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> Halifax Regional Council February 27, 2007

TO:

Mayor Kelly and Members of Halifax Regional Council

**SUBMITTED BY:** 

Brad Anguish, Director of Environmental Management Services

DATE:

February 9, 2007

**SUBJECT:** 

Harbour Solutions Project - 3rd Quarterly Report October to

December 2006

#### INFORMATION REPORT

#### **ORIGIN**

This report originates from the Council session of October 22, 2002 when staff was authorized to submit quarterly reports for the duration of the project.

#### **BACKGROUND**

HRM has entered into five contracts to date for the implementation of the Halifax Harbour Solutions Project, namely:

- an infrastructure development agreement for the construction of the three Wastewater Collection Systems on October 15, 2003 with Dexter Construction; and
- a development agreement for the construction of three advanced primary Wastewater Treatment Facilities on June 15, 2004 with D&D Water Solutions, Inc.; and
- a development agreement for the construction of a Biosolids Processing Facility on November 30, 2004 with SGE Acres Limited, and
- an operating and maintenance agreement for the Biosolids Processing Facility on November 30, 2004, with N-Viro Systems Canada Inc.; and
- an operating agreement for the transportation of dewatered biosolids from the three new Wastewater Treatment Facilities on May 31, 2006, with Seaboard Liquid Carriers Limited.

#### **DISCUSSION**

The previous quarterly report (July to September/06) to Council indicated that D&D Water Solutions Inc. (D&D) was undertaking a detailed scheduled review at the time of report writing and that staff would return to Council to report any change to the current schedule for delivery of the wastewater treatment facilities.

On January 9, 2007 staff presented to Council a Project Update on the Halifax Harbour Solutions Project and informed Council that D&D provided revised completion dates for each of the advanced primary Wastewater Treatment Facility (WWTF) and indicated that the overall project will be delayed by 3 months. The expected completion date is end of September 2008. In accordance with the Agreement, there will not be an adjustment to the Guaranteed Maximum Price and D&D will not receive inflation adjustment for work completed after the original completion date which effectively serves as a financial "penalty" to D&D as a result of its failure to meet the original completion date.

## Halifax

The Halifax Wastewater Collection System (WWCS) work during the 3rd quarter of 2006 continues to concentrate on the remaining mechanical, electrical and miscellaneous metal works at the various regulating structures and pumping stations.

Regarding the Halifax wastewater treatment facility, the exterior masonry work was completed and interior masonry work was substantially completed. Backfilling and landscaping site work was advanced with the first lift of asphalt being placed. Architectural work (i.e., door frames, etc), miscellaneous metals (i.e., stairway installation) and installation of mechanical and electrical equipment continued. The first draft of the commissioning plan and sample Operations & Maintenance Manual have been received and is being reviewed by staff. Due to the expected delay, wet commissioning of the Halifax facility is anticipated to start in June/July 2007.

Completion of the Halifax Wastewater Collection System (excluding diversion piping that is dependent on the completion of the Halifax Wastewater Treatment Facility) and Wastewater Treatment Facility is expected by March and September 2007, respectively.

#### Dartmouth

The real estate acquisitions for the Dartmouth collection system, other than CN and Irving shipyard, were finalized or ready to be executed. Construction work continues with three crews performing interceptor pipe installation work in a number of areas including Woodside ferry Terminal to Melva, Shore Road and Alderney Drive.

Work continued at a number of flow regulation structures as well as diversion chambers.

Regarding the Dartmouth WWTF work, all slab walls and columns were substantially completed and part of the roof slab was completed. Some major equipment arrived on site including the

generator sets, chemical storage tanks and UV equipment. The generator sets and chemical storage tanks were put on their pads.

Completion of the Dartmouth Wastewater Collection System (excluding diversion piping that is dependent on the completion of the Dartmouth WWTF) and Wastewater Treatment Facility is expected by March 2007 and March 2008, respectively.

## Herring Cove

The real estate acquisition negotiation for the Herring Cove pumping station site was finalized and the subdivision of the property is being processed by HRM. The design of the Herring Cove Pumping Station is 100% completed and the exterior architectural elevations of the pump station is being reviewed by the Herring Cove CLC. The design of the Herring Cove WWTF outfall is underway. The access road for the Herring Cove facility and associated pressure sewer main installations were completed.

Regarding the Herring Cove WWTF work, civil drawings and general arrangement drawings are progressing well. Site preparation work including blasting was substantially completed and the site is ready for building work to begin in Spring 2007. The exterior architectural elevations have received approval from the Herring Cove CLC.

Completion of the Herring Cove Wastewater Collection System and Wastewater Treatment Facility is expected by March and September 2008 respectively.

### **Biosolids Processing Facility**

The Biosolids Processing Facility is substantially complete and started the process of dry commissioning in December 2006 and will be ready to process biosolids in April 2007.

One of the specialty trailers for the transportation of dewatered biosolids from the three Harbour Solutions Project facilities was delivered and the remaining trailers are being fabricated and will be ready when the Halifax facility begins to operate.

# Safety

There was one lost-time incident during the quarter. A traffic control person fell and broke her leg at the Pier A diversion piping work location. Dexter Construction Ltd. finished their internal investigation on this incident and concluded that there was no violation of any safety requirement on the job site.

There were three NSDEL inspections during the quarter. Two inspections were held at the Halifax WWTF on October 17 and October 23 with no compliance orders being issued. An inspection of the pipe installation activities at Alderney Drive occurred on October 25, 2006 with no compliance orders being issued.

## Summary

Depending on the labour market, the availability of short-notice labour to make up schedule may

continue to cause some challenges for the Design/Build contractor. Since the identification of the expected delay, D&D started a review of the existing design/construct procedures in an attempt to improve the work flow. One area identified is the procedure for implementing field design changes to accommodate site conditions. At the time of writing this report, the contractor has a task force in place for the Halifax WWTF to meet on site and deal with the required changes immediately on site in a timely manner. The task force includes representatives from the design and construction team with one Auto Cad technician to track and record any field changes immediately.

Staff are tracking all costs that HRM incurs as a result of the expected delay. HHSP will be claiming these expenditures from D&D. The overall completion of the Project is expected to be September 2008.

#### **BUDGET IMPLICATIONS**

The Harbour Solutions Project spent \$23.01 million in the third quarter of 2006/07, \$57.98 million in fiscal year 06/07 (to date) and a total of \$197.95 million to December 31, 2006. Projections to meet the capital budget of \$332.7 million are still on target.

Inflation remains the most significant financial risk of the project. History of the Halifax Non-Residential Construction Index over the past twenty years shows average annual inflation of just over 2%. Staff conservatively estimated annual inflation at 2.8% for budget purposes, while fiscal years 2004/05 and 2005/06 brought inflation of 7.87% and 4.31% respectively. In the first quarter of 2006/07, annual inflation was 5.41%, in the second quarter it was 5.88%, and the third quarter saw inflation of 5.25 %. Staff have revised the inflation estimate to 6% per year over the life of the contract and has committed a substantial portion of the \$18.2 million contingency to address this issue. There have been times when the inflation factor has reached almost 8%. The estimated inflation amount for the Harbour Solutions Project was budgeted based on an average inflation rate throughout the entire duration of the construction period. This assumes that there will be fluctuations in the inflation rates, but average out to be 6% annually. Since the actual yearly inflation from the beginning of the project to December 2006 is less than the 6% budgeted, the project can handle a higher average inflation rate between Dec 31, 2006 and the end of the project. This rate is 6.28% annually.

If the annual inflation rate were to increase to anything higher than the 6.28%, more contingency funding would have to be set aside.

At the time of the last quarterly report (June - September, 2006), the uncommitted Contingency balance was \$1.89 million. Since then a potential additional \$2.5 - \$3 million has been identified, as a result of the expected delay in completion of the Wastewater Treatment Facilities in Halifax, Dartmouth and Herring Cove. This is due to the inflation adjustment not paid to the contractor for work completed beyond the original Date Certain for each of the facilities.

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However, caution has to be exercised when referring to this \$2.5 - \$3 million. It is in the contractor's (D&D Water Solutions) best interest to complete the facilities as soon as possible, in order to

minimize their inflation loss. Therefore, it is possible that the Dartmouth and Herring Cove facilities will be completed sooner than the revised completion dates of March and September 2008, respectively. This would serve to reduce the amount of additional contingency funding forecasted by staff.

At the time of writing of this report, Council authorized staff to increase the Community Integration fund for Herring Cove area by approximately \$1.66 million for the Water & Sewer Project. As a result, the uncommitted contingency has been effectively reduced to approximately \$230,000, until April when the impact of delay will begin to increase the contingency.

The Canadian Strategic Infrastructure Fund Committee has completed its review of the Harbour Solutions 2005/2006 annual submission and HRM has received a certificate from Public Works and Government Services that finds the environmental plan to be in accordance with the 2003 environmental assessment dated January, 2003.

# FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN

This report complies with the Municipality's Multi-Year Financial Strategy, the approved Operating, Capital and Reserve budgets, policies and procedures regarding withdrawals from the utilization of Capital and Operating reserves, as well as any relevant legislation.

# **ATTACHMENTS**

Appendix A

Halifax Harbour Solutions Project - 3<sup>rd</sup> Quarterly Report; October 1 to December 31, 2006.

A copy of this report can be obtained online at <a href="http://www.halifax.ca/council/agendasc/cagenda.html">http://www.halifax.ca/council/agendasc/cagenda.html</a> then choose the appropriate meeting date, or by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

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## Halifax Harbour Solutions Project

# Third Quarterly Report October to December 2006

#### Introduction

The intent of this document is to provide Council and staff with a general overview of the Harbour Solutions Project Quarterly Report, cover the period between October 1 and December 31, 2006.

# It is presented in sections:

- Section 1 Wastewater Collection System (WWCS)
- Section 2 Wastewater Treatment Facilities (WWTF)
- Section 3 Biosolids Processing Facility (BPF)
- Section 4 Pollution Prevention Program
- Section 5 Water Quality Sampling Program
- Section 6 Financial Information
- Section 7 Public Involvement and Information Program
- Section 8 Construction Safety

#### Section 1

# **Wastewater Collection Systems**

# Halifax Wastewater Collection System

Work during the 3<sup>rd</sup> quarter of 2006 was limited to completing the remaining mechanical and electrical work, carpentry, miscellaneous metals work, etc., at the various regulation structures, continuing the work on the modifications to the Duffus Street Pumping Station, and carrying out diversion piping construction (e.g., Pier A).

The remaining work will be focussed on the installation of the Salter Street outfall and diversion piping that connects the mainline interceptors and the pump stations and CSOs to the Halifax WWTF. This work will continue through the 4<sup>th</sup> quarter 2006 as well as the1st quarter of 2007. The remaining Duffus Street Pumping Station modification work will also be completed. Completion of these work elements is dependent on the timing of the ability of the Halifax WWTF to accept flows. Planning and coordination of this work continues.

# Dartmouth Wastewater Collection System

Real estate acquisition continues to progress as a number of property acquisition agreements were finalized during the quarter.

Construction work continued with three crews performing interceptor pipe installation work in a number of areas including Woodside Ferry Terminal to Melva Street, Shore Road and Alderney Drive.

Work continued at a number of regulation structures including the pump stations at Jamieson Street, Melva Street and Park Avenue as well as the diversion chambers at Wallace Street, Ferguson Road, Grove Street and Lyle Street.

For the 4<sup>th</sup> quarter of 2006, remaining pipe installation work will be completed with the exception of selected elements of diversion piping that are dependent on the timing of the ability of the Dartmouth Wastewater Treatment Facility to accept flows. Planning and coordination of this work continues. In addition, the Lyle Street outfall will be completed. Work on the flow regulation structures (pump stations and diversion chambers) will also be substantially completed during the quarter.

# Herring Cove Wastewater Collection System

During the 3<sup>rd</sup> quarter, design engineering work continued with the design of the Herring Cove Pump Station completed to the 100% design level. The last design package to be completed is the Herring Cove Wastewater Treatment Facility outfall design which is well underway. The real estate acquisition negotiation for the Herring Cove Pumping Station site was finalised and the subdivision of the property is being processed by HRM.

Application was made to the Navigable Water Protection Act Authority for the HCWWTF outfall permit as well as other related permits.

The HC WWTF's access road was completed to the sub-grade with the mainline piping also installed in the road. The water pipe installation in the access road was suspended pending HRM review and determination of water and sewer servicing to the local residents.

During the 4th quarter of 2006, it is anticipated that all easement agreements will be completed. The design for the Herring Cove STP Outfall will reach the 65% level as well with the 100% design to follow.

#### Section 2

# Halifax Wastewater Treatment Facility

# Civil, Architectural, and Structural Work

During the 3<sup>rd</sup> quarter of 2006, exterior masonry work was completed and interior masonry work was substantially completed. Backfilling and landscaping work was advanced with curbing, equipment pads, and first lift of hot mix asphalt being placed. In addition, potable water piping was installed. Coating of the Densadeg tanks was initiated with completion anticipated in February 2007. Architectural work (i.e., door frames, etc.), miscellaneous metals (i.e., stairway installation) continued. Injection of the grit tank walls was completed with wet well injection continuing.

#### Mechanical & Electrical Work

Mechanical and electrical work is progressing in several areas of the WWTF with piping and cabling activities underway. Major equipment continues to arrive and be installed.

A detailed schedule review carried out in the 3rd quarter revealed that substantial completion of the Halifax WWTF will be delayed until September 30, 2007. A number of factors led to this delay including labour availability and procurement challenges relating to CSA standard approvals.

# Fourth Quarter 2006/07

For the 4th quarter of 2006/07, the mechanical and electrical equipment installation work will continue to assume the greater portion of the work activity. Ventilation ducts, cables, and instrumentation installation continues. SCADA development will also be substantially completed during this time. Remaining equipment arrivals will be substantially completed during the quarter.

Remaining interior masonry will be completed pending progress of cabling and piping. Architectural work (i.e., masonry, miscellaneous metals) will also continue.

# Commissioning

The first draft of the commissioning manual has been prepared and given to HRM for review and comment. HRM has also received the first draft of the commissioning plan as well as a sample Operations & Maintenance Manual. These documents will be updated continually as commissioning proceeds. The Commissioning Manager will return to site around June 2007 to direct all commissioning procedures. The completion date for the Halifax WWTF is expected to be September of 2007.

# **Dartmouth Wastewater Treatment Facility**

#### Structural Work

Concrete formwork continued during the 3<sup>rd</sup> quarter of 2006. All slabs, walls, and columns are substantially complete to the middle floor level. In addition the walls, columns, and roof slab in the north end of the facility are completed.

#### Mechanical & Electrical Work

Work continued with piping and conduit installation as well as penetration installations following along with the progress of the structural work. Several pieces of equipment arrived on site including the generator sets, chemical storage tanks, and UV equipment. The generator sets and the chemical storage tanks were put on their pads.

### Fourth Quarter 2006/07

The 4th quarter work will feature the completion of the concrete work as the roof slabs will be completed. Masonry work will also be initiated during the quarter.

Equipment installation will continue and accelerate after the roof slabs are complete. Electrical and mechanical cabling and piping will also accelerate.

The completion date for the Dartmouth WWTF is expected to be March 31, 2008.

# Herring Cove Wastewater Treatment Facility

# Design

Civil Guide drawings and General Arrangement drawings were issued at the 65% level. Detailed civil, architectural, and structural as well as process mechanical and electrical design are underway.

#### Civil Work

Site preparation is substantially complete, drilling and blasting completed and material moved. The site is ready for building work to begin in the spring of 2007.

# Fourth Quarter 2006/07

For the 4<sup>th</sup> quarter, detailed civil, architectural, and structural design will continue as well as detailed mechanical and electrical design. Construction on the underground piping trenches will be initiated during the quarter and be completed early in the 1<sup>st</sup> quarter in 2008 with foundation concrete following.

The completion date for the Herring Cove WWTF is expected to be September 30, 2008.

#### **Section 3**

# **Biosolids Processing Facility**

The Biosolids Processing Facility is substantially complete and started the process of dry commissioning in December 2006 and will be ready to process biosolids in April 2007.

One of the specialty trailers for the transportation of dewatered biosolids from the three Harbour Solutions Project facilities has arrived and the remaining trailers are being fabricated and will be ready when the Halifax facility begins to operate.

Staff is tracking expenditures that are required as a result of the expected delay. HHSP will be claiming these expenditures from D&D.

## Section 4

# **Pollution Prevention Program**

In support of the Harbour Solutions Project and as a requirement of provincial legislation, HRM initiated a Source Control Strategy, now referred to as the Pollution Prevention (P2) Program. This program has been designed and implemented to reduce the levels of organic and inorganic compounds, toxins and other matter currently entering the municipal stormwater and wastewater sewer systems, and ultimately, freshwater and marine environments including Halifax Harbour.

At the Regional Council meeting of July 17, 2001 (Item No. 9.1), Council approved the adoption of By-Law W-101 respecting the "Discharge of Wastewater into Public Sewers". This by-law regulates the discharge of specified substances that may comprise paints, inks, solvents and other hazardous, metal-rich and toxic products and wastes to the municipal sewer systems. The P2 program requires compliance with the Wastewater Discharge By-Law through planning, education, inspections and monitoring at the source of these discharges from all industrial, commercial and institutional locations within HRM. Additionally, educational information is provided through various mediums for the residential sector to allow direct participation by the public in the protection of our natural marine and freshwater resources. Staff have previously provided updates to Council on the status of this program. Since the last update provided to Regional Council at its meeting of November 28, 2006, activities that P2 staff have undertaken or completed include the following:

- Staff, during this reporting period, have continued with inspections of businesses within the Dartmouth WWTF sewershed for compliance with HRM's By-Law W-101. These inspections were initiated within the Burnside Business Park area and extends to all businesses within the Dartmouth sewershed. It is the intent of staff to have this phase of activities completed prior to the completion and commissioning of the Dartmouth WWTF.
  - To date, inspections are being completed on time.
- P2 staff responded to 31 environmental incidents or related investigations since the previous report. This includes the detection of 7 locations in which wastewater was entering into storm sewer systems. These locations are actively being corrected.
- Staff from Technical and Underground Services have continued to observe and report a reduction in the number of sewer problems such as blockages or accumulations related to fat, oil and grease. This reduction is attributed to P2 activities in the food preparation sector. Reduction of the amount of fat, oil and grease (FOG) that is discharged to municipal sewer systems will correspond to a reduction in Soluble and Total BOD influent loadings to the Harbour Solutions Project WWTF s and may result in a reduction of system operation and maintenance costs.

- P2 staff have commenced a pilot study with a national fast food company which generates at each location, a significant amount of FOG which is discharged to the municipal sewer system. This company has purchased and installed a unique grease trap to control the discharge of FOG. Recent data from this study indicates that 6 litres of grease from one location is being captured and removed on an average daily basis. Previously, this volume would have been discharged to the municipal sewer system. Staff have been advised that this company intends to purchase and install similar devices in 22 locations throughout HRM.
- P2 staff have produced and delivered pollution prevention television advertisements which have been aired on the CTV network. Staff from CTV have recently advised that one of the advertisements used to raise awareness of pollution issues within HRM has been nominated for a national award by the Televison Bureau of Canada. Results of this nomination will be available in February 2007.
- P2 staff have completed an intergovernmental pollution prevention project entitled "HRM Best Management Practices (BMP's) for Industry" for several industrial sectors located in HRM which has involved HRM's P2 staff, Environment Canada, DOE and the Canadian Centre for Pollution Prevention. The development of these BMP's will provide businesses with the identification of wastewater characteristics and methodologies to undertake to assist them with by-law compliance. These BMP's have been completed and are currently being printed by Environment Canada. Distribution to respective business will then be undertaken.

Educational information will be continued to be provided through related media and presentation opportunities to provide for public education and enhanced stewardship of our surface water resources. P2 staff provided 6 presentations to schools and two business associations since the last report.

#### Section 5

## **Harbour Water Quality Monitoring**

The Harbour water quality monitoring program was initiated in June, 2004. Samples are collected at 35 stations in the harbour, from the head of Bedford Basin to the harbour mouth past McNabs Island. Stations are located down the centre of the harbour, and at various additional points including areas of recreational use such as the yacht clubs. During 2006, additional samples have been taken in Dartmouth Cove, Fairview Cove, and new sampling sites were established at Herring Cove. Additional sampling has been performed at Fairview Cove to monitor for effects of sewage diversion due to construction at the Duffus Street pumping station. Weekly sampling of bacteria has been discontinued, since two years of weekly data are sufficient to understand their dynamics over time. The savings have been used to initiate high-sensitivity analyses for metals, which had been undetectable using normal analytical methods. This will allow determination of true background metals levels.

Samples are collected at the surface and 10 metre depth, and analysed bi-weekly for bacterial levels, chemistry and nutrients. The data are compiled into bi-weekly and quarterly summary reports. Testing for oils and biochemical oxygen demand (a measure of organic constituents in the water) has been discontinued at regular sampling sites due to levels which are routinely below detection limits. Methods for more sensitive detection of metals have been instituted. The program remains on schedule and below budget.

The purpose of the program is to establish existing baseline water quality conditions in the harbour, and to track changes as each of the three new treatment plants is commissioned in 2007 (Halifax and Dartmouth) and 2008 (Herring Cove). The program is scheduled to continue through 2009. Water quality objectives have been established for various portions of the Harbour, and the sampling program will allow assessment of progress toward

those objectives as sewage discharge to the Harbour becomes treated.

Fecal coliform bacteria levels are high throughout the middle and inner harbour, exceeding the swimming guidelines, particularly in winter months. Levels in NW Arm and the Basin are periodically elevated. Metals levels are low throughout the harbour, as are BOD levels. Oxygen levels are depressed in the deeper waters of Bedford

Basin at various times, likely due to decomposition of organic materials. Oxygen levels are often too low, below the desired objective. Overall, water quality objectives in the harbour are not currently met except in the outer harbour, based on the various measured parameters.

Quarterly reports and weekly/bi-weekly data reports and spreadsheets are available online at: <a href="http://www.halifax.ca/harboursol/waterqualitydata.html">http://www.halifax.ca/harboursol/waterqualitydata.html</a>.

#### Section 6

#### Financial Information

As of December 2006, the Harbour Solutions Project has spent \$197.95 million of its \$332.7 million capital budget. Spending for the quarter just completed was \$23.01 million which is largely comprised of \$9.64 million for the Wastewater Collection System, \$9.11 million for the Wastewater Treatment Plants, and \$1.38 million for the new Biosolids Processing Facility. Contract management, the Public Involvement & Information Program, aggressive Pollution Prevention, Water Quality Monitoring, Inflation, and administration totalled \$2.72 million.

In October 2002, Council granted approval in principle to commence a series of increases, not to exceed \$0.29, to the Environmental Protection Charge as a means of funding the Harbour Solutions Project. The first \$0.05 increase was implemented in October 2003. In January 2005, Council approved the schedule of remaining increases necessary to fund the Project. The second, third and fourth \$0.05 increases became effective in March 2005, October 2005 and October 2006 respectively. The next and final increase of \$0.09 will become effective in October 2007. The table below shows the implementation dates for the increases totalling \$0.29 for the Harbour Solutions Project:

Date	Environmental Protection Charge-HSP portion	Increase
October 2003	\$0.42	\$0.05
March 2005	\$0.47	\$0.05
October 2005	\$0.52	\$0.05
October 2006	\$0.57	\$0.05
October 2007	\$0.66	\$0.09

The above rates attributable to Harbour Solutions are just one portion of the Environmental Protection Charge. The charge also funds expenses associated with already existing infrastructure. All revenues collected are recorded in the Environmental Protection Reserve. Staff maintains an administrative split of reserve balances.

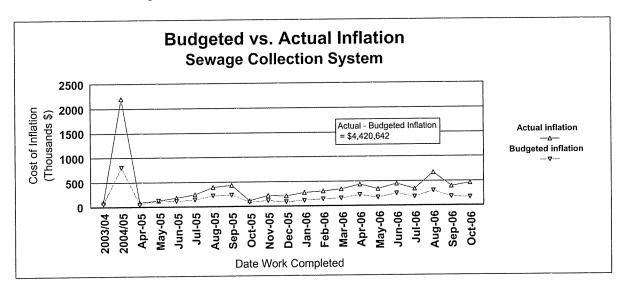
The Canadian Strategic Infrastructure Fund Committee has completed its review of the Harbour Solutions 2005/2006 annual submission and has received a certificate from Public Works and Government Services that finds the environmental plan to be in accordance with the 2003 environmental assessment dated January, 2003.

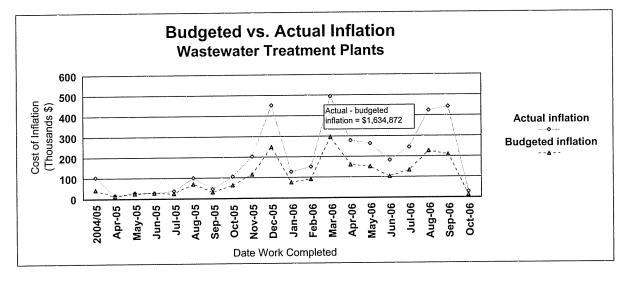
This submission, therefore, meets the annual reporting requirements under the CSIF agreement.

#### Inflation

Over the life of the project, 2004/05 was an extraordinary year for construction-related inflation in HRM in terms of its strong increase. In 2005/06 the inflation trend stabilized somewhat, and was lower than the revised inflation projection of 6% (4.31% vs. 7.87% in 2004/05). The first quarter of 2006/07 saw inflation of 5.41%; the second quarter saw an increase to 5.88%; in the third quarter inflation was 5.25%. At this point, it would not be prudent to revise estimates over the Project's life down from the projected 6% annual inflation.

The impact of inflation in terms of dollars is demonstrated in the two charts below for the Wastewater Collection System and the Wastewater Treatment Plants. The difference between the actual and budgeted inflation represents the amount which must be taken from the contingency funds. As of December 2006, \$6.06 million over and above budgeted inflation has been spent on these two contracts.





# **Contingency Spending**

The contingency budget of \$18.20 million is largely set aside for addressing inflation beyond budgeted levels. The contingency is also being used to fund small items that have arisen through the contract amendments. At the time of the Harbour Solutions mid-year report, the uncommitted Contingency balance was \$1.89 million. Since then a potential additional \$2.5 - \$3 million has been identified, as a result of the delay in completion of the Wastewater Treatment Plants in Halifax, Dartmouth and Herring Cove. This is due to the inflation adjustment not paid to the contractor, once the completion date extends beyond the original Date Certain.

Actual and planned spending of contingency funds is as follows (shown in millions):

Realized inflation in excess of budget	\$6.32
Projected inflation in excess of budget	8.35
Amount Committed for amendments	1.64
Uncommitted	1.89
Total	\$18.2

**Harbour Solutions Project** 

3rd Quarter 2006/07

(in millions of dollars)

	3rd Quarter	Year to Date	Project Total	Budget
Firm Price Contracts				
Sewage Collection System	9.64	22.66	97.06	112.3
Sewage Treatment Plants	9.11	21.59	57.6	136.9
Biosolids Processing Facility	1.38	5.61	9.56	12.5
Net HST	-	-	-	9.6
Community Liaison Committees	0.16	2.03	4.7	7.0
Land	-	-	4.92	4.8
Pre-Construction Contract	-	-	7.11	7.1
	20.29	51.89	180.95	290.2
Total Firm Price Costs	20.29	31.09	160.93	290.2
Variable Costs Admin., Contract Mgmnt., Communication	0.47	1.24	5.99	12
Contingency Inflation	- 2.25	- 4.86	11.01	18.2 12.3
Total Variable Costs	2.72	6.1	17.00	42.5
Harbour Solutions Project		10 F 0 10 10 10 10 10 10 10 10 10 10 10 10 1		
Total Cost	23.01	57.98	197.95	332.7
Funding	25 (4.271) 20 (24 (2.244) 2-244 ) (4.244) (1.244) (1.244)			
EP Reserve Levies Long-term debt:	14.47	59.2	154.51	160.2
N.S. Municipal Finance Corporation	-	<del>-</del>	110.00	110
Federation of Canadian Municipalities	-	-	20.0	20
Cost Sharing: Province* Canada Strategic Infrastructure Fund	-	- 0.7	6.01 20.85	10.0 30.0
Potential short-term debt	-	<del>-</del>		2.5
Total Funding	14.47	59.9	311.36	332.7

#### Section 7

## **Public Information and Involvement Program**

The Marketing, Design and Print Services section of the Corporate Communications Office assumed responsibility for the Public Information and Involvement Program for the Harbour Solutions Project in the fall of 2003.

## **Public Messaging**

Harbour Solutions continues to be a major player in the Naturally Green Newsletter. This environmentally focussed in-house produced piece is distributed to approximately 162,000 households in HRM. The latest edition was released in October 2006. The next edition is scheduled for March 2007.

Corporate Communications recently completed another airtime run of the 30sec Harbour Solutions - Talking Harbour TV ad on ATV. The ad has been very well received and continues to make the link between HSP and P2.

Corporate Communications designed a user-friendly map outlining the various harbour related activities that will be possible once the HSP is up and running. The map was published in the recent "Special Harbour Edition of Naturally Green". Corporate Communications is presently scheduling the map to run as both interior/exterior sign mounts on Metro Transit buses.

# **Community Liaison Committees (CLC)**

The Halifax CLC and the Herring Cove CLCs continue to meet regularly to deal with the integration of the WTP's into their communities.

HRM staff continue to liaise with and attend Halifax meetings when requested by the CLC's. The Halifax CLC continues to look at a proposal for the CIF.

In Dartmouth, construction continues on the sewage collection system(SCS) and WWTF. The new trail system is essentially complete.

Residents continue to be kept informed of work in their specific area through notices delivered door-to-door. Residents are also kept up to date on the overall project through publications such as Naturally Green, HSP website, radio and newspaper ads.

The Herring Cove CLC, working with Councillor Adams, Corporate Communications, EMS and HRWC staff, brought the long awaited first phase of municipal services to parts of Herring Cove. The next phase is scheduled to get underway in 2007. The Herring Cove CLC has accepted the final exterior architectural elevation design of the WWTF, and is reviewing the exterior architectural elevation design of the Herring Cove Pumping Station and will also focus their efforts on landscaping. Corporate Communications staff will continue to regularly attend meetings to help this process move along.

#### **Communication Plan**

PIIP staff developed and continue to implement a detailed communication plan for the Project.

#### **Presentations**

Presentations are developed on an on-going basis for conferences, workshops and community groups. The presentations are updated regularly to correspond with project progress. These presentations have all been made available on compact discs as well. Corporate Communications gave a presentation in December to two Grade 4 classes at Clayton Park West school. The Halifax WWTF model and updated Powerpoint presentation were all well received.

Three new Harbour Solutions display units continue to be used at public meetings, trade/home shows and other events. The new display units focus on the positive message of the project, stewardship and integrating of messaging with HRM's Pollution Prevention Program.

As part of our presentation materials, Mayflower Models has been contracted to construct 3 scale models of the new wastewater treatment plants. These will prove a valuable tool in explaining the advanced primary treatment process. The Halifax WWTF, the first model, is complete and has been on display at the Harbourfest as well as City Hall. A video is presently being developed around the model to better explain the advanced-primary treatment process involved in the three new WWTF's.

#### **Harbour Solutions Website**

The Harbour Solutions website has been redesigned to provide a "user friendly" up to date source of information on the Project. PIIP staff continue to maintain the site for Harbour Solutions. The site features a large photo gallery, reference materials, construction notices informing residents of any possible traffic impacts and a large collection of information related to the WWCS, WTTF and Biosolids processes.

## **Construction Communications**

A PIIP staff member attends the Harbour Solutions construction meetings weekly to liaise with Dexter and D&D, as well as, other HRM departments to stay informed about construction that could impact the public/businesses, and ensure communications are developed to address these impacts. A PIIP member also attends, where required, meetings with businesses and residents that may be directly impacted by HSP related construction activity.

Weekly construction updates continue to be emailed to stakeholders and posted on the website, along with notices of impending construction and their impacts. Newspaper and radio ads, media releases and web postings continue to be developed for construction that may impact on traffic.

# Signage

PIIP staff liaised with the federal and provincial governments to design, produce and install signage for the site of the Herring Cove WWTF.

## Correspondence

As requested/required, letters and e-mails are drafted to address concerns/enquiries from citizens regarding the Project. PIIP staff also regularly respond to numerous requests for HSP information from the general public, interest groups, media, HRM Councillors, staff and others. Letters are also drafted for the CLC's and other levels of government.

Initial contact has also ben made between Corporate Communications and federal communications officials to begin early planning for the Halifax WWTF opening.

#### **Section 8**

#### **Construction Safety**

There was one lost-time incident during the quarter. A traffic control person fell and broke her leg at the Pier A diversion piping work location. Dexter Construction Ltd. finished their internal investigation on this incident and concluded that there was no violation of any safety requirement on the job site.

There were three NSDEL inspections during the quarter. Two inspections were held at the Halifax WWTF on October 17 and October 23 with no compliance orders being issued. An inspection of the pipe installation activities at Alderney Drive occurred on October 25, 2006 with no compliance orders being issued.