



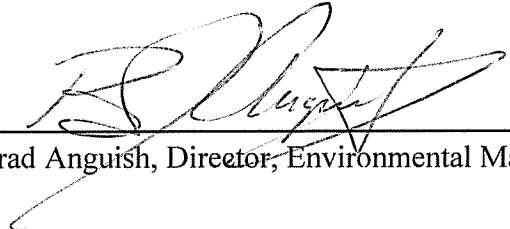
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Halifax Regional Council
June 21, 2005

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:



Brad Anguish, Director, Environmental Management Services

DATE: June 9, 2005

SUBJECT: Harbour Solutions Project - Quarterly Report

INFORMATION REPORT

ORIGIN

This report originates from the Council session of October 22, 2002.

BACKGROUND

Contracts with Dexter Construction for the Sewage Collection System (SCS) and with D&D Water Solutions for the Wastewater Treatment Plants (WTP) were signed in August 2003 and July 2004, respectively. Contracts with SGE Acres Limited and Hatch Limited (to design, build, commission a biosolids processing facility) and with N-Viro Systems Canada (to operate and maintain the biosolids facility) were signed on November 30, 2004.

Construction for the Sewage Collection System, Wastewater Treatment Plant and the Biosolids Processing Facility has started. This is the second quarterly report covering all components of the Harbour Solutions Project.

DISCUSSION

Attached is a copy of the Harbour Solutions Project's Quarterly Report to March 31, 2005 that provides summaries of the various activities.

The Halifax sewage collection tunnel is now essentially complete and construction of the drop shafts into the tunnel is underway. Work has started on the Duke Street sewershed separation program. All elements of the Halifax Sewage Collection System are scheduled to be complete prior to October 2005, with the exception of the Duffus Street Pumping Station modifications and some diversion piping, which will be completed in 2006 to better coordinate with the completion of the Halifax Wastewater Treatment Plant.

Although the excavation of the Plant is essentially complete, the excavation of rock in the pumping station or wet well area has been met with major difficulties. The rock is of poor quality with severe weathering and the jointing was more severe than anticipated. Despite working 6 to 7 days per week, adding resources and changes in the work plan, the completion date of the Halifax Wastewater Treatment Plant will now suffer a delay. On June 2, 2005, D&D Solutions Inc. formally notified HRM of Unforeseen Geological Conditions and as a result will cause the date of substantial completion to move from September 6, 2006 to January 30, 2007. Staff is carrying out a due diligence review of the matter. Based on the STP Development Agreement, there will be no change to the Guaranteed Maximum Price (GMP) as a result of this delay.

It is anticipated that the delay in the completion date for the Halifax Wastewater Treatment Plant will impact the Biosolids Processing Facility financially. Final commissioning of the Biosolids Processing Facility depends on receiving sufficient volumes of Dewatered Biosolids from the Halifax Wastewater Treatment Plant to carry out the requisite testing. HRM becomes liable for interest on the remaining unpaid balance of the GMP plus reasonable direct expenses if Final Commissioning does not commence within 45 days of the Biosolids Processing Facility achieving Interim Completion. The exact amount of the penalty cannot be determined at this time but staff is confident that the risk can be managed within the contingency budget.

The Halifax Community Liaison Committee has selected and accepted the exterior finish of the Plant, which is to be finished with a combination of split block and brick.

Regarding the Biosolids Processing Facility, designs for the process, plant layout, building, and site works were progressed. A Request for Proposals (RFP) for the trucking of the dewatered biosolids to the processing facility was issued in May 2005.

Summary

The Harbour Solutions Project staff are of the opinion that the overall Project will remain on schedule and within budget, the milestone for the completion of the Halifax Wastewater Treatment Plant will move from September 6, 2006 to January 30, 2007.

BUDGET IMPLICATIONS

In 2004/05 all of the Project financing was finalized. Debentures were issued for \$110 million with Nova Scotia Municipal Finance Corporation and \$20 million with Federation of Canadian

Municipalities under the Green Municipal Investment Fund. On January 25, 2005, Council approved the schedule of remaining Environmental Protection Charge increases to the water bill. Regarding expenditures, the Harbour Solutions Project has spent \$76.00 million to March 31, 2005, \$50.12 million of which was in 2004/05. 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 year 2004/05 brought inflation of 7.87%. Staff has revised the 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.

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.

ALTERNATIVES

N/A

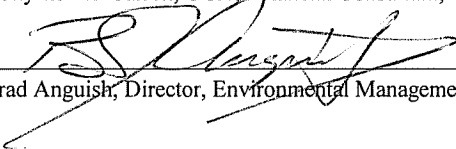
ATTACHMENTS

Halifax Harbour Solutions Project - Quarterly Report to April 29, 2005 (Attachment 1)

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.

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Report Approved by: 
Brad Anguish, Director, Environmental Management Services

June 21, 2005

Halifax Harbour Solutions Project

Quarterly Report to June 2, 2005

Introduction

The intent of this document is to provide Council and staff with a general overview of the Harbour Solutions Project Quarterly Report to June 2, 2005.

It is presented in sections:

Section 1 - Sewage Collection System

Section 2 - Sewage Treatment Plants

Section 3 - Biosolids Processing Facility

Section 4 - Pollution Prevention Program

Section 5 - Financial Information

Section 6 - Public Involvement & Information Program

Section 7 - Harbour Water Quality Monitoring

Section 1

Sewage Collection System

For the Halifax portion of the sewage collection system, the mainline piping is substantially completed and construction is underway on all related infrastructure with exception of some diversion piping (which will be completed in 2006 to better coordinate with the completion of the Halifax Wastewater Treatment Plant) and the Duffus Street Pump Station modifications. For the latter, the design is nearly complete with construction to start later in 2005. Further, work has commenced on the Duke Street sewershed separation with the Salter Street sewershed separation work to follow.

For the Dartmouth portion of the sewage collection system, design work has started, preliminary investigations regarding infrastructure placement continue, the route of the access driveway to the plant has been cleared, and the rock mattress for the plant outfall has been mostly placed.

Regulatory Approval

- Regulatory approval was received for the first phase of the source separation of the Duke Street sewershed.
- Regulatory approvals have been requested for minor infilling on Waterfront Development Corporation Ltd. land in Dartmouth Cove and for the Lyle Street outfall.

Easements and Licenses

- The CN land agreement is proceeding slowly, however Dexter has informed HRM that the final format is to include both CN land in Halifax and Dartmouth. For Halifax, CN granted temporary access approval for construction and Dexter has completed construction activities (at their risk) on the CN lands. For Dartmouth, Dexter has requested temporary access approval from CN for construction.
- For other properties, Dexter is continuing discussions with Irving Halifax Shipyards for land required for the Young Street outfall. In Dartmouth, negotiations are underway with Department of National Defence, Waterfront Development Corporation Ltd., and a few private owners.

Construction Activities

The following work has been completed or initiated at the following locations:

Tunnel

- The tunnel has been lined with concrete and grouting completed. An inspection was conducted for Dexter Construction by their engineering subcontractor and HRM participated as an observer. HRM will do the final inspection in approximately six months. Dexter Construction is continuing work in the drop shafts and related vortex chambers.

Mainline Pipeline

- Mainline piping in Halifax is substantially completed with the exception of a section at the south end of Barrington from Green to Inglis which was carried forward from last year. The work has

now started on this section.

- For the utility bridge (located adjacent to the Tower Road Bridge), connections at either end have been completed and permanent security fencing has been erected.

Salter Street and Duke Street Drainage Area - Sewer Separation

Work has commenced on the Duke Street sewershed separation with the Salter Street sewershed separation work to follow. Work will be completed on a block by block basis over 2005/2006 prior to completion of the Halifax Wastewater Treatment Plant.

Combined Sewer Overflow Structures

- For the Maritime Museum structure, the civil work is completed.
- For the North Street structure, the civil work is completed.
- For Sackville Street structure, the civil work is completed and a portion of the parking was returned to Province by the end of April.
- At the Upper Water Street structure, the civil work is completed and over the summer dry connections will be started on three sides.
- For the Young Street location, the base has been poured and the structure will follow.

Pumping Stations

- The station at the Atlantic School of Theology has been turned over to subcontractor Black & McDonald to do the mechanical & electrical work inside the building. Restoration work has commenced on the surrounding grounds.
- Foundation work is nearly complete at the Balmoral Pump Station with the line from the station to be placed after the civil work is completed.
- Excavation work has been completed for Pier A Pump Station located at the corner of Inglis and Barrington Streets. Pipe connections are underway on Barrington Street extension.

Outfalls

- HRM has accepted a repair plan for the Halifax Plant outfall which was damaged during installation and repair work has commenced at the contractor's expense. After repairs are completed, a video inspection and approval by HRM are required before the repaired outfall will be accepted.
- The outfall for the Young Street chamber will be started as soon as land approval is obtained from the Irving Halifax Shipyard.
- The rock mattress for the Dartmouth Plant outfall is substantially placed.

Material Handling

- Screening and sorting at Seaview temporary storage continued. Leachable soil from the Halifax Plant site continues to be stockpiled and covered.
- As per Nova Scotia Department of Environment & Labour approvals, contaminated soil is hauled and placed at the Mengoni site.

Implementation Schedule

The original schedule for the Halifax Sewage Collection System required completion of all components by October 2005. To date, the main line piping components are substantially complete. All other aspects of the Halifax Sewage Collection System are scheduled to be complete prior to October 2005, with the exception of the Duffus Street Pump Station modifications, which will start later in 2005 and some diversion piping which will be completed in 2006 to better coordinate with the completion of the Halifax Wastewater Treatment Plant.

Design, permit application and real estate acquisition activity is underway for the Dartmouth Sewage Collection System. Construction began in May with the start of the Dartmouth Wastewater Treatment Plant access road construction.

A major uncertainty that may impact the Implementation Schedule is that Dexter Construction has not yet been able to negotiate a suitable land agreement with CN. In Halifax, a portion of the collection system in the north end is on CN land adjacent to Barrington St. and in the south end, crosses the CN rail cut adjacent to the Tower Road Bridge. In order to maintain the schedule, Dexter completed the work (at their risk) on the CN land in Halifax. For Dartmouth, Dexter has requested temporary access approval for construction from CN prior to completion of a land agreement.

Section 2

Wastewater Treatment Plants

Excavation of the Halifax Wastewater Treatment Plant is substantially completed with the exception of the excavation of the wet well for the pumping station, which will pump the sewage from the tunnel level to the head work of the plant. Difficulties have been encountered in advancing the excavation of the wet well due to the rock conditions encountered relative to the weathering in the top zone, as well as the jointing patterns encountered. As a result, more rock bolts are required to stabilize the excavation. D&D Water Solutions increased their work crew for the rock bolting operation in an attempt to minimise any time lost. Despite working 6 to 7 days per week, adding resources and changes in the work plan, the entire time lost cannot be recovered. On June 2, 2005, D&D Solutions Inc. formally notified HRM of Unforeseen Geological Conditions and as a result will cause the date of substantial completion to move from September 6, 2006 to January 30, 2007. Staff is carrying out a due diligence review of the matter.

However, the overall completion of the entire Harbour Solutions Project is still on schedule and based on the STP Development Agreement, there will be no change to the GMP as a result of this.

The options for the facade of the Halifax Wastewater Treatment Plant were presented to the Halifax Community Liaison Committee and the option of using a combination of split block and brick was accepted.

Engineering

Structural design, Mechanical and Electrical design, Process design, odour control and ventilation design are progressing.

Selection of Major Equipment

The Ultra Violet disinfection equipment, automatic coarse screen and isolation gate have been selected.

Construction Activities

Contaminated soil handling is substantially completed. The slate is being loaded, transported and placed for the mattress associated with the Dartmouth Wastewater Treatment Plant outfall. Sheet piling and tie back support for the concrete wall south of the building on the south west corner of the site has been installed. The underground piping for the Densadeg piping has been installed and tested. The excavation of the wet well pumping station area is ongoing and based on the revised schedule, the excavation is scheduled for completion by August 4, 2005.

Section 3

Biosolids Processing Facility

Work during the month of January included a continuation of the process design and plant layout. In February, work continued on the design of site works, including grading and drainage, and the issuing of site works and building drawings to the contractor for review and comment. In March, site works and building design was completed by SGE Acres to 65% and the package is expected to be submitted to Harbour Solutions staff for review.

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 January 25, 2005, activities that P2 staff have undertaken or completed, include the following:

- As of April 26, 2005, staff have completed 265 inspections of 364 HRM owned buildings

and workplaces for compliance with HRM's By-Law W-101. Information has been compiled within a nine page Environmental Assessment form for each location. Detailed reports regarding environmental issues and impacts for HRM properties will be provided to respective Business Units for consideration and appropriate actions after completion of the site inspections. It is anticipated that the environmental inspections of HRM properties and work place locations will be completed by June 2005.

- P2 staff have responded to 23 environmental incidents.
- A treatability study has commenced to review the use of micro-biological based additives for the reduction of the accumulation of fat, oil and grease and resident BOD concentrations in sanitary sewer systems. Currently, By-Law W-101 requires the physical capture and removal of fat, oil and grease through the operation and maintenance of grease traps and grease interceptors. Grease traps and grease interceptors are not efficient as a source control method and permit significant amounts of accumulated organic matter and elevated BOD concentrations to enter the sanitary sewer system. Other municipalities have reported some success using this type of wastewater pretreatment product. Previously, degreasers employed in sanitary sewer systems were either caustic or enzyme based which caused parameters such as fat, oil and grease to leave the place of origin and move farther downstream resulting in operational difficulties. Should emerging technologies such as the use of activated bacterial populations in sewer systems, and at source, in restaurants and food preparation businesses prove successful, this pretreatment may reduce influent BOD concentrations and decrease operational costs of some municipal operations.

P2 staff with assistance from Technical and Underground Services staff have deployed micro-biological additives at three selected pumping stations that have experienced significant grease accumulation. Representative sampling for indicator chemistries is being undertaken three times per week over a six-week period to determine the feasibility of these products in controlling fat, oil, grease and related BOD concentrations.

- Provided technical support to staff from Transportation and Public Works for environmental considerations in the preparation of a Salt Reduction Management Plan as required by Environment Canada. P2 staff have completed three independent sampling programs for twelve indicator freshwater surface bodies to document impacts to lakes from road deicing activities.
- Developed an Inflow Reduction program to address extraneous water entering HRM's sanitary sewer systems from private property. Inflow causes operational problems such as pumping station and system overflows, increased operating and capital costs as a result of additional pumping requirements and impacts to system capacity.
- P2 staff have provided 13 presentations on Pollution Prevention to Dalhousie University, core programs and Continuing Education Courses, Nova Scotia Community College, EPIC technical training course, various consulting engineering firms and related environmental seminars. These educational seminars and presentations are focussed on identifying the need for compliance by industries to the provisions of By-Law W-101 and in particular, soluble and total BOD concentrations.

- Completed an intergovernmental pollution prevention pilot project for micro-breweries located in HRM which involved HRM P2 staff, Environment Canada and Department of Environment & Labour. Brewery waste discharge is characterised as having high BOD concentrations which may pose problematic for the proposed Harbour Solutions Project's Wastewater Treatment Plants.

As indicated in the previous report to Council, the initial phase of P2 activities within the proposed Halifax Wastewater Treatment Plant's sewershed has been completed. In the first months of 2005, P2 staff are focussing on assisting the estimated 364 owned or leased HRM buildings and work locations to ensure that process wastewater from HRM operations is in compliance with our by-law.

A similar phase of by-law rollout including individual site inspections, business education, monitoring and inspections will then commence for the serviced area of the future Dartmouth Wastewater Treatment Plant. It is anticipated that P2 activities for this sewershed will commence by July 2005 and be completed in advance of the Wastewater Treatment Plant commissioning in 2007. This activity will begin after HRM property inspections are complete.

P2 staff have produced and delivered a number of pollution prevention television advertisements, newspaper articles including regular use of HRM's Naturally Green newsletter, public presentations and industry seminars to educate and promote pollution prevention to industrial, commercial and institutional locations and to the general public. Educational information will be continued to be provided through related media opportunities to provide for public education and enhanced stewardship of our surface water resources.

Staff have hand distributed educational information to 388 properties in two separate sewer sheds in response to reported observations of pet owners depositing dog waste into storm sewers. This information educates individuals on the proper disposal and the impact to lakes and surface water quality of improper disposal of pet waste.

Section 5

Financial Information

As of the end of 2004/05, the Harbour Solutions Project has spent \$76.0 million of its \$332.7 million capital budget. Spending for the fiscal year just completed was \$50.12 million which is largely comprised of \$33.71 million for the sewage collection system and \$11.12 million for the wastewater treatment plants. Design work on the biosolids processing facility, contract negotiation and management, the Public Involvement & Information Program, Aggressive Pollution Prevention, water quality monitoring, inflation, and administration make up the remaining \$5.29 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. March 2005 saw implementation of the second \$0.05 increase. The table below shows the implementation dates for the increases totalling \$0.29 for the Harbour Solutions Project:

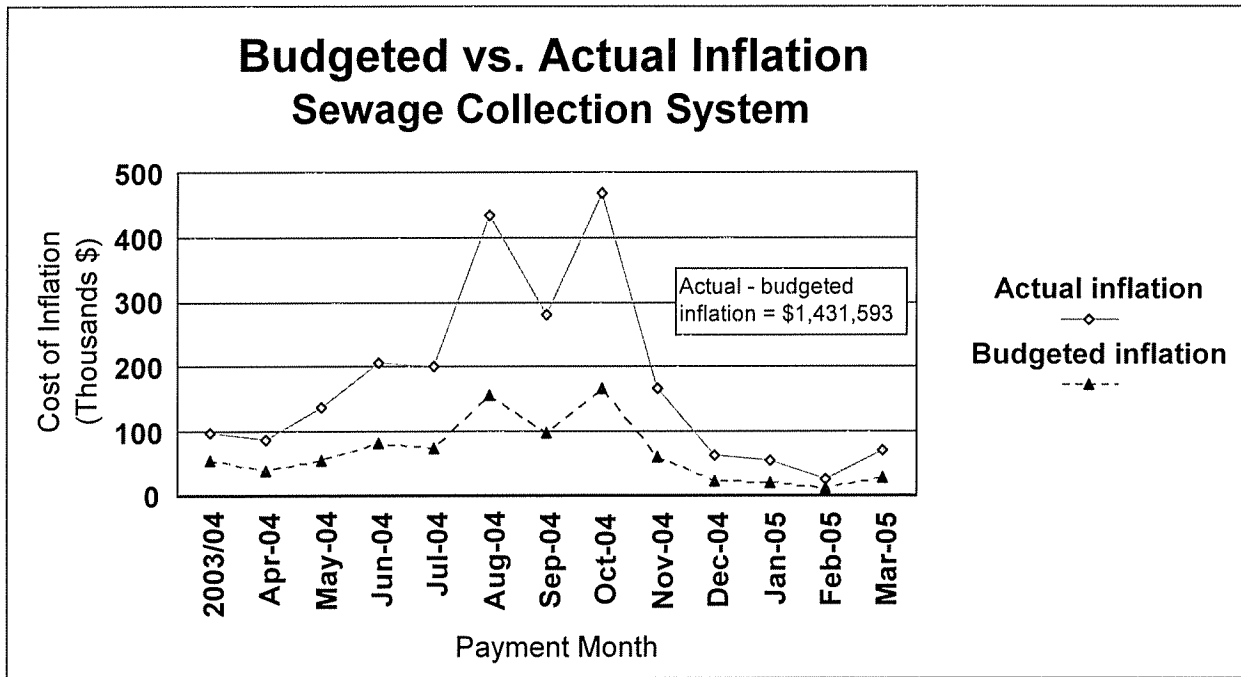
Date	Environmental Protection Charge-HSP portion	Increase
October 2003	\$0.42	\$0.05
March 2005	\$0.47	\$0.05
October 2005	\$0.52	\$0.05
October 2006	\$0.57	\$0.05
October 2007	\$0.66	\$0.09
Total Increase		\$0.29

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 but this has not achieved the level of transparent accountability desired by Council and members of the public. Staff has prepared a report which will be before Council shortly recommending the formal separation of the Environmental Protection Reserve into two reserves to separately and transparently account for transactions related to the Harbour Solutions Project and existing infrastructure. Staff will be recommending making the reserve separation effective April 1, 2005.

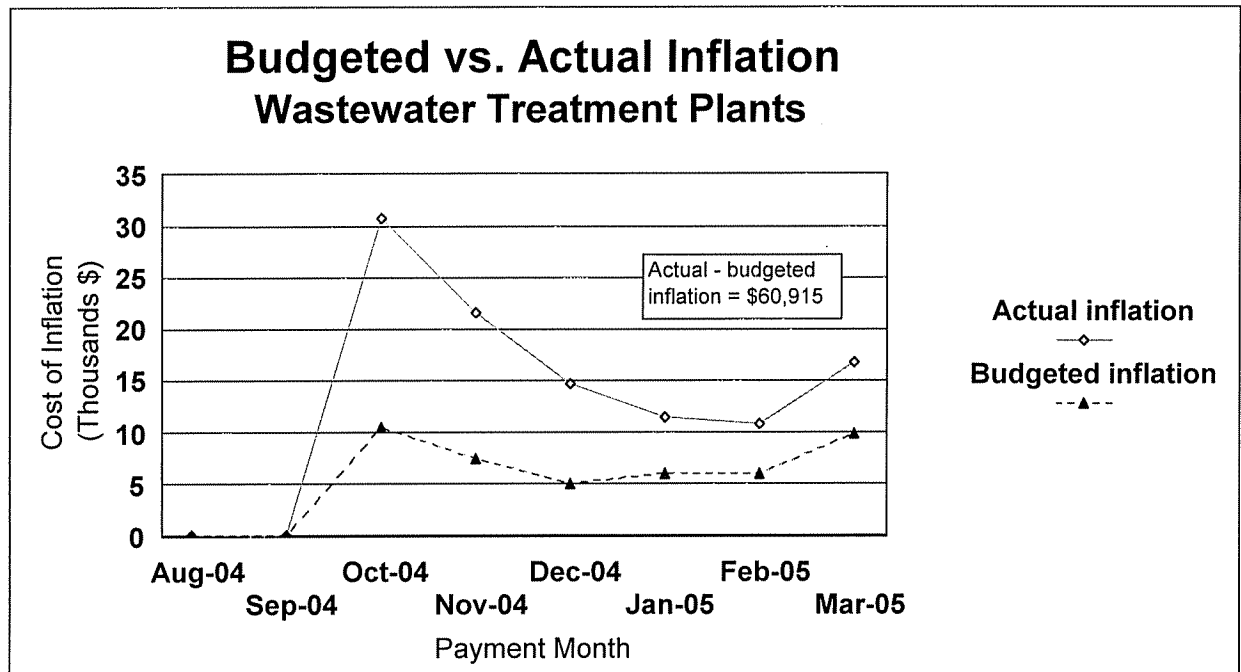
Inflation

2004/05 was an extraordinary year for construction-related inflation in HRM. The annual average inflation over the last twenty years for the Halifax Non-residential Construction Index is 2.07%. In 2003/04 inflation was 3.14% and it leapt to 7.87% for 2004/05. There was some good news when the last quarter's results were released in February, as inflation was approximately one-third the level of the previous three quarters. The most recent release in mid-May was less than 1% annualized. At this time, it is too soon to revise estimates over the Project's life down from the projected 6% annual inflation. More data is required to determine if this downward swing is a trend or simply reflective of the traditionally slower Winter construction season in HRM.

The impact of inflation in terms of dollars is demonstrated in the two charts below for the Sewage 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 March 31, 2005, \$1.49 million over and above budgeted inflation has been spent on these two contracts.



Contract Amendments



As work on the Sewage Collection System and Wastewater Treatment Plants has progressed, amendments to the contracts have been a necessary part of their administration. The following is

a synopsis of contract amendments to date and their impacts on the guaranteed maximum prices (GMP).

Sewage Collection System - Infrastructure Development Agreement

Amendment #1

General insurance requirements that were set aside during the drafting of the original agreement were clarified and amended. There was no impact on the GMP.

Amendment #2

Substitute piping material for the Duffus Street to Young Street mainline pipe was proposed and accepted, resulting in a reduction of the GMP of \$88,300

Amendment #3

HRM's covenant regarding insurance deductibles was clarified and amended with no change to GMP.

Amendment #4

This amendment included several items. First and foremost was to upgrade the Halifax diffuser ratio from 20:1 to 50:1. Flow metres, valves, and additional repaving depth on selected streets were also included, increasing GMP by \$1,310,574. The net GMP increase is substantially less as the Canada Strategic Infrastructure Fund will cover costs for the diffuser upgrade of \$1,075,080. Per the terms of this amendment, inflation is not applicable to the items specifically identified.

Amendment #5

This amendment also addressed several items. In the absence of a license agreement with CN, the Contractor has carried out work on CN lands at its own risk. The amendment agreed to pay the Contractor for work completed while reiterating that any requirement to remove construction, reinstate lands, and make alternate arrangements at another site would be at the risk of the Contractor. There was no impact on GMP as the work performed is already captured in the Infrastructure Development Agreement.

The second item covered was a payment in respect of a Provincial land license. Under the Infrastructure Development Agreement, HRM is responsible for licenses and the Contractor is responsible for easements. It was anticipated that an easement for access to the land would be acquired but agreement could not be reached with the Province. A license was granted and HRM's share of the cost resulted in a \$352,000 increase in GMP. Inflation was not applicable on the license.

Finally, the amendment clarified the inflation base to recognize official quarterly index releases. Monthly inflation amounts are projected based on the two most recent official index values.

The inflation base was adjusted for the actual index values occurring before and after the effective date. GMP was not affected.

Amendment #6

This amendment, to add sewer separation and water main replacement work in the Duke and

Salter Streets sewer sheds, was before Council for approval on May 24, 2005. The increase to GMP of \$5,258,535 is funded as follows: Canada Strategic Infrastructure Fund \$3,892,535, Halifax Regional Water Commission \$590,000, and a previously approved Salter St capital project \$776,000. Inflation, calculated on a revised base, is applicable on this amendment.

STP Development Agreement

Amendment #1

Wording detailing the calculation of the monthly inflation index was corrected to reflect intent. There was no impact on GMP.

Financial Summary of Contract Amendments
(all prices exclude HST and inflation)

	Guaranteed Maximum Price \$	Required contingency funds, net of cost-sharing \$
<i>Sewage Collection System</i>	112,300,000	
Amendment #1	--	
Amendment #2	(88,300)	(88,300)
Amendment #3	--	
Amendment #4	1,310,574	235,494
Amendment #5	352,000	352,000
Amendment #6	5,258,535	
Sewage Collection System, as amended	119,132,809	499,194
Wastewater Treatment Plant	136,900,000	
Amendment #1	--	
Wastewater Treatment Plant, as amended	136,900,000	--
Total	256,032,809	499,194

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

Realized inflation in excess of budget	\$ 1.49
Contract amendments	0.50
Projected inflation in excess of budget	13.18
Uncommitted	<u>3.03</u>
Total	\$18.20

Harbour Solutions Project 4th Quarter 2004/05 (in millions of dollars)

	Month to Date	Year to Date	Project Total	Budget
Firm Price Contracts				
Sewage Collection System	1.98	33.71	46.13	112.3
Sewage Treatment Plants	1.73	11.12	11.12	136.9
Biosolids Processing Facility	0.39	0.91	0.92	12.5
Net HST	-	-	-	9.6
Community Liaison Committees	0.03	0.07	0.11	7.0
Land	-	0.00	4.92	4.8
Pre-Construction Contract	-	-	7.11	7.1
Total Firm Price Costs	4.13	45.81	70.30	290.2
Variable Costs				
Admin., Contract Mgmt., Communication	0.22	2.03	3.34	12.0
Contingency	-	-	-	18.2
Inflation	0.07	2.28	2.35	12.3
Total Variable Costs	0.28	4.31	5.70	42.5
Harbour Solutions Project Total Cost	4.41	50.12	76.00	332.7
Funding				
EP Reserve Levies	-	35.75	55.67	160.2
Long-term debt:				
NS Municipal Finance Corporation	-	110.00	110.00	110.0
Federation of Canadian Municipalities	-	20.00	20.00	20.0
Cost Sharing:				
Province*	-	2.00	4.01	10.0
Canada Strategic Infrastructure Fund	-	4.26	7.26	30.0
Potential short-term debt	-	-	-	2.5
Total Funding	-	172.01	196.94	332.7

*The Province of Nova Scotia has committed \$30 million to the Project over a 15 year span. The \$10 million shown above in the table represents the portion that will be received during the construction period.

Section 6

Public Information and Involvement Program

The following is a summary of the Public Information and Involvement Program during the last quarter:

Special Events

Several media events were held in this quarter, including a tour of the tunnel for the sewage collection system and the site of the Halifax Wastewater Treatment Plant on Barrington Street with the Deputy Minister for Infrastructure.

Media coverage was organized for:

- Placement of the Halifax Treatment Plant outfall pipe. The daily newspapers and local TV stations showed photos and footage of the pipe being floated down the Harbour to the site of the Halifax Wastewater Treatment Plant.
- Lifting of the pipe bridge at Tower Road over CN Rail Cut (Daily News, Herald, ATV)

Community Liaison Committees (CLC)

The Halifax Community Liaison Committee and the Herring Cove Community Liaison Committee are meeting regularly to deal with the integration of the wastewater treatment plants into their communities. HRM staff liaise with and attend meetings when requested by the Community Liaison Committees. The Halifax Community Liaison Committee continues to meet with representatives from D&D Water Solutions Inc. to discuss the Halifax Wastewater Treatment Plant building itself, and have recently agreed upon the look of the exterior of the building.

The Herring Cove Community Liaison Committee is involved in acquiring water and sewer for the community, as well as working with architect, George Rogers, to look at the exterior design and landscaping of their Wastewater Treatment Plant. They have held two public meetings in April 2005, with the April 20th meeting seeing more than 300 people in attendance. These meetings were designed to update the community on the progress of the sewer and water project.

In Dartmouth, three community information meetings have been held since the first of the year to review the progress of the Harbour Solution Project and to give the residents an opportunity to ask questions. During the first meeting, a questionnaire was circulated to determine whether or not they would like to establish a new Community Liaison Committee or have the Councillors for Districts 5 and 8 along with the Harbour East Community Council take over that function. The response was overwhelmingly in favour of the latter option. Also, at this meeting information on the Harbour Solutions Project and the Dartmouth Harbourfront Trail was provided. The third meeting which was held on April 25th, also included staff from Dexter Construction and Dillon Consultants who assisted in responding to questions from the residents.

Public Information and Involvement Program staff prepare, print and circulate flyers to residents in each of the Wastewater Treatment Plants host communities to inform them of meetings in their area.

Presentations

Several presentations have been developed for conferences, workshops and community groups over the past year. These presentations have all been made available on compact disks as well. In the past few months we have provided materials and made presentations for the Home Show, the Dartmouth Rotary Club and an Open House held at the George Dixon Centre. Harbour Solutions display units are updated regularly for use at home shows and other civic events, as well as, updating presentations. New panels were developed for Environmental Management Services that present the Land, Air, Water concept to the public which will reinforce the more integrated approach to environmental initiatives, including Harbour Solutions and motivate a stewardship approach on behalf of the residents of HRM toward the environment.

Harbour Solutions Project Website

- The Harbour Solutions website has been redesigned to provide a "user friendly" up-to-date source of information on the Project. Public Information and Involvement Program staff continue to maintain the site for Harbour Solutions. The site is one of the first to be incorporated into the new look and feel of the HRM website.
- Web pages have been set up for the Halifax Community Liaison Committee and the minutes of each of their meetings, including notices, are posted on the site. The Dartmouth Community has also been set up on the site with all of the information from the community meetings, including a summary of questions and answers from each meeting, being posted. It is expected that staff will be able to develop a presence for the Herring Cove Community Liaison Committee within the next few months.
- Weekly construction updates are posted on the website, as well as press releases and all meeting notices for the Harbour Solutions Project.

Education Materials

A number of initiatives have taken place since January 2005, to educate the public on environmental issues, including the HSP:

- Two issues of Naturally Green newsletter
- Corporate Stewardship Calendar
- "No Rain in the Drain" television ad (designed to educate public that what goes down their storm drains ends up in the Harbour or the treatment plant and the treatment process cannot get rid of all toxins and they end up in the biosolids)
- A TV ad is presently being prepared to highlight the impact of the materials that are put down household drains on the treatment plants and the Harbour
- HRM News articles have been developed referencing HSP to educate staff
- Public Information and Involvement Program staff also prepared information on the Harbour Solutions Project for the HRM Annual Report
- Efforts are being made to change the name of the plants from Sewage Treatment Plants to

Wastewater Treatment Plants to more accurately reflect their function and lessen the negative impression that the word "sewage creates"

Construction Communications

- A Public Information and Involvement Program staff member attends the Harbour Solutions construction meetings weekly to liaise with Dexter and D&D Water Solutions as well as other HRM departments to stay informed about construction that could impact the public, and ensure communications are developed to address these impacts. Weekly construction updates are emailed to stakeholders and posted on the website, along with notices of impending construction and their impacts.
- Newspaper and radio ads are developed for construction that may impact on traffic in the downtown. Staff, along with Harbour Solutions staff, met with businesses in the Downtown Halifax area to inform them of construction on their streets in order to pro-actively address any impacts and concerns. Public Information and Involvement Program staff have been working closely with the Capital District planning staff, as well as, the Councillors in the communities where construction for the Harbour Solutions Project is happening or will be happening in the near future.
- Public Information and Involvement Program staff are working with Dexter Construction and the Councillors in Districts 5, 8, and 9 in Dartmouth to provide information and receive feedback from the community regarding impending construction in their area. Staff will continue to monitor the activities of Dexter Construction and ensure proper notification is given to residents where construction activity may affect them.

Signage

We have liaised with the federal and provincial governments to design and produce signage for the sites of the three Wastewater Treatment Plants. Signage is presently up on the Wastewater Treatment Plant (WTP) sites in Halifax and Dartmouth. Signage for the Herring Cove plant has been designed and constructed and is awaiting the direction from the Community Liaison Committee as to the timing of placement of the sign on the Wastewater Treatment Plant site. Signage has been designed and placed at the Balmoral Pumping Station and Pier A.

Correspondence

Several letters have been drafted for Mayor Kelly and the Harbour Solutions Office staff to address concerns from citizens regarding the Project. Letters are also drafted for the Community Liaison Committees and other levels of government. In addition, a number of letters have been drafted in response to letters received from students involved in environmental programs at Dalhousie. Staff continue to respond to media enquiries regarding the Harbour Solutions Project.

Section 7

Harbour Water Quality Monitoring

The Harbour water quality monitoring program was initiated 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. Samples are collected at the surface and 10 metre depth, and analysed weekly for bacterial levels, and bi-weekly for full chemistry including metals and nutrients. The data are compiled into weekly and quarterly summary reports. Preliminary results indicate for example that bacterial levels throughout the inner Harbour exceed the recreational guideline limits.

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 2006 (Halifax), 2007 (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.