

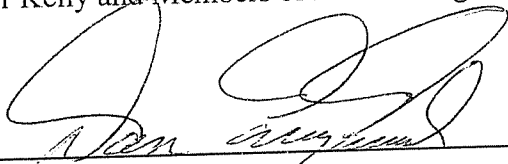



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Halifax Regional Council  
June 12, 2007  
July 3, 2007

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY:   
Dan English, Chief Administrative Officer

  
Wayne Anstey, Deputy Chief Administrative Officer - Operations

DATE: June 12, 2007

SUBJECT: Municipal Services Extension to Lively Subdivision

**SUPPLEMENTARY REPORT**

**ORIGIN**

Report to Regional Council on May 29, 2007, titled "Municipal Services Extension to Lively Subdivision".

Regional Council approved motion which reads,

1. Approve Alternative 1 of the staff report dated May 29, 2007, changing the ratio for the allocation of the base component and the oversizing component to 70/30 split. The proposed LIC rate is based upon allocating 70% of the cost for water and sanitary sewer to the residents fronting along Sackville Drive. The 30% balance represents the oversizing component and is funded by the parties who benefit from this oversizing.
2. Approve in principle and begin the formal process for the adoption of By-Law L-125 respecting charges for the Municipal Services Extension to the Lively Subdivision as per Attachment 2 of the May 29, 2007 staff report.

**RECOMMENDATION**

It is recommended that Regional Council:

1. Approve an increase in the gross budget for Capital Account No. CGI00786, Service Extension to Lively Subdivision in the amount of \$446,816 including net HST, with the net residual amount (after funding from approved internal and external sources) funded from a Local Improvement Charge as defined in By-Law L-125, with no net budget increase to HRM.
2. Approve transfer of Provincial Capital Assistance Program (PCAP) funding of \$250,000 and related incurred expenditures from Capital Account No. CGI00610, Bedford Sackville Trunk Sewer to Capital Account No. CGI00786, Services Extension to Lively Subdivision as outlined in the Budget Implication section of this report.
3. Authorize staff to close, or reduce the balances in, the projects listed in Attachment 1, as outlined in the Discussion section of this report.
4. Approve withdrawal of \$100,000 from the Capital Surplus Reserve (Q103) to fund construction of the storm sewer for the sidewalk project as outlined in the Discussion section of this report.
5. Approve funding changes as per Table 1 of the Budget Implications section of this report.
6. Approve the revision to By-Law L-125 respecting charges for the Municipal Services Extension to Lively Subdivision, attached hereto as Attachment 2.
7. Subject to the approval of By-Law L-125, award HRM Tender No. 07-350 to ACL Limited at a price of \$6,330,889 including net HST, with funding available in the amount of \$6,202,889 from Capital Account No. CGI00786 (Service Extension from Lively Subdivision) and the remaining amount of \$128,000 including net HST coming from Capital Account No. CTU00420 - Bikeway Master Plan Implementation, as per the Budget Implications section of this report.
8. Subject to the approval of By-Law L-125 and item 7 above, approve the appointment of CBCL Limited for contract administration and inspection services on this project for an estimated fee of \$162,000 including net HST, with funding available from Capital Account No. CGI00786 (Service Extension to Lively Subdivision), as per the Budget Implications section of this report.

## **EXECUTIVE SUMMARY**

This project involves the extension of water and sewer services along Sackville Drive to Lively Subdivision, as well as the provision of a bike lane. The total cost of the project is estimated to be about \$6.9 million, with funding from a variety of sources. The project has been tendered, and the work is estimated to take 40 weeks to complete once the local improvement charge by-law is approved and the tender is awarded.

Based on a motion of Council, the estimated LIC rate for this project (\$112/foot) was developed utilizing a revised cost sharing ratio for infrastructure oversizing that is different from standard practice. This revision has the impact of increasing required funding from sewer redevelopment reserves and the capital cost contribution program.

## **BACKGROUND**

The original report, dated May 29, 2007, was brought before Regional Council on May 29, 2007. This report included a discussion on Sewer Redevelopment Reserve & Capital Cost Contribution (CCC) as one of several sources of funding for this project. In response to questions, staff advised that an incremental based calculation for oversizing, using a 80:20 ratio, was utilized in developing the allocation of costs for this funding source. Regional Council subsequently passed a motion that a 70:30 ratio for oversizing should be utilized for this specific project and directed staff to revise the report accordingly. The following is the revised report.

Lively Subdivision is an existing residential community of approximately 50 homes located off Sackville Drive in Middle Sackville, approximately 2 km northwest of Lucasville Road. The existing water supply for Lively Subdivision is via a Halifax Regional Water Commission (HRWC) owned small system, that includes a supply well, a water treatment plant, and a distribution system. Lively Subdivision is also serviced by a wastewater system owned by HRM, including a wastewater treatment facility located within the subdivision.

There has been a longstanding water quality issue within the Lively Subdivision water system. The HRWC has worked to make enhancements over the years, but continues to be frustrated in providing a continuously high quality product. As an outcome of a recent rate review with the Nova Scotia Utility and Review Board (NSURB), the regulator directed the HRWC to find a solution for the water quality issues within Lively Subdivision.

The HRM wastewater treatment facility in Lively Subdivision, although generally functioning in conformance with its operating permit, has less than desirable discharge conditions. The treated effluent is discharged into the roadside ditch and then flows through a culvert and across private property. Although this discharge is in accordance with the approved permit for the facility, staff recognize that this discharge location is inappropriate by today's standards, and are therefore keen to remedy the situation.

Staff from HRWC and HRM developed and reviewed potential solutions for these problems. Staff identified that the most effective solution for long term sustainability is to connect the Lively Subdivision water and wastewater systems to the core municipal systems located in Middle Sackville, approximately 2.5 km from the Lively Subdivision, which would allow complete decommissioning of the small water and wastewater treatment facilities within the community.

In the development of concept plans for the extension of water and sewer to Lively Subdivision, staff identified significant opportunities for adjacent communities. The proposed water and sewer extension to the Lively Subdivision area will be along Sackville Drive, generally between Lucasville Road and Lively Subdivision. This infrastructure would provide direct access to unserved properties abutting Sackville Drive, along the 2 km corridor. In addition, the extension of water and sewer to Lively Subdivision would facilitate the future extension of these services into adjacent developed and undeveloped lands.

By allowing the detailed water and sewer design for Lively Subdivision to accommodate these additional servicing scenarios, considerable cost effectiveness is brought to the total project. The water and sewer pipes could be sized during initial construction to meet both the current demands of Lively Subdivision and Sackville Drive, and the future demands within the adjacent lands surrounding the area. The resulting unit cost to the benefitting residents is lower than if any one component of the project was done in isolation.

The first step in exploring this project was to develop a detailed infrastructure design and cost estimate. To facilitate this, HRM were successful in securing external funding in 2005 from the Province of Nova Scotia. This \$250,000 in funding was utilized to undertake: i) improvements to the Bedford-Sackville Trunk Sewer so as to provide capacity for this proposed system extension, ii) surveying, and iii) a draft design. With a design and cost estimate in place, HRM explored external funding opportunities to help facilitate this project.

With the NSURB direction for water problem resolution, and potential compliance and operational efficiency issues within the wastewater facility, the Lively Subdivision water and sewer servicing project is a Priority 1 project relative to the HRM Council five point priority rating program for capital funds. Based on the scope and the project priority, the project seemed a good fit for the current Municipal Rural Infrastructure Fund (MRIF) Program. MRIF is a current funding program that is co-sponsored by the Infrastructure Canada and Service Nova Scotia Municipal Relations, and targets municipal and rural infrastructure that improves the quality of life and economic opportunities of communities. HRM applied for MRIF funds in November 2005 (along with other high priority projects) with the project rationale of replacing water and wastewater treatment facilities with connection to public piped systems to meet drinking water quality standards and improved wastewater discharge. The application clearly noted the combined synergies of Sackville Drive and adjacent land servicing. Based on this application, the project was awarded \$2,878,600 in funding.

With the project scope, budget, and initial external funding in place, staff met with the community of Sackville Drive, Lively Subdivision, and surrounding areas on November 23, 2006, during a

North West Community Council meeting. Staff provided the community members with an introduction to the proposed water and sewer servicing project, discussed the issues related to planning, technical, and financial components of the project, addressed the questions, and most importantly sought input from the community. The community seemed generally receptive to keep the process moving forward, but showed some concern about the ultimate cost to the residents for this project. As an important next step, staff proposed to complete the detailed design and go to public tender to determine a detailed and accurate cost estimate prior to finalizing the local improvement charge component of the project.

The detailed design was completed in February 2007 and issued for public tender. The tenders recently closed, and the pricing information that has been received from the low bid has been used to develop the detailed funding plan and project cost, as provided in the Discussion section.

It is noted that HRM TPW also expressed interest in taking advantage of this water and sewer servicing extension and to have integrated into the project an asphalt bike lane. This was included in the detailed design, and pricing for this work is included in the tenders received.

## **DISCUSSION**

### **• Servicing Plan**

The water infrastructure for this project includes approximately 2300 metres of 400 millimetre (mm) diameter water main on Sackville Drive from Lucasville Road to Hamilton Drive, including hydrants, valves and a service lateral to each parcel on Sackville Drive. The new main will connect to the existing water distribution system within Lively Subdivision.

The sanitary sewer infrastructure includes approximately 3000 metres of 450 mm to 600 mm diameter sewer main from the Bedford/Sackville trunk main to Sackville Drive, and along Sackville Drive to Hamilton Drive, and includes a service lateral to each parcel on Sackville Drive. The new main will connect to the existing discharge of the Lively Subdivision wastewater facility.

In addition to the sanitary sewer, approximately 1500 metres of 300 mm to 750 mm diameter storm sewer main will be constructed on Sackville Drive, generally paralleling the sanitary sewer. The storm sewer will provide service for the mentioned potential future sidewalk project, as well as provide service for building foundation drains for existing and future lots that front Sackville Drive. A storm sewer lateral will be provided to each parcel which has frontage on the storm sewer system.

The water and sewer infrastructure will provide direct water and sewer service to the properties that front Sackville Drive between Lucasville Road and Lively Subdivision; core municipal service connections to the Lively Subdivision allowing the disconnection of the water and wastewater treatment facilities; and oversizing capacity will permit the future extension of water and sewer services to adjacent lands. These adjacent lands include both developed and undeveloped lands in the nearby neighbourhoods.

The implementation of this proposed servicing plan requires the acquisition of two easements. One of these easements is on private property and the other on land owned by the Province. Staff have been working toward acquiring these easements, and it is anticipated that the acquisition of these easements will not be an impediment to the project.

It is noted that, in addition to the sewer and water servicing, the design and tender also incorporates a bicycle lane along the easterly side of Sackville Drive.

- **Funding Plan**

Based on the low bid tender price \$6,202,889, including HST (net of the costs associated with the bike lane which are not part of this servicing project), plus the actual cost of work undertaken in 2005 for draft design and related work in the amount of \$250,000, plus the actual cost of work undertaken in 2006/07 for final design and related work in the amount of \$58,905, plus \$162,000 for consulting construction phase services, plus \$20,000 for material testing and inspection during the construction phase, and an allowance in the amount of \$203,022 for contingency gives a total gross cost of \$6,896,816. Funding is to come from the following sources:

(A) Provincial Capital Assistance Program (PCAP) - As indicated in the background section of this report, the Province of Nova Scotia previously provided external funding valued at \$250,000. These funds enabled the completion of a draft design of the water and sewer system and, as well, the implementation of system improvements to the Bedford-Sackville Trunk Sewer so as to provide capacity for this proposed sanitary sewer servicing extension. The funding and related actual expenditures were recorded under Capital Project No. CGI00610, Bedford Sackville Trunk Sewer. Staff is proposing to reallocate these amounts to the appropriate project, which is Capital Project No. CGI00786, Service Extension Lively Subdivision.

(B) HRWC Capital Cost Contributions - The proposed water main has been oversized to service an area of developed and undeveloped lands. The oversized component of the water main (portion from 300 mm diameter to 400 mm diameter) has a total estimated cost of \$448,001, and will be funded by the HRWC under their Capital Cost Contribution Program, with the full recovery to come from the benefitting owners of the developed and undeveloped lands with future acreage charges. The HRWC has revised their CCC calculation based on the 70:30 costing ratio consistent with the Council motion detailed within section (C) below. The HRWC CCC is subject to final approval of the HRWC Board and the Nova Scotia Utility and Review Board (NSURB). Approval from the HRWC Board and the NSURB will be sought in advance of final approval by Regional Council.

(C) Sewer Redevelopment Reserve & Capital Cost Contribution (CCC) - Similarly, a component of the sanitary sewer has been oversized to accommodate developed and undeveloped land in the surrounding area. Funds in the approximate amount of \$144,884 can be recouped from bulk lands designated Comprehensive Development District (CDD) in the form of Capital Cost Charges. An additional \$1,214,005 can be recovered from future development in the form of trunk sewer charges or sewer redevelopment charges. The location and extent of future development area will not be known until after the community visioning process concludes in Middle Sackville, and so the time frame to recover this amount is unknown. Thus the total balance of this oversizing component,

which is valued at approximately \$1,358,889 will be funded from trunk sewer charges, sewer redevelopment charges or capital cost charges as these future lands develop and are serviced.

The sewer being constructed to Lively has been sized to accommodate the wastewater flows that currently are treated at the Springfield Lake Wastewater Treatment Facility. The treated effluent from the facility is currently discharged into the small water course which flows from Springfield Lake and eventually into Lisle Lake and Fenerty Lake.

The magnitude of the effluent discharge as compared to the water course flow is very high, especially during dry summer conditions when the flow in the water course is very low. This situation is in violation of today's dilution standards for the discharge of treated wastewater into water courses, and so staff are intending at some point in the future to re-direct the Springfield Lake wastewater into the sewer being constructed to Lively, and then take the Springfield Lake Wastewater Treatment Facility out of service. Re-directing the Springfield Lake wastewater will involve the construction of a pumping station and force main, which will connect in the future to the sewer being constructed to Lively.

There is land - both developed and undeveloped - in the vicinity of Springfield Lake, which HRM, the Province and/or the property owners may wish to be serviced at the time that the Springfield Lake wastewater is directed into the Sackville sewer system. There are many existing properties serviced by onsite sewage disposal systems, where the lots are undersized as compared to today's standards. Based on past experience, the risk that many of these systems will fail is high, and so staff have sized the Sackville Drive sewer to accommodate these properties.

There is also an existing trailer park which has its own private treatment facility, which discharges into Little Springfield Lake. The trailer park is another likely candidate to connect at some time to the Sackville Drive sewer, so that the private treatment facility can also be taken out of service.

These existing properties, and the trailer park, are somewhat scattered, and interspersed with currently undeveloped land. If the existing properties are to be serviced in the future, then it is likely that these undeveloped lands will also be desirous of being serviced at the same time. In fact, it would be very difficult to not service these undeveloped lands, as the developed and undeveloped lands are interspersed, one with the other.

The standard approach for calculating the oversized cost for sewer and water systems is on an incremental basis. This typically provides for an 80:20 ratio of local to oversized costs. For this project Regional Council has given staff direction to utilize 70:30 as the costing ratio, citing that the core driver for this project is not Sackville Drive servicing, but a more mutual benefit to Sackville Drive, Lively S/D and the unserved adjacent lands. This change in costing ratio has the impact of increasing the charge for undeveloped lands (For example the charge to CDD lands would increase from approximately \$2,900/acre based on a 80/20 split to approximately \$3,700/acre for a 70/30 split) and reducing the LIC rate for Sackville Drive.

(D) Municipal Rural Infrastructure Fund (MRIF) - The current MRIF program has provided \$2,878,600 of external funding to this project. The funding will be allocated to the HRM and

HRWC benefitting components of the project, as well as some residual funding for the existing residents of Sackville Drive.

(E) Closure or Reduced Projects - A storm sewer is proposed to be constructed as part of the project. This storm sewer will service a dual function in that it will facilitate the provision of the sanitary sewer and, as well, provide a drainage system for a potential future sidewalk project. Constructing this one storm sewer, of the appropriate configuration, results in synergies and cost savings. If the drainage requirements of the sanitary sewer servicing and sidewalk projects are not coordinated the result would be the installation of both a clearwater sewer, to support the sanitary system, and a storm sewer, to support the sidewalk project. The net effect would be greater capital costs and increased operating and maintenance costs.

The funding plan includes a sharing of the cost to construct this storm sewer, with 40% to be funded as part of this proposed water and sewer project, and the remaining 60% (equal to \$547,612) to be funded as part of the future sidewalk project. The 60-40 split of the storm sewer cost was based on the relative need of each of the two projects for the storm sewer.

Both EMS and TPW Business Units agreed to fund the remaining \$547,612 at an even 50% split with funding coming from closure and reduction of completed projects as per Attachment 1 of this report. All identified projects are funded from Capital from Operating with the exception of funding from Unconditional Grant for the Fleet Replacement Program (Account No. CVR00223). Staff is proposing to reduce the original budget of Capital Account No. CVR00223 - Fleet Replacement Program by \$100,000. Also, in accordance with Section 99 of the MGA, if this reduction is approved, staff would transfer the available funding to Capital Surplus Reserve and immediately seek approval to withdraw this funding from this reserve and direct it towards the Municipal Services Extension to Lively Subdivision project. It is noted that at such time that the sidewalk project proceeds, the \$547,612 will form part of the full sidewalk project cost. Typically the costs of sidewalk projects are funded 50% by HRM and 50% by the local residents, either by local improvement charges or by an area rate.

It is HRM staff's experience that if storm sewers are not provided at the time that the wastewater system is constructed, many existing and future properties will dispose of their stormwater in the wastewater system. In many areas of HRM, this inflow into the wastewater system is causing very serious operational and compliance problems such as: surcharge of sewers, sewage into building basements, loss of wastewater system capacity, wet weather wastewater overflows into the environment, violations of regulatory standards, high operational costs, and other such problems. Wet weather flows are the single most serious problem with HRM's wastewater system, and requires heavy annual capital expenditures in order to move towards better regulatory compliance.

(F) HRWC Stewardship Contribution - Another funding source is the HRWC Stewardship Contribution, which pays an estimated 8% of the cost of the local component of the water infrastructure, valued at \$75,018 for this project.

(G) Bikeway Master Plan Implementation - To take advantage of the opportunity this project presents, it is proposed to construct an asphalt bicycle lane along the easterly side of Sackville Drive.



Funds for this aspect of the project, in the estimated amount of \$128,000, will be paid 100% by HRM's Bikeway Master Plan Implementation program. The funding and expenditures will be separately recorded under Capital Account No. CTU00420 - Bikeway Master Plan Implementation capital project.

(I) Local Improvement Charges - Once the funds from these various sources are applied to the project, there is an unfunded balance of \$1,338,696. This balance is to be recovered from the abutting property owners on Sackville Drive receiving the benefits from the servicing via a Local Improvement Charge (LIC). Based on the net cost and calculated frontages, the interim LIC is estimated to be

- \$42.00 per foot of frontage for water
- \$70.00 per foot of frontage for sewer

For example, using this LIC recovery plan, a lot with 100 feet of road frontage and receiving both services will pay \$11,200. If residents do not receive one or more services or already have an existing municipal service, they will not be billed for the service. That portion of the above LIC for the water services includes the CCC water charge.

For comparative purposes the following table summarizes LICs for other recent servicing projects:

Project	Service	Year	Cost for Lot - 100 Foot Frontage (2005\$)	Cost for Lot - 100 Foot Frontage (Adjusted to 2007\$)
Bedford Hwy/Millview - Residential	Water and Sewer	2005	\$14,000	\$15,680
Armshore Drive	Sewer only	2005	\$12,800 to \$13,800	\$14,336 to \$15,456
Herring Cove	Water and Sewer	2005	\$12,300	\$13,776

The cost per lot was adjusted from 2005 dollars to 2007 dollars using the Non-Residential Construction Cost Index for Halifax. The adjustment calculated to 12% over that period of time.

The LIC proposed for the Lively project, which calculates to \$11,200 per lot with 100 ft of frontage, is lower in comparison to these most recent projects in HRM, especially when the cost is adjusted to 2007 dollars.

The table below shows the estimated net project cost, which is calculated by taking the gross costs less internal and external funding for water and sewer on Sackville Drive.

	<b>Water</b>	<b>Sewer</b>	<b>Total</b>
Gross Project Costs - Estimated	\$2,187,054	\$4,709,762	\$6,896,816
Less: CCC	\$(448,001)	\$(144,884)	\$(592,885)
Less: Sewer Redevelopment Charges	0	\$(1,214,005)	\$(1,214,005)
Less: MRIF	\$(1,170,074)	\$(1,708,526)	\$(2,878,600)
Less: Closure of Projects	0	\$(547,612)	\$(547,612)
Less: Stewardship Contribution	\$(75,018)	0	\$(75,018)
Less: PCAP	0	\$(250,000)	\$(250,000)
Net costs - Estimated LIC	\$493,961	\$844,735	\$1,338,696

- **Community Consultation**

In early 2006 a public information meeting was undertaken as part of the Regional Plan process. At this meeting the public was informed of the potential for central water and sewer to be extended along Sackville Drive to the Lively Subdivision. On November 23, 2006 HRWC/HRM staff made a presentation at the monthly meeting of the North West Community Council. This presentation provided an overview of this proposed service extension project and a project plan including an estimated LIC.

A revised project plan, based on actual tendered prices, was reviewed with the community during a North West Community Council meeting on April 26, 2007, to get further input on the project. Property owners who are subject to the proposed local improvement charge were notified of the meeting via mail and/or hand delivered notices (copy of notice included as Attachment 3). These notices included a survey which requested the property owners response as to whether they were in favour or not in favour of the proposed servicing plan including the LIC estimated at \$140 per foot. Property owners were requested to forward their survey to the Halifax Regional Water Commission on or before May 11, 2007. As of May 15, 2007 surveys were received from 23 of the 64 properties within the plan limits. Of the 23 surveys received a total of 19 (or 83%) were in favour of the plan.

- **Construction Contract**

Contractor Costs: Tenders were called on February 3, 2007 and closed on February 28, 2007 for the work to extend municipal services to the Lively Subdivision. Bids were received from the following companies:

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<u>Name of Company</u>	<u>Bid Price (Net HST Included)</u>
ACL Construction Limited	\$6,330,889.09*
Dexter Construction Company Limited	\$6,350,451.65
W. Eric Whebby Ltd.	\$6,474,655.40
J. R. Eisener Contracting Limited	\$7,394,068.88
Brycon Construction Ltd.	\$7,395,173.50
<b>*recommended bidder</b>	

The tender price from ACL Construction Limited is valid until July 31, 2007. It is anticipated that work will commence within one month of the tender award and will take 40 weeks to complete. This is a **UNIT PRICE** contract and the cost will be dependent upon the actual quantities measured and approved by the HRM Project Manager.

If this project is not awarded by July 31, 2007 the low tender is no longer valid. Staff could request an extension from the contractor but there is no certainty that this would be granted. A re-tender could result in a higher project cost, including a higher LIC, as well as delays in the delivery of the project.

Consultant Costs: In September 2006 CBCL Limited provided a quotation for consulting services required by HRM during the construction phase of this project. Based on this quotation, and the estimated construction duration of 40 weeks, this fee is estimated to be \$162,000 including net HST.

Material Testing Costs: During construction various tests will be undertaken on material supply and installation. These services will be provided to the contract via HRM's Material Inspection and Testing contract at an estimated cost of \$20,000 including net HST.

### **BUDGET IMPLICATIONS**

Staff is proposing a net budget increase of \$446,816 to Capital Account No. CGI00786 - Service Extension to Lively Subdivision, as outlined in the following funding plan:

**Table 1**  
**Proposed Budget Increase Funding Plan**

Funding Source	Proposed Change	Amount
Stewardship Contribution	Increase	\$15,018
Sewer Redevelopment	Increase	\$1,014,005
MRIF	Increase	\$600
PCAP	Increase	\$250,000
Closure of Projects	Increase	\$547,612
Capital Cost Contribution (CCC)	Decrease	\$(377,115)
Local Improvement Charges (LIC)	Decrease	\$(1,003,304)
<b>Net Change</b>	<b>Increase</b>	<b>\$446,816</b>

Based on the lowest tendered price of \$6,330,889 for construction and \$162,000 for consulting services for a total project cost of \$6,492,889 (all prices include net HST). Funding is available from Capital Account No. CGI00786 - Service Extension to Lively Subdivision and Capital Account No. CTU00420, Bikeway Master Plan Implementation. The budget availability has been confirmed by Financial Services.

**Budget Summary: Account No. CGI00786, Service Extension to Lively Subdivision**

Cumulative Unspent Balance	\$ 6,391,095
Less: Incurred Expenditure Transfer from CGI00610	\$ 250,000
Add: Net Budget Increase (Table 1)	\$ 446,816
Less: Tender Award No 07-350	\$ 6,202,889*
Less: Consulting Construction Phase Services (CBCL Limited)	\$ 162,000*
Balance of Account	\$ 223,022

\*This project was estimated at \$6,450,000 in the Approved 2007/08 Capital Budget. This is the total cost of construction and consulting services.

The Balance of Account of \$223,022 will be utilized for Material Testing and Inspection, in the estimated amount of \$20,000, and the remainder considered a contingency so as to cover any project costs which are unforeseen at this time. That amount represents less than 3% of the cost of the entire project. At the project conclusion any remaining funds will be returned to the following funding sources - Stewardship Contribution, Sewer Redevelopment Reserve, CCC, and the LICs - based on the ratio of these funding sources in the approved funding plan.

**Budget Summary: Account No. CTU00420, Bikeway Master Plan Implementation**

Cumulative Unspent Balance	\$ 698,659
Less: Tender Award No 07-350	<u>\$ 128,000*</u>
Balance of Account	\$ 570,659

The overall HRM Bikeway Master Plan Implementation project was estimated at \$955,032 in the Approved 2007/08 Capital Budget.

Any remaining funds will be used to fund other approved bikeway projects.

**Budget Summary: Account No. CGI00610, Bedford Sackville Trunk Sewer**

Cumulative Unspent Balance	\$ 450,252
Add: Expenditures Transferred to CGI00786	\$ 250,000
Less: Funding Transferred to CGI00786 (PCAP)	<u>\$ 250,000**</u>
Balance of Account	\$ 450,252

\*\* PCAP funding provided for this phase of the project was \$250,000.

**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. If approved, this will increase both the 2007/08 Capital Budget and budgeted withdrawals from Reserves.

**ALTERNATIVES**

1. One alternative is to change the ratio for the allocating of the base cost component and the oversizing component to 80:20 from the proposed 70:30. This 80:20 split in allocation for base cost vs. oversizing is consistent with the incremental approach utilized on past LIC projects and Capital Cost Contribution projects, and was developed on the basis that typically the cost to oversize the infrastructure is in the order of 20% of the total cost.

Regional Council could consider changing this allocation to a 80:20 split. The result would be an increase in the LIC rate for water and sewer to approximately \$140 per foot. As detailed in the Community Consultation section of this report, the May 2007 community survey highlighted that residents were in support of the project at an LIC rate of \$140/foot frontage. In addition this rate is consistent with recent servicing projects.

Maintaining the lower 70:30 cost sharing ratio increases the funding required from the Sewer Redevelopment Charge and the HRM and HRWC CCC as follows:

Sewer Redevelopment:	+\$150,748
HRM Sewer CCC:	+\$17,111
HRWC Water CCC:	+149,334

These costs will be recovered over time as development occurs, and funding must therefore be provided up front by HRM/HRWC. These charges will also incur carrying costs on the outstanding balance during the build-out period of development and increase the total risk faced by HRM/HRWC should full build-out not occur or be delayed.

The impact on development from revised CCC rates for this project will not be significant. For example CDD lands would pay approximately \$3700/acre based on a 70/30 split. This would decrease to approximately \$2,900/acre for an 80/20 split.

For future projects staff will continue to recommend an incremental 80:20 split as, based on a technical analysis, this is a fair and equitable allocation. The policy goal of the CCC program is to make allocations to all benefiting parties that is deemed fair and equitable as well as being consistent and predictable for the development community.

2. A second alternative may be to extend only a small diameter water line to the Lively Subdivision which has no capacity for abutting lands. This water line would have no capacity to serving abutting lands along Sackville Drive. This would also result in no change to the current discharge of effluent from the wastewater treatment facility into the local watercourse.

This alternative is not recommended by staff.

3. A third alternative is to not install the storm sewer now for the purpose of facilitating the future sidewalk. The storm sewer component of the water and sewer project would then become a "clearwater sewer", which is a smaller sewer intended to take building drainage only. This is not recommended for a number of reasons:

First, a second storm sewer would be required later as part of the sidewalk project. The total cost of installing both storm sewers would be in the order of 50 to 75% greater than the current cost to install one storm sewer.

Second, there would now be two storm sewers along that section of Sackville Drive, with a concurrent doubling of operating costs to inspect, clean, and repair.

Third, the clearwater sewer required to support the water and sewer project would cost more than the 40% share of the full storm sewer. The increased cost is estimated to be \$410,000, which would be funded by an increase to the LICs for the sewer component from \$66 to \$100 per foot. Thus the LIC for both water and sewer services would increase from \$140 to 174 per foot.

This alternative is not recommended by staff.

4. A fourth alternative is to not oversize the Sackville Drive sewer to accommodate the Springfield Lake WWTF flow.

This would mean that the Springfield Lake WWTF would remain in service, and continue to discharge treated effluent into the water course which drains Springfield Lake, in violation of today's dilution standards.

It should also be noted that our regulators have indicated that they will not permit the Springfield Lake WWTF to be expanded at any time in the future, because of those same dilution standards. (Confirmed with NSEL in April/07.) These are the same dilution standards that has precluded HRM from expanding the Lakeside/Timberlea WWTF.

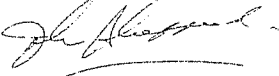
This alternative is not recommended by staff.


**ATTACHMENTS**

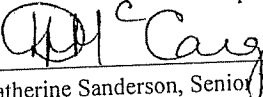
- Attachment 1: List of Completed Projects
- Attachment 2: By-Law
- Attachment 3: Notice of Community Consultation

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

Report Prepared by: David Ellis, P.Eng., Sr. Environmental Engineer, 490-6716

Report Approved by:   
John P. Sheppard, P.Eng., Manager, Environmental Engineering Services, 490-6958

Report Approved by:   
Brad Anguish, P.Eng., PMP, MBA, Director, Environmental Engineering Services

Financial Approval by:   
For Catherine Sanderson, Senior Manager, Financial Services, 490-1562

**Attachment 1:**

**List of Completed (or Reduced) Projects**

Name	Account No.	Action Requested	Available
Beckfoot Dr. PS. Dartmouth	CGI00609	Reduce	\$38,971
Parkhill Road Storm Sewer	CGR00498	Close	\$8,118
Hydrostone Area - Combined Sewer	CGU00119	Close	\$71,525
Ashgrove Avenue - Sanitary Sewer	CGU00329	Close	\$155,192
Fleet Replacement Program	CVR00223	Reduce	\$100,000
Prospect Community Centre	CGB00720	Reduce	\$173,806
Funding Available for Lively S/D			\$547,612



**HALIFAX REGIONAL MUNICIPALITY**  
**BY-LAW NUMBER L-125**  
**RESPECTING CHARGES FOR LOCAL IMPROVEMENT PROJECTS**

Be It Enacted by the Council for the Halifax Regional Municipality that By-Law L-100, the Local Improvement By-Law, be amended as follows:

1. Schedule "A" of By-Law L-100 is amended by adding the following:
  - a) The Municipal Services Extension to Lively Subdivision is a plan to install both water and sewer along Sackville Drive. Besides extending central water and sewer systems from approximately Lucasville Road to the Lively Subdivision this project would provide central water and wastewater servicing to residents along Sackville Drive currently serviced with on-site systems. The system will service properties located within the boundaries identified on a plan entitled "Plan of Municipal Services Extension to Lively Subdivision, Local Improvement Charge Area, By-Law L-125, dated May 29, 2007" as attached.
  - b) The Project will be funded by Local Improvement Charges based on the entire cost of the project less any Federal, Provincial, Halifax Regional Municipality (HRM), Halifax Regional Water Commission (HRWC) and other funding.
  - c) The interim Local Improvement Charges will be imposed on each property which abuts in whole or in part on Sackville Drive within the boundaries of the plan at an interim rate of \$42.00 per foot of calculated frontage for water, and \$70.00 per foot of calculated frontage for sewer.
  - d) A further charge of \$2,520 for water and \$4,200 for sewer is hereby levied in respect of all future connections to the water and sewer systems for any properties, existing or created, which are not assessed a local improvement charge.
  - e) The interim Local Improvement Charges in item c) and the charges in item d) will be adjusted at the completion of the project and will be calculated on the basis of the total net cost of the project at the adjustment date.

Done and passed by Council on this 3<sup>rd</sup> day of July, 2007.

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
MUNICIPAL CLERK

I, Jan Gibson, Municipal Clerk for the Halifax Regional Municipality, hereby certify that the above noted by-law was passed at a meeting of the Halifax Regional Council held on July 3, 2007.

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Jan Gibson, Municipal Clerk

Notice of Motion:	May 29, 2007
First Reading:	June 12, 2007
Notice of Public Hearing - Publication:	July 3, 2007
Second Reading:	N/A
Approval of Service Nova Scotia and Municipal Relations:	July 3, 2007
Effective Date:	

**To: Property Owners along Sackville Drive who may be subject to a Proposed Water and Sewer Services Plan**

**Date: April 23, 2007**

**Survey and Notice of Meeting - Sackville Drive - Proposed Water & Sewer Services**

The Halifax Regional Water Commission and the Halifax Regional Municipality have developed a plan to provide water and sewer along Sackville Drive to the vicinity of the Lively Subdivision. A preliminary plan was presented to the community at a North West Community Council meeting on November 23, 2006. Since that meeting, the design has been completed and the project was tendered. The purpose of this letter is to describe the latest project plan, along with the tender and cost information, and to inform property owners of the next steps in the process of obtaining approval to proceed with this project.

The scope of work for the project provides for water and sewer services along Sackville Drive as generally indicated on the attached sketch. Key elements of the servicing plan are as follows:

- The new water main will be connected to and will become the feed for the existing water distribution system in Lively.
- The existing pumping station and wastewater treatment facility at Lively will be eliminated, and the wastewater from Lively will be directed into the new sewer.
- All of the properties with frontage on Sackville Drive adjacent to the new services will be able to connect to those services once they are installed.
- Laterals (one per property) will be installed up to the street boundary line of each property adjacent to Sackville Drive.
- Each property owner will be responsible to construct and pay for the connection from the building to the street boundary line. The connection cost will vary depending upon a number of factors, such as the location of the building, whether or not rock is encountered, and if so, how much, and modifications required to internal plumbing. Additionally, some buildings may require pumping in order to access the sewer.
- The water and sewer infrastructure will be constructed larger than required for local service in order to accommodate future development and possibly existing development beyond the area directly serviced under the current plan. For the purposes of this plan these costs are referred to as oversize costs and will be deducted from the gross cost estimate and recovered later from future development as those areas connect to the system. The sewer is also sized to allow the future connection of the currently serviced properties around Springfield Lake, so that the wastewater treatment facility at Springfield Lake can be eliminated in the future.

Project Costs and Funding

The estimated gross cost to construct these works is approximately \$2,200,000 for the water system and \$4,700,000 for the sewer system, for a total of \$6,900,000.

The external funding sources identified for the Sackville Drive water and sewer project are:

- Municipal Rural Infrastructure Fund (MRIF) - \$2,878,600
- Provincial Capital Assistance Program(PCAP) - \$250,000

The net project costs after the internal funding and external funding sources are deducted, are shown in the table below. The net costs will be recovered from those property owners who are directly serviced under this plan in the form of a Local Improvement Charge (LIC).

	Water	Sewer	Total
Gross Project Costs - Estimated	\$2,187,054	\$4,709,762	\$6,896,816
Oversize Infrastructure (CCC) - Deduct	-\$298,667	0	-\$298,667
Development Cost Charge (DCC) - Deduct	0	-\$126,893	-\$126,893
Sewer Redevelopment Charges (Q104) - Deduct	0	-\$1,063,256	-\$1,063,256
MRIF Funding - Deduct	-\$1,033,531	-\$1,845,069	-\$2,878,600
Funding from HRM Capital - Deduct	0	-\$547,612	-\$547,612
HRWC Stewardship Contribution* - Deduct	-\$82,405	0	-\$82,405
PCAP - Deduct	0	-\$250,000	-\$250,000
Net Costs - Estimated (LIC)	\$772,451	\$876,931	\$1,649,382

\*The HRWC stewardship contribution is subject to approval by the Nova Scotia Utility and Review Board.

In order to provide greater certainty on the project costs, the final design was issued for tender. The estimates and figures quoted in this correspondence are based on the tender price for the project. The actual cost may vary depending upon the actual quantities of work, the amount of rock encountered during excavation, or for other circumstances not known at the time of the tender. Therefore, the final LIC rates may also increase or decrease from the estimates provided. All project and financial plans must be approved by Halifax Regional Council.

The estimated interim LIC rates based on the Net Costs above are as follows:

- Water - \$66 per foot of frontage
- Sewer - \$74 per foot of frontage
- Total - \$140 per foot of frontage

With these LIC rates, for example, a lot with 100 feet of road frontage will pay \$14,000 for water and sewer services. A lot with 150 feet of frontage will pay \$21,000. The charge for each property will be calculated individually, using the rate of \$140 per foot of frontage, or the adjusted rate at the end of the project. LICs will only be assessed to properties that receive new services.

LICs can be financed over 20 years with interest charged at the rate of 2% above the Municipality's Bankers Prime Rate of Interest at the time the project is approved. Billings will be issued annually, and additional or full payments can be made at any time without penalty. A LIC deferral program is available for qualified low income property owners.

Property owners should also be aware that By-Law No. S-100, the Sewer Charges By-Law, which applies to all of HRM, requires payment of a Trunk Sewer Charge for all existing buildings in the amount of \$500.00 per dwelling unit, and \$0.30 per square foot of floor space for all other buildings. New buildings and all building additions require payment of a Sewer Redevelopment Charge of \$0.30 per square foot of floor space. The Sewer Charges By-Law describes all of these charges, and possible exemptions, in more detail. There is also a Sewer Connection Permit fee of approximately \$100 and an HRWC water connection fee of \$30.

Subsequent to the installation of services, property owners will be billed quarterly for water usage and sewer discharge based on metered water consumption. As of October 1, 2006, the residential rate structure is as follows:

- |                            |                         |
|----------------------------|-------------------------|
| • Pollution Control Charge | \$1.079 per cubic meter |
| • Water base rate          | \$36.26 per quarter     |
| • Water consumption        | \$0.394 per cubic meter |

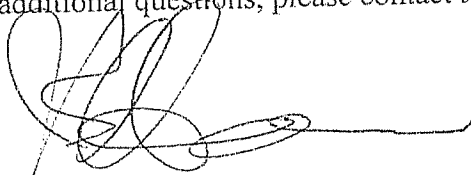
For information purposes, the average residential quarterly water consumption within HRM is currently about 64 cubic meters, which results in an average quarterly (three months) water and sewer bill of \$130. The quarterly bill for each property will vary according to the water consumed. Please note that all of these charges are subject to change from time-to-time.

Current or future lots which do not have existing frontage on the portion of Sackville Drive to be serviced (i.e. do not pay a current LIC), which wish to make a direct lateral connection to those services will be levied a charge of \$8,400 (equivalent of a 60 foot frontage) at the time of service connection, plus any applicable oversizing charges.

In an effort to help determine the desire of the community to continue the project based on the above plan, we are requesting that each property owner fill out the attached survey form (one survey per property) to indicate support for or against the plan. **Please provide a response by May 11, 2007 by one of the methods indicated at the bottom of the survey.**

Please note that any plan must be approved by Halifax Regional Municipality Council. This project has not yet been presented to Regional Council and all decisions in respect to this servicing strategy rest with Regional Council.

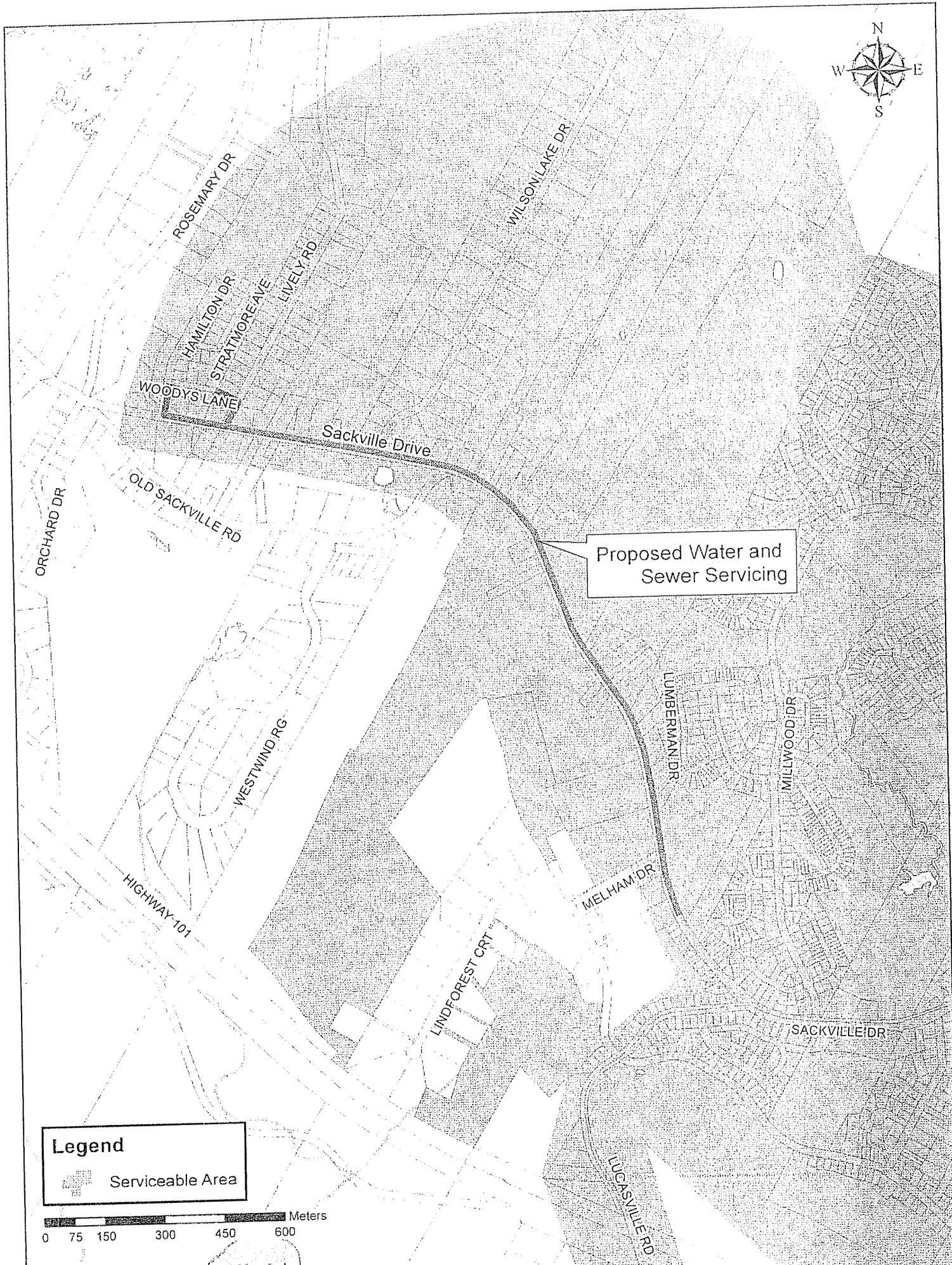
A Community Meeting regarding this project is scheduled for 7:00 pm, April 26, 2007 at the Sackville Heights Community Centre, 45 Connolly Road, as part of the regular North West Community Council meeting. Staff of the HRWC and the HRM will be in attendance to present the plan in more detail and to answer questions. If you are unable to attend the meeting, or have additional questions, please contact Jamie Hannam.



Jamie Hannam, P.Eng.  
Chief Engineer  
Halifax Regional Water Commission  
490-4804


Attachments:

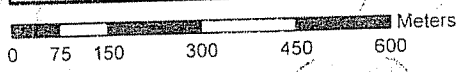
1. Plan Showing Proposed Water and Sewer Services - Sackville Drive Area
2. Survey - Sackville Drive - Proposed Water and Sewer Services



Proposed Water and Sewer Servicing

**Legend**

 Serviceable Area



## Survey - Sackville Drive - Proposed Water & Sewer Services

This survey is to be completed and returned to HRWC by May 11, 2007.

Question:

Based upon the plan and the estimated costs described in the attached staff correspondence entitled "Survey and Notice of Meeting - Sackville Drive - Proposed Water & Sewer Services", dated April 23, 2007, are you in favor of receiving Water and Sewer Services ?

YES            NO                            (Circle One)

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Name or Company Name - Please Print

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Civic Address of the Subject Property - Please Print

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Authorized Signature(s) (Property Owner)

---

Date

This questionnaire and any written comments should be forwarded using the enclosed envelope via one of the following:

By Mail:

Halifax Regional Water Commission  
450 Cowie Hill Road  
P. O. Box 8388 Stn. A  
Halifax, NS B3K 5M1

By Hand:

Halifax Regional Water Commission  
450 Cowie Hill Road  
Halifax, NS

Halifax Regional Water Commission  
2 Park Avenue (corner of Park & Cobequid)  
Lower Sackville, NS

By Fax:

(902) 490-4808

Only one survey is to be submitted per property.

You may also return your completed survey at the April 26, 2007 Community Meeting.

Additional copies of this survey will be available at the meeting.