


**Item No. 11.1.3**  
**Halifax Regional Council**  
**September 20, 2011**

**TO:** Mayor Kelly and Members of Halifax Regional Council

Original signed by 

**SUBMITTED BY:** \_\_\_\_\_

Richard Butts, Chief Administrative Officer

Original Signed by 

Mike Labrecque, Deputy Chief Administrative Officer, Operations

**DATE:** August 26, 2011

**SUBJECT:** MIRROR NS - 2010-2016 Operations and Price Agreement

---

**ORIGIN**

Expiry of Supplementary Agreement No. 8 with MIRROR NS for the operations of the Otter Lake facilities from April 1, 2005, to March 31, 2010.

**RECOMMENDATION**

It is recommended that Halifax Regional Council:

1. Authorize the Mayor and Municipal Clerk to execute Supplementary Agreement (#13) signed by MIRROR NS as per the key terms, conditions and budget implications as outlined in this report for the operations of the Otter Lake facilities for the period from April 1, 2010 to March 31, 2016.
2. Direct staff to advance the following 'next steps' in order to achieve a more fiscally sustainable delivery of the HRM solid waste strategy:
  - I. Expand education efforts and develop program initiatives to increase diversion;
  - II. Commence the community engagement process to review the Waste Resource Strategy, to include assessment of alternative options;

**RECOMMENDATIONS CONTINUED ON PAGE 2**

- III. With other landfill operators, work with the Province to review the design specifications for landfill cells; and,
- IV. Conduct a full business case assessment of a transfer station operation to potentially reduce collection contract costs and provide greater security and flexibility to HRM to evolve the Waste Resource Strategy.

**BACKGROUND**

The 1997 HRM – MIRROR NS “Agreement for the Design, Construction and Operation of Components of Halifax Regional Municipality’s Solid Waste Facilities” (the “Main Agreement”) provides a framework for operations of the Otter Lake facilities for a period of twenty-five years, with MIRROR NS being responsible for compliance with all applicable laws, insurance and bonding, inclusive of environmental impairment for thirty years post closure of the site.

The following table provides the forecasted cost of the Otter Lake facility from 2011/12 through to the closure of Cell 9 in 2025/26. This cost forecast is based on a 3% annual adjustment for capital and a 2.5% adjustment for operating costs. Both of these inflation factors are assessed as conservative.

**Table 1 – Overall Forecast Contract Costs for the Otter Lake Facility 2011-2025**

<b>Contract Cost Mirror</b>		<b>Cost Per Tonne</b>	
Capital	\$ 152,254,000		
Operating	\$ 240,535,000		
<b>Total</b>	<b>\$ 392,789,000</b>	\$	198

\*Note: Cost per tonne is based on 142,000 tonnes per year from 2011/12 through 2025/26

**Profit Margin**

The Main Agreement guarantees MIRROR NS an operating margin of 20% (which utilizes the profit mark-up equation of 0.25 per \$1.00). This profit margin is calculated on the negotiated annual Base Operating Cost for processing waste. The negotiated base operating cost, including margin, is then paid in twelve equal monthly invoices. The base operating cost and margin are adjusted annually to reflect negotiated inflation factors for specific components of the agreement.

**Base Cost Review**

As required in the original contract, to establish an annual base operating cost as accurately as possible to reflect current costs to operate the facility, staff conducted a base cost review. The cost review examines the costs of a twelve-month period of all operational activities at the Otter Lake facility. The cost review process involves the detailed verification of records including invoices, time sheets, subcontracts, etc., in order to determine the total twelve-month cost to operate the facility in all of the operational categories including: wages, equipment, buildings, utilities, gas control, maintenance, repairs, and administration.

The twelve-month (November 1, 2008 to October 31, 2009) base cost of operations, determined through the cost review and verification process, was \$9,693,715 (excluding margin and net HST).

### **Tonnage Band Adjustment**

HRM's agreement with MIRROR NS includes a reconciliation component if the tonnage delivered to Otter Lake is lower than the agreement's baseline tonnage of 149,240 tonnes per year. In any year tonnage falls below the baseline, MIRROR NS will rebate a portion of the operating costs of the facility. If HRM delivers more than the baseline tonnage, then the opposite is applicable. HRM has received rebates from MIRROR NS every year since 2006/2007. The rebate represents an opportunity to not only extend the life of the landfill, but also is a monetary offset which allows HRM to pay some of the recycling and compost costs for any additional tonnage delivered to those facilities.

### **DISCUSSION**

Over the last number of months, HRM staff has been in negotiations with MIRROR NS to develop a new multi-year Operations and Price Agreement. What follows outlines the components of a negotiated six-year agreement between HRM and MIRROR NS for the period April 1, 2010 through March 31, 2016.

Staff negotiated, starting in FY 2012/2013, a reduction of approximately \$7.45 per tonne, resulting in a savings of approximately one million dollars per annum on the operating costs of the Otter Lake facility. Additionally, if the projected annual tonnage rebates are achieved, the cost of operating the facility will essentially remain flat over the term of the agreement. Staff also secured a commitment from MIRROR NS to enter into discussions with HRM should changes to the strategy be approved and to work with HRM in seeking a review of the design specifications of the landfill cells.

In addition, during the negotiation process, as a result of an operational analysis of the waste program, it became clear that there are ways to provide a more fiscally sustainable delivery of the HRM Waste Strategy without compromising the Strategy's objectives.

Following the approval of this supplementary agreement, Solid Waste Resources staff intend to begin a review of the existing Waste Resource Strategy in order to identify opportunities to not only improve diversion but to identify efficiencies. Should opportunities become apparent, staff will begin a public engagement strategy with both the local community at Otter Lake and the broader community of HRM in order to ensure that any new strategies respect the diversion and environmental goals of the existing Strategy.

Staff believes there is a cost saving opportunity in the long term operating costs by evolving the operating model at Otter Lake to build on HRM's diversion success. The Strategy's operating model was devised based on mixed waste prior to HRM having diversion through green bin

organics, an expanded recycling program, a comprehensive education and communication program, and a construction and demolition debris strategy. Over 60% of the mixed waste materials that used to be landfilled no longer arrive at Otter Lake facility.

In addition, the work completed on this negotiation highlighted an opportunity currently not viable which could potentially enhance the efficiency of our current operations and open up future opportunities for savings. HRM currently does not have an operational transfer station. A transfer station may present short term efficiencies and could also provide long term flexibility related to a more comprehensive waste and recycling strategy.

In addition to a new base operating cost framework, the negotiations resulted in three principle approaches which may reduce long-term program costs while not compromising environmental or recycling goals. These are:

1. Increase diversion and through reduced tonnage going to landfill, reduce operating costs at Otter Lake through the tonnage band adjustment rebate;
2. Through community engagement, review the waste strategy and landfill site operating model to recognize the significant change that has occurred in the mixed waste stream since the strategy was developed; and,
3. In conjunction with other landfill operators, and MIRROR NS, work with the Province to initiate a review of the current landfill cell specifications.

### **Supplemental Agreement #13 – Terms and Conditions**

The table below outlines the new agreement’s key operational terms, pricing and payment schedule, and conditions.

**Table 2 – Terms and Conditions**

Component	Results	Notes
Operating Cost Reduction	Commencing in 2012/13, an annual cost reduction of an average of \$7.45 /tonne resulting in operating savings of approximately \$1,000,000 per year over the remaining four years of the supplemental agreement.	This is a negotiated program cost reduction initiative.

Component	Results	Notes
Negotiation Base Operating Cost	<p>Base Op Cost: \$9,693,715</p> <p>Margin: \$2,423,429</p> <p>Initial Base Op Cost: \$12,117,144</p> <p>Total Op Cost \$12,726,180 including adjustments.</p>	<p>This baseline cost was determined through the twelve-month cost review (Oct 2008-Nov 2009) and finalised through negotiation.</p>
Term	<p>Six (6) years</p> <p>Period April 1, 2010 through March 31, 2016</p>	<p>The forecast term of Cell 6 should reach capacity in the spring of 2016. This will require consideration for Cell 7 prior to the 2015 construction season.</p>
Gas Control System and Fuel Cost Adjustment	<p>Added to Base Cost: \$327,191 including margin</p> <p>Annual Inflation Rate: 2.5%</p>	<p>This cost adjustment was negotiated and reflects the increase in operating costs of labour, equipment and materials as a result of expanding the gas extraction field through ongoing cell development at the site and a fuel cost adjustment.</p>
Baseline Tonnage	<p>149,240 tonnes</p>	<p>Tonnage rebates are based on the negotiated tonnage baseline.</p> <p>Period: 2010-2016</p> <p>Band Size: 3,000 tonne/year increments</p> <p>Rebate Rate: \$41.93 per tonne plus margin</p> <p>Annual Inflation adjustment: 2.5%.</p>
Leachate Haulage Rate and Cost	<p>\$0.01224 per litre for the primary location increased at a rate of 2.5% annually.</p> <p>Leachate costs are variable as they are weather dependent.</p>	<p>This base rate is the same as the previous Supplementary Agreement rate.</p> <p>Of Note: Leachate hauled for Fiscal 2010/11 totalled 58,870,424 L and resulting haulage cost is \$751,400 incl. net HST. During the review period, Oct 2008 to Nov 2009, the cost of leachate was \$1,125,007 incl. net HST.</p>

Component	Results	Notes
Annual Inflation Adjustments	<p>Wages: 2.5%;</p> <p>Equipment (incl. fuel) &amp; Facilities: 2.5%;</p> <p>Propane: 2.5%;</p> <p>Electricity: 0% (2010/11), 6.2% (2011/12), 9.0% (2012/13), 4.0% (2013/14), 2.0% (2014/15), 5.0% (2015/16);</p> <p>Major Capital Repairs &amp; New Facility Operating Items: 2%;</p> <p>Administration, Insurance, Other: 2.5%</p>	<p>All inflation factors were negotiated with the exception of electricity. The inflation factors related to electricity were arrived at by using NSPI proposed inflation factors from their submission to UARB.</p>
Cell 6 Construction	<p>Approval of this agreement will constitute intent to proceed with construction of Cell 6.</p>	<p>Cell 6 of the Residuals Disposal Facility capital budget was included in the approved project budgets for 2010/11 and 2011/12 in the amount of approximately \$17.54M.</p> <p>This included the Borrow Pit Road development.</p> <p>Cell 6 construction will be completed during the 2012 construction season.</p>
Otter Lake Operating Model	<p>Following any waste strategy modifications, MIRROR NS and HRM agree to enter into discussions on the impacts and implementation of such changes to the operations of the Facilities for Cell 7 and subsequent cells for disposal of Acceptable Waste.</p>	<p>The intent of this review is to enable HRM to benefit economically from diversion success while maintaining the waste strategy principles.</p>

Component	Results	Notes
Landfill Cell Specifications	At the direction of HRM, MIRROR NS will assist HRM to further discussions with the Province (Nova Scotia Environment), other landfill owners and operators in the province, and relevant stakeholders regarding practical changes to these standards that can reduce capital cost while maintaining environmental protection.	The objective, where appropriate, is to reduce construction costs of landfill cells governed by specifications which were implemented over a decade ago to address the waste stream content of the 1990's.

**Supplemental Agreement #13 – Projected Costs and Adjustments**

Table 3 outlines the projected costs and adjustments over the six year term of the proposed Operations and Price Agreement for the Otter Lake facilities. These costs do not include the cost for hauling and disposing of leachate.

**Table 3 – Projected**

Fiscal Year	Base Operating Cost incl. Margin	Subtotal Cost	Projected Total incl. net HST	Projected Total Cost incl. net HST with Tonnage Rebate Included	Operating Cost per Tonne (1)
2010/11	\$12,726,180	\$12,726,180	\$13,271,624	\$12,942,381	\$91.23
2011/12	\$13,060,343	\$13,060,343	\$13,620,109	\$13,289,714	\$92.78 (2)
2012/13	\$13,415,125	\$12,415,125 (3)	\$12,947,237	\$12,269,927	\$89.41
2013/14	\$13,758,897	\$12,758,897	\$13,305,743	\$12,437,939	\$92.66
2014/15	\$14,102,246	\$13,102,246	\$13,663,808	\$12,774,309	\$95.16
2015/16	\$14,394,497	\$13,394,497	\$13,968,585	\$12,874,501	\$98.10

\* Notes: (1) These costs do not include capital cost per tonne which is currently estimated at \$76 going forward to the end of the contract.

(2) The per tonne rates for years 2011/12 through 2015/16 are based on staff's forecast of annual tonnage for the top of each tonnage band range projected to be reached.

(3) This cost and the subsequent annual costs reflect a negotiated annual \$7.45 per tonne operating cost reduction.

As noted above, this agreement includes a tonnage band adjustment component. The rebate is a forecast and achievement of annual tonnage reductions at the Otter Lake facilities requires HRM's continued commitment to diversion. This requires commitment to solid waste policy and program initiatives that reduce the production of solid waste and increases diversion from the mixed waste stream. Greater diversion success will result in higher rebates and corresponding lower operating costs at Otter Lake for HRM.

### **Summary**

The negotiation of this supplemental agreement established new efficiency measures that in addition to ongoing savings could result in the overall operating costs remaining relatively flat, including inflation, during this agreement period. Holding program costs relatively flat during an agreement period is a significant improvement for this program. This supplemental agreement term will also include an engagement strategy to review the existing waste model in order to identify other opportunities to introduce further efficiencies into the program while maintaining the diversion and environmental objectives of the Waste Strategy.

### **BUDGET IMPLICATIONS**

Total operating savings compared to budgeted costs over the first two years, 2010/2011 and 2011/2012 of this six-year agreement are approximately \$3,593,000 (pre net HST). After adjustments for operating costs, the available funding (savings) is \$3,480,252 (net HST). These savings come as a result of cost savings from the negotiations and are a result of total costs being lower than accrued budget amounts for FY 2010/2011 and 2011/2012.

The negotiated operating fee for 2010/2011 resulted in a base fee operational savings of approximately \$1,560,000 pre-HST (FY2010/11). At year end 2010/2011, HRM was unaware of savings or future cost escalations that would be attributable to fiscal 2010/2011 and subsequently accrued \$1,360,252. Upon ratification of this agreement, the \$1,360,252 is not required to fund costs associated to fiscal 2010/11.

For 2011/12, the negotiated operating fee is projected to result in budget savings of approximately \$2,033,000 (pre net HST). The final position for Solid Waste Resources Otter Lake operations is contingent on the quantity of leachate produced at the facility.

As a result of the negotiated base operating cost, cost adjustment initiatives and inflation factors for the pricing components, over the term of this agreement, HRM will realize a flatter program cost increase trend than previous agreements. The operating budget implications for the base operating fee, as outlined in the supplementary agreement for the 6 year term, is \$80,777,106 (net HST included).

The above figures do not include leachate removal and haulage as this expense is based on a per litre price and is variable in nature. An annual range for leachate costs is approximately \$700,000 to \$1,200,000 depending on annual precipitation and the degree to which a cell(s) is open.



Total operating cost of the facility over the six-year agreement is estimated to be in the range of \$85M to \$88M. Capital expenditures forecasted for the six-year agreement term are \$62M.

**FINANCIAL MANAGEMENT POLICIES/BUSINESS PLAN**

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

**COMMUNITY ENGAGEMENT**

N/A

**ALTERNATIVES**

No alternatives are recommended at this time.

**ATTACHMENTS**

None

---

If the report is released to the public, a copy can be obtained by contacting the Office of the Municipal Clerk at 490-4210, or Fax 490-4208.

Report Prepared by: Robert Orr, P. Eng., Collection & Processing Coordinator, 490-6698  
Matthew Keliher, Senior Financial Consultant, 490-6902

Report Approved by: \_\_\_\_\_  
Gord Helm, Manager, Solid Waste Resources, 490-6606

Financial Approval by: \_\_\_\_\_  
James Cooke, C.G., Director of Finance/CFO, 490-6308

Report Approved by: \_\_\_\_\_  
Ken Reashor, P.Eng., Director, TPW, 490-4855

---

Original Signed