Wastewater</b>	\$119,348,998	\$4,116,583	\$216,694	\$30,877,337	\$92,371,550
<b>Grand Total</b>	\$135,551,964	\$4,478,916	\$286,721	\$46,713,700	\$93,030,458

The 2019 application to update the RDC's was approved in April 2021. The approval allows annual Consumer Price Index (CPI) adjustments, with five-year updates submitted to the NSUARB. A two-year rate freeze was mandated by the Province (Section 236A HRM Charter) and expires on November 9, 2025—any shortfalls in the RDCs resulting from the this rate freeze will be recovered in the next review from the development group and will not be subsidized by the general rate base.

Additionally, Halifax Water gained approval from the NSUARB this fiscal year to apply merchant fees against the RDC.

Halifax Water is directed to file its next RDC review application with the Board by March 31, 2025. Halifax Water is coordinating with HALIFAX to update their infrastructure requirements to support projected growth as they update the Regional Plan.



# Drinking Water Regulatory Compliance

Providing our customers with safe, reliable, affordable, high-quality drinking water requires investment in infrastructure, research, and robust quality assurance and quality control programs. Halifax Water has made considerable investments in all of these areas.

To optimize quality control, we maintain ISO 14001 EMS Registration at the J. D. Kline (Halifax), Lake Major (Dartmouth), Bennery Lake (Halifax Airport), WWTF and smaller community water supply plants.

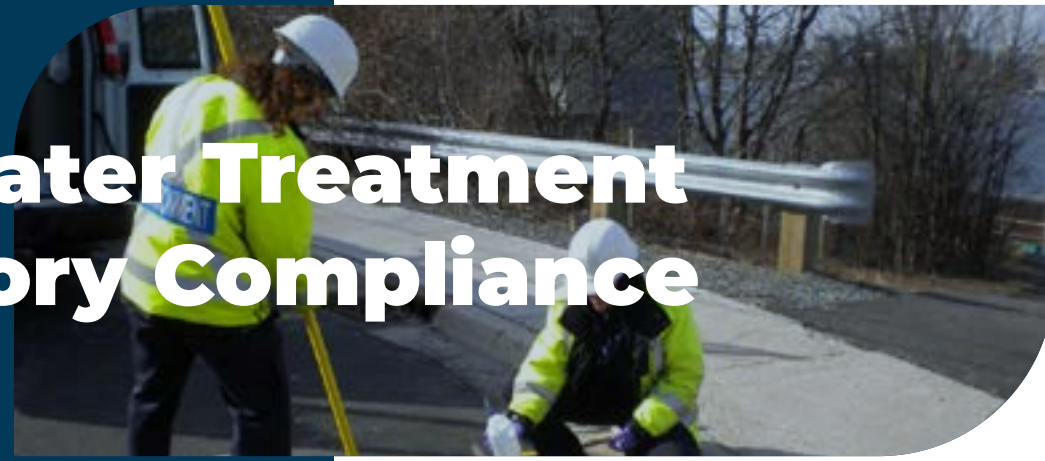
Halifax Water undertakes a comprehensive water testing program with weekly bacteriological testing at 63 locations within urban Halifax and at each of the small systems.

Over 3,300 tests are conducted each year for total coliform bacteria and E.coli. Halifax Water consistently achieves results where 99.9% of samples are absent of bacteria, as shown below:

## Drinking Water Compliance Summary

Total Coliform Sample Results April 2023 to March 2024		
Systems	% Absent	# of Samples
<b>Pockwock</b>	100.0%	1427
<b>Lake Major</b>	99.9%	1196
<b>Bennery</b>	100.0%	162
<b>Five Islands</b>	100.0%	104
<b>Silver Sands</b>	100.0%	108
<b>Middle Musquodoboit</b>	99.0%	104
<b>Collins Park</b>	100.0%	104
<b>Bomont</b>	100.0%	104
<b>Totals</b>		3309
<b>Absent</b>		<b>3305</b>
<b>Present</b>		<b>4</b>
<b>All Sites - % Absent</b>		<b>99.88%</b>

# Wastewater Treatment Regulatory Compliance



As a provider of wastewater services, Halifax Water's role is protecting the environment. This includes monitoring all wastewater system flows and ensuring that treated effluent released into the environment from facilities meets regulatory requirements outlined in our operating permits and Federal Regulations.

To optimize quality control, we maintain ISO 14001 EMS Registration at each facility.

Wastewater treatment facilities in Nova Scotia are regulated by Nova Scotia Environment and Climate Change (NSECC). They set effluent discharge limits for all wastewater facilities, outlined in each facility's Approval to Operate. The limits define specific maximum concentrations of parameters to be measured at each facility, such as Carbonaceous Biochemical Oxygen Demand (cBOD – the amount of material in water which will consume oxygen), Total Suspended Solids (TSS –the amount of particulate matter in the water), and E.Coli (the amount of bacteria present normally associated with wastewater). For some facilities, parameters such as nutrients (nitrogen and phosphorus, which cause excess growth of algae and plants) or pH (a measure of acidity) are also regulated.

Halifax Water is also regulated through Federal Regulations ( Environmental Canada and Climate Change and the Wastewater Systems Effluent Regulations (WSER)). The WSER outlines effluent discharge limits for all wastewater facilities that discharge greater than an average daily effluent volume of 100 m<sup>3</sup>. The limits define specific

maximum concentrations of TSS (25 mg/L) and cBOD (25 mg/L) to be measured at each facility, unless a Transitional Authorization has been approved. Parameters such as total chlorine and ammonia could be considered hard to fish at certain concentrations and are also regulated.

Halifax Water oversees five large Harbour WWTFs and nine smaller, Community-based WWTFs.

Compliance for the larger WWTFs is assessed based on monthly averages, and the smaller plants are assessed on a quarterly basis, and the smaller plants are assessed on a quarterly basis per each regulation (provincial and federal). North Preston and Wellington are assessed on an annual average. There continues to be an improvement in compliance at the five larger WWTFs, with Herring Cove and Eastern Passage being fully compliant for the year. Mill Cove experienced operational issues caused by heavy precipitation events in March but maintained compliance throughout the rest of the year. Dartmouth has improved in compliance compared to previous year. Operational improvements were underway at Halifax from April to November of last year and were the reason for some of the non-compliance results throughout the year. All smaller systems were compliant for the year other than Lockview-MacPherson, which experienced flow-related issues in Q1 and Q3.

## Wastewater Treatment Facility Compliance Summary

Q1 - April to June 2023									
WWTF	CBOD5	TSS	E. coli	Phosphorus	Ammonia	pH	Dissolved Oxygen	Chlorine	Toxicity Pass
Aerotech	3	1	10	0.09	0.1	7.0	7.8	N/A	YES
Frame	2	1	10	N/A	N/A	7.2	N/A	N/A	N/A
Lakeside-Timberlea	5	15	13	1	2		N/A	0.10	YES
Lockview-MacPherson	5	10	22	0.3	8.7	6.9	N/A	N/A	N/A
Middle Musquodoboit	15	9	100	N/A	N/A	7.3	N/A	N/A	N/A
North Preston	3	2	14	0.5	0.1	6.9	N/A	N/A	N/A
Springfield	4	8	16	N/A	N/A	6.8	N/A	N/A	N/A
Steeves (Wellington)	2	2	10	0.1	0.1	6.9	N/A	N/A	N/A
Uplands Park	10	11	13	N/A	N/A	6.8	N/A	N/A	N/A

Q2 - July to September 2023									
WWTF	CBOD5	TSS	E. coli	Phosphorus	Ammonia	pH	Dissolved Oxygen	Chlorine	Toxicity Pass
Aerotech	3	1	10	0.05	0.1	6.9	7.7	N/A	YES
Frame	2	1	10	N/A	N/A	6.9	N/A	N/A	N/A
Lakeside-Timberlea	4	13	20	1	1	7.1	N/A	0.10	YES
Lockview-MacPherson	6	11	34	0.6	5.3	6.5	N/A	N/A	N/A
Middle Musquodoboit	5	6	33	N/A	N/A	6.7	N/A	N/A	N/A
North Preston	2	3	10	0.4	0.1	6.7	N/A	N/A	N/A
Springfield	3	13	16	N/A	N/A	6.6	N/A	N/A	N/A
Steeves (Wellington)	2	1	10	0.1	0.1	6.8	N/A	N/A	N/A
Uplands Park	5	9	13	N/A	N/A	6.6	N/A	N/A	N/A

Q3 - October to December 2023									
WWTF	CBOD5	TSS	E. coli	Phosphorus	Ammonia	pH	Dissolved Oxygen	Chlorine	Toxicity Pass
Aerotech	3	1	10	0.04	0.1	7.2	8.1	N/A	YES
Frame	2	1	10	N/A	N/A	6.9	N/A	N/A	N/A
Lakeside-Timberlea	4	14	12	1	1	7.3	N/A	0.10	YES
Lockview-MacPherson	3	10	242	0.6	0.4	6.8	N/A	N/A	N/A
Middle Musquodoboit	5	5	25	N/A	N/A	7.0	N/A	N/A	N/A
North Preston	4	21	13	0.5	0.1	6.6	N/A	N/A	N/A
Springfield	4	14	20	N/A	N/A	6.7	N/A	N/A	N/A
Steeves (Wellington)	2	1	10	0.1	0.1	7.1	N/A	N/A	N/A
Uplands Park	7	7	111	N/A	N/A	6.8	N/A	N/A	N/A

Q4 - January to March 2024									
WWTF	CBOD5	TSS	E. coli	Phosphorus	Ammonia	pH	Dissolved Oxygen	Chlorine	Toxicity Pass
Aerotech	3	1	10	0.03	0.1	7.1	8.5	N/A	YES
Frame	2	1	10	N/A	N/A	7.0	N/A	N/A	N/A
Lakeside-Timberlea	4	15	21	1	2	6.9	N/A	0.10	YES
Lockview-MacPherson	7	7	175	0.4	1.8	6.6	N/A	N/A	N/A
Middle Musquodoboit	5	6	49	N/A	N/A	7.0	N/A	N/A	N/A
North Preston	2	4	10	0.6	0.4	6.8	N/A	N/A	N/A
Springfield	3	4	13	N/A	N/A	6.8	N/A	N/A	N/A
Steeves (Wellington)	4	2	10	0.1	0.1	7.1	N/A	N/A	N/A
Uplands Park	7	6	42	N/A	N/A	6.9	N/A	N/A	N/A

  Specific parameter limit achieved  
  Specific parameter limit not achieved

### NOTES & ACRONYMS:

CBOD - Carbonaceous 5-Day Biochemical Oxygen Demand

TSS - Total Suspended Solids

TRC - Total Residual Chlorine

S / W - Summer / Winter compliance limits

Toxic may indicate only a single sample

NSECC requires monthly averages be less than the NSECC Compliance Limit for each parameter at Dartmouth, Eastern 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,

Belmont, Frame, BLT, Uplands, Springfield

NSECC requires an annual average be less than the NSECC Compliance Limit for each parameter at North Preston, Steeve

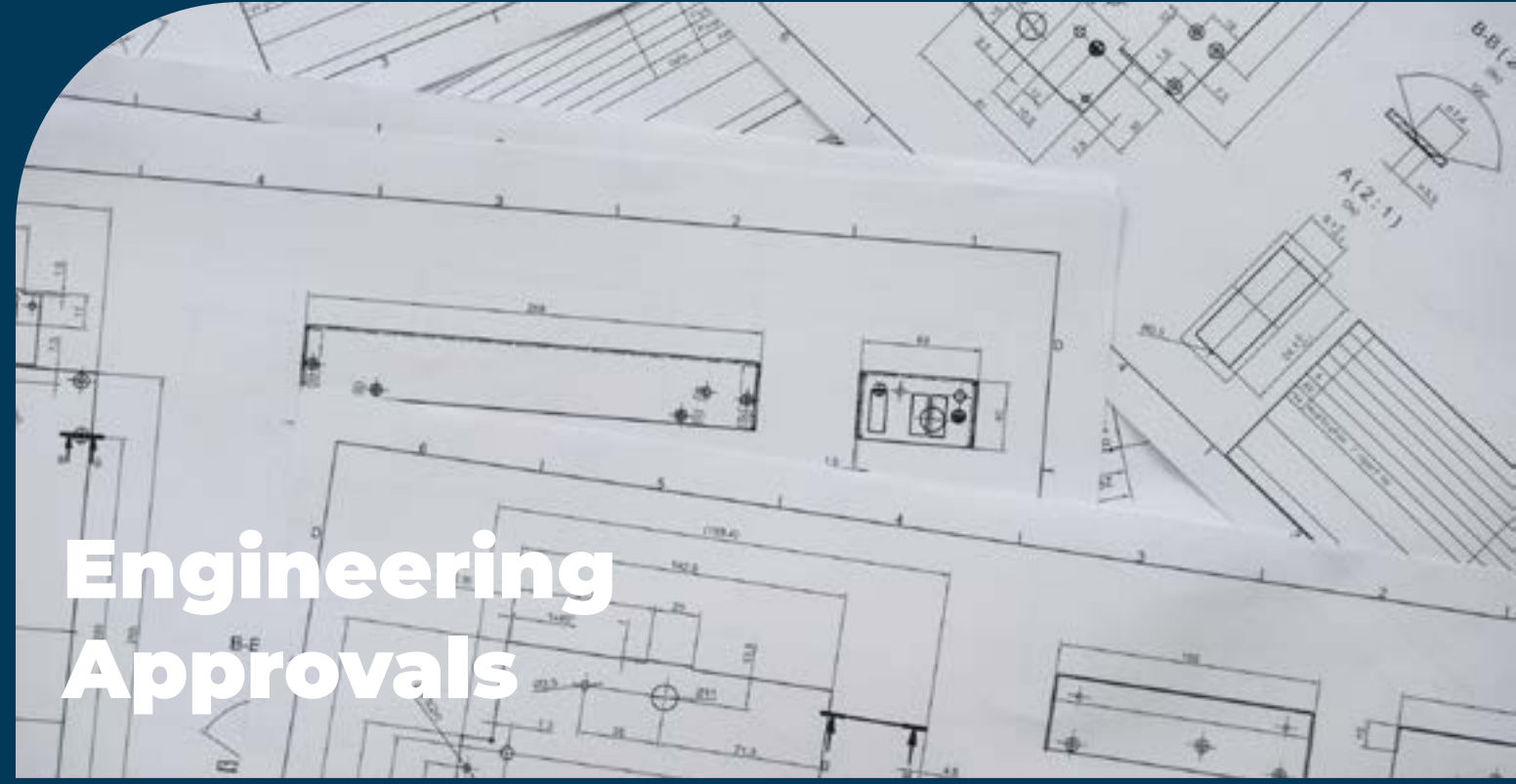


Wastewater Treatment Facility Compliance Summary

April 2023 to March 2024

WWTF	23-Apr					23-May					23-Jun				
	CBOD5	TSS	E.Coli	pH	Toxicity Pass	CBOD5	TSS	E.Coli	pH	Toxicity Pass	CBOD5	TSS	E.Coli	pH	Toxicity Pass
Halifax	65	74	0*	7	YES	58	56	72,779	7	YES	44	46	18,696	7.0	YES
Herring Cove	25	17	0*	6.8	N/A	24	16	20	6.7	YES	23	17	23	7.0	N/A
Dartmouth	51	28	0*	6.7	YES	50	17	105	6.8	YES	39	14	21	6.8	YES
Eastern Pas-sage	8	10	0*	7.1	N/A	7	8	38	7.2	YES	8	10	73	7.1	N/A
Mill Cove	15	15	14	6.7	N/A	13	15	12	6.6	YES	9	6	23	6.6	N/A
	23-Jul					23-Aug					23-Sep				
Halifax	27	17	3,528	6.7	YES	24	14	2,908	6.9	YES	46	52	40,124	7.0	YES
Herring Cove	27	18	14	6.9	N/A	16	12	15	6.9	YES	18	13	48	7.1	N/A
Dartmouth	29	20	73	6.8	YES	28	21	190	6.7	YES	30	11	116	6.8	YES
Eastern Pas-sage	4	5	18	7	N/A	4	5	28	6.6	YES	6	8	54	6.9	N/A
Mill Cove	8	7	11	6.7	N/A	5	5	18	6.6	YES	13	16	10	6.5	N/A
	23-Oct					23-Nov					23-Dec				
Halifax	62	61	22,448	6.9	YES	48	45	N/A	6.9	YES	51	69	N/A	6.8	YES
Herring Cove	18	11	33	7	N/A	19	11	N/A	6.9	YES	14	8	11	6.6	N/A
Dartmouth	39	17	164	6.8	YES	46	45	N/A	6.8	YES	38	30	N/A	6.7	YES
Eastern Pas-sage	6	6	79	7.2	N/A	4	5	N/A	7.2	YES	9	6	N/A	6.9	N/A
Mill Cove	14	15	86	6.4	N/A	16	15	28	6.5	YES	15	17	34	6.6	N/A
	24-Jan					24-Feb					24-Mar				
Halifax	46	51	N/A	6.8	YES	30	21	N/A	6.8	YES	29	28	N/A	6.8	YES
Herring Cove	31	30	N/A	6.8	N/A	20	12	N/A	6.8	YES	15	12	N/A	6.7	N/A
Dartmouth	37	21	N/A	6.8	YES	46	35	N/A	6.7	YES	35	37	N/A	6.7	YES
Eastern Pas-sage	8	6	N/A	6.9	N/A	14	14	N/A	6.8	YES	12	11	N/A	6.7	N/A
Mill Cove	16	20	13	6.7	N/A	18	18	19	6.6	YES	27	45	67	6.7	N/A

Compliance Achieved (< NSE Limit)  
 Compliance not Achieved (> NSE Limit)



# Engineering Approvals

The Engineering Approvals group is focused on adhering to the Halifax Water Design Specifications, the Supplementary Standard Specification, and the Schedule of Rates, Rules and Regulations regarding connections to and expansions of the Halifax Water systems. The administration of the new service connections includes the administration of the Regional Development Charge.

In 2023/24, the Engineering Approvals group processed:

Application Type	2023/2024	2022/2023	2021/2022
Water Permit Reviews	4731	4402	3538
Water Permit Approvals	866	900	1223
Subdivision Reviews	232	191	166
Metres of New Water Main	3095	4861	3185
Metres of New Wastewater Main	2435	4694	4037
Metres of New Stormwater Main	2470	6562	3247
Demolition Permit Reviews	137	155	154
Clearance Letters	33	28	30
Tender Reviews	70	88	85
New Backflow Prevention Applications	168	107	115
Backflow Prevention Devices Active	6361	5993	5812





# People

# Diversity, Equity & Inclusion

Diversity, Equity, and Inclusion (DEI) continues to be a strategic priority at Halifax Water as we create and promote a workplace culture representative of the communities in which we live and work.

During this past fiscal year, we successfully rolled out and implemented the Fair Hiring and DEI policies. Both policies demonstrate staff's ongoing commitment to ensuring that Halifax Water is an inclusive workplace.



The DEI Committee continued to expand its membership to represent all equity-seeking groups within Halifax Water better. This will be an on-going initiative to ensure the committee is well positioned to move the strategy forward.

Employees gathered in person to participate in a ceremony for National Day for Truth and Reconciliation. This was an important step for the organization to help raise awareness of the intergenerational impacts that residential schools have had on individuals, families, and communities and to promote the message that "Every Child Matters". This day honours the children who never returned home and Survivors of residential schools, as well as their families and communities. Public commemoration of the

tragic and painful history and ongoing impacts of residential schools is a vital component of the reconciliation process.

Halifax Water held virtual sessions to celebrate International Women's Day and employees were encouraged to share their personal stories. We learned about the barriers women face in the workplace, heard success stories about breaking down glass ceilings, and supported the significance and importance of empowering female leadership and ensuring women have a seat at every table. It was an important celebration for all women at Halifax Water. This year, some of Halifax Water's female employees represented the organization at the "Spotlight on Local Innovation" event, presented by the Women in Engineering Committee.

As we move into another three year implementation strategy, we look forward to continuing to stretch to meet our DEI goals.





# Talent Management

Halifax Water is committed to enhancing the overall employee experience for all current and future employees. We emphasize 'moments that matter' during the employee lifecycle, whether it is their first day as a new hire or their last day upon retirement.

There are continued concerns related to the attraction of new employees, largely due to the impacts of the Global Pandemic. We are re-aligning the People & Culture team to better serve the organization in the future and have started to generate proactive talent acquisition strategies.

The turnover rate for the 2023/2024 fiscal year was 8.03%, resignation, an overall increase from 7.74% during the previous fiscal year. This is

a combination of retirements and voluntary resignations.

The Collective Bargaining process began in 2022/23 and carried over to the new fiscal year and will continue into 2024/25, with negotiations underway.

We recognize the need to improve Halifax Water's Talent Management programs and have started building a strategy focused on retention, succession planning, employee development, and effective feedback. We are also committed to completing an analysis of the utility's compensation practices and making enhancements to the non-union performance management tool.

# One Water Excellence Awards

This year was the second year of the Halifax Water One Water Excellence Awards. In addition to our highly regarded Carolyn Bruce Excellence in Customer Service Award, we have added three additional award categories to recognize employees who have made significant contributions to Safety & Environment, True Value and Team Spirit.



# Carolyn Bruce Customer Service Excellence Award

In 2012, Halifax Water introduced a new Customer Service Excellence Award in honour and memory of Carolyn Bruce. This award was created to recognize the path that Carolyn forged for exemplary Customer Service. Carolyn was a dedicated employee of 22 years, starting out as a Customer Service Representative and moving her way up to Customer Service Supervisor. Carolyn passed away in 2011 and left a legacy of passionate, dedicated service to Halifax Water.

We continue to recognize employees who demonstrate this same passion and dedication to Customer Service. Each year, Halifax Water takes nominations from colleagues who wish to recognize their coworkers for this award. Considerations for this award include the number of times an employee is recognized for providing excellent customer service to our external customers, the breadth and depth of customer service (impact to the Utility), customer service over and above the call of duty (beyond their job requirement and a pattern of exemplary customer service over an extended period-of-time.

Following Carolyn's legacy in 2023, Halifax Water recognized Jennifer Hiscock for this excellent Customer Service and presented her with the Carolyn Bruce Customer Service

Excellence Award. Jennifer is Halifax Water's Senior Customer Care Representative and has been a long-term dedicated employee who has demonstrated an excellent work ethic. Her name was added to the perpetual plaque at 450 Cowie Hill Road, along with the others before her, as a reminder of Halifax Water employees' passion and dedication.







# Halifax Water Service Awards

Employee commitment and dedication of service means a great deal to Halifax Water and to show that appreciation Halifax Water has a long-standing tradition of recognizing employees for their length of service with the organization. Awards categories to recognize this year's service. As per Halifax Water's Service Award policy employees who are eligible will have their years of continuous service completed by the end of the calendar year in which the award was received. In addition to the service awards listed above Halifax Water also recognizes employees

with five years of continuous service.

In 2023, we recognized the following employees for reaching their service milestone! Awards categories from 5 years to 30 years were presented to employees at the 2023 Service Awards Banquet & Holiday Party held at the Westin Nova Scotian Hotel on Friday, December 15th.

## 30 YEARS OF SERVICE Engineering and Technology Services

Derek McElmon  
Stephen Skinner

## Operations

Colette Cleary  
Derrick Langille  
Murray Pictou  
Cedric Williams

## Regulatory Services

Garry Oxner

## Corporate Services

Michelle Comeau  
Peter Johnson

## 25 YEARS OF SERVICE

### Corporate Services

Corey Whalen

### Engineering and Technology Services

Reid Campbell

### Operations

Sherry Parsons

## 20 YEARS OF SERVICE

### Administration

Lorna Skinner

### Corporate Services

Brittany Pottie

### Operations

David Balcom  
Todd Connolly  
Wendell Hebert  
John Keirstead

## 15 YEARS OF SERVICE

### Corporate Services

Corey Ellis  
Donald Greer

Brad Jordan  
Gregory Prime  
Peter White

### Engineering and Technology Services

April Tucker  
Kirsta Whynot  
Blake Wright

### Human Resources

Cindy MacLean

### Operations

Martin Austin  
Marcel Cornect  
Gerald Doucette  
Paul Harder  
Emmett Leahy  
Donald MacDonald  
Glenn MacDonald  
Justin MacKinnon  
Andrew MacNab  
Stephen MacRae  
Alan O'Leary  
Joshua Purcell  
Angela Rayne  
Anthony Riley  
Sergei Shirokov  
Kristopher Shrum  
Josh Slaunwhite

## 10 YEARS OF SERVICE

### Corporate Services

Jennifer Cottreau  
Michael J. Dann

### Engineering and Technology Services

Joshua DeYoung  
Lynn Duffy  
Heather Miller  
Lee Singer

### Operations

Richard Dawson  
Richard Graham Christopher

Huggins  
Glen MacRae  
Ryan Martin  
Sean McDonnell  
Zach Rawlins  
Shawn Rowe  
David Tully  
Jeremy White

### Regulatory Services

Michael Edgar  
Melissa Healey

## 5 YEARS OF SERVICE

### Corporate Services

Rhea Hamilton  
Melissa Morash  
Melissa Morri  
Holly Singer

### Engineering and Technology Services

Emily Harker  
Brandon Fields  
Vaughn Landry  
Udenwa Nnamdi-Ijei  
Laura Selig

### Operations

Shawn Barry  
Andrew Blue  
Michael Fileccia  
Jason Gour  
Alexander Hines  
Reginald Hitchcock  
Grayson Jones  
Stephen Kerr  
Joshua Martel  
Austin Perring  
Matthew Peters  
Raymond Rice  
Jarvis Singer  
Adam Young

### Regulatory Services

Johnathan Barkhouse  
Devlyn Serrer



# Fundraising & Volunteering

Halifax Water employees take great pride in the communities we live and serve. Employees can get involved in several different fundraising events, volunteer groups and community causes throughout the year.

## United Way Halifax

Halifax Water employees have been helping support United Way Halifax for over 24 years. Halifax Water employees proudly pitched in and raised a total of \$4,873.

## Water for People

Halifax Water employees donated \$10,566 to Water for People. These funds support the digging of wells to provide clean drinking water for approximately 4 million people in nine different countries.

## Angel Tree Toy Drive

For more than ten years, it has been a tradition for Halifax Water employees to continue the Angel Tree Program to provide gifts for children in need in our community.

We provided gifts for over 100 children, from newborns to 11 years old, and thanks to the giving spirit of Halifax Water employees, they will get something special on Christmas Morning!



# Sponsorships & Donations

## Special Olympics Nova Scotia

Halifax Water fleet operators showed pride in their trucks as they volunteered to participate in the SONSTC. The Truck Convoy is a way to raise money for the Special Olympics in this province. Halifax Water was a Silver Level Sponsor of the event and was proud to have its trucks involved this year.

## Purple Ribbon Campaign

In recognition and support of The Purple Ribbon Campaign, a movement to raise awareness of violence against women, Halifax Water employees came together and donated gift cards. These gift cards were given to the women at the Transition House Association of Nova Scotia, transitional homes empowering women to get the things they need to move forward.

# H2O Fund

The H2O (Help to Others) Fund is a water, wastewater, and stormwater assistance fund that can be used by Halifax Water residential customers who are having difficulty making their bill payments.

Approved applicants will receive assistance once in a 24-month period to a maximum of \$275.00. This program is administered by the Salvation Army on behalf of Halifax Water.

Halifax Water's H2O Fund is funded by donations from Halifax Water employees throughout the year. Halifax Water matches these donations to a maximum of \$25,000 annually. This year, Halifax Water employees donated \$5,788 through payroll deductions.





## NSCC Scholarships

Halifax Water is an active supporter of the educational growth of our community through scholarships provided to the Nova Scotia Community College. Since 2008, Halifax Water has offered over \$124,000 in scholarships for NSCC students, with accompanying work-terms. The scholarships not only benefit the community and recipients, but they have also provided Halifax Water with many highly skilled and motivated employees over the years:

### ***Jipuktuk etli apatua'timk Award - \$4,000 Awarded each Fall & Spring***

Established by Halifax Water to support First Nations, Métis and Inuit students entering the Civil Engineering Technology, Environmental Engineering Technology, Electronic Engineering Technology, or Mechanical Engineering Technology Programs at NSCC.

jipuktuk etli apatua'timk is the Mi'kmaq word for harbour or port and has been used to describe Halifax Harbour by Mi'kmaq people in Nova Scotia.

### ***Arnold D. Johnson Sr. Award for Water Resources - \$3,600 Awarded each Fall***

Established by Halifax Water to support Indigenous African Nova Scotian students entering Environmental Engineering Technology or Mechanical Engineering Technology at NSCC.

Named in honour of Arnold D. Johnson Sr., who served the Preston area communities as a Halifax County Councillor and was instrumental in creating the Watershed Association Development Enterprise and the Lake Major Watershed Advisory Committee, the award recognizes the foresight and dedication of Mr. Johnson during his many years of public service and his many accomplishments.

### ***Robert T. Peacock Achievement Award - \$2,000 Awarded each Fall***

Established by Halifax to support students who self-identify as racially visible entering their second year of the Environmental Engineering Technology program at NSCC.

Included with this award is an opportunity for the successful recipient to complete their required work term with Halifax Water.

### ***Women in Non-Traditional Careers - \$2,000 Awarded each fall***

This award is open to women in non-traditional careers that are entering one of the eligible NSCC Programs listed. Included with this award is an opportunity for the successful recipient to complete their required work placement with Halifax Water and an opportunity for summer employment.

### ***Halifax Water Achievement Award - \$2,000 Awarded each Fall***

This award is open to any student enrolled full-time in the Civil Engineering Technology Program at NSCC. Included with this award is an opportunity for the successful recipient to complete their required work term with Halifax Water.



## Community Engagement Activities

Halifax Water is committed to communicating with and engaging with our stakeholders. Below is a brief summary of stakeholder and community engagement activities that took place during the 2023/24 fiscal year:

### ***Sawmill Creek Community Engagement Session***

In January 2024, Halifax Water, in partnership with HALIFAX, hosted public engagement sessions with property owners and residents in the Downtown Dartmouth district at the Findlay Community Centre. These informal walk-in sessions included information boards, allowing community members to walk through and learn more about the project and speak with representatives from Halifax Water and HALIFAX.

### ***Stormwater Service Expansion***

In April 2023, Halifax Water offered an online public information session on stormwater

services for customers within the expanded stormwater service areas.

### ***RDC & Development***

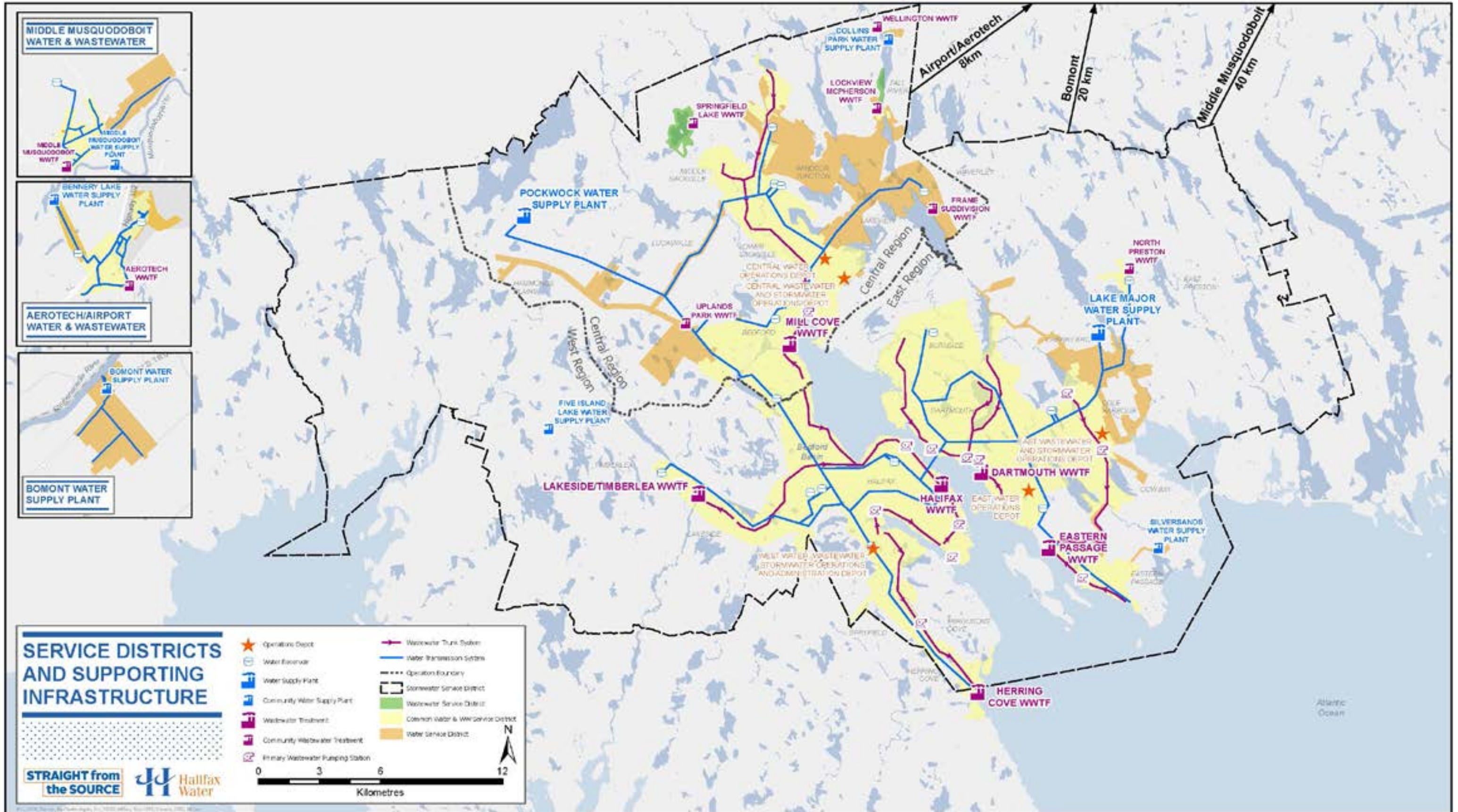
To engage with the local development community, Halifax Water attended the 2023 Urban Development Institute of Nova Scotia Fall Conference.

### ***Lake Major Watershed Protected Water Area Regulation Engagement Sessions***

Halifax Water hosted several public engagement sessions with property owners in early 2023/24. These sessions were a follow up to sessions held in 2022/23 to seek feedback on potential changes to the regulations.



# Service Area Map







# Halifax Water by the Numbers

## Water Infrastructure as of March 31, 2024

Water Supply Plant	Water Source	Treatment Process	Average Flows/Day	Filter Quantity & Capacity/Day	Maximum Flow Rate	Design Capacity/Day
<b>J. D. Kline</b>	Pockwock Lake	Dual Media Direct Filtration & Manganese Removal	94244	8 Filters 143 m <sup>2</sup> /filter	0.137 m <sup>3</sup> /m <sup>2</sup> per minute	227 000 m <sup>3</sup>
<b>Lake Major</b>	Lake Major	Upflow Clarification, Iron & Manganese Removal	33906	4 Filters 85 m <sup>2</sup> /filter	0.192 m <sup>3</sup> /m <sup>2</sup> per minute	94 000 m <sup>3</sup>
<b>Bennery Lake</b>	Bennery Lake	Sedimentation, Dual Media Filtration & Manganese Removal	903	2 Filters 26.65 m <sup>2</sup> /filter	0.10 m <sup>3</sup> /m <sup>2</sup> per minute	7 950 m <sup>3</sup>
<b>Middle Musquodoboit</b>	Musquodoboit River	Raw Water Infiltration Gallery, Ultra/Nano Filtration	51	2 Ultra Filters 1 Nano Filter	0.139 m <sup>3</sup> /min 0.264 m <sup>3</sup> /min	260 m <sup>3</sup>
<b>Collins Park</b>	Lake Fletcher	Ultra/Nano Filtration	57	2 Ultra Filters 1 Nano Filter	0.111 m <sup>3</sup> /min 0.145 m <sup>3</sup> /min	160 m <sup>3</sup>
<b>Bomont</b>	Shubenacadie River	Nano Filtration/Ionic Exchange Resin	3	N/A	0.0132 m <sup>3</sup> /min	38 m <sup>3</sup>
<b>Silver Sands</b>	2 Wells	Green Sand Pressure Filters, Iron & Manganese Removal	18	2 Filters	0.378 m <sup>3</sup> /min	30 m <sup>3</sup>
<b>Five Island Lake</b>	1 Well	UV Disinfection	10	N/A	0.016 m <sup>3</sup> /min	N/A

Source Water	Rainfall in 2023-24	Snowfall in 2023-24
<b>Pockwock Lake</b>	1836.66mm	184cm
<b>Lake Major</b>	1622.0mm	166.5cm

Source Water	Watershed Area	Safe Yield/Day
<b>Pockwock Lake</b>	5 661 ha	145 500 m <sup>3</sup>
<b>Chain Lake</b>	206 ha	4 500 m <sup>3</sup>
<b>Lake Major</b>	6 944 ha	65 900 m <sup>3</sup>
<b>Lake Lemont/Top-sail</b>	346 ha	4 500 m <sup>3</sup>
<b>Bennery Lake</b>	644 ha	2 300 m <sup>3</sup>

Water Supply	Water Production in 2023-24 (m <sup>3</sup> )
<b>Pockwock Lake</b>	34,493,256
<b>Lake Major</b>	12,409,500
<b>Bennery Lake</b>	330,325
<b>Small Systems</b>	50,700
<b>Total</b>	47,283,781

Reservoir	Elevation Above Sea Level	Capacity
<b>Lake Major</b>	60 m	9 092 m <sup>3</sup>
<b>Pockwock</b>	170 m	13 600 m <sup>3</sup>
<b>Geizer 158</b>	158 m	36 400 m <sup>3</sup>
<b>Geizer 123</b>	123 m	31 800 m <sup>3</sup>
<b>Cowie</b>	113 m	11 400 m <sup>3</sup>
<b>Robie</b>	82 m	15 900 m <sup>3</sup>
<b>Lakeside</b>	119 m	5 455 m <sup>3</sup>
<b>Mount Edward 1</b>	119 m	22 728 m <sup>3</sup>
<b>Mount Edward 2</b>	119 m	22 728 m <sup>3</sup>
<b>Akerley Blvd.</b>	119 m	37 727 m <sup>3</sup>
<b>North Preston</b>	125 m	1 659 m <sup>3</sup>
<b>Meadowbrook</b>	95 m	9 091 m <sup>3</sup>
<b>Sampson</b>	123 m	12 273 m <sup>3</sup>
<b>Stokil</b>	123 m	23 636 m <sup>3</sup>
<b>Waverley</b>	86 m	1 364 m <sup>3</sup>
<b>Middle Musq.</b>	81 m	275 m <sup>3</sup>
<b>Aerotech</b>	174 m	4 085 m <sup>3</sup>
<b>Beaver Bank</b>	156 m	6 937 m <sup>3</sup>
<b>Hemlock</b>	123 m	21 500 m <sup>3</sup>
<b>Total</b>	N/A	287 450 m <sup>3</sup>



# Corporate Balanced Scorecard Results

Transmission & Distribution System		Water Services & Meters		Population Served	
Size of Water Mains	19 mm - 1,500 mm	Water Sprinkler Systems		Halifax Municipality	
Total Water Mains	1,585 km	(25 mm - 300 mm)	2401		
Main Valves	15,936	Supply Services		Est. Population Served	436,000
Fire Hydrants	8,591	(10 mm - 400 mm)	87754		
Distribution Pumping (Booster) Stations	20	Water Meters		Consumption per Capita	215.79 L/person/day
Pressure Control & Flow Meter Chambers	145	(15 mm - 250 mm)	87446		

## Wastewater & Stormwater Infrastructure as of March 31, 2024

Wastewater Treatment Facility	Treatment Process	Design Average Flows/Day	Area(s) Served	Receiving Water	Volume Treated in 2023-24
Halifax	Enhanced Primary UV	139 900 m <sup>3</sup>	Halifax	Halifax Harbour	37,038,745
Dartmouth	Enhanced Primary UV	83 800 m <sup>3</sup>	Dartmouth	Halifax Harbour	21,291,922
Herring Cove	Enhanced Primary UV	28 500 m <sup>3</sup>	Halifax & Herring Cove	Halifax Harbour	4,741,272
Mill Cove	Secondary UV/Pure Oxygen Activated Sludge	28 400 m <sup>3</sup>	Bedford & Sackville	Bedford Basin	10,556,149
Eastern Passage	Secondary UV/Conventional Activated Sludge	25 000 m <sup>3</sup>	Cole Harbour & Eastern Passage	Halifax Harbour	5,831,723
Timberlea	Secondary Sodium Hypochlorite/RBC	4 540 m <sup>3</sup>	Lakeside & Timberlea	Nine Mile River	1,135,689
Aerotech	Tertiary UV/Membrane Bioreactors	3 000 m <sup>3</sup>	Aerotech Park & Airport	Johnson River	369,054
Springfield Lake	Secondary UV/Activated Sludge	543 m <sup>3</sup>	Springfield Lake	Lisle Lake	168,141
Fall River	Tertiary UV/Activated Sludge & Post Filtration	454.5 m <sup>3</sup>	Lockview Road & McPherson Road	Lake Fletcher	77,492
North Preston	Tertiary UV/SBR & Engineered Wetland	680 m <sup>3</sup>	North Preston	Winder Lake	296,621
Middle Musquodoboit	UV/RBC	114 m <sup>3</sup>	Middle Musquodoboit	Musquodoboit River	75,392
Uplands Park	Secondary UV/Trickling Filter & Wetland	91 m <sup>3</sup>	Uplands Park	Sandy Lake	41,942
Wellington	Tertiary UV/Activated Sludge/Reed Bleed	68 m <sup>3</sup>	Wellington	Grand Lake	7,239
Frame Subdivision	Tertiary UV/Membrane Reactor	80 m <sup>3</sup>	Frame Subdivision	Lake William	9,707

### Wastewater & Stormwater Collection System

Size of Pipes	38 mm - 3,000 mm
Total Collection System Length	2,328 km
Wastewater Services	83,916
Total Manholes	39,152
Total Pumping Stations	166
Total Ditch Length (km)	505
Holding Tanks & Retention Ponds	43
Cross Culverts	2,801
Driveway Culverts	17,661
Catchbasins	25,792

Organizational Indicators	Organization Award	2022/23	2023/24		2024/25
		Results	TARGET	RESULTS	Target
<b>Financial and Regulatory Accountability</b>					
Operating expense/revenue ratio percentage (excluding depreciation)	Gateway	62.0%	60.0%	62.8%	67%
Annual cost per customer connection - Water (excluding depreciation)		\$403	\$438	\$500	\$500
Annual cost per customer connection - Wastewater (excluding depreciation)		\$592	\$627	\$667.00	\$667
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%
<b>Health Safety &amp; Environment</b>					
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		85.0%	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 ID properties engagements by Pollution Prevention each year		251	250	272	250
<b>Operational Excellence</b>					
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%	99.89%	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 30 seconds		71.1%	70.0%	75.3%	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
IBI 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	Orts 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 <sup>3</sup> 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%
<b>People</b>					
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		54%	80%	60%	80%
Employee satisfaction survey result		B+	A	B	A
Average number of days absenteeism		9.81	<7	9.5	<7

**NOTES:**

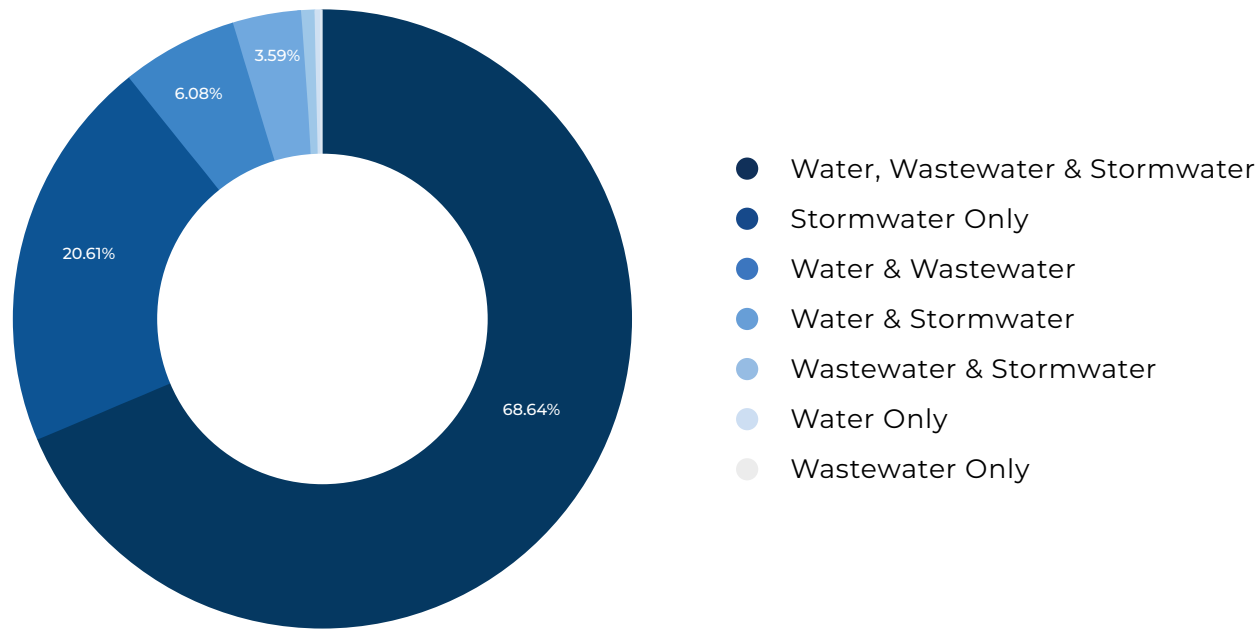
\* New metrics introduced in 2023/24, no values from previous year.

\*\* 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.



# Customers by Service Type

Halifax Water provides one or more of the following to our customers: water, wastewater and/or stormwater services. Those services support an estimated population of 436,000 people, and numerous visitors to the region.



Customer Numbers by Type

	Number of Accounts	Percentage of Total
<b>Water, Wastewater &amp; Stormwater</b>	76,459	68.6%
<b>Stormwater Only</b>	22,962	20.6%
<b>Water &amp; Wastewater</b>	6,774	6%
<b>Water &amp; Stormwater</b>	3,999	3.5%
<b>Wastewater &amp; Stormwater</b>	530	0.4%
<b>Water Only</b>	522	0.4%
<b>Wastewater Only</b>	153	0.1%
<b>Total of All Types</b>	111,399	100%

# Typical Water Analysis

TYPICAL ANALYSIS OF POCKWOCK LAKE & LAKE MAJOR WATER 2023 - 2024 (in milligrams per litre unless shown otherwise) <i>Note: All Regulatory Compliance Analysis are Processed by Third Party Laboratories</i>						
PARAMETERS	(Halifax) POCKWOCK		(Dartmouth) LAKE MAJOR		GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	
	Raw Water	Treated Water	Raw Water	Treated Water	Maximum Acceptable Concentration	Aesthetic Objective Concentration
Alkalinity (as CaCO <sub>3</sub> )	<2.0	23.1	<2.0	25.5	-	-
Aluminum	0.130	0.021	0.253	0.014	2.9	<sup>a</sup> 0.2/0.1
Ammonia (N)	<0.05	0.06	<0.05	0.057	-	-
Arsenic	<0.001	<0.001	<0.001	<0.001	0.010	-
Calcium	0.9	8.8	1.1	17.0	-	-
Chloride	6.1	7.7	5.833	7.4	-	≤250
Chlorate	<0.1	<0.1	<0.1	<0.1	1.0	-
Chlorite	<0.1	<0.1	<0.1	<0.1	1.0	-
Colour (True Colour Units)	24.3	<5.0	60.3	<5.0	-	≤15.0
Conductivity (µS/cm)	33	98	39	174	-	-
Copper (Total)	0.038	<0.001	0.116	<0.001	2.0	≤1.0
Fluoride	<0.1	0.13	<0.1	<sup>b</sup> <0.1	1.5	-
Hardness (as CaCO <sub>3</sub> )	4.0	22.6	4.8	43.0	-	-
HAAS (avg.)	-	0.018	-	0.038	0.080	-
Iron (Total)	0.09	<0.05	0.188	<0.05	-	≤0.3
Lead (Total) (µg/l)	<0.5	<0.5	<0.5	<0.5	5.0	-
Magnesium	0.390	0.420	0.397	0.420	-	-
Manganese (Total)	0.028	0.011	0.046	0.002	0.12	≤0.02
Mercury (µg/l)	<0.013	<0.013	<0.013	<0.013	1.0	-
Nitrate (as N)	<0.05	<0.05	<0.05	<0.05	10.0	-
Nitrite (as N)	0.011	<0.01	<0.01	<0.01	1	-
pH (pH Units)	5.8	7.4	5.9	7.3	-	7.0 - 10.5
Potassium	0.24	0.29	0.24	0.23	-	-
Sodium	4.2	11.7	4.53	11.7	-	≤200
Solids (Total Dissolved)	25	59	34	128	-	≤500
Sulphate	3.77	14.06	2.20	44.20	-	≤500
Turbidity (NTU)	0.37	0.04	0.35	0.03	<sup>c</sup> 0.15/0.2	-
Total Organic Carbon (TOC)	4.3	1.9	5.80	2.1	-	-
THM's (avg.)	-	0.036	-	0.05	0.100	-
Uranium (µg/l)	<0.1	<0.1	0.130	<0.1	20.0	-
Zinc (Total)	<0.005	0.145	0.010	0.143	-	≤5.0
PCB (µg/l)	-	-	-	-	-	-
Gross Alpha / Gross Beta (Bq/L)	<0.1	<0.1	<0.1	<0.1	0.5 / 1.0	-
PFOS	<0.000002	<0.000002	<0.000002	<0.000002	0.0006	-
PFOA	<0.000002	<0.000002	<0.000002	<0.000002	0.0002	-

<sup>a</sup>Aluminum objective is related to type of plant filtration; the aluminum objective for direct filtration (Pockwock) is <0.20 mg/l and conventional filtration (Lake Major) is <0.10 mg/l.

<sup>b</sup>Fluoride was not being added to the finished water at the Lake Major WSP due to system maintenance.

<sup>c</sup>The Pockwock and Lake Major plants analyze turbidity immediately post-filtration. Each filter must produce water with a turbidity of <0.15 NTU 95% of the time at the Pockwock Water Supply Plant and <0.2 NTU 95% of the time at the Lake Major Water Supply Plant. Both Water Supply Plants must produce water with a turbidity <1.0 NTU 100% of the time, as required by Provincial Permit.

**TYPICAL ANALYSIS OF BENNERY LAKE & BOMONT WATER**

2023 - 2024

(in milligrams per litre unless shown otherwise)

Note: All Regulatory Compliance Analysis are Processed by Third Party Laboratories

PARAMETERS	(Halifax) POCKWOCK		(Dartmouth) LAKE MAJOR		GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	
	Raw Water	Treated Water	Raw Water	Treated Water	Maximum Acceptable Concentration	Aesthetic Objective Concentration
Alkalinity (as CaCO3)	<2.0	23.1	<2.0	25.5	-	-
Aluminum	0.130	0.021	0.253	0.014	2.9	<sup>A</sup> 0.2/0.1
Ammonia (N)	<0.05	0.06	<0.05	0.057	-	-
Arsenic	<0.001	<0.001	<0.001	<0.001	0.010	-
Calcium	0.9	8.8	1.1	17.0	-	-
Chloride	6.1	7.7	5.833	7.4	-	≤250
Chlorate	<0.1	<0.1	<0.1	<0.1	1.0	-
Chlorite	<0.1	<0.1	<0.1	<0.1	1.0	-
Colour (True Colour Units)	24.3	<5.0	60.3	<5.0	-	≤15.0
Conductivity (µS/cm)	33	98	39	174	-	-
Copper (Total)	0.038	<0.001	0.116	<0.001	2.0	≤1.0
Fluoride	<0.1	0.13	<0.1	<sup>B</sup> <0.1	1.5	-
Hardness (as CaCO3)	4.0	22.6	4.8	43.0	-	-
HAA5 (avg.)	-	0.018	-	0.038	0.080	-
Iron (Total)	0.09	<0.05	0.188	<0.05	-	≤0.3
Lead (Total) (µg/l)	<0.5	<0.5	<0.5	<0.5	5.0	-
Magnesium	0.390	0.420	0.397	0.420	-	-
Manganese (Total)	0.028	0.011	0.046	0.002	0.12	≤0.02
Mercury (µg/l)	<0.013	<0.013	<0.013	<0.013	1.0	-
Nitrate (as N)	<0.05	<0.05	<0.05	<0.05	10.0	-
Nitrite (as N)	0.011	<0.01	<0.01	<0.01	1	-
pH (pH Units)	5.8	7.4	5.9	7.3	-	7.0 - 10.5
Potassium	0.24	0.29	0.24	0.23	-	-
Sodium	4.2	11.7	4.53	11.7	-	≤200
Solids (Total Dissolved)	25	59	34	128	-	≤500
Sulphate	3.77	14.06	2.20	44.20	-	≤500
Turbidity (NTU)	0.37	0.04	0.35	0.03	<sup>C</sup> 0.15/0.2	-
Total Organic Carbon (TOC)	4.3	1.9	5.80	2.1	-	-
THM's (avg.)	-	0.036	-	0.05	0.100	-
Uranium (µg/l)	<0.1	<0.1	0.130	<0.1	20.0	-
Zinc (Total)	<0.005	0.145	0.010	0.143	-	≤5.0
PCB (µg/l)	-	-	-	-	-	-
Gross Alpha / Gross Beta (Bq/L)	<0.1	<0.1	<0.1	<0.1	0.5 / 1.0	-
PFOS	<0.000002	<0.000002	<0.000002	<0.000002	0.0006	-
PFOA	<0.000002	<0.000002	<0.000002	<0.000002	0.0002	-

<sup>A</sup>Aluminum objective is related to type of plant filtration; the aluminum objective for direct filtration (Pockwock) is <0.20 mg/l and conventional filtration (Lake Major) is <0.10 mg/l.

<sup>B</sup>Fluoride was not being added to the finished water at the Lake Major WSP due to system maintenance.

<sup>C</sup>The Pockwock and Lake Major plants analyze turbidity immediately post-filtration. Each filter must produce water with a turbidity of <0.15 NTU 95% of the time at the Pockwock Water Supply Plant and <0.2 NTU 95% of the time at the Lake Major Water Supply Plant. Both Water Supply Plants must produce water with a turbidity <1.0 NTU 100% of the time, as required by Provincial Permit.

**TYPICAL ANALYSIS – SMALL SYSTEMS**

2023 - 2024

(in milligrams per litre unless shown otherwise)

Note: All Regulatory Compliance Analysis are Processed by Third Party Laboratories

PARAMETERS	BENNERY LAKE		BOMONT		DRINKING WATER QUALITY	
	Raw Water	Treated Water	<sup>A</sup> Raw Water	Treated Water	Maximum Acceptable Concentration	Aesthetic Objective Concentration
Alkalinity (as CaCO3)	3.7	29.8	-	25.5	-	-
Aluminum	0.220	0.013	-	0.022	2.9	0.1
Ammonia (N)	0.096	0.071	-	0.093	-	-
Arsenic	<0.001	<0.001	-	<0.001	0.010	-
Calcium	2.9	23.5	-	11.0	-	-
Chloride	5.8	8.1	-	8.6	-	≤250
Chlorate	<0.1	0.3	-	0.2	1.0	-
Chlorite	<0.1	<0.1	-	<0.1	1.0	-
Colour (True Colour Units)	50.7	<5.0	-	<5.0	-	≤15.0
Conductivity (µS/cm)	40	186	-	120	-	-
Copper (Total)	0.1840	0.0360	-	<0.001	2.0	≤1.0
Fluoride	<0.1	0.11	-	<0.1	1.5	-
Hardness (as CaCO3)	8.6	60.8	-	30.0	-	-
HAA5 (avg.)	-	0.025	-	0.048	0.080	-
Iron (Total)	1.25	<0.05	-	<0.05	-	≤0.3
Lead (Total) (µg/l)	<0.5	<0.5	-	<0.5	5.0	-
Magnesium	0.5	0.6	-	0.4	-	-
Manganese (Total)	0.353	0.051	-	0.006	0.12	≤0.02
Mercury (µg/l)	<0.013	<0.013	-	<0.013	1.0	-
Nitrate (as N)	0.121	0.183	-	0.078	10.0	-
Nitrite (as N)	<0.01	<0.01	-	<0.01	1.0	-
pH (pH Units)	6.5	7.3	-	7.6	-	7.0 - 10.5
Potassium	0.2	0.2	-	0.3	-	-
Sodium	4.5	13.7	-	14.0	-	≤200
Solids [Total Dissolved]	46	125	-	99	-	≤500
Sulphate	2.7	48.7	-	18.6	-	≤500
Turbidity (NTU)	0.75	0.04	-	0.22	<sup>B</sup> 0.2/1.0; <sup>C</sup> 5.0	-
Total Organic Carbon (TOC)	5.4	2.1	-	1.9	-	-
THM's (avg.)	-	0.047	-	0.037	0.100	-
Uranium (µg/l)	<0.1	<0.1	-	<0.1	20.0	-
Zinc (Total)	<0.005	0.082	-	0.129	-	≤5.0
PCB (µg/l)	-	-	-	-	-	-
Gross Alpha / Gross Beta (Bq/L)	<0.1/0.355	<0.1	-	<0.1/ 0.31	0.5 / 1.0	-
PFOS	<0.000002	<0.000002	-	<0.000002	0.0006	-
PFOA	<0.000002	<0.000002	-	<0.000002	0.0002	-

<sup>A</sup>Raw water samples were not collected from the Bomont raw water source this past year. Treated water was supplied from either the Lake Major or Pockwock water systems.

<sup>B</sup>The Bennerly Lake plant analyzes turbidity immediately post-filtration and must produce water with a turbidity of <0.2 NTU 95% of the time and <1.0 NTU 100% of the time.

<sup>C</sup>Filtered turbidity values are not reported due to the fact that the Bomont Water Supply Plant was not treating raw water. Instead, treated water turbidity is reported and



**TYPICAL ANALYSIS - SMALL SYSTEMS**

2023 - 2024

(in milligrams per litre unless shown otherwise)

Note: All Regulatory Compliance Analysis are Processed by Third Party Laboratories

PARAMETERS	FIVE ISLAND LAKE		SILVER SANDS		GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	
	Raw Water	Treated Water	Raw Water	Treated Water	Maximum Acceptable Concentration	Aesthetic Objective Concentration
Alkalinity (as CaCO <sub>3</sub> )	28.0	32.0	64.0	62.5	-	-
Aluminum	<0.005	<0.005	<0.005	<0.005	2.9	0.2
Ammonia (N)	<0.05	0.091	0.076	0.052	-	-
Arsenic	0.004	0.004	0.002	<0.001	0.010	-
Calcium	9.4	9.2	37.0	36.3	-	-
Chloride	5.6	7.9	62.0	65.6	-	≤250
Chlorate	<0.1	<0.1	<0.1	0.3	1.0	-
Chlorite	<0.1	<0.1	<0.1	<0.1	1.0	-
Colour (True Colour Units)	<5.0	<5.0	<5.0	<5.0	-	≤15.0
Conductivity (µS/cm)	84	94	370	375	-	-
Copper (Total)	0.0040	0.0120	<0.001	0.0130	2.0	≤1.0
Fluoride	0.4	0.3	0.2	0.2	1.5	-
Hardness (as CaCO <sub>3</sub> )	28.0	27.0	110.0	110.0	-	-
HAA5 (avg.)	-	<0.0005	-	<0.005	0.080	-
Iron (Total)	<0.05	<0.05	0.89	<0.05	-	≤0.3
Lead (Total) (µg/l)	<0.5	<0.5	<0.5	<0.5	5.0	-
Magnesium	1.2	1.2	5.0	5.0	-	-
Manganese (Total)	<0.002	<0.002	0.97	0.006	0.12	≤0.02
Mercury (µg/l)	<0.013	<0.013	<0.013	<0.013	1.0	-
Nitrate (as N)	<0.05	<0.05	<0.05	0.513	10.0	-
Nitrite (as N)	<0.01	<0.01	0.039	<0.01	1.0	-
pH (pH Units)	7.1	7.7	7.8	7.4	-	7.0 - 10.5
Potassium	0.5	0.5	0.9	0.9	-	-
Sodium	6.4	7.2	26.5	29.3	-	≤200
Solids (Total Dissolved)	66	78	220	230	-	≤500
Sulphate	2.8	3.3	17.5	18.2	-	≤500
Turbidity (NTU)	<0.1	0.06	7.50	0.10	<sup>A</sup> 1.0	-
Total Organic Carbon (TOC)	<0.5	<0.5	<0.5	<0.5	-	-
THM's (avg.)	-	0.001	-	0.002	0.100	-
Uranium (µg/l)	11.5	11.0	<0.1	<0.1	20.0	-
Zinc (Total)	<0.005	0.008	<0.005	<0.005	-	≤5.0
PCB (µg/l)	<0.05	<0.05	-	-	-	-
Gross Alpha / Gross Beta (Bq/L)	0.39/0.310	0.24/0.12	0.11/<0.1	<0.01	0.5 / 1.0	-
PFOS	<0.000002	<0.000002	<0.000002	<0.000002	0.0006	-
PFOA	<0.000002	<0.000002	<0.000002	<0.000002	0.0002	-

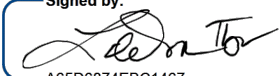
<sup>A</sup>The Five Island Lake and Silver Sands Water Supply Plants must produce water with turbidity of <1.0 NTU 95% of the time, as required by Provincial Permit. Treated water turbidity is calculated from clearwell monitoring.




[www.halifaxwater.ca](http://www.halifaxwater.ca)



**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:** Signed by:  
  
A05D0074EBC1467...  
Louis de Montbrun, CPA, CA, Director, Corporate Services/CFO

**APPROVED:** Signed by:  
  
0C084AC813794F6...  
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

**DATE:** September 20, 2024

**SUBJECT:** Halifax Regional Water Commission Employee's Pension Plan Financial Report Second Quarter, 2024

---

### **ORIGIN**

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

### **BACKGROUND**

At the September 4, 2024, meeting of the Halifax Water Audit and Finance Committee, the attached report was reviewed, and the Committee approved a motion to forward the report to the Halifax Water Board as an information report.

### **DISCUSSION**

No additional information was requested to be brought forward to the Halifax Water Board meeting following the discussion of the attached at the Committee meeting.

### **ATTACHMENTS**

1. Report to the Halifax Water Audit and Finance Committee – Halifax Regional Water Commission Employees' Pension Plan Financial Report Second Quarter, 2024.

Report Prepared by:

Signed by:

*Heather Britten*

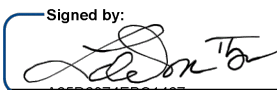
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Heather Britten, B.Comm, PCP  
Quality Assurance Officer


Financial Reviewed by:

Alicia Scallion, CPA, CA  
Manager, Finance

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

**SUBMITTED BY:**   
Signed by: A05D0874EBC1487...

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

**APPROVED:**   
Signed by: 0C084AC8315794F6...

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

**DATE:** August 14, 2024

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

---

**ORIGIN**

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

**RECOMMENDATION**

It is recommended that the Audit and Finance Committee accept the financial report for the Halifax Regional Water Commission Employees' Pension Plan for the six-month period ended June 30, 2024, and forward the report to the Halifax Water Board as the Trustee of the Plan as an information report.

**BACKGROUND**

The Audit and Finance Committee 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 six-month period ending June 30, 2024. Audited financial results for 2022 and 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 \$13.2 million for the six (6) month period ending June 30, 2024. The pro-rated budget for the period forecasted an increase of \$5.7 million. Actual results for the period compared to the pro-rated budget result in a favourable variance of \$7.5 million.

The annual budget forecasted revenue of \$10.5 million. Revenue for the period is \$13.3 million which when compared to the pro-rated revenue budget of \$5.2 million results in a favourable variance of \$8.1 million. Revenue figures are directly impacted by the performance of the HRM Master Trust. This favourable variance is attributed directly to an increase in the fair value of investment assets of \$11.8 million. Investment income for the period is \$1.8 million compared to a pro-rated budget of \$1.4 million resulting in a favourable variance of \$0.4 million or 31%.

Contributions of \$3.9 million are above the pro-rated budget of \$3.8 million by \$0.1 million. This results in a favourable variance of 3% and is due to the timing of new hires.

Expenses of \$4.1 million for the period are higher than the pro-rated budget of \$3.4 million by \$0.7 million or 21%. The main contributor to this variance is termination payouts which are higher than the pro-rated budget in the period. Termination payments do vary from quarter to quarter and are difficult to predict however the year-to-date termination payouts have already exceeded the annual budget by \$0.3 million.

## **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 Second Quarter (January 1st to June 30<sup>th</sup>, 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.

Second Quarter results reported in Appendix D show, out of 4 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 6 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 9 instances, with average response times for retirement and termination calculation estimates of 9 days and 8 days respectively. 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 six (6) month period ended June 30, 2024

APPENDIX B – Regulatory Filing Requirements – Q2 2024

APPENDIX C – Administrative Reporting Requirements – Q2 2024

APPENDIX D – Service Standards Report – Q2 2024

Report Prepared By:

Signed by:

*Heather Britten*

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Heather Britten, Quality Assurance Officer

Halifax Regional Water Commission Employees' Pension Plan  
Statement of changes in net assets available for benefits  
For the six (6) month period ended June 30, 2024

Benchmark 50%

	June 30, 2024						
	2024 Budget	Actual	Prorated Budget 50%	Actual versus Budget Change		Actual (Audited) 2023	Actual (Audited) 2022
				\$	%		
<b>Revenue</b>							
Net investment income:							
Total investment income	\$2,800,000	\$1,827,786	\$1,400,000	\$427,786	31%	\$3,640,508	\$3,307,029
Investment manager fees	(\$430,000)	(\$302,988)	(\$215,000)	(\$87,988)	41%	(\$383,410)	(\$388,167)
Increase (decrease) in the fair value of investment assets	\$8,100,000	\$11,808,320	\$4,050,000	\$7,758,320	192%	\$11,981,675	(\$2,763,692)
	<b>\$10,470,000</b>	<b>\$13,333,118</b>	<b>\$5,235,000</b>	<b>\$8,098,118</b>	<b>155%</b>	<b>\$15,238,773</b>	<b>\$155,170</b>
<b>Contributions</b>							
Participants:							
Current service (including Additional Voluntary Contributions)	\$3,890,416	\$1,997,094	\$1,945,208	\$51,886	3%	\$3,701,095	\$3,375,425
Reciprocal Transfers	\$0	\$0	\$0	\$0	0%	\$683,465	\$0
Sponsors:							
Current service	\$3,773,000	\$1,936,254	\$1,886,500	\$49,754	3%	\$3,588,545	\$3,277,595
	<b>\$7,663,416</b>	<b>\$3,933,348</b>	<b>\$3,831,708</b>	<b>\$101,640</b>	<b>3%</b>	<b>\$7,973,105</b>	<b>\$6,653,020</b>
<b>Expenses</b>							
Benefit payments:							
Benefit payments	\$5,536,000	\$2,730,450	\$2,768,000	(\$37,550)	(1%)	\$5,280,758	\$5,089,704
Termination payments	\$1,000,000	\$1,310,426	\$500,000	\$810,426	162%	\$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	\$71,750	(\$56,238)	(78%)	\$77,631	\$99,522
Audit & accounting fees	\$9,000	\$3,533	\$4,500	(\$967)	(21%)	\$9,022	\$9,446
Bank custodian fees	\$26,300	\$7,130	\$13,150	(\$6,020)	(46%)	\$24,509	\$20,941
Insurance	\$10,600	\$11,130	\$5,300	\$5,830	110%	\$11,130	\$10,600
Miscellaneous	\$21,200	\$12,791	\$10,600	\$2,191	21%	\$25,170	\$21,448
Professional fees	\$44,000	\$17,193	\$22,000	(\$4,807)	(22%)	\$44,484	\$40,534
Registration fees	\$3,000	\$0	\$1,500	(\$1,500)	(100%)	\$2,935	\$2,848
Training (Trustees/ Administration/ Pension Committee)	\$5,000	\$0	\$2,500	(\$2,500)	(100%)	\$0	\$0
	<b>\$6,798,600</b>	<b>\$4,108,164</b>	<b>\$3,399,300</b>	<b>\$708,864</b>	<b>21%</b>	<b>\$7,242,985</b>	<b>\$6,204,549</b>
<b>Increase in net assets available for benefits</b>	<b>\$11,334,816</b>	<b>\$13,158,303</b>	<b>\$5,667,408</b>	<b>\$7,490,895</b>	<b>132%</b>	<b>\$15,968,893</b>	<b>\$603,641</b>
<b>Net assets available for benefits, beginning of period</b>	<b>\$191,208,896</b>	<b>\$191,208,896</b>				<b>\$175,240,003</b>	<b>\$174,636,362</b>
Increase (decrease) in net assets available for benefits	\$11,334,816	\$13,158,303				\$15,968,893	\$603,641
<b>Net assets available for benefits, end of period</b>	<b>\$202,543,712</b>	<b>\$204,367,199</b>				<b>\$191,208,896</b>	<b>\$175,240,003</b>

Expenses on this statement are reported on a cash basis.

**Halifax Regional Water Commission Employees' Pension Plan**  
**Regulatory Filing Requirements - 2024**  
as at June 30, 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 office.
3 Pension Plan Audited Financial Statements	Superintendent of Pensions	6 months after the Plan's fiscal year end	July 23, 2024	DB Plan	2023 audited financial statements were approved by the Halifax Water Board on June 20, 2024. Financial statements were signed at Halifax Water's Annual General Meeting on July 11th and submitted to the Superintendent of Pensions on July 23rd. (Superintendent is notified by letter each year that the financial statements may be later than June 30th due to timing of the Board meeting and subsequent signing of the statements.)
			June 19, 2024	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 19, 2024	DB Plan	
			June 19, 2024	DC Plan	
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 Canada Revenue Agency	60 days after the amendment approved by the Board	September 23, 2022 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.
	Superintendent of Pensions Canada Revenue Agency		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 June 30, 2024

Report	Filing Deadline/ Recurrence	Date last filed/ Performed		Comments
1 Pensioners' Payroll	Monthly	September 1, 2024		Pensioners are paid the 1st of each month; no exceptions to report for the Second Quarter 2024.
2 Contributions to the Trustee	Monthly	August 14, 2024	DB Plan	Remittances due to Northern Trust within 30 days of month end; no exceptions to report for the Second Quarter 2024.
		January 10, 2024	DC Plan	Remittances due to Industrial Alliance within 30 days of month end; no exceptions to report for the Second 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	September 4, 2024	DB Plan	Second Quarter (January - June 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	Fist Quarter 2024 (January - March) 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 24, 2024	DB Plan	Statements issued annually by June 30th.
		June 24, 2024	DC Plan	Statements issued annually in conjunction with the Defined Benefit (DB) Plan statements. Members also have access to online, real-time reporting.
		June 24, 2024	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 2 (as at June 30, 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	4	0	100%	9	4	23	32	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	6	1	83%	8	6	19	27	Yes
- Non Standard (Incl RTAs)	15 Business Days								
Total for Actuary		10	1	90%	9	10	21	30	

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

**SUBMITTED BY:** Signed by:  
  
4FF2E6BA2F847E...  
Jennifer Duncan, Manager, Asset Management

**APPROVED:** Signed by:  
  
0C084AC84E704F6...  
Kenda MacKenzie, P.Eng., Acting CEO & General Manager

**DATE:** 15 August 2024

**SUBJECT:** **Asset Management Policy (2-Year Review)**

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#### **ORIGIN**

The formal (2-Year) review requirement for the Asset Management Policy, last reviewed/approved on September 22, 2022.

#### **BACKGROUND,**

The intent of the Asset Management Policy is to demonstrate Halifax Water's commitment "*to asset management as an integrated management system aimed at service delivery.*"

As a result, this policy defines the scope of the asset management system in association with Halifax Water's mission, vision, and values as well as aligns with the following corporate policies, strategies, and plans:

- Five-Year Business Plan and the corporate vision, mission, and values.
- Annual Business Plan.
- Integrated Resource Plan (IRP).
- Enterprise Risk Management (ERM).
- Asset management-related Board guidance.

This policy also specifies for Halifax Water to formally review this document every 2 years for updating purposes, as applicable.

**DISCUSSION**

This information report has been prepared to meet the formal (2-Year) Asset Management Policy review requirement. Pending subsequent Board guidance, there are currently no recommended updates for the Asset Management Policy.

**ATTACHMENT**

Asset Management Policy (Policy # 9.2)

**Intent:**

To commit to asset management as an integrated management system aimed at service delivery. This policy defines the scope of the asset management system and connects to Halifax Water’s mission, vision, and values.

**Definitions:**

Common asset management related terms, definitions, and references are available on the International Standards Organization (ISO) site at [ISO 55000:2014\(en\), Asset management — Overview, principles and terminology](#).

**Scope:**

This policy applies to:

- i. Board commissioners and employees that manage or influence service delivery.
- ii. All services provided by the utility.
- iii. All core infrastructure assets owned or operated by the utility.

Halifax Water will strive for the expansion of the scope to include all assets that have actual or potential value to the organization including natural assets, data and information, knowledge, and people.

This policy will guide the development of Halifax Water’s Asset Management Strategy.

**Guiding Documents and Integration:**

This policy compliments and aligns with the following corporate policies, strategies, and plans:

- Five-Year Business Plan and the corporate vision, mission, and values
- Annual Business Plan
- Integrated Resource Plan (IRP)
- Enterprise Risk Management (ERM)
- Asset management-related Board guidance

**Principles:**

**1) Strategic and Forward Looking**

Halifax Water will make decisions and provisions that enable its assets to meet future challenges, including changing demographics and population, customer expectations, legislative requirements, and technological and environmental factors including climate change.

**2) Evidence-Based Decision Making**

Halifax Water will continuously review and improve data, data structures, and data accessibility to make evidence-based decisions that consider the balance of service levels, whole life cost, and risk. Halifax Water will take a holistic approach to decision making to consider all assets in a service context and the interrelationships between different assets to optimize service continuity.



**3) Quality and Service Focused**

Halifax Water will strive to deliver reliable, high-quality service that is efficient, cost-effective, and based on defined levels of service that balance community expectations and regulatory requirements with risk, affordability, and available resources.

**4) Communication and Stakeholder Engagement**

Halifax Water will encourage the sharing of data, information, and knowledge between departments to support the improvement of asset management practices and culture across service areas. Halifax Water will establish a stakeholder engagement strategy to enable transparent communications on the state of assets, levels of service, and the cost of service delivery.

**5) Fiscal Responsibility**

Halifax Water will approach service delivery and asset management in a way that is financially responsible, choosing practices, interventions, and operations that aim to reduce the cost of asset ownership, while satisfying defined levels of service, and risk thresholds.

**6) Continuous Improvement**

Halifax Water will continually improve its service delivery approach by systematically reviewing the asset management program processes, procedures, and tools. Halifax Water will stay informed on leading asset management and service delivery industry practices and will seek to be recognized as an industry thought leader.

**7) Environment and Sustainability**

Halifax Water will strive to be environmentally, and economically sustainable into the long term by incorporating triple bottom line considerations into long term planning, climate change, and infrastructure resiliency actions.

**Procedure:**

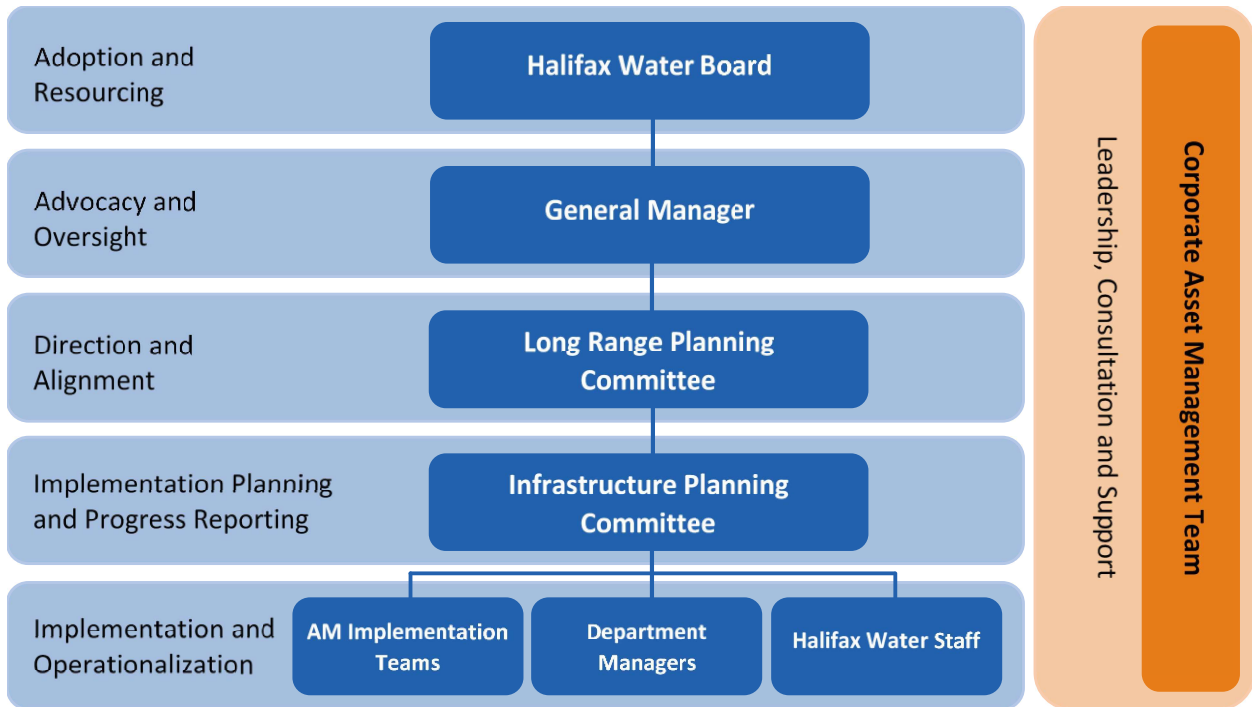
AM Strategy – Halifax Water commits to developing and maintaining an asset management strategy that will identify the practices and processes needed to implement the asset management policy principles and reciprocally integrate with the organization’s other policies, strategies, management systems, business plans, and processes.

Culture – Halifax Water is committed to creating a service delivery culture where employees and commissioners consider asset management as part of delivery decisions.

Policy Review – Halifax Water will formally review the policy every 2 years.

Training – Halifax Water is committed to providing training, developing knowledge, and building capacity in asset management throughout the organization and for the Board commissioners.

**Accountability:**



Halifax Water Board of Commissioners is responsible for adopting this policy and supporting the allocation of resources for the implementation of the asset management program.

General Manager is responsible for advocacy and oversight of the asset management program and communicating the value of asset management to the rest of the organization.

Long Range Planning Committee is responsible for aligning the asset management program with the overall strategic direction of the organization.

Infrastructure Planning Committee is responsible for implementation planning for the asset management and infrastructure planning programs in alignment with other relevant corporate programs and projects to achieve the organizational service objectives identified by the Long Range Planning Committee. This includes reporting on program progress.

Corporate Asset Management Team provides utility-wide leadership in and consultation on asset management practices and concepts and consolidates asset management data from across the organization for enhanced decision making. The Corporate Asset Management Team supports the Asset Management Implementation Teams.

Asset Management Implementation Teams (AMITs) are the links between Operations and Engineering and support day to day operational functions that meet customer service delivery expectations. AMITs

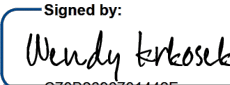
are established to work towards coordinated and integrated decisions about assets, the value and services they provide, and the expenditures needed to meet agreed levels of service.

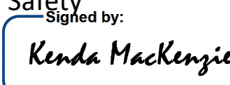
Department Managers are responsible for advocating asset management within their respective departments. This includes participating in or supporting the AMITs wherever possible and communicating to departmental staff about AMITs' role in asset management.

Halifax Water Staff will consider how their decisions impact service delivery and whether their actions are aligned with the principles identified in this policy. This may include embracing new business processes, technology, and tools necessary to be effective at asset management.

Revision: 20220609

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

**SUBMITTED BY:**   
Signed by:  
Wendy Krkosek, Ph.D., P.Eng., Acting Director of Environment, Health and Safety

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

**DATE:** September 17, 2024

**SUBJECT:** **J.D. Kline Water Supply Plant Disinfection Interruption – After Incident Review**

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### **INFORMATION REPORT**

---

#### **EXECUTIVE SUMMARY**

This report provides an after-incident review of the events and circumstances on July 1st, 2024, that led to the release of unchlorinated filtered water from the J.D. Kline Water Supply Plant (JDKWSP) into the Halifax Water distribution system and the subsequent boil water advisory. This report covers the incident on July 1, 2024, up to the issuance of the boil water advisory. The after-incident review process for water quality events is part of Halifax Water’s Drinking Water Safety Plan.

On the afternoon of July 1st, 2024, an issue occurred at the JDKWSP causing a power failure and loss of the chlorination system. There was a 16-minute period when water did not have the final disinfection (chlorination) treatment before leaving the facility. The water was fully treated aside from final chlorination. A portable generator was set up to inject chlorine until power was restored. Halifax Water issued a boil water advisory to reduce the risk to public health and to alert the public prior to unchlorinated water reaching the first customer within the distribution system.

This after incident review identified several underlying causes, that when combined, led to the power interruption and subsequent interruption in chlorine disinfection:

- Electrical and mechanical failures, including:
  - Insulation failure on a raw water pump tripped the main utility breaker to the facility, taking both the low lift pump station and main facility building offline. The auxiliary generator operated as intended to restore power to the main facility building, however subsequent failure of the solenoid valve on the auxiliary generator resulted in the loss of power to the main treatment facility building, interrupting primary disinfection with chlorine.



- Fundamental design constraints, including:
  - There is no storage of chlorinated water onsite at the JDKWSP, and flow from the JDKWSP cannot be shut down to prevent unchlorinated water from entering the distribution system.
- Other confounding factors including personnel, standard operating procedures, and communications.

Based on the after-incident review described in this report, a total of 16 short-, medium- and long-term corrective measures have been recommended to manage risk and improve resiliency at the JDKWSP. Some of these measures have already been completed, while others are ongoing.

The Halifax Water Board was provided opportunity to review and provide comments on a draft of this report (see attached) in advance of this meeting and issuance of the final document.

#### **ATTACHMENT**

1. J.D. Kline Water Supply Plant Disinfection Interruption – After Incident Report



# J.D. KLINE WATER SUPPLY PLANT DISINFECTION INTERRUPTION – AFTER INCIDENT REPORT

*September 19, 2024*

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# Chapter 1 INTRODUCTION

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## 1.1 Background

On the afternoon of July 1<sup>st</sup>, 2024, an internal electrical issue occurred at the J.D. Kline Water Supply Plant (JDKWSP). As a result, backup safety systems at the low lift pump station were engaged that are designed to prevent damage to equipment and/or ensure fire suppression. These safety systems isolated power at the facility and during this electrical failure, prevented the main emergency generator from engaging. Additionally, the secondary, (auxiliary) generator located in the main treatment facility building, and that is designed to bridge the time between an external power (utility) outage and the primary emergency generator, failed. This then caused a loss of power to the main treatment facility building and the chlorination system.

As a result, for a sixteen (16) minute period, water did not have the final disinfection treatment with chlorine before leaving the JDKWSP. While all other treatment requirements were being met at the time, based on regulatory requirements and discussions and direction from NSECC, Halifax Water issued a boil water advisory.

## 1.2 Objectives and Scope

This report provides a post-incident review of what occurred on July 1<sup>st</sup>, 2024, and looks at the circumstances that lead to the release of unchlorinated filtered water from the JDKWSP into the Halifax Water distribution system and the subsequent boil water advisory. Specifically, this report will:

- Provide background information pertinent to the disinfection interruption incident review.
- Discuss regulatory framework requirements related to disinfection.
- Outline the sequence of events that occurred on July 1<sup>st</sup>, 2024, resulting in a boil water advisory.
- Identify underlying causes leading to the disinfection interruption.
- Provide recommendations for corrective measures.

This report covers the incident on July 1<sup>st</sup>, 2024, up to the issuance of the boil water advisory.

## 1.3 Sources of Information

The following sources of information were used in the preparation of this report:

- Nova Scotia Environment - Approval for Operation – Water Treatment Facility Approval No 2008-061444-09 PID # 00330985
- Nova Scotia Treatment Standards for Municipal Drinking Water Systems
- Operational plant logs
- Real time operational data from the JDKWSP
- Discussions with Halifax Water staff
- Standard operating procedures for the JDKWSP
- Technical reports:
  - Report on Halifax-Dartmouth Regional Water Supply – Canadian-British Engineering Consultants Limited (1970)
  - Chain Lake Emergency Source of Supply, Pre-Design Engineering Report, Pockwock Regional Water Supply – CBCL Limited (1979)

## Chapter 2 J.D. KLINE WATER SUPPLY PLANT

### 2.1 Process Overview and Service Area

The JDKWSP serves approximately 201,000 customers in the communities of Beaver Bank, Middle and Lower Sackville, Hammonds Plains, Bedford, Halifax, Timberlea, Spryfield, Portions of Fall River, Windsor Junction and Herring Cove (Figure 2-1). Commissioned in 1977, the plant produces an average daily flow of approximately 85 ML/D (22.5 MGD) with a design capacity of 220 ML/D (58 MGD) and is the largest water supply plant in Atlantic Canada. Based on the source water quality at the time of design, the facility was designed as a direct filtration plant with raw water sourced from Pockwock Lake. The JDKWSP has two main buildings – the low lift pump station, and the main treatment facility building (Figure 2-2).

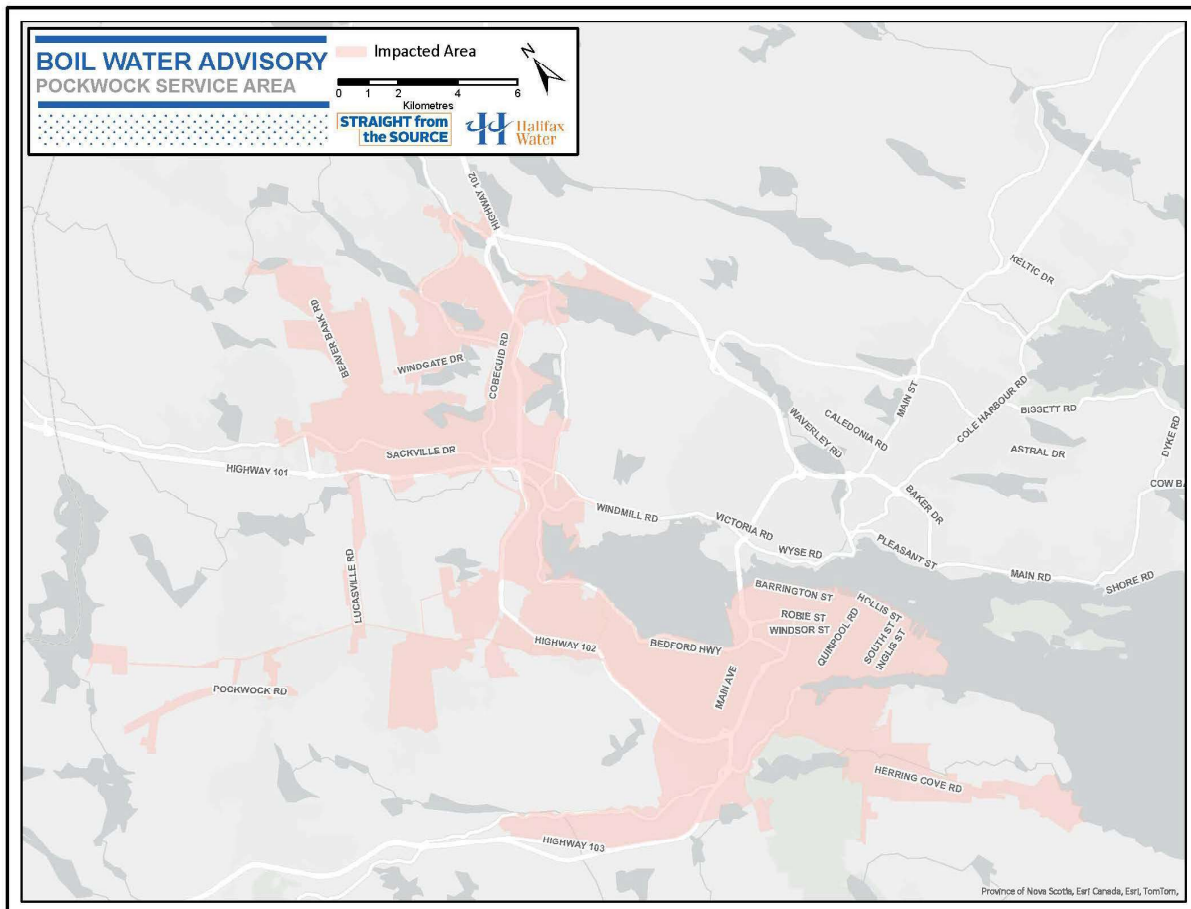


Figure 2-1: A map of the area served by the JDKWSP indicated in red. This area was impacted by the boil water advisory on July 1<sup>st</sup>, 2024.



**Figure 2-2: Aerial Photograph of the JDKWSP indicating the low lift pump station and the main treatment facility building.**

The low lift pump station is equipped with intake and screening equipment, six (6) vertical raw water turbines and an electrical room. Raw water is pumped from the low lift pump station to the main treatment facility building which consists of direct filtration (coagulation, hydraulic flocculation, granular media filtration) followed by chlorination for primary disinfection (Figure 2-3).



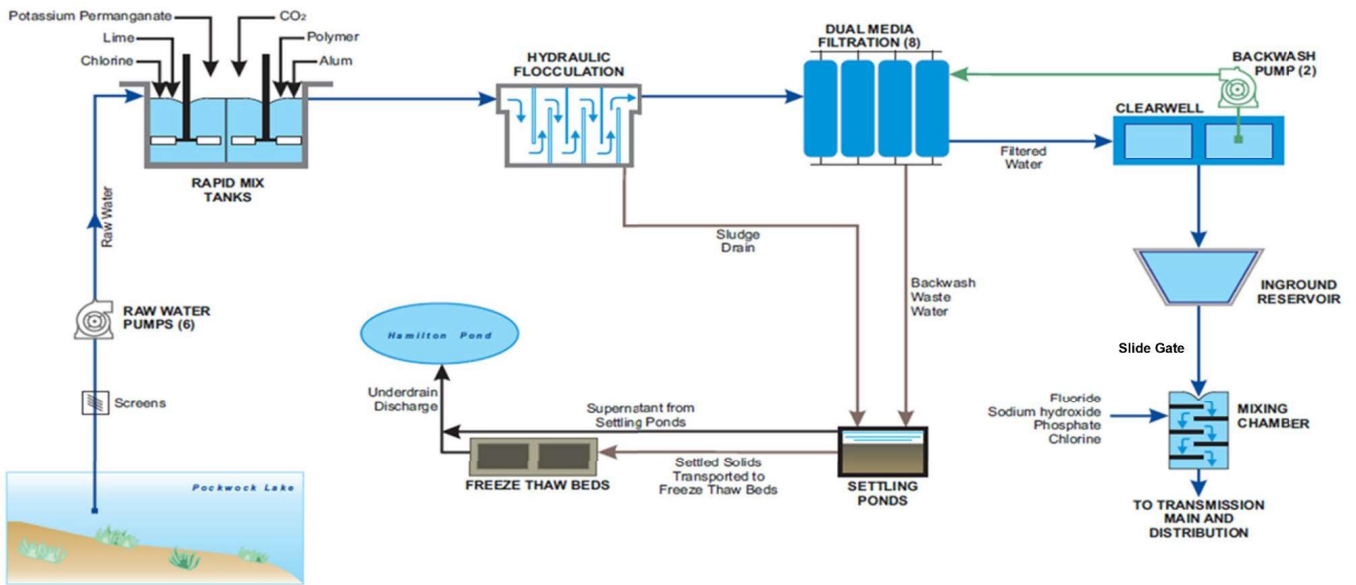


Figure 2-3: Treatment schematic of the JDKWSP.

## 2.2 Minimum Treatment Requirements

The minimum treatment requirements for an Approval Holder of a Municipal Drinking Water Supply in Nova Scotia are described in *Nova Scotia Treatment Standards for Municipal Drinking Water Systems (June 2022)*, *Nova Scotia Environment and Climate Change*. These minimum standards must be met to achieve compliance with the health-based treatment guidelines in accordance with Health Canada's Guidelines for Canadian Drinking Water Quality, as amended from time to time.

These requirements are described based on the type of source water and type of treatment technology. The JDKWSP is a direct filtration plant using a surface water source (Pockwock Lake). The facility uses free chlorine for primary disinfection. As such, the following overall general treatment is required per the Treatment Standards:

- Through both engineered filtration and disinfection, a minimum treatment efficiency:
  - a. 3.0-log reduction for protozoa (*Giardia* and *Cryptosporidium*), and
  - b. 4.0-log reduction for viruses,

At the JDKWSP, primary disinfection, through the use of chlorine, shall achieve a minimum of 0.5-log inactivation for *Giardia* when used in conjunction with filtration. The JDKWSP also requires a minimum 3.0-log inactivation for viruses to be achieved by disinfection with chlorine.

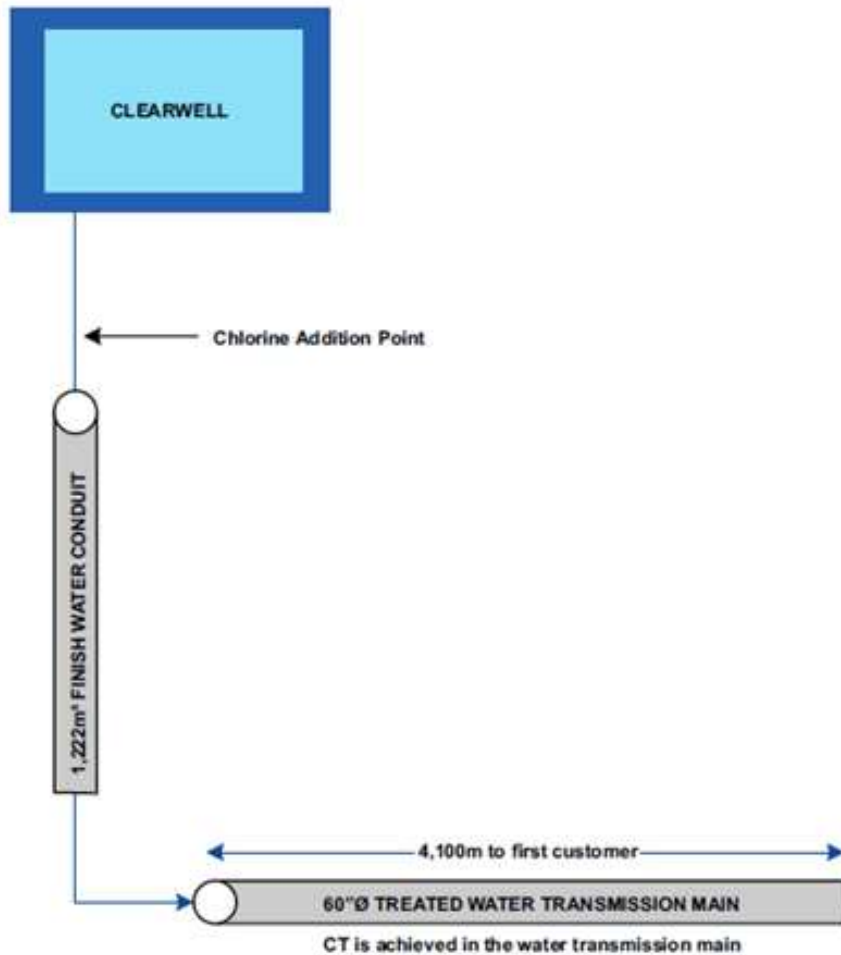
The effectiveness of a chemical disinfectant is based on the residual concentration, water temperature, pH and contact time (the time that the given disinfectant residual is held before the first service connection). This relationship is commonly referred to as CT Disinfection. CT is simply the product of the residual concentration of the disinfectant (C) measured in mg/L and the disinfectant contact time (T) measured in minutes. CT Disinfection is the water treatment industry standard for disinfection and is a requirement of Nova Scotia's Treatment Standards to ensure water provided to customers is safe. Failure to provide either adequate disinfectant concentration or contract time may result in the failure to achieve minimum treatment requirements to achieve primary disinfection.

### 2.2.1 Achieving Primary Disinfection at the JDKWSP

The JDKWSP was constructed in the 1970's to allow gravity flow through the treatment facility via the multimedia filters into the hydraulically connected clear wells and facility reservoir, and then consolidated into the treated water mixing chamber where chlorination occurs prior to leaving the plant through the finished water conduit into the transmission main (1500mm) to Halifax. There is no storage of chlorinated water onsite, and therefore chlorination at the outlet mixing chamber is always required to achieve primary disinfection. Primary disinfection is achieved in the finished water conduit at the treatment plant and in the transmission main between the facility and the first customer (Figure 2-4).

The original design narrative from the 1970's for the JDKWSP indicated that in the event a shutdown was required, a 1500mm cast iron slide gate located prior to the treated water mixing chamber could isolate treated water in the clear wells and prevent water flow to the city, and that water would be provided to customers from distribution system storage in the event of a shutdown. This gate is not operational and using it would impose significant risk as there are now several developments serviced directly from the transmission main. These developments introduced the functional requirement to have no isolation of flow from the plant.

# Primary Disinfection Schematic J.D. Kline Water Supply Plant



Baffling Factor = 1.0  
Min. Cl = 0.7 mg/L  
Min. Water Temperature = 0.5° C  
Max. pH = 8.0  
Total Volume = 8701 m<sup>3</sup>  
Max. Flow = 220 ML/day  
Min. Retention Time = 57 minutes



*"To provide world class services for our customers and our environment"*

Figure 2-4: Simplified diagram showing primary disinfection process schematic and CT for the JDKWSP.

### 2.3 Electrical Service Overview

The JDKWSP receives electricity from Nova Scotia Power through high voltage overhead lines to a pad-mounted transformer and an eight-cell medium voltage distribution switchgear system. This switchgear system is composed of electrical disconnect switches, fuses or circuit breakers, and generator panels, that are designed to protect and isolate electrical equipment to the low lift pump station and the main power feed to the treatment facility.

The external Nova Scotia Power feed enters the low lift pump station and power is subsequently routed from the low lift pump station to the main treatment facility through switchgear via an overhead distribution line where the voltage is stepped down feeding a motor control center (MCC) located at the main treatment facility. A diesel standby generator located at the low lift pump station provides standby power in the event of loss of utility power to the switchgear. The main treatment facility is equipped with a diesel standby generator (referred to as “auxiliary generator”) in the event there is an interruption of the power feed from the low lift switchgear. The auxiliary generator is designed to provide temporary power in the event of a power interruption as all plant power, including the main generator, is routed through the low lift pump station. Figure 2-5 provides a simplified schematic of the power flow to both buildings.

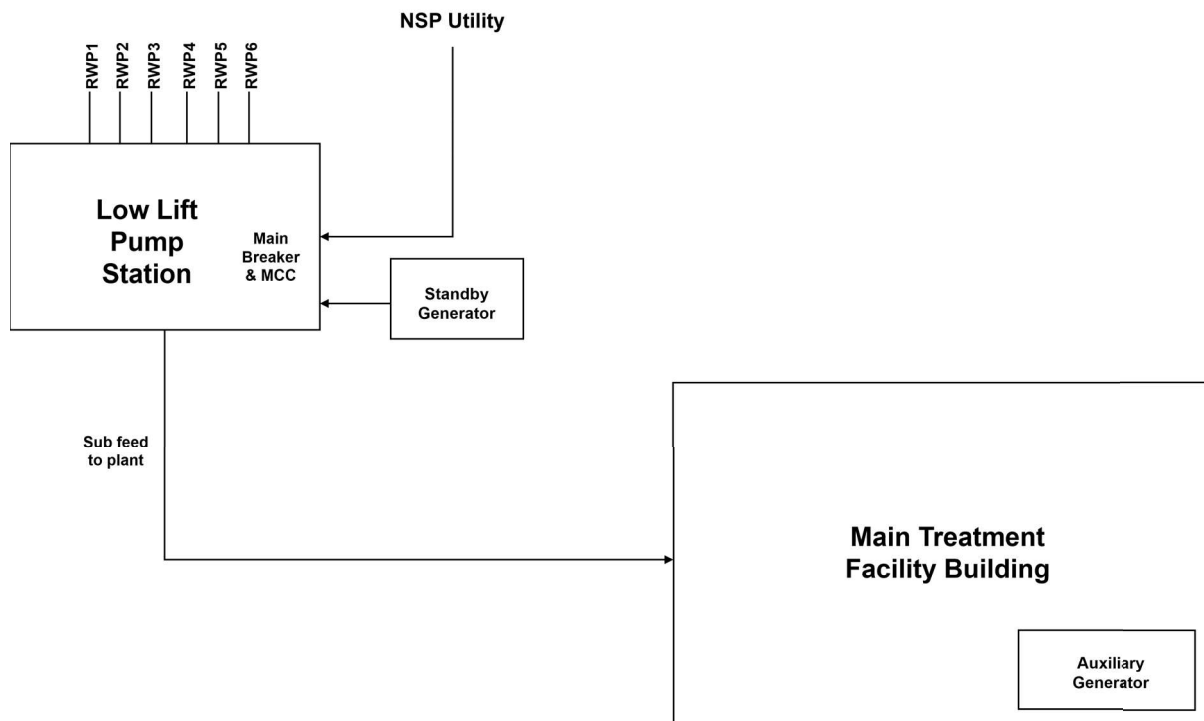


Figure 2-5: Simplified overview of power flow and relevant electrical components at the JDKWSP.



## Chapter 3 AFTER INCIDENT INVESTIGATION

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### 3.1 Incident Description

Midday of July 1<sup>st</sup>, 2024, operations staff were conducting routine work, managing water plant flow demands through the industrial control system to conduct a routine switch from the operation of raw water pump #2 (RWP2) to raw water pump # 1 (RWP1). During this switch, RWP1 faulted during start-up, which resulted in an immediate loss of power at both the low lift pump station and the main treatment facility building.

Under the normal operation sequence during a power failure of the Nova Scotia Power feed, the standby generator located at the low lift pump station would come online and restore power to both locations. However, power remained offline at the low lift pump station and the immediate cause of the outage was not known at the time. When this occurred, staff attempted to manually engage the standby generator at the low lift pump station, however it did not come online because there was no disruption to the Nova Scotia Power feed.

During the power disruption at the low lift pump station, the auxiliary generator located at the main treatment facility building immediately restored power per its design, and allowed controls, operational, and treatment requirements to be maintained.

However, after approximately 30 minutes, this generator triggered its overtemperature alarm and shut down. Power was subsequently lost at the main treatment facility building and all associated systems including the primary chlorination equipment were without power.

Staff immediately began to initiate the standard operating procedures for the emergency chlorination process. Throughout this period, filtered unchlorinated water from the plant entered the distribution system. This is because water from the clear well cannot be operationally isolated from the distribution system, as described in Section 2.2.1. This resulted in a failure to achieve primary disinfection.

Staff connected the portable gas generator used to power emergency chlorination equipment, already located onsite, to restore chlorination to the finished water. It should be noted that all other treatment requirements at the time were met, and the water was fully treated aside from primary disinfection. Staff also implemented operational adjustments to the distribution system to minimize the amount of water leaving the facility.

As outlined in Section 5.1 (4) of the Guidelines for Monitoring Public Drinking Water Supplies Part I – Municipal Public Drinking Water Supplies (October 2021), Nova Scotia Environment and Climate Change:

*Section 5.1 Deficiencies that require a boil water advisory include  
(4) lack of disinfection (i.e., all systems) or failure of a key water treatment process (e.g. filtration process for systems relying on surface water or GUDI sources).*

Based on the loss of primary disinfection on July 1<sup>st</sup>, 2024, the scenario described in Section 5.1 (4) required the issuance of a boil water advisory.

The advisory was issued before the unchlorinated water reached the first customer in the distribution system. A detailed account of the events that led to the issuance of the boil water advisory on July 1<sup>st</sup>, 2024, is provided below in Table 3-1.

**Table 3-1: Detailed event timelines on July 1st, 2024.**

Time	Description
12:28 to 13:04	<p>The Duty Operator used the industrial control system to start raw water pump #1. The pump immediately failed to start and power to the low lift pump station and the main treatment facility building was interrupted. The Duty Operator immediately called the Facility Supervisor, who instructed them to call both the On-Call Operator and the On-Call Electrician for assistance on-site. The Supervisor proceeded to the treatment facility to assist.</p> <p>The auxiliary generator immediately started and restored power to the main treatment facility building but the low lift pump station was still without power.</p> <p>The primary chlorination system was still operational at this time.</p>
13:04	<p>The Duty Operator reported to the Facility Supervisor that the auxiliary generator stopped working and all associated systems were without power. Primary disinfection of treated water goes offline.</p> <p>The Facility Supervisor instructed the Duty Operator to engage the emergency chlorination equipment immediately.</p>
13:05 to 13:20	<p>The Duty Operator and the On-Call Operator activate the portable gas generator located onsite and engage the emergency backup chlorination system as per the Standard Operating Procedure.</p>
13:20	<p>Primary disinfection of treated water is restored using the emergency backup chlorination system.</p>
13:30 to 13:35	<p>The Facility Supervisor informs the Director of Operations of the situation. Manager of Distribution (West) is contacted to aid in limiting flow from the plant to the city and to help manage the distribution system.</p>
13:35 to 13:52	<p>Facility staff work with electricians to restore power to the facility. The On-Call Electrician in consultation with the facility's regularly assigned Electrician restored utility power to the low lift pump station and main facility by resetting the main utility breaker following facility safety protocols.</p> <p>On-Call Electrician then investigates the auxiliary generator failure at the main treatment facility building and discovered a water coolant alarm which indicated that the generator faulted out on high coolant water temperature due to a failed solenoid valve.</p> <p>The cooling water by-pass valve was opened by the Facility Supervisor to restore the auxiliary generator to standby status.</p>
13:52	<p>The Facility Supervisor was informed that power had been restored to the main treatment facility building and that the auxiliary generator was back to standby status.</p>
13:55 to 14:00	<p>Raw water pump #5 was started and water flow was restored to the treatment process.</p> <p>The primary disinfection chlorination system was verified for correct operation and was restored.</p> <p>The emergency chlorination system remained operational at this time to provide continuity of chlorination in case of further unforeseen complications.</p>

	Raw water flow was rotated to pump #4 as part of routine operations.
14:21 to 15:33	Raw water flow was rotated to pump #2 to manage water demands.  Facility staff continued to assess cause of outage at the low lift pumping station.
15:33 to 15:35	At this point, the root cause of the initial outage was still unknown. With both electricians on site, raw water pump #1 was started to test whether it was operational or the root cause of the outage. When raw water pump #1 was given a start command, the main power feed was once again interrupted to the pumping station and treatment facility.  The auxiliary generator at the main facility ran normally and primary chlorination system remained operational.
15:40	Facility Supervisor updated the Director of Operations.
15:43	Staff electricians restored utility power by resetting the main breaker at the pumping station.  It was theorized that raw water pump #1 was the cause of the outage.
15:45	Lack of primary disinfection occurrence was reported by the Facility Supervisor to Halifax Water's Regulatory Compliance Department through the reporting process as outlined in standard operating procedures.
15:45 to 15:55	Water Quality Program Supervisor who was on call, reported the lack of primary disinfection to the Acting Director of Regulatory Services. Water Quality Program Supervisor also reported the situation to NSECC through the after-hours protocols.
15:49 to 16:25	Acting Director of Regulatory Services, Acting General Manager, Director of Operations and Acting West Water Operations Manager commence a call to assess the situation and discuss ways to mitigate the impact of unchlorinated water in the system (e.g., flushing, isolating areas of the system).  It was determined that no type of operational intervention could occur that would ensure the unchlorinated water would not reach customers.
16:25	Halifax Water Communications are notified, and communications materials and alerts are developed for a Boil Water Advisory.
16:40 to 16:52	Due to failure to achieve primary disinfection, and the requirements outlined in the <i>Guidelines for Monitoring Public Drinking Water Supplies</i> to issue a boil water advisory under these circumstances, further attempts are made to contact NSECC directly.  The NSECC Duty Inspector was reached and took the information. After discussion, it was determined they would try to get someone to respond to us quickly.
16:57	Attempts to reach senior staff within NSECC continue due to the nature of the event. The Interim Director of the Water Branch of Applied Science Division of NSECC is reached by phone and given information to determine course of action.
17:21	Interim Director of Water Branch NSECC calls to confirm that a Boil Water Advisory needs to be issued for the entire Pockwock System.
18:00	A Public Service Announcement (PSA) announcing the boil water advisory was distributed to news media outlets and other key stakeholders via email and on social media. Additionally, HRM redistributed the PSA on its HFXAlerts system and used its social media channels to amplify the message.

	Note: At this time, the unchlorinated water had moved approximately 5 km down the transmission main and not yet reached the first service connection.
18:02	Small Systems Supervisor is contacted to increase dose in re-chlorination stations in the Pockwock system by 0.2 mg/l as a precaution. The doses were changed remotely.
19:30	Halifax Water was notified that the provincial alert system was available for this type of event. Staff learned the parameters and approvals process for this system and began developing an effective alert based on the delivery platform (mobile text alerts).
20:49	Nova Scotia alert issued for the boil water advisory via the Provincial Emergency Management Office.

## 3.2 Underlying Causes Leading to Boil Water Advisory

### 3.2.1 Cause #1: Mechanical and Electrical Failures

In response to the electrical problems, a contractor was dispatched to identify any potential issues with motors and/or wiring. It was during this initial inspection that the contractor identified that the electrical insulation on the RWP1 motor failed, causing a ground fault. The RWP1 motor was tested to confirm that the pump insulation was the cause and was removed for repairs.

As a result of the insulation failure, there was a surge in current that then caused the safety systems to be triggered (as designed) to prevent further damage. Each pump has two integrated safety mechanisms, including digital motor protection relays and fuses, and a third layer of protection through the main utility breaker.

However, during this event, the electrical protection coordination failed when the digital motor protection relay and the fuses for RWP1 were not triggered. As designed, the digital motor protection relay is connected to a temperature sensor embedded in the RWP1 motor, but during this incident, there were no temperature alarms generated by the protective relay. The fuses for RWP1 did not detect the surge (e.g., were not blown).

Based on the post-incident inspection, it has been determined that instead of the fuses and digital motor protection relay safety systems engaging, the main utility breaker tripped and isolated the power supply to both the low lift pump station and the main treatment facility building. When this occurred, it took both the low lift pump station and main treatment facility building offline because the power feed for both is located at the low lift pump station, and both loads are downstream of the breaker.

When the ground fault occurred on RWP1 it was significant enough that it tripped the main utility breaker before the other layers of protection could react. The sequence of trip alarms/signals between the digital motor protection relay, fuses and main utility breaker is complex and dated due to varying vintages of equipment technology. As a result, it can have an impact on switching speed and sensitivity, which may have had a role in why the main utility breaker detected the ground fault and tripped before the other layers of protection.

Through a visual inspection, the On-Call Electrician determined that there were no alarms on the standby generator at the low lift pump station. Staff then briefly and unsuccessfully attempted to manually engage this generator. However, even if the generator had started, the power would still have been isolated, as the main utility breaker was open and functioning as designed to prevent the power supply from being restored without a reset. When the On-Call Electrician observed that the lockout safety relay for the



station had not tripped, they were able to determine that there was utility power from the Nova Scotia Power grid and that the generator did not engage, because that is how the safety mechanism was designed.

While the standby generator at the low lift pump station did not engage, the auxiliary generator located at the main treatment facility building did start and immediately restored power to that building. However, after running for approximately 30 minutes, the auxiliary generator failed. When the On-Call Electrician visually inspected the automatic transfer switch for the auxiliary generator it appeared to be normal. Further inspection of the auxiliary generator control panel found a water coolant alarm, and it was then determined that the generator faulted out on high coolant water temperature. It was then established that that the cooling water was not circulating because a solenoid valve had failed. While there was a by-pass valve on the auxiliary generator that allows for circulation of cooling water, it was closed, as per routine operation. Upon this observation, staff opened the by-pass valve to allow for coolant water circulation, as per the standard operating procedure.

The main utility breaker was reset by the On-Call Electrician once it was safe to do so. With power restored, operators attempted to start RWP1 remotely to confirm that it was the underlying cause of the power failure. However, this interrupted the power at the low lift pump station once again, but with the by-pass for the cooling water now open the auxiliary generator at the main treatment facility building ran normally.

Based on the issues identified and the solutions used to address them, staff confirmed that the main cause of the incident was the switch over from RWP2 to RWP1 and subsequent insulation failure on RWP1 which led to the main utility breaker for the low lift pump station to trip. With the breaker tripped, the standby generator did not power up the low lift pump station and main treatment facility. This resulted in the auxiliary generator coming online briefly, but quickly overheating and failing due to lack of coolant water from a failed solenoid valve. The combined insulation and solenoid valve failures were a root cause of loss of primary disinfection with chlorine.

### **3.3 Cause #2: Fundamental Design Constraints**

During the incident on July 1<sup>st</sup>, 2024, flow from the JDKWSP could not shut down to prevent unchlorinated water from entering the distribution system. As currently designed, the JDKWSP has constraints that prevent adequate treated water storage at the facility which directly impacts the ability to shut down without significant interruption to water quantity or quality. As a result, during the incident on July 1<sup>st</sup>, 2024, staff could not prevent unchlorinated water from entering the distribution system. Staff did however implement operational adjustments to the distribution system to minimize the amount of water leaving the facility.

All treated water in storage at the JDKWSP is unchlorinated. The additional finished water chlorine application only occurs when all filtered water is consolidated into a single mixing chamber before leaving the plant through a finished water conduit. At this point in the process, it is not possible to interrupt flow from the finished water conduit, and chlorination at the outlet mixing chamber is required at all times to achieve primary disinfection and to meet regulatory requirements. Both chlorination and flow, therefore, cannot be interrupted without incurring a significant water quantity or quality event.

Halifax Water's design records indicate that the point of chlorination has not changed since the facility was constructed in the 1970's. The criticality of the location at that time was offset by the fact that flow from the facility was capable of being interrupted at the time if needed through an installed outlet sluice gate.

According to planning and design documents, the Pockwock transmission system was configured with intention of having the JDKWSP connected by transmission primarily to other reservoirs and not directly to customers. By using reservoirs, the utility could store chlorinated water downstream to provide water service to customers and would allow flow leaving the plant to be isolated at any time.

Accordingly, it was also originally intended that if JDKWSP required a shutdown for maintenance, or encountered a failure, that it could be simply shutdown by closing the outlet sluice gate and thereby isolating the plant from city. While this may have been the original intention, this gate valve is no longer operational and closing poses significant risks to the entire system. In the decades since the JDKWSP was constructed, several developments have been serviced directly from the transmission main and introduced the functional requirement to have no isolation of flow from the plant. As a result, the facility has very limited shutdown or disruption window, which has now become a significant constraint.

As a result, isolating the JDKWSP from the city during the event that occurred on July 1<sup>st</sup>, 2024, was not a viable option to minimize the release of unchlorinated water from entering the Pockwock distribution system.

### 3.3.1 Other Compounding Factors

In addition to the electrical failures and the fundamental design constraints outlined above, the following factors may have had a compounding effect on the incident response time on July 1<sup>st</sup>, 2024:

- **Resource Capacity:** The JDKWSP has experienced staff shortages in recent years, resulting in hiring new personnel at the facility. At the time of the event, there were a total of seven (7) water treatment plant operators who work at this facility and one vacant day operator position, with one operator on shift during the incident. There is only one operator onsite at the JDKWSP per shift on evenings, weekends, and holidays, with an additional day operator on-call, which makes response in a complex situation such as this incident a challenge to manage the multiple priorities. The new personnel working at the JDKWSP may not have been exposed to emergency response through experience with past incidents. Exposure to tabletop emergency response exercises happen once per year through Environmental Management System (EMS) requirements. Resource capacity challenges are compounded by the age of the facility and limited historical facility specific knowledge.
- **Standard Operating Procedures (SOP):** Multiple SOPs were needed during the July 1<sup>st</sup> events; thus, staff were required to consult a number of documents that created an added layer of complexity during critical moments in response. As standalone SOPs, they did not provide sufficient details when several failures occurred simultaneously, and subjective language in certain documents may have compounded the impacts or contributed to delay in response.
- **Communications:** Halifax Water issued the boil water advisory notice prior to the volume of non-disinfected water reaching customers. However, during the incident there were limited staff on site, and those at the facility were focused on stabilizing the incident, which led to a delay in reporting. Communications between the various groups/departments and the regulator (NSECC) could have been more efficient to decrease response timelines.
- **Other:** The emergency lighting at the JDKWSP is designed to facilitate safe exit from the facility during emergencies. During the July 1 events, these lights could not provide sufficient visibility to address issues and added to the challenges in engaging the backup chlorination system and further response to the incident.

## **Chapter 4 RECOMMENDED CORRECTIVE MEASURES AND PROGRESS STATUS**

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Based on the after-incident review described in this report, several short, medium and long term corrective measures have been recommended to manage risk and improve resiliency at the JDKWSP. Table 4-1 below provides a summary of recommended corrective measures as well as the status at the time this report was prepared.

**Table 4-1: Summary of recommended corrective measures.**

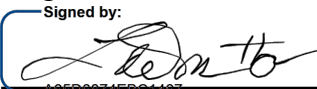
#	Cause	Corrective Measure	Timeline	Status*
1	Electrical and Mechanical Failures	Assess and conduct repairs as required on raw water pumps and components.	Short term	Raw water pump 1 complete, other pumps ongoing
2	Electrical and Mechanical Failures	Assess the emergency generators.	Short term	Complete
3	Electrical and Mechanical Failures	Install a temporary generator to power the main plant building, replacing the auxiliary generator.	Short term	Complete
4	Electrical and Mechanical Failures	Install standby electrical system to power emergency chlorination equipment, in the event of a complete power failure, to reduce time to initiate the system and remove immediate need for portable gas-powered generator.	Short term	Temporary solution complete, permanent solution ongoing
5	Electrical and Mechanical Failures	Install an uninterrupted power supply (UPS) that will be able to supply power to necessary instrumentation in the event of a power failure.	Short term	Temporary solution complete, permanent solution ongoing
6	Electrical and Mechanical Failures	Conduct thermal scanning of electrical equipment at the low-lift pump station.	Short term	Ongoing
7	Electrical and Mechanical Failures	Assess main incoming power bus and associated utility, emergency breakers, as well as transfer controls. Assess the sequence settings that control the safety systems at the pump station. Re-program the sequence as necessary based on the assessment.	Short term	Ongoing
8	Electrical and Mechanical Failures	Assess layers of engineered protection on raw water pumps and install additional layers as needed.	Short term	Ongoing
9	Other Compounding Factors	Complete formal incident debrief with various levels of staff.	Short term	Ongoing
10	Other Compounding Factors	Increase operator staffing on shift to minimize response time to emergency incidents.	Short/medium term	Ongoing
11	Other Compounding Factors	Review and update SOPs for clarity. Ensure staff understanding through training.	Short/medium term	Ongoing
12	Other Compounding Factors	Conduct emergency exercises to enhance knowledge on response to varying incidents.	Short, medium, and long term	Ongoing

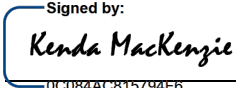


13	Other Compounding Factors	Improve emergency lighting throughout the facility.	Short/medium term	Ongoing
14	Electrical and Mechanical Failures	Install a permanent generator to replace the auxiliary generator.	Medium term	Ongoing
15	Fundamental Design Constraints	Upgrade and increase resiliency of incoming power feed. Consider adding a new, dedicated utility service to the main water supply plant building.	Long term	Ongoing
16	Fundamental Design Constraints	Address fundamental design constraints by provision for adequate treated water storage, and ability to shut down for maintenance or failure conditions, without interruption to water quantity or quality.	Long term	Ongoing

\*Ongoing status indicates that corrective measures will be implemented within the short term (6-months), medium term (1-year), and long term (5 to 10 years).

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

**SUBMITTED BY:**   
Signed by: A05D0674EBC1407...  
Louis de Montbrun, CPA, CA Director, Corporate Services/CFO

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

**DATE:** September 26, 2024

**SUBJECT:** Spring 2024 Debenture Utilization

**ORIGIN**

Halifax Regional Water Commission (Halifax Water) is required to report to the NSUARB once every six months from the date of the Order related to issued debentures on the use and application of the monies realized from the approved borrowing.

**BACKGROUND**

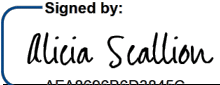
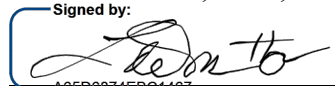
At the September 4, 2024, meeting of the Halifax Water Audit and Finance Committee (the Committee), the attached report was reviewed, and the Committee has forwarded the report to the Halifax Water Board for their information.

**DISCUSSION**

No additional information was requested to be brought forward to the Halifax Water Board meeting following the discussion of the attached at the Committee meeting.

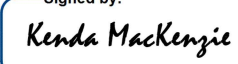
**ATTACHMENT**

1. Halifax Water Audit and Finance Committee Report – Spring 2024 Debenture Utilization.

Report Prepared by:	 <small>Signed by: AFA0696B6D3045C...</small> Alicia Scallion, CPA, CA, Manager, Finance
Financial Reviewed by:	 <small>Signed by: A05D0674EBC1407...</small> 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:**   
Signed by: A03D6874EBC1467...  
Louis de Montbrun, CPA, CA Director, Corporate Services/CFO

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

**DATE:** September 4, 2024

**SUBJECT:** Spring 2024 Debenture Utilization

**ORIGIN**

Nova Scotia Utility and Review Board (NSUARB) Regulatory Rule 33(4)(c) and M11640 – 2024 NSUARB Order Approving Halifax Water’s Spring 2024 Debenture.

**BACKGROUND**


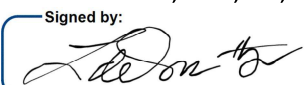
Halifax Water is required to report to the NSUARB once every six months from the date of the Order related to issued debentures on the use and application of the monies realized from the approved borrowing.

**DISCUSSION**

The attached letter to the NSUARB is to be filed by September 30, 2024, and will be provided to the Halifax Water Board for information purposes at the September 26, 2024 meeting.

**ATTACHMENT**

1. Letter addressed to Crystal Henwood regarding M11640 – 2024 NSUARB Order Approving Halifax Water’s Spring 2024 Debenture

Report Prepared by:	 <small>Signed by: AFA8696D6D3845C...</small> Alicia Scallion, CPA, CA, Manager, Finance
Financial Reviewed by:	 <small>Signed by: A65D6874EBC1467...</small> Louis de Montbrun, CPA, CA Director, Corporate Services/CFO

September 4, 2024

**VIA EMAIL ([crystal.henwood@novascotia.ca](mailto:crystal.henwood@novascotia.ca))**

Ms. Crystal Henwood, Regulatory Affairs Officer/Clerk of the Board  
N.S. Utility and Review Board  
3<sup>rd</sup> Floor, Summit Place, 1601 Lower Water Street  
P. O. Box 1692, Postal Unit M  
Halifax, NS B3J 3S3

**Re: M11640 – 2024 NSUARB Order Approving Halifax Water Debenture**

Dear Ms. Henwood:

The Board's Order for the above noted matter approved Halifax Water's borrowing of \$17,784,599. The borrowing was to support 2023/24 additions to utility plant in service in the amount of \$15,000,000, and the remainder of \$2,784,599 was for the refinancing of balloon payments.

The 2023/24 fiscal year asset additions were in excess of \$63,800,000, a portion of which was funded by the debt issuance approved by the Board. Please refer to the list of capital additions on page two.

The \$2,784,599 was for the refinancing of a balloon payment relating to Debenture 34-A-1 for the remaining 10-year amortization period. The original debenture of \$5,569,189 was issued in 2014/15 and used to finance wastewater capital additions in that fiscal year. It had been acquired for a ten-year term with a twenty-year amortization period.

The original debt was acquired to fund the third and final phase of the Eastern Passage Wastewater Treatment Facility.

We trust this information fulfills the requirement pursuant to Board Regulatory Rule 33(4)(c) to report to the Board once every six months from the date of the Order on the use and application of the monies realized from the approved borrowing.

Sincerely,

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



Service	W/O #	Purpose	Total Project Cost	Unfunded
Water	300003356	Akerley Reservoir Rehabilitation	5,341,449	5,000,000
Water	300003764	Briarwood Crescent Watermain Renewal	1,221,624	1,000,000
		<b>Total Water</b>	<b>6,563,073</b>	<b>6,000,000</b>
Wastewater	600002241	Halifax WWTF - Densadegs Lamella Tube Settler Upgrade	1,390,404	1,300,000
Wastewater	600002308	Herring Cove WWTF - New Perforated Plate Screens	1,335,538	1,300,000
Wastewater	600002449	WW System-Trenchless Rehab Program 2022-23	2,140,084	2,140,000
Wastewater	600002242	Herring Cove WWTF - Densadeg Lamella Tube Settler Upgrade	609,467	600,000
Wastewater	600002756	WWTF - Emergency Equipment Replacements 2021/22	562,402	560,000
Wastewater	600002660	Eastern Passage WWTF - Secondary Clarifier Flight Drive System	129,158	100,000
		<b>Total Waste Water</b>	<b>6,167,053</b>	<b>6,000,000</b>
Stormwater	600000887	Albro Lake Separation Project	8,570,125	1,600,000
Stormwater	300002979	Enterprise Resource Planning Solution - Stormwater allocation	1,400,000	1,400,000
		<b>Total Storm Water</b>	<b>9,970,125</b>	<b>3,000,000</b>
			<b>22,700,250</b>	<b>15,000,000</b>