HALIFAX
REGIONAL MUNICIPALITY

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Item No. 10.1.4

Halifax Regional Council
January 6, 2009

TO: Mayor Kelly and Members of Halifax Regional Council

SUBMITTED BY: Wayne Anstey, Acting Chief Administrative Officer

DATE: December 31, 2008

SUBJECT: Otter Lake - Business Case ICI Cardboard

ORIGIN

Severe downturn in commodities markets.
Solid Waste Resource Advisory Committee meeting December 10, 2008.
Regional Council meeting December 16, 2008.

RECOMMENDATION

It is recommended that Regional Council approve the following:

1. The Otter Lake facility receive and process residential and ICI waste, and that cardboard from ICI properties continue to be managed by local private sector recycling companies; and

2. Staff continue to assist the members of the ICI sector (ie, property owners/managers, and collectors) by providing regular updates of paper commodity market conditions, and report back to Regional Council, through the Solid Waste Resource Advisory Committee on any plans, should the market for mixed paper not return.

BACKGROUND

The severe down turn in the commodities markets has had a profound impact upon the value of paper locally and around the world. Paper mills and production facilities in Canada, USA, and overseas that until recently paid for paper, have either closed or restricted operations. Local private paper recycling companies are now charging for ICI paper (i.e., cardboard, newspaper, and bond/office paper) as compared to just three months ago when they purchased paper from private collectors serving ICI properties. The fee currently charged by private paper recycling companies ranges from $0/tonne for baled cardboard, $50/tonne for loose cardboard, and $150/tonne to $165/ tonne for mixed ICI paper.

As approved by Regional Council, since 1998/99, recyclables (food and beverage containers, plastic pallet wrap, office paper), organics and waste from ICI properties are accepted at HRM owned or sponsored facilities. Since 1991/92 small amounts of office paper, newspaper and cardboard from ICI properties, typically less than 4,000 tonnes a year, have been received at the HRM MRF. One of the key components of the solid waste/resource management system, approved by Regional Council in 1998, which brought equity for all businesses and institutions, is that collection at ICI properties is to be arranged by each property owner, i.e. is not a service provided by HRM.

For the past 20 years, the majority of cardboard from ICI properties, some 43,000 tonnes/year, has been received at local private paper recyclers. The commencement this past November of local private paper recyclers charging for the ICI paper has given rise to the question should HRM consider taking receipt of mixed paper (non separated cardboard, newspaper and office paper) and processing the same in preparation for markets, at the HRM Otter Lake Front End Processor.

Until the collapse of world commodities markets, local private paper recyclers accepted cardboard mixed with other ICI paper. Following the December 10, 2008, SWRAC meeting staff's intervention resulted in local private paper recyclers agreeing to once again accept cardboard mixed with other ICI paper until March 31, 2009,when the local private paper recyclers advise that there will be no market for 'hardpack paper' (ICI cardboard, office and newspapers mixed together).

At the December 10, 2008 meeting of the SWRAC staff was requested, among other requests, to provide a report for the December 16, 2008, Regional Council session outlining "that HRM accept OCC (ie old corrugated cardboard) material at the Otter Lake facility and that a tipping fee be charged. Staff is to outline the cost associated with this option."

On December 12, 2008, staff met with MIRROR Nova Scotia staff, for the purpose of discussing, on a contingency basis, the capability and availability of the Front End Processor at Otter Lake of taking receipt of some 100 tonnes a day (26,000 tonnes/year) of mixed ICI paper (cardboard, office, newspapers etc). MIRROR has advised that they are only interested in providing this service on a contingency basis for the HRM, not as a long term operational requirement. Staff understands that approximately 100 tonnes/day of mixed ICI paper is produced locally.

However, since that time the markets for ICI mixed paper have reopened, at least until April 1, 2009. MIRROR has advised they do not wish to be competing with the private sector recyclers.

At the December 16, 2008 meeting of Regional Council, the following motion was approved.

MOVED BY Councillor Karsten, seconded by Councillor McCluskey that Halifax Regional Council request a staff report, on or before the January 6, 2009 Regional Council session, in regard to a business case and options for the receipt of ICI cardboard at the HRM facility. Staff is to include industry stakeholders in an advisory capacity during the preparation of the report. Staff are also requested to report back to the Solid Waste Resource Advisory Committee with a business case and options within six weeks. MOTION PUT AND APPROVED

DISCUSSION

1.0 Industry Stakeholders Advisory Capacity Role

On December 18, 2008 members of the local ICI collection and paper recycling industry were invited to attend the first biweekly meeting at 10:30 am on December 23,2008. Attachment # 1 is the agenda (minutes are not available at the time of the writing of this report) from the December 23, 2008 meeting.

As was requested by members of the ICI industry at the meeting on Dec 23rd, staff will provide updates to ICI collectors and property owners/manager of the status of paper commodity markets on the 15th of each month over the next three months, possibly longer as determined by the volatility of the market conditions.

On Dec 24th staff received notification via the NS Environment from the Waste & Resources Action Program and the Local Government Association , London, England, that markets are 'fragile but stable' and that clean and sorted material was 'moving in good volumes'.This report from England confirms the recent commodities market report provided by Miller Waste (operator of HRM's MRF) on Dec 18th.

Local ICI paper recyclers have advised that the downturn in the price of paper is a short term situation, and that the price is expected to rebound within six months, when they will once again purchase paper from ICI collectors. Attachment # 2 is the Price Sheet produced by CSR (Corporations Support Recycling), Ontario. The upper left quadrant shows the price paid for fibre (paper) since 1994. A severe downturn in the price of paper in 1997 rebounded within six months.

Over the next three to four months, staff will continue to assist the ICI sector (ie collectors and property owners/managers) by providing regular updates of paper commodity market conditions.

1.1 ICI Collectors

Nine local ICI collection companies were invited to the Dec 23rd meeting. Based upon the total tonnes of ICI waste received at the Otter Lake facility, the nine ICI collection companies service

91 percent of ICI properties across the HRM. The other 9 percent of ICI waste received at Otter Lake is typically local companies and property management firms that self haul waste and /or pay cash at Otter Lake for the disposal of ICI waste.

1.1.1 Major ICI Waste Collectors

There are four major ICI waste collectors in the HRM who combined service 85 percent of all ICI properties. The four companies are; Miller Waste, Waste Management, Enviro Waste and Green Waste.

1.1.2 Other (Smaller) ICI collectors

There are twelve other smaller companies that provide collection at ICI properties throughout the HRM. Combined the twelve companies service 9 percent of ICI properties in the HRM. The remaining 6 percent of waste received at Otter Lake are self haul companies and or cash payments.

1.2 Private Paper Recyclers

Both Great Northern Recycling Ltd and Scotia Recycling advised on Dec 12th that there is no future market for hardpack paper, and that after April 1,2009, they will not be able to receive or sell mixed ICI paper. With the contraction of world commodities markets hardpack is not expected to be marketable as of April 1, 2009.

2.0 Business Case- Otter Lake - Receipt and Processing of ICI Fibre

There are two questions fundamental to the completion of a Business Case for a change in the purpose and function of the Otter Lake Front End Processor (FEP).

i) Is there a requirement,(i.e., need) for the HRM to provide the service - short term (next 3 months) and long term, i.e., after April 1, 2009 when paper mills and processing facilities in Canada and world wide, will only accept ICI cardboard separated from other ICI paper?

ii Is there a viable alternative available in the HRM to deliver this service, i.e., will HRM be competing with existing private sector companies, and can the local ICI sector (i.e property owners and collectors) meet the new market requirement of separating cardboard from other paper by April 1, 2009?

2.1 Requirement /Need for the FEP to Process ICI Cardboard and Other Paper

Of the four main companies that provide collection of cardboard and other papers (and organics and refuse) at ICI properties, Miller and Waste Management who represent 50 percent of all ICI properties serviced in the HRM, have advised that they currently, or by March 31,2009 are preparing for the separate collection of cardboard from other papers for their ICI customers.

The other two large ICI collectors Green Waste and Enviro Waste have three months to arrange to provide the separate collection of cardboard from other paper for their ICI clients; or alternately the FEP would, on a contingency basis take receipt and process the mixed ICI paper.

Possibly the largest client for ICI collectors is the Halifax Regional School Board which is responsible for 135 schools. Staff has been in contact with the HRSB regarding ICI cardboard as it relates to the collection of recyclables i.e. paper and beverage and food containers(and organics and waste) at HRSB properties. Separate containers for waste, organics, and recyclables, including paper separate from glass, plastic and metal food and beverage containers, have been in place at all HRSB properties for several years. Separating cardboard from other paper at HRM schools will require an assessment of the amount and frequency of cardboard at each school. Peak periods for cardboard are likely at the start and end of the school year when the majority of supplies are received and/or the school is prepared for the summer recess.

The acceptance of ICI cardboard with other paper by the two local private paper recyclers until March 31, 2009 provides the HRSB three months to make arrangements. Once HRSB properties are set up for the separate collection of cardboard, the majority of the ICI properties across the HRM will achieve the April 1, 2009 market requirement of keeping cardboard separate from other paper.

As envisioned by the Citizens Stakeholder Committee in 1995, and as approved by Regional Council in 1996, Source Separation is one of the basic tenants of the HRM ISW/RMS to maximize the recovery and minimize the disposal of material.

At this time, staff does not believe there is a requirement for the HRM to take receipt and process ICI cardboard mixed with other paper at the Otter Lake facility.

2.2 Impact on Existing ICI Private Paper Recyclers

Great Northern Recycling has advised that should the Otter Lake facility, even on a contingency basis, receive ICI card board and other paper, that their ten year old company, will not survive. They have advised that as a result of a substantial reduction in ICI paper received during the week of December 15th that the majority of their staff has been released.

Scotia Recycling has advised that the receipt of ICI paper at the Otter Lake facility in the amount of 100 tonnes day (26,000 tonnes a year) would be a major concern as it would require the importation, at significant cost, of paper from New England for their fibre manufacturing facility in Hantsport. 26,000 tonnes a years is approximately 50 percent of all ICI paper generated in metro HRM annually. Scotia Recycling has relied upon local ICI paper for more than 20 years, and until recently paid the local ICI collector for same.

Staff believe there is sufficient private sector capacity for the management of ICI paper at this time.

2.3 Cost of Processing ICI Cardboard and other Paper at the Otter Lake FEP

MIRROR Nova Scotia, who operates the Otter Lake facility, has provided direct operating costing detail for the receipt and processing of ICI cardboard and other paper at the FEP.

On December 23, 2008, MIRROR Nova Scotia provided confirmation via email that the FEP can separately process 100 tonnes of ICI mixed paper each week day, at a cost of $80/tonne. The $80/tonne which includes 20 percent margin for MIRROR Nova Scotia, which is consistent with the 1997 Agreement for the Operations of the Otter Lake site, does not include the transportation, storage, or marketing (i.e., sale) of the material to mills in North America and overseas.

In addition to the price provided by MIRROR, staff has developed other directly related costs for the maintenance and repair of the fixed and mobile equipment in the FEP that would be utilized to process ICI paper, plus pro-rate depreciation and replacement costs of the same equipment. 100 tonnes a day of ICI paper will place an additional demand upon the life of mobile equipment by approximately 16 percent, and fixed equipment (i.e., the baler) by over 3,000 percent, and the requirement for replacement, from the current average of 65 tonnes/month to approximately 2,150 tonnes/month. Staff has included these costs to ensure that the full and complete costs of this new service for the HRM is recovered from the ICI property owner, through their ICI collector, and that there is no net cost for the HRM taxpayer.

3.0 Risk Management for the HRM

3.1 Operations of the FEP

MIRROR has advised that there is some risk for the receipt and processing of ICI fibre at the FEP; however, it is manageable. The risks relate to keeping the ICI paper separate and clean from the approximately 500 to 750 tonnes of mixed waste received in the FEP daily. The other risk for the HRM is to ensure that the evening maintenance of the fixed and mobile equipment in the FEP can be completed while the ICI paper is processed. MIRROR has advised that despite these cautions that ICI paper can be successfully received and processed at the FEP.

3.2 Interim Storage

As there is no storage capacity at Otter Lake, (or at the MRF) a warehouse would have to be secured for the interim storage of the ICI paper. Typical lease costs for a warehouse in metro HRM is $8/ sq. ft. Each bale of paper is 1.5 m x 1.5 x 1.2 m (5 ft. x 5ft. x 4ft.) and weighs approximately 800 kgs (1,500 lbs). 100 tonnes of ICI paper /day will yield approximately 100 bales /day (2,200 bales/ month) requiring 2,500 sq. ft. month storage. Assuming 50 percent of the material is marketed monthly, a 10,000 sq. ft. building is required at a cost of $80,000/year. Including other direct costs for security, staff, and rental of equipment to unload, stack and reload bales of paper, the cost is estimated to be approximately $30/tonne.

3.3 Transportation to Markets

Cost of transportation of the ICI fibre to markets is well known throughout the industry. Depending upon the locale of the market, costs for transportation are expected to range from $0/tonne through the Port of Halifax, to $30/tonne via trailer to Quebec and Ontario. Although there is no cost through the Port of Halifax, shipments have traditionally relied upon the back haul of empty containers to factories in Asia. With the downturn in the world economy there has been very few back haul opportunities to Asia in the past two months, which is expected to continue for 3 to 4 months, perhaps as long as 6 months.

3.4 Marketing of ICI Fibre

HRM staff does not have the expertise to market (i.e., broker) the sale of paper. Miller Waste, the operator of the MRF, has advised that they are not prepared to take the risk of marketing ICI fibre which they have not sorted and processed. Miller does not desire to be placed in the position of marketing ICI fibre from the FEP, that could potentially jeopardize their long established markets, i.e. mills in Canada and overseas, for the HRM Residential Recycling Program.

HRM would have to engage the services of a broker to secure markets for the ICI fibre, to schedule the pick up of the product from the warehouse and arrange the shipping of the material. At potentially 100 tonnes a day (2,200 tonnes /bales a month) at the minimum, four hours per day will be required, using a rate of $100/hour, totals $8,800 month, or $2.50 tonne, plus benefits. As there is a high risk of the product not being marketable, resulting in additional costs for longer storage, movement of the product to another interim site, rejection by the market etc a 100 percent multiplier has been applied yielding a cost of $5/tonne. Staff has not explored the availability of personnel to serve as a broker for the HRM, or in the warehouse or to operate the equipment.

BUSINESS CASE SUMMARY

	Price/ Tonne	Risk Factor
Receipt, Processing and transportation of ICI mixed paper to local warehouse	$80/tonne	0% cost known
Fixed and Mobile equipment maintenance and replacement	$6/tonne	0% cost known
Interim Storage (2 to 3 months) in local warehouse (10,000 sq/ft bldg,)	$30/tonne	15% cost estimated
Transportation to markets (Average of $30/tonne to Quebec/Ontario, and $ 0/tonne freight on board a container ship at Halifax port)	$15/tonne	35% subject to confirmation per transaction
Marketing of ICI fibre	$5/tonne	100%* Major Risk for HRM
Total	**$136/tonne**	

Note: These costs are conservative and staff has never contracted for this type of service. Additionally, it would take at least six to eight weeks to put in place such a service when you consider all aspects. The $136/tonne cost does not reflect the potential full extent of the risk to market the product or any margin, i.e. profit, for the HRM.

Although local private paper recyclers are currently charging between $0/tonne for baled cardboard, $50/tonne for loose cardboard, and up to $165/tonne for cardboard mixed with other paper, they expect the price of paper to rebound within six months when once again they will be paying for paper they receive from ICI collectors.

Staff will continue to investigate the storage, transportation and marketing costs of ICI cardboard and other fibre should there be no alternative but to utilize the Otter Lake facility, on a contingency basis commencing April 1,2009.

Staff's analysis has confirmed:

- that at this time the receipt and processing of ICI cardboard mixed with other paper at the Otter Lake facility is not necessary;
- that the restriction of ICI cardboard at the HRM MRF continues; and
- that the local private sector will continue to accept for the next three months mixed ICI paper.

4.0 By Law S-600

By Law S-600, Section 12 and 13 specifies how garbage, organics, recyclables (i.e., metal, glass and plastic containers) and paper are to be managed separately. Section 12 and 13 do not require cardboard to be separated from other ICI paper.

Staff will, with the assistance of the ICI sector, monitor the requirement for an amendment to the By Law for cardboard to be separate from other ICI fibre. Changes in the market conditions whereby the private recyclers will once again pay for ICI cardboard may negate the need for an amendment to the By Law.

An amendment to the By Law would be subject to the normal Notice, First and Second Reading approval process. Staff expect that by January 30, 2009 it will be known if an amendment to the By Law will be required. Staff will prepare an amendment to By Law S 600 in case it is required by April 1, 2009.

BUDGET IMPLICATIONS

There are no budget implications at this time.

FINANCIAL MANAGEMENT POLICIES / BUSINESS PLAN IMPLICATIONS

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

One alternative is not to approve the recommendations. This is not recommended as the recommendations encompass the preferred approach for the HRM, with the assistance of the ICI sector, prior to April 1,2009. to best manage the current ICI paper commodity situation. The next three months provides an opportunity for the HRM and the ICI sector to jointly monitor changes in the paper commodities markets.

A second alternative, which is not recommended , is for Council to direct staff to plan for the Otter Lake FEP to take receipt and process ICI mixed fibre. This is not the recommended alternative.

ATTACHMENTS

1 . Agenda for the December 23, 2008 meeting with the ICI sector.
2 . CSR Price Sheet - 1994 to 2008.

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.

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Report Approved by: Mike Labrecque, Director TPW, 490-4855

Report Approved by: Catherine Sanderson, Sr. Manager, Financial Services, 490-1562

Otter Lake - Business Case ICI Cardboard

Attachment # 1

Processing & Marketing Issues
ICI Cardboard & Paper
HRM & Stakeholders Discussion Meeting

Tuesday, December 23, 2008
10:30 a..m., Helen Creighton Room
Alderney Gate Public Library
60 Alderney Dr., Dartmouth, NS

1. Introduction

2. Current Situation - Facilities

3. Short Term (What are haulers currently doing with Cardboard & Paper?)

4. Long Term View (e.g. Weak Market Conditions, More Restrictive Market Conditions, Higher Quality, More Streaming of Material, etc.)

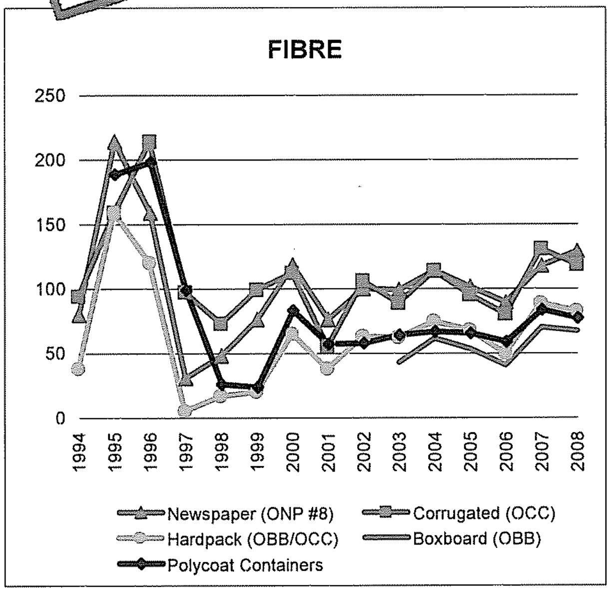
5. Other

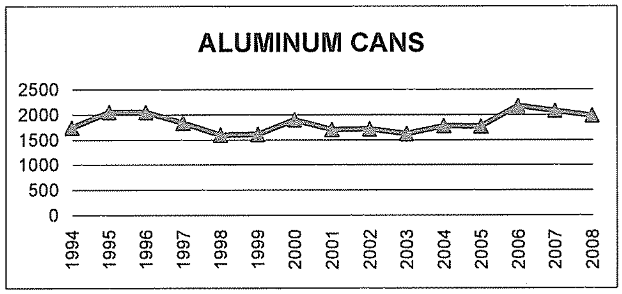
Otter Lake - Business Case ICI Cardboard

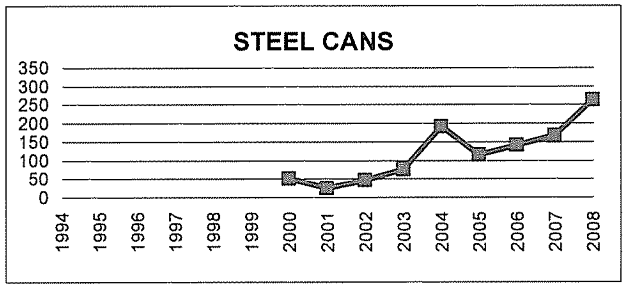
Attachment # 2

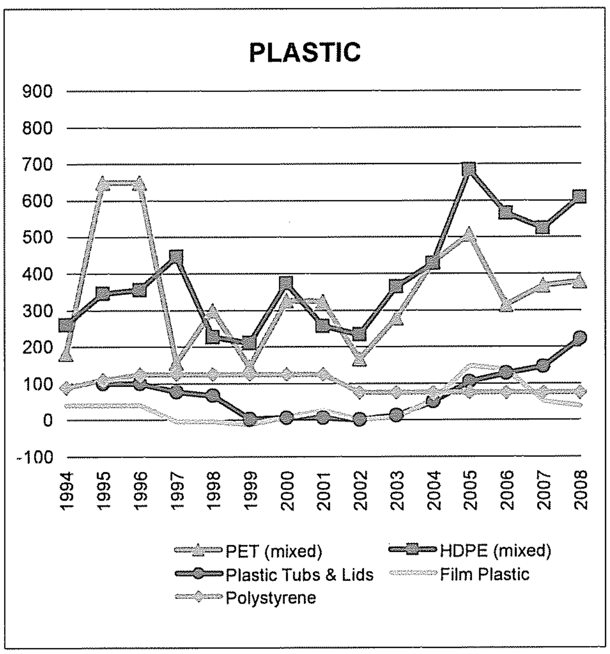
The Price Sheet

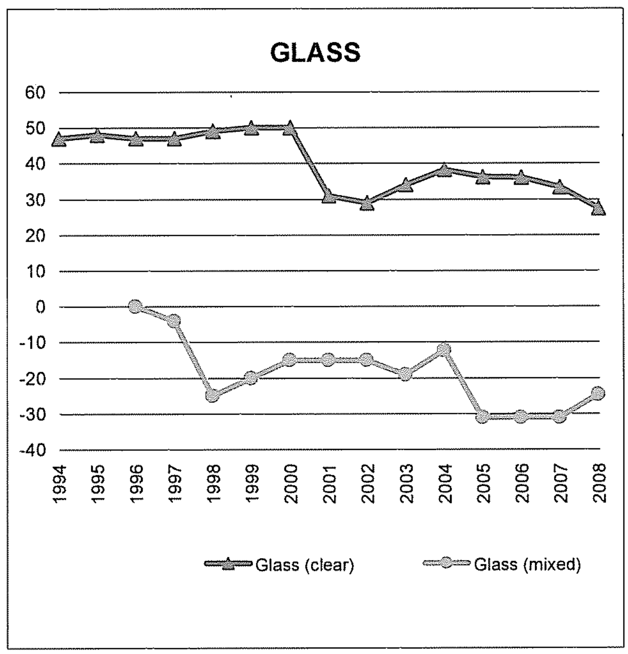
Ontario Historical Yearly Averages
(CDN$/Metric Tonne)











Graphs produced from Yearly Averages Table