



P.O. Box 1749
Halifax, Nova Scotia
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Item No. 3
Halifax Regional Council
June 26, 2012

TO: Mayor Kelly and Members of Halifax Regional Council

Original Signed

SUBMITTED BY:

Carl Yates, General Manager, Halifax Water

DATE: June 13, 2012

SUBJECT: Halifax Regional Water Commission 2010/11 Annual Report

INFORMATION REPORT

ORIGIN

Ongoing operational requirement.

BACKGROUND/DISCUSSION

The Board and staff of Halifax Water are pleased to present the attached Fifteenth Annual Report for the fiscal year ended March 31, 2011. The 2010/11 fiscal year was one of significant progress with innovative approaches taken to ensure efficient and effective service delivery.

As profiled in the report, Halifax Water completed a major rehabilitation of the Pockwock water transmission main along Dunbrack Street using trenchless technology, enhanced its water loss control program, and started in on optimizing performance of the Halifax Harbour Solutions Plants with full transfer of responsibility from HRM on August 1, 2010.

During the year, Halifax Water also positioned itself to align with the Provincial COMFIT program with a vision to harness wind and water in the generation of renewable energy.



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The real benchmark of how we are doing comes from the customers we serve. The annual survey conducted in December 2011 showed that 89% of customers rated drinking water provided by Halifax Water as good to excellent. A sub-category surveyed under drinking water quality was Water Safety. In this category Halifax Water came in at a very high 97% of customers rating our water as safe or very safe.

For Service Excellence, two categories address this broader topic, Satisfaction with Halifax Water's Products & Services, and Satisfaction with Halifax Water's Overall Service Delivery. In these categories the results were 95% and 96% respectively.

We appreciate the support of Regional Council and our customers as we continue down the road implementing innovative practices in the delivery of high quality, affordable water, wastewater and stormwater services.

BUDGET IMPLICATIONS

N/A

ALTERNATIVES

N/A

ATTACHMENT

Halifax Regional Water Commission 2010/11 Annual Report

Additional copies of this report, and information on its status, can be obtained by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Original Signed

Report Prepared by:

Carl D. Yates, M.A.Sc., P.Eng., General Manager, HRWC, 490-4840



Fifteenth Annual Report
March 31, 2011



Cover images top left: Continuous testing to ensure high quality water.
Top middle: Innovative pipe sled for Pockwock water transmission line sliplining
Top right: Safety first when inspecting wastewater/stormwater pipes



Our Mission

*To provide world-class services for
our customers and our environment.*

Our Vision

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



Letter from the Chair



November 7, 2011

Mayor Peter Kelly and Members of Council

Re: 2010/11 Annual Report

On behalf of the Halifax Water Board, I am pleased to present the Annual Report for the 2010/11 fiscal year. The 2010/11 fiscal year marked a significant milestone with the total completion of the Halifax Harbour Solutions Project after Halifax Water assumed all of the assets and project management responsibilities, effective August 1, 2010. This completes the intent and fulfillment of the Transfer Agreement executed between HRM and Halifax Water, giving rise to the water, wastewater, and stormwater merger in 2007.

With this milestone, a renewed focus will be placed on optimizing operations for all of the wastewater treatment facilities to reduce costs now that the implications of full operations are being realized. In particular, efforts will be placed on reduction of energy costs and chemical usage, and compliance with operating permits. In regards to energy, Halifax Water will also be reviewing the Provincial Community Feed-in Tariff (COMFIT) Program to recognize benefits to the Utility, our customers and the environment we serve. Halifax Water is exploring opportunities for the installation of wind turbines on watershed lands and looking at the potential to generate electricity from turbines installed within the water distribution system.

Trenchless technology continues to play an important role in Halifax Water's infrastructure renewal and rehabilitation program and is being pursued with vigor to realize cost benefits and minimize disruption to our customers and the general public. A highlight for the 2010/11 fiscal year in this regard, was the successful rehabilitation of the Pockwock Transmission main along a section of Kearney Lake Road and Dunbrack Street. This project was completed on time and on budget with the sliplining of a 42" diameter steel pipe inside the host 48" diameter prestressed concrete cylinder pipe.

From a financial perspective, Halifax Water realized a loss of \$6.20 Million for 2010/11 compared to a budgeted loss of \$3.27 Million. Even with this loss, Halifax Water returned \$3.75 Million to HRM to fulfill our obligations with the grant-in-lieu of taxes/dividend agreement. The additional loss was attributed to a delay in our general rate application and the subsequent decision from the Nova Scotia Utility and Review Board. As part of the decision, the Utility and Review Board did not adopt the utility's projections for declining consumption, opting instead to base rates on 2009/10 consumption. Metered consumption declined 2.6% in 2010/11 in comparison to 2009/10. Notwithstanding this drop in consumption, Halifax Water continues to promote water conservation because in the long run, both our customers and the environment will benefit. Halifax Water also takes care of its own backyard with its steady approach to controlling leakage in the distribution system. Halifax Water has been recognized internationally for its innovative approach to water loss control, with direct savings of \$0.6 Million on an annual basis.

The 2011/12 fiscal year will see a focus on reconciliation of our formal Cost of Service and Rate Design Methodology through a public process under the oversight of the Nova Scotia Utility and Review Board. The utility will also develop an integrated resource plan and debt strategy to serve

as a framework for its long-term plans of infrastructure renewal.

Halifax Water will continue to challenge itself to be innovative and strategic in its service delivery as new regulations associated with the CCME Strategy take effect in 2012 and protection of the environment is embraced by our society. We thank HRM Council and the many stakeholders and customers that support the activities of Halifax Water as we live out our mission to provide world class services for our customers and our environment.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Colleen Purcell". The signature is fluid and cursive, with the first name "Colleen" written in a larger, more prominent script than the last name "Purcell".

Colleen Purcell, CA
Chair of the Board

Innovation



What defines a water, wastewater and stormwater utility as innovative? Is it their drive to become more energy efficient, or their ability to stem leakage in the distribution system through a leading edge approach? Is it a continuous improvement culture that puts research and technology to work for better bottom line results and improved customer service? Or is it implementation of best practices to attract, retain and train the best and brightest staff? In the case of Halifax Water, it is all of the above.

The 2010/11 fiscal year was one of significant progress where innovation was the rule. Halifax Water completed a major rehabilitation of the Pockwock water transmission main along Dunbrack Street using trenchless technology that saved money, shortened the construction schedule and minimized disruption to the local Wedgewood/Bridgeview community. Not satisfied with being a leader in water loss control, Halifax Water staff harnessed technology to support its pressure management research and synchronized dual feeds supplying water to a district in central Dartmouth. Utilities across North America are knocking on our door to see how we can help them achieve the same results. The utility completed and started the implementation of its SCADA master plan which will provide enhanced monitoring and data capture for the hundreds of water, wastewater and stormwater facilities operating throughout HRM. Halifax Water constructed its first membrane treatment plants in Wellington and Middle Musquodoboit bringing all systems into compliance with the strictest drinking water standards in Canada. Closed Circuit Television (CCTV) capability was acquired during the year to enhance our ability to assess the state of wastewater and stormwater pipes leading to better investment decisions as we upgrade an old and deteriorated system. During the year, Halifax Water positioned itself to take advantage of Provincial initiatives around renewable energy with a vision to harness wind and water in the generation of electricity.

Although we have invested in technology and research, we have also invested in our human resources. We have found talent locally and abroad through our partnership with Dalhousie University, the Nova Scotia Community College, and by our reputation. Halifax Water has a track record dating back to 1945 as a utility that taps talent and technology, the very essence of innovation.

A large, stylized handwritten signature in black ink that reads "Carl Yates". The signature is fluid and cursive, with a long, sweeping underline that extends to the right.

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

Board Of Commissioners

March 31, 2011



Colleen Purcell, CA
Chair



Councillor Bill Karsten
Vice Chair



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



B. Rooney, C.A.
Director, Finance and
Customer Service



**Councillor
Jerry Blumenthal**
Commissioner



**Councillor
Russell Walker**
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J. Hannam, MBA, P.Eng.
Director, Engineering and
Information Services



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Services



Mayor Peter Kelly, MBA
Commissioner



Wayne Anstey, LL.B.
Commissioner



S. Arora, M.A.Sc., P.Eng.
Director, Wastewater Services



R. Campbell, M. Eng., P.Eng.
Director, Water Services



**David Melvin, B.A. (Hons),
M.P.A., LL.B.**
Commissioner



Rick Paynter, B.Eng., DPA
Commissioner



V. Veinot, MPA
Director, Human Resources

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How to reach us:

For more information about Halifax Water and its services, visit our website at www.halifaxwater.ca, contact Customer Service at (902) 490-4820, e-mail us at Cust_Inq@halifaxwater.ca, fax us at (902) 490-4749, or write us at P.O. Box 8388 RPO CSC, Halifax, N.S., B3K 5M1.

General Information of Utility

Year Ended March 31, 2011

Water

Precipitation

Measured at Pockwock	
Rainfall	1 274 mm
Snowfall	231.4 cm
Measured at Lake Major	
Rainfall	1 225.6 mm
Snowfall	173.5 cm

Sources of Supply and Watershed Areas

Pockwock Lake	5 661 ha
Safe Yield	145 500 m ³ /day
Chain Lake	206 ha
Safe Yield	4 500 m ³ /day
Lake Major	6 944 ha
Safe Yield	65 900 m ³ /day
Lake Lamont/Topsail	346 ha
Safe Yield	4 500 m ³ /day
Bennery Lake	644 ha
Safe Yield	2 300 m ³ /day

Water Supply Production (Cubic Metres)

Pockwock Lake	31 415 962
Lake Major	14 575 230
Bennery Lake	375 790
Small Systems	69 742
Total	46 436 724

Storage Reservoirs (Elevation Above Sea Level)

Lake Major	(60 m)	9 092 m ³
Pockwock	(170 m)	13 600 m ³
Geizer 158	(158 m)	36 400 m ³
Geizer 123	(123 m)	31 800 m ³
Cowie	(113 m)	11 400 m ³
Robie	(82 m)	15 900 m ³
Lakeside		
/Timberlea	(119 m)	5 455 m ³
Mount Edward 1	(119 m)	22 728 m ³
Mount Edward 2	(119 m)	22 728 m ³
Akerley Blvd.	(119 m)	37 727 m ³
North Preston	(125 m)	1 659 m ³
Meadowbrook	(95 m)	9 091 m ³
Sampson	(123 m)	12 273 m ³
Stokil	(123 m)	23 636 m ³
Waverley	(86 m)	1 364 m ³
Middle		
Musquodoboit	(81m)	275 m ³
Aerotech	(174 m)	4 085 m ³
Beaver Bank	(156 m)	6 937 m ³

Total Storage Capacity 259 213 m³

Transmission and Distribution System

Size of mains	50 mm - 1 500 mm
Total water mains	1 307 km
Main valves	13 027
Fire hydrants	7 673
Distribution Pumping Stations	20
Pressure Control/Flow Meter Chambers	107

Services and Meters

WATER	
Sprinkler services (25 mm - 300 mm)	1 973
Supply services (10 mm - 400 mm)	85 237
Meters (15 mm - 250 mm)	80 049
Wastewater services	77 552

Treatment Processes

J. Douglas Kline Water Supply Plant

Source	- Pockwock Lake
Process	- Dual media direct filtration
	- Iron and manganese removal
8 filters	143 m ² /each
Max. flow rate	0.137 m ³ /m ² /min
Design capacity	227 000 m ³ /day
Average production	91 872 m ³ /day

Lake Major Water Supply Plant

Source	- Lake Major
Process	- Upflow clarification and trimedia filtration
	- Iron and manganese removal
4 filters	85 m ² /each
Max. flow rate	0.192 m ³ /m ² /min
Design capacity	94 000 m ³ /day
Average production	43 742 m ³ /day

Small Systems

Bennery Lake

Source	- Bennery Lake
Process	- Manganese removal, sedimentation, dual media filtration
2 filters	26.65 m ² /each
Max. flow capacity	0.10/m ³ /m ² /min
Design capacity	7 950 m ³ /day
Average production	3 400 m ³ /day

Collins Park

Source - Lake Fletcher
Process - Multi-media pressure filter/ultraviolet disinfection
- Turbidity removal
Average production 64 m³/day

Middle Musquodoboit

Source- Musquodoboit River
Process- Raw water infiltration gallery
- Pressure filter
- Turbidity removal
Average production 61 m³/day

Five Island Lake

Source - 1 well
Process - Ultraviolet disinfection
Average production 8 m³/day

Silver Sands

Source - 2 wells
Process - Green sand pressure filters
-Iron and manganese removal
Average production 27 m³/day

Miller Lake

Source - 3 wells
Process - Arsenic removal with G2 Media
Average Production 24 m³/day

ha - hectare
m - metre
m² - square metre
m³ - cubic metre
mm - millimetre
km - kilometre
cm - centimetre

Population Served

Halifax Regional Municipality
Estimated population served 350 000
Consumption per capita 311 litres/day

General Information of Utility

Year Ended March 31, 2011

Wastewater/Stormwater

Wastewater Treatment

Facilities	Process	Design Capacity	Area Served	Receiving Water
Halifax	Enhanced Primary - U.V.	139 900 m ³ /d	Halifax	Halifax Harbour
Dartmouth	Enhanced Primary - U.V.	83 800 m ³ /d	Dartmouth	Halifax Harbour
Herring Cove	Enhanced Primary - U.V.	28 500 m ³ /d	Halifax-Herring Cove	Halifax Harbour (Outer)
Mill Cove	Secondary - U.V. / Pure oxygen activated sludge	28 400 m ³ /d	Bedford-Sackville	Bedford Basin
Eastern Passage	Primary - Chlorine	17 700 m ³ /d	Cole Hbr-East Passage	Halifax Harbour
Timberlea	Enhanced Primary - Chlorine / RBC	4 540 m ³ /d	Beechville-Lakeside-Timberlea	Nine Mile River
Aerotech	Tertiary - U.V. /SBR	1 400 m ³ /d	Aerotech Park-Airport	Johnson River
Springfield Lake	Secondary - Chlorine / Activated sludge	543 m ³ /d	Springfield Lake	Fenerty Lake
Fall River	Tertiary - U.V. / Activated sludge and post filtration	454.5 m ³ /d	Lockview-McPherson Road	Lake Fletcher
North Preston	Tertiary - U.V. / SBR and engineered wetland	345 m ³ /d	North Preston	Winder Lake
Middle Musquodoboit	Secondary - U.V. / RBC	114 m ³ /d	Midd Musquodoboit	Musquodoboit River
Uplands Park	Tertiary - U.V. / Trickling filter and wetland	91 m ³ /d	Uplands Park	Sandy Lake
Wellington	Secondary - Chlorine / Activated sludge	68 m ³ /d	Wellington Station	Grand Lake
Frame SD	Secondary - Chlorine / Activated sludge	80 m ³ /d	Frame Sub-Division	Lake William

RBC = Rotating Biological Contactor;
SBR = Sequencing Batch reactor;
U.V. = Ultra Violet

Wastewater & Stormwater Collection System

Size of pipes	200 mm - 4 450 mm
Total sewer length	2 083 km
Total manholes	32 981
Total Pumping Stations	172

Wastewater/Stormwater Control Structures

Stormwater	Capacity (m ³)	Stormwater	Capacity (m ³)
C Meadowbrook Retention Pond	190	E Shubie Drive Retention Pond	19,500
C Chandler Drive Holding Tank	263	E Countryview Drive Retention Pond	3,200
W Oceanview Drive Retention Pond	3,700	E Commodore Drive Retention Pond	9,400
W Transom Drive Retention Pond	9,900	E Lemlair Row Retention Pond	15,300
W Glenbourne Estates Retention Pond	430	E Forest Hills Retention Pond	5,000
W Parkland Avenue Retention Pond	36,000	E Cole Harbour Commons	2,000
W Glen Forest Weir / Retention Pond	12	E Guysborough Retention Pond	9,000
W Lacewood Retention Pond	5,300	E John Stewart Dr Retention Pond A&B	550
W Susie Lake Control Structure	35,600	E Stewart Harris Drive Retention Ponds	160
W Volvo West Retention Pond	55,600	E Cranberry Lake Retention Pond	108
W Old Sambro Road Retention Pond	20	E Gregory Drive Retention Pond	80
W Graystone Road Retention Pond	300	E Main Street Retention Pond	130
W Tamarack Drive Retention Pond	270	E Kuhn Marsh Dam	60,000
W Roaches Pond Holding Tank	6,120	E Bissett Lake Holding Tank	4,546
E Heritage Hills Retention Pond	13,800	E Ellenvale Holding Tank	780
E Clement Street Retention Pond	244,000	E Valleyford Holding Tank	1,650
E Maynard Lake Dam	172,000	E Sullivan's Pond Culvert	44,000

C = Central; W = West; E = East

Financial Overview

Abbreviated Financial Information

March 31, 2011

(In thousands)

ASSETS

Fixed

Utility Plant in Service at Cost	\$ 1,113,048
Provision for Depreciation	(\$ 219,415)

Depreciated Cost of Utility Plant	\$ 893,633
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Plant Under Construction	\$ 13,527
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Other	\$ 2,254
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Current	\$ 52,215
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TOTAL ASSETS	\$ 961,629
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LIABILITIES

Long Term Debt	\$ 146,118
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Other Than Long Term Debt	\$ 36,924
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TOTAL LIABILITIES	\$ 183,042
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EQUITY

Special Purpose Reserves	\$ 17,973
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Contributed Capital Surplus	\$ 743,911
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	\$ 761,884
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Operating Surplus April 1, 2010	\$ 23,341
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2010/2011 OPERATIONS

Operating Revenue		\$ 89,680
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Financial Revenue		\$ 2,824
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Revenue From all Sources		\$ 92,504
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Expenditures

Operating Expenses		\$ 63,967
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Depreciation and Loss on Disposal		\$ 8,865
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Grant in lieu of taxes HRM		\$ 3,749
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Financial		\$ 22,124		\$ 98,705
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Excess of Expenditures over Revenue		(\$ 6,201)
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Stewardship Contributions		(\$ 437)
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	\$ 16,703
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TOTAL EQUITY	\$ 778,587
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TOTAL LIABILITIES & EQUITY	\$ 961,629
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Innovation

The success of any business rests on its ability to stay ahead of the curve and foresee regulations, trends, and innovations for early adoption.

Being innovative also helps an organization attract and retain the best and brightest staff, as well as provide customers with the affordable world class services they deserve and expect.

Halifax Water prides itself on being innovative and focused on tracking industry trends and regulations, and moving on them before they are upon us.

Over the past fiscal year we have moved ahead on a number of key projects. These projects cover the span of our operations from pipes in the ground, to cutting edge digital monitoring systems, and energy conservation.

During the summer and fall of 2010, a 1.5 km section of the PockWock water transmission main along the Kearney Lake Road-Dunbrack Street Corridor was rehabilitated using sliplining technology which involves inserting a new pipe inside the larger host pipe. The older host pipe will remain in place and continue to provide a protective shell around the new pipe.

The sliplining solution was chosen over the traditional open cut and replacement option thereby reducing the cost of pipe installation and street reconstruction. Less excavation and reinstatement work also reduces the construction schedule and associated impacts on the neighbourhood and traffic flow.

The project and technology was so successful it will be employed again for Phase 2 of the project, which is slated to get underway in the spring of

2012, picking up where it left off, and ending at Lacewood Drive.

This fiscal year also saw the completion of our SCADA(Supervisory Control and Data Acquisition) Master Plan. The SCADA system is key to establishing a secure communications and monitoring network for process control between our major facilities. It is also required to collect data from our remote sites and provide for peer to peer communications between facilities. The Master Plan works to ensure all systems are able to communicate with each other to ensure optimal performance and control.

Energy consumption is one of the largest cost drivers for Halifax Water. In an effort to lower these costs, and reduce our impact on the environment, we are aggressively exploring and implementing a number of energy reduction initiatives. This is not new for Halifax Water, but follows on the heels of our success with water loss control. Since 1999, Halifax Water has

reduced leakage in the distribution system by 40 million litres/day, saving the utility over \$600,000 in expense every year. With the adoption of an international best practice methodology in 1999, the world now looks to Halifax Water as a leader in leakage control.

Additional energy reduction programs/initiatives include wind turbines on our watershed lands, in-line turbines in water distribution pipes, burning of bio gas at wastewater treatment facilities, heat recovery from wastewater effluent, as well as retrofitting of building lighting and heating systems. Other programs are also being explored with the hiring of a full time energy efficiency engineer to co-ordinate corporate efforts.

Innovations such as those mentioned above are just some of the ways Halifax Water is working to provide world class services for our customers and our environment.

Pockwock watermain sliplining project, Kearney Lake Road



High-quality water

The maintenance of existing infrastructure, and construction of new assets, is key to providing our customers with safe, reliable, affordable high-quality drinking water.

During the 2010/11 fiscal year Halifax Water made considerable investments in water infrastructure. Two new modern membrane treatment plants were commissioned in Collins Park and Middle Musquodoboit at a cost of \$3.5 million. These new plants were built in response to Nova Scotia Environment's drinking water strategy. The plants use membrane technology, among the most modern available, to remove pathogens and organic carbon from the water without using chemicals. A combination of ultraviolet light and chlorine is used for disinfection. Residents will notice a tremendous improvement in water quality.

New Collins Park water treatment facility

The Sampson Reservoir, located in Lower Sackville received a complete paint job. This project dramatically improved the aesthetic appearance of this area landmark.

In a continuing effort to provide information and greater public awareness to Halifax Water's Source Water Protection Program, our website was enhanced. The website provides details related to our watersheds, watershed protection planning, facilities, regulations related to environmental protection, land acquisition, sound forest and land management practices, source water area monitoring, public awareness, involvement and education, as well as on-going research projects and initiatives. Visit halifaxwater.ca and follow the links to access this great new information resource.

Continuous improvement and

research helps keep Halifax Water on the leading edge of water related issues. As part of our commitment to maintain high quality drinking water standards, and advance water research, Halifax Water hired its first full time Water Quality Manager, Alisha Knowles. Dr. Knowles is a graduate of Dalhousie University and studied with Dr. Graham Gagnon, a professor in civil engineering and a well-known researcher in the North American drinking water industry. Dr. Gagnon is Chair of the Halifax Water sponsored Natural Science and Engineering Research Council (NSERC), Industrial Research Chair in Water Quality and

Sampson Reservoir



Treatment at Dalhousie University.

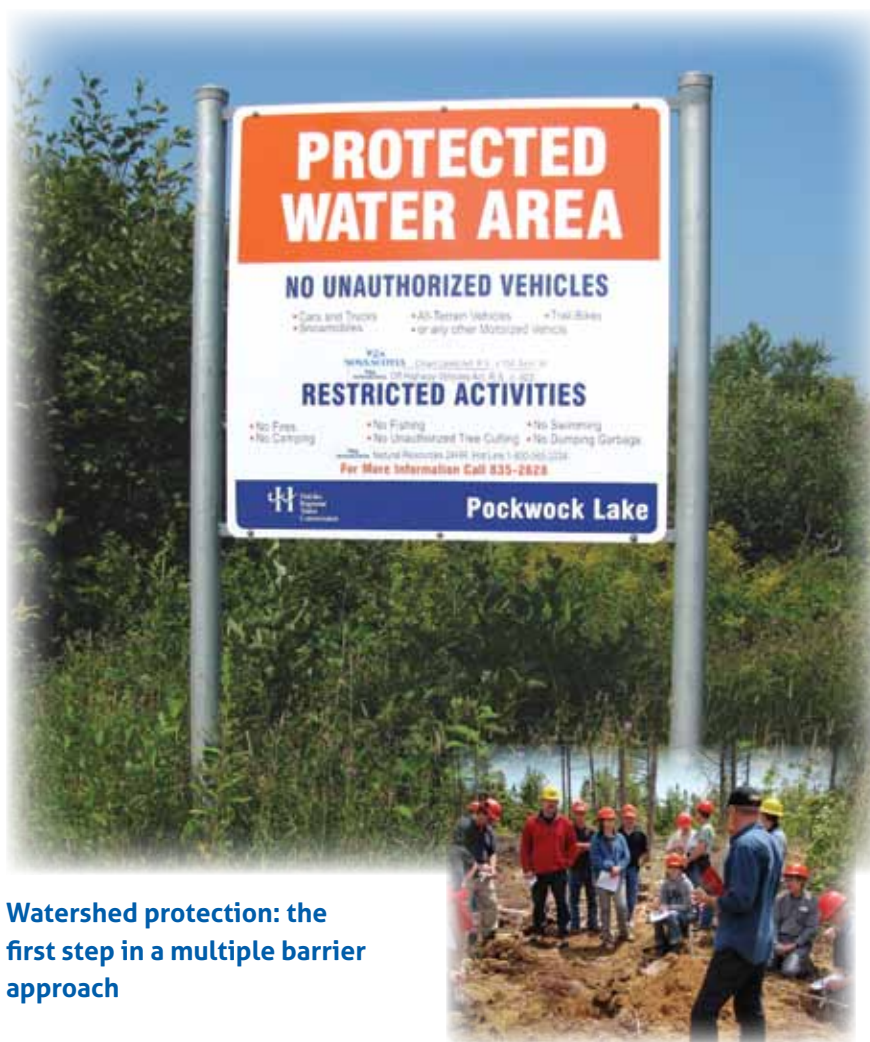
This addition to our team helps Halifax Water remain closely involved in water research and further signifies our commitment to providing high quality water to our customers.

A key area of research in 2010/11 centred around lead which can pose a significant health risk. People who are exposed to lead for an extended period of time may be at risk of developing certain adverse health effects.

The primary source of lead in residential drinking water results from materials containing lead in the distribution system or household plumbing systems. In addition, brass found in faucets and plumbing fittings and devices could contain up to 8% lead.

Halifax Water formed a partnership with Dalhousie University to provide water quality testing in Dalhousie University buildings with lead services. This was part of a broader effort by Dalhousie to assure students that water available on campus met high safety standards, and for Halifax Water to build experience in dealing with new Health Canada Guidelines for lead in drinking water. The program also provided Halifax Water with valuable insights as it moved ahead with an enhanced residential lead service line replacement program.

During the weekend of September 3, 2010 Hurricane Earl made its presence felt throughout the province of Nova Scotia, and did not spare HRM. Halifax Water crews were out in force preparing all facilities for the impending storm. Both Lake Major and Pockwock water treatment plants were temporarily without mainline power, but staff were able to maintain uninterrupted water service with operation of backup generators.



Watershed protection: the first step in a multiple barrier approach



New Middle Musquodoboit water treatment facility

Service excellence

The Commission ended the year with 80,694 water customer connections and 77,552 wastewater/stormwater customer connections. These included both the urban core, satellite and airport/aerotech systems.

Customer service staff answered 57,500 telephone enquiries during the year, 1,500 less than the previous year. The average call wait time to answer was 76 seconds which was just over the benchmark of 70 seconds, as set by the utility's corporate balanced scorecard.

In August 2010, an additional payment option was offered to customers interested in using their credit card to pay their utility bill or invoice. Halifax Water partnered with Paymentus Corporation, a third party automated service provider that accepts Visa and MasterCard for a facility fee that returns 100 % of the payment to Halifax Water.

The conversion of meters 20 mm (3/4") diameter and above to a mobile radio frequency(RF) system continued with these meters switched to monthly reading and billing as they were converted. The program to install RF meters in all new 15 mm (5/8") diameter accounts, as well as routine replacements, continued through the year. This recognizes the conversion of the largest customer base to enable more frequent reading and billing without incurring significant operational costs. At the end of the year, 100% of the large meters (3" diameter and above), 56.7% of the mid-sized meters (3/4"-2" diameter) and 18% of the small meters (5/8" diameter) had been converted.

The large meter and statistical sample testing programs continued during the year to ensure the accuracy of Halifax Water's billing system. The

increased emphasis on collection and chronic delinquent customers was continued and resulted in write off of uncollectable accounts of 0.3% of metered sales for the year, an excellent result.

There was additional staffing added in the accounting department to accommodate the increased workload. Changes were made to the billing system to accommodate the changes to the rate structure approved by the NSUARB. Internal controls were reviewed and updated where necessary. A standardized budgeting system was developed and implemented across all departments for the 2010/11 fiscal year. It will improve the budgeting and business plan process, and provide a solid foundation for the Cost of Service/ Rate Design hearing in November 2011, and future Rate Applications.

Replacing a lead water service line with a copper line



Responsible financial management

The 2010/11 fiscal year saw a number of operational and financial factors come into play resulting in a loss of \$6,201,000, compared to a budgeted loss of \$3,272,000. There were several factors that contributed to the result such as the first full year of operation, maintenance, and depreciation of the Halifax Harbour Solutions assets, which resulted in a significant increase in operating costs. The utility also felt the impact of a less than favourable decision from the NSUARB in relation to the 2010 rate Application.

The Commission submitted a rate application to the Nova Scotia Utility and Review Board (NSUARB) before the end of the previous fiscal year and a public hearing had been scheduled for June 2010. At the request of interveners the hearing was postponed until September and the NSUARB issued its decision in December with rates to be effective January 1, 2011. The main provisions of the rate decision were:

1) No change in water rates other than a change in capacity ratios for 15mm and 250mm diameter meter sizes to bring them in line with industry standards.

2) A base charge for wastewater and stormwater related to meter size and the existing environmental protection charge and wastewater management charge were combined at the existing rate into a single effluent charge. These charges apply to both wastewater and stormwater service.

3) A consolidated schedule of rules and regulations for the provision of the three services was approved replacing the three separate schedules that existed previously.

In addition the NSUARB ordered

that a separate cost of service and rate design hearing be held prior to the next rate application. The NSUARB further ordered that a debt study be completed, and an integrated resource plan be undertaken with guidance from consultants hired by the NSUARB. The work on all three of these initiatives was underway by the end of the fiscal year.

The approval of a base charge for wastewater/stormwater had the effect of transitioning the cost of service and therefore the rate burden from the industrial, commercial and institutional customers to the residential customer. With this combination of rate increase and rate transition, the percentage increase was different for each customer class. The increase is projected to generate an additional \$13,644,000 in annual base charges for the operation of the wastewater and stormwater system.

The combined financial results achieved in fiscal year 2010/2011 were worse than the projected loss due to the delay in the rate hearing and the subsequent decision. In addition the NSUARB did not recognize utility projections for declining consumption and instead based volumetric charges on the 2009/10 consumption and did not provide for any recognition of decreases in consumption for 2010/11. Metered consumption declined 2.6% for 2010/11 over 2009/10 and the reduction in consumption revenue resulting from this contributed to the increase in the loss. The net loss of \$6,201,000 exceeded the projected budget loss by \$2,929,000. While operating expenditures were under budget it was not sufficient to

recover the reduction in operating revenue. As the financial statements are presented in accordance with the recommendations of the Accounting and Reporting Handbook (Handbook) for Water Utilities as issued by the NSUARB, the results include the total cost of debt servicing.

A summary of the actual and budget variances is summarized below. In comparing the actual and budget results for 2010/11 it must be noted that the budget was based on operation of the Halifax Harbour Solutions (HHS) project components for the full year, while the actual results include 10 months of operation as the Halifax Wastewater Treatment Facility was recovered after the flooding incident, and the majority of the Dartmouth and Herring Cove components reached substantial completion in June, 2010 and were transferred to Halifax Water.

A detailed review of the financial results shows that total operating revenue amounted to \$89,680,000 and was under budget by \$6,745,000. The budget provided for an increase in customer base of 980 customer connections but a decrease in total consumption of 1% and an increase in rates based on the rate application on October 1, 2011. The increase in customer connections was as projected in the budget, but the three month delay in the NSUARB rate hearing and decision, combined with a metered consumption reduction of 2.7%, and a reduced revenue requirement approved by the NSUARB, resulted in the operating revenue being under budget by 7.52%.

Water operating revenue at \$30,719,000 was \$615,000 under



Innovative hydraulic pipe sled—Dunbrack St. sliplining project

budget, while wastewater/stormwater operating revenue at \$45,532,000 was \$4,156,000 under budget for the reasons detailed above. The budget was based on the provisions in the rate application where all the rate increase was applied to wastewater and stormwater. Actual consumption for the urban core and satellite systems totaled 37,782,016 m³ and decreased 2.68% over the previous year. The consumption at the Airport/Aerotech system totaled 291,444 m³ and decreased 15.17% over 2009/2010. Public and private fire protection revenue was under budget as the budget was based on the recommendations of the cost of service study included in the rate application which were not approved in the decision. Revenue from the Airport/Aerotech system was under budget by \$110,000 and reflects a significant decline in

consumption. Other operating revenue was under budget by \$1,092,000 reflecting lower interest income on cash reserves as well as lower than projected surcharges for over-strength wastewater discharges.

Metered sales for both water and wastewater/stormwater service are the single largest component of operating revenue at \$73,571,000 or 85.0%. Fire protection amounted to \$9,502,000 or 10.6% of total operating revenue. The remaining components of operating revenue are detailed above.

Operating expenditures including depreciation amounted to \$72,832,000 and were under budget by \$3,642,000. All of the direct operating costs of providing water, wastewater and stormwater service were under budget. Water supply and treatment was under budget by \$412,000 due in part to the reduced water consumption and

lower spending in certain cost centres. Water transmission and distribution was under budget by \$1,089,000, due to a combination of lower operating costs including lower costs associated with watermain breaks. Wastewater/stormwater collection was under budget by \$778,000 and wastewater treatment was under budget by \$1,009,000. The budget anticipated that the Halifax Harbour Solutions Project would be in full operation by the end of the fiscal year. The recommissioning of the Halifax wastewater treatment facility (WWTF), and delays in commissioning of the other components of the project, resulted in these components being in full operation for only 10 months of the year. The resulting reductions in operating costs were the main reason for the overall expenditures being below budget.

Common costs including,



(Background) Halifax wastewater treatment facility—fully operational

environmental services, engineering and information services, customer service and administrative and pension are costs applicable to all services. Customer Service was very close to budget, while environmental services was under budget due to planned work not being carried out. Engineering and information services were under budget due to under spending in various external services including software licenses and consulting. Administration and pension was over budget by \$1,637,000 due to the required calculation for pension costs under CICA section 3461 which exceeded the funding contained in the budget, and the significant costs associated with the combined services rate application. Halifax Water had to cover the costs for the NSUARB and the consumer advocate, in addition to its own consultants. These were not anticipated when the budget was

prepared. The costs of operating the Airport/Aerotech system were very close to budget.

Operating revenue and expenditures combined to generate an operating profit of \$16,848,000, which was \$3,103,000 less than budget. This decrease was due mainly to the delay in the rate application hearing combined with the decline in consumption on which the volumetric rates are based.

Financial and other revenue totaled \$2,824,000 and exceeded the budget by \$448,000. The majority of this was interest on cash reserves that were higher than anticipated.

Financial and other expenditures which include interest on long term debt, principal repayment of long term debt, amortization of debt issue costs, and grant in lieu of taxes for the water service amounted to \$25,873,000 and exceeded budget by \$274,000 due to

higher principal and interest payments on long term debt.

On August 1, 2010 the remaining components of the Harbour Solutions Project, comprising the Dartmouth and Herring Cove WWTFs and the related collection system, were transferred to Halifax Water. This transfer was credited to Capital Surplus as the debt associated with the project had been recorded with the transfer in the previous year. Principal debt payments are included in the Statement of Operations with the adoption of statement presentation based on the NSUARB Handbook.

The grant in lieu of taxes/dividend to HRM in the amount of \$3.749 Million was only applicable to water service and was based on the renewed five year agreement with HRM which was approved by the NSUARB as part of the rate decision. A proposed grant in lieu of taxes/dividend for

wastewater and stormwater was not approved by the NSUARB.

In June and October 2010, Halifax Water borrowed \$5,150,000 through the Nova Scotia Municipal Finance Corporation. Of this, \$3,400,000 was for the purpose of funding, in part, the 2010/11 capital budget, and \$1,750,000 for the refinancing of a balloon payment tied to a 2000 issue which was amortized for 20 years. The refinancing was for the remaining 10 years.

The combination of factors detailed above resulted in an excess of expenditures over revenue for the year of \$6,201,000. Halifax Water continues to experience flat revenue growth in the case of water service, as the increase in customer base is offset by a decrease in water consumption. This also resulted in a decrease in revenue for wastewater/

stormwater service as the previous rates were all consumption based. The new wastewater/stormwater rate structure is a combination of base and consumption charges and will provide more revenue stability in the future. With operating and capital expenditures increasing through a combination of inflation, completion of the Harbour Solutions Project, stricter regulations and infrastructure renewal requirements, the current rates are not sufficient to carry out the mandate Halifax Water was given. Future rate applications will be required. A Cost of Service and Rate Design Hearing was ordered by the NSUARB prior to the next rate application. This will be held in November 2011, followed by a rate application.

Utility plant in service at year end totaled \$1,113,048,000 and is detailed in Schedule A of the

financial statements and represents net additions of \$240,295,000 for the year. Water fixed assets increased by a net of \$28,850,000 with the largest component in transmission and distribution mains with net additions of \$19,221,000 representing the extension and rehabilitation of the distribution system followed by small systems with net additions of \$3,714,000, and services with net additions of \$1,766,000. The remaining increase in water plant in service intangibles consisted of land and land rights, structures and improvements, meters, hydrants, transportation and other equipment. Wastewater and Stormwater fixed assets increased by a net of \$211,445,000 with the largest component being the transfer of the remaining components of the Harbour Solutions Project. The assets transferred included the Dartmouth and Herring Cove WWTFs and the related collection system. The remaining asset classes increased by a net of \$44,204,000 including the close out of some work in progress transferred from HRM in 2007. Of the total increase, \$40,573,000 represented contributions of plant in service or capital of water, wastewater and stormwater assets, and \$167,241,000 was capital surplus transferred from HRM in connection with the transfer of the Harbour Solutions Project.

At March 31, 2011, Halifax Water had plant under construction in the amount of \$13,904,000. Of this \$1,824,000 remained from the balance that was transferred from HRM in 2007. The remaining \$12,080,000 represented water and wastewater capital projects under construction and not completed at year-end.

Checking compliance through environmental monitoring



Effective asset management

Throughout the year Halifax Water staff began preparations for stakeholder engagement in the development of an Integrated Resource Plan (IRP). The IRP will identify the long-term (30-year) servicing needs for Halifax Water's water, wastewater and storm water infrastructure in a cost-effective and reliable manner.

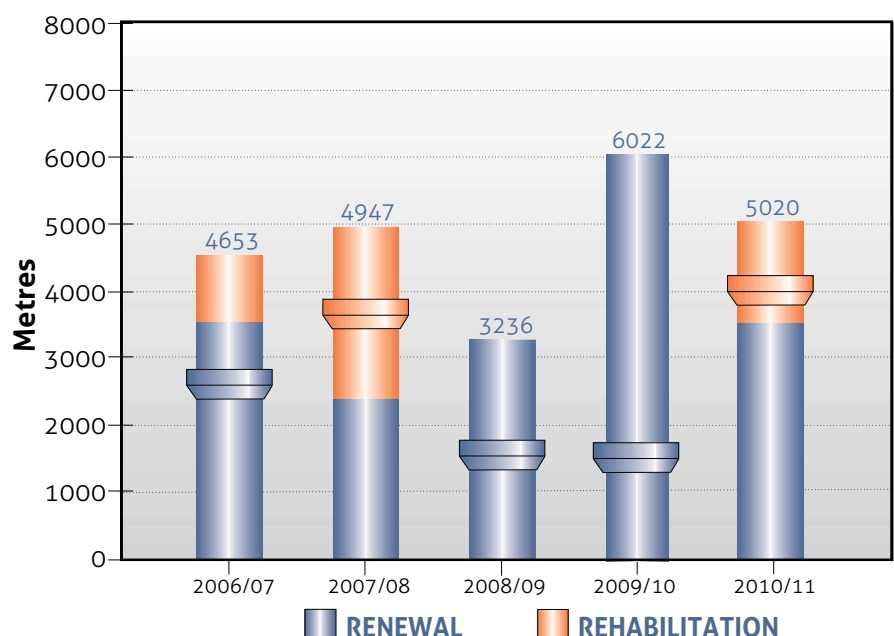
The focus of Halifax Water's first IRP is to identify the key issues facing Halifax Water, to outline the long-term implementation plan, and the necessary funding to support it. The IRP will look at requirements for renewal of existing infrastructure, new infrastructure needs to support community growth, and infrastructure requirements needed to comply with any new regulations.

The Plan will take a full system approach with respect to the water, wastewater, and stormwater systems. Halifax Water will work collaboratively with NSUARB staff and stakeholders such as the formal interveners in Halifax Water's 2010 rate hearing, Halifax Regional Municipality, Nova Scotia Environment, and the Urban Development Institute throughout the coming year through a series of IRP workshops to gain input and share information in the development of the IRP.



Infrastructure improvements—Collins Park water treatment facility construction

WATER MAIN RENEWAL/REHABILITATION PROGRAM



Regulatory Compliance for Water and Wastewater

Drinking water and wastewater are regulated in Canada by the federal and provincial governments. Provincially, Nova Scotia Environment is the responsible regulator. Drinking water sources and treated drinking water in the distribution systems are sampled to ensure regulatory compliance. Treated wastewater is also sampled to ensure compliance with discharge limits to protect both human health and the environment. All sampling is conducted in conformance with the requirements of Nova Scotia Environment. Halifax Water has a Regulatory Compliance group, part of the Environmental Services department, which conducts all of the compliance sampling, separate from the water and wastewater operational departments. All compliance samples are analysed by certified, independent laboratories.

Halifax Water continually assesses the performance of each of our systems as part of our asset management responsibilities. Decisions are made on the need to expand, upgrade or replace equipment and facilities on a priority basis, with human health and environmental impact being the key factors. Allocations of funds are made in the annual capital and operating budgets to address the identified priorities and continually improve performance.

Drinking Water Compliance

Total Coliform Bacteria

Total Coliform Sample Results		
Systems	April 2010 to March 2011	
	% Absent	# of Samples
HFX/Pockwock	99.8	1047
HFX/Pockwock Central	99.8	523
Lake Major	99.7	1208
Bennergy	100	156
Five Islands	100	104
Silver Sands	100	105
Middle Musquodoboit	100	102
Collins Park	100	106
Miller Lake	100	104
Total		
Absent (A)		3448
Present (P)		7
		3455
All Sites - % Absent		99.80%

Total coliform bacteria provide an indication of the success of disinfection for drinking water. Of 3448 water samples collected between April 2010 and March 2011, 99.8% were entirely free of bacteria. The target is 100%.

Disinfection

Chlorine is used to disinfect drinking water. Nova Scotia Environment requires that a minimum level of chlorine residual be maintained throughout the drinking water distribution system. For the eight drinking water systems between April 2010 and March 2011, the percentages of samples compliant for chlorine residual were: Pockwock

99.3%, Lake Major 98.8%, Bennergy 99.4%, Five Islands 100%, Silver Sands 100%, Middle Musquodoboit 100%, Collins Park 92.3%, and Miller Lake 100%. The target is 100%. In total, of 3522 samples measured for residual chlorine in all systems, 3487 were compliant or 99%.

The positive total coliform bacteria results were isolated instances. In each case, results were negative on immediate re-testing and on subsequent tests. Chlorine in drinking water provides for continued disinfection within the distribution system.

Cross-Connection Control


The Cross Connection Control Program is a key component of Halifax Water's "Multiple Barrier Approach" to the protection of the public water supply. Halifax Water has authority, through regulations as approved by the Nova Scotia Utility and Review Board, to require the installation of Backflow Prevention Devices (BFP) on water service lines to all industrial, commercial, institutional properties and multi-unit residential buildings (greater than four units). The BFP devices are installed to minimize the risk of potential contaminants entering the public water distribution system from the customer's premises through backflow.

Wastewater Compliance

Wastewater Treatment Facility Compliance Summary Cumulative Performance - April 2010 to March 2011

Wastewater Treatment Facility	% of Samples Compliant with Nova Scotia Environment Discharge Requirements						
	CBOD5	Total Suspended Solids	Fecal Coliform	Phosphorus	Ammonia	pH	Dissolved Oxygen
AeroTech	97	51	90	99	12	94	N/A
Belmont	64	44	55	N/A	N/A	N/A	N/A
Dartmouth HHSP*	87	78	71	N/A	N/A	N/A	N/A
Eastern Passage	31	90	84	N/A	N/A	N/A	N/A
Frame	88	63	30	N/A	N/A	N/A	N/A
Halifax HHSP*	43	95	100	N/A	N/A	N/A	N/A
Herring Cove HHSP*	97	93	97	N/A	N/A	N/A	N/A
Lakeside-Timberlea	98	78	91	98	57	N/A	97
Lockview-MacPherson	88	35	94	99	N/A	N/A	N/A
Middle Musquodoboit	100	86	96	N/A	N/A	N/A	N/A
Mill Cove	97	90	96	N/A	N/A	N/A	N/A
North Preston	100	70	100	96	91	45	N/A
Springfield	78	67	66	N/A	N/A	N/A	N/A
Uplands Park	100	96	96	N/A	N/A	N/A	N/A
Wellington	100	4	58	N/A	N/A	N/A	N/A

LEGEND:

	Achieved ($\geq 80\%$)
	Not Achieved ($<80\%$)

N/A – Not Applicable

HHSP – Halifax Harbour Solutions Project

* The three new HHSP facilities became operational part way through 2010-2011

Definitions:

CBOD5 – Carbonaceous Biochemical Oxygen Demand – a measure of the amount of organic material

Total Suspended Solids – a measure of the amount of particles in the wastewater

Fecal Coliform – bacteria which are present in the treated sewage

Phosphorus – a plant nutrient which can impact water bodies

Ammonia – a chemical compound containing nitrogen, another plant nutrient

pH – a measure of the acidity of water

Dissolved Oxygen – the amount of oxygen in the water, essential for fish and other aquatic organisms

Nova Scotia Environment sets limits on wastewater discharges

for various chemical parameters, specific to each wastewater treatment facility. The table above shows the percentage of treated wastewater effluent samples which met the Nova Scotia Environment limits between April 2010 and March 2011, for each parameter and treatment facility. To be considered compliant, Nova Scotia Environment requires that 80% of samples meet the defined limits (blue boxes). Not all parameters apply to all treatment facilities. Most facilities were compliant for CBOD and Fecal Coliform, while 6 of 15 facilities were compliant for Total Suspended Solids for the year. All of the facilities regulated for phosphorus were compliant.

Halifax Water is currently working on several different ways to upgrade

wastewater treatment facilities in order to improve performance, and progress has been made since March 2011. The Wellington facility is being replaced. The Eastern Passage facility is being expanded and upgraded, and the Belmont facility will be decommissioned and connected to the upgraded Eastern Passage facility. Options are under consideration for the Lakeside-Timberlea, Frame and AeroTech facilities. The new Halifax and Dartmouth facilities continue to optimize their treatment processes to improve performance.

Pollution Prevention

The Pollution Prevention Division of Environmental Services regulates discharges into both storm and



Sampling flows in the wastewater collection system

sanitary sewer systems to ensure compliance with Halifax Water's Rules and Regulations. The discharge of wastes such as hazardous chemicals, solvents, fuels, heavy metals and sediments, if allowed into our systems, would disrupt wastewater treatment processes, cause damage to the collection, pumping or treatment facilities, create hazardous conditions for both the public and our staff, and may result in pollution of our rivers, lakes and the harbour.

The Stormwater Inflow Reduction Program has been developed to address the most serious operational and compliance problem facing Halifax Water's wastewater systems. Wet weather related flows inundate

the sewer system resulting in impairment of treatment processes and overflows from sewer systems which discharge directly into the environment. As well, wastewater may enter into basements and impact private property resulting in a serious public health risk. Wet weather flows take up system capacity unnecessarily, and can cause Halifax Water's wastewater system to be out of compliance with provincial or federal regulations.

Smoke Testing for leaks in the sewer system



Wastewater Treatment

With the Halifax wastewater treatment facility (WWTF) back in full operation, and the beaches at Black Rock and Dingle Park open to supervised swimming, the Halifax Water project team worked to wrap up the remaining components of the largest capital project ever undertaken in HRM. The Halifax, Dartmouth and Herring Cove wastewater treatment facilities received Final Completion on March 25th, 2011. As well, various collection system components also received Final Completion on March 25, 2011.

With Final Completion achieved, Halifax Water was fully engaged in the optimization of the Harbour Solutions WWTFs, and associated systems, to keep them operating at peak efficiency. A significant effort was made to integrate the wastewater treatment facilities with the wastewater collection

system to accommodate maximum wet weather flows.

The operations and collections staff, with support from Technical Services, implemented an innovative system to control the flows entering the Halifax WWTF, while at the same time reducing the wet weather overflows into Halifax harbour. The system not only integrates the various pump stations feeding the plant, but also prioritizes the discharge location to minimize impacts on the receiving waters of Halifax harbour. These innovations provide significant environmental, as well as operational, benefits.

Halifax Water actively pursued various strategies to minimize operational costs by lowering chemical demand and energy usage. With the complex mechanical and chemical processes involved in the treatment process, this initiative will continue

to evolve as staff look for innovative ways to continuously improve our operations.

A number of Halifax Water wastewater treatment facilities have planned upgrades including the Eastern Passage WWTF, Wellington WWTF, Fall River WWTF and a UV upgrade for Uplands Park facility. Halifax Water is planning these upgrades to enhance the performance of these plants with a strategic view to meet the emerging CCME Regulations for the treatment of wastewater. The CCME regulations will be a driving force for the utility over the next 25-30 years and will have a significant financial and environmental impact on Halifax Water and our customers.

Construction on the Clarifier Upgrades at the Mill Cove WWTF got underway. The replacement of the four clarifiers, two of which were originally constructed in 1969, and

High-tech video inspection of pipes using robot mounted cameras



two from 1981, will significantly improve the treatment performance of this facility, as well as provide for improved worker safety in the maintenance and operation of the clarifiers.

Wastewater Collections:

As previously mentioned, various collection system components of the Harbour Solutions Project received final completion on March 25, 2011.

The flow optimization initiative to minimize the number of overflows into the Harbour got underway. The Roaches Pond pumping station, and additional storage tank upgrades, added additional capacity to the system thus reducing overflows into MacIntosh Run.

Halifax Water also acquired equipment for Closed Circuit Television (CCTV) inspection of its wastewater and stormwater infrastructure. This service was very limited in the past and was provided by private contractors. The CCTV Sewer inspections are an industry recognized practice and are an intricate part of evaluating the overall condition and performance of pipes. The Closed-Circuit Television (CCTV) van is fully equipped with state-of-the-art "Pan & Tilt" (P&T) video camera equipment used for mainline sewer inspection and several other small cameras to conduct lateral inspections. Halifax Water has adopted the National Association of Sewer Service Companies (NASSCO) methodology of pipeline inspection and inspects its infrastructure as per the Pipeline Assessment and Certification Program (PACP). Several Halifax Water staff have been certified to conduct these inspections and utilize industry recognized codes. The PACP is the U.S. industry standard system for coding



Safety first during inspection of wastewater pipes

defects and construction features from CCTV pipeline inspection video. Using this standard helps reduce costs, targets the resources to high priority areas, and helps ensure our customers receive the high quality, uninterrupted service they expect.

There are several other significant reasons why a sewer should be inspected:

1. To determine what areas of your pipe are suffering from corrosion and how much there is. Sewer lines can stretch for hundreds of kilometres, and it can be difficult to determine where a blockage is forming or where it occurred.
2. To prioritize areas for sewer cleaning and to determine the extent of cleaning required.
3. To judge the effectiveness of a sewer cleaning project. After you have gone through and cleaned a pipe, sewer inspection allows you to determine how much of the sediment was actually removed. This is a valuable resource in deciding whether another cleaning deployment is

necessary to prevent a blockage.

4. To use as a baseline for comparison over time. The baseline sewer inspection information is significant in that it allows analysis and visualization of changes within a pipe over time.

5. To ensure the rehabilitation is occurring where it should and not being wasted on pipes that are in good shape.

6. To investigate the problems with the service lines in the least intrusive manner and conduct repairs.

The acquisition of this in-house capability has not only made the operation much more effective but is helping engineering teams to better understand HW infrastructure.

Workplace safety and security

Staff and public safety is top priority at Halifax Water. Our Safety Program continues to evolve and improve. This year saw a total update of our Confined Space Entry Policy & Procedure. This included the purchase of portable confined space systems for manholes and confined space entry/retrieval for all operational groups within the organization.

In January, 2010 the regulations for exposure limits to Hydrogen Sulphide in Nova Scotia were reduced. Halifax Water's existing fleet of gas monitors did not comply with these regulations thereby requiring us to purchase over 150 gas monitors and to train all staff in their use.

As excavation is a daily task at Halifax Water, and the use of trench cages occurs frequently, we completed a complete review of all trench cages in Halifax Water's inventory and repaired and recertified those that required it.

Halifax Water continues to address the need to standardize the use of Personal Protective Equipment with the establishment of Halifax Water logoed vests and hard hats, personal hearing protection and respiratory



Confined space entry using proper tools and procedures

protection equipment.

Halifax Water recognizes the fact that the Federal Government has deemed water one of the ten critical infrastructure sectors in Canada. We maintain a security program to ensure our critical infrastructure is protected. Highlights of this year included more upgrading of fencing, locks, and alarm monitoring systems at numerous locations throughout HRM and further

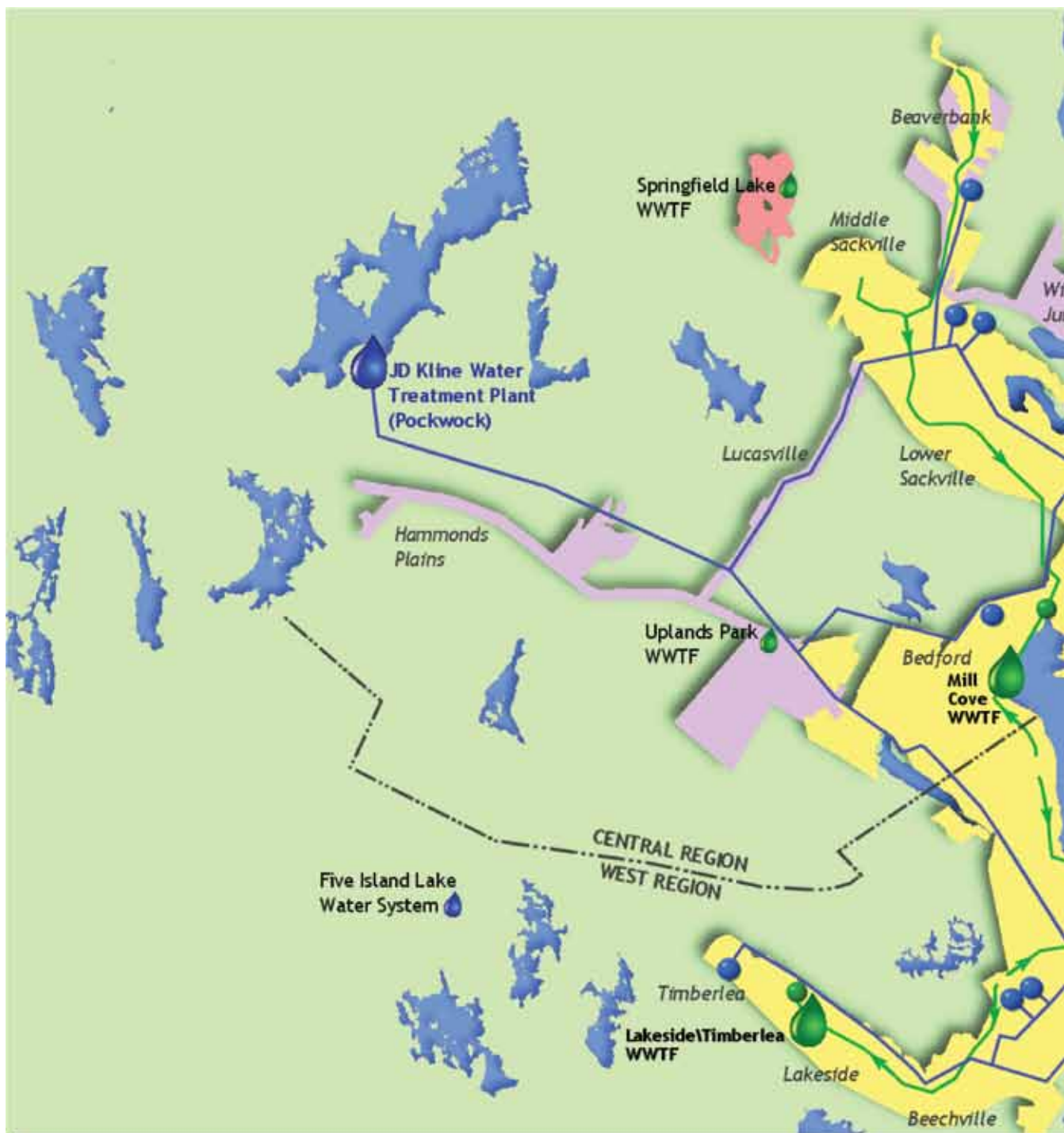
expansion of our Access Control Program and CCTV Program to protect our Harbour Solution facilities.

Along with our Security Program, our Emergency Response Plan is maintained to ensure our essential services can continue in the event of an emergency. In September, in preparation for the approach of Hurricane Earl, Halifax Water's Emergency Response Plan was activated and exercised to ensure continuity of services. Halifax Water continues to maintain and update its Emergency Response Plan on a regular basis.

These programs and activities are consistent with Halifax Water's commitment to a safe and healthy work environment for our staff, and to the security and protection of the infrastructure which provides high-quality water, wastewater and stormwater services to the citizens of HRM.

Trench safety—a key component of daily operations





Water & Wastewater Service Districts and Supporting Infrastructure

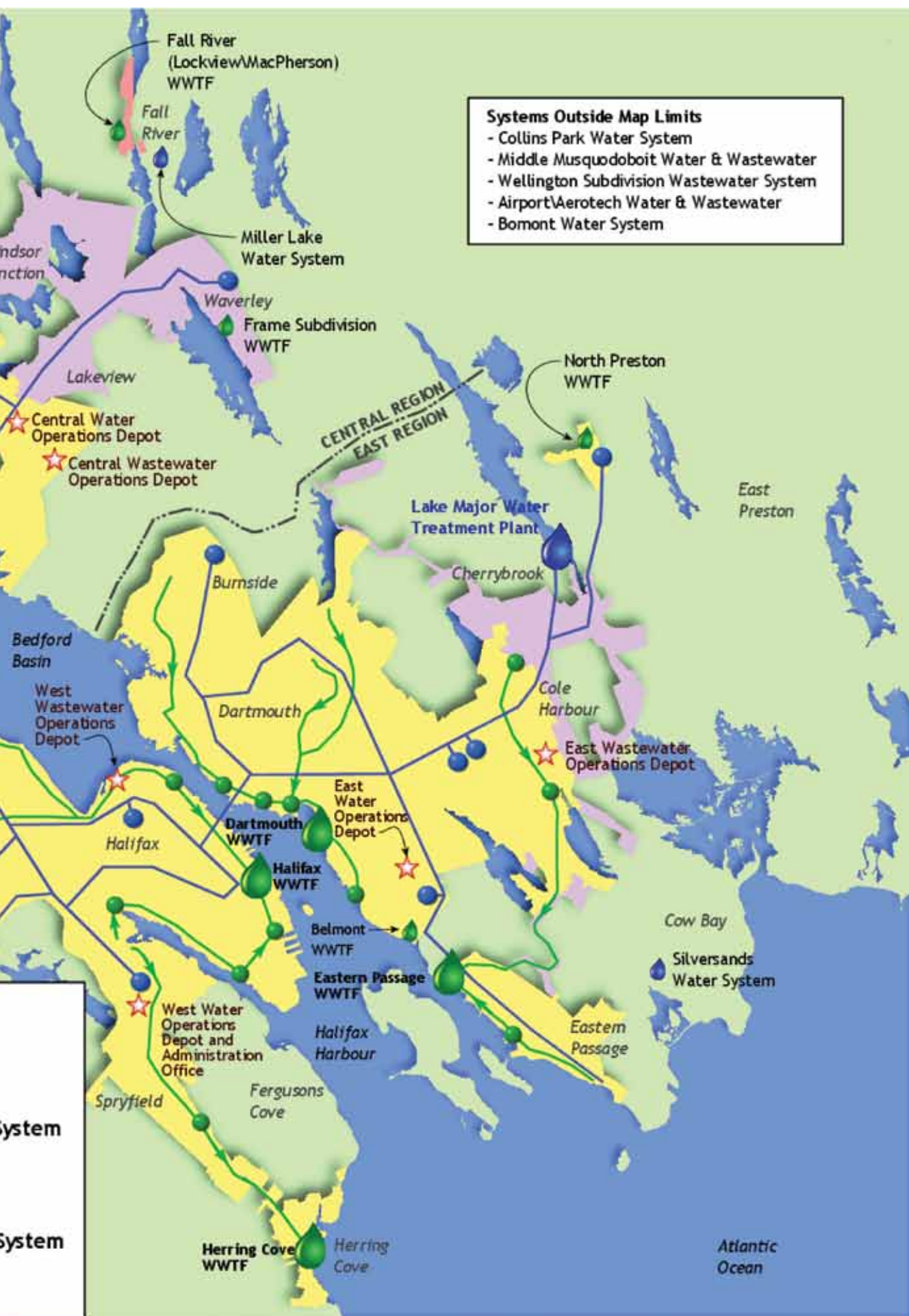


Water Service District
 Wastewater Service District
 Common District
 Wastewater Treatment
 Primary Wastewater Pumping Station



Wastewater Trunk S
 Water Treatment
 Water Reservoir
 Water Distribution S
 Operations Depot





Motivated and satisfied employees

Being part of the community is important to our utility and our employees. Over the last number of years, Halifax Water and its employees have expanded our presence at a number of events. The popularity of our on-site water stations has proven a hit on both the environmental and convenience fronts. The innovative water stations first made their debut at the Canoe09 event at Lake Banook in Dartmouth. Since then many groups have requested their use for a wide variety of events.

Being able to provide high quality tap water at numerous public events helps promote the use of tap water, raises the awareness and profile of our utility in the community, reduces the use of bottled water, provides a significant environmental benefit, and helps groups supply essential tap water service to event visitors and participants.

Halifax Water employees are also supportive of the community through fundraising efforts. Employees and pensioners supported the Metro United Way by contributing over \$4,592.10

Funds were also raised in support of the American Waterworks Association(AWWA) "Water for People" program which sponsors water supply projects in third world countries. For this fiscal year over \$5,978.00 was raised through casual day contributions and other events.

One of the many indicators of a motivated and satisfied workforce is the length of time an employee stays with a company. Halifax Water knows recruiting and retaining employees benefits our utility, our customers and employees. We are proud to say



Wastewater 101 – a part of the "lunch and learn" series

our employee retention rate is very high. We look forward to staff growing, thriving and continuously learning as they progress through their careers with us.

Information Services

Laurie Sperry *Wastewater Services*
Dave Dort *Wastewater Services*
Tim Dewolfe *Wastewater Services*
Raymond Doucette *Water Services*

Long Service Awards were presented to the following:

35 Year Awards

Linda Duggan *Water Services*
Peter Flinn *Water Services*

30 Year Awards

Cliff Doubleday *Wastewater Services*
Dave Verge *Wastewater Services*

25 Year Awards

Richard Brown *Wastewater Services*
Lloyd Ferguson *Wastewater Services*
Brian Gazeley *Wastewater Services*
Rick Reid *Wastewater Services*
Rory MacNeil *Wastewater Services*
Martin Parsons *Wastewater Services*
Sandy Hood *Administration*
Dave Hiscock *Water Services*
Pat Foley *Water Services*
Robert Hood *Water Services*
James Murphy *Water Services*

20 Year Awards

Karen Gardiner *Engineering &*

10 Year Awards

Karen Ouellet *Wastewater Services*
Melissa White *Wastewater Services*
Dawn Riley *Engineering & Information Services*
Tom Gorman *Engineering & Information Services*
Melissa O'Grady *Engineering & Information Services*
Myles Quigley *Water Services*
Michael Clements *Water Services*
Dino Amaral *Technical Services*
Craig Campbell *Environmental Services*

During the year, the following employees retired after years of dedicated service to the utility

Jane Legere - April 2010
Chris MacDonald - May 2010
Donna Henman - February 2011
Larry Latta - February 2011
Wayne Collins - October 2010
Dennis Leblanc - February 2011
Len Van Tol - February 2011
Stuart Muir - March 2011

TYPICAL ANALYSIS OF POCKWOCK/ LAKE MAJOR WATER 2010 - 2011

(in milligrams per litre unless shown otherwise)
Note: All Regulatory Compliance Analysis are Processed
by Third Party Laboratories

PHOTO: CAN STOCK PHOTO / TINKA

PARAMETERS	(Halifax) POCKWOCK		(Dartmouth) LAKE MAJOR		GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	
	Raw Water	Treated Water	Raw Water	Treated Water	Maximum Acceptable Concentration	Objective Concentration
Alkalinity (as CaCO ₃)	<1.0	19.0	<1.0	14.5	-	-
Aluminum	0.147	0.066	0.222	0.054	-	*0.20/0.10
Ammonia (N)	<0.05	<0.05	<0.05	<0.05	-	-
Arsenic	<0.001	<0.001	<0.001	<0.001	0.010	-
Calcium	1.1	4.2	1.0	6.6	-	-
Chloride	6.5	9.0	6.0	8.0	-	≤250
Chlorate	<0.1	<0.1	<0.1	<0.1	1.0	-
Chlorite	<0.1	<0.1	<0.1	<0.1	1.0	-
Colour (True Colour Units)	15.0	3.0	40.0	3.0	-	≤15.0
Conductivity (µmho/cm)	42.0	81.5	35.0	98.5	-	-
Copper (Total)	0.043	0.002	0.145	<0.002	-	≤1.0
Fluoride	<0.10	0.60	<0.10	0.70	1.5	0.7 - 0.8
Hardness (as CaCO ₃)	4.0	12.5	4.0	18.0	-	-
Hardness (as CaCO ₃) (Grains)	0.3	0.9	0.3	1.3	-	-
HAA5 (avg.)	<0.005	0.062	<0.005	0.061	0.080	-
Iron (Total)	<0.063	<0.050	0.164	<0.020	-	≤0.3
Langelier Index @ 5°C	-4.8	-2.5	-5.4	-2.3	-	-
Langelier Index @ 60°C	-4.4	-2.2	-4.4	-2.0	-	-
Lead (Total) (µg/l)	<0.5	<0.5	<0.5	<0.5	10.0	-
Magnesium	0.40	0.46	0.42	0.42	-	-
Manganese (Total)	0.056	0.008	0.094	0.019	-	≤0.05
Mercury (µg/l)	<0.013	<0.013	<0.013	<0.013	1.0	-
Nitrate (as N)	0.06	0.06	0.06	0.06	10.0	-
Nitrite (as N)	<0.01	<0.01	<0.01	<0.01	3.2	-
pH (pH Units)	5.6	7.4	5.4	7.3	-	6.5 - 8.5
Potassium	0.3	0.4	0.4	0.4	-	-
Sodium	4.8	13.1	4.1	11.8	-	≤200
Solids (Total Dissolved)	19.0	50.5	23.0	55.0	-	≤500
Sulfate	4.0	9.0	3.0	16.0	-	≤500
Turbidity (NTU)	0.36	<0.1	0.35	<0.1	**0.2/0.5	≤5
Total Organic Carbon (TOC)	2.7	1.9	4.0	1.5	-	-
THM's (avg.)	-	0.073	-	0.089	0.100	-
Uranium (µg/l)	<0.1	<0.1	<0.1	<0.1	20.0	-
Zinc (Total)	0.009	0.102	0.006	0.078	-	≤5.0

* Aluminum objective is related to type of plant filtration; the aluminum objective for direct filtration (i.e. Pockwock) is <0.20 mg/l and conventional filtration (i.e. Lake Major) is 0.10 mg/l. **0.2/0.5 means the plant must produce water with turbidity of <0.2 NTU 90% of the time and <0.5 NTU 100% of the time, as is required by Provincial Permit. This is more stringent than the Canadian guideline of 0.3/1.0 NTU.

TYPICAL ANALYSIS SMALL SYSTEMS 2010 - 2011

(in milligrams per litre unless shown otherwise)
Note: All Regulatory Compliance Analysis are Processed
by Third Party Laboratories

PHOTO: CAN STOCK PHOTO / TINKA

PARAMETERS	BENNERY LAKE		FIVE ISLAND LAKE		GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	
	*Raw Water	Treated Water	Raw Water	Treated Water	Maximum Acceptable Concentration	Objective Concentration
Alkalinity (as CaCO ₃)	<5.0	45.0	32.0	36.0	-	-
Aluminum	0.152	0.056	<0.005	<0.010	-	0.20/0.10
Ammonia (N)	<0.05	<0.05	<0.05	<0.05	-	-
Arsenic	<0.001	<0.001	0.005	0.004	0.010	-
Calcium	2.5	9.0	8.4	8.8	-	-
Chloride	8.0	11.5	4.0	4.3	-	≤250
Chlorate	<0.1	0.7	<0.1	<0.1	1.0	-
Chlorite	<0.1	<0.1	<0.1	<0.1	1.0	-
Colour (True Colour Units)	29.0	<3.0	<5.0	3.0	-	≤15.0
Conductivity (µmho/cm)	43.0	130.0	79.0	80.7	-	-
Copper (Total)	0.350	0.026	<0.010	0.006	-	≤1.0
Fluoride	<0.1	<0.1	0.40	0.40	1.5	0.8 - 1.0
Hardness (as CaCO ₃)	9.0	25.0	25.0	26.5	-	-
Hardness (as CaCO ₃) (Grains)	0.63	1.7	1.8	1.8	-	-
HAA5 (avg.)	-	0.072	-	<0.005	0.080	-
Iron (Total)	0.23	<0.050	<0.050	<0.050	-	≤0.3
Langelier Index @ 5°C	-2.7	-1.8	-2.4	-1.6	-	-
Langelier Index @ 60°C	-2.3	-1.5	-2.2	-1.3	-	-
Lead (Total) (µg/l)	0.80	<0.5	<0.50	<0.50	10.0	-
Magnesium	0.60	0.56	1.0	1.0	-	-
Manganese (Total)	0.073	0.034	<0.010	<0.002	-	≤0.05
Mercury (µg/l)	<0.013	<0.013	<0.013	<0.013	1.0	-
Nitrate and Nitrite (as N)	<0.07	0.06	<0.05	<0.05	10.0	-
pH (pH Units)	6.1	7.3	7.3	7.6	-	6.5 - 8.5
Potassium	0.3	0.4	0.5	0.5	-	-
Sodium	5.5	19.0	5.8	6.5	-	≤200
Solids (Total Dissolved)	23.0	78.0	58.0	62.0	-	≤500
Sulfate	4.0	17.0	2.0	2.0	-	≤500
Turbidity (NTU)	1.08	0.13	<0.1	0.1	**0.2/0.5	≤5
Total Organic Carbon (TOC)	4.2	2.0	<0.5	<0.5	-	-
THM's (avg.)	<0.001	0.080	<0.001	<0.001	0.100	-
Uranium (µg/l)	<0.10	<0.1	9.2	10.6	20.0	-
Zinc (Total)	0.013	0.092	<0.005	0.006	-	≤5.0
PCB (µg/l)	<0.05	<0.1	<0.05	<0.05	-	-
Gross Alpha / Gross Beta (Bq/L)	<0.06 / 0.06	0.09/<0.05	0.11/0.15	0.18/0.08	0.5 / 1.0	-
Lead-210 (Bq/L)	-	-	-	<0.02	0.2	-

*Facility construction does not allow for raw water sampling. **0.2/0.5 means the plant must produce water with turbidity of <0.2 NTU 90% of the time and <0.5 NTU 100% of the time, as is required by Provincial Permit. This is more stringent than the Canadian guideline of 1.0 NTU.

TYPICAL ANALYSIS SMALL SYSTEMS 2010 - 2011

(in milligrams per litre unless shown otherwise)
Note: All Regulatory Compliance Analysis are Processed
by Third Party Laboratories

PHOTO: CAN STOCK PHOTO / TINKA

PARAMETERS	SILVER SANDS		MILLER LAKE		GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	
	Raw Water	Treated Water	Raw Water	Treated Water	Maximum Acceptable Concentration	Objective Concentration
Alkalinity (as CaCO ₃)	64.0	67.5	135.0	71.0	-	-
Aluminum	0.005	<0.008	<0.005	0.058	-	0.20/0.10
Ammonia (N)	<0.05	<0.05	<0.05	<0.05	-	-
Arsenic	<0.002	<0.001	0.017	<0.002	0.010	-
Calcium	34.0	39.0	77.1	39.0	-	-
Chloride	58.0	68.5	120.0	65.3	-	≤250
Chlorate	<0.1	<0.1	<0.1	<0.1	1.0	-
Chlorite	<0.1	<0.1	<0.1	<0.1	1.0	-
Colour (True Colour Units)	<5.0	<5.0	<5.0	<5.0	-	≤15.0
Conductivity (µmho/cm)	350.0	370.0	715.0	386.0	-	-
Copper (Total)	<0.002	0.002	<0.002	<0.004	-	≤1.0
Fluoride	0.20	0.20	0.30	0.40	1.5	0.8 -1.0
Hardness (as CaCO ₃)	110.0	120.0	235.0	117.7	-	-
Hardness (as CaCO ₃) (Grains)	7.7	8.4	16.5	8.3	-	-
HAA5 (avg.)	-	<0.005	-	0.044	0.080	-
Iron (Total)	0.777	<0.050	<0.050	<0.050	-	≤0.3
Langelier Index @ 5°C	-0.8	-1.0	+0.1	-0.5	-	-
Langelier Index @ 60°C	-0.6	-0.7	+0.5	-0.3	-	-
Lead (Total) (µg/l)	<0.5	<0.5	<0.5	<0.5	10.0	-
Magnesium	4.4	5.4	10.8	5.0	-	-
Manganese (Total)	0.860	0.030	0.017	0.008	-	≤0.05
Mercury (µg/l)	<0.013	<0.013	<0.013	<0.013	1.0	-
Nitrate and Nitrite (as N)	0.05	<0.05	0.07	0.06	10.0	-
pH (pH Units)	7.6	7.5	7.8	7.7	-	6.5 - 8.5
Potassium	0.8	1.4	1.4	0.9	-	-
Sodium	23.0	6.7	48.0	22.1	-	≤200
Solids (Total Dissolved)	195.0	27.0	384.0	209.3	-	≤500
Sulfate	19.0	210.5	27.0	21.6	-	≤500
Turbidity (NTU)	9.3	18.5	0.15	<0.13	*0.2/0.5	≤5
Total Organic Carbon (TOC)	<0.5	<0.20	0.5	1.5	-	-
THM's (avg.)	-	<0.5	<0.001	0.058	0.100	-
Uranium (µg/l)	<0.1	<0.001	2.3	0.21	20.0	-
Zinc (Total)	0.010	0.096	0.014	0.057	-	≤5.0
PCB (µg/l)	<0.05	<0.05	<0.05	<0.05	-	-
Gross Alpha / Gross Beta (Bq/L)	<0.10 / 0.07	<0.12 / 0.10	0.50 / 0.30	0.14 / 0.12	0.5 / 1.0	-
Lead-210 (Bq/L)	-	-	-	-	0.2	-

*0.2/0.5 means the plant must produce water with turbidity of <0.2 NTU 90% of the time and <0.5 NTU 100% of the time, as is required by Provincial Permit. This is more stringent than the Canadian guideline of 1.0 NTU.

TYPICAL ANALYSIS SMALL SYSTEMS 2010 - 2011

(in milligrams per litre unless shown otherwise)
Note: All Regulatory Compliance Analysis are Processed
by Third Party Laboratories

PHOTO: CAN STOCK PHOTO / TINKA

PARAMETERS	MIDDLE MUSQUODOBOIT		COLLINS PARK		GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	
	Raw Water	Treated Water	Raw Water	Treated Water	Maximum Acceptable Concentration	Objective Concentration
Alkalinity (as CaCO ₃)	20.0	39.3	13.0	14.3	-	-
Aluminum	0.094	0.007	0.068	0.038	-	0.20/0.10
Ammonia (N)	<0.05	<0.05	<0.05	<0.05	-	-
Arsenic	<0.001	<0.001	0.003	<0.001	0.010	-
Calcium	13.3	1.5	7.0	3.7	-	-
Chloride	6.4	<1.0	39.9	26.0	-	≤250
Chlorate	<0.1	<0.1	<0.1	0.1	1.0	-
Chlorite	<0.1	<0.1	<0.1	<0.1	1.0	-
Colour (True Colour Units)	<5.0	<5.0	21.4	<5.0	-	≤15.0
Conductivity (µmho/cm)	112.0	73.3	186.0	83.0	-	-
Copper (Total)	0.002	0.003	0.006	0.005	-	≤1.0
Fluoride	<0.1	<0.1	<0.10	<0.10	1.5	0.8 -1.0
Hardness (as CaCO ₃)	42.0	2.3	21.4	7.0	-	-
Hardness (as CaCO ₃) (Grains)	3.0	0.2	1.5	0.5	-	-
HAA5 (avg.)	-	<0.005	-	0.069	0.080	-
Iron (Total)	0.050	<0.050	0.189	<0.064	-	≤0.3
Langelier Index @ 5°C	-2.4	-3.1	-2.6	-3.6	-	-
Langelier Index @ 60°C	-2.1	-2.8	-2.4	-3.4	-	-
Lead (Total) (µg/l)	<0.5	<0.5	<1.0	<0.5	10.0	-
Magnesium	2.2	0.14	1.0	0.6	-	-
Manganese (Total)	0.004	<0.002	0.064	0.022	-	≤0.05
Mercury (µg/l)	<0.013	<0.013	<0.013	<0.013	1.0	-
Nitrate and Nitrite (as N)	0.56	0.23	0.18	0.08	10.0	-
pH (pH Units)	7.0	7.2	7.0	6.9	-	6.5 - 8.5
Potassium	0.7	0.17	1.2	0.48	-	-
Sodium	4.4	18.3	25.0	12.5	-	≤200
Solids (Total Dissolved)	65.2	58.0	93.1	46.7	-	≤500
Sulfate	22.2	<2.0	8.9	4.0	-	≤500
Turbidity (NTU)	0.30	<0.10	1.2	0.40	*0.2/0.5**/0.1	≤5
Total Organic Carbon (TOC)	0.7	0.7	3.9	2.3	-	-
THM's (avg.)	<0.001	<0.001	<0.001	0.049	0.100	-
Uranium (µg/l)	<0.10	<0.10	<0.10	<0.10	20.0	-
Zinc (Total)	0.019	0.106	0.044	0.082	-	≤5.0
PCB (µg/l)	<0.05	<0.10	<0.05	<0.05	-	-
Gross Alpha / Gross Beta (Bq/L)	<0.16 / 0.08	<0.05 / 0.03	<0.04 / 0.06	<0.02 / 0.02	0.5 / 1.0	-
Lead-210 (Bq/L)	-	-	-	-	0.2	-

*0.2/0.5 means the plant must produce water with turbidity of <0.2 NTU 90% of the time and <0.5 NTU 100% of the time, as is required by Provincial Permit. This is more stringent than the Canadian guideline of 1.0 NTU. **0.1 NTU for Membrane Plants.

Financial Statements

(NSUARB Accounting and Reporting Handbook)

Halifax Regional Water Commission
March 31, 2011

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Halifax Regional Water Commission

Statement of operations

Year ended March 31, 2011

(in thousands)

	2011		2010	
	Budget	Actual		Actual
Operating revenues				
Water service	\$ 31,334	\$ 30,719	\$	31,017
Wastewater/stormwater services	49,688	45,532		42,829
Fire protection	8,837	9,502		9,502
Private fire protection services	1,798	362		355
Airport aerotech system	1,433	1,323		1,456
Other operating revenue	3,335	2,242		2,007
	96,425	89,680		87,166
Operating expenditures				
Water supply and treatment	6,698	6,286		7,042
Water transmission and distribution	9,017	7,928		7,555
Wastewater/stormwater collection	14,340	13,562		13,410
Wastewater treatment	18,148	17,139		10,090
Environmental pollution control	2,636	2,114		1,715
Engineering and information services	5,920	5,589		4,772
Customer service	3,365	3,329		2,962
Airport aerotech system	1,451	1,484		1,275
Administration and pension	4,397	6,536		4,147
Depreciation	10,502	8,865		6,333
	76,474	72,832		59,301
Operating profit	19,951	16,848		27,865
Financial and other revenues				
Interest	130	545		269
Other	2,246	2,279		2,361
	2,376	2,824		2,630
	22,327	19,672		30,495
Financial and other expenditures				
Interest on long term debt	8,786	8,896		9,026
Repayment of long term debt	13,046	13,158		13,076
Amortization of debt discount	67	70		60
Grant in lieu of taxes (note 9)	3,700	3,749		3,626
	25,599	25,873		25,788
Excess of (expenditures over revenues)				
revenues over expenditures	\$ (3,272)	\$ (6,201)	\$	4,707

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Balance sheet

Year ended March 31, 2011

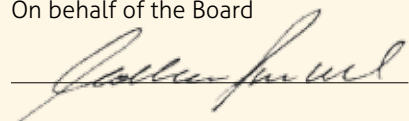
(in thousands)

	2011	2010
Assets		
Current		
Cash and cash equivalents	\$ 15,730	\$ 22,836
Receivables		
Halifax Regional Municipality	12,453	11,338
Materials and supplies	1,143	1,073
Prepays	653	548
	52,215	58,468
Receivable from Halifax Regional Municipality	176	190
Regulatory asset (note 5)	2,078	-
Plant under construction	13,527	29,680
Utility plant in service (schedule A)	893,633	670,921
	\$ 961,629	\$ 759,259
Liabilities		
Current		
Payables and accruals		
Trade	\$ 14,485	\$ 12,673
Interest on long term debt	1,548	1,659
Contractor and customer deposits	150	145
Current portion of long term debt (schedule B)	13,272	13,211
Unearned revenue	121	95
	29,576	27,783
Long term debt (schedule B)	146,118	155,958
Accrued pension liability (note 4)	3,945	2,585
Accrued post retirement benefits (note 4)	803	872
Accrued long term service costs (note 6)	2,600	2,447
	183,042	189,645
Equity		
Special purpose reserves (note 8)	17,973	20,357
Contributed capital surplus (page 5)	743,911	525,916
Operating surplus (page 5)	16,703	23,341
	778,587	569,614
	\$ 961,629	\$ 759,259

Contingent liabilities (note 3)

Commitment (note 9)

On behalf of the Board

 Commissioner

 Commissioner

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Statement of cash flows

Year ended March 31, 2011

(in thousands)

	2011	2010
Increase (decrease) in cash and cash equivalents		
Operating		
Excess of (expenditures over revenues)		
revenues over expenditures	\$ (6,201)	\$ 4,707
Depreciation and amortization	9,727	6,923
Accrued pension liability	1,360	(141)
Decrease in accrued post retirement benefits	(69)	(76)
Repayment of long term debt included in statement of operations	13,158	13,076
Increase in accrued long term service costs	153	196
Grant in lieu of taxes	-	3,626
	18,128	28,311
Change in non-cash operating working capital items (note 10)	1,994	849
	20,122	29,160
Financing		
Proceeds from issuance of long term debt	5,150	15,250
Increase in receivable from Halifax Regional Municipality	(1,101)	(14,972)
Contributions to reserves	3,836	2,474
Debt issue costs	(32)	53
Principal repayment on Harbour Solutions long term debt	(6,500)	(6,500)
Principal repayments of long term debt	(8,461)	(8,556)
	(7,108)	(12,251)
Investing		
Capital cost contributions	2,662	2,377
Proceeds from sale of plant in service	1,702	112
Purchase of capital work in progress	(5,282)	(9,748)
Purchase of plant in service	(19,202)	(14,096)
	(20,120)	(21,355)
Increase (decrease) in cash and cash equivalent	(7,106)	(4,446)
Cash and cash equivalents, beginning of year	22,836	27,282
Cash and cash equivalents, end of year	\$ 15,730	\$ 22,836

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Statement of contributed capital surplus

Year ended March 31, 2011

(in thousands)

	2011	2010
Contributed capital surplus, beginning of year	\$ 525,916	\$ 451,088
Contributions to plant in service	40,573	18,252
Transfer from special purpose reserve (note 8)	6,220	8,167
Debt repayment	13,158	15,538
Gain on sale of land	1,600	14
Capital surplus transferred to Halifax Regional Municipality (note 12)	(4,600)	-
Capital surplus transferred with Halifax Harbour Solutions (note 12)	167,241	42,091
	750,108	535,150
Less: amortization (note 2(b))	6,197	9,234
Contributed capital surplus, end of year	\$ 743,911	\$ 525,916

Halifax Regional Water Commission

Statement of operating surplus

Year ended March 31, 2011

(in thousands)

	2011	2010
Operating surplus, beginning of year	\$ 23,341	\$ 18,634
Excess of (expenditures over revenues)		
revenues over expenditures	(6,201)	4,707
Stewardship contributions charged to current surplus	(437)	-
Operating surplus, end of year	\$ 16,703	\$ 23,341

See accompanying notes to the financial statements.

Halifax Regional Water Commission

Notes to the financial statements

Year ended March 31, 2011

(in thousands)

1. NATURE OF OPERATIONS

The Commission is a public utility owned by the Halifax Regional Municipality (HRM). The Commission is responsible for the supply of municipal water, wastewater and stormwater services to the residents of the HRM.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Regulation

In matters of administrative policy relating to rates, capital expenditures, depreciation rates and accounting matters, the Commission is subject to the jurisdiction of the Nova Scotia Utility and Review Board (NSUARB). Rates charged to and collected from customers are designed to recover costs of providing the regulated services. These statements have been prepared in accordance with the Accounting and Reporting Handbook for Water Utilities (Handbook) issued by the NSUARB. There are differences in the accounting treatment of certain transactions from Canadian generally accepted accounting principles in the areas of principal debt payments and gains and losses on the disposal of fixed assets.

Regulatory assets represent costs incurred that have been deferred as approved by the NSUARB and will be recovered through future rates collected from customers.

(b) Utility plant

Utility plant in service (schedule A) is recorded at cost, including interest capitalized on the financing of projects during construction. Contributions for capital expenditures are credited to the contributed capital surplus account. Structures and land taken out of service are removed from utility plant in service and placed in plant not in service at cost less accumulated depreciation. Losses or gains related to assets retired, demolished or sold are charged or credited to contributed capital surplus for the period.

The Handbook permits the recording of contributed assets. The estimated value of contributed assets is credited to contributed capital surplus. Commencing in fiscal 2005, contributed assets are depreciated over their estimated remaining useful lives. The related contributed capital surplus is being amortized on the same basis as the contributed assets to which it relates.

The Commission has implemented a policy to account for infrastructure extensions into its water and wastewater/stormwater service districts, which for the most part will be recovered by capital contributions from developers in current and future periods. The objective is for these extensions to be cost neutral to the Commission

with regard to current customers, unless there is a benefit to them. The related infrastructure extensions may include costs incurred by the Commission to provide additional capacity, not required at the present time, but undertaken to allow for future expansion. The estimated portion of these costs that do not benefit existing customers are recorded as contributed assets. The capital cost contribution is credited to contributed capital surplus when receivable and estimates adjusted, if required, when the development into the water service area is complete. The capital cost contributions are subject to approval by the NSUARB.

(c) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and balances with banks, net of bank indebtedness.

(d) Depreciation

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

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

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

(e) Depreciation fund

The Commission does not maintain a depreciation fund. The Commission has received NSUARB approval for exemption from setting up a depreciation fund as long as net depreciable additions to plant exceed the depreciation charged.

(f) Materials and supplies

Materials and supplies inventories are carried at the lower of cost and net realizable value with cost being determined on a moving average cost basis. The cost of materials and supplies recognized as an expense during the period was \$286 (2010 - \$320).

(g) Revenues and expenditures

Halifax Regional Water Commission

Notes to the financial statements

Year ended March 31, 2011

(in thousands)

All revenues and expenditures are recorded on an accrual basis. Receivables include outstanding revenue billed by the Commission and estimated metered revenue not yet billed.

(h) Long term debt

Interest on long term debt is recorded on an accrual basis. Debt issue costs are deferred and amortized over the term of the debt to which it relates.

(i) Reserves

Certain funds within the reserves can be used for capital expenditures only with the approval of the NSUARB. The Wastewater and Stormwater reserve does not require approval from the NSUARB for capital expenditures. System connection charges approved by the NSUARB are added to these reserves as collected. The reserves are to be used for capital expenditures on the wastewater/stormwater system (note 8).

(j) Measurement uncertainty

In preparing the Commission's financial statements, management is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenue and expenditures during the period. Significant estimates and assumptions are not limited to but include the following:

Specifically, at year end, revenue from water and wastewater services have been earned but not yet billed due to the timing of the billing cycles. Management estimates the unbilled revenue accrual based on historic billing trends.

Management assumptions are also used in the actuarial determination of the deferred pension liability and the accrued post retirement benefit. These assumptions are outlined in note 4 of the financial statements.

Actual results could differ from these estimates.

(k) Financial instruments

The Commission is required to initially recognize and measure its financial assets and liabilities at fair value. Loans and receivables, held to maturity financial assets and other financial liabilities are subsequently measured at cost or amortized cost.

The Commission classifies financial assets and liabilities according

to their characteristics and management's choices and intentions related thereto for the purposes of ongoing measurements. Classification choices for financial assets include: a) held for trading - measured at fair value with changes in fair value recorded in net earnings; b) held to maturity - recorded at amortized cost with gains and losses recognized in net earnings in the period that the asset is derecognized or impaired; c) available for sale - measured at fair value with changes in fair value recognized in other comprehensive income for the current period until realized through disposal or impairment; and d) loans and receivables - recorded at amortized cost with gains and losses recognized in net earnings in the period that the asset is no longer recognized or impaired.

Classification choices for financial liabilities include: a) held for trading - measured at fair value with changes in fair value recorded in net earnings and b) other - measured at amortized cost with gains and losses recognized in net earnings in the period that the liability is no longer recognized. Any financial asset or liability can be classified as held for trading as long as its fair value is reliably determinable.

The Commission's financial assets and liabilities are classified and measured as follows:

Asset/Liability	Classification	Measurement
Cash	Held for trading	Fair value
Cash equivalents	Held for trading	Fair value
Receivables	Loans and receivables	Amortized cost
Receivable from HRM	Loans and receivables	Amortized cost
Payables and accruals	Other liabilities	Amortized cost
Long term debt	Other liabilities	Amortized cost

Unless otherwise noted, it is management's opinion that the Commission is not exposed to significant interest, currency or credit risks arising from financial instruments. The fair value of the Commission's financial instruments approximates their carrying values.

3. CONTINGENT LIABILITIES

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

The Commission has been named along with the contractor for a flooding incident that occurred as a result of an overflow of wastewater at a pumping station associated with the HHS project. The claim is being defended by the Commission's insurer and the Commission believes its exposure in this regard is minimal.

Halifax Regional Water Commission

Notes to the financial statements

Year ended March 31, 2011

(in thousands)

The Commission has several outstanding grievances for alleged violations of the collective agreements with its union. These grievances are working their way through the grievance process provided for in the collective agreements. The financial risk of these grievances is not considered material.

4. PENSION PLAN AND POST RETIREMENT BENEFITS

The Commission maintains a contributory defined benefit pension plan for all employees and offers post retirement health and insurance benefits to its employees. The pension plan provides pensions based upon length of service and best five years' earnings. The Commission follows the recommendations of Section 3461 "Employee Future Benefits" of the CICA Handbook.

The Commission is responsible for funding the employer share of the contributions to the HRM pension plan for certain employees

that transferred from HRM as of August 1, 2007. During the year, the Commission funded \$670 in contributions to the HRM plan.

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

Information about the Commission's plans, based on an actuarial extrapolation as at March 31, 2011, is as follows:

	2011	2010	2011	2010
	Pension Plan	Pension Plan	Post Retirement Benefits	Post Retirement Benefits
Accrued benefit obligation				
Balance, beginning of year	\$ 70,716	\$ 50,458	\$ 629	\$ 634
Current service cost	3,825	2,124	-	-
Interest cost	4,065	3,775	27	39
Actuarial loss	4,069	16,728	-	-
Benefit payments	(2,655)	(2,401)	(85)	(100)
Transfers in	38	32	-	-
Actuarial gain	-	-	7	56
Balance, end of year	80,058	70,716	578	629
Fair value of plan assets				
Balance, beginning of year	50,105	41,417	-	-
Actual return on plan assets	4,273	7,835	-	-
Transfers in	38	32	-	-
Benefit payments	(2,655)	(2,401)	-	-
Contributions: Employee	1,516	1,286	-	-
Employer	2,166	1,936	-	-
Balance, end of year	55,443	50,105	-	-
Plan deficit	24,615	20,611	578	629
Unamortized transitional asset	\$ 1,179	\$ 1,375	\$ -	\$ -
Unamortized experience loss	(21,021)	(18,478)	225	243
Unamortized plan amendments	(828)	(923)	-	-
Accrued benefit liability	\$ 3,945	\$ 2,585	\$ 803	\$ 872
Accrued benefit liability, beginning of year	\$ 2,585	\$ 2,726	\$ 872	\$ 948
Expense for 2010/2011	3,526	1,795	16	24
Employer contributions for 2010/2011	(2,166)	(1,936)	(85)	(100)
Accrued benefit liability recognize	\$ 3,945	\$ 2,585	\$ 803	\$ 872

Halifax Regional Water Commission

Notes to the financial statements

Year ended March 31, 2011

(in thousands)

Administration and pension expense includes pension expense of \$3,526 (2010 - \$1,795). This amount includes the amortization of experience gains and losses and plan improvements. Amortization is calculated on a straight-line basis over the estimated average remaining service life of the employee group, currently estimated at 17 years.

The following assumptions have been used in the actuarial extrapolation of the accrued benefit liability at March 31, 2011:

	Pension Plan	Pension Plan	Post Retirement Benefits	Post Retirement Benefits
	2011	2010	2011	2010
Discount rate	5.40%	5.70%	4.50%	4.75%
Expected return on plan assets	6.00%	6.75%	N/A	N/A
Rate of compensation increase	3.75%	3.75%	N/A	N/A
Expenses for life benefits as a % of claims	N/A	N/A	5-10%	5-10%
Health benefit inflation per year	N/A	N/A	5-10%	5-10%
Dental benefit inflation per year	N/A	N/A	5%	5%

Funding for the pension plan is based on regular actuarial reviews. There was an actuarial valuation completed January 1, 2011 and the next review is scheduled for no later than January 1, 2014.

5. REGULATORY ASSET

In June 2011, the NSUARB granted the Commission approval to defer depreciation charges on certain assets transferred in 2010 from HRM relating to the Halifax Harbour Solutions Project. As a result, the Commission has recognized a \$2,078 regulatory asset. The amortization of this asset will be determined by the NSUARB in early fiscal 2012. In absence of rate regulation, the Commission would have otherwise recorded \$2,078 of additional depreciation in the determination of excess of expenditures over revenues on the statement of operations.

6. PRE-RETIREMENT LEAVE (LONG TERM SERVICE AWARD)

The Commission has a non-funded pre-retirement leave benefit that is payable on retirement, termination or death if the employee has at least 10 years of continuous service. The benefit is equal to three days' pay for each completed year of service, up to a maximum of six month's salary.

	2011	2010
Pre-retirement leave liability	\$ 2,600	\$ 2,447

The following assumptions have been used in the valuation of the Halifax Regional Water Commission's pre-retirement leave liability at March 31, 2011:

Pre-retirement benefits	2011	2010
Discount rate	5.40%	5.70%
Rate of compensation increase	3.75%	3.75%

7. RETURN ON RATE BASE OF WATER SERVICE

	2011	2010
Rate of return on rate base	3.40%	4.47%

The return on rate base is calculated for water service. The wastewater/stormwater assets were transferred to the Commission in exchange for the debt servicing responsibilities associated with these facilities and therefore were not included in rate base.

Halifax Regional Water Commission

Notes to the financial statements

Year ended March 31, 2011

(in thousands)

8. SPECIAL PURPOSE RESERVES

	Other Capital Reserves	Sewer Redevelopment Reserve	Wastewater Infrastructure Reserve	Wastewater & Stormwater Reserve	2011 Total	2010 Total
Reserve, beginning of year	\$ 190	\$ 4,712	\$ 8,017	\$ 7,438	\$ 20,357	\$ 22,450
Additions	207	-	-	-	207	3,600
Contributions and interest	-	1,574	2,055	-	3,629	2,474
Expenditures	-	(3,438)	(361)	(2,421)	(6,220)	(8,167)
Reserve, end of year	\$ 397	\$ 2,848	\$ 9,711	\$ 5,017	\$ 17,973	\$ 20,357

9. COMMITMENTS

An agreement with HRM for renewal of the dividend/grant in lieu of taxes for fiscal years 2011 to 2015 for water services was approved by the NSUARB as part of the January 1, 2011 rate decision. There was no dividend/grant in lieu of taxes approved for wastewater/stormwater. The Commission is committed to a payment of \$3,944 million for the 2012 fiscal year.

borrowings of long term debt which are then used to finance capital projects.

The Commission considers its total capitalization to include all long term debt and total equity. The calculation is set out in the following table:

	2011	2010
Long-term debt (current portion)	\$ 13,272	\$ 13,211
Long-term debt	146,118	155,958
Funded debt	159,390	169,169
Equity	778,587	569,614
Capital under management	\$ 937,977	\$ 738,783

10. SUPPLEMENTAL CASH FLOW INFORMATION

	2011	2010
Changes in non-cash operating working capital items		
Receivables	\$ 437	\$ (3,700)
Materials and supplies	(70)	28
Prepays	(105)	72
Payables and accruals	1,812	4,396
Accrued interest on long term debt	(111)	-
Contractor and consumer deposits	5	35
Unearned revenue	26	18
	\$ 1,994	\$ 849

During the year, plant in service of \$52,370 (2010 - \$21,047) was contributed and recorded as donated assets.

Interest paid during the year was \$8,896 (2010 - \$9,026).

11. CAPITAL MANAGEMENT

The Commission's objective when managing capital is to ensure sufficient liquidity to support its financial obligations and execute its operating and capital plans. The Commission monitors and makes adjustments to its capital structure through additional

The Commission is a regulated utility and is subject to the regulations of the NSUARB. As part of this regulation, the Commission must obtain approval by the NSUARB for all borrowings. The Commission has obtained regulatory approval for all borrowings during the fiscal year. The Commission is not subject to financial borrowing covenants.

12. RELATED PARTY TRANSACTIONS

On August 1, 2010, the remaining components of the Halifax Harbour Solutions Project ("HHS Project") were transferred to the Commission from HRM. This transaction is non-cash and the transfer was approved by the NSUARB. The utility plant transferred has been recorded at HRM's recorded net book value of \$167,241 and credited to contributed capital surplus.

The transfer of \$4,600 represents net settlements to HRM for the Beaverbank Reservoir, a project previously managed by HRM that has been transferred to the Commission, along with final payments

Halifax Regional Water Commission

Notes to the financial statements

Year ended March 31, 2011

(in thousands)

to conclude the HHS Project, net of HHS Project funds transferred to the Commission. These transactions were recorded at carrying value.

Transactions with HRM are recorded at carrying value in accordance with the CICA Handbook Section 3840 "Related Party Transactions".

Amounts receivable from and payable to HRM have normal credit terms.

13. COMPARATIVE FIGURES

Certain of the comparative figures for 2010 have been reclassified to conform with the financial statement presentation adopted for 2011.

Schedule A

Halifax Regional Water Commission Schedule of utility plant in service

Year ended March 31, 2010

(in thousands)

			2011	2010
	Cost	Accumulated Depreciation	Net Book Value	Net Book Value
Water				
Intangible plant	\$ 546	\$ 111	\$ 435	\$ 490
Land and land rights	15,909	-	15,909	15,660
Structures and improvements	75,421	21,150	54,271	54,918
Pumping equipment	7,992	4,773	3,219	3,397
Purification equipment	25,256	14,028	11,228	12,186
Transmission and distribution mains	282,714	57,459	225,255	209,313
Services	28,178	3,474	24,704	23,276
Meters	10,824	2,676	8,148	7,562
Hydrants	16,537	2,293	14,244	13,317
Tools and work equipment	2,302	1,535	767	695
Transportation equipment	4,576	2,252	2,324	2,765
Office equipment and furniture	8,385	5,567	2,818	2,658
Airport Aerotech system	595	119	476	330
Small systems	7,694	713	6,981	3,458
	486,929	116,150	370,779	350,025
Wastewater/stormwater				
Intangible plant	4,001	829	3,172	3,471
Land and land rights	8,573	-	8,573	966
Structures and improvements	151,352	33,505	117,847	75,593
Pumping and treatment equipment	130,630	5,905	124,725	55,552
Manholes and catchbasins	4,215	62	4,153	1,046
Collection system	290,546	56,019	234,527	167,599
Laterals	5,478	187	5,291	4,730
Outfalls	15,312	86	15,226	7,075
Tools and work equipment	729	119	610	29
Transportation equipment	5,743	5,422	321	75
Office equipment	648	226	422	900
Small systems	5,777	747	5,030	1,564
Airport Aerotech system	3,115	158	2,957	2,296
	626,119	103,265	522,854	320,896
Total	\$ 1,113,048	\$ 219,415	\$ 893,633	\$ 670,921

During the year, the amount of \$322 of interest was capitalized to Utility Plant in Service.

Halifax Regional Water Commission

Schedule of long term debt

Schedule B

Year ended March 31, 2011

(in thousands)

	Interest Rate	Final Maturity	Balance Remaining	
			2011	2010
Payable to Municipal Finance Corporation				
Water				
Debenture 21 A 1	5.250% to 6.250%	2011	\$ 1,901	\$ 2,303
Debenture 22 A 1	4.250% to 6.125%	2012	2,620	2,930
Debenture 25 A 1	2.970% to 4.560%	2015	3,750	4,000
Debenture 96 A 1	5.500% to 8.000%	2016	480	560
Debenture 26 A 1	4.350% to 4.880%	2016	3,200	3,400
Debenture 27 A 1	4.650% to 5.010%	2017	6,776	7,577
Debenture 23 A 1	3.500% to 5.750%	2018	1,300	1,400
Debenture 98 A 1	5.625% to 6.125%	2019	24,019	26,288
Debenture 99 A 1	6.500% to 6.750%	2019	2,025	2,250
Debenture 28 A 1	3.750% to 5.088%	2023	1,800	1,900
Debenture 20 A 1	6.125% to 6.375%	2020	1,750	1,925
Halifax Harbour Solutions				
Debenture 29 A 1	0.900% to 4.329%	2019	12,350	13,000
Wastewater/stormwater				
Debenture 30 A 1	1.510% to 4.500%	2020	3,400	-
Payable to Halifax Regional Municipality				
Municipal Finance Corporation – Wastewater/stormwater				
Debenture 99 A 1	5.250% to 5.375%	2010	-	256
Debenture 20 A 1	6.750% to 6.875%	2010	-	17
Debenture 20 B 1	6.250% to 6.375%	2010	-	14
Debenture 21 A 1	8.000% to 8.000%	2012	85	171
Debenture 21 B 1	3.125% to 6.000%	2011	15	31
Debenture 22 A 1	3.375% to 6.125%	2012	176	263
Debenture 22 B 1	3.250% to 5.625%	2012	89	133
Debenture 23 A 1	3.500% to 5.375%	2013	136	182
Debenture 23 B 1	2.750% to 5.000%	2013	13	17
Debenture 24 A 1	2.550% to 5.450%	2014	333	416
Debenture 24 B 1	2.840% to 5.940%	2024	77,138	82,672
Debenture 24 C 1	7.000% to 7.000%	2015	235	293
Debenture 25 A 1	2.970% to 4.560%	2015	869	1,043
Debenture 25 B 1	3.630% to 4.830%	2020	169	203
Debenture 26 A 1	4.350% to 4.880%	2016	753	879
Debenture 26 B 1	4.265% to 4.410%	2016	29	34
Debenture 27 A 1	4.450% to 4.625%	2017	460	525
Federation of Canadian Municipalities – Wastewater/stormwater				
Debenture GMIF 1599	1.330% to 3.127%	2014	14,000	15,000
			159,871	169,682
Less: debt issue costs			481	513
			159,390	169,169
Less: amount payable within one year			13,272	13,211
			\$ 146,118	\$ 155,958

The debentures are repayable in fixed annual or semi-annual principal instalments plus interest payable semi-annually. Principal instalments including Halifax Harbour Solutions debt repayment for the next five years are as follows:

2012	\$	13,272
2013	\$	13,109
2014	\$	13,067
2015	\$	13,230
2016	\$	13,278

Schedule C

Halifax Regional Water Commission Schedule of operations for water service

Year ended March 31, 2011

(in thousands)

	2011		2010
	Budget	Actual	Actual
Operating revenues			
Water service	\$ 31,334	\$ 30,719	\$ 31,017
Fire protection	8,837	9,502	9,502
Private fire protection services	1,798	362	355
Other operating revenue			
Bulk water stations	209	278	251
Customer late payment fees	163	146	144
Miscellaneous	136	183	281
	42,477	41,190	41,550
Operating expenditures			
Water supply and treatment	6,698	6,286	7,042
Water transmission and distribution	9,017	7,928	7,555
Engineering and information services	2,992	2,827	2,317
Environmental services	682	507	459
Customer service	1,714	1,696	1,510
Administration and pension	2,240	3,327	2,414
Depreciation	6,525	6,263	6,028
	29,868	28,834	27,325
Operating profit	12,609	12,356	14,225
Financial and other revenues			
Interest	66	273	137
Other	115	208	235
	181	481	372
Financial and other expenditures			
Interest on long term debt	2,983	2,806	3,191
Repayment of long term debt	5,000	4,925	4,780
Amortization of debt discount	57	58	56
Grant in lieu of taxes	3,700	3,749	3,626
	11,740	11,538	11,653
Excess of revenues over expenditures	\$ 1,050	\$ 1,299	\$ 2,944

Halifax Regional Water Commission

Schedule of operations for wastewater/stormwater services

Schedule D

Year ended March 31, 2011

(in thousands)

	2011		2010
	Budget	Actual	Actual
Operating revenues			
Wastewater/stormwater services	\$ 49,688	\$ 45,532	\$ 42,829
Other operating revenue			
Leachate and other contract revenue	446	556	449
Sludge tipping	800	552	828
Overstrength surcharge	1,252	232	(75)
Customer late payment fees	153	119	122
Miscellaneous	176	176	7
	52,515	47,167	44,160
Operating expenditures			
Wastewater/stormwater collection	14,340	13,562	13,410
Wastewater treatment	18,148	17,139	10,090
Engineering and information services	2,928	2,762	2,455
Environmental pollution control	1,954	1,607	1,256
Customer service	1,651	1,633	1,452
Administration and pension	2,157	3,209	1,733
Depreciation	3,977	2,602	305
	45,155	42,514	30,701
Operating profit	7,360	4,653	13,459
Financial and other revenues			
Interest	64	272	132
Other	2,131	2,071	2,126
	2,195	2,343	2,258
Financial and other expenditures			
Interest on long term debt	5,803	6,056	5,835
Repayment of long term debt	8,046	8,193	8,296
Amortization of debt discount	10	12	4
	13,859	14,261	14,135
Excess of (expenditures over revenues) revenues over expenditures	\$ (4,304)	\$ (7,265)	\$ 1,582

Schedule E

Halifax Regional Water Commission Airport aerotech system Schedule of operations for water service

Year ended March 31, 2011

(in thousands)

	2011		2010
	Budget	Actual	Actual
Operating revenues			
Metered sales	\$ 577	\$ 503	\$ 562
Fire protection	142	142	142
Customer late payment charges	-	1	-
Miscellaneous	5	5	5
	724	651	709
Operating expenditures			
Plant operations	587	537	576
Pumping stations	29	22	21
Transmission and distribution	153	81	77
Depreciation	66	42	36
	835	682	710
Operating loss	(111)	(31)	(1)
Financial and other expenditures			
Interest on long term debt	-	23	-
Repayment of long term debt	-	27	-
	-	50	-
Excess of expenditures over revenues	\$ (111)	\$ (81)	\$ (1)

Halifax Regional Water Commission

Airport aerotech system

Schedule E

Schedule of operations for wastewater/stormwater services

Year ended March 31, 2011

(in thousands)

	2011		2010
	Budget	Actual	Actual
Operating revenues			
Metered sales	\$ 566	\$ 501	\$ 576
Dewater facility/sludge lagoon	95	98	95
Airline effluent	15	34	40
Customer late payment charges	32	38	-
Area charges	1	1	36
	709	672	747
Operating expenditures			
Wastewater treatment	536	696	493
Wastewater/stormwater collection	80	89	64
Depreciation	-	17	8
	616	802	565
Operating (loss) profit	93	(130)	182
Financial and other expenditures			
Interest on long term debt	-	11	-
Repayment of long term debt	-	13	-
	-	24	-
Excess of (expenditures over revenues)			
revenues over expenditures	\$ 93	\$ (154)	\$ 182

