

November 20, 2015

Ray Ritcey, Chair
Halifax Water
Halifax, Nova Scotia

The regular meeting of the Halifax Water Board will be held on Thursday, November 26, 2015 at 9:00 a.m. in the Boardroom at 450 Cowie Hill Road, Halifax.

AGENDA

In Camera

- 1C Approval of Minutes of In-Camera Meeting held on Thursday, October 29, 2015
- 2C Business Arising from Minutes
- 3C Personnel Matter - *Report to Follow*
- 4C Personnel Matter
- 5C Financial Matter - *Report to Follow*
- 6C Contractual Matter

Regular Meeting

- 1. a) Ratification of In-Camera Motions
b) Approval of the Order of Business and Approval of Additions and Deletions
- 2. Approval of Minutes of Regular Meeting held on Thursday, October 29, 2015
- 3. Business Arising From Minutes
a)
- 4. Operating Results for the Seven Months Ended October 31, 2015
- 5. Capital Projects:
 - 5.1 Halifax Water Corporate Flow Monitoring Program\$1,370,000
 - 5.2 West Region Wastewater Infrastructure Plan - Funding Increase\$344,000
- 6. Date of Next Meeting

Information Reports

- 1-I Operations and Financial Monthly Update
- 2-I Capital Budget Approvals to Date - 2015/16
- 3-I Bank Balance
- 4-I Pension Plan Investment Performance 3rd Quarter, 2015

Lorna Spurr
for James G. Spurr
Secretary

**HALIFAX REGIONAL WATER COMMISSION
MINUTES****October 29, 2015****PRESENT:**

Commissioner Ray Ritcey, Chair
Commissioner Russell Walker, Vice Chair
Commissioner Don Mason
Commissioner David Hendsbee
Commissioner Darlene Fenton
Commissioner Barry Dalrymple
Commissioner Richard Butts

REGRETS:

Commissioner Mike Savage

STAFF:

Carl Yates, General Manager, HRWC
Cathie O'Toole, Director, Finance & Customer Service,
HRWC
James Spurr, Legal Counsel, HRWC
Kenda MacKenzie, Director, Environmental Services (in
part)
Allan Campbell, Supervisor, Budgeting & Financial Analysis
(in part)
Lorna Skinner, Administrative Assistant, HRWC

TABLE OF CONTENTS

CALL TO ORDER3

1.a) RATIFICATION OF IN CAMERA MOTIONS3

**1.b) APPROVAL OF THE ORDER OF BUSINESS AND APPROVAL OF
ADDITIONS AND DELETIONS.....3**

2. APPROVAL OF MINUTES - September 24, 2015.....3

3. BUSINESS ARISING FROM MINUTES.....3
a) 2015 Fall Debenture.....3

4. OPERATING RESULTS FOR THE SIX MONTHS ENDED SEPTEMBER 30, 20154

5. CAPITAL PROJECTS4

5.1 2015/16 SCADA MASTER PLAN IMPLEMENTATION PROGRAM.....4

6. STORMWATER RATE DESIGN HEARING5

7. DATE OF NEXT MEETING6

CALL TO ORDER

The Chair called the regular meeting to order at 9:02 a.m. in the Board Room of the HRWC, 450 Cowie Hill Road. The Board moved In Camera at 9:02 and the regular meeting reconvened at 9:45 a.m.

1.a) RATIFICATION OF IN CAMERA MOTIONS

MOVED BY Commissioner Walker, seconded by Commissioner Mason that the Halifax Regional Water Commission Board ratify the following In Camera motions:

MOVED BY Commissioner Fenton, seconded by Commissioner Mason that the Halifax Regional Water Commission Board approve the In Camera minutes of September 24, 2015, with the above noted amendment.

MOTION PUT AND PASSED.

1.b) APPROVAL OF THE ORDER OF BUSINESS AND APPROVAL OF ADDITIONS AND DELETIONS

Commissioner Walker asked that the 2015 Fall Debenture be added to the Agenda as Item 3a.

MOVED BY Commissioner Walker, seconded by Commissioner Mason that the Halifax Regional Water Commission Board approve the order of business and approve additions and deletions with the above noted addition.

MOTION PUT AND PASSED

2. APPROVAL OF MINUTES – September 24, 2015

The Chair noted a typographical error in Item 3.a) entitled "Business Arising from Minutes" in the first sentence which reads, in part, "*updates to the Board be more frequent that annually.*" The word "*that*" should be changed to "*than*". Lorna Skinner to make the change.

MOVED BY Commissioner Hendsbee, seconded by Commissioner Mason that the Halifax Regional Water Commission Board approve the minutes of September 24, 2015, with the above noted amendment.

MOTION PUT AND PASSED.

3. BUSINESS ARISING FROM MINUTES**a) Fall Debenture**

Cathie O'Toole informed the Board that the Debenture has been priced and the rates were very favourable. Halifax Water received the rate of 2.43% for a 20-year amortization

schedule with a ten-year term and a balloon payment at the end which is then refinanced.

4. OPERATING RESULTS FOR THE SIX MONTHS ENDED SEPTEMBER 30, 2015

A report dated October 21, 2015 was submitted.

Cathie O'Toole informed the Board that operating results for the end of the second quarter are very positive. The cash balance is down \$5M from last month which is normal for the time of year. Cash will be replenished later in November when the Debenture proceeds are received.

Plant Under Construction is currently at \$59.3M as a result of projects which are underway but the assets have not been taken into service yet. Long Term Debt increased by \$7.3M. The Debt Service Ratio is 21.3% which is well within the 35% threshold approved by HRM.

With respect to year-to-date profit, it now stands at \$5.3M with each service showing a profit. There is still a small deficit being forecast for year-end of \$1.4M; however, Ms. O'Toole expects further financial improvement and anticipates a small surplus at year end. Consumption is still down on a 12-month basis, by 4.9%. There was, however, an increase in consumption over the summer months.

Ms. O'Toole also stated that staff are currently working on two amendments to the Pension Plan. The first amendment contains the restructuring as approved by the Halifax Water Board and reflected in the Collective Agreement. The second amendment contains changes to the Pension Plan language in order to conform to the new pension regulations which took effect on June 1, 2015. This amendment will be brought to the Board prior to it being filed with the Superintendent of Pensions.

As the results of the actuarial valuation are not expected until March 2016, the first amendment will be retroactive back to January 1, 2016.

5. CAPITAL PROJECTS

5.1 2015/16 SCADA Master Plan Implementation Program

A report dated October 5, 2015, was submitted.

MOVED BY Commissioner Mason, seconded by Commissioner Walker that the Halifax Regional Water Commission Board approve the 2015/16 SCADA Master Plan Implementation Program at an estimated cost of \$500,000.

MOTION PUT AND PASSED.

6. STORMWATER RATE DESIGN HEARING

A report dated October 22, 2015, was submitted.

At this time, Kenda MacKenzie, Director of Environmental Services and Allan Campbell, Supervisor of Budgeting and Financial Analysis joined the meeting.

Cathie O'Toole gave a presentation containing an overview of the Stormwater Application and began by providing some background information. In the December 17, 2009, Rate Decision by the Nova Scotia Utility and Review Board (NSUARB) it was ordered that a separate Cost of Service be developed for wastewater and stormwater services to ensure that the structure for Halifax Water's rates was in conformance with best practices. In January 2012 the NSUAB approved a Cost of Service for water, wastewater and stormwater. In July 2013, the NSUARB approved separate stormwater rates. At the Rate Hearing in 2015, there were a number of stormwater issues that were being raised by Intervenors; however, that Hearing was not scheduled to address stormwater rates, only water and wastewater rates. The NSUARB and the Intervenors agreed at that time that they would remove the stormwater issues from the water and wastewater Rate Hearing and a separate Rate Hearing would be held for stormwater. HW engaged a stormwater Rate Design Consultant (Andrew Reese, AMEC Foster Wheeler) who has written the textbook on best practices in managing stormwater through local government and municipal utilities. Internal and external stakeholders were consulted and community engagement was sought.

Ms. O'Toole outlined the cost of service and the cost allocation processes. She stated that the data has been improved by acquiring newer satellite imagery that was captured at a period of time when there were no leaves on trees. This has caused an approximate 30% increase in impervious area. It also captured new development. The billable non-residential impervious area and impervious area in the ROW grew more than the residential impervious area. Billing has not yet begun on the new impervious area data. The stormwater Hearing will give direction on principles and future improvements with respect to stormwater. Once direction has been given, an Application will be filed with the NSUARB to adjust the rates reflecting the new data and reflecting the Decisions that arise from this Hearing.

Ms. O'Toole remarked on some of the issues encountered with stormwater billing since 2013 which include such concerns as customers not understanding the nature of stormwater service, dissatisfaction with the quality of stormwater service, drainage issues on private property, billing data, etc. Commissioner Fenton inquired if HW is concerned about non-residential customers having retention ponds that are not being maintained and which could pose a risk to HW's infrastructure. Mr. Yates responded that HW does share that concern and that in the future, if a customer applies for a credit as a result of having a retention pond, there will be a requirement on the part of the customer to show, on an annual basis, that the retention pond is being maintained.

Ms. O'Toole gave a comprehensive overview of the summary of proposals included in the Application and showed the analysis of the various impacts of those proposals. Ms. O'Toole went on to explain how residential customers would be billed on a tiered basis. Billing would not be based on the precise measurement of a property but rather on which

tier the property falls into. Ms. O'Toole stated that the most recent stormwater utility survey by Black & Veatch shows 28% of stormwater utilities using tiers to bill residential customers. Ms. O'Toole concluded by showing examples of the rate impacts. It was suggested by several Commissioners that a presentation be given to HRM Council. Subject to approval by the Board, the Application will be filed with the NSUARB on October 30, 2015.

MOVED BY Commissioner Mason, seconded by Commissioner Walker that the Halifax Regional Water Commission Board approve the submission to the Nova Scotia Utility & Review Board (NSUARB) to amend the Stormwater section of the Cost of Service Manual.

MOTION PUT AND PASSED.

7. DATE OF NEXT MEETING

The next meeting is scheduled for November 26, 2015.

The meeting was adjourned at 11:22 a.m.


James G. Spurr
Secretary

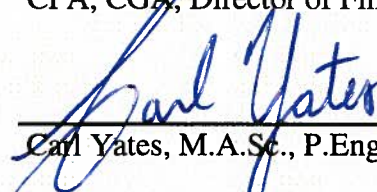
Commissioner Ray Ritcey
Chair

The following Information Items were submitted:

- 1-l Operations and Financial Monthly Update
- 3-l Bank Balance
- 4-l Cost Containment
- 5-l Pension Plan Investment Performance 2nd Quarter 2015
- 6-l Capital Cost Contribution – Financial Status Report for Fiscal Year Ended March 31, 2015

TO: Ray Ritcey, Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: 
Cheryl M. Little, BBA, CPA, CMA, Controller/ Cathie O'Toole, MBA, CPA, CGA, Director of Finance and Customer Service

APPROVED: 
Carl Yates, M.A.Sc., P.Eng., General Manager

DATE: November 17, 2015

SUBJECT: Operating Results for the seven months ended October 31, 2015

INFORMATION REPORT

ORIGIN

Financial Statements

BACKGROUND

The Board is required to review periodic financial information throughout the year.

DISCUSSION

Attached are the operating results for the first seven (7) months of the 2015/16 fiscal year, period ending October 31, 2015. The statements reflect direct operating costs by department and allocations among water, wastewater and stormwater for common costs shared across all the services provided by Halifax Regional Water Commission (HRWC).

Balance Sheet - Page 1

The cash balance of \$39.8 million is up \$11.3 million from the prior year and up \$11.4 million from the previous month. The cash balance typically increases in October and November of each year as a result of several large annual payments from HRM and the issuance of new debt.

The Customers & Contractual Accounts Receivable balance has increased \$2.5 million to \$29.7 million, due to the May 1, 2015 increase in customer rates approved by the Nova Scotia Utility and Review Board (NSUARB). The customer receivables balance also includes the Right of Way charge that HRWC is billing property owners on behalf of Halifax Regional Municipality (HRM). The amounts receivable from HRM have increased \$1.2 million to \$4.3 million. The

liquidity on the balance sheet (ratio of current assets divided by current liabilities) is 2.90, up from the ratio of 2.05 at the same time last year.

Plant in Service assets net of Accumulated Depreciation is \$1.0 billion and is \$3.4 million higher than at this time last year. Capital Assets Under Construction is up \$18.1 million to \$62.1 million. The following table highlights the major projects currently underway:

Capital Assets Under Construction	
	Cumulative '000
Lakeside Pumping Station Diversion	\$22,101
Bedford West Collection System CCC	\$6,765
Cow Bay Road Deep Storm Sewer	\$5,576
All other projects	\$27,650
Total	\$62,092

Figures used in the various tables throughout the report may contain differences due to Excel rounding.

Trade liabilities of \$11.2 million have decreased \$3.6 million when compared to the prior year. Liabilities to HRM decreased by \$0.1 million to \$5.7 million. The amount owing to HRM includes the accrual for the annual Dividend (\$2.6 million accrued towards the \$4.5 million annual payment), the accrued balance of the valve box and manhole adjustment work (\$2.2 million), the Stormwater Right of Way customer billings (\$0.5 million), plus other miscellaneous operating and capital accruals.

Long Term Debt is up \$8.3 million from last year, with new debt of \$28.2 million offset by repayments of \$19.9 million. New debt in the amount of \$28.3 million plus a refinancing of \$2.5 million will be obtained with MFC's fall debenture. The debt service ratio is currently 21.2%, a slight increase from 21.1% last year. This is well below the maximum 35% ratio allowed under the blanket guarantee agreement with HRM.

Total Debt by Service		
	2015/16 '000	2014/15 '000
Water	\$63,719	\$59,335
Wastewater	\$144,337	\$146,184
Stormwater	\$8,896	\$3,152
Combined	\$216,952	\$208,671

Debt Servicing Ratio by Service		
	YTD Debt Servicing Cost Ratio	
	2015/16	2014/15
Water	18.9%	18.5%
Wastewater	24.0%	24.3%
Stormwater	14.9%	11.9%
Combined	21.2%	21.1%

The cumulative Operating Surplus of \$2.9 million at the beginning of the fiscal year has grown to \$9.3 million with the year-to-date profit of \$6.4 million at October 31, 2015.

Consolidated Income Statement - Page 2

Consolidated operating revenue of \$78.2 million is \$1.9 million (2.5%) greater than revenue reported for the same year-to-date period last year. Consolidated operating expenses of \$54.4 million are \$1.2 million (2.1%) lower than the same period last year.

ITEM # 4
HRWC Board
November 26, 2015

Summarized Consolidated Operating Results				
	Actual YTD 2015/16 '000	Actual YTD 2014/15 '000	\$ Change	% Change
Operating Revenue	\$78,234	\$76,312	\$1,923	2.5%
Operating Expenses	\$54,379	\$55,560	(\$1,181)	-2.1%
Operating Profit (Loss)	\$23,855	\$20,752	\$3,103	15.0%
Non Operating Revenue	\$1,820	\$1,734	\$86	5.0%
Non Operating Expenditure	\$19,237	\$18,636	\$601	3.2%
Net Surplus (Deficit)	\$6,439	\$3,850	\$2,589	67.2%

The Net Profit for the year is \$6.4 million, an improvement of \$2.6 million from the same time in the prior year. The budget for the year, approved at the July 30, 2015 Board meeting, was for a loss of \$4.4 million. The following table compares the results with the pro-rated budget for the year.

Summarized Consolidated Operating Results				
	Actual YTD 2015/16 '000	Budget YTD 2015/16 '000	\$ Variance	% Variance
Operating Revenue	\$78,234	\$75,778	\$2,456	3.2%
Operating Expenses	\$54,379	\$60,441	(\$6,062)	-10.0%
Operating Profit (Loss)	\$23,855	\$15,337	\$8,519	55.5%
Non Operating Revenue	\$1,820	\$1,795	\$25	1.4%
Non Operating Expenditure	\$19,237	\$19,727	(\$490)	-2.5%
Net Surplus (Deficit)	\$6,439	(\$2,595)	\$9,034	-348.1%

Operating Revenue is \$2.5 million ahead of the pro-rated budget for the year. This reflects the seasonal pattern of consumption that is typically higher for the summer months. Operating Expenses are \$6.1 million below the pro-rated budget for the year. This reflects the delayed initiation of activities due to the labour disruption as well as on-going cost containment efforts. Expenses typically increase in the fall and winter months due to weather-related activities. Non Operating Expenditures are \$0.5 million below the pro-rated budget, but will increase with the issuance of new debt in November 2015. The total variance of the results from the pro-rated budget is \$9.0 million.

The following table shows operating results for each service.

Year to Date Operating Results by Service		
	2015/16 '000	2014/15 '000
Water	\$1,652	\$538
Wastewater	\$3,373	\$2,338
Stormwater	\$1,414	\$973
Net Surplus (Deficit)	\$6,439	\$3,850

ITEM # 4
HRWC Board
November 26, 2015

Results for the year to date have been reviewed in conjunction with plans for the remainder of the year. An update to the Forecast reflects the change from the budgeted loss of \$4.4 million to a loss of \$0.8 million, a total change of \$3.6 million. The Depreciation expense forecast was reduced based on a review of existing assets and capital projects that are expected to be completed this year.

Changes to rates approved by the NSUARB took effect May 1, 2015 and have been described in previous reports. The following table summarizes the most significant customer rates.

Summary of Rate Changes				
	Effective May 1/15	Effective April 1/14	\$ Change	% Change
Volumetric Charges (per m3)				
Water	0.845	0.731	0.114	15.6%
Wastewater	1.638	1.658	- 0.020	-1.2%
Combined	2.483	2.389	0.094	3.9%
Base Charges (per year)				
Water	Varies by meter size		Varies	1.0%-8.3%
Wastewater	Varies by meter size		No Change	0.0%
Stormwater - Residential	33.39	33.39	No Change	0.0%
Stormwater - HRM ROW	41.00	39.00	2.00	5.1%

Water Operations - Page 3

Water Operations show a profit of \$1.7 million, compared to a profit of \$0.5 million for the previous year at this time. Metered Sales revenue is up \$2.3 million (9.6%). Year-to-date billed consumption is down 1.8% compared to the prior year. On a 12 month rolling basis, billed consumption is down 2.8%. Factoring in the accrued balance and seasonal variations, consumption is 0.8% below the expected total for the first seven months of the year.

Metered Sales Revenue consists of consumption and base charge components. Water consumption revenue is up 12.8% over the prior year, which reflects the increase in the water rate and the decline in consumption. Base Charge revenue is up 5.9%, reflecting the rate increase and a small increase in customers.

There is a reduction in Fire Protection revenue as the NSUARB lowered the annual charge that is paid by HRM. Total Water Operating revenue is up \$1.8 million to \$31.2 million.

Operating Expenses have increased by \$0.2 million (0.7%) to \$21.4 million. Water Supply & Treatment, Transmission & Distribution, and Customer Service show the greatest increases over the prior year. The increases are largely attributable to reassigned staff and allocation of costs incurred during the labour disruption. Financial Revenue and Expenses are higher than the previous year, reflecting higher levels of debt and cash balances.

Forecast results for Water Operations show a loss of \$1.7 million, slightly larger than budgeted.

Wastewater Operations - Page 4

Wastewater Operations show a profit of \$3.4 million, compared to a profit of \$2.3 million for the previous year at this time. Wastewater revenue has decreased \$0.3 million over the prior year, with Metered Sales accounting for the decrease.

Wastewater Metered Sales consists of a volumetric discharge component and a base charge component. For most customers, the discharge component is based on the metered water consumption, and the volumes and revenue reflect the decline in water consumption. The discharge rate in effect is 1.2% lower than the prior year. The billed discharge volume to date has declined 1.8%, while on a rolling 12 month basis, the billed discharge volume has declined 2.0%. Factoring in the accrued balance and seasonal variations, consumption is 1.4% below the expected total for the first seven months of the year. Base charge rates have not increased but base charge revenue is ahead of budget. Other revenue categories are showing mixed results with some categories ahead of budget and others behind.

Operating expenses have decreased \$1.1 million (3.8%) as compared to the previous year. Most categories are below the prior year-to-date actuals and current year budget. Wastewater Treatment Plant costs are down \$0.6 million.

Financial Revenue is up slightly compared to the prior year. Financial Expenses are slightly below the prior year reflecting lower interest costs on long term debt.

Updates to the forecast indicate a significant improvement from a budgeted loss of \$2.9 million to a loss of \$0.3 million. A reduction in the forecast for Depreciation expense is offset somewhat by reductions in Septage Tipping revenue and Wastewater Overstrength revenue.

Stormwater Operations - Page 5

Stormwater Operations show a profit of \$1.4 million, an improvement over the profit of \$1.0 million for the same period last year. Stormwater Revenue is up \$0.5 million from the prior year. Operating expenses are down \$0.2 million over the prior year.

Financial Expenses are up \$0.2 million (35.8%) as a result of debt costs associated with Stormwater capital projects being charged directly to the Stormwater Service. Financial Expenses for Stormwater will continue to grow as further infrastructure upgrades are put into service.

The forecasted result for Stormwater is for a profit of \$1.2 million.

Regulated and Unregulated Operations - Page 6

Activities regulated by the NSUARB show a profit of \$5.9 million, ahead of the \$3.5 million profit for the same period last year. The improvement is attributable to increased revenues of

ITEM # 4
HRWC Board
November 26, 2015

\$2.0 million with the rate increase that took effect in May. Operating Expenses have decreased by \$1.0 million over the prior year and Financial Expenses increased \$0.6 million.

Unregulated activities show a profit of \$0.5 million, an increase from the profit of \$0.4 million for the prior year. Unregulated revenue is down slightly from the prior year. An improvement in Unregulated Wastewater Treatment expenses is a result of lower costs at the De-watering Facility attributable to Unregulated Activities.

Results by Activity		
	2015/16	2014/15
	'000	'000
Regulated Activities	\$5,943	\$3,488
Unregulated Activities	\$496	\$362
Net Surplus (Deficit)	\$6,439	\$3,850

ATTACHMENT

Unaudited Operating Results for the seven (7) months ended October 31, 2015

HALIFAX WATER
UNAUDITED BALANCE SHEET
AS OF OCTOBER 31, 2015

	<u>2015</u> <u>'000</u>	<u>2014</u> <u>'000</u>
ASSETS		
Cash	\$39,788	\$28,448
Amounts Receivable		
Customers & Contractual	\$29,665	\$27,175
Halifax Regional Municipality	\$4,332	\$3,102
Materials & Supplies	\$1,169	\$1,262
Prepaid Expenses	\$224	\$195
	\$75,178	\$60,182
Regulatory Asset	\$3,676	\$3,852
Plant in Service - Water	\$567,439	\$547,055
Plant in Service - Wastewater/Stormwater	\$761,775	\$746,614
Less: Accumulated Depreciation - Water	\$156,788	\$147,416
Accumulated Depreciation - Wastewater/Stormwater	\$175,994	\$153,421
	\$1,000,109	\$996,685
Assets Under Construction	\$62,092	\$43,949
	\$1,062,201	\$1,040,634
Unamortized Debt Discount & Issue Expense	\$1,007	\$969
	\$1,138,386	\$1,101,786
LIABILITIES & CAPITAL		
Trade	\$11,234	\$14,852
Interest on Long Term Debt	\$2,448	\$2,235
Halifax Regional Municipality	\$5,748	\$5,806
Contractor & Customer Deposits	\$186	\$192
Unearned Revenue	\$6,263	\$6,340
	\$25,880	\$29,427
Accrued Post-Retirement Benefits	\$604	\$617
Accrued Pre-Retirement Benefit	\$3,257	\$3,065
Deferred Pension Liability	\$12,596	\$11,844
Special Purpose Reserves not allocated to projects	\$5,477	\$13,318
Regional Development Charge	\$8,239	\$750
Long Term Debt-Water	\$63,719	\$59,335
Long Term Debt-Wastewater/Stormwater	\$153,234	\$149,336
Total Liabilities	\$273,006	\$267,692
Capital Surplus	\$829,679	\$815,459
Committed Reserves	\$13,946	\$6,365
Operating Surplus used to Fund Capital	\$12,380	\$12,380
Operating Surplus	\$2,936	(3,959)
Excess (Deficiency) of Revenue over Expenditure - Consolidated	\$6,439	\$3,850
Total Capital & Surplus	\$865,380	\$834,094
	\$1,138,386	\$1,101,786

HALIFAX WATER
UNAUDITED INCOME STATEMENT - CONSOLIDATED
APRIL 1/15 - OCTOBER 31/15 (7 MONTHS)
58.33%

ACTUAL (CURRENT MONTH)		DESCRIPTION	ACTUAL (YEAR TO DATE)		APR 1/15 MAR 31/16 BUDGET*	APR 1/15 MAR 31/16 FORECAST	% of FORECAST
THIS YEAR '000	LAST YEAR '000		THIS YEAR '000	LAST YEAR '000			
\$11,521	\$10,675	OPERATING REVENUE	\$78,234	\$76,312	\$129,905	\$130,246	60.07%
\$7,942	\$7,541	OPERATING EXPENSES	\$54,379	\$55,560	\$103,614	\$100,154	54.30%
\$3,579	\$3,134	OPERATING PROFIT	\$23,855	\$20,752	\$26,291	\$30,092	79.27%
		FINANCIAL REVENUE					
\$74	\$99	INVESTMENT INCOME	\$480	\$404	\$660	\$660	72.71%
\$167	\$167	PNS FUNDING HHSP DEBT	\$1,167	\$1,167	\$2,000	\$2,000	58.33%
\$24	\$28	MISCELLANEOUS	\$173	\$162	\$417	\$332	52.18%
\$264	\$293		\$1,820	\$1,734	\$3,077	\$2,992	60.82%
		FINANCIAL EXPENSES					
\$711	\$730	LONG TERM DEBT INTEREST	\$5,100	\$5,265	\$8,440	\$8,815	57.85%
\$1,647	\$1,568	LONG TERM DEBT PRINCIPAL	\$11,392	\$10,752	\$20,626	\$20,346	55.99%
\$15	\$13	AMORTIZATION DEBT DISCOUNT	\$103	\$88	\$172	\$197	52.56%
\$377	\$362	DIVIDEND/GRANT IN LIEU OF TAXES	\$2,642	\$2,532	\$4,579	\$4,528	58.33%
\$2,750	\$2,672		\$19,237	\$18,636	\$33,818	\$33,887	56.77%
\$1,093	\$755	NET PROFIT (LOSS) AVAILABLE FOR CAPITAL EXPENDITURES	\$6,439	\$3,850	(\$4,449)	(\$803)	902.11%

HALIFAX WATER
UNAUDITED INCOME STATEMENT - WATER OPERATIONS
APRIL 1/15 - OCTOBER 31/15 (7 MONTHS)
 58.33%

ACTUAL (CURRENT MONTH)		DESCRIPTION	ACTUAL (YEAR TO DATE)		APR 1/15	APR 1/15	% of FORECAST
THIS YEAR '000	LAST YEAR '000		THIS YEAR '000	LAST YEAR '000	MAR 31/16 BUDGET* '000	MAR 31/16 FORECAST '000	
REVENUE							
\$3,822	\$3,282	METERED SALES	\$25,715	\$23,453	\$42,743	\$42,743	60.16%
\$669	\$746	FIRE PROTECTION	\$4,685	\$5,223	\$8,032	\$8,032	58.33%
\$61	\$49	PRIVATE FIRE PROTECTION SERVICES	\$386	\$322	\$1,069	\$654	58.98%
\$33	\$29	BULK WATER STATIONS	\$205	\$226	\$309	\$309	66.45%
\$14	\$16	CUSTOMER LATE PAY./COLLECTION FEES	\$111	\$103	\$343	\$195	57.03%
\$11	\$11	MISCELLANEOUS	\$75	\$80	\$150	\$150	49.80%
\$4,610	\$4,132		\$31,177	\$29,407	\$52,646	\$52,083	59.86%
EXPENSES							
\$551	\$613	WATER SUPPLY & TREATMENT	\$4,191	\$3,948	\$8,134	\$8,131	51.54%
\$633	\$613	TRANSMISSION & DISTRIBUTION	\$4,736	\$4,421	\$9,155	\$8,645	54.78%
\$81	\$78	SMALL SYSTEMS (inc. Contract Systems)	\$599	\$577	\$792	\$791	75.69%
\$59	\$56	SCADA, CONTROL & PUMPING	\$379	\$433	\$806	\$806	47.09%
\$224	\$218	ENGINEERING & INFORMATION SERVICES	\$1,836	\$1,955	\$3,809	\$3,729	49.24%
\$37	\$58	ENVIRONMENTAL SERVICES	\$281	\$386	\$628	\$635	44.28%
\$161	\$169	CUSTOMER SERVICE	\$1,295	\$1,160	\$2,227	\$2,225	58.20%
\$510	\$442	ADMINISTRATION & PENSION	\$3,662	\$3,475	\$6,089	\$6,071	60.31%
\$622	\$695	DEPRECIATION	\$4,401	\$4,868	\$8,573	\$8,273	53.20%
\$2,878	\$2,942		\$21,381	\$21,223	\$40,213	\$39,307	54.39%
\$1,731	\$1,190	OPERATING PROFIT	\$9,796	\$8,184	\$12,433	\$12,776	76.68%
FINANCIAL REVENUE							
\$37	\$49	INVESTMENT INCOME	\$241	\$202	\$330	\$330	73.14%
\$19	\$16	MISCELLANEOUS	\$144	\$116	\$344	\$259	55.33%
\$56	\$66		\$385	\$318	\$674	\$589	65.30%
FINANCIAL EXPENSES							
\$203	\$207	LONG TERM DEBT INTEREST	\$1,459	\$1,452	\$2,108	\$2,508	58.18%
\$633	\$573	LONG TERM DEBT PRINCIPAL	\$4,379	\$3,934	\$7,969	\$7,969	54.95%
\$7	\$7	AMORTIZATION DEBT DISCOUNT	\$50	\$46	\$97	\$97	51.94%
\$377	\$362	DIVIDEND/GRANT IN LIEU OF TAXES	\$2,642	\$2,532	\$4,579	\$4,528	58.33%
\$1,221	\$1,148		\$8,530	\$7,964	\$14,753	\$15,102	56.48%
\$566	\$108	NET PROFIT (LOSS) AVAILABLE FOR CAPITAL EXPENDITURES	\$1,652	\$538	(\$1,646)	(\$1,736)	195.11%

HALIFAX WATER
UNAUDITED INCOME STATEMENT - WASTEWATER OPERATIONS
APRIL 1/15 - OCTOBER 31/15 (7 MONTHS)
58.33%

ACTUAL (CURRENT MONTH)		DESCRIPTION	ACTUAL (YEAR TO DATE)		APR 1/15	APR 1/15	% of FORECAST
THIS YEAR	LAST YEAR		THIS YEAR	LAST YEAR	MAR 31/16	MAR 31/16	
'000	'000		'000	'000	BUDGET*	FORECAST	
REVENUE							
\$5,867	\$5,598	METERED SALES	\$39,693	\$40,016	\$65,505	\$65,505	60.60%
\$10	\$12	WASTEWATER OVERSTRENGTH AGREEMENTS	\$81	\$92	\$174	\$144	56.28%
\$30	\$26	LEACHATE	\$151	\$174	\$379	\$379	39.80%
\$4	\$7	CONTRACT REVENUE	\$56	\$46	\$86	\$86	65.12%
\$17	\$17	DEWATERING FACILITY/SLUDGE LAGOON	\$107	\$122	\$210	\$210	51.13%
\$0	\$0	AIRLINE EFFLUENT	\$32	\$40	\$78	\$78	41.12%
\$67	\$64	SEPTAGE TIPPING FEES	\$432	\$432	\$800	\$600	71.97%
\$15	\$18	CUSTOMER LATE PAY./COLLECTION FEES	\$155	\$127	\$210	\$285	54.49%
\$10	\$7	MISCELLANEOUS	\$74	\$76	\$121	\$121	61.68%
\$6,020	\$5,750		\$40,782	\$41,125	\$67,562	\$67,407	60.50%
EXPENSES							
\$728	\$684	WASTEWATER COLLECTION	\$5,352	\$5,494	\$9,717	\$9,167	58.38%
\$1,683	\$1,368	WASTEWATER TREATMENT PLANTS	\$9,884	\$10,501	\$18,640	\$17,792	55.55%
\$82	\$61	SMALL SYSTEMS	\$558	\$533	\$1,136	\$1,123	49.72%
\$84	\$22	DEWATERING FACILITY/ SLUDGE MGMT	\$227	\$311	\$767	\$405	55.90%
\$5	\$6	BIOSOLIDS TREATMENT	\$55	\$31	\$101	\$101	54.70%
\$26	\$22	LEACHATE CONTRACT	\$131	\$151	\$328	\$320	41.02%
\$81	\$80	SCADA, CONTROL & PUMPING	\$545	\$580	\$1,191	\$1,191	45.76%
\$227	\$191	ENGINEERING & INFORMATION SERVICES	\$1,576	\$1,538	\$3,493	\$3,427	45.98%
\$100	\$123	ENVIRONMENTAL SERVICES	\$627	\$772	\$1,343	\$1,377	45.54%
\$133	\$135	CUSTOMER SERVICE	\$1,072	\$925	\$1,844	\$1,842	58.17%
\$422	\$354	ADMINISTRATION & PENSION	\$3,036	\$2,764	\$5,042	\$5,027	60.39%
\$853	\$946	DEPRECIATION	\$6,008	\$6,620	\$11,674	\$11,174	53.77%
\$4,425	\$3,992		\$29,071	\$30,218	\$55,277	\$52,948	54.91%
\$1,595	\$1,758	OPERATING PROFIT	\$11,711	\$10,907	\$12,285	\$14,459	80.99%
FINANCIAL REVENUE							
\$37	\$49	INVESTMENT INCOME	\$239	\$202	\$330	\$330	72.29%
\$167	\$167	PNS FUNDING HHSP DEBT	\$1,167	\$1,167	\$2,000	\$2,000	58.33%
\$5	\$11	MISCELLANEOUS	\$30	\$47	\$73	\$73	40.90%
\$209	\$227		\$1,435	\$1,415	\$2,403	\$2,403	59.72%
FINANCIAL EXPENSES							
\$463	\$488	LONG TERM DEBT INTEREST	\$3,319	\$3,562	\$5,798	\$5,738	57.85%
\$926	\$932	LONG TERM DEBT PRINCIPAL	\$6,404	\$6,381	\$11,747	\$11,292	56.71%
\$7	\$6	AMORTIZATION DEBT DISCOUNT	\$49	\$41	\$66	\$91	53.79%
\$1,396	\$1,426		\$9,773	\$9,984	\$17,612	\$17,122	57.08%
\$408	\$559	NET PROFIT (LOSS) AVAILABLE FOR CAPITAL EXPENDITURES	\$3,373	\$2,338	(\$2,924)	(\$260)	1396.31%

HALIFAX WATER
UNAUDITED INCOME STATEMENT - STORMWATER OPERATIONS
APRIL 1/15 - OCTOBER 31/15 (7 MONTHS)
58.33%

ACTUAL (CURRENT MONTH)		DESCRIPTION	ACTUAL (YEAR TO DATE)		APR 1/15	APR 1/15	% of FORECAST
THIS YEAR	LAST YEAR		THIS YEAR	LAST YEAR	MAR 31/16	MAR 31/16	
'000	'000		'000	'000	BUDGET*	FORECAST	
REVENUE							
\$557	\$463	STORMWATER SITE GENERATED SERVICE	\$3,923	\$3,447	\$5,715	\$6,715	58.42%
\$323	\$323	STORMWATER RIGHT OF WAY SERVICE	\$2,264	\$2,264	\$3,881	\$3,881	58.33%
\$4	\$1	CUSTOMER LATE PAY./COLLECTION FEES	\$40	\$7	\$10	\$69	58.09%
\$7	\$6	MISCELLANEOUS	\$49	\$62	\$91	\$91	53.54%
\$891	\$793		\$6,275	\$5,779	\$9,697	\$10,756	58.35%
EXPENSES							
\$400	\$361	STORMWATER COLLECTION	\$2,317	\$2,386	\$5,017	\$4,772	48.55%
\$3	\$3	SCADA, CONTROL & PUMPING	\$18	\$20	\$28	\$28	66.18%
\$37	\$39	ENGINEERING & INFORMATION SERVICES	\$256	\$314	\$568	\$558	45.98%
\$70	\$63	ENVIRONMENTAL SERVICES	\$402	\$361	\$825	\$859	46.81%
\$22	\$28	CUSTOMER SERVICE	\$174	\$189	\$300	\$300	58.17%
\$69	\$72	ADMINISTRATION & PENSION	\$494	\$566	\$820	\$818	60.39%
\$38	\$40	DEPRECIATION	\$266	\$281	\$565	\$565	46.97%
\$639	\$606		\$3,927	\$4,118	\$8,123	\$7,899	49.72%
\$253	\$187	OPERATING PROFIT	\$2,348	\$1,662	\$1,573	\$2,857	82.20%
FINANCIAL EXPENSES							
\$45	\$35	LONG TERM DEBT INTEREST	\$321	\$251	\$534	\$569	56.42%
\$88	\$63	LONG TERM DEBT PRINCIPAL	\$609	\$436	\$910	\$1,085	56.15%
\$1	\$0	AMORTIZATION DEBT DISCOUNT	\$4	\$1	\$9	\$9	46.46%
\$134	\$98		\$934	\$688	\$1,453	\$1,663	56.19%
\$119	\$88	NET PROFIT (LOSS) AVAILABLE FOR CAPITAL EXPENDITURES	\$1,414	\$973	\$120	\$1,194	118.42%

HALIFAX WATER
UNAUDITED INCOME STATEMENT - REGULATED AND UNREGULATED OPERATIONS
APRIL 1/15 - OCTOBER 31/15 (7 MONTHS)
58.33%

DESCRIPTION	ACTUAL (YEAR TO DATE)		APR 1/15 MAR 31/16	APR 1/15 MAR 31/16	% of FORECAST
	THIS YEAR	LAST YEAR	BUDGET*	FORECAST	
REGULATED ACTIVITIES					
REVENUE					
METERED SALES	\$69,331	\$66,916	\$113,963	\$114,963	60.31%
FIRE PROTECTION	\$4,685	\$5,223	\$8,032	\$8,032	58.33%
PRIVATE FIRE PROTECTION	\$386	\$322	\$1,069	\$654	58.98%
STORMWATER SERVICE	\$2,264	\$2,264	\$3,881	\$3,881	58.33%
OTHER OPERATING REVENUE	\$778	\$758	\$1,386	\$1,342	57.97%
	\$77,444	\$75,483	\$128,331	\$128,872	60.09%
EXPENSES					
WATER SUPPLY & TREATMENT	\$4,191	\$3,948	\$8,134	\$8,131	51.54%
TRANSMISSION & DISTRIBUTION	\$4,736	\$4,421	\$9,155	\$8,645	54.78%
WASTEWATER & STORMWATER COLLECTION	\$7,668	\$7,864	\$14,734	\$13,939	55.01%
WASTEWATER TREATMENT PLANTS	\$9,884	\$10,501	\$18,640	\$17,792	55.55%
SMALL SYSTEMS	\$1,154	\$1,103	\$1,913	\$1,899	60.77%
SCADA, CONTROL & PUMPING	\$943	\$1,033	\$2,025	\$2,025	46.57%
ENGINEERING & INFORMATION SERVICES	\$3,669	\$3,807	\$7,870	\$7,714	47.56%
ENVIRONMENTAL SERVICES	\$1,310	\$1,520	\$2,796	\$2,871	45.64%
CUSTOMER SERVICE	\$2,521	\$2,252	\$4,337	\$4,332	58.19%
ADMINISTRATION & PENSION	\$7,180	\$6,785	\$11,931	\$11,896	60.35%
DEPRECIATION	\$10,672	\$11,715	\$20,811	\$20,011	53.33%
	\$53,927	\$54,950	\$102,345	\$99,255	54.33%
FINANCIAL REVENUE					
INVESTMENT INCOME	\$480	\$404	\$660	\$660	72.71%
MISCELLANEOUS	\$1,183	\$1,187	\$2,082	\$2,082	56.84%
	\$1,663	\$1,591	\$2,742	\$2,742	60.66%
FINANCIAL EXPENSES					
LONG TERM DEBT INTEREST	\$5,100	\$5,265	\$8,440	\$8,815	57.85%
LONG TERM DEBT PRINCIPAL	\$11,392	\$10,752	\$20,626	\$20,346	55.99%
AMORTIZATION DEBT DISCOUNT	\$103	\$88	\$172	\$197	52.56%
DIVIDEND/GRANT IN LIEU OF TAXES	\$2,642	\$2,532	\$4,579	\$4,528	58.33%
	\$19,237	\$18,636	\$33,818	\$33,887	56.77%
NET PROFIT (LOSS) AVAILABLE FOR CAPITAL EXPENDITURES	\$5,943	\$3,488	(\$5,090)	(\$1,528)	488.84%
UNREGULATED ACTIVITIES					
REVENUE					
SEPTAGE TIPPING FEES	\$432	\$432	\$800	\$600	71.97%
LEACHATE	\$151	\$174	\$379	\$379	39.80%
CONTRACT REVENUE	\$56	\$46	\$86	\$86	65.12%
DEWATERING	\$107	\$122	\$210	\$210	51.13%
AIRLINE EFFLUENT	\$32	\$40	\$78	\$78	41.12%
ENERGY PROJECTS	\$15	\$0	\$115	\$30	50.80%
MISCELLANEOUS	\$12	\$14	\$21	\$21	59.48%
	\$806	\$829	\$1,689	\$1,404	57.38%
EXPENSES					
WATER SUPPLY & TREATMENT	\$3	\$7	\$15	\$15	20.65%
WASTEWATER TREATMENT	\$413	\$508	\$1,196	\$827	49.98%
ENERGY PROJECTS	\$0	\$0	\$9	\$9	0.00%
SPONSORSHIPS & DONATIONS	\$32	\$41	\$56	\$56	57.73%
DEPRECIATION	\$3	\$54	\$2	\$2	0.00%
	\$452	\$609	\$1,278	\$908	49.75%
FINANCIAL REVENUE					
MISCELLANEOUS	\$141	\$143	\$229	\$229	61.63%
	\$141	\$143	\$229	\$229	61.63%
NET PROFIT (LOSS) AVAILABLE FOR CAPITAL EXPENDITURES	\$496	\$362	\$641	\$726	68.29%
NET PROFIT (LOSS) AVAILABLE FOR TOTAL CAPITAL EXPENDITURES (REG & UNREG)	\$6,439	\$3,850	(\$4,449)	(\$803)	902.11%

TO: Mr. Ray Ritcey, Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY:


Kenda MacKenzie, P.Eng.
Director – Wastewater & Stormwater Services

APPROVED:


Carl Yates M.A.Sc., P.Eng., General Manager

DATE: November 19, 2015

SUBJECT: **Halifax Water Corporate Flow Monitoring Program**

ORIGIN

The 2015/16 Capital Budget

RECOMMENDATION

The HRWC Board approve the *Corporate Flow Monitoring Program* for 2015/16 and 2016/17 at an estimated cost of \$1,370,000.

BACKGROUND

Halifax Water owns and operates a large wastewater collection system that includes over 2,300 km of pipe and 180 pumping stations. Inflow and infiltration (I&I) creates excessive flows in Halifax Water's wastewater collection system during wet weather. This may result in operational challenges and wastewater releases into the environment. The effect of such releases may include potential risks to human health and the environment, increased operating and maintenance costs for Halifax Water, decreased infrastructure lifespan, and reduced system capacity to support growth.

Accurate and current data on the flows in the system during normal and wet weather conditions is critical to the effective management of the system including the planning for maintenance activities and capital programs.

The *Corporate Flow Monitoring Program* was developed to conduct flow monitoring and data analysis to support the following program objectives:

- Calibrate and verify hydraulic and hydrologic system models
- Evaluate system performance and capacity
- Identify and prioritize areas for wet weather management under the corporate Wet Weather Management Program (WWMP)
- Measure the effectiveness of wet weather management efforts including disconnection of private sources of inflow and infiltration as well as rehabilitation work on Halifax Water owned infrastructure
- Provide background and support for development of long-term capital reinvestment programs for wastewater and stormwater infrastructure

DISCUSSION

A Request for Proposals (RFP) entitled '*Wastewater Flow Monitoring Network*' was issued on September 3, 2015 to retain a vendor to conduct flow monitoring at approximately 90 sites of the wastewater system over the next five years. Of these, 60 represent strategic areas where flow monitoring is considered essential for ongoing calibration of Halifax Water's wastewater system model. These strategic areas, referred to as Flow Monitoring Zones (FMZs), will also provide the framework to achieve the corporate flow monitoring program objectives.

It is estimated that 20 FMZ monitoring sites will be installed in year one with 20 additional FMZ sites being installed in each of years two and three, for a total of 60 sites by year five.

The remaining 30 sites (six installations per year) are targeted at priority sewersheds identified as part of Halifax Water's Wet Weather Management Program (WWMP). These are sewersheds where sanitary sewer overflows (SSOs) are known to occur and which are being targeted for reduction of I&I contributed by both private and public sources. They require long-term (approximately 1-2 years) flow monitoring including a period to obtain baseline flows (pre-rehabilitation) and a period to measure the effectiveness of remedial work (post-rehabilitation), and monitoring outlined above.

Year 1 of the proposed program will also provide the short term flow monitoring (six weeks) of approximately 37 sites to calibrate the hydraulic model for the current West Region Wastewater Infrastructure Plan.

ITEM #5.1
HRWC Board
November 26, 2015

Data from each of the sites will be wirelessly transmitted to a server hosted by the vendor. Halifax Water will purchase good quality, useable data from the vendor for each site including monthly and event-based reports. The RFP requires that 90% of the data collected under the contract be of good quality, where a flow rate can be reliably calculated or inferred from the measured data.

The program initially anticipated a larger expenditure in year 1 (previously \$710,000) however, given the late timing of the funding request, funding needs have been prorated for the remainder of the fiscal year. As well, staff have enhanced the program to account for the gradual ramp up over the initial five years, therefore adjustments to the following years have been made.

Table 1 provides the revised cost estimate for the meter installation and flow monitoring program over the initial five year period of this multi-year program.

Table 1 – Five Year Program (Cost Estimates Provided in 1,000s)						
	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Revised Program Estimate	\$420	\$950	\$1,200	\$1,400	\$1,500	\$5,470

Halifax Water has the option to renew the contract on an annual basis in Year 2 through Year 5. Years two, three, four and five funding will be identified in the annual capital budget process. Halifax Water staff intends to provide an annual update report to the Halifax Water Board

BUDGET IMPLICATIONS

Funding for Year 1 of this program is allocated in the 2015/2016 capital budget under the Halifax Water 2015/16 (Wastewater) Capital Budget *Corporate Flow Monitoring Program* in the amount of \$710,000. Revised funding needs for Year 1 are reduced to \$420,000. To facilitate continued progress with the program, staff are requesting the funding for the Year 2 in the amount of \$950,000 for a total funding request of \$1,370,000. Year 2 funds of \$950,000 will be identified the upcoming 2016/17 Capital Budget under the *Corporate Flow Monitoring Program*. Funding requirements for future years will be requested as needed.

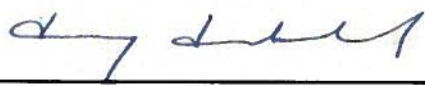


The proposed expenditure meets the “No Regrets-Unavoidable Needs” approach of the 2012 Integrated Resource Plan. The proposed work meets the NR-UN criteria of “Firm regulatory requirement,” “Directly supports the implementation of the Asset Management program,” and “Directly supports the implementation of the Wet Weather Management program.” The program meets these criteria based on the following:

ITEM #5.1
HRWC Board
November 26, 2015


- Corporate system-wide monitoring provides information essential for addressing data gaps identified in the 2012 Integrated Resource Plan.
- Long term flow monitoring in the 30 target areas mentioned above will help to ensure that SSOs are reduced or eliminated where they occur (regulatory requirement).
- Flow monitoring as part of the WWRIP will support sound asset management and long-term planning decisions.
- Flow monitoring is essential to support wet weather flow reduction activities through the corporate WWMP.

ALTERNATIVES

There are no recommended alternatives.

Report Prepared by:	 _____
	Craig Campbell, MBA, P. Eng., Environmental Engineer 476-5989
Financial Review by:	 _____
	 Cathie O'Toole, MBA, CPA CGA, Director, Finance & Customer Service, 490-3572

TO: Ray Ritcey, Chair and Members of the Halifax Regional Water
Commission Board

SUBMITTED BY: 
Jamie Hannam, P. Eng.
Director, Engineering & Information Services

APPROVED: 
Carl Yates M.A.Sc., P. Eng., General Manager

DATE: November 19, 2015

SUBJECT: **West Region Wastewater Infrastructure Plan – Funding
Increase**

ORIGIN

- 2014/15 Capital Budget – “Halifax – Herring Cove Sewersheds Infrastructure Plan” (project renamed to “West Region Wastewater Infrastructure Plan”)

RECOMMENDATION

The HRWC Board approve additional funding in the amount of \$344,000 including net HST for the *West Region Wastewater Infrastructure Plan* for a revised cost of \$1,418,000 including net HST.

BACKGROUND

The Regional Wastewater Functional Plan (RWWFP) was conducted at a very high level with broad assumptions being made due to limited model and system information. The intent of the RWWFP was to assess the current system at the time, identify the implications from anticipated regulatory changes, review growth projections, determine constraints within the current wastewater systems, and develop a long term investment plan. The recommendations of the RWWFP identified the need for flow diversions between sewersheds for a range of reasons. These recommendations were brought forward into additional studies undertaken by Halifax Water including the Integrated Resource Plan (IRP) and the Regional Development Charge (RDC) Policy.

ITEM #5.2

HRWC Board

November 26, 2015

The recommended flow diversions, being based on broad assumptions and regulations that had not yet come into force, required a greater level of analysis and scrutiny. Halifax Water proposed carrying out infrastructure plans to review and confirm the intended servicing strategy and identify the next level of planning analysis needed to achieve the previous master plan goals. As well, the infrastructure plans would include an assessment of alignments and site locations for infrastructure and preliminary design.

DISCUSSION

The HRWC Board and the NSUARB approved funding for the *West Region Wastewater Infrastructure Plan* (formerly referred to as the “*Halifax – Herring Cove Sewersheds Infrastructure Plan*”) on June 19, 2014 and July 31, 2014 respectively. The purpose of this plan was to evaluate the alignment options, determine conceptual pipe sizing and produce cost estimates for projects required to achieve the master plan strategies identified in the RWWFP. This is referred to as Phase 1 scope for clarity in this report.

Subsequent to the approval of funding for the original project scope, the project scope and Request for Proposals were reviewed by HRWC staff and the NSUARB (including comments from the Tellus Institute). Tellus recommended a number of additional scope items to enhance the project. These included expanded geographic extents, and various policy initiatives. As a result, additional funding was required to achieve the expanded scope. Supplemental budget was included in the 2015/16 Capital Budget. The HRWC Board and the NSUARB approved the additional funding for the *West Region Wastewater Infrastructure Plan* on January 21, 2015 and June 2, 2015 respectively. This is referred to as Phase 2 scope for clarity.

Through its review of the funding request submitted in January 2015, the NSUARB reviewed the revised Phase 2 scope changes with its consultant (Tellus Institute). In its April 23, 2015 letter to the Halifax Water project team, Tellus identified additional concerns about the project scope culminating in the conclusion that they “...believe the more logical approach would be to complete a comprehensive master planning level analysis to rigorously determine the most cost effective long-term solutions to all the drivers, before commissioning the preliminary design process for a specific solution. Discussions ensued regarding how the initial RWWFP servicing strategy recommendations would adequately be incorporated into the decision approach of the WRWIP and not simply implemented without due scrutiny. Through continuing collaboration with Tellus on the extent of potential scope changes, a revised scope document was prepared. This is referred to as Phase 3 scope changes. In the process of developing the scope changes and addressing the Tellus concerns, Halifax Water has accepted the majority of the suggestions made by Tellus. Halifax Water does not have full consensus on all tasks, however, we are satisfied that the WRWIP contains the appropriate scope for future design activities.

ITEM #5.2

HRWC Board

November 26, 2015

Tellus acknowledges that Halifax Water has enhanced the scope of the project to evaluate a range of servicing options including a sewer separation feasibility study, inflow/infiltration (I/I) reduction assessment, and low impact development (LID) measures (where appropriate) that will inform the preferred servicing strategy before undertaking preliminary design activities.

The table below shows project costs and the funding increase needed for the Phase 3 scope changes. This includes costs associated with both HRWC staff and Tellus fees.

Project Needs	Amount
GM BluePlan – Phase 1	\$434,363
GM BluePlan – Phase 2 (Revised)	\$341,493
GM BluePlan – Phase 3	\$325,462
<i>Sub-total 1 (GM BluePlan Scope)</i>	\$1,101,318
SNC Lavalin – Preliminary Flow Monitoring (Actual)	\$68,469
<i>Sub-total 2 (GMBP and SNC Scope)</i>	\$1,169,787
Interest and Overhead (4% of Sub-total 2)	\$46,791
Net HST (4.286% - calculated on Subtotal)	\$50,137
HRWC Staff Effort	\$38,800
Tellus Collaboration Effort	\$112,490
Total Project Costs Needed	\$1,418,006
Total Project Costs Needed (Rounded)	\$1,418,000
Total Project Costs Approved to Date	\$1,074,000
Funding Increase Amount	\$344,000

These additional scope items include the effort required by GM BluePlan to respond to the Tellus requests, allocation of Halifax Water staff time plus increased effort related to the scope changes and allocation of funds to cover Tellus' collaboration on the project. The resulting increase in funding required is \$344,000 including net HST (where applicable) for a total funding need for the WRWIP of \$1,418,000 including net HST.

ITEM #5.2

HRWC Board

November 26, 2015

BUDGET IMPLICATIONS

Funding in the amount of \$350,000 including net HST is available within the 2015/16 Capital Budget under “*Central Region - Wastewater Infrastructure Plan*”. Staff recommends these funds be reallocated to the WRWIP to cover the Phase 3 scope changes. For the 2016/17 Capital Budget, the *Central Region Wastewater Infrastructure Plan* project will be re-scoped, re-funded and right-sized to meet the project requirements. Work on the *Central Region Wastewater Infrastructure Plan* project is planned for a 2016/17 start pending significant completion of the WRWIP.

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 “Supports asset management implementation”, “Supports wet weather management implementation”, and “Growth related infrastructure needs are supported by pre-design level master plans”. These criteria are met on the basis of:

- Completion of the WRWIP will help to address data gaps associated with system knowledge, hydraulic modelling, and specific constraint areas in the west region.
- Through wet weather analysis in the study area and specifically related to tasks associated with defining I/I reduction opportunities, the WRWIP will provide information relevant to the Wet Weather Management Program.
- The project supports the development of master plans that translate growth, regulatory compliance, and asset renewal drivers into infrastructure projects and programs.
- The purpose of the project is to provide a next level of pre-design master planning that validates or revises the underlying design assumptions developed during the RWWFP and other studies

ALTERNATIVES

There are no recommended alternatives.

ATTACHMENTS

- Identification of the scope components is provided in Attachment 1
- Tellus Institute's April 23, 2015 letter is provided in Attachment 2

Report Prepared By:



Valerie Williams, P. Eng., Manager, Asset Management
902 476-0195

Financial Reviewed By:



Cathie O'Toole, MBA, CPA, CGA, Director of Finance and
Customer Service, 902 490-3572

The original project scope (**Phase 1**) considered for the 2014/15 Capital Budget included the following tasks and deliverables:

- Confirm extent of study and review background materials;
- Review and confirm Master Planning Framework and confirm HRWC's approach;
- Review and update study assumptions;
- Gather/validate growth information;
- Carry out model updates;
- Confirm eligible projects;
- Review timing/sequencing of proposed works;
- Carry out preliminary designs for routing, site locations;
- Prepare preliminary design plans, scope documents, and cost estimates;
- Prepare report.

Original project completion was intended for 2015/16 fiscal, Q4 (March 31, 2016). During the preparation of the Request for Proposals (RFP) but after the RFP release, the proposed scope of the project was reviewed by HRWC staff and the NSUARB (via comments from the Tellus Institute). Tellus recommended a number of additional scope items to enhance the project. These included expanded geographic extents, and various policy initiatives. As a result, additional funding was required to achieve the expanded scope. Supplemental budget was included in the 2015/16 Capital Budget.

The additional scope (**Phase 2**) identified by Tellus included:

- Expanded stakeholder consultation;
- Expanded study area to include BLT sewershed;
- Expanded study area to include Urban Settlement and Urban Reserve lands;
- Development of a Wastewater Demand Management Policy Paper;
- Establish a Wet Weather Level of Service Policy for existing customers;
- Establish a Combined Systems Level of Service Policy for servicing intensification of brownfield sites on existing combined sewers;
- Development of a Capital Cost Framework;
- Additional analysis of Inflow and Infiltration (I/I) reduction measures and the impact of demand management strategies;
- Analysis of the cost implications of the various I/I reduction measures including the cost to achieve the reduction and the impact on the preferred Infrastructure Plan.
- Flow monitoring to support proposed model updates;
- Intrusive testing and field verification (geotechnical and survey) to support development of preliminary designs for infrastructure plans (reduced scope).

The project was tendered, with the full revised scope, through the HRWC "Request for Proposals" process. The project was awarded to GM BluePlan under a phased contract. Phase 1 of the awarded work is based on the currently approved funding (July 31, 2014 from NSUARB) and the Phase 2 work is based on the approval of the 2015/16 funding increase (June 2, 2015). To this point, the estimated total cost of the West Region Wastewater Infrastructure Plan project is \$1,074,000 including net HST.

Subsequent to the formal approval for Phases 1 and 2 scope, continued dialogue with NSUARB's consultant (Tellus) resulted in further scope (Phase 3) adjustments. Tellus' focus has been to ensure Halifax Water has a sufficiently robust planning exercise that includes confirming all initial project assumptions and constraints, reviewing and confirming the long term servicing strategy for the WRWIP, and enhanced assessment of wet weather impacts and opportunities prior to commencing any preliminary design stages.

The **Phase 3** additional scope items necessary to achieve the Tellus requirements include:

- Evaluation Criteria Selection and Agreement
- Baseline review, Mill Cove, Case Studies, Data Gap Plan Update
- Mill Cove Modelling
- Peninsula Modelling
- Position Paper (confirmation of current state following assumptions review and modelling tasks)
- Combined Sewer Separation Flow Management Feasibility Study
- LID Feasibility Study
- I/I Reduction Assessment(characterization of where I/I reductions is more likely to be feasible)
- Integration with other programs
- Develop and Evaluate Option (additional evaluation effort of all alternatives beyond initial screening to provide a more in-depth evaluation process)
- Carry Out Preliminary Designs for Projects Due Within Next 10 Years (initially
- Develop Scoping Documents for Intrusive Testing and Field Verification
- Interpretation of Results from Testing and Verification
- Incorporate Results into Preliminary Designs



ATTACHMENT 2

To: David Blades, Project Engineer, HRWC
From: James Goldstein, Tellus Institute, Bill Brown, P.E., Wright Pierce
RE: Comments Regarding the RWWFP and the Halifax Wet Weather Flow Study as they relate to the West Region Wastewater Infrastructure Plan Project
Date: April 23, 2015

David and HRWC's West Region Wastewater Infrastructure Plan Team:

We have read the Regional Wastewater Functional Plan (RWWFP, AECOM/CBCL 2012) and the Halifax Wet Weather flow Study (CBCL, 2009) report you provided earlier this month and have some initial reactions that we want to share with you. Building on the discussions between the HRWC and Tellus teams in recent months, our objective in scrutinizing this information is to confirm that the proposed West Region Wastewater Infrastructure Project (WRWIP), which involves accommodating growth in the West Region by shedding flow to Herring Cove, is the most cost effective strategy or a component of the most cost effective strategy to manage the wastewater and stormwater challenges facing HRWC in this West Region and that this project meets the "no regrets/unavoidable needs" requirement.

Unfortunately after reviewing the referenced information, we cannot conclude this project is the most cost effective strategy and that it meets the "no regrets/unavoidable needs" requirement. Further, we don't see how HRWC can conclude this with the available information. Moreover, we do not believe the proposed high-level analysis of a few additional alternatives as part of the preliminary design phase of the proposed WRWIP is robust enough to determine the most cost effective solutions.

Some observations:

1. The planning objective for the RWWFP was very narrow. The sole purpose was to identify a plan for servicing the projected growth. The plan did not consider other very important and interrelated drivers such as asset renewal, long-term overflow regulations, future WWTF upgrade requirements, existing level of service (LOS) concerns (these could be stormwater related, wastewater related, water quality related, recreational disruption issues, etc.) and impacts of climate change on stormwater flows and management needs. Our concern is that consideration of all the drivers in an integrated way could result in different preferred solutions.

2. Due to insufficient information available regarding infiltration, inflow and overflows, demand management strategies (i.e., the variety of strategies to reduce peak flows such as separation, storage, surface water diversion, surface water detention, inlet control, flow slippage, private I/I strategies, low impact development (LID) and green infrastructure solutions, etc.) were written off with minimal evaluation. If more information were available, different conclusions might have been reached with respect to demand management.
3. We take issue with HRWC's position that that infiltration and inflow (I/I) removal may result in enhanced LOS but cannot create capacity for growth. This position is inconsistent with information in HRWC's most recent Five Year Business Plan and inconsistent with best practices of other communities HRWC has cited as reference communities.
4. The RWWFP was a very high level planning exercise (p.32) and there were many gaps in available information. As a result there is more uncertainty than is typical with the hydraulic model results, which were used to project the impacts of growth and the benefits of alternative solutions (p.39 and 42).
5. Acquiring more robust I/I data and model updating was suggested in the RWWFP as more information became available (p.31 and 44).
6. The RWWFP identifies that the IRP would outline more details about I/I reduction (p.31).
7. The IRP identified information gaps and the need for robust treatment of demand management reduction strategies in the regional planning. Further the IRP understood that the results of such analysis may significantly impact the servicing strategy and other IRP recommendations (p.84).
8. HRWC has acknowledged the overflow projections made in the RWWFP are outdated (see p.6 of 9, question 7 of February 28, 2014 Wet Weather Management Program Meeting Minutes). These projections were foundational to evaluating the ability of the proposed plan to meet the anticipated near-term CCME overflow standards.
9. The overflow abatement case studies that GMBLuePlan provided at our March 4, 2015 meeting all involved substantially more detailed and in depth studies of the overflow abatement strategies and demand management opportunities before selecting a preferred solution.
10. HRWC is now collecting flow data that could, and we believe should, be used to update the sewer system model. We also believe the updated model should be used to perform a more robust analysis of all the alternatives to address all the drivers. Is the new data collection program sufficient to rigorously update the hydraulic model? If not, what additional data collection would be needed? When will HRWC have sufficient data to update the model?

11. As can be seen on Table 36 (p.99) of the RWWFP, about 95% of the Halifax growth driven overflow volume increases occur at 3 CSOs (out of 21 overflows). Does this create opportunities for concentrated mitigation strategies?
12. It appears from the RWWFP report tables showing overflow projections that the goal is not to increase the frequency and volume in aggregate (i.e., from all the overflows). With this premise, would the projected reduction in overflows to the harbor from Dartmouth (Table 49, p. 131) provide a credit that could compensate for some of the Halifax growth driven overflows to the harbor? Also does the overflow reduction in Table 49 reflect the proposed diversion of the Little Albro Lake and Maynard Lake from the combined system?
13. There is uncertainty with HRM's growth projections with respect to the magnitude, location and whether the growth will be sewered or unsewered. The RWWFP preferred plan would appear to be a less flexible alternative to cost effectively accommodate large changes in growth scenarios. The IRP suggested a sensitivity analysis around growth in the updated functional plans (p.89).
14. The CBCL Wet Weather Flow Study identified that the combined sewers on the peninsula generally had capacity to convey flows in the 1 in 1-year to 1 in 2-year design rainfall event, with combined sewer discharge to the roadway gutters in some locations at higher flows (p. ES-1). Most cities have drainage systems to accommodate much larger flows. How prevalent is the occurrence of combined sewage discharge to roadways and is this a public health concern? Does HRWC envision a need to expand the stormwater conveyance capacity to address current stormwater LOS concerns? Also, how will climate change impact the stormwater system issues?
15. Does HRWC have a comprehensive understanding of all the stormwater challenges in the West Region? If not, are there plans to commission an evaluation of these issues? How will the stormwater issues impact integrated solutions for the region?
16. Given the stormwater and wastewater challenges and given the nature of the land use and the terrain, it would appear that green infrastructure approaches to reducing peak wet weather flows could be a viable and cost effective component of a peak flow reduction strategy. For example, numerous locations such as parks and industrial areas may be well suited for green infrastructure approaches. Also given the topography there would appear to be opportunities to consider stormwater inlet control and flow slippage as a means to reduce peak flows. A best practice approach to addressing the stormwater and wastewater challenges would include a detailed review of all these sort of strategies. Were such options considered in the RWWFP and will they be reviewed as part of the current WRWIP scope of work?
17. The RWWFP preferred plan also appears to have less phase-ability as compared with various demand management strategies (i.e. strategies to reduce peak flows that could be


implemented proportional to growth). As a result, the RWWFP preferred plan would seem to have higher initial capital costs than other alternatives might have.

18. The RWWFP addressed growth through 2046 but ignored anticipated overflow regulations through the same period, as discussed in the most recent Five Year Business Plan (p. 16). It seems that the longer term regulatory outlook should be considered in this analysis as it could impact the preferred solution. For example, if CSO overflows must be reduced within this longer time frame (as anticipated), how might that impact the approach in the WRWIP?
19. Given the fact that there are some sewers in the West Region that are on the order of 150 years old (p.1 of CBCL 2009 report), asset renewal considerations and the impacts on the preferred solutions would seem to be critically important. The IRP identified the need for significant effort to identify asset renewal priorities (p.91) and the need to integrate master planning across all the drivers.
20. The RWWFP Summary of Evaluation reference to the 2009 CBCL estimate of \$880M for total separation (p.4) is an “apples to oranges” comparison as there would not need to be total separation to achieve the near-term CCME goal of preventing growth from increasing overflows. Further the cost of the RWWFP preferred plan for the West Region of \$363.77M addresses only the growth driver and does not include costs associated with asset renewal, achieving compliance with future overflow and treatment regulations, or addressing wastewater or stormwater LOS concerns.
21. The cost for upgrading the Herring Cove WWTF shown on Table 42 (p.114) appears low (much less on a unit basis than the recent Eastern Passage project). Does this include the cost for upgrading to secondary as well as the expansion of capacity?

Conclusion

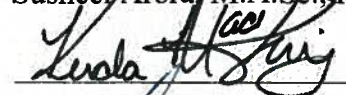
For all the above reasons we continue to believe that proceeding with the preliminary design of the RWWFP preferred plan is “putting the cart before the horse.” We believe the more logical approach would be to complete a comprehensive master planning level analysis to rigorously determine the most cost effective long-term solutions to all the drivers, before commissioning the preliminary design process for a specific solution. We simply cannot confirm with the available information that the RWWFP is a solid foundation upon which to set in motion \$363.77M in capital spending in the West Region.


TO: Ray Ritcey, Chair and Members of the Halifax Regional Water Commission Board

SUBMITTED BY: 
Cathie O'Toole, MBA, CPA, CGA, Director of Finance and Customer Service


Reid Campbell, P.Eng., Director of Water Services


Susheel Arora, M.A.Sc., P.Eng., Director of Wastewater & Stormwater Services


Kenda MacKenzie, P.Eng., Director of Environmental Services

APPROVED: 
Carl D. Yates, M.A.Sc., P.Eng., General Manager

SUBJECT: Financial and Operations Monthly Information Report

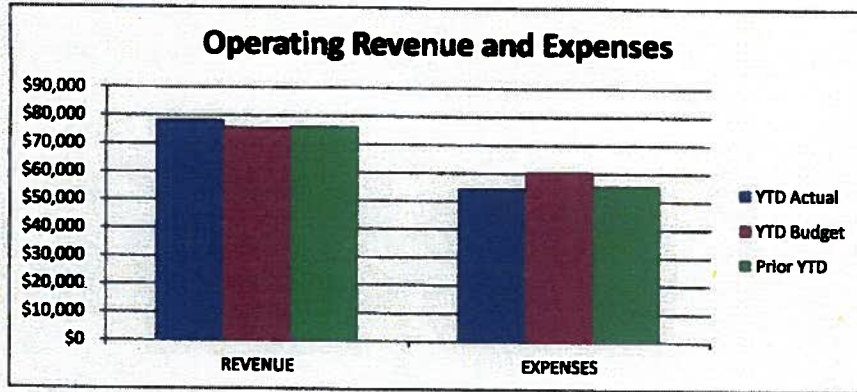
INFORMATION REPORT

ORIGIN:

Regular monthly update.

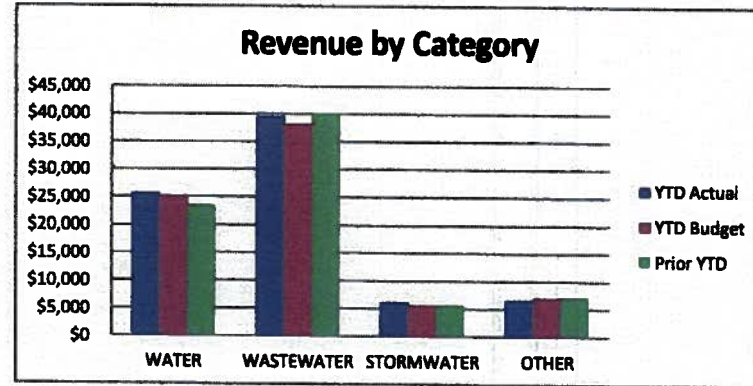
This report provides a high level overview of financial and operational performance for the utility. Financial results are presented first, followed by indicators and statistics for water and wastewater.

HALIFAX WATER
UNAUDITED FINANCIAL INFORMATION
APRIL 1/15 - OCTOBER 31/15 (7 MONTHS)
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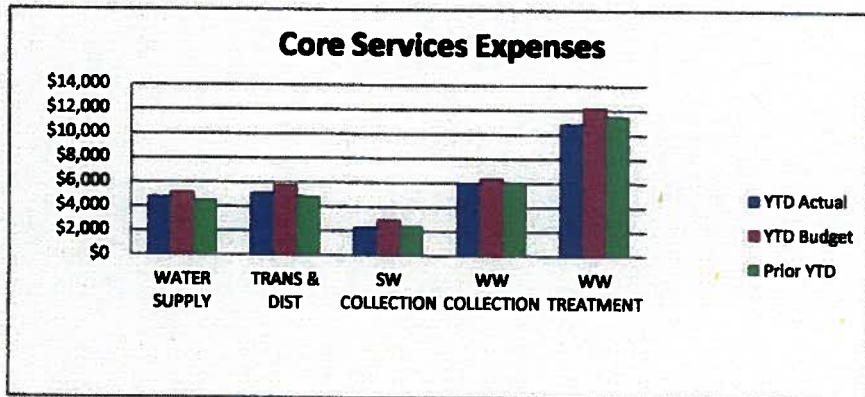
OPERATING REVENUE AND EXPENSES

	YTD Actual	YTD Budget	Prior YTD	% of Budget
REVENUE	\$78,234	\$75,778	\$76,312	60.22%
EXPENSES	\$54,379	\$60,441	\$55,560	52.48%
	<u>\$23,855</u>	<u>\$15,337</u>	<u>\$20,752</u>	<u>90.74%</u>



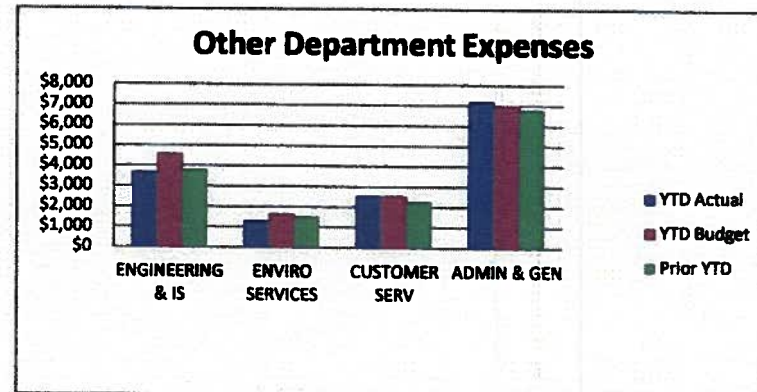
REVENUE BY CATEGORY

	YTD Actual	YTD Budget	Prior YTD
WATER	\$25,715	\$24,934	\$23,453
WASTEWATER	\$39,693	\$38,211	\$40,016
STORMWATER	\$6,187	\$5,598	\$5,711
OTHER	\$6,639	\$7,035	\$7,132
	<u>\$78,234</u>	<u>\$75,778</u>	<u>\$76,312</u>



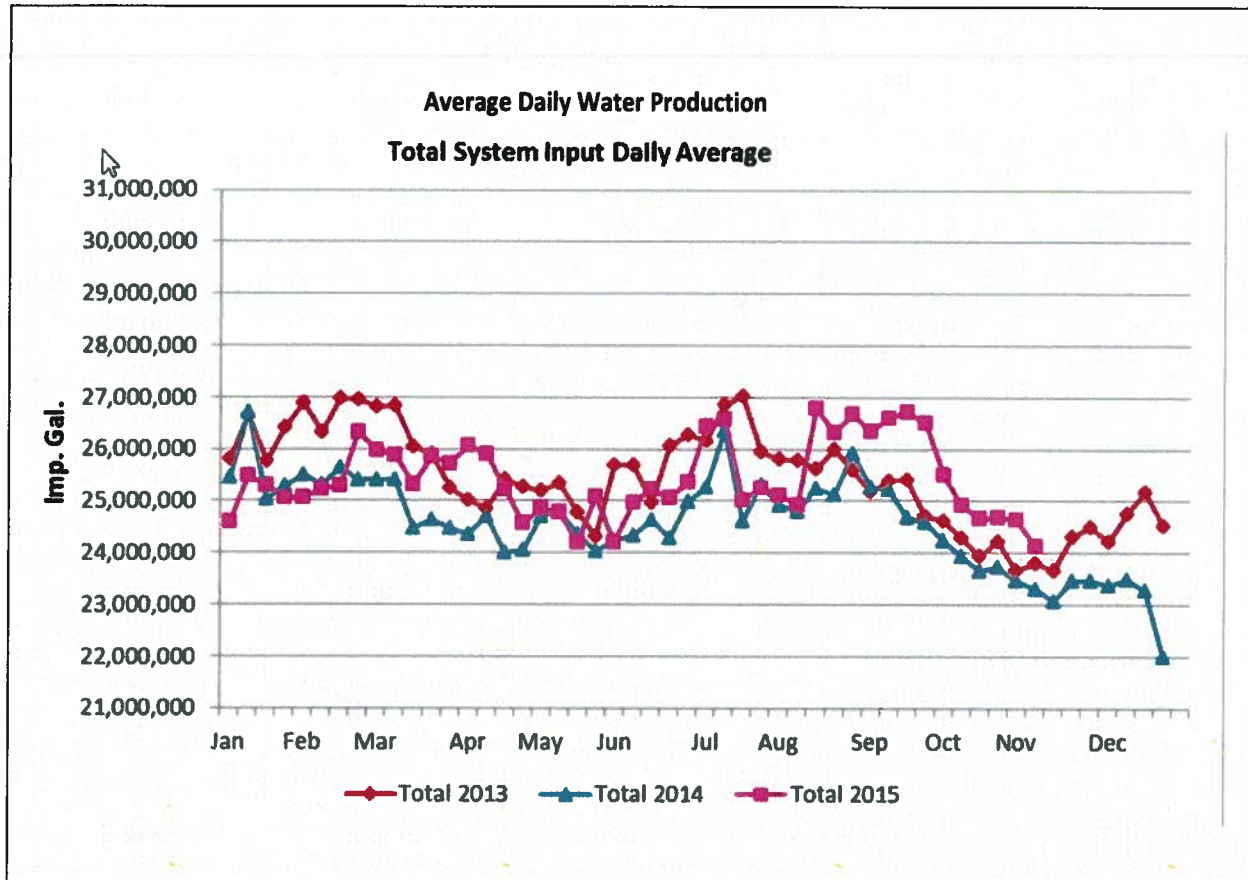
CORE SERVICES EXPENSES

	YTD Actual	YTD Budget	Prior YTD	% of Budget
WATER SUPPLY	\$4,790	\$5,207	\$4,525	53.66%
TRANS & DIST	\$5,116	\$5,811	\$4,854	51.36%
SW COLLECTION	\$2,335	\$2,943	\$2,406	46.29%
WW COLLECTION	\$5,897	\$6,363	\$6,074	54.06%
WW TREATMENT	\$10,855	\$12,234	\$11,526	51.76%
	<u>\$28,992</u>	<u>\$32,557</u>	<u>\$28,385</u>	<u>51.85%</u>



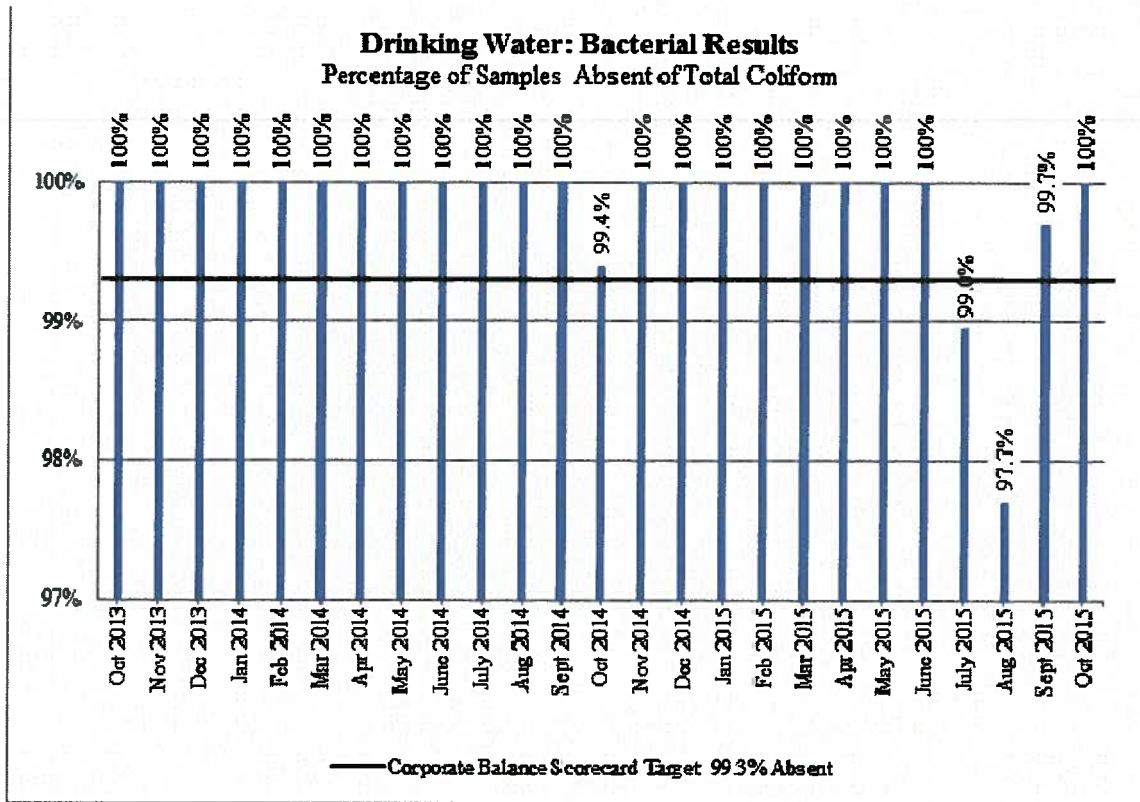
OTHER DEPARTMENT EXPENSES

	YTD Actual	YTD Budget	Prior YTD
ENGINEERING & IS	\$3,669	\$4,591	\$3,807
ENVIRO SERVICES	\$1,310	\$1,631	\$1,520
CUSTOMER SERV	\$2,541	\$2,550	\$2,274
ADMIN & GEN	\$7,191	\$6,972	\$6,805
	<u>\$14,712</u>	<u>\$18,744</u>	<u>\$14,406</u>



Regional Water Main Break/Leak Data		
Year	Total Breaks/Leaks	Current 12 Month Rolling Total (up to November 15/15)
2014/15	210	227
2013/14	213	
2012/13	262	
2011/12	205	
2010/11	198	
Total	1088	
Yr. Avg.	217.6	

Water Accountability
Losses per Service Connection/Day (International Water Association Standard)
<i>Period Ending September 30, 2015</i>
Real Losses: 256 litres
CBS Target: 180



Water Quality Master Plan Objectives				
2015-2016 Q2				
Objective	Total Sites	% of Sites Achieving Target	All Sites: 90th Percentile < 15 µg/L	CBSC Awarded Points
Disinfection	64	94%	---	14
Total Trihalomethanes	24	92%	---	13
Haloacetic Acids	21	100%	---	20
Particle Removal	5	100%	---	20
Corrosion Control*	69	---	8.88	20
TOTAL				87

Score: 87/100

All waste water treatment facilities have had their compliance criteria changed by NSE. Each facility in this report is assessed based on monthly or quarterly averages, depending on the averaging period specified in its Approval variance.

Wastewater Treatment Facility	Wastewater Treatment Facility Compliance Summary																								Q3 Toxicity	Trend
	Rolling Averages - August, September, October 2015																									
	CBODs (mg/L)		TSS (mg/L)		F. coliform (CFU/100mL)		E. coli (counts/100mL)		pH		Ammonia (mg/L)		O-Phosphate (mg/L)		Phosphorous (mg/L)		TRC (mg/L)		Dissolved Oxygen (mg/L)							
NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.	NSE Limit	Avg.					
Halifax	50	41	40	18	5000	9475	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Continued
Dartmouth	50	24	40	12	5000	7395	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Continued
Herring Cove	50	20	40	10	5000	1084	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Continued
Eastern Passage	50	10	40	9	5000	31	-	-	6.5-9	7.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Continued
Mill Cove	25	12	25	14	-	-	200	826	6.5-9	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Not acutely lethal	Continued
Springfield	20	5	20	3	-	-	200	397	6-9	7.6	-	-	-	-	-	0.02	0.19	-	-	-	-	-	-	-	Not acutely lethal	Declined
Belmont	25	7	25	22	-	-	200	71	6-9	7.2	-	-	-	-	-	0.02	0.70	-	-	-	-	-	-	-	-	Improved
Frame	20	9	20	30	-	-	200	75	6-9	6.5	-	-	-	-	-	0.02	1.02	-	-	-	-	-	-	-	-	Continued
Middle Musq.	20	4	20	16	-	-	200	41	6-9	7.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Continued
Uplands	20	7	20	7	-	-	200	16	6-9	6.7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Continued
Aerotech	5	4	5	14	-	-	200	10	6-9	7.3	1.2	1.4	-	-	0.5	0.4	-	-	-	-	-	-	-	-	-	Declined
North Preston	10	5	10	2	200	10	-	-	6.5-9	7.3	3	0.5	1.5	0.1	-	-	-	-	-	-	-	-	-	-	-	Continued
Lockview	20	8	20	29	-	-	200	114	6.5-9	6.4	8S	6.6	-	-	1.2	1.0	-	-	-	-	-	-	-	-	-	Improved
Steeves (Wellington)	15	6	15	2	200	34	-	-	6.5-9	7.4	3	0.3	1	0.2	-	-	-	-	-	-	-	-	-	-	-	Continued
BLT	15	7	20	19	-	-	200	10	6.5-9	7.1	5W 3S	3.8	-	-	3W 1S	1.3	0.02	0.12	5	7.4	-	-	-	-	Not acutely lethal	Continued
Average of all Facilities	11	14	3005	173.4	7.1	2.6	0.2	0.9	0.5	7.4																

NOTES & ACRONYMS:

CBODs - Carbonaceous 5-Day Biochemical Oxygen Demand

TSS - Total Suspended Solids

TRC - Total Residual Chlorine

W / S - Winter / Summer compliance limits

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

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

Continued - All parameters remain essentially unchanged since the last report

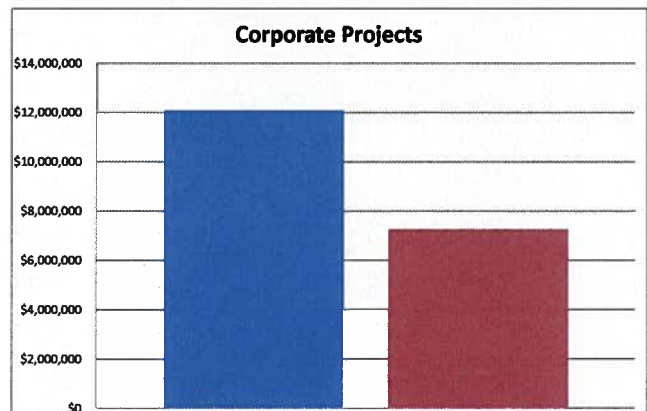
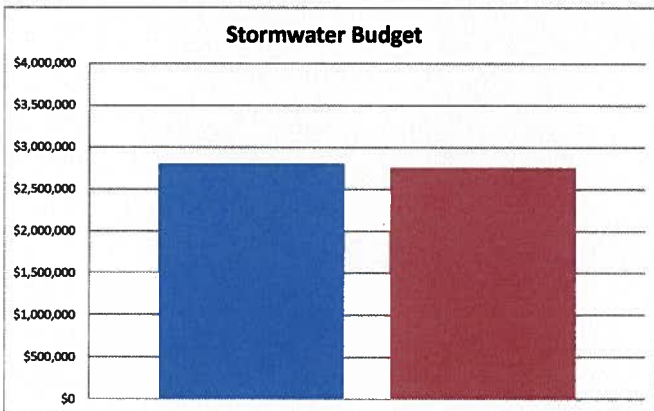
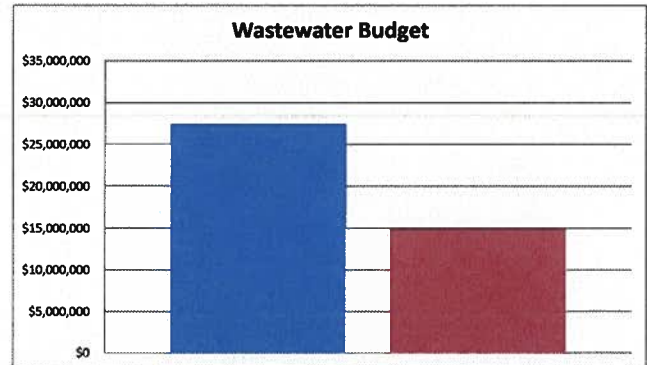
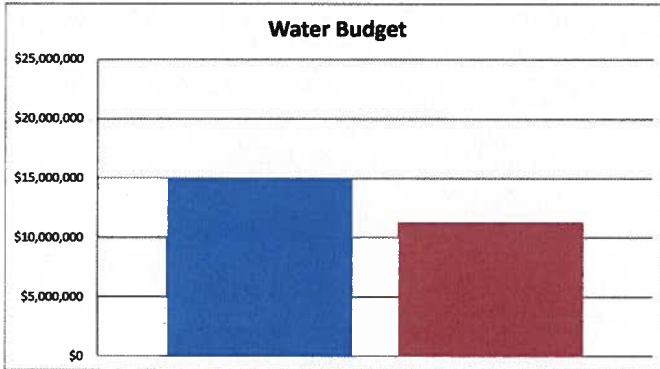
Improved - One or more parameter(s) became compliant since the last report

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

LEGEND

NSE Compliant
 NSE Non-Compliant

CAPITAL BUDGET APPROVALS TO DATE - 2015/16



WATER	
TOTAL APPROVED BUDGET	\$14,888,000
APPROVALS TO DATE	\$11,228,000

WASTEWATER	
TOTAL APPROVED BUDGET	\$27,425,000
APPROVALS TO DATE	\$14,911,112

STORMWATER	
TOTAL APPROVED BUDGET	\$2,815,000
APPROVALS TO DATE	\$2,755,000

CORPORATE PROJECTS	
TOTAL APPROVED BUDGET	\$12,094,000
APPROVALS TO DATE	\$7,261,000

Report Prepared by: 
 Jamie Hannam, P. Eng.
 Director of Engineering & IS

WATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WATER \$20,241,500

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB GM						
2015/16 Water							
29-Jan-15	15-Apr-15	Advanced Funding Integrated Projects					
East							
		Penhorn Drive	\$484,200	\$484,200	Dexter	\$327,628	\$431,089
		Sarnia Avenue	\$172,800	\$172,800	Dexter	\$136,216	\$153,846
		Main Road/Pleasant Street (Watermain Forcemain portion of Belmont WWTF Decommissioning plus watermain renewal)	\$1,650,000	\$1,650,000	Dexter	\$1,506,949	\$1,469,000
West							
		Kempt Road	\$110,000	\$110,000	Dexter	\$352,022	\$397,934
		Pepperell St	\$371,000	\$371,000	Dexter	\$291,908	\$330,306
		Richmond Ave	\$152,000	\$152,000	Cumberland	\$228,515	\$135,327
		MacAlpine Ave	\$232,000	\$232,000	Dexter Construction	\$186,065	\$206,552
		Drysdale Road	\$208,000	\$208,000	Dexter Construction	\$220,670	\$185,185,00
		Brunswick St	\$200,000	\$200,000			
Central							
		First Avenue	\$370,000	\$370,000	ARCP	\$285,378	\$329,416
		Sackville Cross Road Bridge		\$100,000	B. Spicer	\$99,406	\$89,031
		Alder Crescent - Wastewater Collection System Replacement	\$150,000	\$150,000	J.R. Eisenor Contracting	\$130,607	\$133,547
Total of Integrated Projects			\$4,100,000	\$4,200,000			
29-Jan-15		Lake Major WSP - Chlorinator Replacement Project was not identified in 2014/15 - funding in the amount of \$200,000 is available from underspending on the JD Kline Chlorinator System Replacement (SAP #3-1824)	\$200,000	\$0			
29-Jan-15	29-Apr-15	Distribution System Valve Replacement Program	\$125,000	\$125,000			
29-Jan-15	29-Apr-15	Hydrant Replacement Program	\$75,000	\$75,000			
29-Jan-15	29-Apr-15	Service Line Renewal Program	\$190,000	\$190,000			

WATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WATER \$20,241,500

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB GM						
29-Jan-15	29-Apr-15	Truck Mounted Valve Exercising Machine	\$30,000	\$30,000			
29-Jan-15	29-Apr-15	Leak Detection Equipment	\$16,000	\$16,000			
29-Jan-15	29-Apr-15	Upgrade to Correlator	\$22,000	\$22,000			
29-Jan-15	29-Apr-15	GPS/Total Station for Water Services	\$28,000	\$28,000			
29-Jan-15	29-Apr-15	Diesel Plate Compactor	\$16,000	\$16,000			
Accumulative Total - January 2015				\$4,702,000			
<p>Macdonald Bridge Transmission Main Replacement project \$7,700,000: funding in the amount of \$354,000 is available from underspending on the Kearney Lake Road Water Transmission Main Phase 2: funding in the amount of \$3,750,000 is available from the 2015/16 Capital Budget under "Macdonald Bridge Transmission Main Replacement" and funding in the amount of \$3,295,000 will be included in the 2016/17 Capital Budget</p>							
5-Mar-15	13-Apr-15		\$3,750,000	\$3,750,000			
27-Mar-15		Lake Major WSP - Butterfly Valve Replacement Program	\$40,000	\$40,000			
27-Mar-15		JD Kline WSP Ampgard III to Vacuum Contactor Conversion Program	\$40,000	\$40,000			
27-Mar-15		Confined Space Entry Retrofit - Titus and Evans Chamber	\$65,000	\$65,000	Lindsay Const.	\$46,511	\$57,870
27-Mar-15		Bennery Lake WSP - Zeta Potential Meter	\$72,000	\$72,000			
27-Mar-15		Lake Major Entrance Road Culvert Replacement	\$76,000	\$76,000			
27-Mar-15		Gaston Road - Circumferential Transmission Main Tie In	\$120,000	\$120,000	Harbour Construction	\$71,983	\$106,837
26-Mar-15		Critical Valve Replacement Program - Gottingen Street	\$250,000	\$250,000			
31-Mar-15		JD Kline WSP Chemical Feed Pump Replacement Program	\$120,000	\$120,000			
Accumulative Total - March 2015				\$4,533,000			

WATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WATER \$20,241,500

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB GM						
22-Apr-15		Total Station Survey Unit - project was not budgeted for in 2015/16. Funding in the amount of \$26,000 is available from the 2014/15 CB from underspending in the Kearney Lake Road Transmission Main Replacement Project	\$26,000	\$0			
23-Apr-15		Regional Development Charge Application & Hearing Funding in the amount of \$9,804 is available from the 2014/15 CB under the Kearney Lake Road Transmission Main Phase 2 and \$223,617 is available from underspending in the 2014/15 Lakeside Diversion Linear Project	\$9,804	\$0			
30-Apr-15		Collins Park Wastewater Tank Retrofit	\$11,000	\$11,000			
30-Apr-15		Critical Valve Replacement Program	\$250,000	\$250,000			
30-Apr-15		JD Kline Watershed Access Road Bridge Replacements	\$71,000	\$71,000			
30-Apr-15		Lake Major WSP Chlorine Analyzer and Sample Pump	\$12,000	\$12,000			
30-Apr-15		Lake Major WSP Chlorine Vacuum Regulator	\$21,000	\$21,000			
30-Apr-15		Renfrew Street PRV Decommissioning	\$17,000	\$17,000			
30-Apr-15		Lake Major WSP Replace Contactors in the MCC	\$26,000	\$26,000			
30-Apr-15		Lake Major WSP Storage Containers	\$16,000	\$16,000			
30-Apr-15	12-Jun-15	Lake Major Dam Emergency Repairs - Fish Pump & Siphon System Funding Increase - this was not budgeted for in 2015/16. Funding in the amount of \$400,000 is available from underspending on the Kearney Lake Road Transmission Main Phase 2 Project	\$400,000	\$0			
Accumulative Total - April 2015				\$424,000			

WATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WATER \$20,241,500

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB GM						
5-May-15		JD Kline WSP - Backwash Butterfly Valve Actuators	\$30,000	\$30,000			
5-May-15		Lake Major WSP – Chemical Feed Pumps - Sodium Hydroxide	\$20,000	\$20,000			
5-May-15		Lake Major - Replace recirculating pumps for the Heating System	\$8,000	\$8,000			
5-May-15		Lake Major WSP – Upgrade the PLC	\$30,000	\$30,000			
22-May-15	23-Jul-15	JD Kline Water Supply Plant - Heating System & HVAC Upgrades	\$700,000	\$700,000			
22-May-15	27-Jul-15	Lake Major Dam Replacement - Design Phase	\$400,000	\$400,000			
Accumulative Total - May 2015				\$1,188,000			
5-Jun-15		Lime Dosing System Upgrade - Lake Major WSP	\$10,000	\$10,000			
10-Jun-15		Chain Control Transmission Main Realignment - Engineering Design	\$45,000	\$45,000			
Accumulative Total - June 2015				\$55,000			
24-Jul-15		SCADA Control System Enhancements 2015/16 (split 50W/50WW)	\$100,000	\$100,000			
Accumulative Total - July 2015				\$100,000			
17-Aug-15		Lake Major WSP - Catwalk in the filter gallery	\$15,000	\$15,000			
17-Aug-15		Lake Major - Lighting in the Filter Gallery	\$5,000	\$5,000			
18-Aug-15		M2 Hydrant Replacement Program	\$50,000	\$50,000			
Accumulative Total - August 2015				\$70,000			
11-Sep-15		Lake Major WSP Chlorine Vacuum Regulator funding of \$21,000 Additional funding of \$39,000 is available from underspending in the "Lake Major WSP HVAC at Low Lift Pumping Station" (SAP #3-1934)	\$60,000	\$21,000			
24-Sep-15	Oct-29-15	JD Kline WSP - Filter Media and Underdrain Replacement Project Funding in the amount of \$300,000 was taken from "Water, JD Kline Filter Media Replacement in the amount of \$300,000, and the remaining \$700,000 is available under "Lake Major WSP New Diesel Generator"	\$1,000,000	\$300,000			
Accumulative Total - September 2015				\$321,000			

WATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WATER \$20,241,500

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB GM						
1-Oct-15		JD Kline Entrance Road Paving Renewal	\$85,000	\$85,000			
1-Oct-15		JD Kline Parking Lot Resurfacing	\$170,000	\$170,000			
Accumulative Total - October 2015				\$255,000			
10-Nov-15		Budget Adjustments - Lake Major WSP - Various Projects Lake Major WSP Chlorine Vacuum Regulator - \$63K and Lake Major Diesel Generator Replacement Design Phase - \$17K	\$80,000	\$80,000			
Accumulative Total - November 2015				\$80,000			
Total to Date				\$11,226,000			

**WASTEWATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WASTEWATER \$33,085,900**

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB						
2015/16 Wastewater Advanced Funding Integrated Projects							
29-Jan-15	15-Apr-15	East					
		Penhorn Drive	\$99,000	\$99,000	Dexter	\$33,013	\$85,097
		Sarnia Avenue	\$47,000	\$47,000	Dexter	\$13,896	\$46,046
		Main Road/Pleasant Street (Wastewater Forcemain portion of Belmont WWTF Decommissioning plus watermain renewal)	\$3,000,000	\$3,000,000	Dexter	\$1,313,461	\$2,765,665
		Whynette Place	\$52,000	\$52,000	Cumberland	\$35,760	\$45,051
		Cross Road	\$99,000	\$99,000	Cumberland	\$67,372	\$85,097
		Dewhurst Drive	\$47,000	\$47,000	Cumberland	\$31,747	\$40,046
		Home Road Bridge	\$71,000	\$71,000			\$71,000
		Lahey Road	\$137,000	\$137,000			\$120,137
		Skyvue Terrace	\$99,000	\$99,000	Cumberland	\$67,372	\$85,097
		West					
		Pepperell Street	\$62,000	\$62,000	Dexter	\$41,708	\$51,183
		Richmond Avenue		\$119,000	Cumberland	\$75,184	\$105,433
		Central					
		First Avenue	\$52,000	\$52,000	ARCP	\$7,821	\$45,052
		Sackville Cross Road Bridge	\$71,000	\$71,000	B. Spicer Construction	\$156,022	\$71,000
		Adler Crescent - Wastewater Collection System Replacement	\$635,000	\$635,000	J.R. Eisener	\$461,868	\$599,644
		Cunningham	\$18,000	\$18,000			\$15,017
		Total Integrated Projects		\$4,608,000			

WASTEWATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WASTEWATER \$33,085,900

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB						
29-Jan-15	02-Jun-15	West Region Infrastructure Plan	\$450,000	\$450,000			
29-Jan-15	29-Apr-15	Manhole Renewals - Wastewater	\$29,000	\$29,000			
29-Jan-15	29-Apr-15	Lateral Replacements - Wastewater	\$1,490,000	\$1,490,000			
29-Jan-15	29-Apr-15	SIR Program Flow meters and Related Equipment	\$55,000	\$55,000			
29-Jan-15	29-Apr-15	Wastewater Operations Equipment	\$120,000	\$120,000			
21-Jan-15		Regional Centre Local Wastewater Servicing Capacity Analysis	\$25,000	\$25,000			
Accumulative Total January, 2015				\$6,777,000			
<p>Aerotech WWTF Expansion and Upgrade Project - Design Phase Funding: Funding in the amount of \$1,305,000 was allocated as follows: Carry Over from Preliminary Design: \$75,000 Internal Funding 2014/15 Capital Budget: \$500,000 <u>Internal Funding: 2015/16 Capital Budget \$730,000</u> TOTAL AMOUNT: 1,305,000</p>							
30-Oct-14	11-Feb-15		\$1,305,000	\$730,000			
12-Feb-15		HHSP - OCS Blower Variable Frequency Drive Updates					
		Halifax WWTF	\$150,397	\$150,397			
		Dartmouth WWTF	\$144,381	\$144,381			
		Herring Cove WWTF	\$126,334	\$126,334			
25-Feb-15	21-Apr-15	Jamieson Street Sewer Outfall Replacement Phase 2	\$1,100,000	\$1,100,000	Harbour Construction		\$930,700
Accumulative Total February, 2015				\$2,251,112			

WASTEWATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WASTEWATER \$33,085,900

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB						
10-Mar-15		Energy Management Retrofit Program Dartmouth WWTF - MCC 190 Ventilation Upgrades	\$110,000	\$50,000			
Accumulative Total March, 2015				\$50,000			
02-Apr-15		Compressed Air System - Biosolids Processing Facility: Funding available from underspending in the 2014/15 CB under "Biosolids Processing Facility Upgrade Program Project"	\$34,500	\$0			
09-Apr-15		UV Ballasts Replacement - Mill Cove WWTF: Funding available from the 2014/15 CB under "Wastewater Treatment Facilities Upgrades (various locations)"	\$40,000	\$0			
23-Apr-15		Regional Development Charge Application & Hearing Funding in the amount of \$9,804 is available from the 2014/15 CB from under spending in the Kearney Lake Road Transmission Main Phase 2 and \$223,617 is available from underspending in the Lakeside Diversion Linear Project	\$223,617	\$0			
30-Apr-15	26-Jun-15	Wastewater - Collection System - Sewer Lining Program	\$1,000,000	\$1,000,000	nsituform Technologies Limited	\$442,048	\$845,000
Accumulative Total April, 2015				\$1,000,000			
4-May-15		Treatment Facilities - UV System Local Isolators - DWWTF 2014/15 Capital Budget	\$22,500	\$0			
15-May-15		Combined Sewer at the North Park Cogswell Roundabout: Funding in the amount of \$70,000 is available from underspending on the "2015/16 Wastewater - Structures "new Pump Station and Forcemain plus Belmont WWTF Decommissioning"	\$70,000	\$0			
22-May-15	15-Jul-15	Wastewater Pumping Stations Condition and Performance Assessments	\$125,000	\$125,000			
Accumulative Total May, 2015				\$125,000			

WASTEWATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WASTEWATER \$33,085,900

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB						
24-Jul-15		Aerotech Biosolids Processing Facility - Warehouse Ventilation System & Controls Upgrades - Detailed Design Phase	\$100,000	\$100,000			
24-Jul-15		SCADA Control System Enhancements 2015/16 (split 50W/50WW)	\$100,000	\$100,000			
24-Jul-15		DWWTF - Replacement & Upgrade Of UV System Control Panels	\$135,000	\$0			
30-Jul-15		2014/15 WW - Treatment facility - Basement Emergency Sump Pump and pipework - DWWTF	\$30,000	\$0			
30-Jul-15	17-Sep-15	Aerotech WWTF Expansion and Upgrade Project - MBR Component Procurement	\$4,285,000	\$4,285,000			
Accumulative Total July, 2015				\$4,485,000			
17-Aug-15		Aerotech Biosolids Processing Facility - New Screening and Loading Addition Project	\$65,000	\$65,000			
Accumulative Total August, 2015				\$65,000			
Oct-22-15		Main Street Wastewater Sewer Main Replacement original amount was \$120,000 - Additional Funding for this project in the amount of \$66,000 is available from the "Main Street Sewer Renewal" project which will not proceed this year	\$66,000	\$0			
Oct-22-15		Inglis Street Sewer - Hydraulic Issue	\$33,000	\$33,000			
Accumulative Total October, 2015				\$33,000			

WASTEWATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR WASTEWATER \$33,085,900

Date of Approval			Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB	Description					
09-Nov-15		Centrifuge Winterization Upgrades Project Mill Cove - funding available from 2015/16 CB under "Plant Optimization Audit Program:	\$125,000	\$75,000			
17-Nov-15		Sackville Cross Road Bridge/Wastewater funding increase: Funding in the amount of \$64,000 is available from underspending in the "Hornes Road/ Bridge Wastewater Project which will not be proceeding this year	\$64,000	\$0			
17-Nov-15		Wastewater Security Upgrade Program: WWTF CCTV Upgrades	\$50,000	\$50,000			
		Accumulative Total November, 2015		\$125,000			
		Total To Date		\$14,911,112			

STORMWATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR STORMWATER \$3,894,600

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB						
2015/16 Stormwater							
Advanced Funding Integrated Projects							
29-Jan-15	29-Apr-15	East					
		Penhorn Drive	\$16,000	\$16,000	Dexter	\$7,603	\$13,140
		Merimac Drive	\$21,000	\$21,000			\$17,520
		Whynette Place	\$73,000	\$73,000	Cumberland	\$58,129	\$60,069
		Cross Road	\$99,000	\$99,000	Cumberland	\$67,372	\$85,097
		Dewhurst Drive	\$47,000	\$47,000	Cumberland	\$54,134	\$40,045
		Skyvue Terrace	\$99,000	\$99,000	Cumberland	\$67,372	\$85,097
		West					
		Richmond Avenue	\$54,000	\$54,000	Cumberland	\$36,090	\$44,426
		Thornhill Drive	\$16,000	\$16,000			\$13,035
		Central					
		First Avenue	\$52,000	\$52,000	ARCP	\$7,821	\$45,052
		Cunningham	\$18,000	\$18,000			\$15,017
		Jubilee Lane		\$13,000			\$7,734
		Total Integrated Projects		\$508,000			
29-Jan-15	29-Apr-15	Manhole Renewals - Stormwater	\$26,000	\$26,000			
29-Jan-15	29-Apr-15	Catchbasin Renewals	\$26,000	\$26,000			
29-Jan-15	29-Apr-15	Lateral Replacements - Stormwater	\$80,000	\$80,000			
29-Jan-15	29-Apr-15	Driveway Culvert Replacement	\$427,000	\$427,000			
		Accumulative Total - January 2015		\$1,067,000			

STORMWATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR STORMWATER \$3,894,600

Date of Approval			Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB	Description					
		Civic #183 Lakeview Avenue and Holly Court Culvert Replacement Projects					
18-Feb-15		#183 Lakeview Avenue	\$229,000	\$229,000			\$190,843
		Holly Court - Culvert Replacement	\$200,000	\$200,000			\$165,815
18-Feb-15		Rolling Hills Drive Stormwater Rehabilitation	\$157,000	\$157,000			\$137,658
		Stormwater Culvert Renewal Program					
23-Feb-15	27-Apr-15	North Preston Road	\$347,000				\$258,421
		Bedford Highway @Shaunslieve Drive Culvert Upgrade	\$407,000	\$754,000			\$333,767
24-Feb-15	8-Apr-15	Stormwater - Pipes Shore Road (Eastern Passage) Storm Sewer Diversion	\$291,000	\$291,000			\$259,297
Accumulative Total - February 2015				\$1,631,000			
23-Jun-15		Armanada Crescent Stormwater Manhole Replacement: not budgeted for in 2015/16: Funding in the amount of \$13,500 is available from Underspending in the "Cross Road Stormwater" integrated project	\$13,500	\$0			
24-Jul-15		Little Sackville River Flood Plain Mapping	\$57,000	\$57,000			
24-Jul-15		Keating Road Stormwater Inlet Structure - was not budgeted for in the 2015/16 CB. Funding is available from underspending in the "Yankeetown Road near Civic #206 Replacement Project" in the amount of \$75,000	\$75,000	\$0			
30-Jul-15		Bluewater Road Replacement of Stormwater Infrastructure project was not budgetted for in 2015/16: funding in the amount of \$247K is available from the "Bedford Highway at Shaunslieve Drive Culvert Upgrade" project which is not proceeding this year.	\$407,000	\$0	Harbour Construction	\$132,993	\$218,000
Accumulative Total - July 2015				\$57,000			

STORMWATER
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR STORMWATER \$3,894,600

Date of Approval			Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB	Description					
16-Nov-15		Dewhurst Drive Stormwater Integrated Project funding increase: Funding in the amount of \$25K is available from underspending in the 2015/16 CB under "Integrated Stormwater Projects - Program"	\$25,000	\$0			
17-Nov-15		Sackville Drive Cross Culvert Replacement: Funding available from underspending in "2015/16 CB under "Integrated Stormwater Projects Program:"	\$30,000	\$0			
Accumulative Total - November 2015				\$0			
Total To Date				\$2,755,000			

**CORPORATE PROJECTS
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR CORPORATE PROJECTS \$12,094,000**

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB						
29-Jan-15	29-Apr-15	Fleet Upgrade - Water	\$16,000	\$16,000			
29-Jan-15	29-Apr-15	Fleet Upgrade - Wastewater	\$988,000	\$988,000			
29-Jan-15	29-Apr-15	Fleet Upgrade - Stormwater	\$247,000	\$247,000			
Accumulative Total - January 2015				\$1,251,000			
8-Apr-15		Interim CRM - Call Centre Business Process Evaluation "Corporate Projects - Customer Relationship Management - Selection and Implementation"	\$50,000	\$50,000			
30-Apr-15	Jul-30-15	Corporate Projects - GIS Data Program	\$1,500,000	\$1,500,000			
Accumulative Total - April 2015				\$1,550,000			
6-May-15		Hydrant and Catchbasin Public Information Mapping: Funding is available from the 2014/15 CB under the "GIS Data Program:	\$120,000	\$0			
28-May-15		Computer Maintenance Management System - Phase 2A Business Process		\$215,000			
30-Jul-15	15-Oct-15	Computer Maintenance Management System - Phase 2 Implementation	\$4,971,000	\$2,195,000			
Accumulative Total - May 2015				\$2,410,000			

**CORPORATE PROJECTS
CAPITAL BUDGET APPROVALS TO DATE - 2015/16
TOTAL CAPITAL BUDGET FOR CORPORATE PROJECTS \$12,094,000**

Date of Approval		Description	Approved Amount	Net Additions to Budget	Construction Contractor	Construction Tender Price	Construction Budget Estimate
HW	NSUARB						
30-Aug-15	Oct-14-15	Customer Relationship Management (CRM)	\$550,000	\$550,000			
Accumulative Total - August 2015				\$550,000			
24-Sep-15	9-Oct-15	Meter Renewal and Installation Program - AMI/AMR Meter System Upgrades	\$1,000,000	\$1,000,000			
Accumulative Total - September 2015				\$1,000,000			
Oct-29-15		2015/16 SCADA Master Plan Implementation Program	\$500,000	\$500,000			
Accumulative Total - October 2015				\$500,000			
Total To Date				\$7,261,000			

Item 3-I

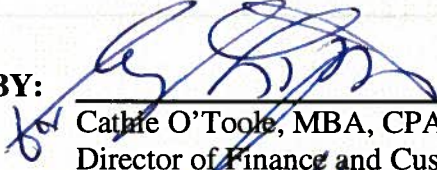
20-Nov-15

FINANCIAL REPORT

Consolidated balance of the four operating accounts maintained by the Commission as of:	20-Nov-15	\$36,262,391
Rate of interest on the above balance - Investment Rate of Return	0.074%	\$36,262,390.99

TO: Ray Ritcey, Chair, and Members of the Halifax Regional Water Commission Board

SUBMITTED BY:


Cathie O'Toole, MBA, CPA, CGA
Director of Finance and Customer Service

APPROVED:


Carl Yates M.A.Sc., P.Eng., General Manager

DATE:

November 19, 2015

SUBJECT:

Pension Plan Investment Performance 3rd Quarter, 2015

INFORMATION REPORT

ORIGIN

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

BACKGROUND

None

DISCUSSION

The tables below and the attached Investment Report outlines the performance update for the third quarter of 2015 (July to September) for the Halifax Regional Municipality (HRM) Pension Plan Master Trust, of which Halifax Regional Water Commission (HRWC) is a part. The fair value of the investment in the Master Trust is determined and updated at year-end, and HRWC's share of the total HRM Master Trust at December 31, 2014 was 5.59%, and totaled \$86.3 million.

Returns:

	3rd Quarter July to Sept.	1-Year	5-Year Annualized	Since October 1999
Fund Return	0.59%	9.12%	8.91%	6.93%
Policy Benchmark	-1.25%	4.31%	6.04%	5.47%
Excess Return	1.84%	4.81%	2.87%	1.46%

ITEM 4-I
HRWC Board
November 26, 2015

Asset Mix September 30, 2015:

Asset:	Actual	Policy
Cash & Equivalents	0.35%	
Canadian Equity	8.49%	9.70%
Global Equity	28.30%	24.40%
Bonds	24.70%	33.80%
Minimum Target Return	38.16%	32.10%

The total fund returned 0.59% in the 3rd Quarter, which outperformed the policy benchmark of -1.25% by 1.84%. Year-to-date performance earned 6.3%, outperforming the policy benchmark by 3.6%. The return for a one-year period ending September 30, 2015, was 9.12% which exceeded the policy benchmark of 4.31% by 4.81%. Effective September 30, 2015, the policy benchmark is 6.7% (no change from the prior benchmark).

The total fund return is subject to investment management fees and plan expenses.

As at September 30, 2015, the Master Trust was in compliance with the Statement of Investment Policies and Procedures (SIP&P).

ATTACHMENT

Halifax Regional Municipality Pension Plan Investment Report 3rd Quarter, 2015



Investment Report

Q3 2015

Consent Agenda Item No. 1



Executive Summary

Compliance

As at September 30, 2015, the Master Trust (MT) was in compliance with the SIP&P.

Funded Status

As at December 31, 2014, the accounting funded position was 100%, the going concern funded ratio was 87.7%, and the solvency funded ratio was 64.2%.

Master Trust Performance

In Q3, the MT earned 0.6%, outperforming the policy benchmark return by 1.8%. The YTD performance for the MT earned 6.3%, outperforming the policy benchmark by 3.6%.

For the one-year period ending September 30, 2015, the MT earned 9.1%, outperforming the policy benchmark by 4.8%.

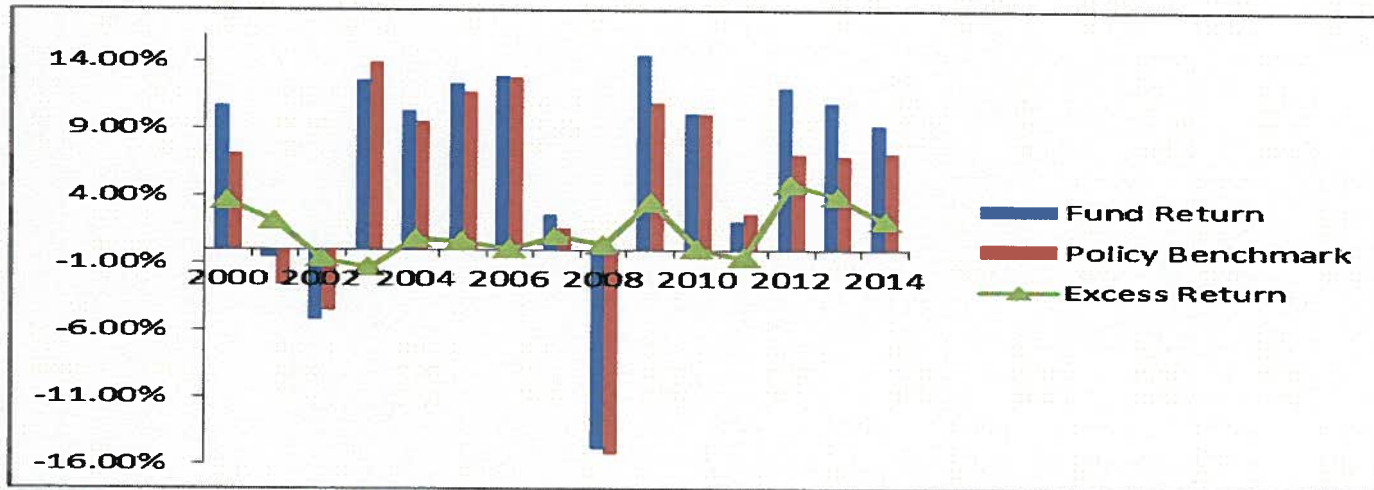
The MT earned annualized returns of 8.9% over the 5-year ending September 30, 2015 outperforming the policy benchmark by 2.9%.

Since inception (October 1999), the MT earned 6.9% outperforming the Plan's long-term rate objective of 6.55%. The table on the next slide summarizes the calendar year returns for the MT.



Executive Summary – Cont.

Calendar Returns



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Fund Return	10.71%	-0.56%	-5.21%	12.60%	10.27%	12.38%	12.88%	2.60%	-14.83%	14.47%	10.12%	2.11%	12.01%	10.94%	9.27%
Policy Benchmark	7.12%	-2.64%	-4.50%	13.91%	9.50%	11.76%	12.85%	1.58%	-15.20%	10.92%	10.08%	2.71%	7.12%	7.01%	7.24%
Excess Return	3.59%	2.08%	-0.71%	-1.31%	0.77%	0.62%	0.03%	1.02%	0.37%	3.55%	0.04%	-0.60%	4.89%	3.93%	2.03%



Executive Summary – Cont.

Added Value

In Q3 of 2015, the MT outperformed its benchmark by 1.84%. Attribution: Minimum Target Return +1.66%, Emerging Market Equity +0.15%, World Equity +0.14%, CAD Equity +0.12%, Universe Bonds +0.05%, US Equity +0.03%, MSCI EAFE Equity -0.08%, and Global Credit -0.23%.

Q3 Updates

- Committed \$20mm CAD in a Canadian residential real estate fund with a target annualized net return of 12% over the seven year life of the fund. Will save \$100,000 CAD annually throughout the life of the fund through reduced investment management fees and approximately \$2,807,358 CAD from lower performance management fees.
- Co-invested \$1.65mm USD in a US commercial real estate deal alongside an existing GP and other co-investors. The target annualized net return is 12%-13%. the co-investment was made with no investment management fees which saves \$162,768 CAD annually, and lower performance fee which saves approximately \$373,905 CAD. The legal savings amounted to \$11,287 CAD.

Total one-time fee savings are \$3,192,550 CAD and \$262,768 CAD ongoing annually.



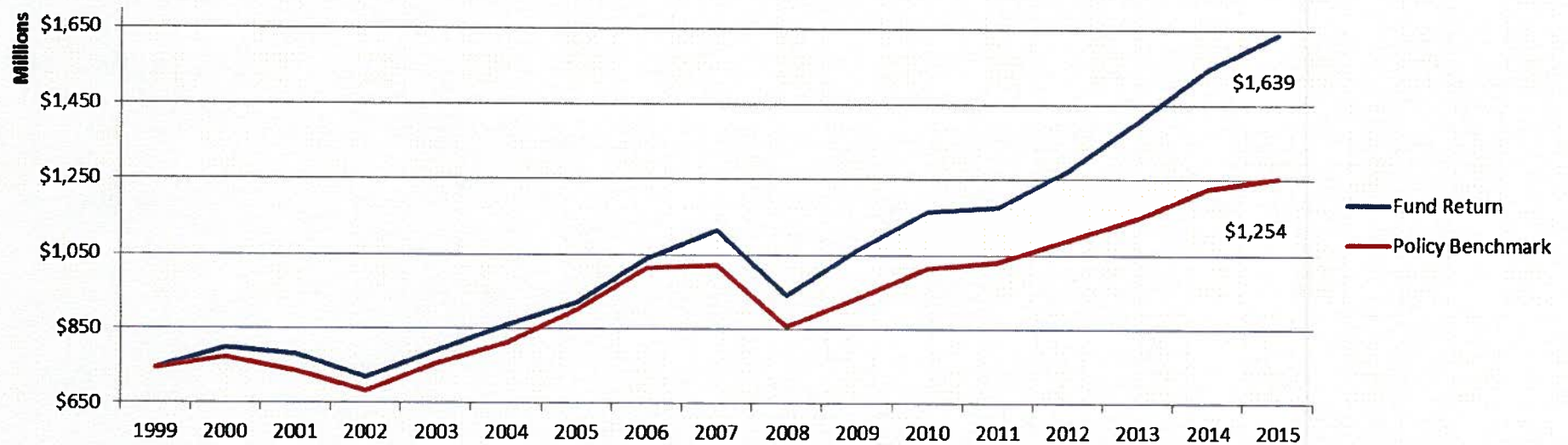
Total Fund Returns – September 30, 2015

	Current Quarter	1-Year	3-Year Annualized	5-Year Annualized	Since Inception (Oct 1999)
Fund Return	0.59%	9.12%	9.88%	8.91%	6.93%
Policy Benchmark*	-1.25%	4.31%	6.18%	6.04%	5.47%
Excess Return	1.84%	4.81%	3.70%	2.87%	1.46%

*Effective September 30, 2015, the Policy Benchmark is 6.7% S&P/TSX Index + 3.0% S&P/TSX 60 + 2.6% S&P 500 Index (\$CAN) + 4.2% S&P 500 Index(\$USD) + 7.1% MSCI EAFE Index (\$CAN) + 3.9% MSCI Emerging Markets (CAN\$) + 6.6% MSCI World (CAN\$) +19.1% FTSE TMX Canadian Universe + 14.7% 3 Month Bankers Acceptance + 32.1% Min. Target Return.



Since Inception Performance



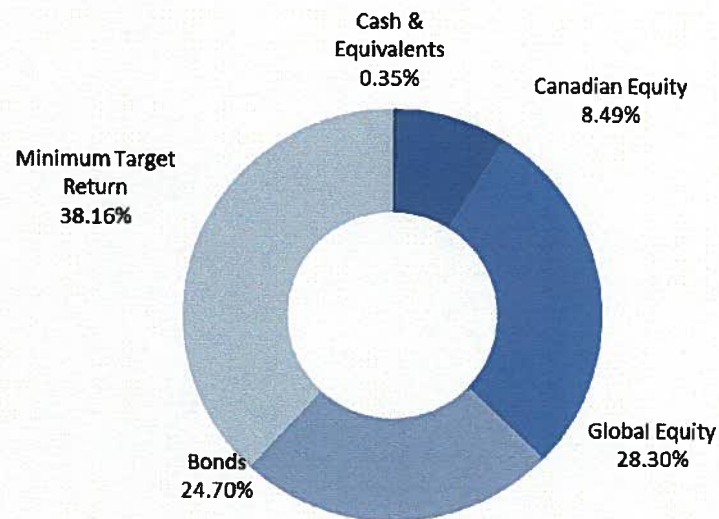
In dollar terms, the fund has grown \$385.0 Mln in excess of the policy benchmark since inception.



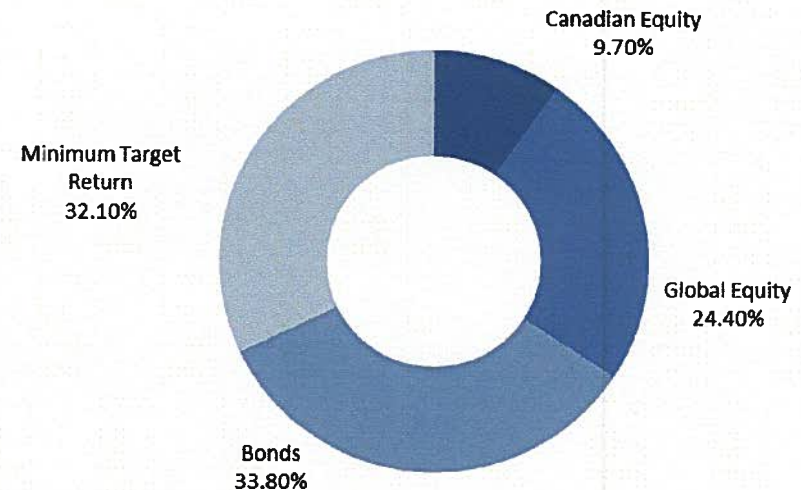


Asset Mix – September 30, 2015

Actual Asset Mix
As of September 30, 2015



Asset Mix Policy
As of September 30, 2015



*Effective September 30, 2015, the Policy Benchmark is 6.7% S&P/TSX Index + 3.0% S&P/TSX 60 + 2.6% S&P 500 Index (\$CAN) + 4.2% S&P 500 Index(\$USD) + 7.1% MSCI EAFE Index (\$CAN) + 3.9% MSCI Emerging Markets (CAN\$) + 6.6% MSCI World (CAN\$) + 19.1% FTSE TMX Canadian Universe + 14.7% 3 Month Bankers Acceptance + 32.1% Min. Target Return.





Equity Market Index Returns

Indexes	Current Quarter	1-Year Ending Sept 30, 2015	4-Year Ending Sept 30, 2015
Canadian Equity (S&P/TSX Capped Index)	-7.86%	-8.38%	6.57%
US Equity (S&P 500 C\$)	0.46%	18.77%	24.26%
US Equity (S&P 500 U\$)	-6.44%	-0.61%	16.61%
EAFE Equity (MSCI EAFE C\$)	-3.61%	9.16%	14.66%
Emerging Markets (MSCI EM C\$)	-11.84%	-3.54%	6.40%
World Equity (MSCI World C\$)	-1.70%	13.42%	19.02%

All markets with the exception of the S&P 500 (C\$) earned negative returns in Q3 2015. One-year returns have been positive for S&P 500 (C\$), MSCI EAFE (C\$), and MSCI World (C\$). Stock market returns have been robust over the 4-year time period.



Bond Market Index Returns

Bond Indexes	Current Quarter	1-Year Ending Sept 30, 2015	4-Year Ending Sept 30, 2015
Canadian Long Duration Bonds (FTSE TMX Canada Long Government)	-0.05%	8.33%	5.32%
Canadian Universe Bonds (FTSE TMX Canada Universe)	0.15%	5.29%	3.90%
Canadian Corporate Bonds (FTSE TMX Canada All Corporate)	-0.16%	3.98%	4.56%

Universe bonds have outperformed Corporate bonds over the Q3 and 1 year periods but underperformed for the 4 year period.

Long bonds have outperformed Universe and Corporate bonds over the 1 and 4 year periods.



Fixed Income – Q3 Summary

- The MT's Fixed Income portfolio returned 0.10%, which underperformed its benchmark return of 0.17% by 0.07%. The underperformance was primarily due to manager underperformance in the short duration mandates.
- The MT's corporate bond component of the FTSE TMX Canada Universe mandate returned 0.82% outperforming the FTSE TMX Canada All Corporate Bond Index return of -0.16% by +0.98%.
- The MT's Universe Bond mandate returned 1.00%, outperforming the FTSE TMX Canada Universe Bond Index by +0.85%.
- The MT's combined short duration portfolio returned -1.45% in Q3, underperforming the 3 Month BA return of 0.19% by 1.64%.



Equity – Q3 Summary

- In absolute terms, the MT's Equity portfolio returned -3.67% during the quarter, outperforming the equity policy benchmark by +1.66%.
- Within the Equity portfolio, the Canadian, US, Emerging Markets, and World equity allocations outperformed their benchmarks while the EAFE equity portfolio trailed its benchmark.

Equity Indexes	Excess Return Over Benchmark Q3 2015
Canadian Equity	0.93%
US Equity	1.04%
EAFE Equity	-0.27%
EME Equity	4.38%
World Equity	2.47%