



September 23, 2008

By: Margery A. Moore

Summary Report: Recycling pilot project background

There are currently, no public recycling facilities in Ganges, which means that recyclable waste is going into the landfill unless individual businesses accept and process recycling waste in their stores. And many do. However, Each Saturday throughout the warmer months, Centennial Park is filled with thousands of tourists and locals for the weekly market. The concentration of people makes this specific park a crucial location for recycling stations. The overwhelming need for recycling in Ganges, and the fact that the Institute for Sustainability Education & Action (www.i-sea.org) is located downtown and is constantly bombarded by requests to address this recycling issue in Ganges, prompted I-SEA to setup and run this pilot program this past summer in order to quantify how much is actually recycled and how it might be processed on a permanent basis.

In addition, the CRD funds recycling for individual households only, commercial proprietors pay for their own recycling. Recycling in our public sphere therefore, mainly, in our public parks, is not provided at this time. Options for people downtown is limited to throwing recyclables into garbage bins in the park, returning waste to retailers, or taking it home and then processing it at various facilities. Given the scope of the problem, and limited I-SEA resources (student volunteers) the focus of this pilot project was on Centennial Park. Other reasons for picking Centennial Park include that it is a definable space, a crucial location and it is managed by PARC, a CRD entity. Since it is taken care by PARC, there is already solid waste pick-up and processing budgeted for and taking place year round.

This project idea has been suggested many times over the years, including from the I-SEA president, Margery Moore, as a PARC Commissioner in the spring of 2007. Therefore, I-SEA tried to talk to anyone involved in this problem or recycling in general on the island; from Community Services and Rainbow Recycling to PARC staff and those working in the market. There was overwhelming support for I-SEA to 'take this on' but also precautionary advice and scepticism as to the outcome.

Research Summary

Fortunately, in 2006 a Masters student with the University of Victoria did a very thorough analysis of solid waste management on small island communities. The thesis is called ``Building community with recycling: A case study of two small islands in British Columbia, Canada`` submitted by Emma Taylor, BA, University of Victoria.

Emma focused on Hornby Island and Mayne Island in the 220 page thesis. This thesis is available in hardcopy at the I-SEA office. For the purposes of this report the key highlights include:

- A hindrance on many small islands is the lack of financial resources to properly monitor and enforce environmental regulations.
- Challenge is to make wastes into resources and shift responsibility from not just individuals but to industry and producers (i.e. take back policies)
- Volunteers and partner organizations are critical for success
- A strategic alliance with the CRD is a requirement for success
- Taking care of the wellbeing of the island or ecosystem is strong motivating factor for volunteers
- Three motives have been identified as the foundation for establishing community based recycling organizations: environmental protection, social development and economic vitality

Project Funding

Gary Holman was the key person that I-SEA coordinated with during the project, and from whom funds were received via a Grant-in-Aid to complete the project. The remaining balance of resources required to complete this project were funded by I-SEA.

Goals

I-SEA's goals for this pilot recycling project included:

- Develop and conduct a survey to market vendors to assess attitudes about recycling in the public park.
- Conduct research to assess the volume and kind of recycling that is collected in Centennial Park during the summer market, and compile a report of cost projections to maintain such a program.
- Research other communities that have instituted similar policies in order to deal with waste.
- Divert recyclable materials from the landfill, help build awareness, and shift behaviour.



Image 1:

Current state of waste management and recycling in Centennial Park. An early Saturday night in July, 2008.

Project Tasks

- Develop Market survey
- Seek PARC Commission Permission
- Train Students and Conduct Market survey
- Compile Market survey
- Purchase 10 recycling bins and labels
- Distribute Bins and Project Manage pilot recycling project for 4 Saturdays at the Market between July 26th and August 31st and 1 Community Event in the Park
- Organize volunteers for each Saturday, pick-up recycling, sort, bag and take to Rainbow and Laurie's Recycling.
- Compile data and conduct analysis of pilot project in September
- Develop report and implementation plan on results of the Pilot in the Park Recycling Project

Summary of Vendor Survey

There were 15 respondents to the survey conducted on July 19th, 2008 by Christine Atkinson (student volunteer). See Appendix 1.

Just over half of respondents stated they are willing to pay a fee. They suggested weekly fees ranging from \$1 to \$2 and a one time fee ranging from \$10-\$20.

The vendors who expressed interest in voluntarily participating in such a program clearly stated that they do not agree that it is their responsibility to pay for recycling in Centennial Park, but if this is what it takes to get this project off the ground they are willing, one vendor said "if that was the only way to get it done."

The vendors who expressed no interest in participating already feel "the vendors are under pressure for more fees for a variety of causes and that this is a CRD responsibility."

Summary of Recycling in the Park Pilot Project

1. Quantity and Cost

Bins were placed in the market in 4 key areas consistently over the month, from 9am-3-4pm. These included by the play area/state, by the benches along Gasoline Alley, and on the two paved sidewalks leading out of the market into the park. Each station had 2 bins, one for Plastic/Glass and another for Metal.

On average, for each of the Saturdays in the pilot study, the number of bags of recycling varied depending on the weather. On average, there was a fair bit of contamination in the bins, about 30-40%. Contamination was mostly knives and forks, plastic or paper food containers that were not clean, papers and paper coffee cups.

Over time it became very clear that paper coffee cups are the #1 item being thrown out in the recycling bins. According to CRD any food contamination of a recyclable paper item deems the item as compostable. There were no facilities or labour to wash any food off of plastic or paper items, therefore, a portion of all the items in the bins had to be land-filled. The use of paper cups is a big problem, and solutions should be sought to minimize the use of all these products, especially coffee cups (vendor fee, ban, re-usable cups only, etc.).

To better understand how recycling occurs on the island, for the first 2 Saturdays the volunteers took the recycling to both Rainbow Road Recycling (run by SS Community Services) to obtain feedback on what would be acceptable recycling given the type and quantity, and Laurie's Recycling (local private company) to determine the cost. The last 2 Saturdays the recyclables were taken to the Encorp Bottling Depot (government sponsored depot, not-for-profit) to recover some of the tipping fees at Laurie's Recycling.

Rainbow Road was unable to take any of the recycling due to public recycling classified as commercial. However, the quantities were very small, and there appeared to be a willingness to consider taking items from just the Centennial Park bins. The only option was to take the items to Laurie's Recycling and pay the tipping fees.

Table 1: Recycling Costs

Date/Weather	# of Bags	Cost for bags of un-recyclable materials (Laurie's Recycling)	\$ Made Back from (Encorp) Bottling Depot
July 26 th (drizzle)	3 partially filled bags (1/4 aluminium, 1/2 plastic, 1/4 glass). 1 whole bag of waste and contaminated recyclables.	\$3.00	N/A
August 2 nd (cool/cloudy)	3 partially filled bags (1/4 aluminium, 1 plastic, 1/4 glass). 1 whole bag of waste and contaminated recyclables.	\$6.00	N/A
August 16 th (partly cloudy, warm)	3.5 bags (1/3 aluminium, 1.5 plastic, 1/4 glass). 2 bags of waste.	\$9.00	\$3.50
August 23 rd (clear, hot)	2.5 bags	\$6.00	\$2.07
Friday, evening event: Oka Concert (250+ attendees) August 2 nd (sunny by 7pm)	4 bags (250+ people)	\$10.00	\$4.00

Table 2: Return Rates

Material	Return Rate
Glass	.07
Aluminium	.05
Beer Can	.07
Large Plastic (3 L)	.20
Small Plastic (1 L and under)	.05



Image 2:

I-SEA student, Christine Atkinson, taking the bags of materials from the 4 recycling stations in Centennial Park to Laurie's Recycling for estimate on tippage fees.



Image 3:

Helpful employee at Laurie's Recycling estimating the tippage fees and determining what can and can not be recycled.

Image 4:

The last step is separating the garbage from the returnable items at Encorp Bottle Return, GVM. A messy and smelly endeavour!



2. Estimated Cost to PARC

Given the estimated numbers of bags recycled, going rates for tipping fees and possible bottle refunds, the yearly cost of recycling in Centennial Park could be:

- \$10.00/day on average (based on a high estimate for Saturdays, but with a low amount of daily coverage by I-SEA's pilot, only 9am-4pm)
- \$300/month
- \$3600.00 per year

Evident from the table above, up to ½ of the tipping fees could be recovered by turning refundable items into Encorp Bottling Depot.

The cost for pick-up and sorting might be as high as ¼ FTE (full-time-equivalent). This could be added on to the current team of PARC employees who process the solid waste in Centennial Park, or a new person hired to handle recycling.

Based on conversations with, at least, two PARC employees during the pilot program the current solid waste management processes in place could be easily leveraged to include recycling, but there likely would be a need for more people helping. Another comment from staff indicated that the type of bin chosen by PARC will directly impact the level of effort to maintain this program. Closed, locked bin tops are an option but are vandalized and/or dumped on the ground for easier access to items that fetch a refund.

Another discovery, there are a few people who informally survive on 'binning' the garbage containers for recyclables and actually making a small living off of the refundable items. This is an important under-ground economy that should not be overlooked. A solution is to provide bins that make it easy to access the items within.

Recommendations

I-SEA feels even more strongly after this pilot program that there must be recycling in downtown Ganges and that Centennial Park is the ideal setting. 4 stations would be enough in Centennial Park and given the low quantity of recycling overall, 2 well placed stations would be adequate. In addition, this program could and should be expanded to include 1 station in Rotary Park.

Challenges include; maintaining a consistent pick-up schedule during peak times, addressing overflow issues during summer outdoor events in the park, cost recovery will fluctuate, binners need to be considered, a definition of public recycling as 'commercial' should be addressed, and contamination will always be a challenge.

A SWOT analysis was conducted to clearly list some of the Strengths, Weaknesses, Opportunities and Threats of placing recycling containers in Centennial Park (or in any PARC property in Ganges):

Table 3: SWOT Analysis

<p>Strengths</p> <ul style="list-style-type: none"> • 3 recycling centers offering several options for recycling materials • Bidders (people that mine the recycling containers and earn money from the returnables) that already recycle an unknown quantity of materials • Highly aware and supportive recycling community • Volunteers can be identified • Quantity of recycling is less than expected • Utilize current PARC solid waste management process and resources occurring in Centennial Park 	<p>Weaknesses</p> <ul style="list-style-type: none"> • Co-mingling and contamination • High level of sorting needed • High percentage of (30-50%) items put in recycling containers are un-recyclable currently unless washed (i.e. coffee cups, plastic food containers) • Rainbow Road Community recycling depot is unable to take 'commercial' materials • Relying on volunteers or volunteer community groups who may come and go
<p>Opportunities</p> <ul style="list-style-type: none"> • Partial tippage fee recovery from bottle return (Encorp) • Can provide financial support to partnering community groups (i.e. Copper Kettle) • Getting the community involved in the project • Great PR for PARC in the community and with tourists • Will encourages businesses to also consider recycling in-front of retailers • Utilize market vendor 'washing station' to 	<p>Threats</p> <ul style="list-style-type: none"> • Tippage fees vary making budgeting more challenging • PARC resources overwhelmed • Contamination and sorting not done properly • Quantity of materials are variable • Boaters dumping • Past recycling projects have failed • Definition of recycling in the park is 'commercial' and is excluded from Rainbow Road recycling depot

Challenges can be overcome with a well thought out community-based program. Possible approaches might include:

1. Find funding in the PARC budget to cover the yearly tipping fees and ¼ staff time to sort and recycling the items. Items would be taken weekly to Encorp for cost recovery purposes, see <http://www.encorp.ca/cfm/index.cfm> for rates. A small recycling fee could be passed on to the Market Vendors, but suggested less than \$2.00/year.
2. Negotiate with Rainbow Road Recycling to take 'public' recycling from Centennial Park and not define it as 'commercial'. The quantities are low enough to make this a viable option. This would require PARC to budget for the staff time to sort and take the recycling to Rainbow.
3. Find funding in the PARC budget to contract with Rainbow Road Recycling to take the recycling from Centennial Park for a set yearly fee (\$4,000). The quantities are low enough to make this a viable option. This would require PARC to budget for the staff time to sort and take the recycling to Rainbow.
4. PARC contracts the Copper Kettle to be the entity that sorts, collects, and takes the recycling to Laurie's (and pays the tipping fee) or Encorp, and keeps the refund. PARC would give Copper Kettle no more than \$4,000 to administer this program, and would not require additional PARC staff time. Copper Kettle has shown interest in this approach. Details TBD.

Out of the possible solutions listed below, the last one has the highest possible success rating because it would be a collaborative approach with different community groups and provides additional benefits to the community (helping the homeless). I-SEA has also been approached by 2 Salt Spring residents who would be interested in helping once a month with this project.

Next Steps

- Complete Report (Done)
- Delegation to PARC Commission (Tuesday, October 28th, 2008)
- Develop a vendor checklist including information on what materials to avoid in products, like Styrofoam (samples available).
- Locate funding
- Kick-off Recycling Project Spring 2009

Appendix 1: Vendor Survey

Recycling Bin Survey

For The Institute for Sustainability, Education, and Action (I-SEA)

Results of the Survey, July 19th, 2008

1. Are you in the market for the whole season? **Generally, yes for all respondents.**
2. Would you support a vendor fee that would support the installation and maintenance of recycling bins in the park?

Yes: **9** No: **6**

3. Would you prefer a:
One time fee: **3**

Weekly fee: **2**

No fee: 10

4. How much would you be willing contribute to this program?

Most answered would prefer NO fee, as they pay enough fees as it is. But, if they were forced to pay a fee:

\$ 1.00-2.00 per week – 7 Yes

\$10.00-20.00 one time fee – 2 Yes

5. What type of recycling do you think would be the most useful in the park? Please rank in order of importance.

- Glass: **3**
- Plastics: **2**
- Metals, cans: **1**
- Paper products: **4**
- Organics: **5**

Your input is welcome. Please include comments on the back of this page.

Thank you for your time!

Summary:

It isn't very apparent to what the vendors are willing to do (i.e. pay) to have a recycling program in Centennial Park, but it is obvious they all think it is necessary.

Just over half of respondents stated they are willing to pay a fee. They suggested weekly fees ranging from \$1 to \$2 and a one time fee ranging from \$10-\$20.

The vendors who expressed interest in voluntarily participating in such a program clearly stated that they do not agree that it is their responsibility to pay for recycling in Centennial Park, but if this is what it takes to get this project off the ground they are willing, one vendor said "if that was the only way to get it done."

The vendors who expressed no interest in participating already feel "the vendors are under pressure for more fees for a variety of causes and that this is a CRD responsibility."