

Recyclables Markets in the Current Downturn

B.C. Sustainable Energy Association

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Subjects for discussion:

What can be done locally, regionally, provincially and federally in the short and long term?

Single-stream vs. source separated collection – why is one better than the other?

North Shore vs. other municipalities in Metro Vancouver

Introduction

Role of the North Shore Recycling Program:

- Administer contracts for District North Van, City North Van and District of West Van (recycling, depot, D. West Van garbage and Yard Trimmings)
- Drop-off depot
- Community programs – community events, Home & Garden Show, Natural Garden Parties, Spring workshop series with Edible Garden Project and Lynn Canyon Ecology Centre
- Education programs – Mission: Zero Waste
- Backyard composter sales – 634 last year compared with 454 in 2007 and 509 in 2006
 - Important evaluations took place – survey monkey – current composters with challenges – personal visits, phone discussions.
 - new composters – personal visits, phone discussions
 - worm bin pilot for Multi Family (MF) residents
 - composting in bear country workshop
- Printed materials (in-house design) – 7 Simple Steps to a Great Lawn, 7 Simple Steps to a Great Garden, post-card brochures on material disposal ban, Multifamily residences brochure, collection calendars, etc
- Ads in North Shore News

North Shore has the highest rate of Recycling in the whole of Metro Vancouver – greater than 95%.

Solid waste costs to residents

- Solid waste is part of utility fees and not part of property taxes
- Total costs for 2007 ranged from \$138/yr in DWV to \$186 in DNV
- Recycling costs only about \$22/year
- Multifamily residences recycling costs - \$20 - \$28 depending on municipality

Contract with WM

- 5 year contract
- Collection method (more later) for Single Family and Multi Family
 - Participation rate and diversion rate
- Costs of contract – collection, processing, revenue
 - Low, low collection costs due to WM/IPI battle for market share - \$12+ per home/yr now (contractors are making a loss) but looking at \$40-50 in new contract
 - Processing costs per tonne to go up as well
- Revenue sharing agreement

- 75-25 split
- revenue from sale of #8 grade Old Newspaper (ONP) and Mixed Waste Paper (MWP)
- fixed floor values
- annual guaranteed revenue

Revenue

- Historical revenues
 - Low of \$300,500 in 1992 to high of \$1.19 million in 2000. 2007 was \$1.16 million and 2008 would have been higher until markets crashed in November

So What is happening?

Recyclables are a commodity just like metals and other products.

Like other parts of the economy, recyclables are not immune from the current economic tailspin

Market fluctuations are not unusual but this recession/depression looks like it will last longer than previous downturns

The market plunge is, in part, being driven by an evaporation of global demand

China and India with their booming economies have been a very large market for recyclables from all over North America and a significant driver of demand for materials such as recycled paper.

China closed some factories prior to the Olympics in Beijing and they did not reopen for a number of reasons – can't get financing, no demand

We are more fortunate than in many other parts of North America and Europe
e.g. Rutland, Vermont – ONP price has gone from \$120/tonne to \$20/tonne

Even though the markets are down, it is still better to recycle than put these items in the garbage

Paper markets

We have been very fortunate in the Vancouver area because of the nearness of markets

- Catalyst – California recycled content regulations
- MWP – Asian markets - China, Korea, etc.

Market indicators

- Our revenue based on market indicators. Contractor pays us 75% of greater of the market indicator OR the fixed floor value. Contract allows for contractor to sell to anyone for more but we get the revenue based on the indicator price.
- use 2 indices – Catalyst for ONP, Pulp & Paper Indicator for MWP
- in last 5 years, ONP prices have ranged from \$98/tonne in November 2005 to a high of \$182/tonne in September 2008
 - Actually got to \$196/tonne in June of 2000 – scavengers
 - Price went down to \$140 in Oct then \$114 in Nov and \$102 in Dec. January pricing is \$88
 - This is still good and we know that the ONP is being processed and sold
- For MWP the price has ranged from \$70.32/tonne to \$137.83 in the last 5 years.
 - Prices in 2000 were in the \$140/tonne range

- Prices dropped to \$133.85 in October and then \$13.43 in Nov and \$13.61 in Dec. Don't know about Jan yet.
 - Problem with using this indicator though is that the markets in California may not be the same in BC. Maybe there is a negative market right now
- Corrugated Cardboard dropped in price from \$200/tonne to \$20/tonne in less than 5 weeks

Fixed floor values

- ONP \$65-70
- MWP \$45-50
 - Therein lies the problem
 - Ok for ONP but not MWP – WM owes us \$45 - \$50/tonne when in fact they may not be getting any revenue whatsoever

We have a challenge as our contractor is looking for a restructuring of our current agreement with respect to fixed floor values. Processing costs have increased since some of the processors are having to store some recyclables (glass, metal and plastic, for example) until the market turns around.

Currently working on our tender and we will be changing the wording in the revenue and processing clauses to accommodate drastic changes such as those that are currently occurring.

What about glass, metal, plastics

Markets may be even worse for these products than for paper

- Merlin Plastics only wants the good #1 and #2
- Municipalities that collect all plastics are in trouble – #1 and #2 plastics are reusable, but the rest tend to be expensive to collect, expensive to process, and for limited profit
- No market at all for plastics in Asia – should they have been going there in the first place?
- Steel dropped from \$230 to \$25 in 12 weeks
- Copper dropped from \$4/lb to \$1.60/lb

Doesn't affect us from a revenue standpoint on the curb-side program - somewhat at depot – have heard nothing from our contractors

What is happening because of this?

- Mills are stocked with inventory
- Restructuring of municipal contracts with regards to revenue and processing
- Storage of recyclables – this is also a cost for storage locations
- Possibility of some processors going out of business
- Problems for some smaller municipalities:
 - Bowen Island, Lions Bay, anybody away from the coast. Glass esp is expensive transport for processing

- Loss of revenue for (some) municipalities resulting in increasing costs passed on to tax payers
- Some municipalities in U.S. are cancelling their recycling programs

What is the current situation?

- Most of the recycling brokers are still in pretty good shape regarding storage capacity.
- IPI representatives indicated that most of their materials were moving. IPI and CK Fibres are reported to still have markets in Asia.
- We will not cancel the recycling program nor will we stop collecting all the materials we currently collect. The markets will turn around and it is costly and time consuming to ramp up to speed again. We cannot and will not destroy the confidence in our program

Why is the North Shore in better shape than some other municipalities?

- Source Separated collection vs. single stream
 - What is the difference?
 - Single Stream is placed all into one cart by the residents and collected by the contractor.
 - Source separated means that residents separate the paper, newsprint and blue box materials before the collection.
 - Source separated collection means better quality products
 - In 2007, over 45% of the 15,300 tons of recyclables collected from the North Shore municipalities was newspaper and this resulted in revenues to the program of almost \$690,000. Mixed paper comprised 38% of the total recycling tons in 2007 and garnered another \$474,000 in revenue.
 - Single stream often results in decrease in quality of materials – paper, plastic contaminated by glass
 - Damages a de-inking plant's expensive processing equipment
 - Materials become unusable and are sent to landfill
 - Remaining products end up being sold at much lower price
 - Avg. participation rate in US – 30%
- Food and liquids also downgrade paper products
 - Single stream recycling responsible for demise of many de-inking plants in U.S. – contaminated material sold to buyers in Asia
 - Atlantic Paper in eastern Canada said that Metro Paper Recovery in the Toronto area cannot even produce a #6 grade ONP
 - Source separation cheaper to collect but more expensive to process and more expensive for curb-side containers
 - Only one single-stream facility in GVRD
- Very difficult to educate residents
- NSRP only collects materials that have value

- The North Shore program has always focused on collecting materials that historically maintain stable values as feedstock for new products. As the markets for low-grade materials such as #3, #6 and #7 plastics, plastic bags, polystyrene, etc. become seriously compromised due to the inability of recycling processors to sell the materials overseas, the North Shore municipalities are in a much better position than other municipal programs which began collecting low-grade plastics and other hard-to-recycle items.

What can be done?

Short term

- Recycling Council of BC meetings – including Ministry of Environment.
- Metro Vancouver – Recycling Markets Work Group – high level
 - Continue to work in cooperation with municipalities, the recycling industry, RCBC and the Provincial Government to manage the effects of the downturn in recyclable markets.
- Help out contractors/processors by restructuring agreements
- Governments to help with storage?
- Stockpile material until markets recover?
 - Recyclers are currently doing this but will run out of space eventually. Public facilities could be made available to store materials until markets improve.
 - Problems with ONP – no more than 4 months
- Sequestration? Another word for landfill??!!
- Non-market plastics burnt for energy?
 - Explore the diversion of combustible materials to facilities such as cement plants in order to recover the energy value of the material and displace fossil fuels.
- Explore the use of crushed glass as an aggregate in certain construction applications.
- Relax disposal bans and Landfill unmarketable recyclables?
 - Allow the disposal of unmarketable materials when there are no other options available. Metro Vancouver will continue to impose restrictions under its material disposal ban programs. This means that incoming loads with excessive quantities of banned materials will be required to pay the tipping fee surcharge.
- Provincial government to promote “smart” purchasing – educating and encouraging the public to think about the packaging, materials purchased etc. This needs to be a Federal initiative.
- Compost paper
- Increased promotion of waste reduction and reuse options
 - best way to reduce waste is not to create it in the first place
 - think about waste in packaging
 - don't buy products that have non-recyclable containers

Long term

- Rebuild/develop local recycling infrastructure

- Recycled content legislation
- Governments to buy recycled content products – drive up demand
- Encourage local recycling businesses through tax breaks for processing equipment
- Consider federal pricing support incentives and import tariffs to re-direct reliable flows of recycled materials from Canadian-based recycling programs to re-build factories in Canada that will re-manufacture them into products that we can buy ourselves or even export them to other countries.
- Design for environment

Notes

Beverage containers should not be placed in recycling – they are not sorted at the depot as it costs too much.

Gift wrap should not be included in MWP – reduces the grade of the paper.

Electronics Recyclables collected at the Bottle-it depots DO NOT go to China. They have lengthy approval processes for contractors, and none of the dangerous material is exported or sent to landfill

Europe is way ahead of North America in terms of cradle to cradle legislation and regulations. Big incentives to return or recycle items for govt, residential and business.

Questions

Q: How do we enforce the zero waste laws in Metro Vancouver?

A: This is being addressed right now by the Recycling Markets Work Group in Metro Vancouver

Q: What do we need to see for the market to improve?

A: No body knows – wait and see game

Q: When will it turnaround? What is your best guess for 2009?

A: Hard to say. I do not think it is going to be as bad as the doomsayers are predicting. The markets seem to have stabilized. The house market in Vancouver is returning to a realistic place – not a bad thing. The Olympics in 2010 will help to pick things up and improve the outlook.

Q: Is trucking and transport a viable option for recycling and realistic for the future?

A: As processing costs go up, revenue goes down.

The Recycling Markets Work Group focus has been expanded to look at the bigger picture. Nobody knows where the recycled product goes...they are looking into the chain of suppliers to find out the whole story.

The best plan is to focus on local processing plants – improve economy, jobs, and less reliant on external markets.

Q: When we purchase bottles, should we be aiming for plastic or glass?

A: Plastic is better – it is lighter to transport, #1 and 2 esp. have great re-use value, there is a good market.

Comment from audience – unless you are concerned about the possibility of plastics leeching into the liquid.

Q: Can #1 and #2 plastics be used for everything if Canada legislated as such?

A: Not too sure. Harder plastics such as #5 used for yoghurt etc may be difficult in softer containers.

Q: Is there a trend for increased sorting of the recyclables?

A: As trucks have 3 compartments, more than 3 bins would pose difficulties for the contractors, and more trouble for residents – may lead to lower participation.

Q: For the next 5 years in Metro Vancouver, is there a leaning towards Single Stream?

A: Single Stream has been rejected in a recent decision in Burnaby. It would be better to spend an allocation of the budget on more recycling program staff, focusing on the areas that have low participation rates, improve education etc.

Q: How achievable is the goal of Zero waste by 2020?

A: This is totally achievable if we look at commercial and demolition streams e.g. old wood from torn down buildings etc.

Residential recycling and plastic bags are a small part of the problem.

Metro Vancouver is working with Home Depot and others to look into collecting scrap wood etc.

Commercial composting for restaurants would be a huge thing – so much food waste is thrown in to the garbage at present.

Our thanks to Allen for an entertaining and enjoyable presentation.

Take Action

Send a letter or email to your MP or MLA to encourage them to support the long-term strategies mentioned above.

List of MP's for BC:

<http://webinfo.parl.gc.ca/MembersOfParliament/MainMPsCompleteList.aspx?TimePeriod=Current&Language=E>

List of MLA's for BC:

<http://www.leg.bc.ca/Mla/3-1-1.htm>