Halifax Water
Halifax Regional Water Commission

Item No. 2
Halifax Regional Council
March 1, 2011

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: Original Signed

Carl Yates, General Manager, Halifax Water

DATE: February 16, 2011

SUBJECT: **Halifax Regional Water Commission 2008/09 Annual Report**

INFORMATION REPORT

ORIGIN

Ongoing operational requirement.

BACKGROUND/DISCUSSION

The Board and staff of Halifax Water are pleased to present the Thirteenth Annual Report for the fiscal year ended March 31, 2009. The 2008/2009 fiscal year proved to be one of great challenge and opportunity for Halifax Water, and as such, is a fitting theme for the annual report.

Of particular note, the January 14, 2009 malfunction and subsequent recovery effort at the Halifax wastewater treatment facility was the major challenge and opportunity for Halifax Water staff. We are pleased that the recovery went according to schedule and ultimately culminated with the facility returning to full operation in June, 2010.

During the 2008/2009 fiscal year, many critical capital projects got underway including the large Freshwater Brook Sewer replacement project in southend Halifax, and the North Dartmouth Trunk Sewer project. Managing large and small scale projects as a merged water/wastewater/stormwater utility brings many efficiencies. These synergies position Halifax Water to provide world class services for our customers and our environment, and reinforce the one utility philosophy.

We appreciate the support of Regional Council and our customers as we address the infrastructure deficit within the wastewater/stormwater system and prepare for the implementation of federal regulations related to the CCME strategy.

BUDGET IMPLICATIONS

N/A

ALTERNATIVES

N/A

ATTACHMENT

Halifax Regional Water Commission 2008/09 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.

Report Prepared by: Original Signed

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

Halifax Water

Thirteenth Annual Report
March 31, 2009

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.*

- *We will fully engage employees through teamwork, innovation, and professional development.*

Halifax Water

Letter from the Chair

Nov. 14, 2009
Mayor Peter Kelly and Members of Council

Re: 2008/09 Annual Report

On behalf of the Halifax Water Board, I am pleased to submit the annual report for the 2008/09 fiscal year, which represents the first full year of operation for Halifax Water as a joint water, wastewater and stormwater utility, following the transfer of assets in August of 2007. Much planning was undertaken during the year, including the finalization of the organizational structure for the utility as it prepares to fulfill its new mandate. In addition to managing daily operations, the utility began looking ahead to the challenges and opportunities from the impending adoption of new regulations associated with the Canadian Council of Ministers of the Environment (CCME) Municipal Wastewater Effluent Strategy, a significant infrastructure deficit with the wastewater/stormwater system, and the implementation of a cost of service study to serve as the framework for a sustainable rate structure, consistent with the Public Utilities Act. The utility also had to deal with some important pressing issues as it prepared to assume ownership of the Halifax wastewater treatment facility after it became flooded on Jan. 14, 2009. As I write this letter, the utility has completed Phase 1 of the recovery, which includes the diversion of flows to the plant for effluent screening and the restoration of the odour-control system. The recovery is on schedule for full plant operation in the spring of 2010.

Amid the transition, trials and tribulation of 2008/09, Halifax Water achieved financial results that were better than projected, with a net income of $6.9 million from a total operating revenue of $86.9 million. This enabled the utility to seek a postponement in the filing of a cost of service study/rate application from its regulator, the Nova Scotia Utility and Review Board. Halifax Water now plans to file a cost of service study and rate application in the latter part of the 2009/10 fiscal year. It's expected that the future rate structure will have three distinct rates for the three distinct services the utility provides. In particular, it's envisioned that the wastewater rate structure will have a similar look and feel as the water structure, in that rates will have both a base charge for fixed costs and a consumption charge for variable costs. The stormwater charges are expected to be based on runoff related to impervious surface (such as asphalt and concrete, for example), a significant but necessary departure from the current structure based on water consumption.

Halifax Water also focused on the infrastructure renewal of wastewater assets, with the installation of the North Dartmouth trunk sewer along the shoreline of Lake Banook, the completion of a new wastewater pump station at Red Bridge Pond on the Waverley Road and the continuation of the Freshwater Brook sewer-separation project in the south end of Halifax. Much of the funding for these projects was provided through a federal program, for which the utility is grateful. Halifax Water is continuing its efforts to secure similar funding for the implementation of the CCME strategy, which will result in major regulatory changes in the wastewater industry. The utility recognizes the importance of the new national strategy in that it will elevate wastewater to the same level as water regulations, for

the protection of public health and the betterment of the environment.

Halifax Water continues to be a world leader in water-loss control and is a centre of excellence in water quality through its partnership with Dalhousie University. In 2008/09, the utility secured research funding through the Natural Sciences and Engineering Research Council of Canada with the creation of an Industrial Research Chair in water quality, to which Dr. Graham Gagnon was appointed. Halifax Water will have the privilege of accessing Dr. Gagnon's expertise while he takes a one-year sabbatical from Dalhousie University. This unique partnership reflects well on both institutions and will ensure that Halifax Water remains at the leading edge in the production of high-quality water, and that more students from around the world will be attracted to pursuing research at Dalhousie University. Closer to home, Halifax Water established two new scholarships for students at the Nova Scotia Community College that recognize the importance of diversity in the workplace: the Arnold Johnson Scholarship for African-Nova Scotians and the Jipuktuk Scholarship for First Nations.

The Halifax Water Board is pleased with the results to date of Canada's first regulated water, wastewater and stormwater utility. It is built on the dedication of its staff, the trust of its customers and the support of its shareholder, Halifax Regional Municipality. With these three pillars of strength, the utility is ready to embrace both the challenges and opportunities the 2009/10 fiscal year will bring.

Respectfully submitted,

Colleen Purcell, CA
Chair of the Board

Challenges and opportunities

Much was accomplished during the year in the areas of asset management, water quality, financial responsibility, safety and security, service excellence and environmental stewardship. Through its revised corporate balanced scorecard [CBS], Halifax Water continues to push for excellence and measure performance, all with the customer and the environment in mind. The elements of the CBS are portrayed in this year's annual report as we tackle challenges and opportunities head-on. A special thanks to staff is warranted, with the knowledge that long-term thinking is emerging to place the utility on a sustainable footing while balancing the current challenge of recovering the Halifax wastewater plant. It's at times like these that the following adage applies: "Never doubt that a small group of thoughtful, committed people can change the world. Indeed, it is the only thing that ever has."
— Margaret Mead

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

Board Of Commissioners
March 31, 2009

Harry McInroy
Chair

Colleen Purcell, CA
Vice Chair

Councillor Bill Karsten
Commissioner

Councillor Linda Mosher
Commissioner

Mayor Peter Kelly, MBA
Commissioner

Dan English, MPA
Commissioner

Councillor Bob Harvey
Commissioner

Tim Hosford
Commissioner

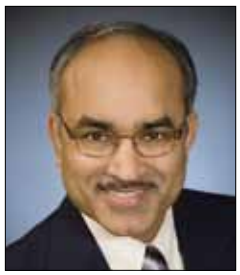
Executive Staff

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

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

J. Hannam, MBA, P.Eng.
Director, Engineering and Information Services

J. Sheppard, P.Eng.
Director, Environmental Services



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

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

V. Veinot, MPA
Director, Human Resources

Contents

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, 2009

Water

Precipitation

Measured at Pockwock	
Rainfall	1 372 mm
Snowfall	260.1 cm
Measured at Lake Major	
Rainfall	1 396.3 mm
Snowfall	194.4 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	33 415 821
Lake Major	15 635 850
Bennery Lake	444 060
Small Systems	264 379
Total	**49 760 110**

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 m^3**

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)	1 911
Supply services (10 mm - 400 mm)	82 963
Meters (15 mm - 250 mm)	79 082
Wastewater services	76 133

Population Served

Halifax Regional Municipality	
Estimated population served	340 000
Consumption per capita	335 litres/day

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

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

General Information of Utility

Year Ended March 31, 2009

Water

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 m^3/day

Middle Musquodoboit

Source- Musquodoboit River
Process- Raw water infiltration gallery
- Pressure filter
- Turbidity removal
Average production 61 m^3/day

Five Island Lake

Source - 1 well
Process - Ultraviolet disinfection
Average production 8 m^3/day

Silver Sands

Source - 2 wells
Process - Green sand pressure filters
-Iron and manganese removal
Average production 27 m^3/day

Miller Lake

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

ha - hectare
m - metre
m^2 - square metre
m^3 - cubic metre
mm - millimetre
km - kilometre
cm - centimetre

Wastewater / Stormwater Control Structures

	Stormwater	Capacity (m^3)
C	Meadowbrook Retention Pond	190
W	Oceanview Drive Retention Pond	3,700
W	Transom Drive Retention Pond	9,900
W	Glenbourne Estates Retention Pond	430
W	Parkland Avenue Retention Pond	36,000
W	Glen Forest Weir / Retention Pond	12
W	Lacewood Retention Pond	5,300
W	Susie Lake Control Structure	35,600
W	Volvo West Retention Pond	55,600
W	Old Sambro Road Retention Pond	20
W	Graystone Road Retention Pond	300
W	Tamarack Drive Retention Pond	270
E	Heritage Hills Retention Pond	13,800
E	Clement Street Retention Pond	244,000
E	Maynard Lake Dam	172,000

	Stormwater	Capacity (m^3)
E	Shubie Drive Retention Pond	19,500
E	Countryview Drive Retention Pond	3,200
E	Commodore Drive Retention Pond	9,400
E	Lemlair Row Retention Pond	15,300
E	Forest Hills Retention Pond	5,000
E	Cole Harbour Commons	2,000
E	Guysborough Retention Pond	9,000
E	John Stewart Dr Retention Pond A&B	550
E	Stewart Harris Drive Retention Ponds	160
E	Cranberry Lake Retention Pond	108
E	Gregory Drive Retention Pond	80
E	Main Street Retention Pond	130
E	Kuhn Marsh Dam	60,000

C = Central; W = West; E = East

Financial Overview

Abbreviated Financial Information
March 31, 2009

ASSETS			
Fixed			
Utility Plant in Service at Cost			$ 668,528,723
Provision for Depreciation			($ 186,055,382)
Depreciated Cost of Utility Plant			$ 482,473,341
Plant Under Construction			$ 47,983,645
Other			$ 175,617
Current			$ 47,505,578
TOTAL ASSETS			**$ 578,138,181**
LIABILITIES			
Long Term Debt			$ 58,374,043
Other Than Long Term Debt			$ 27,591,663
TOTAL LIABILITIES			**$ 85,965,706**
EQUITY			
Special Purpose Reserves			$ 22,450,474
Contributed Capital Surplus			$ 451,088,465
			$ 473,538,939
Operating Surplus April 1, 2008			$ 11,914,902
2008/2009 OPERATIONS			
Operating Revenue		$ 86,917,676	
Financial Revenue		$ 3,543,237	
Revenue From all Sources		$ 90,460,913	
Expenditures			
Operating Expenses	$ 51,610,843		
Depreciation and Loss on Disposal	$ 5,855,412		
Grant in lieu of taxes HRM	$ 3,622,229		
Financial	$ 22,518,779	$ 83,607,263	
Excess of Revenue over Expenditures			$ 6,853,650
Stewardship Contributions Charged to Current Surplus			($ 135,016)
Operating Surplus March 31, 2008			**$ 18,633,536**
TOTAL EQUITY			**$ 492,172,475**
TOTAL LIABILITIES & EQUITY			**$ 578,138,181**

Challenges and opportunities

We have many positive achievements to report for the year. As we completed our first full year as a water, wastewater and stormwater utility, Halifax Water has placed emphasis on customer service, environmental excellence and fiscal responsibility. In industries characterized by regulation, the merger of wastewater and stormwater assets with water, as one unified utility, has given us the opportunity to gain operational efficiencies, deliver enhanced service to customers and focus on environmental compliance.

We enjoyed a stable financial year, with many capital projects progressing with financial assistance from the Canada Strategic Infrastructure Fund (CSIF), the Municipal Rural Infrastructure Fund (MRIF) and gas tax programs. Halifax Water will benefit from these programs until the end of the 2009/10 fiscal year, after which new funding sources will be required to maintain base capital programs. It is anticipated that without external funding, these capital programs will have to be funded through the rate base. Any rate increases will be subject to the oversight of the Nova Scotia Utility and Review Board (NSUARB). Perhaps the most noteworthy achievements occurred behind the scenes, as we looked to the future and made significant progress with several planning initiatives for operational and facilities improvement. Organizational planning continued with the realignment of departmental responsibilities and cost centres in preparation for a formal cost of service study, as mandated by the NSUARB.

Service installation to the community of North Preston

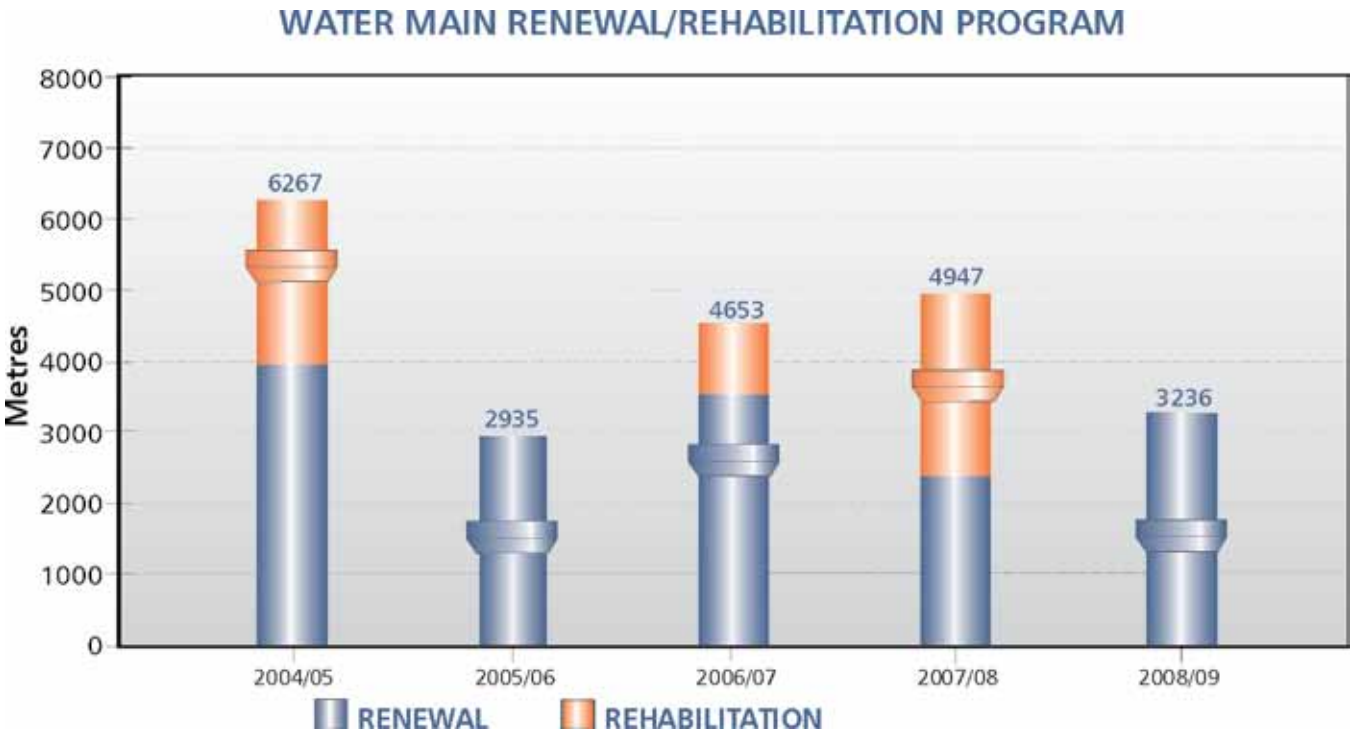
New wastewater pumping station at Red Bridge Pond, Waverley Road

High-quality water

A reliable supply of high-quality drinking water demands and requires a well-maintained water main distribution system. Ongoing water renewal programs, which improve the structural integrity, add capacity and enhance water quality within the distribution system, resulted in the replacement of 3,236 metres of mains during the year. We continued to expand and improve water service to existing residents with construction of new water mains in the communities of North Preston and Middle Sackville. Growth in the distribution system also occurred through continued subdivision-development activity.

The commissioning of the pilot plant at the J.D. Kline Water Supply Plant was completed, and research associated with the Industrial Research Chair of the Natural Sciences and Engineering Research Council of Canada (NSERC) got underway. The plant is being used for research directly related to the advancement of water-treatment technology, treatment optimization and staff training. The practical application of this research will help ensure excellent water quality well into the future, thanks to a strong partnership forged with Dalhousie University.

On Feb. 11, 2008, our parent organization, Halifax Regional Municipality (HRM), recognized the official opening of the Halifax Wastewater Treatment Facility (WWTF), the first of three plants forming the Halifax Harbour Solutions Project(HHSP). The rapid and significant improvement in harbour water quality resulted in the opening of supervised beaches at Black Rock and the Dingle for the first time in decades. Unfortunately, in the early hours of Jan. 14, 2009, the Halifax plant suffered a local area power outage and subsequent backup-power failure, which led to flooding in the facility and its eventual shutdown. Since that time, the primary focus has been to get the plant working again, minimize the risk of future flooding and shield ratepayers from the financial fallout. Significant progress has been made on all fronts. Halifax Water has hired external consultants, as well as used in-house expertise, to draft an operational review of all HHS plants to ensure that a similar event doesn't occur in Halifax, Dartmouth or Herring Cove. Even with this setback, Halifax Water has made preparations to retain ownership of the plant in compliance with the Transfer Agreement of June 12, 2007, which governs the transfer of wastewater and stormwater assets from HRM to Halifax Water. The Halifax plant was scheduled for transfer to Halifax Water in June of 2008.



Service excellence

The Commission ended the year with 79,073 water customer connections and 76,133 wastewater/stormwater customer connections. These included the urban core, satellite and airport/aerotech systems.

Customer service staff answered 59,807 telephone enquiries during the year, a slight increase over the previous year.

The rerouting of the meter routes within Halifax Water's service area was completed, resulting in more efficient and balanced routes for meter readings. This reduced the number of meter routes from 258 to 230, a decrease of 11%. Efficiency gains through this reduction will be allocated to the meter change-out program. The conversion of meters 20 mm and above to radio frequency continued with the completion of the large meters 80 mm and above. The focus now will be on the remaining meters 20 mm and above. With the installation of the mobile radio-frequency read system (RF) in the previous year, the converted meters are switched to monthly reading and billing. During the year, the decision was made to install RF meters for all new 15 mm accounts, as well as routine replacements. This will start the conversion of the largest customer base to enable more frequent reading and billing without incurring significant operational costs.

The large meter and statistical sample-testing programs continued during the year to ensure and protect the accuracy of the utility's revenue. The emphasis on handling wastewater/stormwater calls while still using the HRM call centre, particularly for emergency calls, was continued as call centre staff became more familiar with this operation. An increased emphasis on collection and chronic delinquent customers was also initiated, with changes made in procedures to streamline the collection process for these accounts. This resulted in a decrease in the write-off of uncollectable accounts from previous years.

Additional staff was hired in the accounting department to manage the increased workload. Changes were made to the accounting system to separate the costs of delivering each service to provide for the proper allocation of expenses for the cost of service study and anticipated future rate structure, based on the cost of providing each service. Internal controls were reviewed and updated where necessary. Timely and accurate financial information was available on demand to user departments throughout the SAP enterprise system and presented to Board members at their monthly meetings.

Responsible financial management

The 2008/09 fiscal year was the first full year that Halifax Water operated as a joint water, wastewater and stormwater utility following the transfer of the wastewater and stormwater operations by HRM on Aug. 1, 2007. Therefore, a comparison with 2007/08 must be made in the context that in the previous year, results were presented for 12 months for water operations and eight months for wastewater and stormwater.

The basis on which the financial statements are presented was also changed in the 2008/09 fiscal year, in that they are based on the *Accounting and Reporting Handbook* (the *Handbook*) issued by the NSUARB, the Commission's regulator, rather than *Canadian General Accepted Accounting Principles*.

The final increase in water rates that was approved by the NSUARB in 2006 was implemented on April 1, resulting in a rise in rates ranging from 2.48% to 3.19%; that was the only adjustment in rates during the year.

In conjunction with the order by the NSUARB, that the airport/aerotech water, wastewater and stormwater system be treated as a separate utility from the urban core, a rate application was submitted for rates, and charges for this system were heard by the NSUARB on Aug. 20, 2008. In its decision on Nov. 19, 2008, the NSUARB approved a separate schedule of rates and charges, and rules and regulations for the airport/aerotech system, including separate charges for wastewater and stormwater services in addition to water.

The actual financial results achieved in fiscal year 2008/09 were better than projected. The net income of $6,853,650 exceeded the budget amount of $1,950,250. As the financial statements are presented in accordance with the recommendations of the *Handbook* for water utilities, as issued by the NSUARB, the results include the total cost of debt servicing.

Residents of North Preston tour the Lake Major Water Supply Plant

The audited financial statements contained in this report were prepared based on the *Handbook*, and the previous year's numbers were restated to reflect the change. A summary of the actual and budget variances is outlined below. When comparing the actual and budget results, please note that the budget was based on the completion and transfer of the components of the HHS project. Due to the flooding at the Halifax WWTF and other delays, some of the projected costs of operating the components of this project were not incurred, with results proving better than those reported in the budget.

A detailed review of the financial results shows that total operating revenue amounted to $86,917,676 and was under budget by $3,253,989. The budget allowed for an increase in customer base of 1,000 connections but a decrease of 1% in total consumption. The actual reduction in metered consumption exceeded the projected 1%, as the utility continues to experience a decline in water sold despite a continued increase in customer base. The importance of a sound rate structure is reflected in a comparison of water and wastewater/stormwater operating revenue, in which water revenue is a combination of base and consumption charges while wastewater/stormwater revenue is solely consumption based. Water-operating revenue was $441,500 under budget, while wastewater/stormwater was $2,032,716 under budget. Actual consumption for the urban core and satellite systems totalled 39,032,968 m3 and decreased 3.9% over the previous year. Part of this decrease was due to the implementation of meter rerouting during the year that resulted in fewer billed consumption days than the year before. While the actual revenue calculation adjusts for this, the reporting of billed consumption does not. The consumption at the airport/aerotech system totaled 337,319 m3 and increased 20.52% over 2007/08, with more accurate measurement

Installation of separated sewer pipes along Inglis Street as part of the Freshwater Brook Sewer Project

via the installation of new meters and some growth. Fire protection revenue equalled the budget as per the NSUARB approved calculation. Sprinkler service and small system revenue were under budget by $17,000. Revenue from the airport/aerotech system exceeded budget by $193,070 and reflects the rate increase that was approved by the NSUARB effective Dec. 1, 2009, and new customers. Other operating income exceeded budget by $955,492, which reflects additional interest income on cash reserves resulting from delays in capital spending and additional income from cellphone-tower leases.
Metered sales for both water and wastewater/stormwater service are the single largest component of operating revenue at $73,366,393, or 84.4%. Fire protection amounted to $9,216,715, or 10.6%, of total operating revenue. The remaining components of operating revenue are detailed above.

Operating expenditures, including depreciation, amounted to $57,466,255 and were under budget by $7,863,512. All of the direct operating costs of providing water, wastewater and stormwater service were under budget. Water supply and treatment was under budget by $272,584 due to planned work that wasn't completed and under-spending in certain cost centres. Water transmission and distribution was under budget by $996,476 due to lower operating costs and staffing vacancies.
Wastewater/stormwater collection was under budget by $3,338,447, and wastewater treatment was under budget by $2,698,511. The budget anticipated that the HHS project would be complete, and the Halifax and Dartmouth treatment plants and associated collections systems would be fully operational. Delays in this project and the resulting decrease in operating costs were the main reason for the significant reduction, with the remainder consisting of under spending due to staffing vacancies, lower operating costs and some planned work that wasn't completed.
Common costs—including environmental, engineering and information services; customer service; and administrative and pension—are applicable to all services. Many of these costs came close to budget, with under-spending in environmental services and customer service due to understaffing,

while administration and pension were over budget due to the required calculation for pension costs under CICA Section 3451. The costs of operating the airport/aerotech system were also lower than anticipated.

Operating revenue and expenditures combined to generate an operating profit of $29,451,421, which was $4,609,523 better than budget. Financial and other revenue totalled $3,543,237, exceeding budget by $728,189. Most of this was interest on cash reserves as a result of the transfer, as well as the timing of capital and operating expenditures and better-than-projected results.

Financial and other expenditures, including interest on long-term debt, principal repayment of long-term debt, amortization of debt-issue costs and grant in lieu of taxes for water service, amounted to $26,141,008, exceeding budget by $434,312 due to the principal payments on the long-term debt. The HHS assets and applicable long-term debt will be recognized on the balance sheet when the assets are transferred after substantial completion. Principal debt payments are now included in the statement of operations, with the adoption of a statement presentation based on the Handbook.

The grant in lieu of taxes is applicable to water service and based on the current agreement with HRM, which has been approved by the NSUARB and expires in 2010.

The Commission borrowed $2,000,000 through the Nova Scotia Municipal Finance Corporation in July of 2008. This was to purchase watershed land and for overall infrastructure replacement, rehabilitation and extension.

Select harvesting on the Lake Major Watershed

Fenerty Road storm sewer system

The combination of factors detailed above resulted in an excess of revenue over expenditures for the year of $6,853,650, including the principle repayment of long-term debt. Halifax Water continues to experience flat revenue growth in water service, since the increase in customer base is offset by a decrease in annual water sold due to conservation. This also results in a drop in revenue for wastewater/stormwater service, since the current rates are all consumption based. With operating and capital expenditures increasing through a combination of inflation, regulatory compliance and infrastructure renewal, the current rates will not be sufficient in the future to carry out the mandate the Commission was given, and it will be necessary to apply for rate increases. A cost of service study ordered by the NSUARB for the wastewater and stormwater operations was expanded to include water operations; it was awarded to GA Isenor Consulting Limited in association with WH Gates Utility Consultants Limited and RM Loudon Limited. The study was underway at the end of the year and will be completed in the 2009/10 fiscal year. A cost of service demand analysis study for water service ordered by the NSUARB in conjunction with the 2006 water rate decision was nearing completion at year-end; the results will be factored into the cost of service study to recommend a rate structure that is fair and equitable for all customers.

Utility plant in-service at year-end totalled $668,528,722 and is detailed in Schedule A of the financial statements; it represents net additions of $59,550,107 for the year. Water fixed assets increased by a net of $15,528,027; the largest component was in transmission and distribution mains, with net additions of $9,849,915 representing the extension and rehabilitation of the distribution system. The remaining increase in water plant in-service intangibles consisted of services, land and land rights, structures and improvements, meters, hydrants, transportation and other equipment. Wastewater and stormwater fixed assets increased by a net of $44,569,612; the largest component was the collection system, with net additions of $20,792,402, followed by structures and improvements, with a net increase of $10,002,047. The remaining increases were divided among intangibles, land and land rights, aerotech and other small systems. The largest portion of these additions represented completed projects that were presently work in process transferred from HRM in 2007. Of the total increase in utility plant in-service, $7,202,277 represented contributions of plant in-service or capital of water, wastewater and stormwater assets.

As of March 31, 2009, the Commission had plant under construction in the amount of $47,983,645. Of this amount, $26,620,242 remained from the balance that was transferred from HRM the previous year. These assets will be taken into plant in-service in the next fiscal year. The remaining $21,363,403 represented water and wastewater capital projects started by Halifax Water and had not been completed by year-end.

Effective asset management

Above: **Lowering of Lake Banook in preparation for the North Dartmouth Trunk sewer installation**

Far left: **Thrust Block construction, Hammonds Plains Road**

Middle left: **North Dartmouth Trunk sewer project**

Left: **Northwest Arm Trunk sewer cleaning**

Capital projects continued to make a big impact on operational improvements and increased capacity. The North Dartmouth Trunk Sewer project was completed on schedule in December, with all restoration and lake levels back to normal for the 2009 World Canoe Championships. The new pumping station at 200 Waverley Rd. further improved the wastewater capacity in this sewer shed. A major improvement to the quality and reliability of the water supply for North Preston was achieved when a four kilometre main was installed to provide a direct link to the Lake Major core system and decommissioning of the small local water supply plant. The Freshwater Brook sewer renewal and separation project in the southern portion of the Halifax

Watermain renewal, Canary Crescent

peninsula continued into Phase 3, with anticipated completion by the end of 2009. Halifax Water worked with HRM on a series of integrated street, water and sewer projects that jointly renewed structurally deficient water and sewer pipes in conjunction with HRM street upgrades. This cost-effective program provides valuable improvements to the infrastructure while minimizing impacts on surrounding neighbourhoods. In anticipation of a 2009 structural relining project and to increase current capacity, the Northwest Arm Trunk Sewer was cleaned thanks to an aggressive program led by our wastewater operations staff.

Far right: **Freshwater Brook sewer replacement project**

Right: **Red Bridge Pond Pumping Station upgrade**

Below: **North Dartmouth Trunk sewer project**

Freshwater Brook sewer replacement project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Regulatory Compliance and environmental stewardship

Compliance with regulatory requirements remains the driving factor of the wastewater side of business. This includes all aspects of obtaining and maintaining operational permits, liaison with regulators, sampling and reporting. The Canadian Council of Ministers of the Environment (CCME) Municipal Wastewater Effluent Strategy will require a major focus all wastewater and stormwater infrastructure and will be one of the main strategic drivers for the next 30 years.

The environmental services section of Halifax Water will lead efforts to standardize regular compliance reporting to provincial and federal regulators. To maintain compliance with operating permits, each regulated facility requires reporting on physical, biological and chemical parameters, which entails sampling, testing, data interpretation and analysis. Based on the analysis, action plans will be developed to address regulatory requirements. Plans to automate the data capture process will include real-time acquisition of data through our Supervisory Control and Data Acquisition (SCADA) system and archiving in our data historian.

Halifax Wastewater Treatment Facility on the road to recovery

Motivated and satisfied employees

As of March 31, 2009, the utility had 385 employees. With a focus on attracting and retaining knowledgeable and dedicated staff, we signed a memorandum of understanding with the Nova Scotia Community College to fund scholarships and act as an employment-placement resource for graduating students from the technology and environmental sciences programs. In addition to two existing scholarships funded by Halifax Water, two more were created to recognize and celebrate diversity in the communities we serve. The Arnold Johnson Scholarship was set up for African-Nova Scotian students, and the Jipuktuk etli opatua'timk Award was established for First Nations students; students taking two-year technology programs can apply for them.

Human resources staff were well entrenched in the SAP HR payroll project during 2008/09. The SAP project is the third module implemented at Halifax Water; it will replace the payroll application in the legacy system and provide corporate human resource services across the organization.

Staff continue to help those in the community who are in need. Annual fundraising efforts garnered enough money to buy gifts for about 50 children during the holidays; staff also support food and furniture banks and community shelters.

Employee outreach activity creates ties with numerous community organizations. In the April '08 Spinning Revolution, staff members cycled to raise funds for Dartmouth General Hospital's CT scanner campaign. In May of 2008, a Halifax Water team competed in the Blue Nose Marathon to raise money for the Nova Scotia Special Olympics. Since the Special Olympics were held in Halifax, employees volunteered to help athletes at the Games.

Spring Revolution – spinning for a good cause

Signing of Memorandum of Understanding with a great business partner, the Nova Scotia Community College

Catching a break at the summer picnic

Closer to our own line of work, staff volunteered with the Lake Banook cleanup in conjunction with the North Dartmouth Trunk Sewer project. Employees were taught "Wastewater 101" and were so eager to learn about this topic that it was presented several times. Other lunch-and-learn sessions included the Water Loss Control Program, Groupwise and the Water Quality Master Plan.

But it wasn't all work and no play. Employees assembled a team for the summer co-ed softball league, and during the winter a hockey team was quite active. The annual summer picnic brought everyone together, and a winter holiday party was organized for the children of staff members.

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

Irene Wheatley – April 1, 2008
Doug Lynch – July 1, 2008
Bill Cleveland – Aug. 1, 2008
Terry Pelrine – Aug. 1, 2008
Danny Smith – Sept. 1, 2008
Kenny Newcombe – Sept. 1, 2008
Donna Garnett – Oct. 1, 2008
Brian MacNeil – Nov. 1, 2008
Ken Baker – Dec. 1, 2008
Peter Sullivan – Jan. 1, 2009
Larry Drew – Jan. 1, 2009
Wayne Martin – Feb. 1, 2009

Long-service awards were presented to:

30 years:
Kenneth Baker
Belinda Collier
Debby Leonard
Graham MacDonald
Raymond Morris
Kenneth Nelson
Peter Sullivan

25 years:
Steve Bezanson
Ken Newcombe
Wayne Foggoa
Pauline Holmes

20 years:
Stephen Baxter
Margaret MacDonald
Carolyn Bruce
Bob Goguen
Carl Yates
Eddie Brine
William Dahr
Christopher McSweeney
Brent MacDonald

10 years:
Corey Whalen
Robert Annett
Stewart Johnson
David Swim
Reid Campbell
Wendell Coveyduc
Bruce Steadman
Sherry Parsons
Deborah Zinck

Workplace safety and security

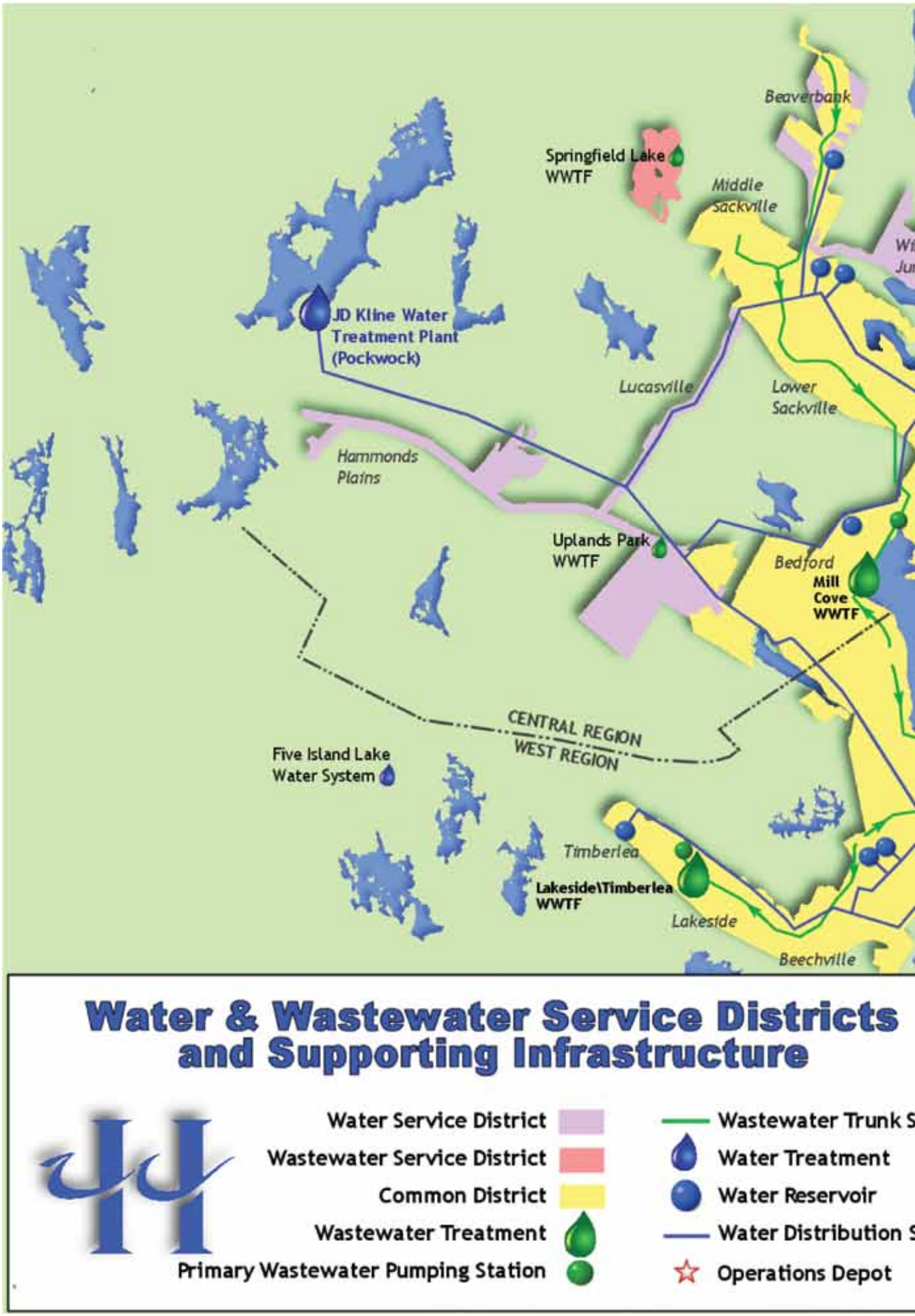
Wastewater 101

Not only is placing value on workplace safety and security part of our corporate vision but it is also emphasized by making safety the responsibility of every employee, as detailed in the Nova Scotia Occupational Health and Safety Act.

Halifax Water has an active Joint Occupational Health & Safety Committee that identifies hazards to health and safety in the workplace, conducts workplace inspections, and completes accident investigations.

Processes are underway to formalize "locates" in the field. Partnering with other utilities, this will enhance one-call locates for all underground utilities, especially during emergencies. The protocol includes ensuring that up-to-date information is accessible to staff.

Inventory of wastewater and stormwater assets continues, with security reviews of all assets, including training for risk assessments, using the RAM-W© methodology developed by the Water Research Foundation through Sandia Laboratories. Formal risk assessments for wastewater and stormwater assets were near completion at the end of the fiscal year, similar to those previously done for water assets.


Beaverbank
Springfield Lake WWTF
Middle Sackville
JD Kline Water Treatment Plant (Pockwock)
Lucasville
Lower Sackville
Hammonds Plains
Uplands Park WWTF
Bedford
Mill Cove WWTF
CENTRAL REGION
WEST REGION
Five Island Lake Water System
Timberlea
Lakeside\Timberlea WWTF
Lakeside
Beechville
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


Fall River
(Lockview\MacPherson)
WWTF
Fall River
Miller Lake
Water System
Waverley
Frame Subdivision
WWTF
Lakeview
Central Water
Operations Depot
Central Wastewater
Operations Depot
CENTRAL REGION
EAST REGION
North Preston
WWTF
East
Preston
Lake Major Water
Treatment Plant
Cherrybrook
Burnside
Bedford
Basin
West
Wastewater
Operations
Depot
Dartmouth
Cole
Harbour
East Wastewater
Operations Depot
East
Water
Operations
Depot
Dartmouth
WWTF
Halifax
Halifax
WWTF
Belmont
WWTF
Cow Bay
Silversands
Water System
Eastern Passage
WWTF
West Water
Operations
Depot and
Administration
Office
Halifax
Harbour
Eastern
Passage
Spryfield
Fergusons
Cove
Herring Cove
WWTF
Herring
Cove
Atlantic
Ocean
Systems Outside Map Limits
- Collins Park Water System
- Middle Musquodoboit Water & Wastewater
- Wellington Subdivision Wastewater System
- Airport\Aerotech Water & Wastewater
- Bomont Water System

TYPICAL ANALYSIS OF POCKWOCK/LAKE MAJOR WATER
2008 - 2009

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

PARAMETERS	(Halifax) POCKWOCK		(Dartmouth) LAKE MAJOR		GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	
	Raw Water	Treated Water	Raw Water	Treated Water	Maximum Acceptable Concentration	Objective Concentration
Alkalinity (as $CaCO_3$)	<1.0	18.0	<1.0	15.5	-	-
Aluminum	0.153	0.105	0.233	0.048	-	*0.20/0.10
Ammonia (N)	<0.05	<0.05	<0.05	<0.05	-	-
Arsenic	<0.002	<0.002	<0.002	<0.002	0.010	-
Calcium	1.3	4.2	0.9	7.4	-	-
Chloride	6.3	9.5	5.0	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	-
Color (True Color Units)	16.0	3.0	30.0	3.0	-	≤15.0
Conductivity (μmho/cm)	39.0	87.0	33.0	98.0	-	-
Copper (Total)	0.019	0.003	0.50	0.002	-	≤1.0
Fluoride	<0.10	0.74	<0.10	0.80	1.5	0.8 -1.0
Hardness (as $CaCO_3$)	5.3	13.3	4.0	20.0	-	-
Hardness (as $CaCO_3$) (Grains)	0.35	0.94	0.3	1.4	-	-
HAA5 (avg.)	<0.005	0.070	<0.005	0.064	0.080	-
Iron (Total)	<0.053	<0.020	0.075	<0.020	-	≤0.3
Langelier Index @ 5°C	-4.9	-2.4	-5.4	-2.3	-	-
Langelier Index @ 60°C	-4.5	-2.2	-4.4	-2.1	-	-
Lead (Total) (μg/l)	<0.5	<0.5	<0.5	<0.5	10.0	-
Magnesium	0.50	0.50	0.4	0.4	-	-
Manganese (Total)	0.052	0.007	0.063	0.010	-	≤0.05
Mercury (μg/l)	<0.01	<0.01	<0.01	<0.01	1.0	-
Nitrate (as N)	0.06	0.07	0.07	0.07	10.0	-
Nitrite (as N)	<0.01	<0.01	<0.01	<0.01	3.2	-
pH (pH Units)	5.6	7.3	5.4	7.4	-	6.5 - 8.5
Potassium	0.4	0.4	0.4	0.4	-	-
Sodium	4.4	13.5	3.7	12.0	-	≤200
Solids (Total Dissolved)	22.0	47.5	16.0	57.0	-	≤500
Sulfate	6.0	8.0	3.0	15.2	-	≤500
Turbidity (NTU)	0.30	<0.1	0.28	<0.1	**0.2/0.5	≤5
Total Organic Carbon (TOC)	2.9	1.4	5.1	1.7	-	-
THM's (avg.)	<0.001	0.073	<0.001	0.071	0.100	-
Uranium (μg/l)	<0.1	<0.1	<0.1	<0.1	20.0	-
Zinc (Total)	0.012	0.060	0.014	0.100	-	≤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
2008 - 2009

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

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	38.0	32.0	33.0	-	-
Aluminum	0.150	0.084	<0.010	<0.010	-	0.20/0.10
Ammonia (N)	<0.05	<0.05	<0.05	<0.05	-	-
Arsenic	<0.002	<0.002	0.004	0.004	0.010	-
Calcium	1.9	9.5	9.1	9.4	-	-
Chloride	6.0	12.0	4.0	5.8	-	≤250
Chlorate	<0.1	0.5	<0.1	<0.1	1.0	-
Chlorite	<0.1	<0.1	<0.1	<0.1	1.0	-
Color (True Color Units)	59.0	<3.0	3.0	3.0	-	≤15.0
Conductivity (μmho/cm)	38.0	135.0	80.0	88.0	-	-
Copper (Total)	0.500	0.054	<0.010	0.037	-	≤1.0
Fluoride	<0.1	<0.1	0.40	0.40	1.5	0.8 -1.0
Hardness (as $CaCO_3$)	7.0	26.0	27.0	28.0	-	-
Hardness (as $CaCO_3$) (Grains)	0.49	1.8	1.9	2.0	-	-
HAA5 (avg.)	<0.005	0.091	<0.005	0.006	0.080	-
Iron (Total)	0.24	0.020	<0.050	<0.050	-	≤0.3
Langelier Index @ 5°C	-2.8	-1.8	-2.0	-1.8	-	-
Langelier Index @ 60°C	-2.4	-1.5	-1.9	-1.61	-	-
Lead (Total) (μg/l)	0.9	<0.5	<0.5	<0.8	10.0	-
Magnesium	0.50	0.60	1.0	1.0	-	-
Manganese (Total)	0.14	0.024	<0.010	<0.002	-	≤0.05
Mercury (μg/l)	<0.01	<0.01	<0.01	<0.01	1.0	-
Nitrate and Nitrite (as N)	<0.07	0.06	<0.05	<0.05	10.0	-
pH (pH Units)	6.1	7.3	7.0	7.2	-	6.5 - 8.5
Potassium	0.3	0.5	0.5	0.5	-	-
Sodium	4.0	19.0	6.1	6.7	-	≤200
Solids (Total Dissolved)	16.0	77.0	59.0	63.0	-	≤500
Sulfate	2.0	16.2	2.0	2.2	-	≤500
Turbidity (NTU)	0.65	0.1	<0.1	<0.1	**0.2/0.5	≤5
Total Organic Carbon (TOC)	4.5	2.0	0.8	<0.6	-	-
THM's (avg.)	<0.001	0.089	<0.001	<0.001	0.100	-
Uranium (μg/l)	<0.1	<0.1	12.0	10.2	20.0	-
Zinc (Total)	0.018	0.079	<0.010	0.006	-	≤5.0
PCB (μg/l)	<0.1	<0.1	<0.05	<0.05	-	-
Gross Alpha / Gross Beta (Bq/L)	<0.03 / 0.06	<0.03/<0.03	0.16/0.32	0.17/0.31	0.1 / 1.0	-
Lead-210 (Bq/L)	-	-	<0.04	0.05	0.1	-

*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
2008 - 2009

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

PARAMETERS	LIVELY SUBDIVISION		MILLER LAKE		GUIDELINES FOR CANADIAN DRINKING WATER QUALITY	
	Raw Water	Treated Water	Raw Water	Treated Water	Maximum Acceptable Concentration	Objective Concentration
Alkalinity (as $CaCO_3$)	21.0	67.0	120.0	56.0	-	-
Aluminum	<0.010	<0.010	<0.010	0.168	-	0.20/0.10
Ammonia (N)	<0.05	<0.05	<0.05	<0.05	-	-
Arsenic	<0.002	<0.002	<0.020	0.008	0.010	-
Calcium	11.5	11.0	85.0	35.0	-	-
Chloride	19.0	18.0	140.0	62.0	-	≤250
Chlorate	-	-	<0.1	<0.1	1.0	-
Chlorite	-	-	<0.1	<0.1	1.0	-
Color (True Color Units)	13.0	<5.0	<5.0	<5.0	-	≤15.0
Conductivity (μmho/cm)	150.0	213.0	760.0	364.0	-	-
Copper (Total)	<0.010	<0.002	<0.010	0.003	-	≤1.0
Fluoride	0.10	0.10	0.30	0.40	1.5	0.8 -1.0
Hardness (as $CaCO_3$)	38.5	36.3	260.0	107.6	-	-
Hardness (as $CaCO_3$) (Grains)	2.7	2.5	18.3	7.7	-	-
HAA5 (avg.)	-	-	<0.005	0.036	0.080	-
Iron (Total)	6.3	<0.020	<0.020	<0.050	-	≤0.3
Langelier Index @ 5°C	-2.4	-1.1	+0.2	-0.5	-	-
Langelier Index @ 60°C	-2.2	-0.8	+0.5	+0.1	-	-
Lead (Total) (μg/l)	<0.5	<0.5	<0.5	<0.5	10.0	-
Magnesium	2.2	2.1	11.0	4.8	-	-
Manganese (Total)	1.4	0.110	0.010	0.007	-	≤0.05
Mercury (μg/l)	<0.01	<0.01	<0.01	<0.01	1.0	-
Nitrate and Nitrite (as N)	<0.05	<0.05	0.09	0.07	10.0	-
pH (pH Units)	6.8	7.8	8.0	7.8	-	6.5 - 8.5
Potassium	0.4	2.2	1.7	0.9	-	-
Sodium	7.2	34.0	50.0	28.0	-	≤200
Solids (Total Dissolved)	85.0	127.0	408.0	195.0	-	≤500
Sulfate	15.0	15.0	42.0	22.0	-	≤500
Turbidity (NTU)	47.0	<0.10	0.2	0.20	*0.2/0.5	≤5
Total Organic Carbon (TOC)	0.6	0.7	<0.5	1.1	-	-
THM's (avg.)	<0.001	0.001	<0.001	0.042	0.100	-
Uranium (μg/l)	<0.10	<0.10	3.6	1.5	20.0	-
Zinc (Total)	0.012	0.069	0.013	0.047	-	≤5.0
PCB (μg/l)	<0.10	<0.10	<0.10	<0.10	-	-
Gross Alpha / Gross Beta (Bq/L)	0.04 / 0.06	<0.04 / 0.08	0,29 / 0.27	0.22 / 0.24	0.1 / 1.0	-
Lead-210 (Bq/L)	-	-	-	<0.02	0.1	-

*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 2008 - 2009

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

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 $CaCO_3$)	57.0	48.0	8.5	10.0	-	-
Aluminum	0.026	0.140	0.055	0.078	-	0.20/0.10
Ammonia (N)	<0.05	<0.05	<0.05	<0.05	-	-
Arsenic	<0.002	<0.002	0.002	<0.002	0.010	-
Calcium	17.0	16.7	6.1	5.9	-	-
Chloride	8.0	9.6	37.2	40.3	-	≤250
Chlorate	<0.1	0.2	<0.1	0.85	1.0	-
Chlorite	<0.1	<0.1	<0.1	<0.1	1.0	-
Color (True Color Units)	<5.0	<5.0	22.0	12.0	-	≤15.0
Conductivity (μmho/cm)	165.0	167.0	158.0	180.0	-	-
Copper (Total)	0.002	0.002	0.002	0.017	-	≤1.0
Fluoride	<0.1	<0.1	<0.10	<0.1	1.5	0.8 -1.0
Hardness (as $CaCO_3$)	66.0	65.0	19.0	18.0	-	-
Hardness (as $CaCO_3$) (Grains)	4.6	4.6	1.3	1.3	-	-
HAA5 (avg.)	<0.005	<0.005	<0.005	0.200	0.080	-
Iron (Total)	0.050	<0.020	0.150	0.166	-	≤0.3
Langelier Index @ 5°C	-1.8	-1.8	-3.0	-2.7	-	-
Langelier Index @ 60°C	-1.5	-1.5	-2.7	-2.5	-	-
Lead (Total) (μg/l)	1.1	<0.5	<0.5	<0.5	10.0	-
Magnesium	5.8	5.5	0.9	0.8	-	-
Manganese (Total)	<0.002	<0.002	0.045	0.016	-	≤0.05
Mercury (μg/l)	<0.01	<0.01	<0.01	<0.01	1.0	-
Nitrate and Nitrite (as N)	0.91	1.0	0.20	0.18	10.0	-
pH (pH Units)	6.6	7.3	6.9	7.1	-	6.5 - 8.5
Potassium	1.0	1.0	1.1	1.1	-	-
Sodium	5.0	6.9	24.0	26.0	-	≤200
Solids (Total Dissolved)	92.0	93.0	85.0	93.0	-	≤500
Sulfate	11.5	14.3	7.5	7.7	-	≤500
Turbidity (NTU)	0.20	0.20	0.46	0.70	*0.2/0.5	≤5
Total Organic Carbon (TOC)	0.5	0.6	3.7	3.9	-	-
THM's (avg.)	<0.001	0.009	<0.001	0.142	0.100	-
Uranium (μg/l)	0.13	<0.10	<0.10	<0.10	20.0	-
Zinc (Total)	0.006	0.010	0.011	0.015	-	≤5.0
PCB (μg/l)	<0.10	<0.10	<0.10	<0.10	-	-
Gross Alpha / Gross Beta (Bq/L)	<0.05 / 0.06	<0.05 / 0.06	<0.04 / 0.04	<0.03 / 0.05	0.1 / 1.0	-
Lead-210 (Bq/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 1.0 NTU.

TYPICAL ANALYSIS SMALL SYSTEMS
2008 - 2009

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

PARAMETERS	NORTH PRESTON		SILVER SANDS (Cow Bay)		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	5.0	61.0	64.0	-	-
Aluminum	0.017	0.040	<0.010	<0.010	-	0.20/0.10
Ammonia (N)	<0.05	<0.05	<0.05	<0.05	-	-
Arsenic	<0.002	<0.002	<0.002	<0.002	0.010	-
Calcium	3.6	3.5	35.0	37.0	-	-
Chloride	22.0	25.0	63.0	65.2	-	≤250
Chlorate	<0.01	<0.01	<0.01	<0.01	1.0	-
Chlorite	<0.01	<0.01	<0.01	<0.01	1.0	-
Color (True Color Units)	7.0	<5.0	<5.0	<5.0	-	≤15.0
Conductivity (µmho/cm)	895.0	108.0	370.0	378.0	-	-
Copper (Total)	<0.006	0.053	<0.010	0.004	-	≤1.0
Fluoride	<0.1	0.90	0.20	0.20	1.5	0.8 -1.0
Hardness (as $CaCO_3$)	12.0	12.0	110.0	113.0	-	-
Hardness (as $CaCO_3$) (Grains)	0.8	0.9	7.7	8.0	-	-
HAA5 (avg.)	-	0.103	<0.005	<0.005	0.080	-
Iron (Total)	<0.020	<0.050	0.750	<0.035	-	≤0.3
Langelier Index @ 5°C	-3.3	-3.0	-0.8	-0.51	-	-
Langelier Index @ 60°C	-3.0	-2.6	-0.6	-0.32	-	-
Lead (Total) (µg/l)	<0.5	1.1	<0.5	<0.5	10.0	-
Magnesium	0.70	0.70	4.9	5.0	-	-
Manganese (Total)	0.030	0.006	0.68	0.36	-	≤0.05
Mercury (µg/l)	<0.01	<0.01	<0.01	<0.01	1.0	-
Nitrate and Nitrite (as N)	0.06	0.16	<0.05	<0.05	10.0	-
pH (pH Units)	6.7	6.7	7.5	7.7	-	6.5 - 8.5
Potassium	0.8	0.8	0.7	1.1	-	-
Sodium	14.0	15.0	20.0	27.4	-	≤200
Solids (Total Dissolved)	52.0	55.0	192.0	204.6	-	≤500
Sulfate	6.0	6.0	22.0	20.0	-	≤500
Turbidity (NTU)	0.4	0.25	9.1	0.52	*0.2/0.5	≤5
Total Organic Carbon (TOC)	1.8	2.0	<0.5	<0.5	-	-
THM's (avg.)	<0.001	0.106	<0.001	<0.001	0.100	-
Uranium (µg/l)	<0.10	<0.10	<0.1	<0.1	20.0	-
Zinc (Total)	0.016	0.013	0.012	0.062	-	≤5.0
PCB (µg/l)	<0.10	<0.10	<0.10	<0.10	-	-
Gross Alpha / Gross Beta (Bq/L)	0.02/0.04	0.04/0.07	0.08/0.07	0.08/0.07	0.1 / 1.0	-
Lead-210 (Bq/L)	-	-	-	0.08	0.1	-

*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.

Financial Statements

(NSUARB Accounting and Reporting Handbook)

Halifax Regional Water Commission
March 31, 2009

Contents **Page**

Halifax Regional Water Commission
Statement of operations

Year ended March 31, 2009

	2009 Budget	2009 Actual	2008 Actual
Operating revenues			
Water service	$ 31,398,404	$ 30,956,904	$ 29,921,718
Wastewater/stormwater services	44,442,205	42,409,489	33,887,502
Fire protection	9,216,715	9,216,715	8,885,101
Sprinkler service and small systems	1,788,875	1,771,524	1,202,337
Airport aerotech system (schedule E)	805,781	998,851	630,155
Other operating revenue	2,519,685	1,564,193	1,172,032
	90,171,665	86,917,676	75,698,845
Operating expenditures			
Water supply and treatment	6,620,646	6,348,062	6,308,187
Water transmission and distribution	8,289,122	7,292,646	6,839,477
Wastewater/stormwater collection	15,493,660	12,155,213	7,559,165
Wastewater treatment	14,889,842	12,191,331	4,985,878
Environmental services	1,547,697	1,126,439	1,141,934
Engineering and information services	3,987,104	3,998,244	2,452,237
Customer service	3,429,264	3,101,823	3,572,833
Airport aerotech system (schedule E)	1,343,794	1,197,186	831,711
Administration and pension	3,844,309	4,199,899	3,477,593
Depreciation	5,884,329	5,855,412	5,560,243
	65,329,767	57,466,255	42,729,258
Operating profit	24,841,898	29,451,421	32,969,587
Financial and other revenues			
Interest	500,000	1,249,271	911,620
Other	2,315,048	2,293,966	2,270,758
	2,815,048	3,543,237	3,182,378
	27,656,946	32,994,658	36,151,965
Financial and other expenditures			
Interest on long term debt	9,675,910	9,856,596	10,079,567
Repayment of long term debt	12,256,683	12,607,695	15,883,323
Amortization of debt discount	53,361	54,488	56,360
Grant in lieu of taxes (note 8)	3,720,742	3.622,229	3,569,458
	25,706,696	26,141,008	29,588,708
Excess of revenues over expenditures	$ 1,950,250	$ 6,853,650	$ 6,563,257

See accompanying notes to the financial statements.

Halifax Regional Water Commission
Balance sheet

Year ended March 31

	2009	2008
Assets		
Current		
Cash and cash equivalents	**$ 27,282,219**	$ 28,288,330
Receivables		
Water, wastewater and stormwater charges	**18,502,947**	18,670,061
Materials and supplies	**1,100,582**	1,268,948
Prepaids	**619,830**	403,430
	47,505,578	48,630,769
Receivable from Halifax Regional Municipality (note 12)	**175,617**	189,127
Plant under construction	**47,983,645**	71,767,174
Utility plant in service (schedule A)	**482,473,341**	434,114,596
	$ 578,138,181	$ 554,701,666
Liabilities		
Current		
Payables and accruals		
Trade	**$ 8,596,032**	$ 4,693,732
Interest on long term debt	**1,315,346**	1,702,369
Halifax Regional Municipality (note 12)	**3,149,936**	5,051,562
Long term debt appropriation	**3,675,342**	3,708,331
Contractor and customer deposits	**110,395**	133,090
Current portion of long term debt (schedule B)	**4,741,920**	4,483,315
Unearned revenue	**76,829**	60,614
	21,665,800	19,833,013
Long term debt (schedule B)	**58,374,043**	62,313,841
Deferred pension liability (note 4)	**2,726,000**	2,289,300
Accrued post retirement benefits (note 4)	**948,263**	991,525
Accrued long term service costs (notes 2(h) & 5)	**2,251.600**	2,140,728
	85,965,706	87,568,407
Equity		
Special purpose reserves (note 7)	**22,450,474**	15,995,303
Contributed capital surplus (page 5)	**451,088,465**	439,223,054
Operating surplus (page 5)	**18,633,536**	11,914,902
	492,172,475	467,133,259
	$ 578,138,181	$ 554,701,666

Contingent liability (note 3)
Commitments (note 8)
Subsequent event (note 13)

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

	2009	2008
Decrease (increase) in cash and cash equivalents		
Operating		
Excess of revenues over expenditures	**$ 6,853,650**	$ 6,563,257
Depreciation and amortization	**6,244,865**	5,902,922
Deferred pension liability	**436,700**	621,929
Decrease in accrued post retirement benefits	**(43,262)**	(33,835)
Repayment of long term debt included in statement of operations	**12,607,696**	15,882,238
Increase in accrued long term service costs	**110,872**	754,145
Grant in lieu of taxes	**3,622,229**	3,569,458
	29,832,750	33,260,114
Change in non-cash operating working capital items (note 9)	**1,681,327**	(8,333,263)
	31,514,077	24,926,851
Financing		
Proceeds from issuance of long term debt	**2,000,000**	9,072,000
Receivable from Halifax Regional Municipality	**13,510**	141,924
Proceeds from reserves	**4,010,159**	10,752,055
Deferred charges	**(39,464)**	(7,137)
Principal repayment on Harbour Solutions long term debt	**(6,500,000)**	(7,209,109)
Long term debt appropriations	**(32,989)**	-
Principal repayments of long term debt	**(5,720,657)**	(13,980,354)
	(6,269,441)	(1,230,621)
Investing		
Capital cost contributions	**811,312**	995,970
Proceeds from sale of plant in service assets	**778,640**	-
Purchase of capital work in progress	**(16,806,752)**	-
Purchase of plant in service	**(11,033,947)**	(6,741,350)
	(26,250,747)	(5,745,380)
Increase (decrease) in cash and cash equivalents	**(1,006,111)**	17,950,850
Cash and cash equivalents, beginning of year	**28,288,330**	10,337,480
Cash and cash equivalents, end of year	**$ 27,282,219**	$ 28,288,330

See accompanying notes to the financial statements.

Halifax Regional Water Commission
Statement of contributed capital surplus
Year ended March 31

	2009	2008
Contributed capital surplus, beginning of year	**$ 439,223,054**	$ 258,562,719
Contributions to plant in service	**7,202,277**	9,015,327
Transfer from wastewater and stormwater reserve	**1,154,988**	-
Debt repayment	**6,140,686**	5,674,990
Loss on disposal of assets	**(115,933)**	-
Gain on sale of land	**703,763**	-
Wastewater capital surplus transferred (note 12)	**-**	169,575,769
	454,308,835	442,828,805
Less: amortization (note 2 (b))	**3,220,370**	3,605,751
Contributed capital surplus, end of year	**$ 451,088,465**	$ 439,223,054

Halifax Regional Water Commission
Statement of operating surplus
Year ended March 31

	2009	2008
Operating surplus, beginning of year	**$ 11,914,902**	$ 5,556,583
Excess of revenues over expenditures	**6,853,650**	6,563,257
Stewardship contributions charged to current surplus	**(135,016)**	(204,938)
Operating surplus, end of year	**$ 18,633,536**	$ 11,914,902

See accompanying notes to the financial statements.

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). These statements have been prepared in accordance with the Accounting and Reporting Handbook for Water Utilities 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.

(b) Utility plant

Utility plant in service (schedule A) is recorded at cost, including interest capitalized on the financing of major projects during construction. Contributions receivable 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 Commission has received approval from the NSUARB to record contributed assets. The estimated value of contributed assets is credited to the contributed capital surplus account. 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.

The utility plant acquired with the transfer of the wastewater/stormwater operations from HRM has been recorded at historical cost as recorded by HRM, less estimated depreciation to the date of acquisition. Refer to note 12 for further details relating to this transaction.

(c) Depreciation

Depreciation is provided using the straight-line method over the estimated useful lives of the assets. Depreciation is provided on assets for one half of the year in the year of acquisition.

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

(d) 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.

(e) Materials and supplies

Materials and supplies inventories are carried at the lower of cost and net realizable value.

(f) Revenues and expenditures

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

(g) Long term debt

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

(h) Accrued long term service costs

The Commission provides a one-time long term service award to employees at retirement or resignation after ten years of continuous service based on three days pay for each completed year of service. The Commission performs an actuarial valuation to measure the liability at year end (note 5).

(i) Reserves

The Commission received reserve funds from HRM in the transfer of municipal wastewater and stormwater operations in 2007. Certain of these funds 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 7).

(j) Use of estimates

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. Actual results could differ from these estimates.

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 generally 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
Payable to HRM	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.

(l) Changes in accounting policies

Section 3031 "Inventories"
The new standard provides more guidance on the measurements and disclosure requirements for inventories than the previous standard, Section 3030 "Inventories". The new standard requires that inventories be measured at the lower of cost and net realizable value, and provides more guidance on the determination of cost and subsequent write down to net realizable value, The Commission adopted the new standard effective April 1, 2008 with no material effect on financial results.

Section 1535 "Capital Disclosures"
This new standard requires disclosure of the Commission's objectives, policies and processes for managing capital; quantitative data about what the Commission regards as capital; and whether the Commission has complied with any capital requirements. The new accounting standard resulted in increased disclosure only, with no effect on the financial results of the Commission.

(m) Future accounting policies

Section 3064 "Goodwill and Intangible Assets"
In February 2008, the CICA issued Section 3064 "Goodwill and Intangible Assets" which replaced existing Section 3062 "Goodwill and Other Intangible Assets" and Section 3450 "Research and Development". The new standard provides guidance on the recognition, measurement, presentation and disclosure of goodwill and intangible assets. This standard is effective for interim and annual financial statements relating to fiscal years beginning on or after October 1, 2008 and is applicable for the Commission's fiscal 2010 year. The Commission is currently evaluating the impact of this new standard.

3. Contingent liability

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.

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 employees who transferred to the Commission on August 1, 2007 with the transfer of the wastewater/stormwater operations have remained members of the HRM pension plan. The Commission is responsible for funding the employer share of the contributions for these employees. All new employees hired after August 1, 2007 join the Halifax Regional Water Commission Employee's pension plan.

Employees who retired prior to July 1, 1998 have extended health benefits coverage for life and drug coverage until age 65. Employees who retire 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 accounting valuation as at March 31, 2009, is as follows:

	2009	2008	**2009 Post Retirement Benefits**	2008 Post Retirement Benefits
	Pension Plan	Pension Plan		
Accrued benefit obligation				
Balance, beginning of year	**$ 63,225,800**	$ 66,238,481	**$ 1,014,341**	$ 1,071,800
Current service cost	**2,744,614**	2,693,933	**3,100**	4,000
Interest cost	**3,551,177**	3,324,456	**50,863**	49,037
Experience gain	**(16,485,129)**	(6,838,424)	**-**	-
Benefit payments	**(2,376,748)**	(2,198,571)	**(97,226)**	(86.872)
Transfers in	**6,093**	5,925	**-**	-
Actuarial gain	**-**	-	**(337,339)**	(23.624)
Balance, end of year	**50,665.807**	63,225,800	**633,739**	1,014,341
Plan assets				
Balance, beginning of year	**49,231,300**	49,460,487	-	-
Actual (loss) return on plan assets	**(8,220,002)**	(527,084)	**-**	-
Transfers in	**6,093**	5,925	**-**	-
Benefits paid	**(2,376,748)**	(2,198,571)	**-**	-
Contributions: Employee	**1,060,617**	895,656	**-**	-
Employer	**1,715,842**	1,594,887	**-**	-
Balance, end of year	**41,417,102**	49,231,300	**-**	-
Accounting valuation — plan deficit	**$ 9,248,705**	$ 13,994,500	**$ 633,739**	$ 1,014,341
Accrued liability, beginning of year	**$ (2,289,300)**	$ (1,667,371)	**$ (991,525)**	$ (1,025,360)
Expense for 2008/2009	**(2,152,542)**	(2,216,829)	**(53,963)**	(53,037)
Employer contributions far 2008/2009	**1,715,842**	1,594,900	**97,225**	86,872
Accrued liability recognized	**$ (2,726,000)**	$ (2,289,300)	**$ (948,263)**	$ (991,525)

Administration and pension expense includes pension expense of $2,152,542 (2008 - $2,216,829). 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 determination of the accrued benefit liability at March 31, 2009:

	Pension Plan	Pension Plan	**Post Retirement Benefits**	Post Retirement Benefits
	2009	2008	**2009**	2008
Discount rate	**7.50%**	5.60%	**6.75%**	5.25%
Expected return on plan assets	**6.75%**	6.75%	**NA**	NA
Rate of compensation increase	**3.75%**	3.75%	**3.75%**	3.75%
Expenses for life benefits as a % of claims	**NA**	NA	**5-10%**	5-10%
Health benefit inflation per year	**NA**	NA	**6-8%**	6-9%
Dental benefit inflation per year	**NA**	NA	**5%**	4%

Funding for the pension plan is based on regular actuarial reviews, the next of which is scheduled for January 1, 2011.

5. Pre-retirement leave (long term service award)

The Commission has a 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.

	2009	2008
Pre-retirement leave	**$ 2,251,600**	$ 2,140,728

The following assumptions have been used in the valuation of the Halifax Regional Water Commission's pre-retirement leave benefit at March 31, 2009:

	2009	2008
Pre-retirement benefits		
Discount rate	**7.50%**	5.60%
Rate of compensation increase	**3.75%**	3.75%

6. Return on rate base

	2009	2008
Rate of return on rate base	**5.15%**	4.06%

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.

7. Special purpose reserves

	Bomont Capital Reserve	Sewer Redevelopment Reserve	Wastewater Infrastructure Reserve	Wastewater & Stormwater Reserve	**2009 Total**	2008 Total
Reserve, beginning of year	$ 190,000	$ 8,315,550	$ 3,920,312	$ 3,569,441	**$ 15,995,303**	$ -
Additions	-	-	-	3,600,000	**3,600,000**	190,000
Transfer from HRM	-	-	965,980	-	**965,980**	3,569,441
Contributions and interest	-	1,349,907	1,694,272	-	**3,044,179**	11,028,038
Expenditures	-	-	-	(1,154,988)	**(1,154,988)**	1,207,824
Reserve, end of year	$ 190,000	$ 9,665,457	$ 6,580,564	$ 6,014,453	**$ 22,450,474**	$ 15,995,303

8. Commitments

The Commission has an agreement with HRM which was approved by the NSUARB for a grant in lieu of municipal taxes for the current year based on 1.56% of the rate base for water service at the end of the prior year. The current agreement expires at the end of the 2009/2010 fiscal year. The Commission is committed to a payment of $3,565,544 for the 2010 fiscal year.

The Commission is committed to acquire the assets and associated debt of the Halifax Harbour Solutions Project ("HHS Project") from HRM as part of a transfer agreement. The HHS is a $333,000,000 project to clean the Halifax harbour. It consists of three wastewater treatment plants and associated collection systems as well as a biosolids processing facility. As part of the transfer agreement, the Commission will also assume debt which totalled $104,000,000 at March 31, 2009. The debt servicing associated with the HHS Project is being funded by the Commission from the wastewater/stormwater rates. Under the terms of the transfer agreement, the HHS facilities will be transferred to the Commission between 90 and 180 days following substantial completion of each phase of the project. As at March 31, 2009 none of the project components had been transferred. The Halifax sewage treatment plant suffered a flooding incident during the year which delayed its transfer and is presently under repair. Refer to note 13 for further details relating to this transaction.

9. Supplemental cash flow information

	2009	2008
Changes in non-cash operating working capital items		
Receivables	**$ 167,114**	$ (7,444,195)
Materials and supplies	**168,366**	(136,773)
Prepaids	**(216,400)**	6,896
Payables and accruals	**1,568,727**	(780,630)
Contractor and consumer deposits	**(22,695)**	-
Unearned revenue	**16 215**	21,439
	$ 1,681,327	$ (8,333,263)

During the year, plant in service of $8,677,216 (2008 - $9,015,327) was contributed and recorded as donated assets.

Interest paid during the year was $9,856,596 (2008 - $10,079,568).

10. 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 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:

	2009	2008
Long-term debt (current portion)	**$ 4,741,920**	$ 4,483,315
Long-term debt	**58,374,043**	62,313,841
Funded debt	**63,115,963**	66,797,156
Equity	**489,479,184**	464,540,047
Capital under management	**$ 552,595,147**	$ 531,337,203

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.

11. Comparative figures

Certain of the comparative figures for 2008 have been reclassified to conform with the financial statement presentation adopted for 2009.

12. Related party transactions

On August 1, 2007, municipal wastewater and stormwater facilities and their operation and administration including affected employees were transferred to the Commission from HRM. This transfer was approved by the NSUARB. The Commission assumed the responsibility for debt servicing associated with the wastewater and stormwater facilities and operations that were transferred.

This transaction was recorded at carrying value in accordance with the CICA Handbook Section 3840 "Related Party Transactions'.
The utility plant transferred has been recorded at HRM's recorded cost of $183,292,292 and net book value of $109,537,062. The transfer also included work in progress in the amount of $64,676,687, and vehicles and equipment with a cost of $5,354,435 and a net book value of $600,027.

The associated debt transferred to the Commission from HRM was $6,247,875 and the contributed capital surplus transferred was $169,575,769.

The Commission also received reserve funds of $12,425,862 (note 7) for the purpose of capital expenditures only with the approval of the NSUARB.

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

13. Subsequent event

In accordance with the transfer agreement between HRM and the Commission certain components of the Halifax Harbour Solutions Project were transferred effective June 1, 2009. The assets transferred included the Halifax Sewage Treatment Plant and portions of the related collection system and a Biosolids Processing Facility. The carrying value of the assets transferred was $157,960,000. The remaining components of the project will be transferred in accordance with the transfer agreement.

Halifax Regional Water Commission Schedule A
Schedule of utility plant in service

Year ended March 31

	Cost	Accumulated Depreciation	**2009 Net Book Value**	2008 Net Book Value
Water				
Intangible plant	$ 289,838	$ 14,492	**$ 275,346**	$ -
Land and land rights	15,659,966	-	**15,659,966**	15,314,297
Structures and improvements	71,604,721	18,851,579	**52,753,142**	53,044,679
Pumping equipment	7,912,486	4,271,037	**3,641,449**	3,621,833
Purification equipment	25,037,440	11,740,847	**13,296,593**	14,378,968
Transmission and distribution mains	248,619,256	51,119,974	**197,499,282**	190,583,554
Services	25,282,608	2,811,642	**22,470,966**	21,542,244
Meters	9,373,447	2,311,097	**7,062,350**	6,521,910
Hydrants	14,753,226	1,876,098	**12,877,128**	12,276,793
Tools and work equipment	2,045,594	1,395,703	**649,891**	686,635
Transportation equipment	2,819,257	1,392,576	**1,426,681**	1,179,216
Office equipment and furniture	7,028,049	4,286,906	**2,741,143**	2,937,390
Airport Aerotech system	368,931	41,403	**327,528**	104,776
Small systems	3,976,196	392,423	**3,583,773**	3,744,633
	$ 434,771,015	$ 100,505,777	**$ 334,265,238**	$ 325,936,928
Wastewater/stormwater				
Wastewater intangibles	$ 2,699,236	$ 96,876	**$ 2,602,360**	$ 1,638,634
Land and land rights	932,193	-	**932,193**	586,128
Structures and improvements	61,837,242	28,244,038	**33,593,204**	25,327,744
Equipment	5,249,255	-	**5,249,255**	-
Manholes	74,028	-	**74,028**	-
Collection system	149,401,889	50,807,435	**98,594,454**	79,699,500
Sewer laterals	1,759,816	-	**1,759,816**	-
Outfalls	1,888,169	-	**1,888,169**	-
Transportation equipment	5,354,436	5,806,498	**(452,062)**	309,484
Aerotech	2,391,148	-	**2,391,148**	84,075
Small utilities	2,170,293	594,758	**1,575,538**	532,103
	$ 233,757,707	$ 85,549,605	**$ 148,208,103**	$ 108,177,668
Total	$ 668,528,722	$ 186,055,382	**$ 482,473,341**	$ 434,114,596

During the period the amount of $224,299 of interest was capitalized to Utility Plant in Service.

Halifax Regional Water Commission
Schedule of long term debt Schedule B

Year ended March 31, 2009

	Interest Rate	Final Maturity	Balance Remaining 2009	2008
Debentures				
Municipal Finance Corporation - Water				
Debenture 96 A 1	5.500% to 8.000%	2016	**$ 640,000**	$ 720,000
Debenture 98 A 1	5.625% to 6.125%	2019	**28,424,000**	30,436,000
Debenture 99 A 1	6.500% to 6.750%	2009	**2,475,000**	2,700,000
Debenture 20 A 1	6.125% to 6.375%	2010	**2,100,000**	2,275,000
Debenture 21 A 1	5.250% to 6.250%	2011	**2,703,750**	3,105,000
Debenture 22 A 1	4.250% to 6.125%	2012	**3,240,000**	3,550,000
Debenture 23 A 1	3.500% to 5.750%	2018	**1,500,000**	1,600,000
Debenture 25 A 1	2.970% to 4.560%	2015	**4,250,000**	4,500,000
Debenture 26 A 1	4.350% to 4.880%	2016	**3,600,000**	3,800,000
Debenture 27 A 1	4.650% to 5.010%	2017	**8,341,935**	9,072,000
Debenture 28 A 1	3.750% to 5.088%	2023	**2,000,000**	-
Municipal Finance Corporation - Wastewater/stormwater				
Debenture 98 B 1	5.000% to 5.625%	2008	**13,686**	20,528
Debenture 99 A 1	5.250% to 5.375%	2009	**319,752**	383,703
Debenture 99 B 1	5.825% to 5.825%	2008	**526,980**	1,053,958
Debenture 20 A 1	6.750% to 6.875%	2010	**34,841**	52,262
Debenture 20 B 1	6.250% to 6.375%	2010	**28,122**	42,183
Debenture 21 A 1	8.000% to 8.000%	2012	**256,073**	341,431
Debenture 21 B 1	3.125% to 6.000%	2011	**46,137**	61,516
Debenture 22 A 1	3.375% to 6.125%	2012	**351,036**	438,794
Debenture 22 B 1	3.250% to 5.625%	2012	**177,092**	221,365
Debenture 23 A 1	3.500% to 5.375%	2013	**227,318**	272,782
Debenture 23 B 1	2.750% to 5.000%	2013	**21,600**	25,920
Debenture 24 A 1	2.550% to 5.450%	2014	**498,872**	582,018
Debenture 24 C 1	7.000% to 7.000%	2015	**351,843**	410,484
Debenture 25 A 1	2.970% to 4.560%	2015	**377,252**	431,146
Debenture 25 B 1	3.630% to 4.830%	2020	**236,343**	270,106
Debenture 26 A 1	4.350% to 4.880%	2016	**204,052**	229,558
Debenture 26 B 1	4.265% to 4.410%	2016	**38,811**	43,662
Debenture 27 A 1	4.450% to 4.625%	2017	**591,620**	657,355
			63,576,115	67,296,771
Less: deferred charges			**460,152**	499,615
			63,115,963	66,797,156
Less: amount payable within one year			**4,741,920**	4,483,315
			$ 58,374,043	$ 62,313,841

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:

2009	$12,486,104
2010	$12,306,536
2011	$12,197,218
2012	$12,034,991
2013	$11,992,610

Halifax Regional Water Commission Schedule C
Schedule of operations for water service
Year ended March 31, 2009

	2009		2008
	Budget	**Actual**	Actual
Operating revenues			
Water service	$ 31,398,404	**$ 30,956,904**	$ 29,921,718
Fire protection	9,216,715	**9,216,715**	8,885,101
Sprinkler service and small systems	493,787	**529,375**	501,281
Other operating revenue			
Customer late payment fees	155,700	**152,805**	151,621
Miscellaneous	285,585	**257,849**	262,840
	41,550,191	**41,113,648**	39,722,561
Operating expenditures			
Water supply and treatment	6,620,646	**6,348,062**	6,308,187
Water transmission and distribution	8,289,122	**7,292,646**	6,839,477
Engineering and information services	1,987,800	**2,065,824**	2,452,237
Environmental services	257,038	**153,135**	-
Customer service	1,750,056	**1,583,920**	2,933,154
Administration and pension	2,245,630	**2,340,010**	2,646,617
Depreciation	5,884,329	**5,747,337**	5,530,104
	27,034,621	**25,530,934**	26,709,776
Operating profit	14,515,570	**15,582,714**	13,012,785
Financial and other revenues			
Interest	250,000	**621,133**	618,514
Other	112,500	**160,916**	130,348
	362,500	**782,049**	748,862
Financial and other expenditures			
Interest on long term debt	3,380,498	**3,422,208**	3,687,808
Repayment of long term debt	4,519,342	**4,580,210**	4,307,085
Transfer to Wastewater/Stormwater Operations	-	**1,500,000**	-
Amortization of debt discount	53,361	**54,488**	56,360
Grant in lieu of taxes	3,720,742	**3,622,229**	3,569,458
	11,673,943	**13,179,135**	11,620,711
Excess of revenues over expenditures	$ 3,204,127	**$ 3,185,628**	$ 2,140,936

Halifax Regional Water Commission Schedule D
Schedule of operations for wastewater/stormwater services

Year ended March 31, 2009

	2009		2008
	Budget	**Actual**	Actual
Operating Expenses			
Wastewater/stormwater services	$ 44,442,205	**$ 42,409,489**	$ 33,887,502
Small systems	1,295,088	**1,242,149**	701,056
Other operating revenue			
Sludge tipping	742,600	**758,835**	511,665
Customer late payment fees	135,800	**129,452**	106,829
Miscellaneous	1,200,000	**265,252**	139,077
	47,815,693	**44,805,177**	35,346,129
Operating expenditures			
Wastewater/stormwater collection	15,493,660	**12,155,213**	7,559,163
Wastewater treatment	14,889,842	**12,191,331**	4,985,880
Engineering and information services	1,999,304	**1,932,420**	-
Environmental pollution control	1,290,659	**973,304**	1,141,934
Customer service	1,679,208	**1,517,903**	639,679
Administration and pension	1,598,679	**1,859,889**	830,976
Depreciation	-	**108,075**	30,140
	36,951,352	**30,738,135**	15,187,772
Operating profit	10,864,341	**14,067,042**	20,158,357
Financial and other revenues			
Interest	250,000	**628,138**	293,106
Other	2,202,548	**2,133,050**	2,140,410
	2,452,548	**2,761,188**	2,433,516
Financial and other expenditures			
Interest on long term debt	6,295,412	**6,434,388**	6,391,759
Repayment of long term debt	7,737,341	**8,027,486**	11,576,238
Transfer from water operations	-	**(1,500,000)**	-
	14,032,753	**12,961,874**	17,967,997
Excess of revenues over expenditures	$ (715,864)	**$ 3,866,356**	$ 4,623,876

Halifax Regional Water Commission Schedule E
Airport aerotech system
Schedule of operations for water service
Year ended March 31, 2009

	2009		2008
	Budget	Actual	Actual
Operating revenues			
Metered sales	$ 257,904	**$ 354,152**	$ 244,734
Fire protection	151,000	**149,955**	151,000
Customer late payment charges	500	**707**	610
Miscellaneous	-	**460**	130
	409,404	**505,274**	396,474
Operating expenditures			
Plant operations	505,384	**510,483**	390,052
Pumping stations	32,574	**28,949**	19,903
Transmission and distribution	107,445	**79,894**	33,154
Administration and general	5,585	**21,822**	861
Depreciation	30,266	**12,335**	-
	681,254	**653,483**	443,970
Excess of expenditures over revenues	$ (271,850)	**$ (148,209)**	$ (47,496)

Halifax Regional Water Commission
Airport aerotech system
Schedule of operations for wastewater/stormwater services
Year ended March 31, 2009

	2009		2008
	Budget	**Actual**	Actual
Operating revenues			
Metered sales	$ 280,877	**$ 356,139**	$ 169,708
Dewater facility/sludge lagoon	95,000	**95,000**	63,333
Airline effluent	20,000	**41,277**	-
Customer late payment charges	500	**1,211**	640
	396,377	**493,577**	233,681
Operating expenditues			
Wastewater treatment	549,162	**475,629**	364,104
Wastewater/stormwater collection	107,340	**44,500**	-
Pumping stations	6,038	**19,500**	19,930
Depreciation	-	**4,073**	-
Administration and general	-	**-**	3,706
	662,540	**543,702**	387,740
Excess of expenditures over revenues	$ (266,163)	**$ (50,125)**	$ (154,059)

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