

Halifax Water Meeting Agenda

Halifax Water Board of Commissioners	
November 23, 2023 Virtual	9:00 a.m.
Colleen Rollings, Chair	

IN CAMERA AGENDA	Presenting	Time
1C. Approval of Minutes of the In-Camera Meeting held on Thursday, September 28, 2023	Chair	2 min
Motion: <i>That the Halifax Water Board approve the In-Camera minutes of September 28, 2023.</i>		
2C. Business arising from minutes a. Security Matter	Director, Engineering and Technology Services	15 min
3C. Security Matter		
4C. Legal Matter	General Manager	30 min
5C. Governance Matter	Corporate Secretary	5 min
6C. Engineering Matter	Director, Engineering and Technology Services	10 min

PUBLIC AGENDA	Presenting	Time
Regular Reports		
1. Ratification of In-Camera motions	Chair	5 min
Motion: <i>That the Halifax Water Board ratify the In-Camera Motions.</i>		
2. Approval of the order of business and approval of additions and deletions		
Motion: <i>That the Halifax Water Board approve the order of business and approve additions and deletions.</i>		

Halifax Water Meeting Agenda

3. Approval of minutes of the public meetings held on Thursday, September 28, 2023 and Friday, October 20, 2023		
<i>Motion: That the Halifax Water Board approve the minutes of the September 28, 2023 and October 20, 2023, public meetings.</i>		
4. Business arising from minutes:		
a. Capital Project Dashboard Update (verbal – see Item 6-l)	Director, Engineering and Technology Services	5 min
b. Public Service Announcements to HRM Councilors – to be discussed in Item #9	General Manager	
c. Outreach to Ratepayers – to be discussed in Item #9		
d. Flood Event of July 21, 2023 - Costs Incurred	CFO	5 min

Financial Reports		
5. Operating results as at September 30, 2023, and year-end projections	CFO	5 min
6. Capital expenditures as at September 30, 2023, and year-end projections		5 min
7. Proposed 2024 HRWC Employee’s Pension Plan Budget		10 min
<i>Motion: That the Halifax Water Board approve the proposed 2024 budget for the Halifax Water Employees’ Pension Plan covering the period January 1, 2024 to December 31, 2024, as attached to Report Item #7 dated November 17, 2023.</i>		

Capital Approvals		
8.1 Silver Sands Water Supply Plant – Linear Main Extension	Director, Engineering and Technology Services	10 min
<i>Motion: That the Halifax Water Board approve the linear main extension along Cow Bay Road to the Silver Sands Water Supply Plant at a total project cost of \$6,009,000.00 (including net HST).</i>		
8.2 Sewer Separation Program – South Park – Cathedral Lane Phase 2		
<i>Motion: That the Halifax Water Board approve funding in the amount of \$4,078,000 for the South Park – Cathedral Lane Phase 2 sewer separation project. Previous funding in the amount of \$93,000 was approved for design for a total project cost of \$4,171,000 inclusive of net HST.</i>		

Halifax Water Meeting Agenda

8.3 Sullivan’s Pond Storm Sewer Replacement – Phase II	Director, Engineering and Technology Services	5 min
<i>Motion: That the Halifax Water Board approve funding in the amount of \$6,220 000 for the Sullivan’s Pond Phase 2 – Part 1 project for a total Halifax Water cost of \$7,420,000 inclusive of net HST.</i>		
Other Business		
9. Planning, impact, and response to extreme weather events: - Overview of Impacts - Public Service Announcements to HRM Councilors - Outreach to Ratepayers	General Manager	30 min
10. Enterprise Risk Management Policy	ERM Program Manager	10 min
<i>Motion: That the Halifax Water Board approve the revised ERM Policy as attached to report Item #10 dated November 17, 2023.</i>		
11. Board Compensation Policy	Corporate Secretary	10 min
<i>Motion: That the Halifax Water Board approve the Board Compensation Policy attached to Report Item #11 dated November 17, 2023.</i>		
12. Halifax Water Board Governance Manual	Corporate Secretary	10 min
<i>Motion: That the Halifax Water Board approve the amendments to the Corporate Governance Manual attached to Report Item #12 dated November 17, 2023.</i>		

Information Reports
1-I. Operational Performance Report
2-I. Halifax Water Compliance Statement – quarterly certification
3-I. Halifax Water Employees’ Pension Plan Performance – Q3 2023
4-I. HRM Master Trust Investment Performance Q1 & Q2 2023
5-I. Institutional Capacity Report
6-I. Capital Project Dashboard


Approved by:




Digitally signed by Heidi
Schedler
Date: 2023.11.17
08:38:56 -04'00'

Heidi Schedler, KC
Secretary

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:  Digitally signed by Louis de Montbrun
Date: 2023.11.17 14:19:47 -04'00'

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

APPROVED: Tareq Al-Zabet  Digitally signed by Tareq Al-Zabet
Date: 2023.11.17 15:10:52 -04'00'

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

DATE: November 17, 2023

SUBJECT: **Proposed 2024 Halifax Regional Water Commission Employees' Pension Plan Budget**

ORIGIN

The Halifax Regional Water Commission Board (the "Board") are the Trustees of the Halifax Water Employees' Pension Plan (the "Plan") and approve the annual budget of the Plan.

RECOMMENDATION

It is recommended the Halifax Water Board approve the proposed 2024 budget for the Halifax Water Employees' Pension Plan covering the period January 1, 2024, to December 31, 2024, as attached to Report Item #7 dated November 17, 2023.

BACKGROUND

The purpose of the 2024 budget, as reported in the attached statement of changes in net assets available for benefits, outlines the various revenues, contributions and expenses of the defined benefit pension plan established for the employees of the Halifax Regional Water Commission ("Halifax Water"). Supplemental plans, namely the defined contribution plan and notional retirement compensation agreements are not reported, since budget implications related to these plans are included in the annual operating budget of Halifax Water.

DISCUSSION

The attached statement of changes in net assets available for benefits provides a comparison between the proposed 2024 budget, the approved 2023 budget, forecasted 2023 results and the year-end audited results for 2022.

As reported in the attachment, for 2024 the net assets available for benefits are projected to increase by \$11.3 million compared to a budgeted increase of \$7.4 million in 2023, and an actual increase of \$0.6 million in 2022. Actual results for 2023 are forecasted to be higher than budget due to an increase in the fair value of investment assets throughout the year. The budgeted increase proposed in 2024 is driven by favourable results anticipated related to revenues and contributions, net of expenses.

Revenue:

Total revenue for 2024 is budgeted at \$10.5 million, representing a \$3.5 million or 50.0% increase compared to the budget for 2023, and a \$10.3 million increase compared to actual results for 2022. Revenue is derived from two (2) primary sources:

- Investment income, and
- Increase / decrease in the fair value of investment assets.

The greatest impact in the 2024 budget affecting revenue as compared with the 2023 budget relates to the projected increase in the fair value of investment assets of \$8.1 million. In 2023, the increase was budgeted at \$4.4 million and the results for the nine (9) month period ending September 30, 2023, show an increase of \$7.5 million. In 2022, there was a decrease in the fair value of investment assets reported of \$2.8 million. Changes in the fair value of investment assets tend to be more volatile compared to investment income. Increases over the past 5 years have varied dramatically, going from a high of \$15.4 million in 2021 to a low of -\$2.8 million in 2022.

Investment income has been relatively consistent historically, averaging \$3.6 million during the 4-year period 2019-2022. Results for 2023 show investment income tracking at \$2.1 million for the nine (9) month period ending September 30, 2023. Investment income budgeted in 2024 of \$2.8 million represents a \$0.1 million decrease compared to the 2023 budget and a decrease of \$0.5 million compared to 2022. Investment income budgeted for 2024 is based on estimated 2023 results.

Key assumptions:

- Investment Income
 - ❖ Based on extrapolated results for 2023
- Increase in the fair value of investment assets
 - ❖ Based on average of last 5 years (using conservative estimate for the remainder of 2023)

Contributions:

Contributions are budgeted at \$7.7 million in 2024, representing an increase of \$0.8 million or 11.7% compared to the budget for 2023, and an increase of \$1.0 million or 15.2% compared to actual results for 2022. The increase in contributions is attributed to projected new hires during the year, salary/wage increases and movement of personnel within salary bands.

Key assumptions:

- Estimated 30 new hires.
- Salary/ wage escalations
 - ❖ Non-union – based on projected 2.25% increase.
 - ❖ Union – increase is not known as contracts have expired. Proposed budget contains a conservative 2.25% increase.
- Pensionable earnings capped at \$142,354 (was capped at \$140,945 for 8 years, increase by 1% starting in 2024)

Note on salary / wage increases:

- 2024 Budget is based on an increase of 2.25% for Non-union and for Local 227 and 1431. Each addition of 1% in salary and wage escalation would result in additional contributions of approximately \$75,000 throughout the year.
An increase in salary results in an increase in the revenue of the pension plan and the long-term obligations of the plan. The current contribution rates, as recommended by the actuary, are designed to consider the long-term health of the plan and the ability to fund the plan's long-term obligations.

Expenses:

Expenses of \$6.8 million are budgeted for 2024, an increase of \$0.4 million or 6.2% compared to the budget for 2023, and an increase of \$0.6 million or 9.6% compared to 2022. Benefit and Termination payments are the main driver of total expenses, and consist of:

1. Benefit payments to pensioners and survivors,
2. Termination payments, and
3. Pre-retirement death benefit payments.

Benefits paid to pensioners and survivors increase annually, as a result of employees retiring from Halifax Water, and as a result of indexation provided in the Plan. For 2024, budgeted payments to pensioners increased from \$5.4 million in 2023 to \$5.5 million based on projected retirements and indexation.

Termination payments are difficult to predict. In 2022, termination payments were \$0.9 million. Unaudited results for the nine (9) month period ending September 30, 2023, total \$0.8 million compared to an annual budget of \$0.8 million. For 2024, the budget has been increased \$0.2 million to a level within the range of the average paid out over the past five (5) years.

Administrative expenses account for approximately 4.0% of the overall budgeted expenses. For 2024, total administrative expenses are \$0.3 million, which are higher than 2023 due to the costs

expected relating to the Actuarial Valuation that will take place on January 1, 2025. (Costs will be accrued, (recorded), in 2024.) Actuarial and consulting fees represent the largest expense within the administrative grouping.

Key Assumptions:

- Indexing of benefit payments – based on 2.0% estimate
- Projected 8 new retirements
- Termination payments
 - ❖ Based on 5-year historical average, plus 10% to reflect large, known, pending termination payouts.
- Assume no pre-retirement death benefit payments for 2024

ATTACHMENT

Proposed 2024 HRWC Employees' Pension Plan Budget

Report Prepared by:

**Heather
Britten**


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Heather Britten
Date: 2023.11.17
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Heather Britten, B.Comm.
Quality Assurance Officer (782) 641-1431


Halifax Regional Water Commission Employees' Pension Plan
Statement of changes in net assets available for benefits
January 1 to December 31, 2024

	Actual (Audited) 2022	Approved Budget 2023	Forecast 2023	Proposed Budget 2024
Revenue				
Net investment income:				
Total investment income	\$3,307,029	\$2,900,000	2,800,000	\$2,800,000
Investment manager fees	(\$388,167)	(\$310,000)	(430,000)	(\$430,000)
Increase in the fair value of investment assets	(\$2,763,692)	\$4,400,000	8,710,000	\$8,100,000
	<u>\$155,170</u>	<u>\$6,990,000</u>	<u>\$11,080,000</u>	<u>\$10,470,000</u>
Contributions				
Participants:				
Current service (includes additional voluntary contributions)	\$3,375,425	\$3,479,100	3,676,584	\$3,890,416
Reciprocal Transfers	\$0	\$0	683,444	\$0
Sponsors:				
Current service	\$3,277,595	\$3,379,000	3,564,568	\$3,773,000
	<u>\$6,653,021</u>	<u>\$6,858,100</u>	<u>\$7,924,596</u>	<u>\$7,663,416</u>
Expenses				
Benefit payments:				
Benefit payments	\$5,089,704	\$5,406,000	5,280,000	\$5,536,000
Termination payments	\$909,506	\$800,000	1,400,000	\$1,000,000
Death Benefits (pre-retirement)	\$0	\$0	296,728	\$0
	<u>\$5,999,210</u>	<u>\$6,206,000</u>	<u>\$6,976,728</u>	<u>\$6,536,000</u>
Administrative:				
Actuarial and consulting fees	\$99,522	\$75,000	85,000	\$143,500
Audit and accounting fees	\$9,446	\$10,000	10,000	\$9,000
Bank custodian fees	\$20,941	\$28,000	24,063	\$26,300
Insurance	\$10,600	\$10,600	10,600	\$10,600
Miscellaneous	\$21,448	\$20,000	28,944	\$21,200
Professional fees	\$40,534	\$45,000	49,202	\$44,000
Registration fees	\$2,848	\$3,000	2,935	\$3,000
Training (Trustees/ Administration/ Pension Committee)	\$0	\$5,000	2,500	\$5,000
	<u>\$6,204,550</u>	<u>\$6,402,600</u>	<u>\$7,189,972</u>	<u>\$6,798,600</u>
Increase in net assets available for benefits	<u><u>\$603,641</u></u>	<u><u>\$7,445,500</u></u>	<u><u>\$11,814,624</u></u>	<u><u>\$11,334,816</u></u>

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

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

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

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

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

DATE: November 14, 2023

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

ORIGIN

Halifax Water 2019 Integrated Resource Plan.

RECOMMENDATION

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

BACKGROUND

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

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

DISCUSSION

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

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

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

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

These issues include:

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

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

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

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

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

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

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

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

BUDGET IMPLICATIONS

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

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

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

RISK

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

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

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

MILESTONES

The key milestones for this project are as follows:

Tender Issue Date: December 2023

Tender Closing Date: January 31, 2024

Start of construction: May 1, 2024

Project completion: November 15, 2024

ALTERNATIVES

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

ATTACHMENTS

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

Report Prepared By: _____



Jonathan MacDonald, P.Eng
Manager, Water Infrastructure Planning

Financial Reviewed by: _____



Digitally signed by Louis
de Montbrun
Date: 2023.11.17
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Louis de Montbrun, CPA, CA
Director, Corporate Services/CFO

SILVERSANDS WATER MAIN EXTENSION

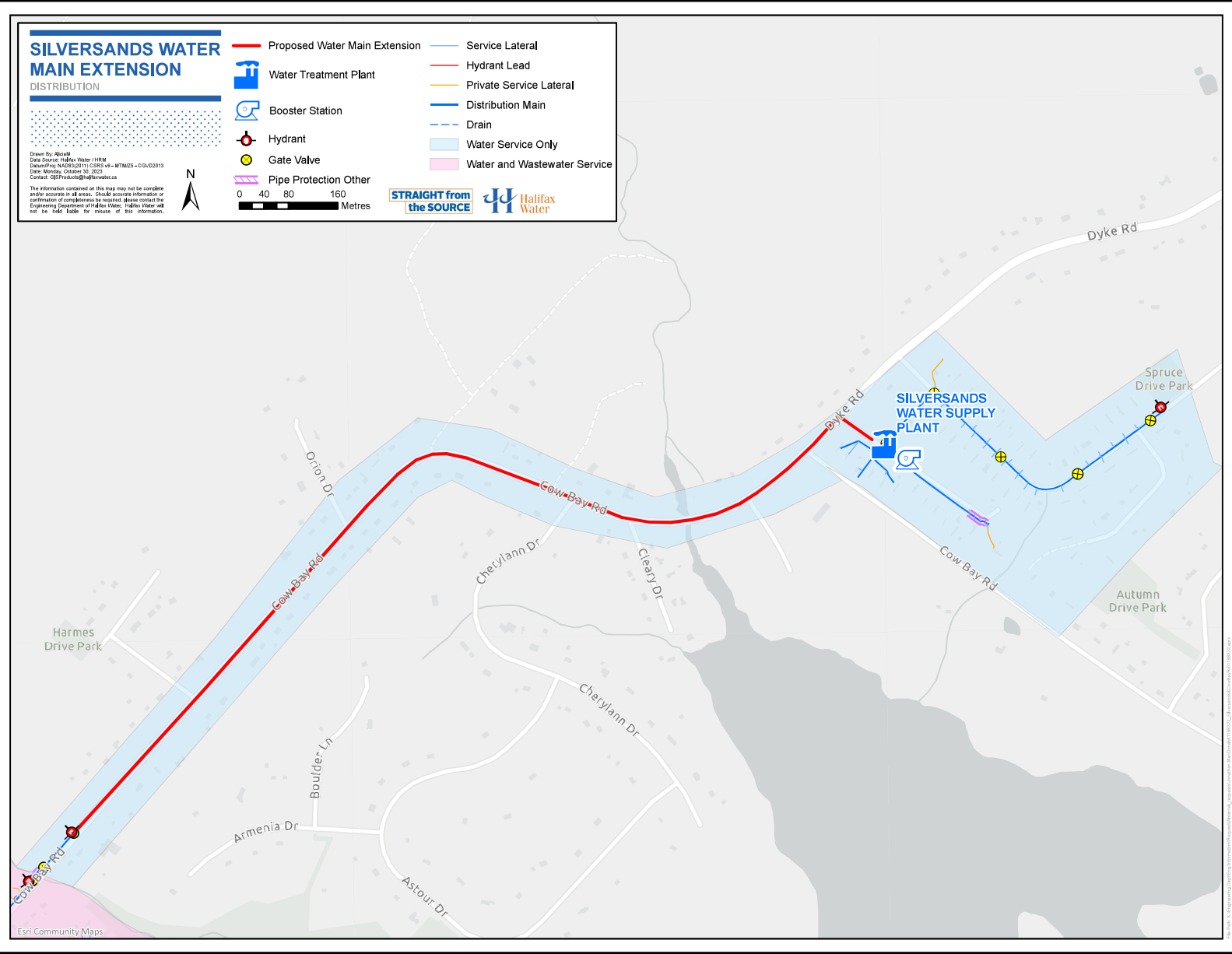
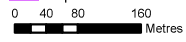
DISTRIBUTION

Drawn by: M&M
 Data Source: Halifax Water / HRM
 Drawing No: M&M/2011/CSRS-4-MTM25-COVID2013
 Date: Monday, October 30, 2017
 Contact: GISProduction@halifaxwater.ca

The information contained on this map may not be complete and/or accurate in all areas. Should accurate information or confirmation of completeness be required, please contact the Engineering Department of Halifax Water. Halifax Water will not be held liable for misuse of this information.



- Proposed Water Main Extension
- Service Lateral
- Water Treatment Plant
- Hydrant Lead
- Booster Station
- Private Service Lateral
- Hydrant
- Distribution Main
- Gate Valve
- - - Drain
- Pipe Protection Other
- Water Service Only
- Water and Wastewater Service



Silversands Watermain Extension

November 14, 2023


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

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


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

Total Future Funding Required \$5,859,000.00

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

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

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

APPROVED: Tareq Al-
Zabet  Digitally signed by Tareq
Al-Zabet
Date: 2023.11.17
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Tareq Al-Zabet, Ph.D., CRSP, P.Geo, CEO & General Manager

DATE: November 14, 2023

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

ORIGIN

Capital Planning

RECOMMENDATION

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

BACKGROUND & DISCUSSION

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

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

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

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

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

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

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

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

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

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

BUDGET IMPLICATIONS

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

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

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

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

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

RISK

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

MILESTONES

The key milestones for this project are as follows:

Tender Issue Date: December 2023

Tender Award Date: January 31, 2024

Start of construction: May 1, 2024

Project completion: November 15, 2024

ATTACHMENTS

Cost estimate


Map – South Park-Cathedral Lane capture areas



Report Prepared by:

Tom Gorman, P. Eng
Senior Manager, Infrastructure Planning

Financial Reviewed by:

 Digitally signed by Louis de Montbrun
Date: 2023.11.17 13:44:25 -0400

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

Cathedral Lane Sewer Separation Project

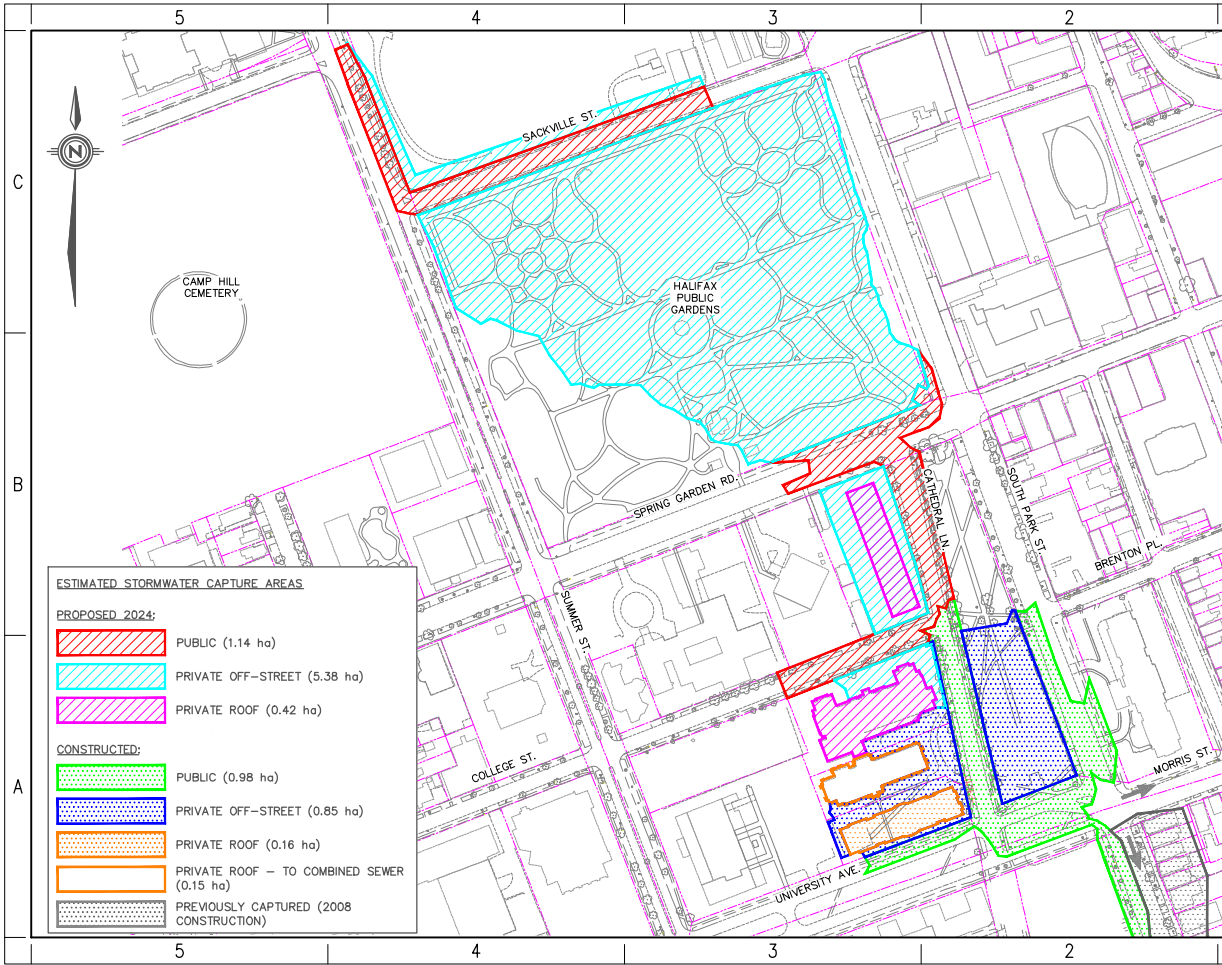
November 14, 2023

Description	Amount
Estimated Construction Cost - WSP	\$3,450,150.00
Sub-Total	\$3,450,150.00
10% Construction Contingencies	\$345,015.00
Sub-Total	\$3,795,165.00
Internal Halifax Water Costs (Project Management & Full time Site Inspection - estimated)	\$50,000.00
QA/QC Testing	\$15,000.00
Halifax Water Consultant Cost for Tender Phase, Construction Admin and Closeout (WSP)	\$101,560.00
Grand Total	\$3,961,725.00
Net HST (4.286%)	\$169,799.53
Overhead/Interest (1%)	\$39,617.25
Total Estimated Project Cost	\$4,171,141.78


Total Estimated Project Cost (Rounded) \$4,171,000.00

Previous Funding \$93,000.00

Total Future Funding Required \$4,078,000.00



ESTIMATED STORMWATER CAPTURE AREAS	
PROPOSED 2024:	
	PUBLIC (1.14 ha)
	PRIVATE OFF-STREET (5.38 ha)
	PRIVATE ROOF (0.42 ha)
CONSTRUCTED:	
	PUBLIC (0.98 ha)
	PRIVATE OFF-STREET (0.85 ha)
	PRIVATE ROOF (0.16 ha)
	PRIVATE ROOF - TO COMBINED SEWER (0.15 ha)
	PREVIOUSLY CAPTURED (2008 CONSTRUCTION)




WSP Canada Inc.
1 Spectacle Lake Drive
Dartmouth, Nova Scotia, Canada B3B 1X7
T 902-835-9955 F 902-835-1645 www.wsp.com

REVISION:	
1	2023/11/08 ISSUED FOR REVIEW
0	2023/11/08 ISSUED FOR DISCUSSION

NO.	DATE	DESCRIPTION
PROJECT NO:	181-11400	DATE: (YYYY/MM/DD) 2023/11/08

ORIGINAL SCALE: 1:2500
DESIGNED BY: WSP STAFF
DRAWN BY: WSP STAFF
CHECKED BY: S. LEWIS

SCALE: 1:2500 METRIC
50 30 10 0 50 100

CLIENT:  Halifax Water

ENGINEERING DEPARTMENT

PROJECT: SEWER SEPARATION PROGRAM


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

SHEET NUMBER: 1 OF 1	SKY # 1
----------------------	---------


ISSUE: ISSUED FOR REVIEW
DATE OF: 2023/11/08



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

SUBMITTED BY:  Digitally signed by Reid
Campbell
Date: 2023.11.17
14:26:32 -04'00'

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

APPROVED: Tareq Al-
Zabet  Digitally signed by Tareq
Al-Zabet
Date: 2023.11.17
15:10:07 -04'00'

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

DATE: November 14, 2023

SUBJECT: **Sullivan's Pond Storm Sewer Replacement – Phase 2**

ORIGIN

Capital Planning

RECOMMENDATION

The Halifax Water Board approve funding in the amount of \$6,220 000 for the Sullivan's Pond Phase 2 – Part 1 project for a total Halifax Water cost of \$7,420,000 inclusive of net HST.

BACKGROUND & DISCUSSION

Halifax Water has identified the need to replace its existing stormwater sewer system that runs from Sullivan's Pond to Dartmouth Cove. This stormwater system serves an urban watershed of approximately 1500 ha in size. The stormwater sewer is approximately 600 metres in length and was installed in the early 1970s. The stormwater sewer is made of corrugated steel pipe and is at the end of its service life and needs to be replaced.

The upper section of the stormwater sewer system from Sullivan's Pond to a point within Starr Park just north of Irishtown Road was replaced in 2018 as Phase 1 of the overall project to replace the complete stormwater sewer system. The Phase 1 project consisted of a combination of box culvert and open channel sections being installed to convey the stormwater flows. In addition to conveyance, the project also included various environmental considerations including the regulatory requirement for fish passage. Phase 2 will consist of much the same design elements of open channel and box culvert sections and will connect to Phase 1 within Starr Park and extend

to Halifax Harbour near Dartmouth Cove. The Phase 2 project will also satisfy the same environmental and regulatory requirements as Phase 1. This includes consideration of climate change impacts and adaptation. Funding in the amount of \$1,200,000 was previously approved for the overall design of Phase 2.

The Phase 2 project alignment passes through the Prince Albert Road / Portland Street / Alderney Drive intersection (PAPA) and as such the project is fully integrated and coordinated with other municipal work being done by Halifax Regional Municipality within the corridor. This includes street work, traffic signals, active transportation trails and the new Dundas Street extension bridge.

Phase 2 will occur over two construction seasons:

- Part 1 consists of the extension of Dundas Street via bridge over the existing canal to connect to Canal Street. Canal Street is also being upgraded and raised in accordance with HRM's future development plans for Dartmouth Cove. A portion of the stormwater channel is being replaced as part of bridge work. This work is planned for 2024.
- Part 2 will complete the stormwater channel replacement to Halifax Harbour as well as HRM's reconfiguration of the PAPA intersection and other associated work. This work is planned for 2025. In addition, a water control pressure reducing valve (PRV) chamber and related watermain piping will be replaced as part of the Part 2 work.

CBCL was retained to carry out the engineering services for this project. CBCL was the lead consultant for Phase 1. HRM and Halifax Water have a cost-share agreement in place regarding the cost of the shared consulting services.

The design work for Part 1 is 90% complete and it is expected that Halifax Water will be in a position to issue tender in early 2024. CBCL has completed a Class "C" Cost Estimate for Phase 2 (Part 1 in 2024 and Part 2 in 2025). Based on the cost estimates, the estimated project cost for Halifax Water's Stormwater portion of the work is as follows:

Part 1 (2024/2025): \$7,420,000
Part 2 (2025/2026): \$17,204,000

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

It is recognized that current market conditions are volatile. Proceeding to approvals prior to obtaining a tender price incurs a risk that the tender price will fall outside of approved

contingencies and require further approvals. After tender closing, should project costs exceed the funding allocated in the approval being sought, Halifax Water will evaluate the new project cost and make a determination whether it is prudent to proceed. If the decision is to proceed, Halifax Water will return to the Board and seek an increase in funding via a regular meeting, special meeting or email vote. Upon Halifax Water board approval, Halifax Water will then write to the NSUARB amending the funding approval request.

BUDGET IMPLICATIONS

Funding for consulting services in the amount of \$1,200,000 has been previously approved.

Funding for the Part 1 work, in the amount of \$6,220,000 is included in Year 1 of proposed 2024/2025 stormwater capital budget.

Funding for the Part 2 work, in the amount of \$17,204,000 will be included in the 2025/2026 stormwater capital budget.

Funding for the water-related portion of the Part 2 work, in the amount of \$1,500,000 is included in Year 2 of the proposed 2024/2025 water capital budget.

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

RISK

Deferring project to future years - The existing utility and municipal infrastructure is at the end of its service life. There is a significant risk of failure which will increase if the project is delayed. Deferral is not recommended.

MILESTONES

The key milestones for this project are as follows:

Tender issue Date: January 2024

Tender Award Date: March 31, 2024

Start of construction: May 1, 2024

Project completion: November 15, 2024

ALTERNATIVES

There are no suggested alternatives.

ATTACHMENTS

Cost Estimates (Part 1 & 2)
Project Plan

Report Prepared by:



Tom Gorman
Senior Manager, Infrastructure Planning

Financial Reviewed by:



Digitally signed by Louis
de Montbrun
Date: 2023.11.17
14:18:18 -04'00'

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

Sullivan's Pond Phase 2 Project
November 14, 2023

YEAR 1 -2024-2025

Description	Amount
Estimated Construction Cost - CBCL (Class C Estimate Concept Design dated October 20, 2023)	\$5,317,149.00
Sub-Total	\$5,317,149.00
Subtract Water System Work	\$15,142.00
Sub-Total	\$5,302,007.00
Add 20% Contingencies as per CBCL Estimate dated Oct 20, 2023 (10% Design Development + 10% Construction Contingency)	\$1,060,401.40
Sub-Total	\$6,362,408.40
Internal Halifax Water Costs (Project Management & Site Inspection - estimated)	\$25,000.00
QA/QC Testing - estimated	\$10,000.00
Halifax Water Consultant Cost for Tender Phase, Construction Admin and Closeout (CBCL)	\$650,000.00
Grand Total	\$7,047,408.40
Net HST (4.286%)	\$302,051.92
Overhead/Interest (1%)	\$70,474.08
Total Estimated Project Cost	\$7,419,934.41

Total Estimated Project Cost (Rounded) \$7,420,000.00

Previous Funding \$1,200,000.00

Total Future Funding Required \$6,220,000.00

Total Consulting for Construction = \$834,557.70

Halifax Water portion (66%) = \$550,808.08

Halifax Water Design portion = \$674,018.15 +10% Contingency (as per attached cost share agreement) = \$741,419.97

Halifax Water total (2024 & 2025 work) = \$1,292,228.05

Divide over two years of work = \$646,114 / Yr Say \$650,000/Yr

Sullivan's Pond Phase 2 Project

YEAR 2 -2025-2026

Description	Amount
Estimated Construction Cost - CBCL (Class C Estimate Concept Design dated October 20, 2023)	\$14,044,507.00
Sub-Total	\$14,044,507.00
Subtract Water System Work	\$1,027,825.00
Sub-Total	\$13,016,682.00
Add 20% Contingencies as per CBCL Estimate dated Oct 20, 2023 (10% Design Development + 10% Construction Contingency)	\$2,603,336.40
Sub-Total	\$15,620,018.40
Internal Halifax Water Costs (Project Management & Site Inspection - estimated)	\$50,000.00
QA/QC Testing - estimated	\$20,000.00
Halifax Water Consultant Cost for Tender Phase, Construction Admin and Closeout (CBCL)	\$650,000.00
Grand Total	\$16,340,018.40
Net HST (4.286%)	\$700,333.19
Overhead/Interest (1%)	\$163,400.18
Total Estimated Project Cost	\$17,203,751.77

Total Estimated Project Cost (Rounded) \$17,204,000.00

Previous Funding \$0.00

Total Future Funding Required \$17,204,000.00

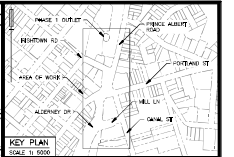
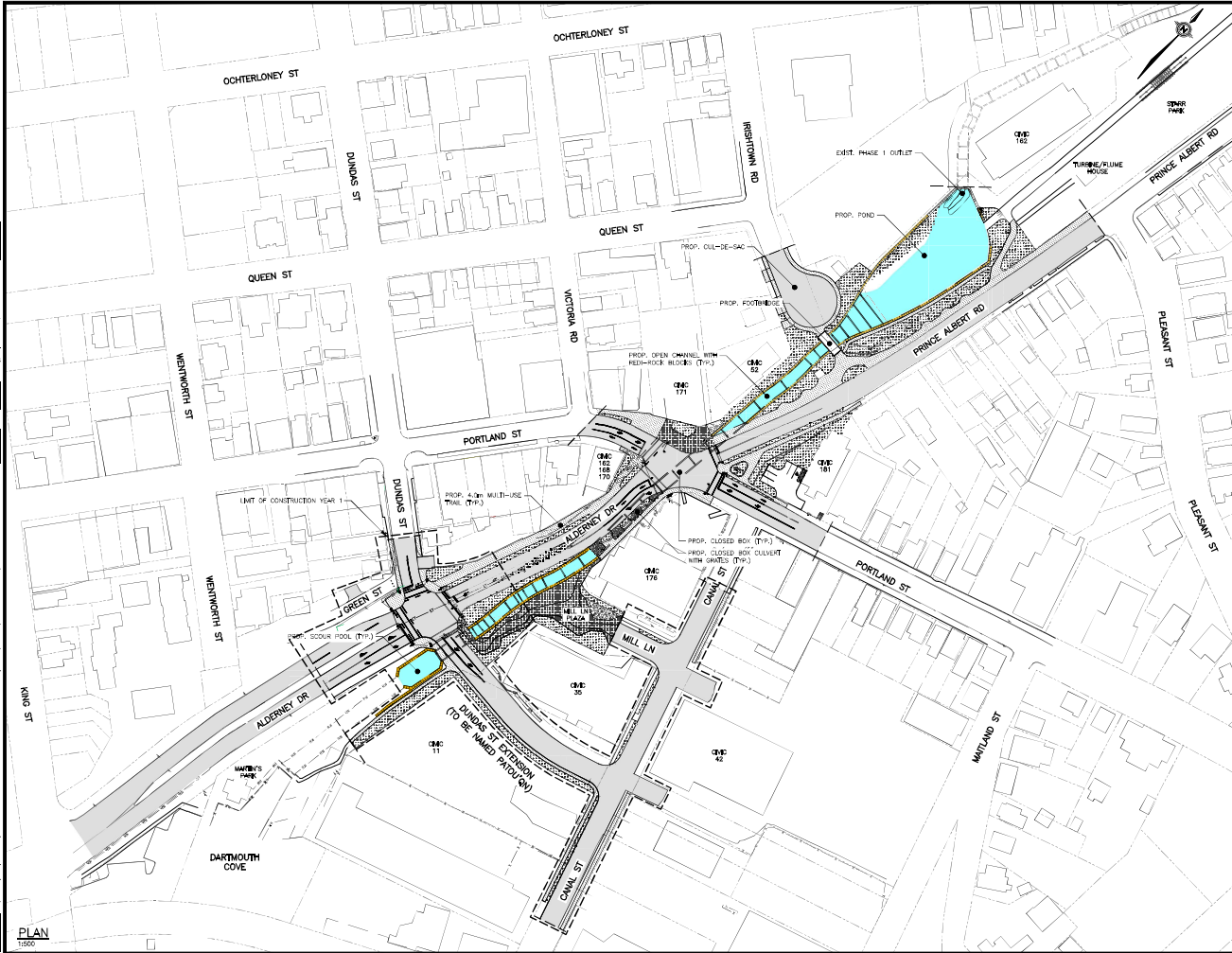
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Halifax Water total (2024 & 2025 work) = \$1,292,228.05

Divide over two years of work = \$646,114 / Yr Say \$650,000/Yr



EXISTING	PROPOSED
Property line	Property line
Asphalt	Asphalt
Concrete	Concrete
Grass	Grass
Water	Water
Storm sewer	Storm sewer
Sanitary sewer	Sanitary sewer
Proposed storm sewer	Proposed storm sewer
Proposed sanitary sewer	Proposed sanitary sewer
Proposed curb	Proposed curb
Proposed sidewalk	Proposed sidewalk
Proposed street	Proposed street
Proposed utility	Proposed utility
Proposed structure	Proposed structure
Proposed manhole	Proposed manhole
Proposed catch basin	Proposed catch basin
Proposed storm pond	Proposed storm pond
Proposed weir	Proposed weir
Proposed gate	Proposed gate
Proposed valve	Proposed valve
Proposed structure	Proposed structure
Proposed structure	Proposed structure
Proposed structure	Proposed structure
Proposed structure	Proposed structure
Proposed structure	Proposed structure
Proposed structure	Proposed structure
Proposed structure	Proposed structure
Proposed structure	Proposed structure
Proposed structure	Proposed structure
Proposed structure	Proposed structure

1. FOR GENERAL REFERENCE, SEE DRG 0100, 0105, 0108, AND 0109.

NOT FOR CONSTRUCTION

DATE	DESCRIPTION

CBCL

Halifax Water

ENGINEERING DEPARTMENT

SULLIVAN'S POND STORM SEWER REPLACEMENT PHASE 2 - DARTMOUTH COVE TO STARR PARK

OVERALL SITE PLAN

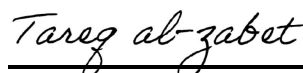
DATE:	131025.07
PROJECT:	C001

PLAN 131025.07

SCALE: 1:1000

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

SUBMITTED BY: 
Jeff Myrick, Manager, Communications and Public Affairs

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

DATE: November 23, 2023

SUBJECT: Proactive Communications Activities

INFORMATION REPORT

The following is an update on planned go-forward Communications activities related to Halifax Water's customers, its H2O program, and stakeholder engagement in Stormwater Management.

2023 Annual Customer Survey:

- The customer survey is conducted annually as part of an omnibus survey and is designed to gain general insights from participants who identify themselves as Halifax Water customers.
- While this survey provides annual qualitative and quantitative metrics about Halifax Water, it is not specifically designed for or to extract data exclusively from our customers and the services they receive.
- Based on research, a more in-depth customer satisfaction survey would require more resources, frequency, and budget.
- Based on discussions with the General Manager and the Director of Corporate Services, there is interest in redesigning the survey. Once the Manager of Customer Care position is filled, work will begin on revisiting the approach to the customer survey in early 2024.
- Based on this, the number of questions for the 2023 Annual Customer Survey will be limited to only the questions required to measure against our Corporate Balanced Scorecard goals for fiscal 2023/24.

H2O Program - Reconnecting with local community groups:

- Through outreach to key community groups over the past six months, it has become clear that awareness of and information about the H2O program is minimal beyond the Salvation Army – which manages the program.
- As a result, the communications team is developing a more robust and proactive approach to promoting the H2O program. This will be included as a part of a broader proactive communications plan being developed for Halifax Water by the end of 2023.
 - At a high level, tactics for this include:
 - Preparing a rotating schedule of social media posts, including the H2O Fund, regularly.
 - Development of posters promoting the H2O Fund. These will be distributed to HRM Community Centres, Recreation Centres, libraries, food banks, churches, etc.
 - Updating the H2O Fund pamphlet. Ensuring the updated version is provided to the Salvation Army, elected officials, and low-income support organizations for distribution.
 - Potentially developing an application kit that includes the pamphlet, application form, and a pre-addressed postage-paid envelope and distributing this to the Salvation Army, HRM Customer Service Centres, Halifax Water Customer Service Centre, etc.

Engagement/Education Regarding Stormwater Management Work and Billing:

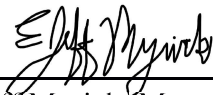
- Halifax Water will host four online information sessions in November/December.
 - Topic:
 - Extreme Rain Event (from July & August 2023):
 - Why Stormwater Management matters
 - Response to date, lessons learned
 - What this means for future stormwater management
 - How stormwater customers are impacted (billing)
 - Specific to areas most impacted.
 - These will be recorded and available online
- Webpages:
 - have been updated
- Information handouts:

- Editing to provide additional information and remove ROW charge info.
- Stormwater Management Videos:
 - Updating the existing video to remove the ROW charge information
 - Getting costing on creating a supplemental educational video on stormwater management
- Social Media:
 - Use social media to draw attention to stormwater management information, webpages, videos and information sessions.
 -

ATTACHMENT

PowerPoint Presentation: Planning, Impact and Response to Extreme Weather

Report prepared by:



Jeff Myrick, Manager, Communications and Public Affairs
Phone: 902-266-9027

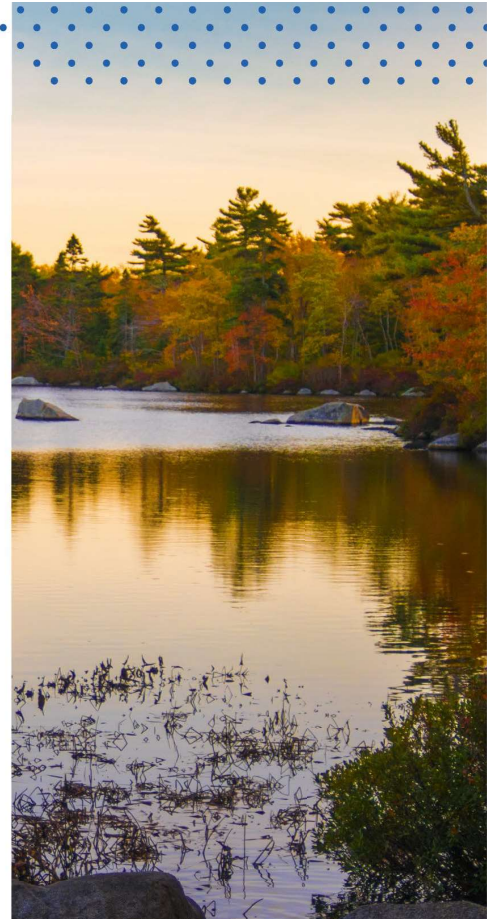


Planning, Impact and Response to Extreme Weather

Halifax Water Board Meeting

November 23, 2023

**STRAIGHT from
the SOURCE**



Overview:

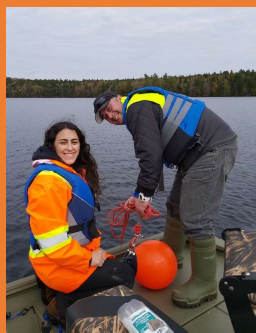
- Overview of impacts of recent extreme weather to systems
- Public Service Announcements to HRM Councillors
- Outreach to Ratepayers



Source Water Monitoring

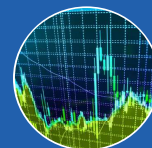
Source Water Protection Monitoring

- Routine monitoring program est. 2009
- Watersheds
 - Monthly/bimonthly at tributary sites
- Deep lake
 - Spring, summer, fall at deepest location in lake

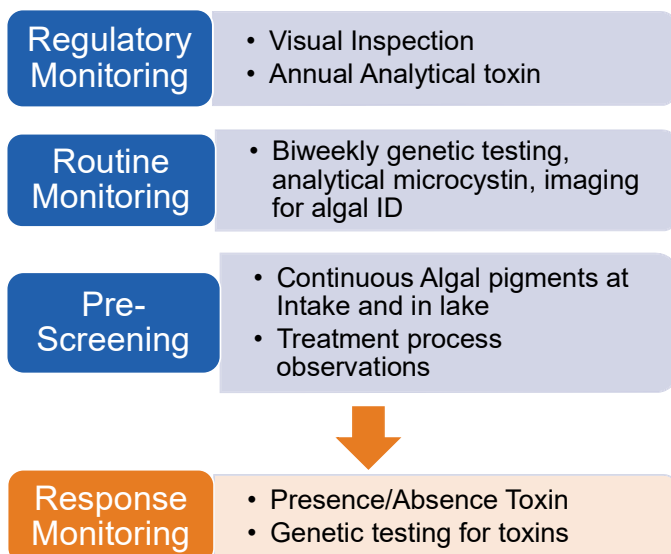


Algal Monitoring Strategy

- Evolving program since 2016
 - based on best practice & risk mitigation
- Treatment assessment
- Use of tools to assess cyanobacteria and cyanotoxin risk to water supplies
 - Response Action Plan
 - Combination of in-house tools and accredited lab analysis

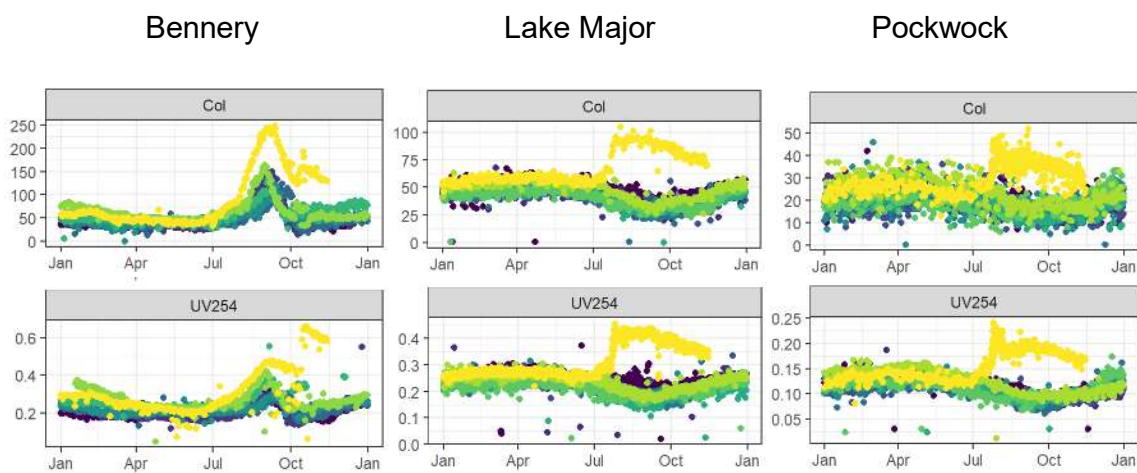


Early Warning Systems – Current Algal Monitoring Strategy




Observed Impacts

- Flood event on July 21 and continued substantial rainfall has led to unprecedented and sustained changes to source water quality: organics, metals, pH.
- Changes may be long term with new baselines established as we now enter a “new normal”

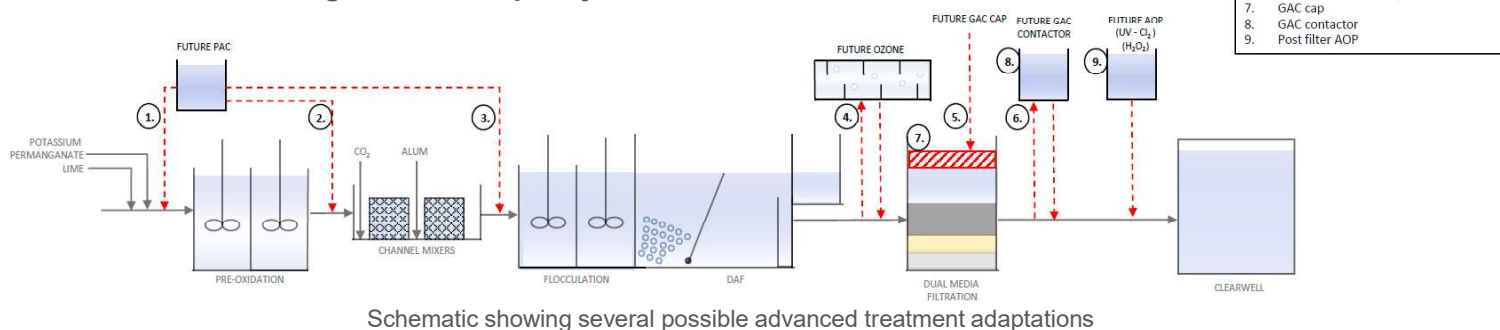


Excessive Precipitation – Impact to Source Water Treatment

- Throughout and since the event, **our water remains safe to drink** – Halifax Water continues to produce water that meets all drinking water guidelines.
 - Excessive and continued substantial rainfall has led to unprecedented and sustained changes to source water quality: organics, metals, pH.
 - Changes may be long term with new baselines established as we now enter a “*new normal*”. Source water changes have resulted in adjustments to the treatment process to maintain high quality safe drinking water. The impact of these changes include:
 - ↑ Chemical use
 - ↑ Energy use
 - ↓ Production efficiency
 - ↑ Increased operator resources to manage process
 - With both long-term trends and recent changes to source water quality, the JD Kline treatment plant is now operating outside the design criteria for a direct filtration plant. This has caused operational challenges but has not affected the safety of the drinking water.
- 

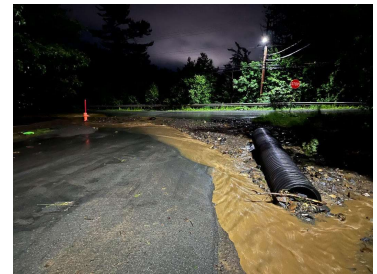
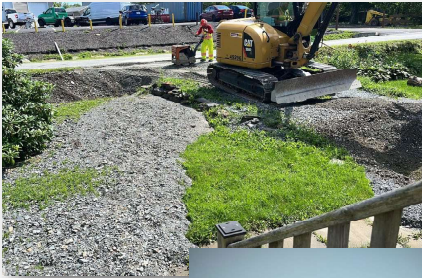
Water Supply Enhancement Program

- Drivers:
 - Climate Change and Lake Recovery, aging assets, changing regulatory requirements
- 2 main treatment phases for robust and resilient, future-proof treatment
 - Pre-treatment and clarification (2028-30)
 - Process resilience
 - Advanced treatment (2035)
 - Natural organic matter, algal toxins, taste and odour
- WSEP addresses **long term water quality and infrastructure needs**



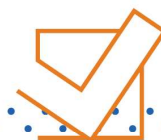
Schematic showing several possible advanced treatment adaptations

Impacts to Stormwater & Wastewater Systems



Key Points

- Climate Change is a risk to our source water & overall wastewater and stormwater systems
- This creates operational challenges for Halifax Water
- The team is focused on meeting these challenges and adapting
- Halifax Water continues to produce water that meets all Health Canada guidelines for safe drinking water; and
- Continues to operate and respond to impacted infrastructure during emergency events

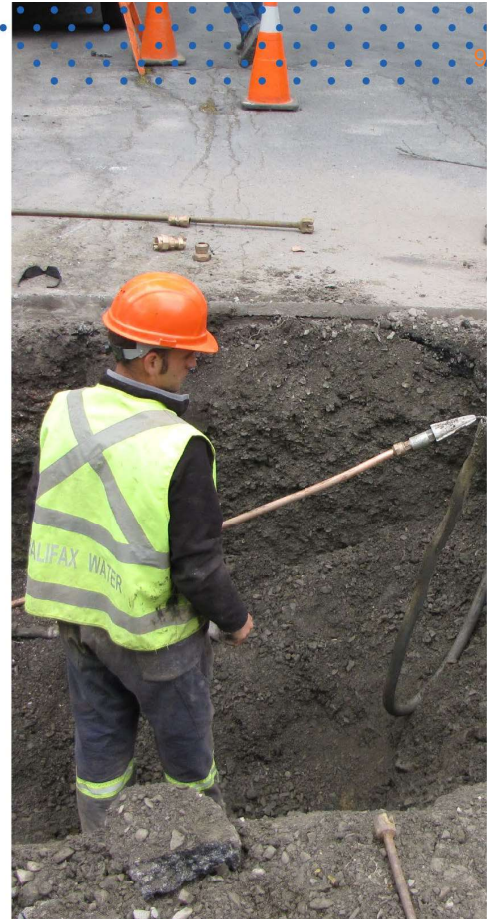




Extreme Weather Response: Communications

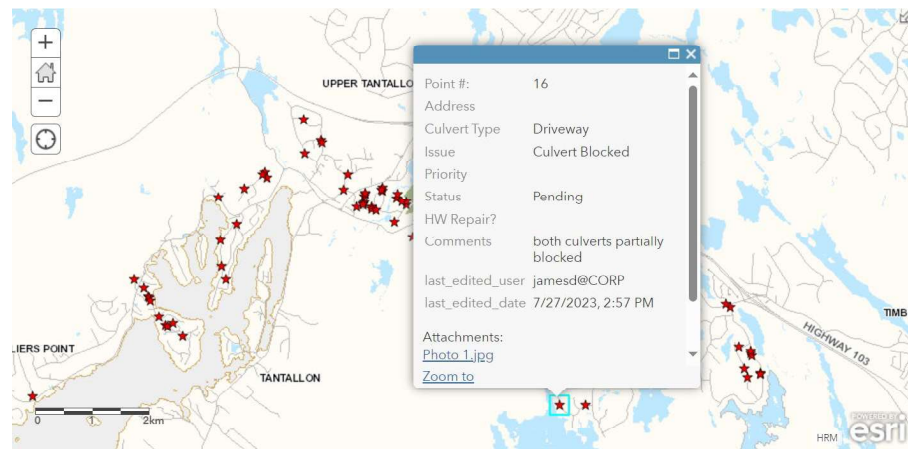
- Halifax Water is committed to ensuring that all stakeholders are provided with the information they need.
- While this is at the forefront during extreme weather events, it is important to note that once Halifax Water is embedded in the Emergency Response Structure, the coordination of communication with HRM/NSECC requires agreement at that level.

**STRAIGHT from
the SOURCE**



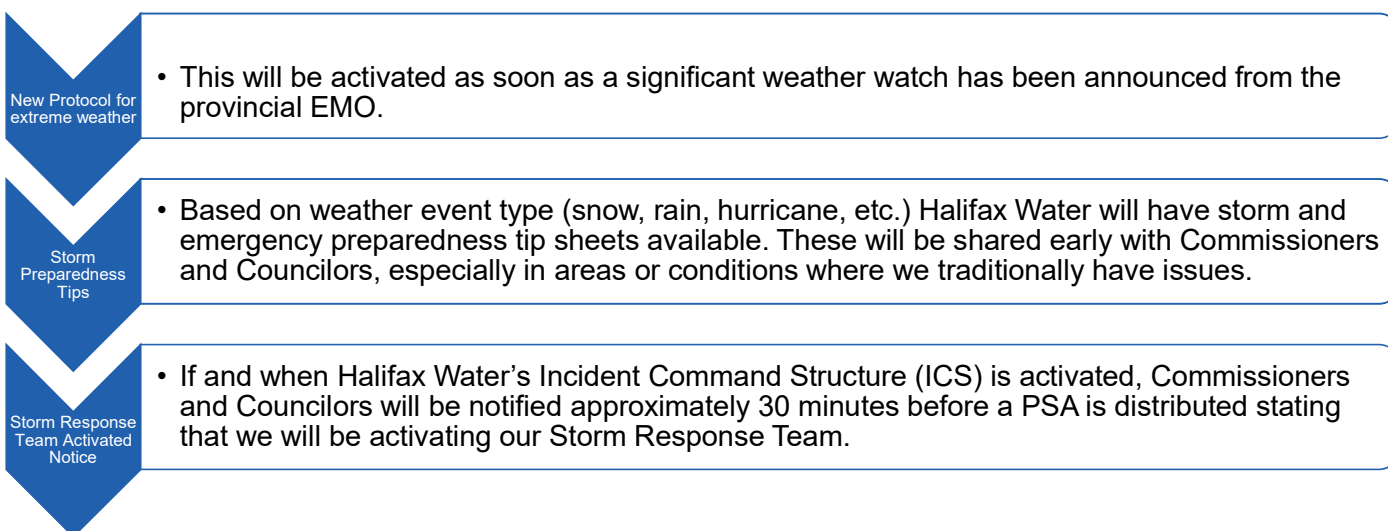
Stormwater Infrastructure HRM/HW Coordination

- Enhanced communications and delineation of responsibilities between HRM/HW are required.
- More efficient and effective triaging of calls/emails going to the Customer Care Centre, which is based on prioritization
- We will be revisiting:
 - The intake and escalation process to ensure inquiries are managed/not duplicated
 - Resource needs to manage volume and levels of service



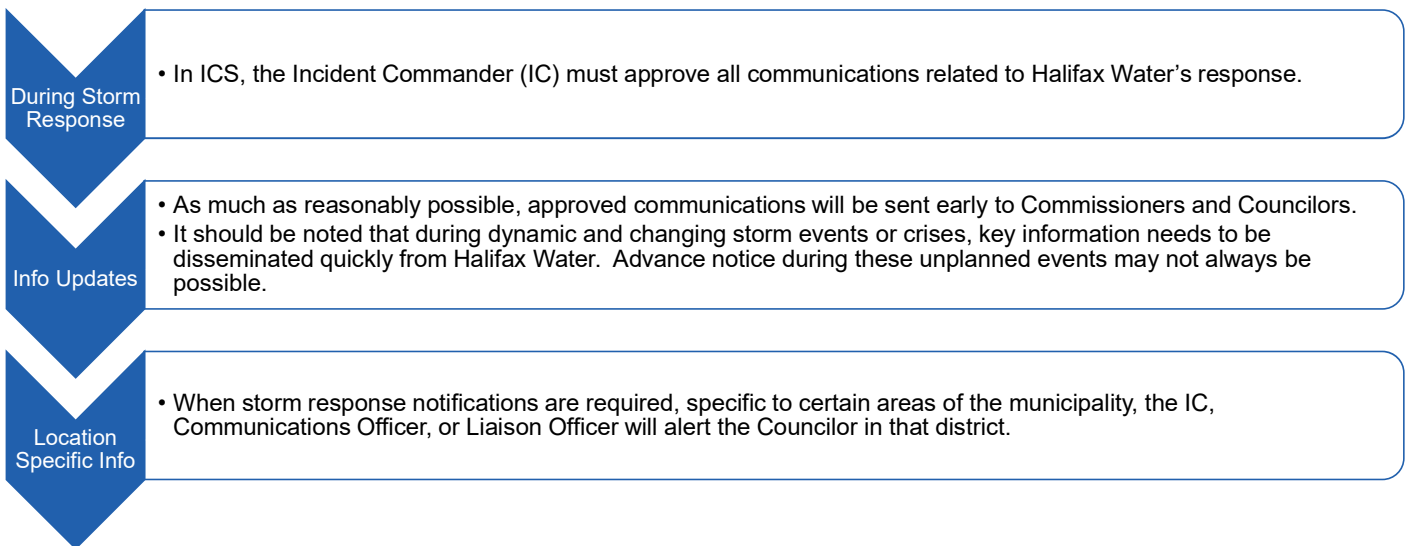
Communications – Extreme Weather Response

Moving forward, Halifax Water will use the following communication approach during extreme weather events:



Communications – Extreme Weather Response

Moving forward, Halifax Water will use the following communication approach during extreme weather events:




Communications – Extreme Weather Response

Post-weather events: we will pro-actively and pre-emptively disseminate information to the ratepayers, including newsletters and public outreach.

Host online information sessions to update customers.

- Topic:
 - Example: Extreme Rain Events
 - Why Stormwater Management matters
 - Response to date, lessons learned
 - What this means for future stormwater management
 - How stormwater customers are impacted (billing)
- Specific to areas most impacted.
- These will be recorded and available online

Information will also be shared with area Councilors for their social media and newsletters.



Communications – Extreme Weather Response

Webpages:

- Have been updated

Information handouts:

- Editing to provide additional information and remove ROW charge info.

Stormwater Management Videos:

- Updating the existing video to remove the ROW charge information
- Getting costing on creating a supplemental educational video on stormwater management

Social Media:

- Use social media to draw attention to stormwater management information, webpages, videos and information sessions






Questions

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

SUBMITTED BY:



Digitally signed by Louis de Montbrun
Date: 2023.11.17
16:22:14 -04'00'

Louis de Montbrun, Director, Corporate Services/CFO

APPROVED:



Digitally signed by Tareq Al-Zabet
Date: 2023.11.20
10:29:47 -04'00'

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

DATE: November 17, 2023

SUBJECT: **Revisions to the Enterprise Risk Management Policy**

ORIGIN

Enterprise Risk Management (ERM) Policy & Framework and ERM Board Committee Business Cycle.

RECOMMENDATION

It is recommended that the Halifax Water Board approve the revised ERM Policy as attached to report item #10 dated November 17, 2023.

BACKGROUND

At the November 8, 2023, meeting of the Halifax Water Enterprise Risk Management Committee, the changes to the ERM Policy were endorsed and the committee recommended the Halifax Water Board approve the revised ERM Policy attached to this report.

Following the commencement of the Halifax Water Enterprise Risk Management (ERM) Program, the policy document which provides the guidance on implementing the framework was developed alongside other risk management tools. This was reviewed shortly after the delivery of the program and was approved for use. As Halifax Water is an essential service provider and operated in a dynamic business, the ERM Program Manager initiated a review of the policy to further represent the peculiarity of our risks and the approach to managing them.

DISCUSSION

The ERM Policy has been revised:

1. To minimize ambiguity in the current policy document and attempt to be more comprehensive.
2. To specify clear strategies on the scope of risks and approach to managing them.
3. To conceptualize the risk appetite statement in a way that it represents the entirety of our services.
4. To promote ownership and accountability of key risks and the completion of required analysis and mitigation strategies.
5. To define a clear cycle for every risk item from identification through response and monitoring.

Key Changes

The following sections in the policy document had changes:

- Purpose
- Introduction
- Risk Appetite Statement
- Definitions
- Methodology
- Roles & Responsibilities

A redline and clean version of the policy are attached to this report.

Impact on the ERM Program

The review of the ERM Policy will impact the ERM framework, which in turn leads to changes on the risk management tools and the process of improving the risk management communication and culture across the entire governance structure.

Next Steps

Following adoption of the revised ERM Policy, the review of the ERM Framework will commence and will lead to changes to the ERM tools which will be implemented. Some of which includes.

1. Redesign of the ERM Risk Register
2. Implementation of the Remediation Action Tracker
3. Implementation of the Key Risk Indicators Monitoring Tools
4. Commencement of Organization-wide Risk Assessment Exercise
5. Expansion of the Business Continuity Management Program to cover the entire organization.

It is expected this ERM committee will be engaged in January to review the risk register. Other steps in this process will be presented to this committee as needed and as they mature.

ATTACHMENTS

Attachment 1: Report to the ERM Committee

Report Prepared by:




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Adedamola M. Akande
Date: 2023.11.17
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Adedamola M. Akande, Enterprise Risk Management, Program Manager

November 8, 2023

TO: Chair, and Members of the Halifax Regional Water Commission Enterprise Risk Management Committee

SUBMITTED BY:

 Digitally signed by Louis de Montbrun
Date: 2023.11.07
17:14:29 -04'00'

Louis de Montbrun, Director, Corporate Services/CFO

APPROVED:

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

DATE: November 2, 2023

SUBJECT: Revisions to the Enterprise Risk Management Policy

ORIGIN

Enterprise Risk Management (ERM) Policy & Framework and ERM Board Committee Business Cycle.

RECOMMENDATION

It is recommended that the ERM Committee endorse the changes to the ERM Policy and recommend to the Board approval the revised ERM Policy attached to this report.

BACKGROUND

Following the commencement of the Halifax Water Enterprise Risk Management (ERM) Program, the policy document which provides the guidance on implementing the framework was developed alongside other risk management tools. This was reviewed shortly after the delivery of the program and was approved for use. As Halifax Water is an essential service provider and operated in a dynamic business, the ERM Program Manager initiated a review of the policy to further represent the peculiarity of our risks and the approach to managing them.

DISCUSSION

The ERM Policy has been revised:

1. To minimize ambiguity in the current policy document and attempt to be more comprehensive.
2. To specify clear strategies on the scope of risks and approach to managing them.
3. To conceptualize the risk appetite statement in a way that it represents the entirety of our services.
4. To promote ownership and accountability of key risks and the completion of required analysis and mitigation strategies.
5. To define a clear cycle for every risk item from identification through response and monitoring.

Key Changes

The following sections in the policy document had changes:

- Purpose
- Introduction
- Risk Appetite Statement
- Definitions
- Methodology
- Roles & Responsibilities

A redline and clean version of the policy are attached to this report.

Impact on the ERM Program

The review of the ERM Policy will impact the ERM framework, which in turn leads to changes on the risk management tools and the process of improving the risk management communication and culture across the entire governance structure.

Next Steps

Following adoption of the revised ERM Policy, the review of the ERM Framework will commence and will lead to changes to the ERM tools which will be implemented. Some of which includes.

1. Redesign of the ERM Risk Register
2. Implementation of the Remediation Action Tracker
3. Implementation of the Key Risk Indicators Monitoring Tools
4. Commencement of Organization-wide Risk Assessment Exercise
5. Expansion of the Business Continuity Management Program to cover the entire organization.

It is expected this committee will be engaged in January to review the risk register. Other steps in this process will be presented to this committee as needed and as they mature.

ATTACHMENTS

Attachment 1: Revised ERM Policy

Attachment 2: Redline version of ERM Policy

Report Prepared by:



Digitally signed by
Adedamola M. Akande
*Date: 2023.11.07
15:22:12 -04'00'

Adedamola M. Akande, Enterprise Risk Management, Program Manager

Financial Review by:



Digitally signed by Louis
de Montbrun
Date: 2023.11.08
09:03:01 -04'00'

Louis de Montbrun, CPA, CA

Director, Corporate Services/CFO

Intent

To promote a risk management awareness and ownership culture across the organization. This Policy applies to all Board commissioners, employees, and other stakeholders.

Purpose

The Enterprise Risk Management Policy is designed to implement a consistent approach towards managing risks within Halifax Water. The Policy provides all stakeholders with a clear perspective on the overall risk management strategies, it also specifies roles and responsibilities of all stakeholders towards achieving the core objectives of the Policy. Halifax Water recognizes that risk is present in all business activities and that the effective management of risk is a critical success factor in attaining Halifax Water's purpose and strategic objectives. Halifax Water is committed to raising awareness of ERM by:

- Establishing a systematic approach to managing and reporting key business risks;
- Facilitating a risk-based assessment of both new and existing opportunities;
- Integrating risk management into the design of processes and business decision making activities; and
- Implementing initiatives, activities, and decisions intended to attain the strategic objectives of the organization.

This Policy is intended to define ERM principles and specify expectations associated with Halifax Water's risk management activities and governance.

Introduction

Risk management has continuously evolved as an integral part of sustainable systems. Organizations that have maintained quality and service despite the various internal and external adverse factors are known to have a sound risk management framework and culture.

Halifax Water has adopted Enterprise Risk Management (ERM) as a governance and operational best practice.

ERM consists of risk management practices and procedures applied across the organization to identify, measure, assess, respond to, monitor, report on principal risks and driving factors that affect the achievement of business objectives. ERM allows Halifax Water to holistically manage its risks across the various pillars of the organization and report key focus areas to the Halifax Water Board of Commissioners (Board).

Guiding risk appetite, definitions and principles

Halifax Water's overall risk appetite statement is:

Halifax water seeks to accept and effectively manage the risks inherent in providing high quality water, wastewater and stormwater services including but not limited to public health, public service, workplace safety and security, asset management, environmental and regulatory compliance risks.

The following principles were used to guide Halifax Water in building its ERM process:

- Creating value and transparency
- Driving action and business planning
- Addressing uncertainty
- Tailoring organizational capability to manage risk
- Facilitating evidence-based, balanced and better decision making

The following definitions are relevant to ERM at Halifax Water:

Risk is a combination of potential threat and opportunity; it is the chance of an event, action, inaction, or incident that could affect Halifax Water's ability to achieve its business and strategic objectives and regulatory obligations.

Risk Universe identifies all of the risks identified for Halifax Water, which are ranked based on likelihood and impact, grouped based on the primary directorate ownership of the risk and its corresponding mitigation with control action, sorted based on risk category and documented in risk registers. The risk universe and risk registers are highly sensitive information which must be treated confidentially.

The corporate risk register is the record of the very significant risks that require input from the ERM Steering Committee, Senior Management and Board based on one or more of the following;

- Approval to implement resolution action items;
- Overall impact on occupational & public health; and
- Regulatory & environmental exposures

The corporate risk register is updated on a regular basis, to reflect the current exposure levels that the organization holds on each risk. The corporate risk register is an excerpt of high priority exposures identified from the various executive risk registers.

Executive risk registers are records of risks identified across the various business functions in the directorate and managed within the oversight of the executive in the group. An executive risk register is a combination of all business functional risk registers within the group.

Policy Statement

Halifax Water accepts that risks, and opportunities, are present in all business activities. Consequently, Halifax Water recognizes the need for ERM as a consideration in strategic and operational planning, day-to-day management, and decision-making at all levels in the organization.

This Policy recognizes and encourages the effective management of risk, promotes the attainment of Halifax Water's purposes and strategic objectives, and addresses critical risks before they materialize and negatively impact the organization.

ERM Methodology

Halifax Water ERM framework provides the implementation guidelines for coordinating the risk management activities to align with our strategic objectives. The framework adopts the following methodologies:

- Risk Governance
- Objective Setting
- Event Identification
- Risk Assessment
- Risk Response
- Control Activities
- Information & Communication
- Risk Monitoring
- Risk Reporting

An extensive detail on each methodology have been outlined in the framework document accordingly.

Procedures

Updating ERM System Components - Halifax Water commits to staying current with developments, being aware of emerging risks, and keeping pace with a changing environment.

Communication - Risk information shall be gathered, analyzed and communicated in a structured way to ensure the relevant individuals in the Utility are aware of the risks and take their responsibility for managing the risk.

The ERM shall perform periodic local campaigns, targeted at all personnel across the organization to spread enterprise risk management awareness.

Training - Halifax Water is committed to providing training and knowledge development in ERM. Halifax Water will ensure that all employees, particularly those with management, advisory, and decision-making responsibilities, obtain a sound understanding of ERM principles, and the requisite skills to implement ERM effectively.

Continual review and improvement - Halifax Water is committed to continuous improvement through monitoring performance and reviewing progress in ERM. Halifax Water will regularly monitor and review the progress being made in developing an appropriate ERM culture as well as the effective implementation of risk management strategies throughout the organization:

- The Board will review this Policy and the corporate risk register every two years at a minimum, and more frequently if and when a significant event occurs;
- In coordination with the ERM Program Manager, the ERM Steering Committee will review this Policy and the corporate risk register regularly and provide recommendations to the Executive Management Team;

- The Executive Management Team will review the executive risk registers regularly and include this as an agenda item at their regularly scheduled meetings;
- The ERM Program Manager will monitor the ERM process for any conflicts, issues or discrepancies and report to the Board ERM Committee accordingly.

Roles and Responsibilities

Risk will be managed as part of Halifax Water's corporate governance and management processes. ERM is an integral part of all management and decision-making functions within Halifax Water. Identifying risk and implementing control strategies will be delegated by the Board and management as appropriate.

The risk oversight responsibilities are based on Halifax Water's seven broad risk categories, which align very closely to the Corporate Balance Scorecard key success factors:

- Financial & Asset Management: Halifax Water seeks to minimize financial risks and thus, has **some tolerance** towards any impact that could affect the annual operating results or affect the critical assets.
- Service: Halifax Water strives to maintain the highest of professional and ethical service standards. We have a **low tolerance** towards any actions that could adversely impact our reputation and ability to fulfil our service obligations.
- Public Health: Halifax Water has **zero tolerance** for actions or behaviours that adversely impact its ability to provide safe drinking water to its customers. Halifax Water has a **low tolerance** for wastewater or stormwater discharges that could adversely impact the health of the public.
- Regulatory Compliance: Halifax Water has a **low tolerance** for actions that attract negative regulatory attention.
- Workplace Safety & Security: Halifax Water has **zero tolerance** for behaviours or operations that put our employees or members of the public at risk.
- Environment: Halifax Water has **low tolerance** for any action that could negatively impact the quality and safety of the environment as a result of uncontrolled discharges of drinking water, wastewater, and stormwater or associated delivery/storage of chemical products.
- People: Halifax Water has a **low tolerance** towards behaviours that would adversely affect its ability to provide a positive, respectful culture of accountability, where employees are engaged and working together to achieve the organization's strategic objectives.

The Board is responsible for providing oversight and strategic direction on ERM at Halifax Water. The Board may delegate certain responsibilities to Board committees and/the Chief Executive Officer/General Manager as they see fit.

The Chief Executive Officer/General Manager is accountable for implementing this Policy and establishing the processes and activities necessary to manage Halifax Water’s key risks.

The Steering Committee provides guidance to employees and stakeholders charged with implementing ERM by establishing a corporate ERM program to identify, measure, mitigate, monitor, and report on potential events that may affect the business or operations of Halifax Water. The ERM Steering Committee shall provide input to the Executive Management Team regarding and recommend approval of Halifax Water’s ERM plan.

The Executive Management Team is accountable for the management of risk within their executive risk registers. Providing oversight on the implementation of the ERM process, the Executive Management Team maintains the executive risk registers, prioritizes risk mitigation, identifies decision parameters, confirms the effective operation of ERM processes and provides timely and accurate updates to the Board when requested, and to employees when required.

The ERM, Program Manager maintains the corporate risk register and coordinates regular reviews and updates to the process. The ERM Program Manager provides ongoing advice and training related to ERM and this Policy and acts as a liaison to ERM external stakeholders.

Halifax Water Senior Managers, Managers and Supervisors have specific responsibilities for reporting and managing risks. All levels of management are expected to understand the risks that fall within their areas of responsibility as well as to manage and report on these risks in accordance with this Policy and the various the risk registers. Managers and Supervisors are responsible for ensuring the consistent application of the ERM Policy by their employees, and for confirming all direct reports are aware of their roles and responsibilities under this Policy.

Employees are responsible to understand and accept this Policy, report inefficient, unnecessary, or unworkable ERM controls, report risk and loss events to their supervisor, and cooperate with management on incident investigations.

Implementation Date: Nov. 19, 2021
Updated: Nov. 01, 2023
Recommended for Board Approval: Nov 08, 2023
Approved by the Board: Nov.

Intent

~~To promote a risk management awareness and ownership culture across the organization. This Policy applies to all Board commissioners, employees, and other stakeholders. To balance risk to the benefit of our customer and the environment. This Policy applies to all Board commissioners and employees, and outlines ERM related accountabilities and responsibilities.~~

Purpose

~~The Enterprise Risk Management Policy is designed to implement a consistent approach towards managing risks within Halifax Water. The ~~policy~~Policy provides all stakeholders with a clear perspective on the overall risk management strategies, it also specifies roles and responsibilities of all stakeholders towards achieving the core objectives of the ~~policy~~Policy. Halifax Water recognizes that risk is present in all business activities and that the effective management of risk is a critical success factor in attaining Halifax Water's ~~purpose mission~~ and strategic objectives. Halifax Water is committed to raising awareness of ERM by:~~

- ~~E~~establishing a systematic approach to managing and reporting key business risks;
- ~~F~~facilitating a risk-based assessment of both new and existing opportunities;
- ~~I~~ntegrating risk management into the design of processes and business decision making activities; and
- ~~I~~mplementing initiatives, activities, and decisions intended to attain the strategic objectives of the organization.

This Policy is intended to define ERM principles and specify expectations associated with Halifax Water's risk management activities and governance.

Introduction

~~Risk management has continuously evolved as an integral part of sustainable systems. Organizations that have maintained quality and service despite the various internal and external adverse factors are known to have a sound risk management framework and culture.~~

~~The Halifax Regional Water Commission (Halifax Water) has adopted Enterprise Risk Management (ERM) as a governance and operational best practice. Risk is a combination of potential threat and opportunity; it is the chance of an event, action, inaction, or incident that could affect Halifax Water's ability to achieve its business and strategic objectives and regulatory obligations.~~

Commented [AA1]: The Definition is already included in the Guiding Risk Appetite, Definition and Principles section

~~ERM consists of risk management practices and procedures applied across the organization to identify, measure, assess, respond to, ~~monitor, monitor, report on principal risks and driving factors that affect the achievement of business objectives.~~ ERM allows Halifax Water to holistically manage its risks across the various pillars of the organization and report key focus areas to the Halifax Water Board of Commissioners (Board) and report on principal risks that affect the achievement of business objectives. ERM allows Halifax Water to identify, measure, and monitor key risk areas and to report on key risks to the Halifax Water Board of Commissioners (Board).~~

Guiding risk appetite, definitions and principles

Halifax Water's overall risk appetite statement is:

Halifax water seeks to accept and effectively manage the risks inherent in providing high quality water, wastewater and stormwater services including but not limited to public health, public service, workplace safety and security, asset management, environmental and regulatory compliance risks.

Halifax Water's risk appetite is derived by its ability to provide world class water, wastewater and stormwater services efficiently, while minimizing impact to the environment.

Commented [AA2]: Making the Risk Appetite statement more specific to our core objectives.

The following principles were used to guide Halifax Water in building its ERM process:

- Creating value and transparency
- Driving action and business planning
- Addressing uncertainty
- Tailoring organizational capability to manage risk
- Facilitating evidence-based, balanced and better decision making

The following definitions are relevant to ERM at Halifax Water:

Risk is a combination of potential threat and opportunity; it is the chance of an event, action, inaction, or incident that could affect Halifax Water's ability to achieve its business and strategic objectives and regulatory obligations.

Risk Universe identifies all of the risks identified for Halifax Water, which are ranked based on likelihood and impact, grouped based on the primary directorate ownership of the risk and its corresponding mitigation with control action, sorted based on risk category sorted into tiers and documented -~~tracked~~ in risk registers. -The risk universe and risk registers are highly sensitive information which must be treated confidentially.

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The corporate risk register is the record of the very significant risks that require input from the ERM Steering Committee, Senior Management and Board based on one or more of the following:

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- Approval to implement resolution action items;
- Overall impact on occupational & public health; and
- Regulatory & environmental exposures

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The corporate risk register is updated on a regular basis, to reflect the current exposure levels that the organization holds on each risk. The corporate risk register is an excerpt of high priority exposures identified from the various executive risk registers. is the record of the top risks that are reported to the Board on a regular basis, also known as tier one risks. Generally, there will be 10-12 risks treated as tier one.

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Directorate Executive risk registers are records of risks identified across the various business functions in the directorate and managed within the oversight of the executive in the group. An executive risk register is a combination of all business functional risk registers within the group. are internal documents to record shared tier one responsibilities, and to record and track tier two and tier three risks. Other departmental strategic and tactical risks are treated as tier three.

The following principles were used to guide Halifax Water in building its ERM process:

- Creating value and transparency
- Driving action and business planning
- Addressing uncertainty
- Tailoring organizational capability to manage risk
- Facilitating evidence-based, balanced and better decision making

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Policy Statement

Halifax Water accepts that risks, and opportunities, are present in all business activities. Consequently, Halifax Water recognizes the need for ERM as a consideration in strategic and operational planning, day-to-day management, and decision-making at all levels in the organization.

This Policy recognizes and encourages the effective management of risk, promotes the attainment of Halifax Water's purposes mission and strategic objectives, and addresses critical risks before they materialize and negatively impact the organization.

ERM Methodology

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Halifax Water ERM framework provides the implementation guidelines for coordinating the risk management activities in order to align with our strategic objectives. The framework adopts the following methodologies:

- Risk Governance
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- Event Identification
- Risk Assessment
- Risk Response
- Control Activities
- Information & Communication
- Risk Monitoring
- Risk Reporting

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An extensive detail on each methodology have been outlined in the framework document accordingly.

Procedures

Updating ERM System Components - Halifax Water commits to staying current with developments, being aware of emerging risks, and keeping pace with a changing environment.

Communication -

Risk information shall be gathered, analyzed and communicated in a structured way to ensure the relevant individuals in the Utility are aware of the risks and take their responsibility for managing the risk.

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The ERM shall perform periodic local campaigns, targeted at all personnel across the Business Units organization to spread enterprise risk management awareness.

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Training - Halifax Water is committed to providing training and knowledge development in ERM. Halifax Water will ensure that all employees, particularly those with management, advisory, and decision-making responsibilities, obtain a sound understanding of ERM principles, and the requisite skills to implement ERM effectively.

Continual review and improvement - Halifax Water is committed to continuous improvement through monitoring performance and reviewing progress in ERM. Halifax Water will regularly monitor and review the progress being made in developing an appropriate ERM culture as well as the effective implementation of risk management strategies throughout the organization:

- The Board will review this Policy and the corporate risk register every two years at a minimum, and more frequently if and when a significant event occurs;
- In coordination with the Risk Officer/ERM Program Manager, the ERM Steering Committee will review this Policy and the corporate risk register regularly and provide recommendations report to the Executive Management Team/Board; with any recommended changes or amendments;
- The Executive Management Team will review the executive directorate risk registers regularly and include this as an agenda item at their regularly scheduled meetings;
- The ERM Program Manager/Risk Officer will monitor the ERM process for any conflicts, issues or discrepancies and report to the ERM Board/ERM Committee accordingly. Steering Committee accordingly.

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Roles and Responsibilities

Risk will be managed as part of Halifax Water's corporate governance and management processes. ERM is an integral part of all management and decision-making functions within Halifax Water. Identifying risk and implementing control strategies will be delegated by the Board and management as appropriate.

The risk oversight responsibilities are based on Halifax Water's seven broad risk categories, which align very closely to the Corporate Balance Scorecard key success factors:

- **Financial & Asset Management:** Halifax Water seeks to minimize financial risks and thus, has **some tolerance** towards any impact that could affect the annual operating ~~results surplus~~ or affect the critical assets.
- **Service:** Halifax Water strives to maintain the highest of professional and ethical service standards. We have a **low tolerance** towards any actions that could adversely impact our reputation and ability to fulfil our service obligations.
- **Public Health:** Halifax Water has **zero tolerance** for actions or behaviours that adversely impact its ability to provide safe drinking water to its customers. Halifax Water has a **low tolerance** for wastewater or stormwater discharges that could adversely impact the health of the public.
- **Regulatory Compliance:** Halifax Water has a **low tolerance** for actions that attract negative regulatory attention.
- **Workplace Safety & Security:** Halifax Water has **zero tolerance** for behaviours or operations that put our employees or members of the public at risk.
- **Environment:** Halifax Water has **low tolerance** for any action that could negatively impact the quality and safety of the environment as a result of uncontrolled discharges of drinking water, wastewater, and stormwater or associated delivery/storage of chemical products.
- **People:** Halifax Water has a **low tolerance** towards behaviours that would adversely affect its ability to provide a positive, respectful culture of accountability, where employees are engaged and working together to achieve the organization’s strategic objectives.

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The Board is responsible for providing oversight and strategic direction on ERM at Halifax Water. The Board may delegate certain responsibilities to Board committees and the Chief Executive Officer/General Manager or employees as they see fit.

The Chief Executive Officer/General Manager is accountable for implementing this Policy and establishing the processes and activities necessary to manage Halifax Water’s key risks.

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The Halifax Water ERM Steering Committee provides guidance to employees and stakeholders charged with implementing ERM by establishing a corporate ERM program to identify, measure, mitigate, monitor, and report on potential events that may affect the business or operations of Halifax Water. The ERM Steering Committee shall provide input to the Executive Management Team regarding and recommend approval of Halifax Water’s ERM plan.

The Halifax Water Executive Management Team is accountable for the management of risk within their ~~executive directorate~~ risk registers. Providing oversight on the implementation of the ERM process, the Executive Management Team maintains the ~~executive directorate~~ risk registers, prioritizes risk



ENTERPRISE RISK MANAGEMENT Policy # 1.12

mitigation, identifies decision parameters, confirms the effective operation of ERM processes and provides timely and accurate updates to the Board when requested, and to employees when required.

The ~~Halifax Water ERM Enterprise Risk Management~~ Program Manager maintains the corporate risk register and coordinates regular reviews and updates to the process. The ~~Risk Officer~~ ERM Program Manager provides ongoing advice and training related to ERM and this ~~Policy, and~~ Policy and acts as a liaison to ERM external stakeholders.

Halifax Water Senior Managers, Managers and Supervisors ~~may~~ have specific responsibilities for reporting and managing risks. All levels of management are expected to understand the risks that fall within their areas of responsibility as well as to manage and report on these risks in accordance with this Policy and the various the risk registers. Managers and Supervisors are responsible for ensuring the consistent application of the ERM Policy by their employees, and for confirming all direct reports are aware of their roles and responsibilities under this Policy.

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Employees are responsible to understand and accept this Policy, report inefficient, unnecessary, or unworkable ERM controls, report risk and loss events to their supervisor, and cooperate with management on incident investigations.

Implementation Date: 2021/11/19
Updated November xx, 2023

Appendix A—Halifax Water’s Risk Governance Structure

The Board

- Overall responsibility for risk management
- Ensure risk management is embedded into all processes and activities
- Review risk profile



ERM Board Committee

- Receive routine reports from senior management
- Set annual audit program and priorities
- Monitor progress
- Provide risk assurance to the Board
- Oversee RM structure and processes



Senior Management Committee

- Review and evaluate disclosure controls and procedures
- Consider materiality of information disclosed to external parties
- Formulate strategy and policy based on risk appetite, risk attitudes and risk exposures
- Receive reports from business units, review risk management activities and compile the group risk register
- Receive reports from departments and make reports and recommendations to the Board Executives
- Track risk management activity in the departments



Departments

- Produce specific policy statements, as necessary
- Prepare and update the department risk register
- Set risk priorities for department
- Monitor projects and risk improvements
- Prepare reports for Senior Management

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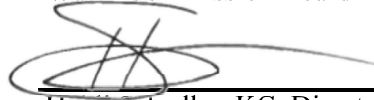
**ENTERPRISE RISK MANAGEMENT
Policy # 1.12**

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

SUBMITTED BY:

A handwritten signature in black ink, appearing to be 'Heidi Schedler', written over a horizontal line.

Heidi Schedler, KC, Director, Regulatory Affairs, Risk and Governance

APPROVED:

A handwritten signature in black ink, appearing to be 'Tareq Al-Zabet', written over a horizontal line.

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

DATE: November 17, 2023

SUBJECT: **Board Compensation Policy**

ORIGIN

Since 2016, Halifax Water has been indexing Commissioner compensation to Halifax CPI effective January 1st each year.

Prior to 2016, rates were only adjusted when requested by the board. In 2016, it was proposed they would be indexed annually by Halifax CPI after board compensation was reviewed and discussed at a governance workshop, with comparative information from other public sector agencies, boards, and commissions.

On March 9, 2023, staff reported to the Halifax Water Board Audit and Finance Committee that the CPI increase this year would be 7.3%. Staff were directed to defer any increase until such time as the Board Executive Committee has reviewed and considered the matter. This matter has been added to the agenda of the June meeting of the Board Executive Committee and will return to this Board with a recommendation from that Committee.

Halifax Water budgeted to increase Board compensation for 2023/24 by 2%. The total incremental expense for the calendar year 2023 would be \$6,241. The proposed compensation for the Board based on an increase of 7.3% for CPI, excluding committee compensation, for calendar 2023 is \$91,730.

On June 22, 2023 the Board approved deferral of the January 2016 report increase and approved an increase of 2% for 2023/24. The Board also directed staff to return with a formal policy for review and consideration.

RECOMMENDATION

It is recommended that the Halifax Water Board approve the Board Compensation Policy attached to Report Item #11 dated November 17, 2023.

BACKGROUND

The Halifax Water Board of Commissioners (“Commissioners”) currently includes four members of Halifax Regional Council, three residents of Halifax municipality and the Chief Administrative Officer of HALIFAX. The Board meets five times per year. 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](#) (“Governance Manual”) in good faith and the best interests of Halifax Water.

According to section 4E of the *Act*, Commissioners of Halifax Water who are not members of the Halifax Regional Council are eligible for compensation from the revenue of the Commission. The total of the annual compensation cannot exceed one tenth of one per cent of the gross annual revenue of the Commission.

Since 2016, Halifax Water has been indexing Commissioner compensation to Halifax CPI effective January 1st each year. Prior to 2016, rates were only adjusted when requested by the board. In 2016, it was proposed they were indexed annually by Halifax CPI.

The table below shows the historical CPI rates and annual increases since then as well as the potential rates for 2022 based on the Halifax CPI of 7.3%.

	Proposed Rate	Annual Rate						
	2023	2022	2021	2020	2019	2018	2017	2016
Halifax CPI		7.30%	3.80%	0.50%	1.50%	2.10%	1.10%	1.30%
Chair	34,497.07	32,150.11	30,973.13	30,819.04	30,363.58	29,739.06	29,415.49	29,038.00
Vice Chair	14,612.37	13,618.24	13,119.69	13,054.42	12,861.50	12,596.96	12,459.90	12,300.00
Commissioner	8,523.88	7,943.97	7,653.15	7,615.08	7,502.54	7,348.23	7,268.28	7,175.00
Committee member	1,217.70	1,134.85	1,093.31	1,087.87	1,071.79	1,049.75	1,038.33	1,025.00

Commissioners serving on Committees, except for the Executive Committee, are eligible for an annual honorarium per year as noted in the table above per committee.

On June 22, 2023, the Board approved a 2% increase for the 2023/24 fiscal year. The approved 2023/24 compensation rates for Commissioners are set out in the table below.

Position	Annual Honorarium
Chair	32,793.12
Vice Chair	13,890.60
Commissioner	8,102.85
Committee Member	1,157.55

In addition to base compensation, Commissioners are eligible for reimbursement of expenses incurred because of Board duties, pursuant to *Employment Expense Reimbursement Policy #3.1*.

Public member commissioners are paid monthly, on the first of each month. Councilor honorariums are paid quarterly to HALIFAX, which is then distributed to Councilor Support Office budgets. This logistical aspect does not form part of the policy, and as such can be changed to a different cycle, as needed and appropriate.

DISCUSSION

When considering a compensation policy for the Halifax Water Board, it is important to look at how other comparable ABCs compensate their board members. This helps Commissioners fulfill their obligation to act in good faith and prioritize the best interests of Halifax Water over their personal interests.

The proposed board compensation policy should remain flexible to address situations where adjustments beyond the standard CPI-based approach might be necessary. This ensures compensation reflects triggering circumstances or unforeseeable events that may arise. Examples include the 2008 Financial Crisis and the COVID-19 Pandemic. By adopting a stable policy that accounts for unpredictable inflation rates and unforeseeable events, Halifax Water can enhance predictability when budgeting for board compensation each year.

The Halifax Water Board should review the compensation policy at least once per year, or more often where appropriate. Given the current terms of reference for Board Committees, compensation is to be reviewed by the Board Executive Committee. Any amendments to the policy, including adjustments, would be vetted by that Committee and then approved by a majority vote of the Halifax Water Board.

The proposed policy includes a compensation guideline to direct Commissioner compensation on an annual basis. Under this guideline, the following factors will help in assessing when to adjust Commissioner compensation and ensuring that rate remains appropriate: a) responsibility, b) comparability, c) budget implications, and d) economic and labour trends.

To ensure transparency, the Halifax Water Board should consider changes in the annual increase rate for its unionized employees via collective bargaining processes and adjust the Commissioners' annual increase rate accordingly.

How comparable agencies, boards and commissions compensate their board members

Compensation is a central component of effective management. There are many diverse and complex factors that must be taken into consideration when addressing compensation issues.

Under the [*Governance Manual*](#), the Board of Commissioners is responsible for the compensation and expenses policy for Commissioners. The Manual states that Commissioner compensation should follow the Board's approved policies. The per diem rate should be reviewed and approved annually by the Board, based on similar boards for comparison.

When considering a compensation policy for the Commission Board, it is important to look at how other comparable ABCs compensate their board members. This helps Commissioners fulfill their obligation to act in good faith and prioritize the best interests of Halifax Water over their personal interests. Additionally, it helps maintain public confidence in Halifax Water.

Compensation for board members in different ABCs ranges significantly, with some receiving only expense reimbursement while others receive substantial compensation, particularly in the case of larger service delivery ABCs. Ensuring comparability among ABCs is important for maintaining internal consistency and fairness in compensation. Differentiating compensation levels can be justified to acknowledge diverse skills, experience, knowledge, or to address varying travel requirements and internal equity.

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While Nova Scotia lacks specific guidance on this matter, the [*Remuneration Guidelines for Appointees to Ministry and Crown Agency Boards \(2020\)*](#) from the British Columbia Treasury Board can provide valuable insights into how board members of ABCs can receive varying levels of compensation. In British Columbia, advisory boards and small service delivery crown corporations typically receive the lowest level of compensation, while health authorities and large commercial crown or service delivery corporations receive the highest compensation.

Under these Guidelines, the following criteria helps determine the appropriate level of compensation for appointees to Ministry and Crown Agency Boards:

- The type of ministry and Crown agency (commercial, service delivery or advisory board).
- The complexity of the service provided (provide advice or produce a product; provide a service or deliver a program; direct agents or manage contracts; coordinate service or program delivery).
- The size and complexity of the operation (budget; multiple lines of business; organizational structure; geographical representation).
- The degree of knowledge and specialized skills required.
- The board's strategic importance to the Province (financial policy, social policy, economic policy, and infrastructure).
- Comparability among the ministry and Crown agency boards for internal consistency and fairness.

As a provider of municipal water, wastewater, and stormwater to the Halifax region, Halifax Water's Board of Commissioners is likely on the higher end of the spectrum for compensation as an essential service delivery provider. The current board compensation of Halifax Water is likely suitable when compared to other similar ABCs. Halifax Water may be considered one of the larger ABC's in Nova Scotia as it serves a significant customer base of over 111,000 accounts across various service combinations. Halifax Water's infrastructure plays a vital role in ensuring the delivery of high-quality water, wastewater, and stormwater services throughout Halifax. Additionally, the operation of Halifax Water demands a considerable level of expertise and specialized skills.

The table below presents a list of ABCs that Halifax Water can consider for benchmarking its board compensation structure. Analysis of the compensation provided to Halifax Water's Board of Commissioners in 2022 reveals that other ABC's, such as large Crown corporations compensate their boards at higher levels, while smaller and less complex ABCs offer comparatively lower or no compensation.

The only information that was found regarding annual compensation adjustments was from the Nova Scotia Securities Commission, which aligns its board compensation with pay plan adjustments approved for non-bargaining civil servants for the fiscal years starting from 2015-16. It remains unclear if other ABCs make any adjustments to compensate for CPI.

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Comparable ABC's Board Compensation Table

Organization	Composition	Compensation	Other	Responsible Entity
Comparable ABC's in Nova Scotia				
See Department ABC Profiles for a full list and brief description of each ABC				
Advisory Council on Heritage Property	The Council consists of 5 - 12 members	<u>Chairman:</u> \$75 per meeting <u>Vice-chairman:</u> \$75 per meeting <u>Members:</u> \$75 per meeting	Expenses	GIC
Halifax/Dartmouth Bridge Commission	The Commission consists of 9 members: 5 members appointed by GIC (one of whom is to be the Chair and one of whom is to be the Vice-chair) and 4 members appointed by the Municipality.	<u>Chair:</u> \$18,200 per year <u>Vice-chair:</u> \$12,000 per year <u>Members:</u> \$3,600 per year	Expenses	GIC
NS Labour Board	The Board is appointed by the Governor in Council and is composed of a neutral full-time Chair, neutral vice-chairs and other members who represent either employers or employees. The Board sits to hear cases in panels of 3, consisting of a neutral Chair and 2 representational members.	<u>Chair:</u> \$20,000 per year <u>Vice-chair(s):</u> \$10,000 or \$15,000 per year	\$300 per day to conduct a hearing \$150 per day to attend to other necessary business \$200 per day to conduct a hearing \$150 per day to attend to other necessary business	GIC
NS Liquor Corporation	The Board consists of 11 directors: 9 appointed by Governor in Council; 1 deputy minister appointed by Governor in Council (non-voting) and 1 President (non-voting).	<u>Chair:</u> \$2,000 per month <u>Vice-Chair:</u> \$1000 per month <u>Members:</u> \$1000 per month	Expenses	NSLC
Nova Scotia Apprenticeship Agency Board	The Board consists of 10 – 15 members (10 members from the trade sectors and up to 4 additional members-at-large selected by the Minister, plus the Vice-President, Academic of the College).	<u>Chair:</u> honorarium fixed by the Minister, not to exceed \$10,000 annually <u>Vice-chair:</u> not to exceed \$5,000 <u>Member:</u> \$200 per day	Expenses	Minister Responsible
Nova Scotia Criminal Code Review Board	The Board consists of more than 5 members: 1 member who must be entitled to practice psychiatry and at least 1 other member who	<u>Chair/Alternate Chair:</u> \$150 per hour to a maximum of 55 hours per month	Expenses Psychiatrists are eligible for professional	GIC

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	has training and experience in the field of mental health and is entitled to practice either medicine or psychology; the Chair shall be a judge of the Federal Court or of a superior, district or county court of the province or a person who is qualified for such appointment or has retired from judicial office.	<u>Psychiatrist Members:</u> \$120 per hour <u>Members:</u> \$75 per hour	development credits with their college.	
<u>Nova Scotia Real Estate Commission</u>	The Board consists of 9 members: 3 members who are not licensed persons appointed by GIC; 3 licensed individuals elected by the licensed individuals; 3 members appointed by the Association; the Registrar (non-voting).	<u>Members:</u> \$200 per meeting	Expenses	Commission
<u>Nova Scotia Securities Commission</u>	The Commission is composed of not more than eight (8) members. One member shall be designated to act as Chair and another to act as Vice-chair. Additional members may be appointed. Where a person is specially qualified to assist the Commission with respect to any proceeding or matter, they may be appointed as an acting member. The Commission has an appointed Secretary, employees and may engage specialists.	<u>Chair (Part-time):</u> \$91,533 per year <u>Vice-chair (Part-time):</u> \$39,000 per year <u>Member:</u> \$200.00 per half day	Expenses Compensation is adjusted annually in accordance with any pay plan adjustments approved for non-bargaining civil servants for the 2015-16 and subsequent fiscal years.	GIC
<u>Workers' Compensation Board of Nova Scotia</u>	The Board is composed of not more than 10 members. One member shall serve as Chair, one member to serve as Deputy Chair. There shall be equal numbers of members (4 each) representing employers and employees which includes injured workers. There may be alternate members to the Board of Directors, although none have been	<u>Chair:</u> \$20,000 per year, \$300 per day (max \$50,000 per year) <u>Deputy Chair:</u> \$3,000 per year, \$300 per day <u>Members:</u> \$300 per day <u>Deputy Chair and Members:</u> \$2,000 per year for chairing board committees by Order in Council when each appointment is authorized.	Expenses	GIC

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	appointed in the last 10 years.			
<u>Nova Scotia Utility and Review Board</u>	The Commission is composed of eight (8) members.	As of March 31, 2022, the board members of the Nova Scotia Utility and Review Board received compensation in the range of \$175,955 - \$197,209 (including payments made for professional dues and memberships).		GIC
<u>Port of Halifax</u>	The Board is composed of 1 Chair, 1 Vice-Chair, and 4 Directors.	<i>Compensation</i> <u>Chair:</u> \$35,000 <u>Vice-Chair:</u> \$18,000 <u>Directors:</u> \$9,000 - \$14,000 <i>Directors Fees</i> <u>Chair:</u> \$20,000 <u>Vice-Chair:</u> \$21,000 <u>Directors:</u> \$9,000 - \$20,000	Expenses	Board of Directors
<u>Halifax International Airport Authority</u>	Governed by a Board of Directors consisting of a maximum of 14 directors nominated by the Government of Canada (2), the Province of Nova Scotia (1), Halifax Regional Municipality (4), Halifax Chamber of Commerce (3), and HIAA's Board of Directors (4).	The board members of the Halifax International Airport Authority received compensation in the range of \$15,030 - \$59,500.	For the period July 1, 2020, to June 30, 2022, the Board approved a reduction in the compensation for directors by 20% as a result of the financial impact of COVID-19 on the Airport Authority.	Board of Directors
<u>Halifax Regional Public Library Board</u>	The Board consists of 11 members nominated by the Mayor of the Municipality, the Governor in Council, the Council of Municipality, and Halifax Regional Municipality.	No compensation	Expenses	N/A
Comparable ABC's outside of Nova Scotia				
<u>British Columbia Hydro and Power Authority</u>	The Board consists of 11 members.	As of March 31, 2020, the board of commissioners received <u>compensation</u> in the range of \$3,688 - \$55,250 (including meeting fees).	Expenses	GIC

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<u>Toronto Hydro</u>	The Board consists of 13 members.	<u>Chair</u> receives an annual retainer of \$75,000. <u>Board members</u> receive an annual retainer of \$12,500.	The meeting attendance fee is in the range of \$1,000 - \$5,000. A maximum annual total retainer and attendance fees is \$30,000.	City of Toronto
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Adjusting Commissioner compensation to ensure the rate remains appropriate

Halifax Water does not have an internal document that outlines how to adjust compensation for its Board of Commissioners. The proposed board compensation policy should remain flexible to address situations where adjustments beyond the standard CPI-based approach might be necessary. This ensures compensation reflects triggering circumstances or unforeseeable events that may arise. Examples includes the 2008 Financial Crisis and COVID-19 Pandemic.

By adopting a stable policy that accounts for unpredictable inflation rates and unforeseeable events, Halifax Water can enhance predictability when budgeting for board compensation each year. This approach will contribute to the achievement of Halifax Water's budgetary objectives regarding board compensation in the future.

Annual Adjustments

The Halifax Water Board should review the provisions for compensation, at least once per year, or more often where appropriate. Any amendments to the proposed board compensation policy, including adjustments, must be approved by a majority vote of the Halifax Water Board.

Another option would be to review compensation triennially (every three years). Doing so may require an average compensation rate calculated over three years, however it could also offer stability. The Board can under extraordinary circumstances, call for a special review if needed.

Compensation Guideline

As mentioned above, the [Remuneration Guidelines for Appointees to Ministry and Crown Agency Boards \(2020\)](#) from BC provides a framework for distinguishing classifications of ministries or Crown agencies and lists six factors for considerations. While some of these factors are relevant, it is important to customize these factors to meet Halifax Water's needs. Based on this guidance, the following factors help in assessing when to adjust Commissioner compensation and ensuring that rate remains appropriate: a) responsibility, b) comparability, c) budget implications, and d) economic and labour trends.

Halifax Water Board Compensation Guideline			
Factor	Guideline	Indicator	
Responsibility	Commissioners are expected to exercise their duties and responsibilities in the best interests of Halifax Water, which supersedes the personal interest of any individual Commissioner. If the roles of the Commissioners are expanded or reduced, both the Governance Manual and compensation may need to be adjusted to reflect those changes. Changes to responsibilities that would garner the need to review compensation include legislative amendments which increase the responsibility of Commissioners.	≤ 2 responsibility changes	Re-evaluation is not required.
		3-4 responsibility changes	Re-evaluation may be required.
		5 ≥ responsibility changes	Re-evaluation is required.
Comparability	Compensation should be comparable to other, government (municipal or provincial) administrative boards and commissions (ABCs) within Halifax Regional Municipality and Nova Scotia that have comparable levels of responsibility. Salary levels and adjustments for Halifax Water employees must also be compared when adjusting Commissioner compensation.	Compensation ≤ Median Compensation of other ABC's within HRM and other provinces.	Re-evaluation is not required
		Compensation ≥ Median Compensation of other ABC's within HRM and other provinces.	Re-evaluation is required
Budget Implications	Budgetary implications must be considered when adjusting compensation, including but not limited to the legislative requirement that the total of the annual honoraria must not exceed one tenth of one percent of the gross annual revenue of Halifax Water.	Compensation < 1/10 of 1% of the gross annual revenue of Halifax Water	Re-evaluation may not be required
		Compensation > 1/10 of 1% of the gross annual revenue of Halifax Water	Prohibited by statute.
Economic and Labour trends	Analyze economic and labour trends to develop appropriate compensation strategies and ensure attraction and retention of Commissioners. This includes annual Consumer Price Index rates for Halifax.	> 2% change in CPI rate from previous to current year	Re-evaluation is required

The following analysis provides additional detail on the relevant factors Halifax Water’s Board of Commissioners should follow when reviewing their compensation on at least an annual basis.

a) Responsibility

Responsibility allows Halifax Water to objectively assess whether the Commissioners complete their responsibilities stated within the job description and professionally adheres to policy and procedures to the best of their ability. Commissioners are expected to exercise their duties and responsibilities in the best interests of Halifax Water, which supersedes the personal interest of any individual Commissioner.

If the roles of the Commissioners are expanded or reduced, compensation should be adjusted to reflect those changes. The Current Commissioner Compensation is based on the responsibilities listed in the *Act* and appendix I of the [Governance Manual](#) (which confirms and supports the wording of the *Act*). These

responsibilities demonstrate the Board's strategic importance to Halifax Water and the degree of knowledge and specialized skills required to be a Commissioner.

An indicator that Halifax Water can use to determine whether re-evaluation of the compensation is required is number of responsibility changes. Changes in scope that would garner the need to review compensation include legislative amendments, which increase the responsibility of Commissioners. If there are less than two responsibility changes, Halifax Water is not required to re-evaluate the Commissioners' compensation. However, three to four responsibility changes may prompt re-evaluation and more than five responsibility changes require Halifax Water to re-evaluate the compensation. This indicator ensures a consistent and transparent approach to compensation for the Commissioners.

b) Comparability

Comparability ensures consistency and competitiveness in the compensation of the Commissioners. This factor assesses board compensation from comparable ABC's to ensure Halifax Water's board compensation is fair and appropriate. Comparable ABC's includes those within Halifax Regional Municipality and Nova Scotia that have comparable levels of responsibility. Comparability also supports the attraction and retention of qualified, diverse individuals as Commissioners.

Salary adjustments for the Halifax Water's employees should also be compared when adjusting board compensation. Although section 4E of the *Act* sets a limit, the Board has an authority to set the annual compensation within that limit. The compensation of the Halifax Water's employees is outlined in the collective agreements for the unionized employees and the [Compensation Policy #NUI for Non-union Employees](#). For union employees, the collective agreements (CUPE Local 1431 and CUPE Local 227) are periodically re-negotiated. As for the non-union employees, base salary is linked to HAY's national survey of public sector organizations, which is conducted every three years. Adjustments are made to align at P50. In the off years, increases may be based on Halifax CPI. Adjustments are also assessed based on the employees' performance and authorized by the General Manager.

c) Budgetary Implications

Assessing budgetary implications helps achieve business goals. The Commissioners play a role in meeting one of Halifax Water's goals for 2023/24 as they oversee and approve the financial management and budgets. In [2023/24 Business Plan](#), Halifax Water states that it aims to ensure that it has capacity to fund existing and future infrastructure. As mentioned above, Halifax Water has options to increase the Commissioners' compensation by 2% or 7.3%. Depending on the increase rate of the Commissioners' compensation, the difference in the expense budget is about \$85,489 according to the information report titled, *CPI Increase for Board Members*.

As a public utility, Halifax Water requires to review budgetary implications when adjusting compensation. Halifax Water has mechanisms to stay within its annual budget. Halifax Water conducts an annual audit, and its annual budget is reviewed by the Nova Scotia Utility and Review Board. In terms of the Commissioners' compensation, section 4E of the *Act* states the total of the annual honoraria must not exceed one tenth of one percent of the gross annual revenue of the Commission.

d) Economic and Labour Trends

Analyzing economic and labour trends help Halifax Water to develop appropriate compensation strategies and ensure attraction for commissionerhip. In July 2022, the Nova Scotia Compensation Panel (“Panel”) provided the [Compensation Review Report](#) (“MLA Report”) to assess the compensation for the Members of the Nova Scotia House of Assembly (“MLAs”). While most of the report is only relevant to the MLAs, the report engaged experts to analyze economic and labour market trends in Nova Scotia.

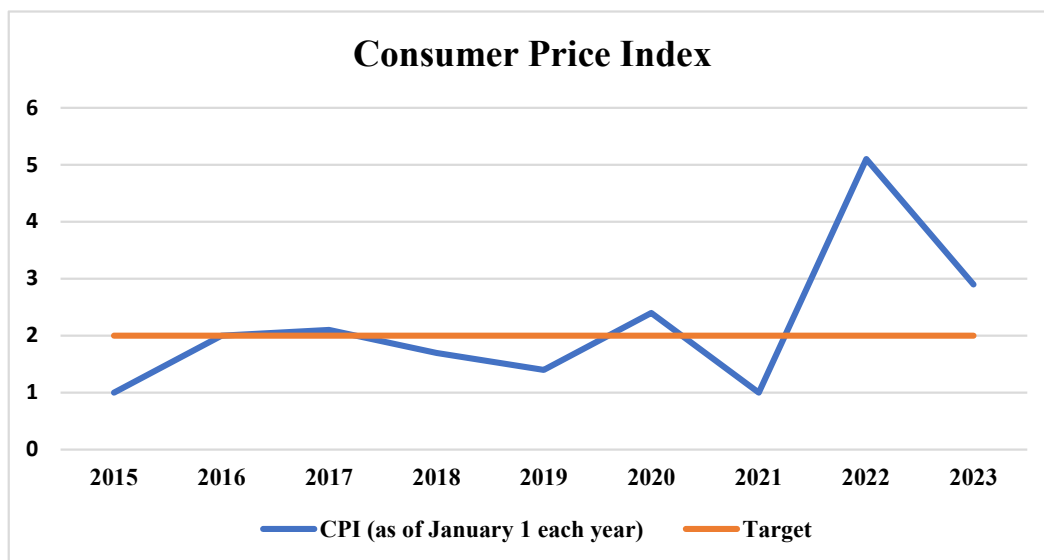
First, the Panel reported all the relevant increases since 2013. The median family income in Nova Scotia has increased by 15% from \$70,020 to \$80,600. The compensation of public-sector unions in Nova Scotia also increased as per the following table:

Union	Years	Increase
NSTU	2011-2019	10.95%
NSNU	2013-2020	7.2%
DNS	2019-2023	8.2%
NSGEU	2013-2021	14.3%

Table 1: cumulative percentage increases for the Nova Scotia Teachers Union, the Nova Scotia Nurses’ Union, Doctors Nova Scotia, and the Nova Scotia Government and General Employees Union.

Second, the Panel analyzed the [Nova Scotia’s CPI for April 2022](#), provided by the NS Treasury Board, and stated Nova Scotia’s All-Items CPI increased 7.1% in April 2022, up from the 6.8% increase in March. The CPI is an indicator of changes in consumer prices experienced by Canadians. It is obtained by comparing, over time, the cost of a fixed basket of goods and services purchased by consumers.

The following graph applies data from the [Bank of Canada](#) and shows year-over-year percentage change of the consumer price index from 2015 to 2023. The Bank of Canada aims to keep total CPI inflation at the 2% midpoint of a target range of 1 to 3 % over the medium term.




Summary

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Halifax Water Board
November 23, 2023

Halifax Water should create a flexible compensation structure for its commissioners. The structure should account for unforeseeable events such as emergency like COVID-19 or an extremely high CPI rate. For example, the board of commissioners for Halifax International Airport Authority (“HIAA”) [reduced compensation for directors by 20%](#) because of the financial impact of COVID-19 on the HIAA from 2020 to 2022. Research lacks clarity on whether the HIAA's Board Compensation is tied to total revenue, but compensation was increased by 6.25% from 2021 to 2022. However, it would be beneficial for Halifax Water's Board to possess a similar mechanism adjust in these types of situations to ensure Board compensation remains fair and appropriate.

To ensure the competitiveness of compensation, Halifax Water should consider analyzing CPI under the economic and labour trends factor. According to the [Analysis of Consumer Price Index for May 2023](#) provided by the NS Treasury Board, Nova Scotia’s CPI increased in May 2023. The NS Treasury Board reported that Nova Scotia’s inflation has been slowing after peaking at 9.3% in June 2022. Nationally, consumer prices increased 3.4% year-over-year in April 2023.

Halifax Water compensation structure should be clear and easy to follow to ensure consistency and transparency. The Commissioners are expected to exercise their responsibilities in the best interests of Halifax Water, which is providing water service in a financially responsible manner. Without a clear compensation structure, the compensation may be determined arbitrarily or seem to be determined arbitrarily by the public because the Commissioners approve their own compensation and expense policy pursuant to section 3.2(a)(vii) of the [Governance Manual](#). Therefore, establishing a clear compensation structure allows Halifax Water to take a proactive step to avoid potential problems.

Report Prepared by:	“Original signed by” _____ Leo Bourgeois and Sky Shin, Law Students
Financial Reviewed by:	 _____ Louis de Montbrun, CPA, CA Director, Corporate Services/CFO

Purpose

This policy provides guidance on appropriate compensation for the Halifax Water Board of Commissioners.

Objectives

Appropriate compensation for work performed by Commissioners should consider the importance and professional nature of the Board's work and attract and retain qualified individuals to serve.

The objectives of this policy are to:

- Comply with the *Halifax Regional Water Commission Act*.
- Respect that Halifax Water is a not-for-profit, municipal-owned, public utility, governed by the *Public Utilities Act* and regulated by the Nova Scotia Utility and Review Board.
- Ensure a consistent and transparent approach to compensation and expense reimbursement for Commissioners.
- Establish proportional and appropriate compensation between Commissioners and other agencies, boards and commissions of similar size and complexity in Nova Scotia.
- Support the attraction and retention of qualified, diverse individuals as Commissioners.

Scope

This policy applies to Commissioners during the time which they hold office on the Halifax Water Board, with the exception of the CAO designate.

Compensation

Commissioners who are not members of Council will be compensated as follows:

Position	Annual Honorarium
Chair	32,793.12
Vice Chair	13,890.60
Commissioner	8,102.85
Committee Member	1,157.55

Commissioners who are also Committee Members will receive the applicable annual honorarium for each committee on which they sit. For example, a Commissioner that sits on two committees will receive two times the annual honorarium for a committee member.

Commissioners who are members of Council will be compensated at the same rate as Commissioners who are not members of Council, however any amounts payable will be paid to HALIFAX to be distributed to the Councillor Support Office.

Annual Increases and Review

Unless otherwise approved by the Halifax Water Board, the annual honorarium for Commissioners will increase by 1.75% annually.

The Halifax Water Board will review this policy, including the annual honorarium, at least once per year, or more often where appropriate. Any amendments to this policy, including adjustments to honoraria, must be approved by a majority vote of the Halifax Water Board. When considering adjustments to compensation, the Halifax Water Board must use the following guideline:

Halifax Water Board Compensation Guideline			
Factor	Guideline	Indicator	
Responsibility	Commissioners are expected to exercise their duties and responsibilities in the best interests of Halifax Water, which supersedes the personal interest of any individual Commissioner. If the roles of the Commissioners are expanded or reduced, both the Governance Manual and compensation may need to be adjusted to reflect those changes. Changes to responsibilities that would garner the need to review compensation include legislative amendments which increase the responsibility of Commissioners.	≤ 2 responsibility changes	Re-evaluation is not required.
		3-4 responsibility changes	Re-evaluation may be required.
		5 ≥ responsibility changes	Re-evaluation is required.
Comparability	Compensation should be comparable to other, government (municipal or provincial) administrative boards and commissions (ABCs) within Halifax Regional Municipality and Nova Scotia that have comparable levels of responsibility. Salary levels and adjustments for Halifax Water employees must also be compared when adjusting Commissioner compensation.	Compensation ≤ Median Compensation of other ABC's within HRM and other provinces.	Re-evaluation is not required
		Compensation ≥ Median Compensation of other ABC's within HRM and other provinces.	Re-evaluation is required
Budget Implications	Budgetary implications must be considered when adjusting compensation, including but not limited to the legislative requirement that the total of the annual honoraria must not exceed one tenth of one percent of the gross annual revenue of Halifax Water.	Compensation < 1/10 of 1% of the gross annual revenue of Halifax Water	Re-evaluation may not be required
		Compensation > 1/10 of 1% of the gross annual revenue of Halifax Water	Prohibited by statute.
Economic and Labour trends	Analyze economic and labour trends to develop appropriate compensation strategies and ensure attraction and retention of Commissioners. This includes annual Consumer Price Index rates for Halifax.	> 2% change in CPI rate from previous to current year	Re-evaluation is required

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

SUBMITTED BY:

A handwritten signature in black ink, appearing to be 'Heidi Schedler', written over a horizontal line.

Heidi Schedler, KC, Director, Regulatory Affairs, Risk and Governance

APPROVED:

Tareq Al-Zabet

Digitally signed by Tareq Al-Zabet
Date: 2023.11.20
15:16:59 -04'00'

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

DATE:

November 17, 2023

SUBJECT:

Corporate Governance Manual

ORIGIN

January 28, 2016, approval of the Halifax Water Corporate Governance Manual
September 25, 2020, approval of the updated Halifax Water Corporate Governance Manual
March 25, 2021, approval of the updated Halifax Water Corporate Governance Manual
June 22, 2023, approval of the Halifax Water Diversity Equity and Inclusion Policy

RECOMMENDATION

It is recommended that the Halifax Water Board approve the amendments to the Corporate Governance Manual attached to Report Item #12 dated November 17, 2023.

BACKGROUND

The Halifax Water Board initially approved a Corporate Governance Manual in 2016. This manual has been updated twice since then, in 2020 and 2021.

On June 22, 2023, the Halifax Water Board approved the Diversity Equity and Inclusion Policy. During the discussion leading to the approval of this policy, the Board directed staff to update the Corporate Governance Manual to reflect the purpose of the Diversity Equity and Inclusion Policy.

DISCUSSION



As directed, staff reviewed and updated the Corporate Governance Manual to reflect the purpose of the Diversity Equity and Inclusion Policy approved by the Board earlier this year. A redline version of the updates is attached to this report.

ALTERNATIVES

The Board could decide to not approve the proposed amendments and the Corporate Governance Manual as it currently exists will remain in place.

BUDGETARY IMPACTS

There are no budgetary impacts resulting from the proposed changes.

Report Prepared by:	
	<hr/>
	Heidi Schedler, KC Director, Regulatory Affairs, Risk and Governance
Financial Reviewed by:	
	<small>Digitally signed by Louis de Montbrun Date: 2023.11.20 13:12:09 -04'00'</small>
	<hr/>
	Louis de Montbrun, CPA, CA Director, Corporate Services/CFO



Halifax Water Corporate Governance Manual

Approved **March 25, 2021**

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**STRAIGHT from
the SOURCE**

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**STRAIGHT from
the SOURCE**

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, ~~and~~
- 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, ~~and~~
- j. Participate in training and development, as appropriate, including attendance at workshops, conferences and seminars relevant to governance, and
- j-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
- ~~d.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.

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Further to the [Act](#), 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,
- m-o. Promote a workplace where employees exhibit positive, informed and inclusive attitudes towards each other, and
- n-p. 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,

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- 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 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.

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

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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.

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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.

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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.

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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.

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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.

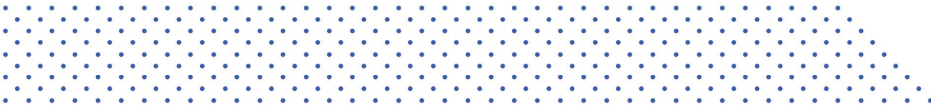
Signature: _____

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;

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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 ~~HRM~~ 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.

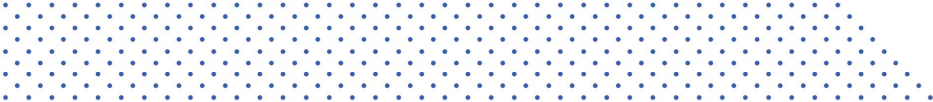
4. Accountability

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;

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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;

Halifax Water Corporate Governance Manual

Approved March 25, 2021

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.

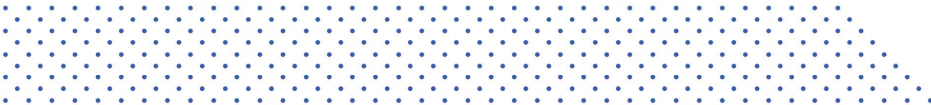
4. **Accountability**

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;

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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.

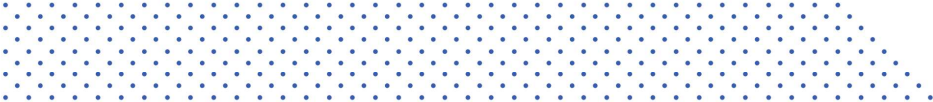
4. **Accountability**

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
Business Decisions and Key Information	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				
Pension	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				
Info Reports	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.


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

SUBMITTED BY:  Digitally signed by Colin Waddell
Date: 2023.11.21 14:47:59 -04'00'


Colin Waddell, CEng MIET, CMgr MCMI, MLoL, Acting Director, Operations

 Digitally signed by Kenda MacLean
Date: 2023.11.17 09:21:37 -04'00'

Kenda MacKenzie, P.Eng. Director, Regulatory Compliance Services

 Digitally signed by Cindy MacLean
Date: 2023.11.17 12:58:50 -04'00'

Cindy MacLean, Supervisor, Human Resources

APPROVED:  Digitally signed by Tareq Al-Zabet
Date: 2023.11.17 13:37:52 -04'00'

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

SUBJECT: **Operational Performance Information Report**

INFORMATION REPORT

ORIGIN:

Regular update.

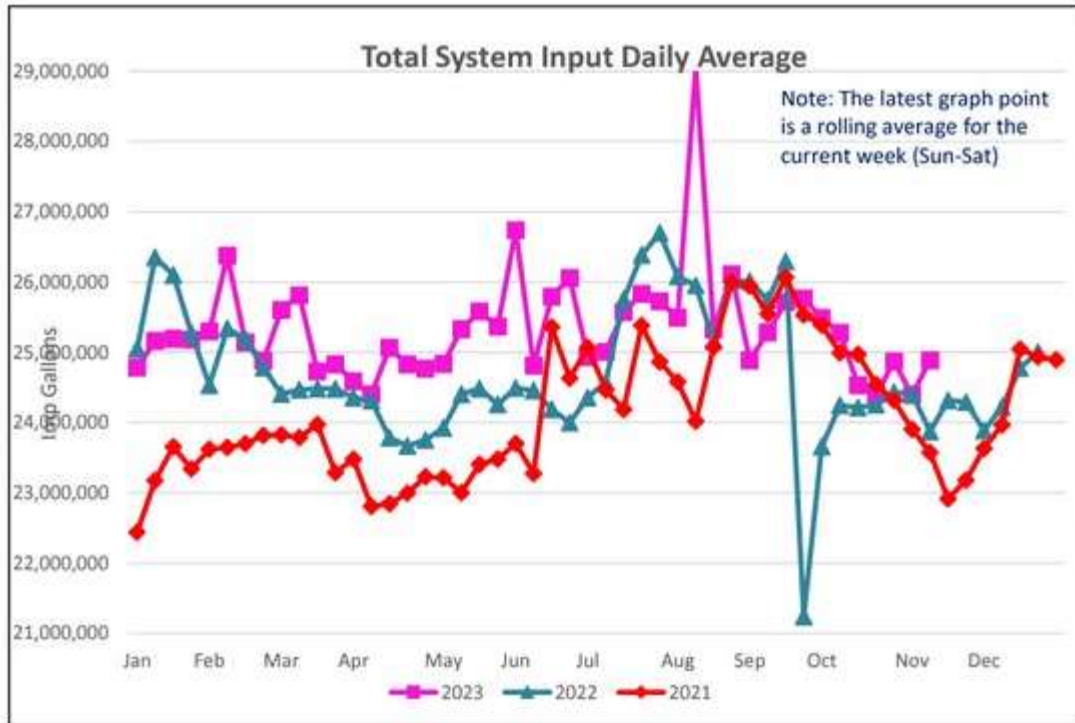
This report provides a high level overview of operational performance for the utility. The safety statistics results are first, followed by indicators and statistics for water and wastewater.

SAFETY STATISTICS – July 1, 2023 to September 30, 2023

Organizational Metrics	Q2 Jul 1 to Sep 30	CBS Target 2023-24
Lost Time Incident Reporting (LTIR) (Lost Time Cases x 200,000 / Total Employee Hours Worked)	1.75%	3
Safe Driving (Number of traffic accidents per 1,000,000 km driven)	3.25	4
Workplace inspections conducted	36	Score
Safety Talks conducted (reported at the end of each quarter)	33%	85%
High Potential/Near Miss	22	N/A
Employees on accommodation or gradual return to work	11	N/A
WCB claims	3	N/A
Work refusals	0	N/A
Incidents with written compliance orders	0	0-2
Employees trained or recertified before due date	125	85%
<ul style="list-style-type: none"> • Courses Taken 	211	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.

Regional Water Main Break/Leak Data		
Year	Total Breaks/Leaks	Current 12 Month Rolling Total (up to October 2023)
2022/23	176	179
2021/22	232	
2020/21	179	
2019/20	191	
2018/19	226	
Total	1004	
Yr. Avg.	200.8	

Water Accountability
Losses per Service Connection/Day (International Water Association Standard)
<i>Period Ending September 30, 2023</i>
Real Losses: Data is not available at this time.
CBS Target: 160 - 170

COMPLIANCE SUMMARY

Water Safety Plan Objectives				
2023-2024 Q2				
Objective	Total Sites	% Sites Achieving Target	All Sites: 90th Percentile < 15 µg/L	CBSC Awarded Points
Disinfection	63	100%	---	20
Total Trihalomethanes	25	80%	---	3
Haloacetic Acids	21	100%	---	20
Particle Removal	5	100%	---	20
Corrosion Control	101	---	2.8	20
Summary Total				83

Score: 83/100

Bacteriological Results (% Samples absent of Total Coliforms)

99.76%

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
	July-23								August-23								September-23								
	CBOD ₅ (mg/L)		TSS (mg/L)		E. coli (counts/100mL)		pH		CBOD ₅ (mg/L)		TSS (mg/L)		E. coli (counts/100mL)		pH		CBOD ₅ (mg/L)		TSS (mg/L)		E. coli (counts/100mL)		pH		
	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	
Halifax	50	27	40	17	5000	3,528	6-9	6.7	50	24	40	14	5000	2,908	6-9	6.9	50	46	40	52	5000	40,124	6-9	7.0	Not acutely lethal
Dartmouth	50	29	40	20	5000	73	6-9	6.8	50	28	40	21	5000	190	6-9	6.7	50	30	40	11	5000	116	6-9	6.8	Not acutely lethal
Herring Cove	50	27	40	18	5000	14	6-9	6.9	50	16	40	12	5000	15	6-9	6.9	50	18	40	13	5000	48	6-9	7.1	Not acutely lethal
Eastern Passage	25	4	25	5	200	18	6-9	7.0	25	4	25	5	200	28	6-9	6.6	25	6	25	8	200	54	6-9	6.9	Not acutely lethal
Mill Cove	25	8	25	7	200	11	6-9	6.7	25	5	25	5	200	18	6-9	6.6	25	13	25	16	200	10	6-9	6.5	Not acutely lethal

Wastewater Treatment Facility	Wastewater Treatment Facility Quarterly Compliance Summary																Toxicity
	July, August, September 2023																
	CBOD ₅ (mg/L)		TSS (mg/L)		E. coli (counts/100mL)		pH		Ammonia (mg/L)		Phosphorous (mg/L)		TRC (mg/L)		Dissolved Oxygen (mg/L)		
	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	NSECC Limit	Avg.	
Springfield	20	3	20	13	200	16	6-9	6.6	-	-	-	-	-	-	-		
Frame	20	2	20	1	200	10	6-9	6.9	-	-	-	-	-	-	-		
Middle Musq.	20	5	20	6	200	33	6-9	6.7	-	-	-	-	-	-	-		
Uplands	20	5	20	9	200	13	6-9	6.6	-	-	-	-	-	-	-		
Aerotech	5	3	5	1	200	10	6-9	6.9	5.7 W 1.2 S	0.1	0.13	0.05	-	6.5	7.7	Not acutely lethal	
North Preston	10	2	10	3	200	10	6-9	6.7	3	0.1	1.5	0.4	-	-	-		
Lockview	20	6	20	11	200	34	6.5-9	6.5	8.0 S	5.3	1.2 S	0.6	-	-	-		
Steeves (Wellington)	20	2	20	1	200	10	6.5-9	6.8	14.4 S	0.1	1.0 S	0.1	-	-	-		
BLT	15	4	20	13	200	20	6-9	7.1	5 W 3 S	1	3 W 1 S	1	0.02 *	0.10	-	Not acutely lethal	

NOTES & ACRONYMS:

CBOD₅ - Carbonaceous 5-Day Biochemical Oxygen Demand

TSS - Total Suspended Solids

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

BDL - Below Detection Limit

W / S - Winter / Summer compliance limits

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

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

Uplands and Springfield Lake

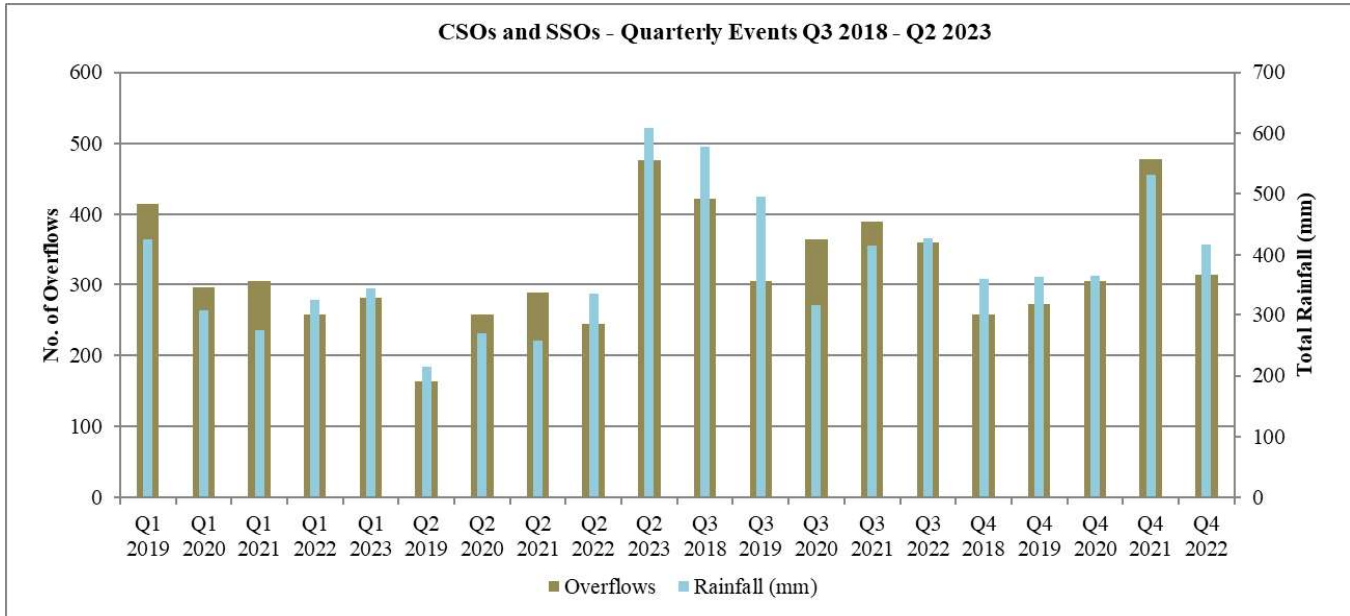
NSECC requires annual averages be less than the NSECC Compliance Limit for each parameter at North Preston and Steeves

NON-COMPLIANCE EXPLANATIONS:

Halifax WWTF: Operating under approved TBA for the replacement of inclined lamella tube settlers, along with the addition of an air scour cleaning system.

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 eighteen overflows in Q2 beginning on days when there was no recorded rainfall, as follows:

1. July 16: The CSO at Duffus St PS & CSO was due to rain on the previous day.
2. July 24: The CSO at King St PS & CSO and the SSO at Fish Hatchery PS were due to rain on the previous day.
3. August 1: The CSO at Pier A PS & CSO was due to a mechanical issue at the Halifax WWTF.
4. August 10: The SSO at Mill Cove WWTF was due to rain on the previous day.
5. August 20: The SSO at Mill Cove WWTF was due to rain on the previous day.
6. August 24: The CSO at Upper Water St CSO was due to a watermain break causing an influx of flow into the combined sewer system.
7. August 28: The SSO at Mill Cove WWTF was due to rain on the previous day.
8. August 31: The CSO at Chain Rock PS & CSO, the CSO at Park Ave PS & CSO, and the CSO at Old Ferry Rd PS & CSO were due to rain on the previous day.
9. September 1: The CSO at Upper Water St CSO was due to a blockage caused by debris.
10. September 4: The CSO at Lyle St CSO, the CSO at Park Ave PS & CSO and the CSO at Old Ferry Rd PS & CSO were caused by a power outage.
11. September 5: The CSO at Jamieson St. PS & CSO and the CSO at Melva St PS & CSO were caused by a power outage.
12. September 20: The SSO at Mill Cove WWTF was due to rain on the previous day.

Halifax Water Compliance Statement
Quarterly Certification

For the period of July 1, 2023 to September 30, 2023

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.

Tareq Al-Zabet

Digitally signed by Tareq Al-Zabet
Date: 2023.11.20
15:17:39 -04'00'

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



Digitally signed by Louis de Montbrun
Date: 2023.11.20
13:12:51 -04'00'

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



Digitally signed by Heidi Schedler
Date: 2023.11.21
15:16:10 -04'00'

Heidi Schedler
Director, Regulatory Affairs, Risk and Governance

Dated:

November 20, 2023

Halifax Water Compliance Statement
Quarterly Certification
Appendix I

Significant statutory remittances for payroll taxes, Harmonized Sales Tax and other remittances as required under the laws of the Government of Canada and its Provinces for the Halifax Regional Water Commission.

Statutory Payroll Remittances

- **Canada Revenue Agency (CRA)** - Statutory employee payroll deductions and employer related contributions for:
 - Income Tax
 - Canada Pension Plan (CPP)
 - Employment Insurance (EI)

- **Workers' Compensation Board of Nova Scotia (WCB)** – Employer remittance based on employee payroll

Other Payroll Remittances

- **Northern Trust** - Employee payroll deductions and employer contributions to Halifax Water and HRM defined benefit pension plans

- **Industrial Alliance** – employer and employee contributions to defined contribution pension plan

- **Medavie Blue Cross & SSQ** – employee payroll deductions and employer related contributions for Health & dental, LTD, and Life benefit coverage, and payroll deductions for AD&D

- **Canadian Union of Public Employees** – Employee payroll deductions of union dues
 - CUPE Local 227
 - CUPE Local 1431

HST and Other Remittances

- **Canada Revenue Agency (CRA)** - Harmonized Sales Tax (HST) is filed online and a refund issued as HST paid is greater than HST collected

- **Workers' Compensation Board of Nova Scotia (WCB)** – Remittance for sub-contractors

Quarterly Remittance Certification
Appendix II

Period: July to Sept 2023/2024

<u>Vendor</u>	<u>Vendor #</u>	<u>Items Remitted</u>	<u>Total remitted</u>	<u>Exceptions</u>
Statutory Payroll Remittances				
CRA	174	Tax, CPP, EI, WCB	<u>\$4,871,983.64</u>	
Other Payroll				
Northern Trust	1215	HW Pension Plan	<u>\$ 2,005,459.65</u>	
Northern Trust	1216	HRM Pension Plan	<u>\$ 233,625.94</u>	
Manulife Financial	1171	Bedford Pension Plan	<u>\$ 2,187.64</u>	
Industrial Alliance	2971	DCPP	<u>\$ 5,442.28</u>	
Medavie Blue Cross	340, 3101	Health, Dental, Life, LTD	<u>\$ 960,559.70</u>	
SSQ Insurance	429	AD&D	<u>\$ 5,006.85</u>	
CUPE	160	Union Dues 1431	<u>\$ 34,237.41</u>	
CUPE	3517	Union Dues 227	<u>\$ 54,393.90</u>	


Other payroll items remitted in accordance with stated requirements:
United Way, Credit Union, Garnishments (WCB, CRA, Family Court, Sherriff's Office),
Water for People, Salvation Army, Racially Visible Caucus

HST and Other


CRA	N/A	HST (refunds)	<u>\$ (1,271,213.45)</u>	
Receiver General	210	WCB subcontractors	<u>\$ 313.34</u>	

Exceptions, errors and/or late remittances

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:  Digitally signed by Louis de Montbrun
Date: 2023.11.17 15:06:17 -04'00'

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

APPROVED: Tareq Al-Zabet  Digitally signed by Tareq Al-Zabet
Date: 2023.11.17 15:12:03 -04'00'

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

DATE: October 30, 2023

SUBJECT: **Halifax Regional Water Commission Employees' Pension Plan
Financial Report Third Quarter, 2023**

ORIGIN

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

BACKGROUND

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

DISCUSSION

The attached statement of changes in net assets available for benefits (Appendix A) outlines the annual budget for the Plan and actual financial performance for the Third Quarter (January 1 to September 30, 2023). Favourable or unfavourable variances reported compare actual results to pro-rated budget amounts, for the nine (9) month period ending September 30, 2023. Yearend audited results for 2021 and 2022 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 \$10.0 million for the nine (9) month period ending September 30, 2023. The pro-rated budget for the period forecasted an increase in net assets available of \$5.6 million. Actual results for the period compared to the pro-rated budget result in a favourable variance of \$4.4 million.

The annual budget forecasted revenue of \$7.0 million. Revenue for the period is \$9.3 million, which when compared to the pro-rated revenue budget of \$5.3 million results in a favourable variance of \$4.0 million. Performance of the HRM Master Trust directly drives the revenue figures reported and changes in the fair value of investment assets tends to be more volatile compared to contributions and expenses of the Plan. This variance is attributed directly to an increase in the fair value of investment assets of \$7.5 million. Investment income for the period was \$2.1 million compared to a pro-rated budget of \$2.2 million.

Contributions of \$5.9 million are above the pro-rated budget of \$5.1 million by \$0.8 million. This results in a favourable variance of 15% and is mostly due to a large transfer in from another pension plan, plus the timing of new hires and higher pay for staff resulting from a recent re-organization and naming of Senior Managers.

Expenses of \$5.1 million for the period are higher than the pro-rated budget of \$4.8 million by \$0.3 million or 7%. Termination payments are over the pro-rated budget by \$0.2 million and a pre-retirement death benefit paid out in January 2023 accounts for the difference. Pre-retirement death benefits are not budgeted for as they are infrequent and unpredictable. Termination payments vary from year to year and are difficult to predict.

SERVICE STANDARDS

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

Service Standard results for the Third Quarter (July 1 to September 30, 2023) 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.

Third Quarter results reported in Appendix D show, out of 3 requests submitted for retirement estimates (with options), the retirement package was provided to the member within the prescribed timelines under the Act, of 60 days prior to the Member's intended retirement date. There were 12 terminations during the period, with the terminated employee provided a termination package (with options) within the prescribed timelines under the Act, of 60 days after their termination date.

Performance of the actuary, also reported in Appendix D, shows out of 15 requests in total, the actuary met the pre-determined standard in 13 instances with average response times for retirement and termination calculation estimates of 9 days and 6 days respectively. Response times for non-standard requests such as marriage breakdown calculations and reciprocal transfer values are also tracked. Service standards were met in 2 of the 4 requests with average response times of 11 days for marriage breakdown estimates and 15 days for reciprocal transfer estimates. The response time of the actuaries is continuously monitored to ensure required service standards are maintained.

ATTACHMENTS


APPENDIX A – Financial Report:

Statement of changes in net assets available for benefits, for the nine (9) month period ended September 30, 2023

APPENDIX B – Regulatory Filing Requirements – Q3 2023

APPENDIX C – Administrative Reporting Requirements – Q3 2023

APPENDIX D – Service Standards Report – Q3 2023

Report Prepared by:	Heather Britten	 <small>Digitally signed by Heather Britten Date: 2023.11.17 14:29:46 -04'00'</small>
Heather Britten, Quality Assurance Officer (782) 641-1431		

Halifax Regional Water Commission Employees' Pension Plan
Statement of changes in net assets available for benefits
For the nine (9) month period ended September 30, 2023

Benchmark 75%

	September 30, 2023						Actual (Audited) 2022	Actual (Audited) 2021
	2023 Budget	Actual	Prorated Budget 75%	Actual versus Budget		Change		
				\$	%			
Revenue								
Net investment income:								
Total investment income	\$2,900,000	\$2,115,898	\$2,175,000	(\$59,102)	(3%)	\$3,307,029	\$3,657,805	
Investment manager fees	(\$310,000)	(\$324,580)	(\$232,500)	\$92,080	40%	(\$388,167)	(\$301,176)	
Increase (decrease) in the fair value of investment assets	\$4,400,000	\$7,468,402	\$3,300,000	\$4,168,402	126%	(\$2,763,692)	\$15,414,684	
	<u>\$6,990,000</u>	<u>\$9,259,719</u>	<u>\$5,242,500</u>	<u>\$4,017,219</u>	<u>77%</u>	<u>\$155,170</u>	<u>\$18,771,312</u>	
Contributions								
Participants:								
Current service (including Additional Voluntary Contributions)	\$3,479,100	\$2,812,584	\$2,609,325	\$203,259	8%	\$3,375,425	\$3,391,324	
Reciprocal Transfer	\$0	\$350,488	\$0	\$350,488	0%	\$0	\$0	
Sponsors:								
Current service	\$3,379,000	\$2,727,568	\$2,534,250	\$193,318	8%	\$3,277,595	\$3,301,346	
	<u>\$6,858,100</u>	<u>\$5,890,641</u>	<u>\$5,143,575</u>	<u>\$747,066</u>	<u>15%</u>	<u>\$6,653,021</u>	<u>\$6,692,670</u>	
Expenses								
Benefit payments:								
Benefit payments	\$5,406,000	\$3,958,710	\$4,054,500	(\$95,790)	(2%)	\$5,089,704	\$4,739,794	
Termination payments	\$800,000	\$771,885	\$600,000	\$171,885	29%	\$909,506	\$783,885	
Death benefit payments	\$0	\$296,728	\$0	\$296,728	n/a	\$0	\$63,848	
Administrative:								
Actuarial & consulting fees	\$75,000	\$11,152	\$56,250	(\$45,098)	(80%)	\$99,522	\$83,773	
Audit & accounting fees	\$10,000	\$3,129	\$7,500	(\$4,371)	(58%)	\$9,446	\$10,027	
Bank custodian fees	\$28,000	\$18,048	\$21,000	(\$2,952)	(14%)	\$20,941	\$27,576	
Insurance	\$10,600	\$10,600	\$7,950	\$2,650	33%	\$10,600	\$10,600	
Miscellaneous	\$20,000	\$21,780	\$15,000	\$6,780	45%	\$21,448	\$18,083	
Professional fees	\$45,000	\$36,901	\$33,750	\$3,151	9%	\$40,534	\$43,529	
Registration fees	\$3,000	\$0	\$2,250	(\$2,250)	(100%)	\$2,848	\$2,662	
Training (Trustees/ Administration/ Pension Committee)	\$5,000	\$0	\$3,750	(\$3,750)	(100%)	\$0	\$0	
	<u>\$6,402,600</u>	<u>\$5,128,931</u>	<u>\$4,801,950</u>	<u>\$326,981</u>	<u>7%</u>	<u>\$6,204,550</u>	<u>\$5,783,778</u>	
Increase in net assets available for benefits	<u>\$7,445,500</u>	<u>\$10,021,429</u>	<u>\$5,584,125</u>	<u>\$4,437,304</u>	<u>79%</u>	<u>\$603,641</u>	<u>\$19,680,205</u>	
Net assets available for benefits, beginning of period	<u>\$175,240,002</u>	<u>\$175,240,002</u>				<u>\$174,636,362</u>	<u>\$154,956,157</u>	
Increase (decrease) in net assets available for benefits	<u>\$7,445,500</u>	<u>\$10,021,429</u>				<u>\$603,641</u>	<u>\$19,680,205</u>	
Net assets available for benefits, end of period	<u>\$182,685,502</u>	<u>\$185,261,431</u>				<u>\$175,240,002</u>	<u>\$174,636,362</u>	

Expenses on this statement are reported on a cash basis.

Halifax Regional Water Commission Employees' Pension Plan
Regulatory Filing Requirements - 2023
as at September 30, 2023

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 16, 2023	DB Plan	Filed directly with the Trustee, Northern Trust, for the DB Plan.
			February 16, 2023	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 27, 2023	DB Plan	CRA requires Northern Trust as the custodian to prepare and file T3 Income Tax Returns each year. Information obtained from HRM Pension Plan quarterly report.
3 Pension Plan Audited Financial Statements	Superintendent of Pensions	6 months after the Plan's fiscal year end	June 30, 2023	DB Plan	2022 audited financial statements were approved by the Halifax Water Board on June 22, 2023. Signed financial statements were submitted to the Superintendent of Pensions on June 30th. (Superintendent is notified by letter each year that the financial statements may be later than June 30th due to timing of the Board meeting.)
			June 9, 2023	DC Plan	Audited financial statements are not prepared for this pension plan. However, Industrial Alliance provides a Financial Report detailing all pertinent details of the plan. This report is submitted to the regulatory body prior to June 30th each year.
4 Annual Information Returns (AIR)	Superintendent of Pensions	June 30th	June 9, 2023	DB Plan	
			June 9, 2023	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 - 2023
as at September 30, 2023


Report	Filing Deadline/ Recurrence	Date last filed/ Performed		Comments
1 Pensioners' Payroll	Monthly	November 1, 2023		Pensioners are paid the 1st of each month; no exceptions to report for the Third Quarter 2023
2 Contributions to the Trustee	Monthly	October 11, 2023	DB Plan	Remittances due to Northern Trust within 30 days of month end; no exceptions to report for the Third Quarter 2023.
		October 11, 2023	DC Plan	Remittances due to Industrial Alliance within 30 days of month end; no exceptions to report for the Third Quarter 2023.
		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	November 23, 2023	DB Plan	Third Quarter (January - September 2023)
		March 23, 2023	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 2022 report was provided to the Halifax Water Board on March 23, 2023.
		n/a	Notional Agreement*	Financial statements not required.
4 Investment Performance Review & Compliance with SIP&P	Quarterly	June 22, 2023	DB Plan	Second Quarter 2023 (January - June) 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 8, 2022.
5 Annual Pension Statements to Members	June 30th	June 27, 2023	DB Plan	Statements issued annually by June 30th.
		June 27, 2023	DC Plan	Statements issued annually in conjunction with the Defined Benefit (DB) Plan statements. Members also have access to online, real-time reporting.
		June 27, 2023	Notional Agreement*	Statements issued annually in conjunction with the DB Plan statements.
6 Fiduciary Liability Insurance	Annually	October 25, 2023	DB Plan	Reviewed and renewed annually by administration staff. The policy period expires November 30 each year.

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


Halifax Regional Water Commission Employees' Pension Plan
Service Standards Report - 2023

Quarter 3 (as at September 30, 2023)									
Transaction	Actuary					HW Staff			Compliance with PBA
	Standard	Total # Completed	# Past Standard	% within Standard	Average Service Days	Total # Completed	Average Service Days	Total Average Service Days	
Retirement Estimates	11 Business Days	2	0	100%	9	2	17	26	Yes
Marriage Breakdown Calculations	15 Business Days	1	0	100%	11	1	24	35	Yes
Post-Retirement Death Letter	15 Business Days								
Pre-Retirement Death Benefit	15 Business Days								
Termination Estimate Calculations									
- Standard	11 Business Days	9	0	100%	6	9	33	40	Yes
- Non Standard (Incl RTAs)	15 Business Days	3	2	33%	15				
	Total for Actuary	15	2	87%	9	12	25	33	

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:  Digitally signed by Louis de Montbrun
Date: 2023.11.17 15:07:57 -04'00'

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

APPROVED: Tareq Al-Zabet  Digitally signed by Tareq Al-Zabet
Date: 2023.11.17 15:25:29 -04'00'

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

DATE: November 2, 2023

SUBJECT: **Halifax Regional Municipality Master Trust
Investment Performance, First and Second Quarter, 2023**

INFORMATION REPORT

ORIGIN

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

BACKGROUND

None.

DISCUSSION

The tables below and the attached Investment Reports provide a performance update for the First and Second Quarters of 2023 (January to June) for the Master Trust, of which Halifax Regional Water Commission Employees' Pension Plan (the "Plan") is a part. The fair value of the investment in the Master Trust is determined and updated at year-end, and the Plan's share in the Master Trust at December 31, 2022 was 6.56%, totaling \$173.0 million.

The Master Trust earned 4.12% in the First Quarter, which underperformed the First Quarter policy benchmark of 4.59% by 0.47%. The return for the 1-year period ended March 31, 2023, was 6.78%, outperforming the 1-year policy benchmark of 3.15% by 3.63%. Other historical returns are provided in Table 1 below.

Table 1 – Q1 Returns

	Current				
	Quarter		3 - Year	4 - Year	Inception
	(Jan to Mar)	1-Year	Annualized	Annualized	To Date
Fund Return	4.12%	6.78%	9.55%	7.43%	7.17%
Policy Benchmark	4.59%	3.15%	6.77%	5.03%	5.54%
Excess Return	-0.47%	3.63%	2.78%	2.40%	1.63%

For the Second Quarter, the Master Trust earned 0.97%, which underperformed the Second Quarter policy benchmark of 2.12% by 1.14%. The return for the 1-year period ended June 30, 2023, is 12.18%, outperforming the 1-year policy benchmark of 11.62% by 0.55%. Other historical returns are provided in Table 2 below.

Table 2 – Q2 Returns

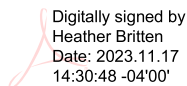
	Current				
	Quarter		3 - Year	4 - Year	Inception
	(Apr to Jun)	1-Year	Annualized	Annualized	To Date
Fund Return	0.97%	12.18%	8.22%	7.37%	7.13%
Policy Benchmark	2.12%	11.62%	5.28%	5.15%	5.57%
Excess Return	-1.14%	0.55%	2.94%	2.21%	1.57%

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

As at June 30, 2023, the Master Trust was in compliance with the Statement of Investment Policies and Procedures (SIP&P).

ATTACHMENTS

- Attachment 1 – HRM Master Trust Investment Performance Q1 2023
- Attachment 2 – HRM Master Trust Investment Risk & Analytical Services Q1 2023
- Attachment 3 – HRM Master Trust Investment Performance Q2 2023
- Attachment 4 – HRM Master Trust Investment Risk & Analytical Services Q2 2023

Report Prepared by:	Heather Britten	 <p>Digitally signed by Heather Britten Date: 2023.11.17 14:30:48 -04'00'</p>
<hr style="border: 0; border-top: 1px solid black; margin: 0;"/> Heather S. Britten, Quality Assurance Officer (782) 641- 1431		

Plan Performance

Plan Performance Summary

	Q1	1 year	4 year
Total Plan	4.1%	6.8%	7.4%
Benchmark	4.6%	3.1%	5.0%
Value Add	-0.5%	3.7%	2.4%

	Q1	1 year	4 year
Equities	4.7%	0.2%	6.6%
Benchmark	6.4%	0.2%	7.6%
Value Add	-1.7%	0.0%	-1.0%

	Q1	1 year	4 year
Fixed Income	2.5%	0.8%	2.4%
Benchmark	2.7%	-0.3%	0.4%
Value Add	-0.2%	1.1%	2.0%

Plan Performance Summary

	Q1	1 year	4 year
Real Assets	4.8%		
Benchmark	2.7%		
Value Add	2.1%		

	Q1	1 year	4 year
Public Market Alternatives	3.1%	6.3%	
Benchmark	2.0%	7.2%	
Value Add	1.1%	-0.9%	



HRM Master Trust

Investment Risk & Analytical Services

March 31, 2023

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SECTION 1

HRM Master Trust

Investment Risk & Analytical Services

March 31, 2023

FIRST QUARTER 2023

Provided by Northern Trust Asset Management

OK, ON AVERAGE

On average, the global economy looks to be “OK” – regional and sectoral areas of weakness being offset by other areas of relative strength; meanwhile, inflation seems contained in some areas albeit still raging in others. *On average*, the financial system is “OK” – concerns in some regional banks and other “one-off” issues (driven mostly by poor risk management) absorbable by the broader, still-healthy banking industry. And, *on average*, the global financial market outlook looks “OK” – global equity valuations are near the median valuation level of the past 25 years (~19 times last-twelve-months earnings). But you are also “OK, on average” if you are six feet tall standing in a lake that averages five feet deep. That is, on average, you have no fear of drowning despite the fact that there are almost assuredly areas in that lake where you would be underwater. The key to successful investing is to appreciate potential financial and economic “deep spots” potentially masking what looks “OK” on the surface.

Growth and Inflation. *On average*, the global economy has displayed much resiliency in the face of geopolitical disruptions and higher interest rates. Global composite purchasing managers’ indices (PMIs) sit at ~52 – modestly higher than the ~48 mark coming into 2023 and above the 50 mark that separates expansion from contraction. But underneath that modest expansion, we find a notable gap between the fairly hot service industry and the mostly tepid manufacturing industry; most notably the case in the United States, where the manufacturing PMI sits near 46 while the services PMI sits closer to 55. Growth disparities have led to inflation disparities, with core goods inflation already back below the Federal Reserve’s 2% target but with core services inflation still stuck in the 6-7% range.

Central Banks and Credit Markets. Stubborn services inflation kept the Fed focused on rate hikes – until the failure of Silicon Valley Bank and resulting contagion forced one eye over to monitoring financial industry health. As such, *on average*, markets expect one more 0.25% rate hike before a Fed cutting cycle starts near year end. But that “average” is a combination of a higher rate trajectory should services inflation linger and a lower rate trajectory should bank stresses persist.

Financial Markets. When ostensibly benign average expected outcomes are masking a wide range of potential outcomes underneath, financial markets often respond with outsized volatility. One day, an inflation print below expectations can lead to “risk-on” markets as investors price in the end of the rate hike cycle; the next day, a headline suggesting another bank may be in trouble can mean “risk-off” markets as investors brace for impact. In these environments, it is especially important to keep adequate liquidity for spending needs so as to not be forced into selling “good assets on a bad day” while also maintaining proper diversification – not only among stocks and bonds but also real assets and other diversifiers.

MARKET EVENTS



JANUARY	FEBRUARY	MARCH
<p>6 December U.S. jobs report shows continued strength but gradual cooling with slower job gains, increased participation and slower wage growth.</p>	<p>3 A much stronger than expected U.S. jobs report triggers upward revisions in investor policy expectations (later intensified by the 2/14 CPI data).</p>	<p>10 The second-biggest U.S. bank failure (Silicon Valley Bank, aka SVB) triggers a run on regional bank deposits and elevates financial stability risks.</p>
<p>12 Investors price in less central bank tightening after U.S. Consumer Price Index (CPI) cools year-over-year (y/y).</p>	<p>4 Geopolitical frictions deepen after the U.S. shoots down a China surveillance balloon in U.S. airspace, though the market impact is contained.</p>	<p>15 Bank turmoil continues after Credit Suisse (CS) shares plunge on perceived weakness and its ensuing deposit outflows force a rescue sale to UBS.</p>
<p>13 Q422 earnings season unofficially begins; earnings proceed to contract with broad-based weakness (ex-energy) and disappointing forward guidance.</p>	<p>24 One-year anniversary of the Ukraine war; little progress has been made toward a peaceful resolve and escalation risks remain present.</p>	<p>16 The European Central Bank moves ahead with a 50-bp rate hike, but aims to verbally assuage financial stability worries and removes forward guidance.</p>
<p>19 U.S. government reaches its \$31.4 trillion borrowing limit and invokes extraordinary funding measures estimated to last until ~June–September.</p>	<p>24 Core Personal Consumption Expenditures – the Fed’s preferred inflation measure – unexpectedly accelerates to 4.7% from 4.3%.</p>	<p>22 Amid bank turmoil but elevated inflation the Fed hikes its policy rate by 25 bps, softens language on future hikes and leaves its 2023 year-end Fed funds rate forecast unchanged at 5.1%.</p>
<p>24 U.S. and Europe flash Purchasing Managers’ Indexes (PMIs) come in better than expected while 4Q U.S. Gross Domestic Product is solid at 2.9%.</p>	<p>26 China PMIs top expectations and the expansionary threshold (50) as its reopening supports domestic growth.</p>	<p>27 First Citizens Bank purchases SVB at a \$16.5B discount, helping ease investor concern after a period of no new developments on further bank contagion.</p>

FIRST QUARTER 2023 TOTAL RETURNS (%)

Strong returns across most financial market assets mask a quarter full of volatile swings – especially within bond markets.



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

MARKET REVIEW

Initial Inflation Optimism

Equities firmly rebounded in January with key support from increased investor optimism on the path of inflation and less communication from central bankers on further rate hikes. This led to a strong month of returns in the U.S. and also outside the U.S. with mild weather alleviating energy concerns in Europe and China's rebound from Covid-19 reopening. Equity performance in January was in many ways a reversal of 2022, where many 2022 laggards notably outperformed (see chart) and riskier parts of the market performed well.

Not So Fast...

In February, economic data releases proved firmer than expected – more resilient on the growth front and stickier on the inflation side. A key tenet of the solid economic backdrop was strong labor markets where the unemployment rate fell to its lowest level since the late 1960s. In response, the equity market rally lost steam as investors reconsidered their inflation views and upwardly revised their expected trajectory for central banks. However, March's banking issues (see next section) unwound the increase in Fed expectations.

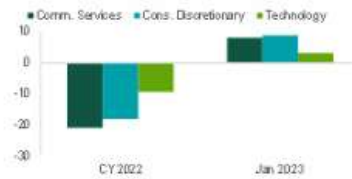
March Madness for Banks

In March, investor worries of more Fed rate hikes shifted to financial stability concerns. Initially, Silicon Valley Bank (SVB) suffered major deposit outflows before regulators took control of it (along with Signature Bank). U.S. policymakers quickly stepped in with emergency liquidity measures to help stabilize the banking sector. Credit Suisse (CS) was then under pressure the next week before being acquired by UBS with support from Swiss authorities. Overall, U.S. banks declined 25% in March (versus a 3.5% S&P 500 gain).

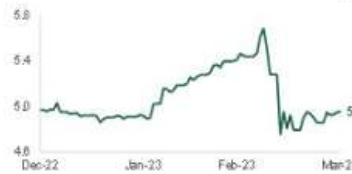
Choppy Rates, Calmer Equities

The banking-related market reaction was more notable in interest rates versus equities. The S&P 500 initially lost only 3%, while interest rates saw historically high volatility. The 2-year Treasury yield dropped over 100 bps as investor Fed expectations reset lower (i.e., lower peak rate, more likely 2023 rate cuts). While systemic risks stabilized to some degree by late March, a number of implications are possible both near-term (tightening in credit conditions) and longer-term (bank regulation, profitability challenges for small-to-midsized banks).

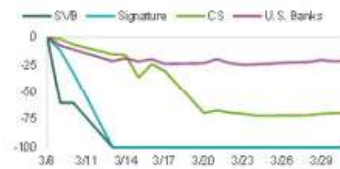
RELATIVE RETURNS OF VARIOUS SECTORS (%)



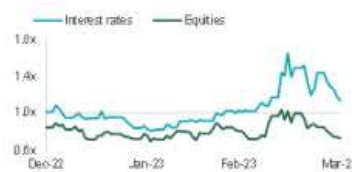
EXPECTED 2023 PEAK FED FUNDS RATE (%)



% RETURN SINCE ONSET OF SVB ISSUES (3/8/23)



VOLATILITY RELATIVE TO 2022 AVERAGE LEVEL



Interest Rates

The Fed continued to tighten policy but is moving forward with more caution due to the potential for bank stresses to weigh on credit availability. That said, inflation remains a concern and the Fed's year-end policy rate forecast (5.1%) implies a hold-firm approach. Interest rates seesawed in a volatile manner during the quarter as investors struggled to ascertain the monetary policy outlook in the wake of hot inflation amid risks to financial stability. Interest rates across the curve ended lower with near-term yields declining the most.

Credit Markets

Credit spreads floated up and down for most of the quarter before moving decidedly higher on banking sector strains. The bank shocks ramped up investor uncertainty on the health of corporate credit and drove wider risk premia across investment grade (IG) and high yield (HY). IG and HY credit spreads rose as much as 38 and 128 basis points (bps), respectively, before coming back in as perceived risks abated. IG spreads ended 8 bps wider, while HY finished 13 bps tighter. Current spreads for both are under recessionary levels.

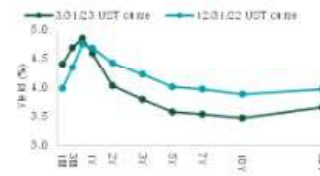
Equities

Global equities brought solid gains (7.4%) as developed ex-U.S. equities (7.7%) and U.S. equities (7.3%) led the way while emerging market equities delivered a lower-but-strong return (4.0%). These gains may appear at odds given two of the largest U.S. bank failures ever, however, declining interest rates led to a reprieve in some of the most sizable areas of the markets (i.e., U.S. tech up 21.8%) which buoyed aggregate returns. Equity volatility paled in comparison to bond volatility, but there were still notable swings beneath the surface.

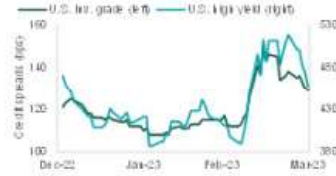
Real Assets

Real assets bore the brunt of weakness extending from both central bank tightening and banking strains as listed infrastructure (3.9%), global real estate (0.7%) and natural resources (0.6%) all lagged global equities. Listed infrastructure's interest rate sensitivity benefited from the decline in yields. Lower commodity prices hurt equity-based natural resources as demand concerns intensified on signs of global economic vulnerability. Real estate suffered from investor concerns on bank lending – mostly regarding commercial real estate.

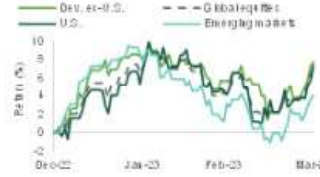
U.S. TREASURY YIELD CURVE



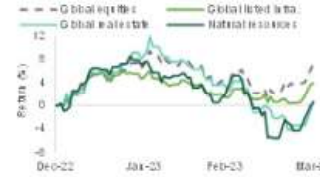
CREDIT SPREADS



REGIONAL EQUITY INDICES



REAL ASSET INDICES



Market Overview

IMPORTANT INFORMATION

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

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KEY DEVELOPMENTS

Investment Hierarchy

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
HRM Master Trust	2,737,345,067	100.00	1.18	4.12	4.12	6.78	9.55	7.43	8.14	7.17	09/30/1999
<i>HRM Policy Benchmark</i>			1.45	4.59	4.59	3.15	6.77	5.03	5.72	5.54	09/30/1999
<i>Excess Return</i>			-0.27	-0.47	-0.47	3.63	2.78	2.40	2.42	1.63	09/30/1999
HRM Total Equity	1,252,009,634	45.74	0.93	4.69	4.69	0.17	12.25	6.61	-	7.18	12/31/2015
<i>HRM Total Equity Benchmark</i>			1.58	6.43	6.43	0.15	13.61	7.63	-	8.12	12/31/2015
<i>Excess Return</i>			-0.65	-1.74	-1.74	0.02	-1.36	-1.02	-	-0.94	12/31/2015
HRM Cdn Equity	102,348,518	3.74	-0.39	3.37	3.37	-4.63	15.77	6.81	5.14	4.71	03/31/2006
<i>S&P/TSX Composite</i>			-0.22	4.55	4.55	-5.17	18.02	8.98	7.86	6.10	03/31/2006
<i>Excess Return</i>			-0.17	-1.18	-1.18	0.54	-2.26	-2.17	-2.72	-1.39	03/31/2006
Blackrock	99,808,228	3.65	-0.39	3.82	3.82	-4.08	17.81	8.80	7.81	8.40	12/31/2003
<i>S&P/TSX Composite</i>			-0.22	4.55	4.55	-5.17	18.02	8.98	7.86	7.74	12/31/2003
<i>Excess Return</i>			-0.17	-0.74	-0.74	1.09	-0.21	-0.18	-0.05	0.66	12/31/2003
P2P Holdings	2,540,290	0.09	-0.48	-11.49	-11.49	-22.29	-7.62	-15.61	-	-29.39	02/03/2017
<i>S&P/TSX Composite</i>			-0.22	4.55	4.55	-5.17	18.02	8.98	-	7.56	02/03/2017
<i>Excess Return</i>			-0.26	-16.04	-16.04	-17.12	-25.65	-24.59	-	-36.94	02/03/2017
HRM Global Equity	763,720,728	27.90	1.18	6.51	6.51	-	-	-	-	6.51	12/31/2022
<i>HRM Custom Global Equity Index</i>			1.68	7.29	7.29	-	-	-	-	7.29	12/31/2022
<i>Excess Return</i>			-0.50	-0.78	-0.78	-	-	-	-	-0.78	12/31/2022
AB EDHEC	135,089,637	4.94	1.28	5.58	5.58	2.82	13.11	7.33	-	7.74	12/31/2015
<i>MSCI World ND</i>			2.48	7.60	7.60	0.74	14.46	9.39	-	8.94	12/31/2015
<i>Excess Return</i>			-1.20	-2.02	-2.02	2.08	-1.35	-2.06	-	-1.20	12/31/2015
Blackrock Global Alpha Advanta	120,465,242	4.40	3.66	9.17	9.17	5.80	-	-	-	5.75	05/25/2021
<i>MSCI ACWI ND</i>			2.47	7.18	7.18	0.29	-	-	-	3.03	05/25/2021
<i>Excess Return</i>			1.19	1.99	1.99	5.51	-	-	-	2.72	05/25/2021
Blackrock MSCI Small Cap	47,598,393	1.74	-3.28	4.25	4.25	-1.21	-	-	-	-0.74	05/19/2021
<i>MS Wld Small Cap Net Index</i>			-3.15	4.17	4.17	-1.81	-	-	-	-1.06	05/19/2021
<i>Excess Return</i>			-0.13	0.08	0.08	0.61	-	-	-	0.32	05/19/2021
Blackrock MSCI World Passive	128,966,733	4.71	2.52	7.70	7.70	1.15	-	-	-	6.46	05/12/2021
<i>MSCI World ND</i>			2.48	7.60	7.60	0.74	-	-	-	6.07	05/12/2021
<i>Excess Return</i>			0.04	0.10	0.10	0.40	-	-	-	0.39	05/12/2021
Global Alpha	50,340,354	1.84	-2.89	5.17	5.17	-0.00	-	-	-	-0.24	03/09/2022
<i>MS Wld Small Cap Net Index</i>			-3.15	4.17	4.17	-1.81	-	-	-	-0.03	03/09/2022
<i>Excess Return</i>			0.26	1.00	1.00	1.81	-	-	-	-0.21	03/09/2022

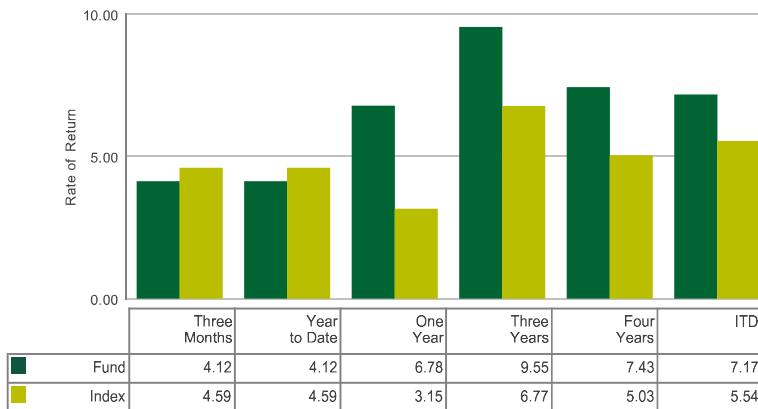
Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
Marathon International Equity	67,155,856	2.45	0.38	7.34	7.34	7.33	-	-	-	1.11	05/28/2021
MSCI EAFE ND			1.87	8.34	8.34	6.86	-	-	-	2.55	05/28/2021
Excess Return			-1.49	-1.00	-1.00	0.48	-	-	-	-1.44	05/28/2021
Mawer International Equity	78,475,852	2.87	2.07	7.63	7.63	4.13	-	-	-	-0.01	02/28/2021
MSCI ACWI ex USA ND			1.84	6.74	6.74	2.86	-	-	-	0.59	02/28/2021
Excess Return			0.23	0.89	0.89	1.27	-	-	-	-0.61	02/28/2021
Wellington US Equity	135,628,661	4.95	0.79	4.96	4.96	-1.56	21.54	13.37	13.45	13.17	04/30/2011
HRM US Equity			3.05	7.37	7.37	-0.02	20.50	12.42	12.31	11.93	04/30/2011
Excess Return			-2.26	-2.41	-2.41	-1.54	1.04	0.95	1.15	1.24	04/30/2011
HRM Emerging Markets	95,485,614	3.49	1.91	4.18	4.18	2.75	5.39	0.03	4.58	4.81	09/30/2010
MSCI Emerging Markets ND			2.42	3.83	3.83	-3.25	6.03	1.12	4.96	4.02	09/30/2010
Excess Return			-0.50	0.35	0.35	6.00	-0.64	-1.09	-0.38	0.78	09/30/2010
CC&L Emerging Markets	40,593,505	1.48	-1.00	-	-	-	-	-	-	-	12/31/2022
MSCI Emerging Markets ND			2.42	-	-	-	-	-	-	3.83	12/31/2022
Excess Return			-3.41	-	-	-	-	-	-	-	12/31/2022
Trinetra Emerg Mrkts Grwth Fnd	54,890,685	2.01	4.18	5.30	5.30	3.11	5.65	1.36	-	2.71	08/31/2017
MSCI Emerging Markets ND			2.42	3.83	3.83	-3.25	6.03	1.12	-	2.04	08/31/2017
Excess Return			1.76	1.46	1.46	6.36	-0.38	0.24	-	0.67	08/31/2017
Wellington EMLE	1,424	0.00	-	-	-	-	-	-	-	-	07/31/2011
MSCI Emerging Markets ND			-	-	-	-	-	-	-	-	07/31/2011
Excess Return			-	-	-	-	-	-	-	-	07/31/2011
HRM Private Equity	290,454,775	10.61	0.40	0.67	0.67	15.14	19.26	17.97	19.53	20.95	09/30/2011
HRM PE Benchmark			2.64	8.12	8.12	13.33	8.66	8.02	7.05	7.00	09/30/2011
Excess Return			-2.24	-7.46	-7.46	1.80	10.61	9.95	12.49	13.95	09/30/2011
Private Equity	290,454,775	10.61	0.40	0.67	0.67	15.14	19.26	17.97	19.53	20.95	09/30/2011
HRM Total Fixed Income	625,836,443	22.86	0.94	2.46	2.46	0.80	2.69	2.37	-	2.82	12/31/2015
HRM FI Benchmark			1.78	2.68	2.68	-0.28	-0.45	0.43	-	1.22	12/31/2015
Excess Return			-0.84	-0.22	-0.22	1.08	3.14	1.94	-	1.61	12/31/2015
Cash and Cash Equivalents	88,329,631	3.23	0.37	1.09	1.09	4.09	2.18	1.40	2.23	4.34	03/31/2009
3M CAD Bankers Acceptance Rate			0.42	1.26	1.26	4.04	1.70	1.76	1.47	1.35	03/31/2009
Excess Return			-0.05	-0.17	-0.17	0.06	0.48	-0.35	0.76	2.98	03/31/2009
Lincluden CDOR	88,329,631	3.23	0.37	1.09	1.09	4.07	0.38	1.44	-	1.55	12/31/2013
3M CAD Bankers Acceptance Rate			0.42	1.26	1.26	4.04	1.70	1.76	-	1.49	12/31/2013
Excess Return			-0.05	-0.17	-0.17	0.04	-1.32	-0.32	-	0.06	12/31/2013
Global Credit	74,803,766	2.73	0.42	1.46	1.46	-0.70	-	-	-	-0.70	03/31/2022

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
AB Global Credit	74,803,766	2.73	0.42	1.46	1.46	-0.70	2.74	0.82	2.62	4.78	03/31/2009
AB FI Blend			1.07	1.71	1.71	-1.03	0.02	0.50	0.97	0.99	03/31/2009
Excess Return			-0.65	-0.25	-0.25	0.33	2.71	0.32	1.65	3.79	03/31/2009
North American Credit	185,876,544	6.79	0.44	2.49	2.49	1.63	8.84	6.84	-	5.83	12/31/2015
HRM Custom Corporate Benchmark			1.20	2.31	2.31	-1.43	0.48	0.68	-	2.05	12/31/2015
Excess Return			-0.75	0.19	0.19	3.06	8.36	6.16	-	3.78	12/31/2015
Canso	84,694,267	3.09	0.65	3.68	3.68	0.79	13.04	8.88	7.16	8.00	02/28/2010
FTSE TMX Corporate Bond IDX			1.33	2.79	2.79	-0.97	0.63	0.80	2.48	3.46	02/28/2010
Excess Return			-0.68	0.89	0.89	1.77	12.41	8.08	4.68	4.53	02/28/2010
HRM Corporate Debt	101,182,277	3.70	0.27	1.53	1.53	2.70	3.18	3.60	-	6.11	01/31/2014
FTSE TMX Short Corp BD IDX			0.87	1.95	1.95	0.87	1.23	1.33	-	1.96	01/31/2014
Excess Return			-0.60	-0.42	-0.42	1.83	1.95	2.27	-	4.16	01/31/2014
Government Bonds	181,814,236	6.64	3.05	3.72	3.72	-0.97	-1.73	0.31	-	1.36	12/31/2015
FTSE TMX Government Univers			2.45	3.37	3.37	-2.40	-2.50	-0.53	-	0.87	12/31/2015
Excess Return			0.59	0.35	0.35	1.43	0.78	0.84	-	0.49	12/31/2015
Lincluden Gov't	113,932,281	4.16	2.51	3.45	3.45	-1.62	-1.65	0.02	-	2.25	08/31/2013
FTSE TMX Government Univers			2.45	3.37	3.37	-2.40	-2.50	-0.53	-	2.07	08/31/2013
Excess Return			0.05	0.08	0.08	0.78	0.85	0.55	-	0.18	08/31/2013
Wellington Bond Overlay	67,881,955	2.48	3.97	3.85	3.85	-0.19	-2.17	0.64	2.27	2.35	08/31/2012
FTSE TMX Government Univers			2.45	3.37	3.37	-2.40	-2.50	-0.53	1.66	1.68	08/31/2012
Excess Return			1.51	0.48	0.48	2.21	0.33	1.17	0.60	0.67	08/31/2012
Private Debt	95,012,266	3.47	-1.20	1.84	1.84	10.43	8.23	9.47	3.29	0.63	12/31/2011
HRM PD Benchmark			1.15	3.88	3.88	8.89	7.22	6.95	6.62	6.62	12/31/2011
Excess Return			-2.34	-2.05	-2.05	1.54	1.02	2.52	-3.33	-5.99	12/31/2011
Private Debt	95,012,266	3.47	-1.20	1.84	1.84	10.43	8.23	9.47	3.29	0.63	12/31/2011
HRM Real Assets	713,178,590	26.05	1.63	4.84	4.84	-	-	-	-	4.84	12/31/2022
HRM Real Assets BM			0.93	2.68	2.68	-	-	-	-	2.68	12/31/2022
Excess Return			0.70	2.17	2.17	-	-	-	-	2.17	12/31/2022
Infrastructure	298,236,528	10.90	2.60	9.50	9.50	23.88	11.97	11.63	12.63	19.01	06/30/2011
HRM Infrastructure Index			0.93	2.68	2.68	9.49	9.57	8.65	7.48	7.34	06/30/2011
Excess Return			1.68	6.82	6.82	14.39	2.40	2.98	5.15	11.67	06/30/2011
Infrastructure	298,236,528	10.90	2.60	9.50	9.50	23.88	11.97	11.63	12.63	19.01	06/30/2011
Real Estate	414,942,062	15.16	0.85	1.23	1.23	15.53	11.81	13.30	13.19	12.10	09/30/2011
HRM Real Estate Index			0.93	2.68	2.68	9.49	9.57	8.65	7.48	7.32	09/30/2011
Excess Return			-0.08	-1.44	-1.44	6.04	2.25	4.65	5.71	4.77	09/30/2011
Real Estate	414,942,062	15.16	0.85	1.23	1.23	15.53	11.81	13.30	13.19	12.10	09/30/2011

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
Public Market Alternatives	129,256,275	4.72	2.36	3.11	3.11	6.29	-	-	-	5.60	02/28/2022
<i>3M CAD Bankers Acceptance R+3%</i>			<i>0.67</i>	<i>2.01</i>	<i>2.01</i>	<i>7.15</i>	-	-	-	<i>6.92</i>	<i>02/28/2022</i>
<i>Excess Return</i>			<i>1.70</i>	<i>1.10</i>	<i>1.10</i>	<i>-0.86</i>	-	-	-	<i>-1.33</i>	<i>02/28/2022</i>
Public Market Alternatives	129,256,275	4.72	2.36	3.11	3.11	6.29	-	-	-	5.60	02/28/2022
<i>3M CAD Bankers Acceptance R+3%</i>			<i>0.67</i>	<i>2.01</i>	<i>2.01</i>	<i>7.15</i>	-	-	-	<i>6.92</i>	<i>02/28/2022</i>
<i>Excess Return</i>			<i>1.70</i>	<i>1.10</i>	<i>1.10</i>	<i>-0.86</i>	-	-	-	<i>-1.33</i>	<i>02/28/2022</i>
HRM Operating	17,064,125	0.62	-	-	-	-	-	-	-	-	12/31/2015
Operating Account	17,064,125	0.62	-	-	-	-	-	-	-	-	03/31/2004

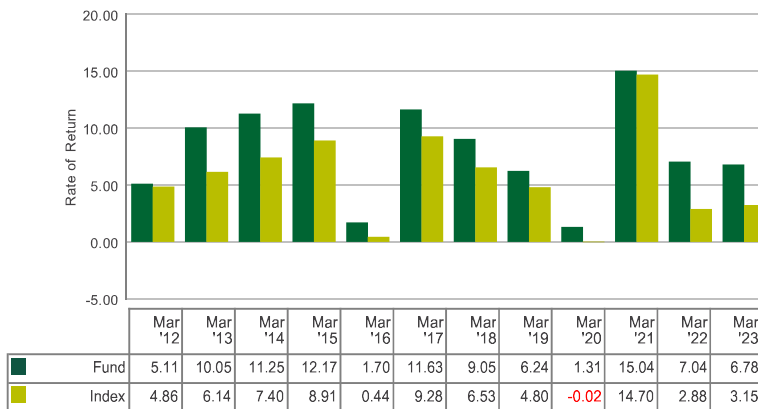
Executive Summary

HRM MASTER TRUST TOTAL FUND NET OF FEES



Index: HRM Policy Benchmark

HRM MASTER TRUST ROLLING YEARS TOTAL FUND NET OF FEES



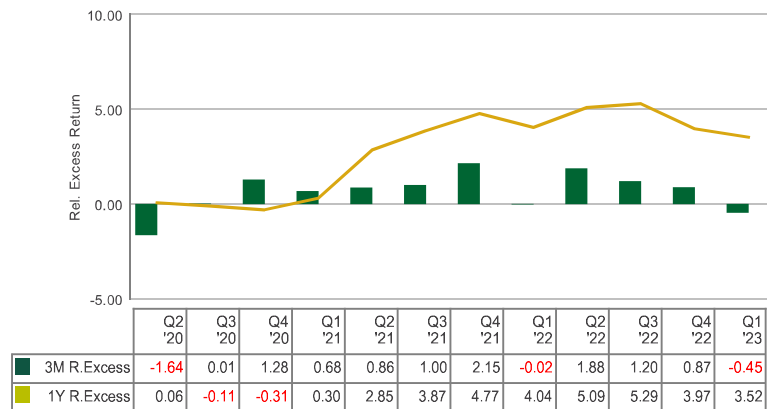
Index: HRM Policy Benchmark

RISK STATISTICS

	3 Mos	1 Yr	4 Yrs
Return	4.12	6.78	7.43
Index Return	4.59	3.15	5.03
Excess Return	-0.47	3.63	2.40
Standard Deviation	-	5.69	5.20
Index Standard Deviation	-	8.06	5.89
Tracking Error	-	3.12	2.23
Information Ratio	-	1.16	1.08
Sharpe Ratio	-	1.04	1.23
Index Sharpe Ratio	-	0.29	0.68
Jensen's Alpha	-	4.26	3.00
Relative Volatility (Beta)	-	0.66	0.82
R Squared	-	0.91	0.86
Beginning MV (in 000s)	2,635,823	2,575,234	2,099,711
Net Contributions (in 000s)	-6,533	-11,309	-50,818
Income (in 000s)	8,658	50,881	220,575
Appreciation (in 000s)	99,398	122,539	467,877
Ending MV (in 000s)	2,737,345	2,737,345	2,737,345

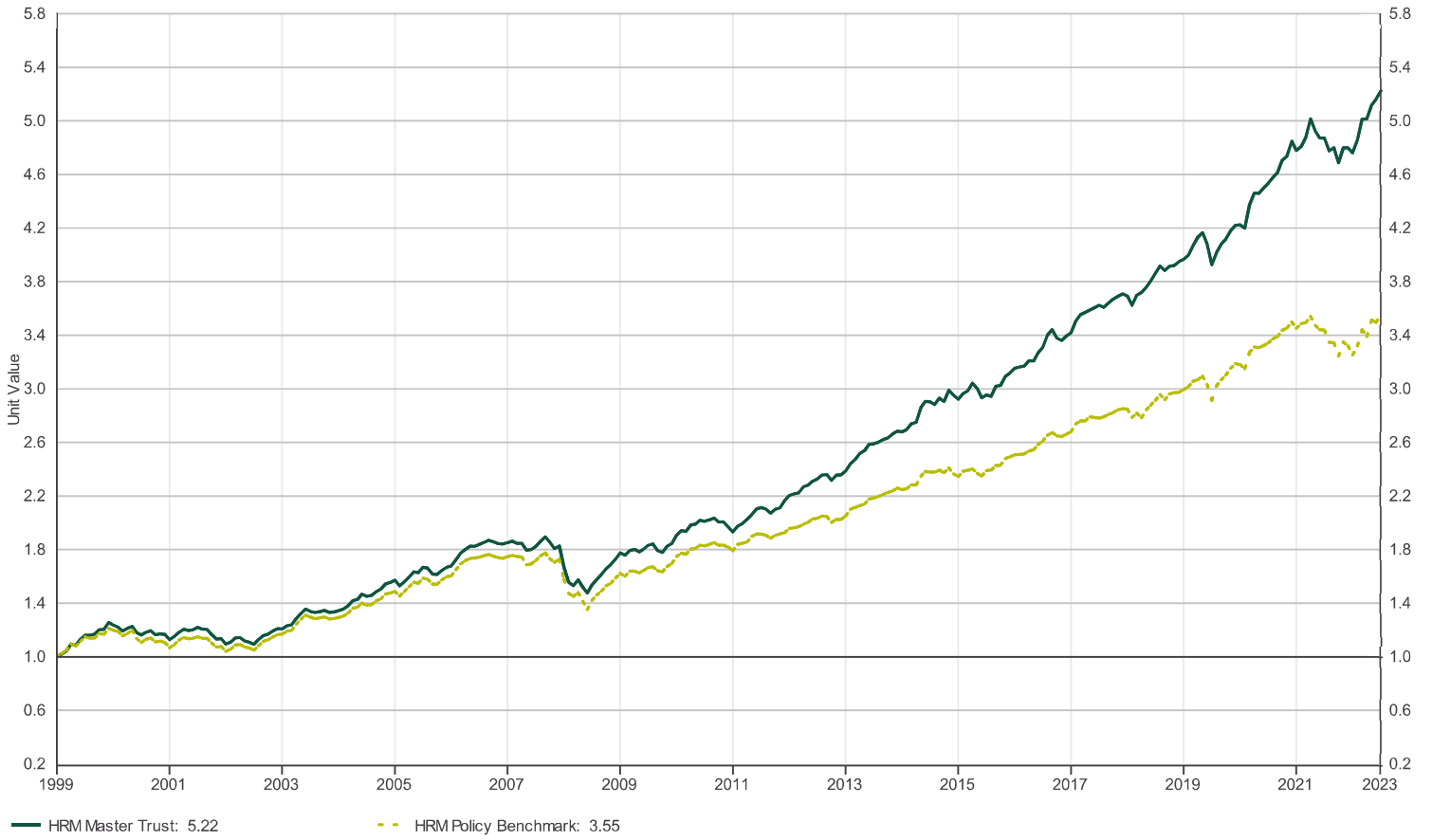
Index: HRM Policy Benchmark. Risk Free Index: JP Morgan 3 month Cash (CAD)
Category: Total Fund Net of Fees. Calculation Frequency: Monthly

HRM MASTER TRUST ROLLING QUARTERS TOTAL FUND NET OF FEES



Index: HRM Policy Benchmark

Growth Over Time - Inception to Date



Plan Performance

Plan Performance Summary

	Q2	YTD	1 year	4 year
Total Plan	1.0%	5.1%	12.2%	7.4%
Benchmark	2.1%	6.8%	11.6%	5.2%
Value Add	-1.1%	-1.7%	0.6%	2.2%

	Q2	YTD	1 year	4 year
Equities	2.0%	6.8%	16.2%	6.6%
Benchmark	2.7%	8.3%	17.8%	7.9%
Value Add	-0.7%	-2.5%	-1.6%	-1.3%

	Q2	YTD	1 year	4 year
Fixed Income	0.4%	2.8%	4.4%	2.1%
Benchmark	-0.3%	2.3%	3.3%	0.0%
Value Add	0.7%	0.5%	1.1%	2.1%

Plan Performance Summary

	Q2	YTD	1 year	4 year
Real Assets	0.7%	5.6%		
Benchmark	2.5%	5.2%		
Value Add	-1.8%	0.4%		

	Q2	YTD	1 year	4 year
Public Market Alternatives	-1.7%	1.4%	4.2%	
Benchmark	2.0%	4.1%	7.9%	
Value Add	-3.7%	-2.7%	-3.7%	

SECTION 1

HRM Master Trust

Investment Risk & Analytical Services

June 30, 2023

MARKET OVERVIEW - SECOND QUARTER 2023

PROVIDED BY NORTHERN TRUST ASSET MANAGEMENT

The U.S. economy continues its post-pandemic expansion – resisting the growth-dampening intentions of restrictive monetary policy. The Federal Reserve (Fed) has hiked interest rates by a cumulative 5% the past five quarters (a brisk 1% per quarter pace); in response, the labor market has added nearly five million jobs over that timeframe. Interestingly, the U.S. economy regained pre-pandemic employment levels exactly one year ago – meaning the bulk of the jobs created during the current Fed rate hiking campaign (roughly five million) aren't just refilling the pandemic hole, but instead represent true growth in the U.S. employment base. This has kept the U.S. consumer in spending mode, averaging 2.1% real growth (above and beyond inflation) the past five quarters. Put another way, the party has not slowed as the Fed had hoped.

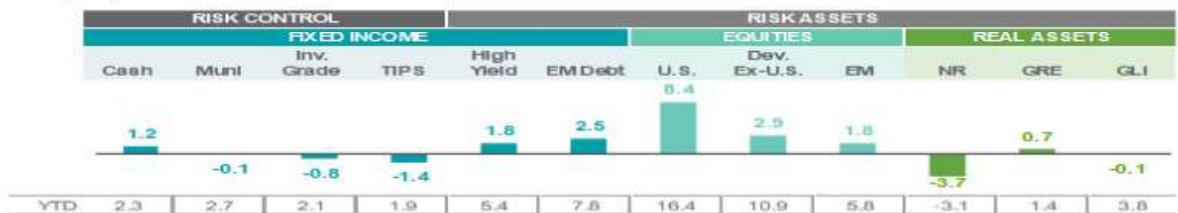
Closing time. While the Fed has been hiking interest rates since March of 2022, only since (approximately) last September has the Fed been in restrictive territory – that is, above the neutral (not inflationary nor disinflationary) policy rate, thought to be near 2.5%. Even still, the Fed effectively announced "last call" nine months ago – so why has the economic party continued? Milton Friedman famously noted the "long and variable lags" of monetary policy. Today those long lags are being further lengthened by the continued shift to a service economy (requires less investment capital and shows less interest rate sensitivity) and the large number of homeowners still enjoying 3% mortgages (and spending the saved money elsewhere).

Economic hangover? A potential problem with this is that the longer the economy resists the Fed's proverbial calls to go home, the more likely financial markets may regret it in the proverbial morning. Continued strong labor demand raises the specter of continued wage pressures (still stubbornly above 4% after mostly staying below 3% during the post-global financial crisis, pre-pandemic era). This, in turn, increases the risk of a sustained price-wage spiral (higher prices lead to higher wage demands that lead to even higher prices) and may force the Fed to refocus its inflation-fighting efforts. At present, the Fed is telegraphing two more rate hikes (though investors expect only one more hike) to 5.75% before an elongated pause. The longer the Fed must enforce restrictive policy, the greater the risk of eventual investment portfolio pain.

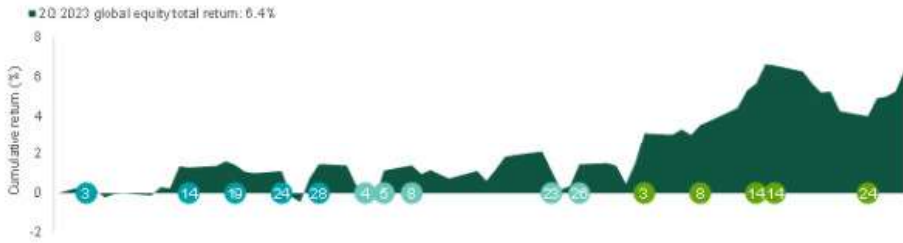
Portfolio painkillers. The "hair of the dog" outcome would be for labor supply relief (early AI job applications or late-to-the-party jobs entrants aiming to offset restarted student loan payments?) to sustain the economic expansion sans high inflation, paving the way for further equity market gains. Short of that outcome, a few portfolio painkillers may be in order. Natural resource equities and inflation-linked bonds can help with new inflationary risks – especially should those risks arise from oil or other commodity supply shocks (a growing risk in this new geopolitical climate). For those worried about volatility, high yield bonds (and their 8.5% yield) could offer a similar return to equity markets, but with historically lower risk.

SECOND QUARTER 2023 TOTAL RETURNS (%)

U.S. equities posted their best quarter since 2021 as the perceived odds of a soft landing increased.



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



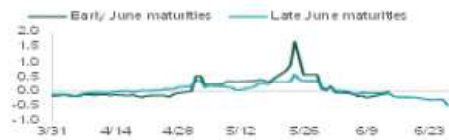
APRIL	MAY	JUNE
<p>3 Oil prices increase following a surprise OPEC-plus announcement of a meaningful supply reduction.</p>	<p>4 The European Central Bank (ECB) delivers a 25-basis point (bp) rate hike and indicates more are on the horizon.</p>	<p>3 Markets price out U.S. default risks after Congress extends the debt ceiling past the 2024 Presidential Elections.</p>
<p>14 1Q23 earnings season unofficially begins; aggregate year-over-year (y/y) earnings growth finishes slightly negative but tops expectations of a larger decline.</p>	<p>5 Regional bank stocks decline ~10% for the week, but the banking system proceeds to find its footing over the next several weeks as deposit outflows slow.</p>	<p>8 The S&P 500 Index pushes into a new bull market after it crosses the 20% threshold above its October 2022 low.</p>
<p>15 U.K. inflation is notably hotter-than-expected, prompting an upward repricing of investor expectations for Bank of England policy tightening.</p>	<p>8 Senior Loan Officer Opinion Survey shows that U.S. banks tightened lending standards and plan to continue to do so.</p>	<p>14 The People's Bank of China cuts two of its key policy rates by 10 bps, a move that could signal a willingness to provide more support moving forward.</p>
<p>24 First Republic Bank (FRC) reveals steep deposit outflows and later becomes the third U.S. regional bank to fail since March, but a subsidized sale to JPMorgan helps contain broader fallout.</p>	<p>23 Developed market Purchasing Managers' Index data shows services activity continues to expand, supporting growth but also pushing up investor expectations for central bank tightening.</p>	<p>14 The Fed unanimously votes to hold its policy rate after 5% of cumulative tightening, but the updated Summary of Economic Projections indicates two more hikes to come in 2023.</p>
<p>28 U.S. core Personal Consumption Expenditures tops estimates at 4.6% y/y – a mere improvement from the prior level (4.7%).</p>	<p>28 Artificial Intelligence (AI) optimism boosts Technology stocks, including a 20% weekly gain for NVIDIA (NVDA) after its AI projections drive a stunning increase in its revenue guidance.</p>	<p>24 A deal between Russia President Putin and Wagner Group head Prigozhin ends Prigozhin's advance toward Moscow with little immediate impact but likely longer-term implications.</p>

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Debt Dislocations Resolved

Investors digested two major risks broadly related to debt in 2Q: the debt ceiling and bank sector stability. The former did not lead to much market concern other than in short-dated Treasury yields (see chart) – the “low-probability, high-impact” U.S. default risk case was removed after a deal in D.C. took the debt ceiling off the table until early 2025. The latter risk has also faded. While First Republic failed in early May, bank stress eased through May and June. The amelioration of both risks, overall, was supportive of equity markets.

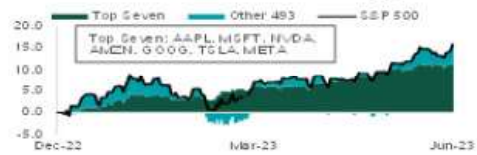
TREASURY BILL YIELDS MINUS FED FUNDS RATE (%)



Artificial Intelligence, Artificial Up Market?

AI saw heavy investor interest, leading to strong returns for large tech-related companies. An improved fundamental outlook helped these stocks outperform during a time of rising interest rates – often considered a headwind for the group. By late May, the S&P 500 was up ~10% year-to-date, but all of that gain was driven by the seven largest stocks and the contribution from the other companies was slightly negative. While the market gains broadened in June, the “Top Seven” continue to account for a majority of 2023’s return.

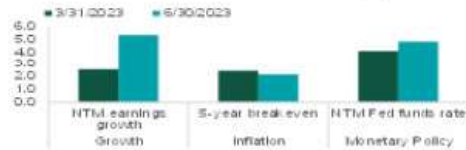
S&P 500 2023 RETURN BREAKDOWN (%)



Growing Soft Landing Hopes

Hopes of a soft landing remain as the U.S. growth outlook followed a narrative of continued resilience (via a solid labor market) with signs of softening. Inflation expectations dropped yet the pace and magnitude of the decline in core inflation remains a key question. Finally, investor Federal Reserve policy expectations moved up to reflect one (or two) more rate hikes beyond the current 5.1% level in addition to phasing out the possibility of a large rate cut – a sharply negative scenario that would not have been helpful for equities.

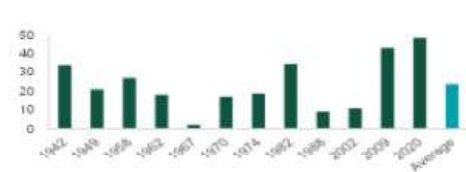
MARKET EXPECTATIONS AS OF... (%)



Can Bears Become Bulls?

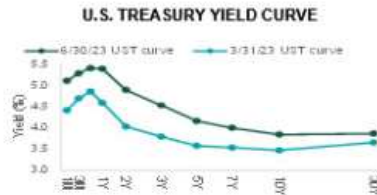
The S&P 500 exited bear market territory on June 8 by a commonly used convention (20% off the low). The bear market stretched back to early January of 2022 with the low falling in mid-October. Equity returns have typically been positive in the year following the exit from a bear market. However, this time could be different as equity market rebounds have often been accompanied by a recovering economy and/or a reversal to a more-accommodative monetary policy stance – neither of which are particularly likely over the next 6-12 months.

1-YEAR RETURNS AFTER BEAR MARKET EXITS (%)



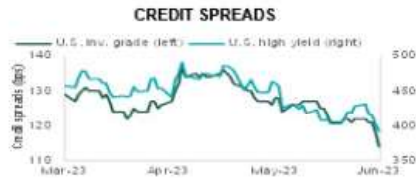
Interest Rates

The U.S. debt ceiling was resolved with a short-lived and contained impact on Treasury yields. Meanwhile, the Fed decided to hold its policy rate in June, but the “pause” was more of a “skip” as it projected two more rate hikes this year. Disinflation was embraced, but core prices remain high while employment is still solid. The Fed was among a crowd of major global central banks, with China as a notable exception, suggesting more tightening needs to occur. The Treasury curve bear flattened with the 2-year yield up 87 basis points (bps).



Credit Markets

After First Republic Bank entered receivership the banking system found its footing and credit spreads retraced almost all of the widening that had occurred since March due to regional bank strains. Investment grade (IG) and high yield (HY) spreads narrowed 15 and 65 bps, respectively, on the quarter. Default activity ticked up but stayed fairly benign and lower-quality credits outperformed. Credit risk was favorable to duration with the more interest rate-sensitive IG Fixed Income (-0.8%) trailing HY Fixed Income (+1.8%).



Equities

It was a strong quarter for global equities (+6.4%). Declining inflation and upside economic surprises underpinned an 8.4% gain in the U.S., while optimism on artificial intelligence drove robust returns in a narrow set of mega cap tech stocks. Valuations offered most of the support, though for the first time in eight months forward earnings estimates increased. European equities were bogged down by economic recession and tight policy. China's slow recovery dragged on, but near the end of the quarter policymakers started to step in.



Real Assets

It was an underwhelming quarter for real assets as global real estate (+0.7%), listed infrastructure (-0.1%), and natural resources (-3.7%) lagged global equities. Higher interest rates were a headwind for real estate (RE) and infrastructure, but RE was helped by a more favorable credit backdrop and saw some improvement in lagging sectors like office. Global growth concerns continued to weigh on commodity prices with metals particularly soft on weak manufacturing activity. That said, late-quarter China stimulus offered some support.



Market Overview

IMPORTANT INFORMATION

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

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Investment Hierarchy

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
HRM Master Trust	2,762,398,608	100.00	0.88	0.97	5.13	12.18	8.22	7.37	8.29	7.13	09/30/1999
<i>HRM Policy Benchmark</i>			1.56	2.12	6.78	11.62	5.28	5.15	6.10	5.57	09/30/1999
<i>Excess Return</i>			-0.69	-1.14	-1.65	0.55	2.94	2.21	2.19	1.57	09/30/1999
HRM Total Equity	1,280,001,397	46.34	2.15	2.03	6.82	16.20	8.45	6.56	-	7.22	12/31/2015
<i>HRM Total Equity Benchmark</i>			2.88	2.73	9.34	17.80	9.58	7.89	-	8.23	12/31/2015
<i>Excess Return</i>			-0.74	-0.71	-2.52	-1.59	-1.13	-1.33	-	-1.01	12/31/2015
HRM Cdn Equity	103,677,994	3.75	3.09	1.30	4.72	9.69	11.83	5.94	5.63	4.72	03/31/2006
<i>S&P/TSX Composite</i>			3.35	1.10	5.70	10.43	12.42	8.58	8.43	6.07	03/31/2006
<i>Excess Return</i>			-0.27	0.20	-0.98	-0.73	-0.59	-2.64	-2.80	-1.35	03/31/2006
Blackrock	101,247,538	3.67	3.39	1.44	5.32	11.02	12.22	8.55	8.41	8.36	12/31/2003
<i>S&P/TSX Composite</i>			3.35	1.10	5.70	10.43	12.42	8.58	8.43	7.69	12/31/2003
<i>Excess Return</i>			0.04	0.35	-0.38	0.59	-0.20	-0.03	-0.02	0.67	12/31/2003
P2P Holdings	2,430,457	0.09	-8.21	-4.32	-15.32	-26.48	-1.01	-23.28	-	-28.92	02/03/2017
<i>S&P/TSX Composite</i>			3.35	1.10	5.70	10.43	12.42	8.58	-	7.43	02/03/2017
<i>Excess Return</i>			-11.56	-5.42	-21.02	-36.90	-13.43	-31.86	-	-36.35	02/03/2017
HRM Global Equity	787,702,414	28.52	3.10	3.14	9.85	-	-	-	-	9.85	12/31/2022
<i>HRM Custom Global Equity Index</i>			3.03	3.44	10.98	-	-	-	-	10.98	12/31/2022
<i>Excess Return</i>			0.07	-0.30	-1.13	-	-	-	-	-1.13	12/31/2022
AB EDHEC	137,409,595	4.97	3.02	1.72	7.40	17.62	9.67	7.42	-	7.72	12/31/2015
<i>MSCI World ND</i>			3.24	4.45	12.40	21.57	11.10	10.11	-	9.26	12/31/2015
<i>Excess Return</i>			-0.21	-2.74	-5.00	-3.95	-1.43	-2.69	-	-1.54	12/31/2015
Blackrock Global Alpha Advanta	125,604,810	4.55	3.85	4.27	13.83	24.66	-	-	-	7.16	05/25/2021
<i>MSCI ACWI ND</i>			3.00	3.82	11.27	19.54	-	-	-	4.52	05/25/2021
<i>Excess Return</i>			0.85	0.45	2.56	5.12	-	-	-	2.65	05/25/2021
Blackrock MSCI Small Cap	48,171,160	1.74	3.61	1.20	5.50	16.57	-	-	-	-0.09	05/19/2021
<i>MS Wld Small Cap Net Index</i>			3.46	0.92	5.13	15.85	-	-	-	-0.51	05/19/2021
<i>Excess Return</i>			0.15	0.28	0.38	0.72	-	-	-	0.42	05/19/2021
Blackrock MSCI World Passive	134,886,802	4.88	3.26	4.59	12.65	22.07	-	-	-	7.93	05/12/2021
<i>MSCI World ND</i>			3.24	4.45	12.40	21.57	-	-	-	7.51	05/12/2021
<i>Excess Return</i>			0.02	0.14	0.25	0.50	-	-	-	0.41	05/12/2021
Global Alpha	49,284,031	1.78	3.42	-2.10	2.96	10.22	-	-	-	-1.80	03/09/2022
<i>MS Wld Small Cap Net Index</i>			3.46	0.92	5.13	15.85	-	-	-	0.68	03/09/2022
<i>Excess Return</i>			-0.04	-3.02	-2.17	-5.63	-	-	-	-2.47	03/09/2022

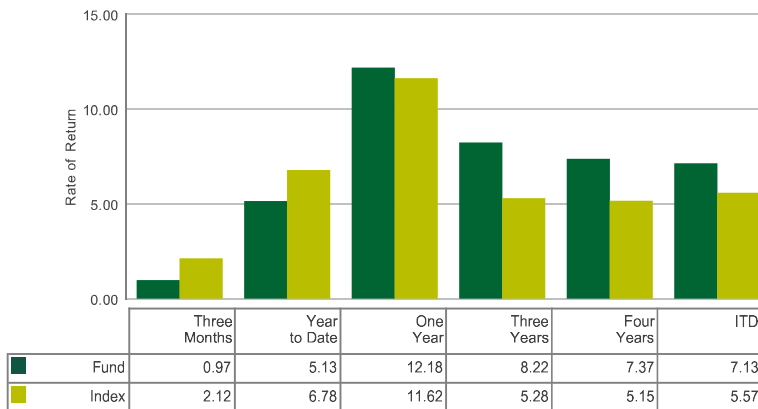
Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
Marathon International Equity	67,714,774	2.45	1.38	0.83	8.23	21.98	-	-	-	1.38	05/28/2021
MSCI EAFE ND			1.78	0.66	9.06	21.84	-	-	-	2.57	05/28/2021
Excess Return			-0.40	0.17	-0.83	0.14	-	-	-	-1.19	05/28/2021
Mawer International Equity	79,045,738	2.86	1.66	0.73	8.42	21.06	-	-	-	0.30	02/28/2021
MSCI ACWI ex USA ND			1.72	0.16	6.91	15.62	-	-	-	0.60	02/28/2021
Excess Return			-0.06	0.57	1.51	5.43	-	-	-	-0.30	02/28/2021
Wellington US Equity	145,585,503	5.27	3.70	7.34	12.67	21.37	16.76	13.67	13.47	13.54	04/30/2011
HRM US Equity			3.78	6.32	14.16	22.68	15.68	13.08	12.65	12.24	04/30/2011
Excess Return			-0.08	1.02	-1.49	-1.31	1.08	0.59	0.82	1.31	04/30/2011
HRM Emerging Markets	94,988,702	3.44	2.01	-0.52	3.64	12.84	-0.48	-0.04	5.25	4.67	09/30/2010
MSCI Emerging Markets ND			1.04	-1.35	2.43	4.38	1.34	1.18	5.31	3.83	09/30/2010
Excess Return			0.96	0.83	1.21	8.46	-1.81	-1.22	-0.06	0.83	09/30/2010
CC&L Emerging Markets	40,871,543	1.48	2.23	0.68	-	-	-	-	-	-	12/31/2022
MSCI Emerging Markets ND			1.04	-1.35	2.43	-	-	-	-	2.43	12/31/2022
Excess Return			1.18	2.03	-	-	-	-	-	-	12/31/2022
Trinetra Emerg Mrkts Grwth Fnd	54,117,159	1.96	1.84	-1.41	3.81	14.91	-0.47	0.98	-	2.34	08/31/2017
MSCI Emerging Markets ND			1.04	-1.35	2.43	4.38	1.34	1.18	-	1.71	08/31/2017
Excess Return			0.80	-0.06	1.38	10.53	-1.81	-0.19	-	0.63	08/31/2017
Wellington EMLE	0	0.00	-	-	-	-	-	-	-	-	07/31/2011
MSCI Emerging Markets ND			-	-	-	-	-	-	-	-	07/31/2011
Excess Return			-	-	-	-	-	-	-	-	07/31/2011
HRM Private Equity	293,632,287	10.63	-0.59	0.21	0.88	5.45	21.79	18.20	17.86	20.48	09/30/2011
HRM PE Benchmark			3.40	4.96	13.49	17.11	9.87	8.93	7.40	7.28	09/30/2011
Excess Return			-3.99	-4.76	-12.62	-11.66	11.92	9.27	10.46	13.20	09/30/2011
Private Equity	293,632,287	10.63	-0.59	0.21	0.88	5.45	21.79	18.20	17.86	20.48	09/30/2011
HRM Total Fixed Income	620,725,915	22.47	0.12	0.37	2.84	4.38	1.25	2.14	-	2.78	12/31/2015
HRM FI Benchmark			0.03	-0.33	2.34	3.27	-1.49	-0.01	-	1.13	12/31/2015
Excess Return			0.09	0.70	0.49	1.11	2.73	2.15	-	1.65	12/31/2015
Cash and Cash Equivalents	73,109,549	2.65	0.17	0.87	1.96	4.10	1.48	1.48	2.41	4.32	03/31/2009
3M CAD Bankers Acceptance Rate			0.45	1.30	2.58	4.80	2.09	1.96	1.57	1.42	03/31/2009
Excess Return			-0.28	-0.43	-0.61	-0.70	-0.61	-0.48	0.84	2.90	03/31/2009
Lincluden CDOR	73,109,549	2.65	0.17	0.87	1.96	4.10	1.07	1.74	-	1.60	12/31/2013
3M CAD Bankers Acceptance Rate			0.45	1.30	2.58	4.80	2.09	1.96	-	1.59	12/31/2013
Excess Return			-0.28	-0.43	-0.61	-0.70	-1.02	-0.22	-	0.01	12/31/2013

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return									
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date	
Global Credit	74,889,745	2.71	-0.42	0.11	1.58	2.19	-	-	-	-	-0.47	03/31/2022
<i>FTSE TMX Short Corp BD IDX</i>			<i>-0.13</i>	<i>-0.26</i>	<i>1.69</i>	<i>2.54</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.49</i>	<i>03/31/2022</i>
<i>Excess Return</i>			<i>-0.29</i>	<i>0.38</i>	<i>-0.11</i>	<i>-0.35</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-0.96</i>	<i>03/31/2022</i>
AB Global Credit	74,889,745	2.71	-0.42	0.11	1.58	2.19	0.60	0.52	2.72	4.71	03/31/2009	
<i>AB FI Blend</i>			<i>-0.34</i>	<i>0.09</i>	<i>1.80</i>	<i>1.54</i>	<i>0.00</i>	<i>0.39</i>	<i>0.94</i>	<i>0.98</i>	<i>03/31/2009</i>	
<i>Excess Return</i>			<i>-0.08</i>	<i>0.03</i>	<i>-0.22</i>	<i>0.65</i>	<i>0.60</i>	<i>0.12</i>	<i>1.78</i>	<i>3.73</i>	<i>03/31/2009</i>	
North American Credit	187,832,431	6.80	0.65	1.78	4.31	6.63	6.73	6.92	-	5.88	12/31/2015	
<i>HRM Custom Corporate Benchmark</i>			<i>-0.15</i>	<i>-0.40</i>	<i>1.89</i>	<i>3.15</i>	<i>-2.23</i>	<i>-0.09</i>	<i>-</i>	<i>1.93</i>	<i>12/31/2015</i>	
<i>Excess Return</i>			<i>0.79</i>	<i>2.18</i>	<i>2.42</i>	<i>3.48</i>	<i>8.96</i>	<i>7.01</i>	<i>-</i>	<i>3.95</i>	<i>12/31/2015</i>	
Canso	86,361,152	3.13	1.19	1.97	5.72	8.76	9.03	9.10	7.29	8.00	02/28/2010	
<i>FTSE TMX Corporate Bond IDX</i>			<i>0.21</i>	<i>0.18</i>	<i>2.97</i>	<i>4.24</i>	<i>-1.88</i>	<i>0.18</i>	<i>2.70</i>	<i>3.41</i>	<i>02/28/2010</i>	
<i>Excess Return</i>			<i>0.99</i>	<i>1.79</i>	<i>2.75</i>	<i>4.53</i>	<i>10.91</i>	<i>8.92</i>	<i>4.59</i>	<i>4.59</i>	<i>02/28/2010</i>	
HRM Corporate Debt	101,471,279	3.67	0.19	1.61	3.16	4.97	3.32	3.53	-	6.13	01/31/2014	
<i>FTSE TMX Short Corp BD IDX</i>			<i>-0.13</i>	<i>-0.26</i>	<i>1.69</i>	<i>2.54</i>	<i>-0.24</i>	<i>0.92</i>	<i>-</i>	<i>1.88</i>	<i>01/31/2014</i>	
<i>Excess Return</i>			<i>0.31</i>	<i>1.87</i>	<i>1.48</i>	<i>2.43</i>	<i>3.55</i>	<i>2.61</i>	<i>-</i>	<i>4.25</i>	<i>01/31/2014</i>	
Government Bonds	188,904,598	6.84	-0.17	-1.59	2.07	3.08	-3.68	-0.70	-	1.10	12/31/2015	
<i>FTSE TMX Government Univers</i>			<i>-0.02</i>	<i>-0.98</i>	<i>2.35</i>	<i>2.77</i>	<i>-4.41</i>	<i>-1.37</i>	<i>-</i>	<i>0.70</i>	<i>12/31/2015</i>	
<i>Excess Return</i>			<i>-0.16</i>	<i>-0.61</i>	<i>-0.28</i>	<i>0.31</i>	<i>0.74</i>	<i>0.67</i>	<i>-</i>	<i>0.39</i>	<i>12/31/2015</i>	
Lincluden Gov't	113,298,641	4.10	0.12	-0.56	2.87	3.63	-3.57	-0.74	-	2.14	08/31/2013	
<i>FTSE TMX Government Univers</i>			<i>-0.02</i>	<i>-0.98</i>	<i>2.35</i>	<i>2.77</i>	<i>-4.41</i>	<i>-1.37</i>	<i>-</i>	<i>1.91</i>	<i>08/31/2013</i>	
<i>Excess Return</i>			<i>0.13</i>	<i>0.43</i>	<i>0.52</i>	<i>0.86</i>	<i>0.85</i>	<i>0.63</i>	<i>-</i>	<i>0.22</i>	<i>08/31/2013</i>	
Wellington Bond Overlay	75,605,956	2.74	-0.60	-3.35	0.37	1.91	-4.03	-0.81	2.35	1.97	08/31/2012	
<i>FTSE TMX Government Univers</i>			<i>-0.02</i>	<i>-0.98</i>	<i>2.35</i>	<i>2.77</i>	<i>-4.41</i>	<i>-1.37</i>	<i>1.83</i>	<i>1.54</i>	<i>08/31/2012</i>	
<i>Excess Return</i>			<i>-0.59</i>	<i>-2.37</i>	<i>-1.98</i>	<i>-0.86</i>	<i>0.38</i>	<i>0.56</i>	<i>0.52</i>	<i>0.43</i>	<i>08/31/2012</i>	
Private Debt	95,989,592	3.47	0.06	1.20	3.06	6.47	12.04	9.38	12.38	0.72	12/31/2011	
<i>HRM PD Benchmark</i>			<i>2.59</i>	<i>3.34</i>	<i>6.53</i>	<i>9.93</i>	<i>7.58</i>	<i>7.22</i>	<i>6.73</i>	<i>6.71</i>	<i>12/31/2011</i>	
<i>Excess Return</i>			<i>-2.53</i>	<i>-2.15</i>	<i>-3.48</i>	<i>-3.46</i>	<i>4.46</i>	<i>2.16</i>	<i>5.66</i>	<i>-5.99</i>	<i>12/31/2011</i>	
Private Debt	95,989,592	3.47	0.06	1.20	3.06	6.47	12.04	9.38	12.38	0.72	12/31/2011	
HRM Real Assets	720,632,566	26.09	-0.43	0.71	5.58	-	-	-	-	5.58	12/31/2022	
<i>HRM Real Assets BM</i>			<i>0.53</i>	<i>2.46</i>	<i>5.20</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>5.20</i>	<i>12/31/2022</i>	
<i>Excess Return</i>			<i>-0.96</i>	<i>-1.75</i>	<i>0.38</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>0.38</i>	<i>12/31/2022</i>	
Infrastructure	305,326,662	11.05	-0.66	1.99	11.68	22.95	13.59	12.51	12.03	18.77	06/30/2011	
<i>HRM Infrastructure Index</i>			<i>0.53</i>	<i>2.46</i>	<i>5.20</i>	<i>7.94</i>	<i>9.85</i>	<i>8.80</i>	<i>7.60</i>	<i>7.39</i>	<i>06/30/2011</i>	
<i>Excess Return</i>			<i>-1.19</i>	<i>-0.47</i>	<i>6.48</i>	<i>15.01</i>	<i>3.74</i>	<i>3.71</i>	<i>4.43</i>	<i>11.37</i>	<i>06/30/2011</i>	
Infrastructure	305,326,662	11.05	-0.66	1.99	11.68	22.95	13.59	12.51	12.03	18.77	06/30/2011	

Account/Group	Ending Market Value CAD	Ending Weight	% Rate of Return								
			One Month	Three Months	Year to Date	One Year	Three Years	Four Years	Ten Years	Inception to Date	Inception Date
Real Estate	415,305,904	15.03	-0.26	-0.22	1.01	12.53	12.07	12.89	12.34	11.80	09/30/2011
<i>HRM Real Estate Index</i>			0.53	2.46	5.20	7.94	9.85	8.80	7.60	7.39	09/30/2011
<i>Excess Return</i>			-0.80	-2.68	-4.19	4.59	2.22	4.09	4.74	4.42	09/30/2011
Real Estate	415,305,904	15.03	-0.26	-0.22	1.01	12.53	12.07	12.89	12.34	11.80	09/30/2011
Public Market Alternatives	125,373,400	4.54	-0.10	-1.69	1.36	4.22	-	-	-	3.20	02/28/2022
<i>3M CAD Bankers Acceptance R+3%</i>			0.70	2.05	4.10	7.93	-	-	-	7.21	02/28/2022
<i>Excess Return</i>			-0.79	-3.74	-2.73	-3.71	-	-	-	-4.01	02/28/2022
Public Market Alternatives	125,373,400	4.54	-0.10	-1.69	1.36	4.22	-	-	-	3.20	02/28/2022
<i>3M CAD Bankers Acceptance R+3%</i>			0.70	2.05	4.10	7.93	-	-	-	7.21	02/28/2022
<i>Excess Return</i>			-0.79	-3.74	-2.73	-3.71	-	-	-	-4.01	02/28/2022
HRM Operating	15,665,330	0.57	-	-	-	-	-	-	-	-	12/31/2015
Operating Account	15,665,330	0.57	-	-	-	-	-	-	-	-	03/31/2004

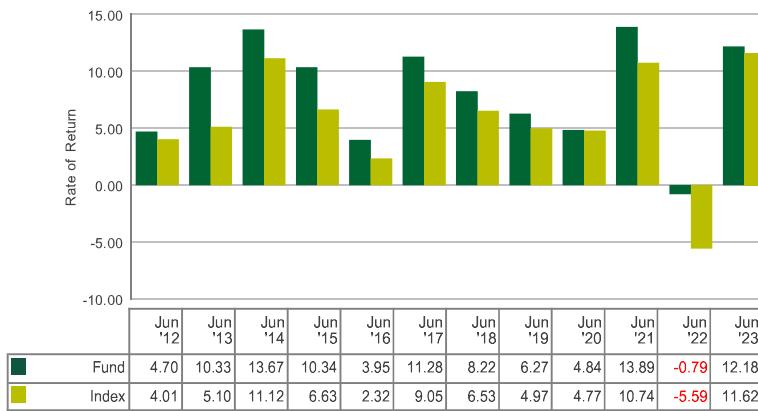
Executive Summary

HRM MASTER TRUST TOTAL FUND NET OF FEES



Index: HRM Policy Benchmark

HRM MASTER TRUST ROLLING YEARS TOTAL FUND NET OF FEES



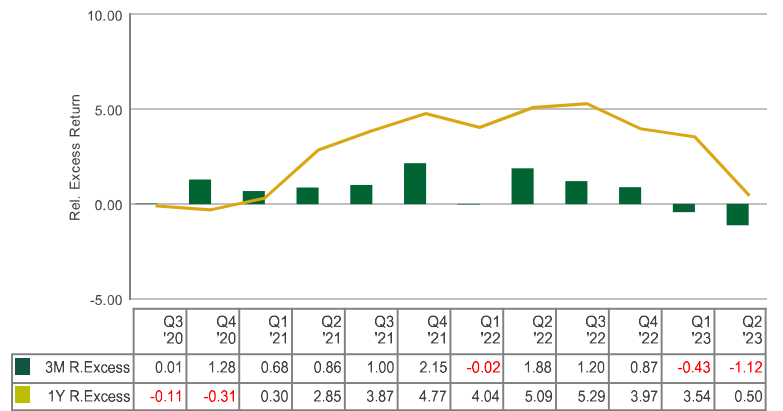
Index: HRM Policy Benchmark

RISK STATISTICS

	3 Mos	1 Yr	4 Yrs
Return	0.97	12.18	7.37
Index Return	2.12	11.62	5.15
Excess Return	-1.14	0.55	2.21
Standard Deviation	-	4.13	5.18
Index Standard Deviation	-	6.63	5.85
Tracking Error	-	3.17	2.23
Information Ratio	-	0.17	0.99
Sharpe Ratio	-	2.44	1.20
Index Sharpe Ratio	-	1.44	0.68
Jensen's Alpha	-	4.20	2.80
Relative Volatility (Beta)	-	0.59	0.83
R Squared	-	0.85	0.85
Beginning MV (in 000s)	2,737,345	2,473,521	2,122,517
Net Contributions (in 000s)	-1,544	-10,781	-49,701
Income (in 000s)	12,531	48,796	219,629
Appreciation (in 000s)	14,067	250,862	469,954
Ending MV (in 000s)	2,762,399	2,762,399	2,762,399

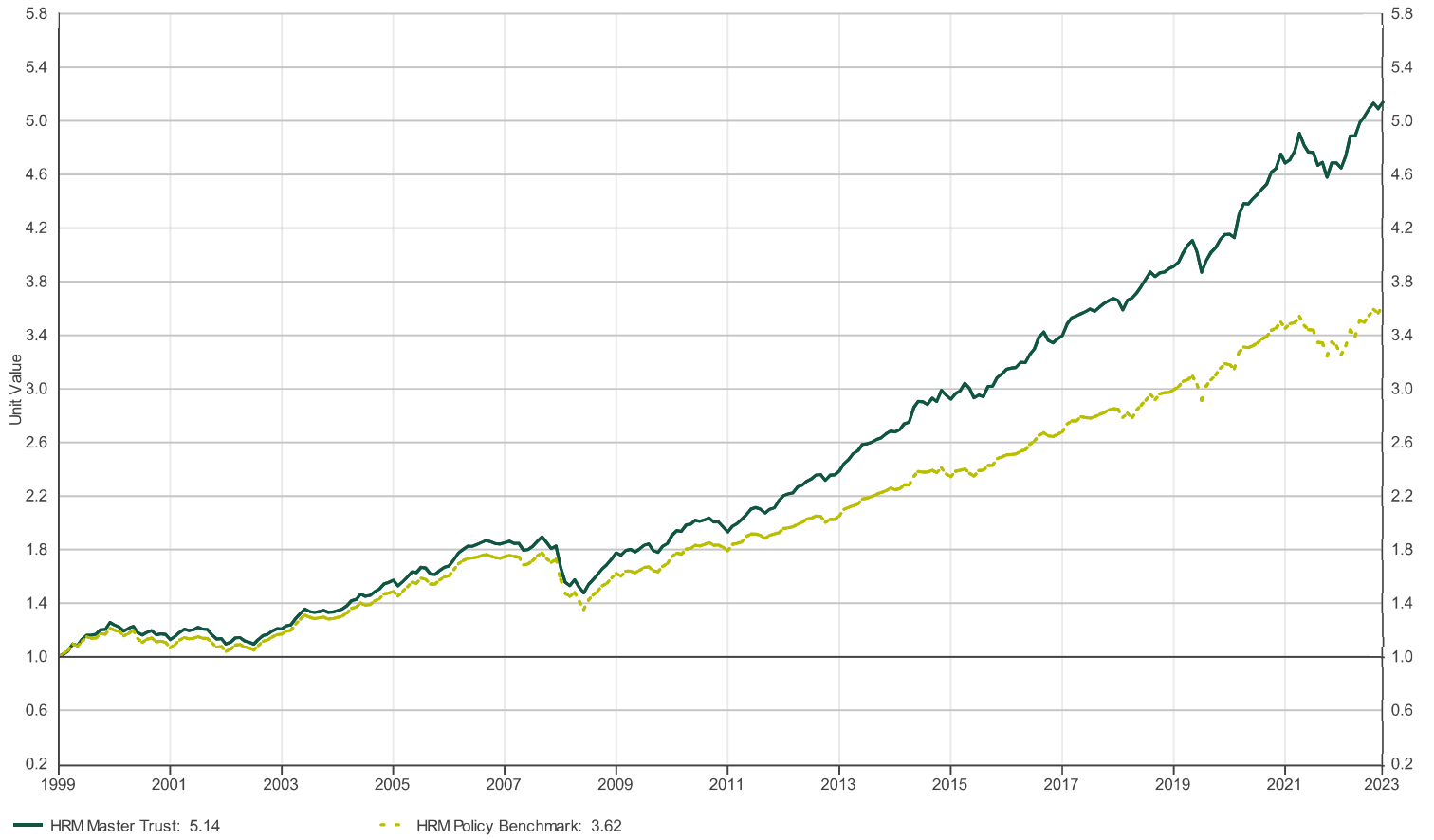
Index: HRM Policy Benchmark. Risk Free Index: JP Morgan 3 month Cash (CAD)
Category: Total Fund Net of Fees. Calculation Frequency: Monthly

HRM MASTER TRUST ROLLING QUARTERS TOTAL FUND NET OF FEES




Index: HRM Policy Benchmark


Growth Over Time - Inception to Date



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

SUBMITTED BY:  Digitally signed by Cindy
MacLean
Date: 2023.11.17
09:48:27 -04'00'

Cindy MacLean, CPHR, PCP, RPR, Human Resources Supervisor

APPROVED: Tareq Al-  Digitally signed by Tareq
Al-Zabet
Date: 2023.11.17
14:00:16 -04'00'

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

DATE: **November 13, 2023**

SUBJECT: **Institutional Capacity**

ORIGIN

M10468 Halifax Water General Rate Application 2022

BACKGROUND

Halifax Water's institutional capacity to deliver existing programs and services as well as increased capital investment under the Integrated Resource Plan was an issue discussed during the 2022 rate application process. Halifax Water was directed by the NSUARB to report annually in September on its efforts to address institutional capacity. The first NSUARB report was filed in September 2022, and was provided to the Halifax Water Board in advance of being filed with the NSUARB. The Halifax Water Board directed staff to provide bi-annual updates to the Halifax Water Board on its efforts to address institutional capacity.

DISCUSSION

As of March 31, 2023, Halifax Water had 555 employees. For the 2023/2024 fiscal year there are 52 net new positions anticipated and approved in the budget to hire. As of September 30, 2023, Halifax Water had 576 employees.

April 1, 2023 – September 30, 2023 (From last reporting period)

	March 31, 2023	September 30, 2023	Change
Permanent employees	530	549	+19
Term employees	25	27	+2
Total:	555	576	+21

The break down by department is shown below:

	March 31, 2023		September 30, 2023	Change
Administration	6	Administration	16	+10
Corporate Services	72	Corporate Services	83	+11
Engineering & Technology Services	124	Engineering & Technology Services	133	+9
Operations	289	Operations	277	-12
Governance and Human Resources	14	Regulatory Affairs, Risk, and Governance	4	-10
Regulatory Compliance Services	50	Regulatory Compliance Services	63	+13
Total:	555		576	+21

The larger increase or decrease was due to a shifting around of certain work groups from one department to another. They are as follows:

- Fleet, Facilities, and Logistics moved from Operations to Corporate Services (total of 8 employees).
- Enterprise Risk Management from Administration to Corporate Services (total of 1 employee).
- Water Quality and Watershed from Operations to Regulatory Compliance Services (total of 12 employees).
- Human Resources from Governance and Human Resources (now Regulatory Affairs, Risk, and Governance) to Administration (total of 10 employees).

Turnover

The average year to date turnover rate at Halifax Water for the period of April 1, 2023 – September 30, 2023, is 4.30%. There have been 23 departures to date through this period:

- 16 resignations, accounting for 69.6% of all turnovers.
- 5 retirements, accounting for 21.7% of all turnovers.
- 2 ends of terms, accounting for 8.7% of all turnovers.

Succession Planning and Retirements

There are currently 40 employees or 6.9% of the workforce eligible to retire. Over the next five years, 11.3% of the workforce will be eligible to retire.

Recruitment

Human Resources have posted 104 competitions since April 1, 2023, and successfully concluded 80 as of September 30, 2023. The majority of these are to fill existing positions that have become vacant due to lateral or ascending internal movements. There were 52 net new positions included in the 2023/2024 Operating Budget. Of those 52, 18 have been filled, 1 is on hold, 2 withdrawn, and 7 are currently in progress.

Attraction of new employees


There continues to be attraction concerns in the first half of the 2023/24 fiscal year throughout the organization. Some areas that are concerning are in Water Distribution & Treatment, Wastewater Collections, Information Services and Engineering Technologists. The expiration of our collective agreements has added market pressure to the attraction of these jobs due inability to compete with the private sector and provincial wage rates.

Retention of existing employees

Halifax Water maintains a competitive total compensation package. Some initiatives this year to help with attraction and retention include:


- Hiring of the new Executive Level position of Director People & Culture
- Collective Bargaining
- Introduction of pilot project regarding Recruitment, Retention & Attraction
- Introducing the Diversity and Inclusion Fair Hiring policy
- Introducing optional life and critical illness insurance offerings
- Increasing resources in the Human Resource department
- Continue to update and re-evaluate job descriptions as required and benchmarking compensation against market
- Continue to promote the Awards recognition program

Report Prepared by:


Digitally signed by Cindy MacLean
Date: 2023.11.17 09:49:32 -04'00'


Cindy MacLean, CPHR, PCP, RPR, Human Resources Supervisor

Financial Reviewed by:



Digitally signed by Louis de Montbrun
Date: 2023.11.17 13:38:32 -04'00'

Louis de Montbrun, CPA, CA
Director, Corporate Services/CFO, 902-490-3685

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

SUBMITTED BY:  Digitally signed by Reid Campbell
Date: 2023.11.17 15:17:05 -04'00'

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

APPROVED: Tareq Al-Zabet  Digitally signed by Tareq Al-Zabet
Date: 2023.11.17 15:28:47 -04'00'

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

DATE: November 14, 2023

SUBJECT: **Capital Projects Status Dashboard**

INFORMATION REPORT

ORIGIN

Capital Budget

BACKGROUND and DISCUSSION

Each year Halifax Water prepares and Annual Capital Budget for Halifax Water Board approval. The budget contains from 2-300 line items of capital projects and capital purchases. Many projects span multiple fiscal years so there can be several hundred active capital accounts at any one time.

The Halifax Water Board has expressed an interest in obtaining dashboard type visibility into Halifax Water's capital program. Halifax Water is currently implementing a capital project planning and management information system platform (CPMIS). When complete, this platform will provide statistics and reporting in dashboard form that can be shared with the Halifax Water Board, executive and managers within Halifax Water. This project will not be complete before March 2023, which means that capital project dashboards will not be available until into the 2024/25 fiscal year.

In the interim period, Engineering & Technology Services staff have prepared a summary of project status, in spreadsheet form, for all projects with approved funding of greater than \$1 million which represents the approximately largest current 50 projects.

The attached report is the first report, and it is staff's intention to provide an update at each Board meeting.

Staff is prepared to consider adding additional or different information should the Board wish.

ATTACHMENT

Capital project status summary report.

[Capital Projects 1M.xlsx](#)