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**TO:** Larry Gardner  
Manager, Solid Waste Services

**DATE:** April 10, 2015

**MEETING:** RSWAC, April 16, 2015

**FROM:** Meghan Larson  
Special Projects Assistant

**FILE:** 5365-00

**SUBJECT:** Reduce, Reuse and Extended Producer Responsibility Options

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## RECOMMENDATION

That the Regional Solid Waste Advisory Committee receive this report for information as part of the 2015 Solid Waste Management Review Process.

## PURPOSE

The following is a presentation of options related to waste reduction and reuse, as well as extended producer responsibility (EPR). The options are related to reducing the amount of waste that requires management by local governments.

These options are presented for consideration by the Regional Solid Waste Advisory Committee (RSWAC). This memo is intended to stimulate discussion on future options for consideration during the Solid Waste Management Plan Review Process.

## BACKGROUND

### Reduce and Reuse

As described in the Stage 1: Existing System report, the Regional District of Nanaimo (RDN) and its member municipalities already use a number of strategies to encourage residents to “reduce and reuse” as part of their zero waste goal. The RDN promotes the use of EPR programs through its Zero Waste Newsletters and online via the Regional Recycling Directory. The RDN promotes backyard composting through providing information on their websites on how to backyard compost and grasscycle. Between 1993 and 2001, the RDN has sold approximately 16,500 subsidized backyard composters to residents. With reasonably priced compost units becoming more available for purchase, the RDN has stopped distributing composters and instead encourages residents to build their own or purchase one from a local retailer. Backyard composting is believed to have a significant impact on reducing the waste that requires collection and subsequent management. A typical backyard composter is estimated to divert 361kg per year<sup>1</sup>. Assuming that only the RDN-distributed composters are being used, an estimated 4,000 tonnes of organic waste materials is being diverted each year.

The RDN supports a zero waste school education program that is delivered to local primary schools through contract. The two waste management non-profit organizations in the RDN, Gabriola Island Recycling Organization (GIRO) and the Nanaimo Recycling Exchange (NRE), provide a significant level of

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<sup>1</sup> Based on North Shore Recycling Program Report *Backyard Composting Undervalued*, May 2011

reduce and reuse education and outreach. There are also many reuse operations including thrift and reuse stores operated by private businesses and charities in the RDN. These operations provide a large degree of waste diversion and serve to decrease the per-capita waste generation within the RDN.

The City of Nanaimo holds a reuse-focused event each spring called “Reuse Rendezvous.” This event promotes reuse through a weekend long curbside swap meet for residents to put out items that they no longer want and that may be useful to others. In 2014, the City of Nanaimo introduced the Zero Waste Challenge during National Waste Reduction Week encouraging residents to “slim their bin”.

In addition to the Regional District’s and City’s reduction and reuse activities, there are several other organizations involved in reuse in the RDN, including several private and non-profit retailers and many on-line classified services such as Craigslist, UsedNanaimo and FreeCycle networks that are actively involved in the sale and purchase of used goods. The Repair Café Nanaimo holds regular repair workshops where residents can bring in their broken items and receive help from local repair experts. Nanaimo Science and Sustainability Society hosts a Trash to Treasure school program for grade 6 students.

### **Reduce and Reuse Options**

Reduction and reuse prevent waste from entering the waste management system. Waste reduction and reuse are at the top of the waste management hierarchy but are often given the least amount of attention as part of solid waste management system because the impact of programs targeting reduction and reuse are difficult to measure compared to waste diversion programs such as recycling and composting.

The RDN’s reduction efforts have focused on public education as well as financial support for the Nanaimo Recycling Exchange (NRE) education programs. The RDN also promotes the “make memories, not garbage” message through the Zero Waste Newsletter during the holiday season.

The top challenges related to waste reduction and reuse are:

- How can we encourage waste reduction?
- How to encourage behaviours that move “up the hierarchy” from recycling to reduction and reuse?
- How to move towards Sustainable product design and manufacturing?
- Is the per capita waste generation rate increasing or decreasing?
- What is local government’s role in the above?

The RDN has limited power to change the dominant culture or directly impact the design and manufacture of consumer goods. However, the RDN can lead by example and promote desired behaviours. The following list provides examples of actions to encourage waste reduction and reuse.

#### **Options: Reduce**

1. Promote the practice of renting or sharing instead of purchasing infrequently used equipment either by educating residents about existing sharing networks or by establishing a Sharing Economy Working Group, following the example of San Francisco.
2. Provide support for the establishment of a tool library (see: <http://vancouvertoollibrary.com/>)
3. Conduct a “repair café” or sponsor the local Repair Café Nanaimo (<http://www.repaircafenanaimo.ca>)
4. Promote the practice of repairing durable goods instead of replacing them.

5. Develop campaigns that promote “reduce” as key part of a green lifestyle, connected to other green behaviours such as reducing energy or water use, active transportation, etc... similar to the Team WaterSmart concept.
6. Promote the make memories not garbage campaign.
7. Deliver a food waste reduction campaign see UK’s Love Food Hate Waste. (<http://www.lovefoodhatewaste.com/>) or the US EPA Food: Too Good to Waste campaign (<http://westcoastclimateforum.com/food>)
8. Continue to support grasscycling and xeriscaping in connection with Team WaterSmart.
9. Continue to carry out, or provide financial support, for waste reduction education.

#### **Options: Reuse**

1. Provide financial support for non-profit agencies carrying out reuse activities. This could include the waiving tipping fees for non-saleable goods that need to be disposed.
2. Investigate recovery of materials at the Cedar Landfill (e.g. scrap metal, appliances, wood). (Note that other strategies related to construction and demolition waste will be provided in a subsequent memo).
3. Establish a building material reuse centre such as Urban Ore (<http://urbanore.com/>) or the RE stores in Bellingham and Seattle (<http://www.re-store.org>). (Note that other strategies related to construction and demolition waste will be provided in a subsequent memo).
4. Support or promote established construction re-use stores in the region like Demxx in Coombs and the ReStore in Nanaimo.
5. Promote reuse by coordinating region-wide reuse events e.g. Reuse Rendezvous in the City of Nanaimo or community-wide garage sales.
6. Promote an annual art contest and display using reused/salvaged materials.

#### **Extended Producer Responsibility**

In British Columbia, Extended Producer Responsibility (EPR) is an environmental policy approach in which the producer’s responsibility for reducing environmental impact and managing the product is extended across the whole life cycle of the product, from selection of materials and design to its end-of-life<sup>2</sup>. In terms of solid waste management, EPR puts the onus of end-of-life product management on the producer and consumers of a product rather than the general tax payer or local government.

EPR programs play an integral and increasingly significant role in the management of municipal solid waste in BC. Most existing EPR programs have been established by producers and brand owners of products in accordance with requirements set out in the BC Recycling Regulation (part of the Environmental Management Act). The Ministry of Environment develops the legislation and regulations that product stewards must follow and oversees approving stewardship plans, monitoring the stewards’ performance and enforcing compliance where necessary. Other programs have been set up voluntarily by individual companies and industries. Appendix 1 shows a list of current regulated and voluntary EPR programs in BC. The term “product steward” refers to the agency responsible for operating the EPR program on behalf of producers and brand owners.

In the RDN, the current collection infrastructure for existing EPR programs consists of return-to-retail and take-back depots. The RDN’s Recycling Directory can be used by residents to find the most convenient take back location for EPR products. The Recycling Council of BC (which the RDN is a member of) operates a similar service through their toll-free Recycling Hotline (1-800-667-4321) and their on-line searchable database and app “Recyclopedia”. BC Stewards also recently rebranded their website which provides an online look up feature at [www.bcrecycles.ca](http://www.bcrecycles.ca).

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<sup>2</sup> As defined by BC Ministry of Environment

In accordance with the BC Recycling Regulation, the costs of collection and management of EPR programs are to be borne by producers and consumers, not by local governments or their tax payers. Many stewardship programs charge separate fees at the point of purchase to cover the costs of managing the discarded product, and the fee is shown on the sales receipt as an “eco-fee”. These fees are applied by producers/brand owners as part of the price of the product; they are not government applied taxes. The stewardship agencies are responsible for educating consumers regarding their programs, for providing information about collection options, fees, and handling practices and the operation of take-back locations.

The latest addition to the list of materials regulated under the Recycling Regulation is residential packaging and printed paper (PPP). This EPR program began in May 2014. In this region, both the City of Nanaimo and the RDN act as collectors of residential PPP from their curbside service customers. A financial incentive to collect PPP on their behalf is paid by MMBC. The MMBC partnership has resulted in a reduction in the cost of curbside collection services through funding to the RDN, an increase in the types of packaging that can be recycled in the curbside collection program, and an increase in the types of packaging that can be recycled through recycling depots operated by private companies and non-profit recycling organizations.

Challenges related to EPR in the RDN are:

- Lack of public awareness for some products (what products are covered, how and where to properly manage covered products);
- Uncertainty regarding the types of materials that will be included in future EPR programs, the timing of those future programs, and the impact that those programs will have on cost recovery and landfill life expectancy;
- Accessibility of EPR take-back programs due to location in the RDN or lack of mobility for residents without access to a personal vehicle;
- Level of involvement by local government – what role should local government play in EPR programs.

**Options: EPR**

Since one purpose of EPR is to reduce the effort expended by local governments on the management of the materials covered by the EPR programs, the options presented below do not focus on implementation of the EPR programs, but rather on advocacy and facilitation.

1. Include information about EPR programs (what products are covered, how and where to properly manage those products) with other educational information produced by the RDN.
2. Work with product stewards and the Ministry of Environment to ensure that services are well sited and meet the needs of the communities (address access issues).
3. Advocate having more products covered under EPR under the BC Recycling Regulation.
4. Advocate for minimum post-consumer recycled content requirements for consumer goods.
5. Advocate senior governments to prohibit the manufacture and distribution of non-recyclable packaging.
6. Encourage design for environmental principles and circular economy among producers.
7. Maintain landfill bans on EPR-managed materials and update disposal ban list as new EPR programs are launched.

8. Establish a preferred service delivery approach:
  - a. Full EPR:
    - i. Maintain existing RDN/municipal services.
    - ii. Require stewards to bear full costs.
    - iii. Promote existing private services and provide specific messages to residents and businesses about why the RDN is opting not to start new services.
  - b. Hybrid Service:
    - i. Develop “one-stop” facilities and/or expand existing facilities (i.e. Regional Landfill and Church Road Transfer Station).
    - ii. Negotiate agreements with stewards to more fully compensate for the costs, while providing supplementary funding as necessary.
    - iii. Promote RDN and private return facilities.
  - c. High Service:
    - i. Develop multiple “one-stop drop” facilities in addition to expanding existing facilities.
    - ii. Negotiate agreements with stewards to more fully compensate for the costs, while providing supplementary funding as necessary.
    - iii. Promote RDN and private return facilities.
  - d. Discontinue collection of stewardship items at regional facilities.

## **ALTERNATIVES**

There are no alternatives for this report.

## **FINANCIAL IMPLICATIONS**

This report is presented for information only therefore has no financial implications.

## **STRATEGIC PLAN IMPLICATIONS**

This report was prepared to provide information to Regional Solid Waste Advisory Committee as part of the Regional District’s Solid Waste Management Review Process.

## **SUMMARY/CONCLUSIONS**

This technical memorandum is intended to provide options for the RDN to continue supporting Reduce, Reuse and EPR programs in the region based on current programs and trends in other Regional Districts in BC and Canada and not intended to be an extensive list of all options available. This memorandum is intended to stimulate discussion by the RSWAC for the purposes of the RDN SWMP review.

*Meghan Larson*

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Report Writer

*Larry Gardner*

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Manager Concurrence

*Daniel Pearce*

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A/General Manager Concurrence

*Joan Harrison*

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A/CAO Concurrence

Appendix 1: Current Regulated and Voluntary EPR programs in BC

Mandated EPR Programs			
Product Category	Product Details	Product Steward	Program Status
Antifreeze and Oil	Antifreeze, used lubricating oil, filters and containers	BC Used Oil Management Association (BCUOMA)	Ongoing since 1992 (oil) and 2011 (antifreeze)
Batteries	Rechargeable batteries weighing <5kg, Alkaline, lithium primary and carbon-zinc batteries	Rechargeable Battery Recycling Corporation (RBRC)	Ongoing since 2010
Beer Containers	Beer cans, standard brown beer bottles and certain clear refillable beer bottles	Brewers Distributor Ltd. (BDL)	Ongoing since 1997
Beverage Containers	<i>Non-Alcohol</i> – soft drinks, juice, water and sports drinks <b><i>Alcohol</i> – wine, spirits, import beers/coolers sold in non-refillable containers</b>	Encorp Pacific (Canada)	Ongoing since 1994
Cell Phones	Cell phones, smart phones, wireless PDAs, external aircards, pagers and accessories (chargers etc.)	Canadian Wireless Telecommunications Association (CWTA)	Ongoing since 2009
Electrical Outdoor Power	Lawn tractor, and hand-held walk behind and free-standing OPE	Outdoor Power Equipment Institute of Canada (OPEIC)	Ongoing since July 2012
Electronics	Portable and non-portable electronics	Electronic Products Recycling Association (EPRA)	Ongoing since 2007
Large Appliances	Major appliances designed for use in homes including refrigeration, laundry and cooking appliances	Major Appliance Recycling Roundtable (MARR)	Ongoing since August 2012
Lighting Equipment	All residential-use lighting products (lights, lamps and fixtures)	ReGeneration	Ongoing since 2010 (CFL, fluorescent tubes) and July 2012 (all lamps). ICI sources and ballasts since 2012
Lead-Acid Batteries	All consumer and industrial lead-acid batteries	Canadian Battery Association (CBA)	Ongoing since 2011
Packaging and Printed Paper	Residential packaging and printed paper with text or graphics (news papers, flyers etc. with the exception of bound books)	Multi-Material BC (MMBC)	Ongoing since May 2014

<b>Mandated EPR Programs</b>			
<b>Product Category</b>	<b>Product Details</b>	<b>Stewardship Organization</b>	<b>Program Status</b>
Packaging and Printed Paper	Residential packaging and printed paper with text or graphics (news papers, flyers etc. with the exception of bound books)	Multi-Material BC (MMBC)	Ongoing since May 2014
Paint, Flammable Liquids, Solvents, Pesticides, Gasoline	Paint, fuels, solvents, pesticides	ReGeneration	Ongoing since 1994 (paint), 1997 (flammables) and 1998 (aerosols)
Medication	Prescription drugs, non-prescription medicine, mineral and vitamin supplements, throat lozenges	Health Products Stewardship Association (HPSA)	Ongoing since 1997
Small Appliances and Electrical Power Tools	Portable electrical appliances and power tools designed for use in homes	Canadian Electrical Stewardship Association (CESA)	Ongoing since 2011 (small appliances) and July 2012 (electrical tools)
Smoke Alarms	Commercial and residential smoke and carbon monoxide alarms	ReGeneration	Ongoing since 2011
Thermostats	Electromechanical (mercury containing) and electronic thermostats	Switch the Stat	Ongoing since 2010
Tires – Automobile	Most passenger, commercial and agricultural equipment tires	Tire Stewardship BC (TSBC)	Ongoing (industry-led) since 2007
Toys	Electronic or electrical toys	Encorp Pacific (Canada)	Ongoing since August 2012
<b>Voluntary EPR Programs</b>			
Tires - Bicycle	All types of bike tires and tubes, with the exception of tubular tires	Tire Stewardship BC (TSBC)	Ongoing since 2011