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Halifax Regional Council
March 27, 2007
Committee of the Whole

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:

A handwritten signature in black ink, appearing to read "Dan English", written over a horizontal line.

Dan English, Chief Administrative Officer

A handwritten signature in black ink, appearing to read "Wayne Anstey", written over a horizontal line.

Wayne Anstey, Deputy Chief Administrative Officer - Operations

DATE: March 8, 2007

SUBJECT: Capital Cost Charges By-law

ORIGIN

On October 10, 2006, Council adopted the Infrastructure Charges Study (SGE Acres, September, 2006) as the basis for developing policy and by-laws, and instructed staff to develop a capital cost charge for wastewater treatment facilities, to be collected at the building permit stage and applied to all buildings that require a new sewer connection.

On March 6, 2007, Council approved, in principle, the approach on capital cost contributions relating to wastewater treatment facilities.

RECOMMENDATION

Halifax Regional Council Approve in principle By-law C-600 "A By-law Respecting Capital Cost Charges", as shown in Attachment A, and schedule a public hearing.

Executive Summary

Council has previously agreed to collect a charge for Regional Wastewater Treatment Facilities at the Building Permit Stage. This ensures the charge is collected from all forms of development served by central sewer, including infill development that does not involve the subdivision of land. The proposed charges will be in addition to existing CCC's that are collected in master plan areas at the subdivision stage of development.

The charge will recover the cost of providing capacity for growth. Capacity that is available for growth consists of both existing residual capacity as well as capacity that is anticipated to be added in the near future, and represents an estimated \$93 million in capital costs. This is enough capacity to accommodate growth for the next 50 years, and the rate is designed to recover this full amount. All costs are net costs, after deducting cost sharing.

The Regional Wastewater Treatment System is a large, regional system that has the ability to take advantage of remaining capacity and defer plant expansions by diverting flows between treatment plants. A charge that does not vary by location makes it easier to take advantage of existing capacity, since funds can be directed between plants where they are needed most. Regional wastewater treatment facilities consist of wastewater treatment plants, interceptor sewers, and those pumping stations which pump wastewater to the interceptor sewers or to the treatment plants.

The amount of residual capacity to accommodate growth depends on the amount of capacity required by existing connections. For existing connections that will be treated by the Harbour Solutions treatment plants, existing flow is estimated based on a comprehensive flow monitoring program and needs to be verified as the plants are commissioned. Other variables that may impact the amount of the charge include actual growth rates, construction cost escalation factors, interest rates, and the addition of unanticipated capital assets.

The charge will be reviewed formally every 5 years to ensure growth related capital cost needs are met. Initially it is expected that the rate will be reviewed every year as the Harbour Solutions treatment plants are commissioned, and actual rates of flow can be more accurately measured.

A portion of the funds from the Environmental Protection Charge repays debt that will also be included in the Capital Cost Charge. The proposed charge is reduced by 10% until the rates are reconciled, pending the merger with the HRWC.

The amount of the charge required to meet both existing and new growth related capital needs is as follows:

Single Detached Residential Building	\$ 877.
Multiple Unit Residential Building	\$ 584. per unit
All other uses	\$ 0.27 per square foot

Annual revenue is anticipated to be approximately \$1.5 to \$1.9 million.

It is expected that the capital cost charge will add 0.3% to the price of a new single-detached home in 2007.

BACKGROUND

Hard Services

The Infrastructure Charges Study recommends that Council focus on “hard” services when considering expanding the Capital Cost Contribution (CCC) program. Regional wastewater treatment facilities, regional transportation infrastructure, buses, ferries, transit facilities, and solid waste facilities were identified by the Consultant as services that were best suited for Capital Cost Charges.

Regional Wastewater Treatment Facilities

Council has previously agreed to collect a charge for Regional Wastewater Treatment facilities at the building permit stage of development. Collecting the charge at the building permit stage ensures that the charge is collected from all forms of development, including infill development that does not involve the subdivision of land. This is important because all development that is connected to a central sewer benefits from wastewater treatment.

Existing Capital Cost Charges

Existing Capital Cost Charges do not include costs related to wastewater treatment. The charge for wastewater treatment that is proposed under this by-law is in addition to existing Capital Cost Charges that are collected in master plan areas at the subdivision stage.

The existing CCC policy applies to new “green field” development in specific areas of HRM, and helps pay for infrastructure needed to support the development. Typically this infrastructure is either within or alongside of a charge area, and the amount of the CCC for a particular area depends on the cost of the infrastructure that is required for that area.

The cost to provide infrastructure to each “Charge” area is a key consideration in selecting areas to carry out a Master Plan, and having CCC’s for each area supports efficient development patterns.

DISCUSSION

Regional Wastewater Treatment Facilities consist of wastewater treatment plants and interceptor sewers, including the pumping stations which pump wastewater to the interceptor sewers or to the treatment plants. Wastewater Treatment Facilities are built larger than what is needed at present. This additional capacity will be used by new connections to the wastewater system, and a proportionate share of the cost of the system can be allocated to this growth.

The proposed charge is intended to recover the capital costs of providing capacity in the regional components of the wastewater system, including carrying costs to finance the capital costs. Capacity can be either capacity that exists today, or capacity that will be provided in the near future.

The Infrastructure Charges Study noted that infrastructure charges on development are intended to recover municipal costs, and not costs that are paid for by other levels of Government. The proposed charge for wastewater treatment adheres to this principle and recovers the growth related share of the “net” capital cost, after all cost sharing has been deducted from the total cost of the various capital projects.

Due to the size and scale of a wastewater treatment plant, the capital costs are less dependant on location than expanding the collection system to accommodate specific developments. In accordance with the Infrastructure Charges Study, these types of growth related costs can be recovered region-wide from all users of the wastewater system.

It is proposed to apply a “uniform” rate to all new connections, that does not vary depending on location. A uniform rate is the most practical and fair method of collecting the charge for a variety of reasons, as outlined below.

- A uniform rate makes it easier to take advantage of existing capacity. For example, the Regional Plan strives to distribute serviced growth across the Region so that capacity being created today is substantially used up before a new plant or expansions are required.

This may involve diverting flow from one facility to another. A uniform rate makes it much easier to divert flows between treatment facilities, since funds can be directed where they are needed most, and when they are needed.

Examples of flow diversion that may be possible are Mumford Road/Armdale area diverted to the Herring Cove Plant; parts of Bedford West directed to either Mill Cove or Halifax; parts of Shearwater/Woodside directed to either Dartmouth or Eastern Passage; and parts of Lakeside-Timberlea directed to Halifax.

- A uniform rate is predictable, both in terms of revenue projections as well as costs to developers.
- A uniform rate is consistent with the Environmental Protection Charge which also uses a uniform rate for funding capital costs.
- A uniform rate is easy to administer.

Cost Elements

Elements of a wastewater system generally include treatment facilities, interceptor sewers, trunk sewers, and local collector sewers.

This section of the report deals with which of these elements should be included in a regional capital cost charge.

Treatment Plants

Most serviced growth in the next 25 years is expected to occur within the “central” part of the serviced area, either within or adjacent to existing serviced areas. Treatment plants that will provide capacity for growth and are included in the proposed charge include:

- The Halifax Wastewater Treatment Plant
- The Dartmouth Wastewater Treatment Plant
- The Herring Cove Wastewater Treatment Plant
- Mill Cove Wastewater Treatment Plant
- Eastern Passage Wastewater Treatment Plant
- Aerotech Wastewater Treatment Plant
- Aerotech De-watering Facility
- Bio-solids Processing Facility

The charge also includes an allowance for the growth related share of expanding/upgrading the smaller “satellite” plants such as Wellington, Frame Subdivision, Uplands Park, etc.

New “stand-alone” treatment systems that may be constructed in areas like Musquodoboit Harbour or Hubbards are not yet included in this charge. Not enough information is known regarding the location and extent of the service boundary, treatment process or time of construction to provide accurate costs. These must be dealt with separately after the Community Visioning Process concludes in these centres. Once this is done, the CCC by-law for Regional Wastewater Treatment Facilities will be amended to incorporate the appropriate costs.

Interceptor Sewers

Interceptor sewers are the large sewers that connect directly to a wastewater treatment plant. They are the largest classification of sewers in a wastewater system, and generally do not have service connections from individual properties. Interceptor sewers are similar to treatment facilities in that they provide a broad, regional benefit to all users of the wastewater system.

The following sewers are considered to be Interceptor Sewers for the purpose of this CCC:

- The proposed Halifax Interceptor Sewer
- Existing Halifax Interceptor Sewer, from Duffus Street Pumping Station to Birch Cove.
- The proposed Dartmouth Interceptor Sewer
- The proposed Herring Cove Interceptor Sewer
- North West Arm Interceptor sewer, from Armdale to Point Pleasant Park Pumping Station to the Halifax Wastewater Treatment Plant.
- Mill Cove Interceptor Sewer, from the Fish Hatchery pumping Station to the Mill Cove Wastewater Treatment Facility.
- The future pumping station and forcemain that may connect the Beechville-Lakeside-Timberlea service area to the Halifax wastewater system.

Interceptor sewers also include the large pumping stations which pump wastewater to the interceptor sewers or to the treatment plants.

The growth related cost of providing capacity in the treatment plants, interceptor sewers and pumping stations listed above, including interest, are included in the proposed charge.

Methodology

Step 1 - Determine Growth Related Capacity

The capacity that is available to be used by new development is determined by subtracting the existing flows from the total design capacity.

Total capacity provided by the five major “harbour” plants is estimated at 328,500 Cubic Metres per day. Of this amount, it is estimated that 250,100 cubic metres per day is needed to accommodate existing development. This leaves 78,400 cubic metres per day of “residual” capacity to accommodate new development.

The Regional Plan contains a framework for how growth should occur in the next 25 years. Based on the median growth scenario included in the Regional Plan, 48% of the residual capacity will be consumed by growth in the next 25 years if the Regional Plan is successful in accommodating more residents on central services.

A nominal allowance for growth in the “satellite” facilities as well as the CCC Implementation Project costs have also been included in the proposed charge.

Step 2 - Estimate Growth Related Costs

When the capacity requirements of growth are estimated, the growth related costs can be determined.

For example:

The total net cost of providing capacity, including interest, is approximately \$363M, of which \$270M is directly for the benefit of existing users. Of the remaining \$93M, it is expected that \$45M can be collected from growth over the next 25 years.

It is important to understand that growth will still need to be managed to ensure that all capacity is used to the greatest extent possible before an expansion is required to either the Halifax or Dartmouth Treatment Plants.

Step 3 - Determine Rate

Establishing a rate to be collected from new development requires the growth related capital costs be assigned to both residential as well as non-residential development.

It is impossible to know with absolute certainty what percentage of flow is currently generated by non-residential uses. However, in new master planned communities that are subject to Area CCC's, approximately 30% of the flow is from non-residential sources. This is a reasonable allocation for the purposes of assigning costs for region-wide CCC's as well.

Step 4 - Monitor and Review

The amount of the proposed charge depends on several factors that may change:

- The amount of capacity needed for growth depends on the actual rate of growth
- The Halifax, Dartmouth, and Herring Cove plants have not been built and/or commissioned and the capacity needed for existing customers using these plants are estimates based on flow monitoring
- Projected costs may escalate greater than anticipated
- New projects will arise that may add additional capacity and can be included in the proposed charge.

The Infrastructure Charges Study recommended reviewing the charge a minimum of every five years, to ensure the growth related capital requirements are met.

It is recommended to continuously monitor the rate and location of development, actual rates of flow, and actual construction escalation factors. Formal reviews can be carried out once every five years, but continuous monitoring will allow the rate to be amended on an interim basis if needed.

Impact of New Revenue on the Environmental Protection Charge

The Infrastructure Charges Study acknowledged that introducing new infrastructure charges may create a transitional issue when costs are re-allocated between current and future taxpayers.

The Environmental Protection Charge currently funds the majority of capital costs for the wastewater treatment system. The Capital Cost Charge will fund past and future capital expenditures associated with new growth. A transitional issue arises when a new homeowner who has just paid the wastewater capital cost charge, begins to pay the Environmental Protection Charge. A portion of the funds from the Environmental Protection Charge will also go toward retiring debt for constructing the wastewater system and which has already been included in the capital cost charge.

Best Practises research has identified practical difficulties in determining the exact amount and most appropriate method that should be used for addressing this matter on a short term basis. The Infrastructure Charges Study noted that the Province of Ontario has a mandatory 10% reduction for new development charges to deal with similar transitional issues. Staff is recommending adopting this approach until rates are fully reconciled as a result of the merger with Halifax Regional Water Commission.

Summary of Capital Cost Charge Amount

When the methodology is applied as above, the proposed charges that are reflected in the attached by-law are as follows:

Single Detached Residential Building	\$ 877.
Multiple Unit Residential Building	\$ 584. per unit
All other uses	\$ 0.27 per square foot

Market Impacts

The Infrastructure Charges Study concluded that the cost of owning a new home in HRM is in line with the national average. The study determined that HRM has the highest tax burden of any major urban centre in Canada because of the impact of the HST on initial home construction and sale. This is balanced with the relatively low property taxes in HRM so that the total cost of owning a new home in HRM is in line with the national average.

According to the CMHC Housing Market Outlook for Halifax (Fall 2006), the average price of a new single-detached house is projected to be \$328,000 in 2007. The Capital Cost Charge represents an addition of 0.3% to this price. An additional market study will be carried out as other charges are developed and presented to Council.

BUDGET IMPLICATIONS

The Capital Cost Charge represents a new funding source for HRM. Staff anticipate annual revenues of \$1.5 to \$1.9 million, subject to the actual type and rate of growth, commencing in 2007, upon adoption of the by-law.

Revenues collected will be available to fund the growth-related share of wastewater treatment facility capital expenditures as determined by the regular capital budgeting process. They cannot be expended for maintenance, operations or changes in service levels for existing users. They may be used for the capital upgrades but only to the extent that there is capacity available in a given facility to serve new growth.

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

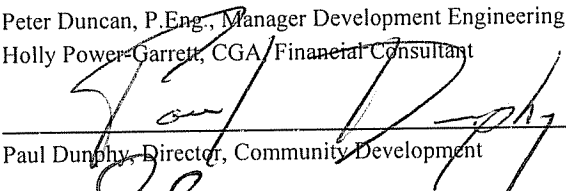
Council can choose not to adopt a Capital Cost Charge, and continue to pay debt through the Environmental Protection Charge. This is not recommended for the reasons outlined in this report.

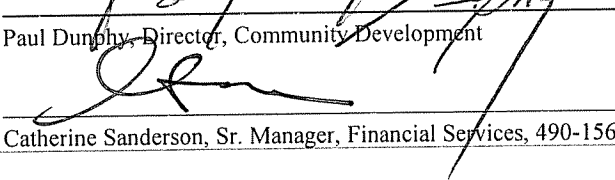
ATTACHMENTS

Attachment A - By-Law Number C-600 Respecting Regional Capital Cost Charges By-Law

A copy of this report can be obtained online at <http://www.halifax.ca/council/agendasc/agenda.html> 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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Report Approved by: 
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Attachment A

**HALIFAX REGIONAL MUNICIPALITY
BY-LAW NUMBER C-600
RESPECTING REGIONAL CAPITAL COST CHARGES BY-LAW**

GENERAL

The Council of the Halifax Regional Municipality under the authority vested in it by Sections 79 and 81(1)(a) of the Municipal Government Act, enacts as follows:

Number and Short Title

1. This by-law may be cited as By-Law C-600, the Capital Cost Charges By-Law.

Interpretation/Definitions

2. In this By-Law
 - (a) **“Dwelling Unit”** Unit means one or more habitable rooms designed, occupied or intended for use by one or more persons as an independent and separate housekeeping establishment in which cooking, sleeping and bathroom facilities are provided for the exclusive use of such persons.
 - (b) **“Single Detached Residential Building”** means a building that contains not more than one dwelling unit.
 - (c) **“Multiple Unit Residential Building”** means a building that contains more than one dwelling unit.
 - (d) **“Floor Space”** means the total area in square feet of all floors, measured along the outside surface of the exterior walls of the building, including the areas occupied by exterior and interior walls and partitions, all exits, service access spaces, vertical service spaces, and parking spaces within the exterior walls of the building but excluding non-habitable attic spaces and crawl spaces;
 - (e) **“New Building”** means a building that is newly constructed or which is moved onto a lot after coming into force of this By-Law.

ADMINISTRATION

Capital Cost Charge for Wastewater Treatment Facilities

- 3
- (1) A charge in the amount of \$ 877. shall be paid to HRM prior to the issuance of a building permit for all new single detached residential buildings that will be connected to municipal wastewater facilities.
 - (2) A charge in the amount of \$584. per dwelling unit shall be paid to HRM prior to the issuance of a building permit for all new multiple unit residential buildings that will be connected to municipal wastewater facilities.
 - (3) A charge at a rate of \$0.27 per square foot of floor space shall be paid to HRM prior to the issuance of a building permit for all other new buildings and building additions in serviced areas .
 - (4) When an un-serviced lot of land, occupied by a building, existed prior to the coming into force of this by-law, the charge shall be payable to HRM when the building is connected to municipal wastewater facilities:
 - (5) Buildings accessory to a residential use that contain facilities which can discharge effluent to the municipal wastewater facilities shall pay a charge at a rate of \$0.27 per square foot of floor space, payable to HRM when the building is connected to municipal wastewater facilities

Lien

- 2 A charge or charges levied under this by-law shall constitute a lien against the property in respect of which the charge is levied and may be collected in the same manner and with the same remedies as provided for the collection of real property taxes.

Mayor

Municipal Clerk

I, _____, Municipal Clerk of the Halifax Regional Municipality, hereby certify that the above noted by-law was passed at a meeting of Halifax Regional Council held on (day), (date), (month), (year).

Municipal Clerk