City of Richmond

Report to Committee

To:	Public Works and Transportation Committee	**Date:**	May 10, 2011
From:	Tom Stewart, AScT. Director, Public Works Operations	**File:**	10-6370-04-01/2011-Vol 01
Re:	**Eco Centre Concept**		

Staff Recommendation

1. That the Eco Centre concept, as outlined in the staff report dated May 10, 2011, be reviewed and explored for consideration and further discussion.

2. That staff report back on potential Eco Centre site alternatives, a conceptual layout and a draft business and operating model.

3. That staff liaise with Metro Vancouver to identify potential terms and conditions, as part of the draft business model, in relation to responsibility for funding and operating a Richmond-based Eco Centre.

Tom Stewart, AScT.
Director, Public Works Operations
(604-233-3301)

Att. 3

FOR ORIGINATING DEPARTMENT USE ONLY		
CONCURRENCE OF GENERAL MANAGER		
REVIEWED BY TAG	YES ☑	NO ☐
REVIEWED BY CAO	YES ☑	NO ☐

Staff Report

Origin

A key municipal and regional action identified in the Integrated Solid Waste and Resource Management Plan adopted by Council on October 25, 2010 is the design of a business and operational model to establish Eco Centres.

This report identifies alternatives for Council consideration in either retaining the existing level of service as provided with the current Recycling Depot arrangement or providing an enhanced level of service via an expanded Eco Centre-type facility. This information will assist staff in planning efforts.

In keeping with future anticipated waste management and recycling trends, this report recommends the Eco Centre concept be further explored with information reported back to Council for further discussion and consideration of a desired service level option.

Analysis

To provide greater context to aid discussion and consideration of an Eco Centre, the following provides background information concerning the existing Recycling Depot facility, describes the Eco Centre concept, and provides a cursory overview of potential sites to consider relative to relocation of the existing facility or an expanded Eco Centre.

Background on Existing Recycling Depot Facility

The City currently owns and operates a Recycling Depot at 5555 Lynas Lane, adjacent to the existing City Works Yard site. The current site is nearly 2 acres in size, with the depot footprint (exclusive of driveways, setbacks, etc.) being 1.5 acres. The Recycling Depot has been in operation at this location for approximately 18 years. Prior to that, the City had provided unattended, roll-off style containers in the Works Yard parking lot. Operational challenges with an unstaffed drop-off centre combined with public demand for greater recycling services led to the need for a larger site. As a result, the existing facility was constructed in 1992/1993 at a cost of approximately $150,000. The 2011 net operating budget for this facility is approximately $200,000 (~$435,000 operating cost less anticipated revenues from commodity sales of ~$235,000).

The facility is well used by the public for recycling a wide range of materials. An estimated 33,000 trips by the public took place in 2010. The Recycling Depot also serves to reduce the incidences of illegal dumping throughout the City, resulting in indirect efficiencies and savings. Over 3,000 tonnes of recyclables are collected via the depot annually (including recyclables and yard trimmings). This is equal to 500 dump truck loads or 6,000 standard pick up truck loads.

The range of services offered and materials accepted has expanded over the years to enhance recycling and provide greater convenience to residents, largely through EPR programs. Most recently, fluorescent tubes have been added to the range of materials accepted for recycling. Small appliances are being considered for acceptance at the Recycling Depot later this year as the product stewardship program for these materials comes into effect. In addition, services such

as the sale of compost bins, rain barrels, garbage disposal vouchers, garbage tags and distribution of items such as blue boxes, blue/yellow bags, and various outreach materials are all provided at the Recycling Depot. A full list of materials accepted and services offered is outlined in Attachment 1.

The Recycling Depot offers a central location for users, and is open to residents and small commercial operators. Commercial operators are limited to one cubic yard per day for general recyclables only (not including yard trimmings, for which a fee is applied). The Recycling Depot is open 5 days per week, Wednesday – Sunday, from 9:00 a.m. – 6:15 p.m. The site is staffed by two regular full time positions, with a third position added on a temporary or auxiliary basis as needed. Works Yard staff and equipment are also used, as required, to manoeuvre and place large or awkward materials into the large recycling roll-off containers (refrigerators, yard trimmings, etc.).

We are reaching capacity limits at the Recycling Depot – from a space and infrastructure perspective (lack of sufficient enclosed structures and facilities, paved surface area, etc.) as well as resource capacity. Therefore, our ability to expand the range of materials accepted beyond current will be very limited without additional capital and resource investment. Future growth is also limited by available space and/or configuration of the current site. Therefore, it is timely to review the Eco Centre in concept only at this time to help establish future considerations for the level of service the City may provide going forward.

Eco Centre Concept:

Potential Range of Services

While similar to the City's existing Recycling Depot, an Eco Centre can provide for a much broader range of services to encourage greater reuse and recycling as well as enhanced convenience for residents. This is an important consideration since the new Integrated Solid Waste and Resource Management Plan will require consideration of an expanded recycling network as part of working toward the new 70% waste diversion target.

The continuing expansion of product stewardship programs (EPR), combined with existing and future planned regional disposal bans, are adding to the complexity of the recycling system for residents. Navigating through the EPR system of various return locations for different products, as well as that for materials now banned from disposal sites, is trending toward making it more and more difficult for even the most committed recyclers. Residents have to travel to different locations to recycle different products. This can be not only inconvenient, but also somewhat inefficient. An Eco Centre provides the opportunity to centralize return opportunities into one convenient and comprehensive location to encourage and maximize recycling efforts. It will serve to complement, not take away from, the existing network of return locations and first and primary efforts around EPR programs. These return depots will continue to be needed going forward to create the additional recycling collection capacity which will be needed to move toward the 70% waste diversion target.

An Eco Centre would provide the opportunity to centralize and simplify the process for residents and small commercial operators. The elements that an Eco Centre could offer compared to that currently offered at the existing Recycling Depot is summarized in the following table.

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Comparison of Existing Recycling Depot Services vs. Potential Eco Centre				
No.		**Description**	**Existing Depot**	**Potential Eco Centre**
1.	**Recycling Materials:**			
	a)	Existing General Products: • Appliances, metal items • Cooking oil & animal fat • Cardboard, newspaper, mixed paper products • Glass, magazines, plastics (code 1, 2, 4, 5) • Tin cans, scrap aluminium	 ✓ ✓ ✓ ✓ ✓	 ✓ ✓ ✓ ✓ ✓
	b)	Existing EPR Products: • Paints, gasoline, solvents, pesticides • Fluorescent lamps • Electronics – computers, printers, televisions, scanners, fax machines, telephones/cell phones, cameras, video recorders, etc. • Batteries used in electronics noted above • Thermostats • Beverage containers for refund	 ✓ ✓	 ✓ ✓ ✓ ✓ ✓ ✓
	c)	Future EPR Products • Small electronic or electrical appliances • Lubricating oil and containers, oil filters • Lead acid batteries, household batteries • Antifreeze and antifreeze containers • Electronics and electrical products including smoke detectors, tools and equipment, electronic medical devices, calculators, computer terminals, communications and recording media equipment, toys, sporting equipment, musical instruments, etc. • Batteries used in electronics noted above • Tires • Propane tanks	 ✓(?)	 ✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓
	d)	Home Renovation Materials: • Treated and untreated wood • Gypsum • Asphalt shingles • Concrete • Brick		 ✓ ✓ ✓ ✓ ✓
	e)	Household Furniture: • Mattresses • Couches • Desks • Carpets and textiles		 ✓ ✓ ✓ ✓
	f)	Future Products (as recycling markets develop): • Expanded polystyrene, plastic film bags, additional plastics. • Non-beverage tetra packs and gable tops		 ✓ ✓
2.	**Organic Materials**			
	a)	Yard and Garden Trimmings	✓	✓
	b)	Food Scraps		✓
3.	**Garbage/Non-Recyclable Items Delivered to the Facility**			
	a)	Small quantity residential		✓
	b)	Small quantity commercial		✓

Comparison of Existing Recycling Depot Services vs. Potential Eco Centre				
No.		**Description**	**Existing Depot**	**Potential Eco Centre**
4.	**Services**			
	a)	Sell compost bins, rain barrels, garbage tags, garbage disposal vouchers	✓	✓
	b)	Distribute recycling receptacles and brochure materials	✓	✓
	c)	Collect user fees	✓	✓
	d)	Collect user fees (expanded) and disposal ban fines		✓
5.	**Reuse**			
		A distinct building and area where reusable items can be housed and made available for sale and/or donation. Could include partnerships with existing charitable groups (books, clothing, etc.)		✓
6.	**Community Outreach**			
	a)	Public Tours	✓	✓
	b)	Public education centre, with focused education workshops on the Eco Centre Operation and including waste reduction, reuse and recycling education workshops		✓
7.	**Customers**			
	a)	Residential and small commercial (less than 1 cubic yard)	✓	✓
	b)	Residential and commercial businesses (up to ~3 cubic yards)		✓
8.	**Operating Hours**			
	a)	5 days per week – Wednesday – Sunday; 9 a.m. – 6:15 p.m.	✓	✓
	b)	6 days per week – Tuesday – Sunday; 8 a.m. – 7 p.m.		✓

As shown in the above table, the Eco Centre would provide for greatly enhanced recycling opportunities for both residents and businesses; provide greater convenience for disposal of waste which may be brought to the facility but is not recyclable; promote and provide a reuse centre; and provide for increased education and outreach on waste reduction and recycling. The customer base and operating hours could also be expanded to increase the level of service/availability for users.

Fees would be collected from product stewards for items collected on their behalf at the Eco Centre under EPR programs. Fees would also be collected for garbage and other materials which are more difficult to recycle/dispose and are not covered under EPR programs (home renovation materials, mattresses, drywall, etc.).

Expanded Community Outreach

It is important to highlight the opportunity that an Eco Centre could provide to accentuate and enhance our community engagement model through increased education and outreach programs on various aspects of waste reduction and recycling. This could include enhanced education via children's programs, training and education for the public, as well as public consultation on various recycling initiatives and/or strategies.

Physical Design Elements

To accommodate a broad-scale Eco Centre and allow for future expansion, some of the design elements that would need to be considered include but are not limited to:

- administrative and maintenance buildings
- equipment needs and associated storage

A sample schematic of one-style of Eco Centre concept is shown in Attachment 2. A range of different styles of Eco Centres can also be considered based on availability of land space and the various types of materials accepted.

As a matter of interest, the City of Edmonton currently has three large Eco-Centres, with a fourth centre planned by 2015. These Eco Centres have proven very popular with the public, hence the reason for constructing a fourth facility. The most recent Eco Centre is approximately 10 acres in size, and cost $17 million to construct, exclusive of property costs. The project took five years, including one and one-half years of planning. It is open six days per week, and has an annual operating cost of $2 million. An aerial photo of Edmonton's Ambleside facility is included in Attachment 3. This facility is located approximately 19 kms from their city centre and serves the south half of the city.

The above is presented in concept only at this time. Further detail on the business and operating model would be included in a subsequent report from which Council could provide direction on whether to maintain the existing level of service, provide for a somewhat enhanced level of service, or a fully enhanced level of service via a broad-scale Eco Centre.

Should Council endorse the Eco Centre concept, options could be considered for a phased implementation based on funding availability and other considerations.

Financial Impact

Costs associated with the Recycling Depot relocation or establishment of an Eco Centre would be reviewed and reported back to Council as the concept is developed in consultation with Metro Vancouver. As the Eco Centre concept is a specific initiative in the Integrated Solid Waste and Resource Management Plan, there may be an opportunity for regional cost sharing and/or further operating involvement in the Eco Centre concept by Metro Vancouver. Metro Vancouver staff are currently preparing a draft "Regional Eco-Centres Implementation Strategy" outlining suggested terms and conditions for a proposed business model for Eco Centres. This will include potential cost sharing between Metro Vancouver and municipalities. The strategy will be provided to municipalities for review. Staff will pursue this with Metro Vancouver staff and report back accordingly should Council wish to review the concept of an Eco Centre in greater detail.

Conclusion

A discussion on the Eco Centre concept is timely in light of the potential relocation of the existing Works Yard and Recycling Depot sites, and given that establishment of Eco Centres has been identified as an initiative in the new Integrated Solid Waste and Resource Management Plan.

This report provides an overview for discussion, and recommends that the Eco Centre concept be further explored and reported back to Council for discussion, including a draft business and

operating model. This information will be helpful in relation to site planning efforts associated with the Works Yard relocation project. Staff also suggest seeking information on the potential for regional cost-sharing opportunities given the importance of this initiative in the new Integrated Solid Waste and Resource Management Plan. Information will be reported back to Council for further discussion and direction relative to the desired level of service for a Recycling Depot, full-scale Eco Centre or a mid-range solution.

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(604-233-3338)

SJB:

Attachment 1

Recycling Depot: Complete List of Services Offered and Materials Accepted

Services Offered

- Sell Compost Bins
- Sell Rain Barrels
- Sell Garbage Tags
- Sell Garbage Disposal Vouchers
- Distribute Green Can decals
- Distribute Blue Bags for newsprint recycling
- Distribute Yellow Bags for paper products recycling
- Distribute Blue Box for containers recycling
- Distribute indoor multi-family recycling bag
- Accept yard trimmings from commercial operators - $20 per cubic yard

Materials Accepted

Type of Materials	Acceptable Items
Appliances	• Dishwashers & stoves • Furnaces • Hot water tanks • Microwave ovens • Refrigerators & freezers • Washers & dryers
Cooking Oil & Animal Fat	• Cooking oil • Animal fat or grease
Corrugated Cardboard	• Corrugated cardboard • Pizza boxes
Fluorescent Lamp (residential use only)	• Compact fluorescent lights (CFLs) • Fluorescent tubes – T5s, T8s, or T12s (8 ft or shorter)
Glass	• All clear and coloured food grade glass bottles and jars
Magazines	• Flyers • Magazines • Catalogues
Metal Items	• 45 gallon drums (open at one end) • Automotive parts • Bicycle frames • Cleaned-out barbeques • Lawn chairs • Lawn mowers • Sheet & scrap metal • Steel coat hangers • Steel or lead piping

Attachment 1 Cont'd

Materials Accepted (Cont'd)

Type of Materials	Acceptable Items
Mixed Paper Products	• 3rd class (junk) mail • Boxboard (cereal & gift boxes, etc.) • Kraft paper bags • Office paper • Paper egg cartons • Phone books & envelopes
Newspaper	• All newspapers • Non-glossy inserts
Paints, Solvents & Pesticides	• Domestic pesticides (maximum container size 10L) • Flammable aerosols (maximum container size: 660g or 24oz) • Flammable liquids (maximum container size: 10L) • Gasoline (maximum container size: 25L) • Household paints (maximum container size: 18.9L / full or empty) • Paint Aerosols (maximum container size: 660g or 24oz / full or empty)
Plastic Containers (Code 1, 2, 4 & 5)	• Cleaning solution bottles • Juice bottles • Milk jugs • Plastic pop bottles • Rubbing alcohol bottles • Shampoo & conditioner bottles • Vinegar bottles • Wide mouth dairy containers (dairy, yogurt, sour cream, etc.)
Tin Cans	• Aluminium foil • Cleaned pie plates • Food & beverage cans
Yard Trimmings	• Branches & brush up to 4" in diameter • Grass clippings • Leaves • Plants and trimmings

Attachment 2

Eco Centre Conceptual Layout Example

Attachment 3

City of Edmonton – Ambleside Eco Station