

### **Report to Committee**

To:

Public Works and Transportation Committee

Date:

May 4, 2011

From:

Tom Stewart, AScT.

File:

10-6370-01/2011-Vol

01

Re:

Director, Public Works Operations Report 2010: Towards Excellence in Recycling and Solid Waste Management

#### Staff Recommendation

That the "Report 2010: Towards Excellence in Recycling and Solid Waste Management", be:

- endorsed and made available to the community through the City's website and a) other communications medium, and
- b) used as the basis to prepare the Solid Waste Sustainability Strategic Program as a component of the City's Sustainability Framework.

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

Att.

FOR ORIGINATING DEPARTMENT USE ONLY						
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER				
Sustainability	YMND	200				
REVIEWED BY TAG	YES NO	REVIEWED BY CAO				

#### **Staff Report**

#### Origin

On October 25, 2010, Council endorsed the municipal actions identified in the draft Integrated Solid Waste and Resource Management Plan (ISWRMP). This plan establishes a new diversion target of 70% by 2015 and an aspirational target of 80% by 2020.

In order to help plan for future initiatives to meet the new targets in the ISWRMP, this report presents the "Report 2010: Towards Excellence in Recycling and Solid Waste Management" (Report 2010), Attachment 1. This report presents a snapshot of Richmond's comprehensive programs, the significant growth and results of these programs to date, as well as future strategies being considered to move toward our new 70% diversion target.

The *Report 2010* provides the opportunity to report to the community on the City's recycling and solid waste management initiatives. It can also serve as the impetus to develop a recommended Solid Waste Strategic Program in order to fulfill a key piece in the City's Corporate Sustainability Framework per Council Term Goal #7:

"Sustainability and the Environment – Demonstrate leadership in and significant advancement of the City's agenda for sustainability through the development and implementation of a comprehensive strategy that among other objectives includes incorporating sustainability into our City policies and bylaws".

#### **Analysis**

The City of Richmond first introduced recycling services in December, 1990. Since that time, the City has been expanding services to reduce the amount of waste going to landfills while at the same time promoting a healthy and sustainable future.

The "Report 2010: Towards Excellence in Recycling and Solid Waste Management" highlights the significant progress, growth and investment the City has made in expanding recycling services for residents to achieve the current 50% waste diversion target. It presents the opportunity to report our progress to the community as well as communicate the suite of programs available and potential new initiatives being considered to help reach the new goal of 70% diversion.

#### Report Overview

The report contains an executive summary and five chapters relating to existing City program services, potential future initiatives, community awareness programs, partnership programs and a resource/reference section. The topics covered by each chapter area are described below.

The *Programs and Services* Chapter highlights the various individual recycling and waste reduction initiatives the City provides and reports on how each has contributed to the overall diversion target. The City services provided not only increase options for recycling -- they also help remove materials which can adversely impact the environment and civic infrastructure. As an example, compact fluorescent tubes (which contain toxic materials) were added to the

Recycling Depot in 2010. Used cooking oil and animal fat/grease were also added (as requested by Council) to reduce the impact of this material on the sewer infrastructure. In April, 2010, the City's Green Can program was introduced. This service enables single-family residents to divert food scraps from their garbage and place them in a separate bin for centralized composting. A pilot program is currently underway in 2011 to test a similar program for residents in townhomes.

The Chapter, *The Road Ahead*, provides some insights into areas of potential focus or new programs/initiatives as a result of Council's endorsement of the municipal action items contained within the ISWRMP (Goals 1 and 2). These initiatives will centre on increased education/outreach, and new programs and policy approaches to increase recycling in the residential, commercial and demolition waste sectors. All new initiatives will be brought forward to Council individually for consideration prior to implementation.

The *Community Programs* Chapter highlights the City's existing outreach programs as part of raising awareness to foster changing behaviours in relation to waste reduction, recycling practices and overall environmental awareness. Numerous workshops are offered every year on composting and related topics. In addition, staff participate in various community events to promote waste reduction and recycling with the assistance of community volunteers (youth teams and others).

In *Working in Partnership to Improve Waste Management*, we highlight our partner organizations that we work closely with to promote waste reduction and recycling, along with the many product stewardship partners we support to promote recycling and/or safe disposal of a variety of materials. This chapter includes specific information on return locations.

Finally, the *Tips and Resources* Chapter provides a handy resource section, with detailed references and specific how-to's about the City's various recycling programs and lists specific locations for disposal of household hazardous waste products, including those covered under product stewardship programs.

#### **Proposed Communications**

Subject to Council approval, the *Report 2010* will be posted on the City's web site and made available through various communications medium as well as at waste reduction and recycling outreach initiatives.

#### Foundation for Solid Waste Strategic Program

In addition to serving to communicate progress results to the community, the *Report 2010* provides the foundation needed for the City to develop a Solid Waste and Recycling Strategic Program as part of the City's Sustainability Framework.

The purpose of the City's Sustainability Framework is to bring together the City's various initiatives into one strategic, cohesive and complete program with specific goals, targets and actions. A key focus of the Framework is to better enable the City advance a complete approach to sustainability where all core priority areas are being adequately addressed. The complete approach to sustainability also means that interconnections among various elements (e.g., climate

change mitigation and waste management) can be better delineated and understood. Greater awareness of interconnections will enable the City to better manage trade-offs (e.g., where improvements in one area come at a cost of another) and achieve greater results per unit of effort/cost by advancing action initiatives that address multiple objectives simultaneously.

The Report 2010 identifies the importance of Richmond's recycling and solid waste management initiatives in helping to transition towards a more sustainable community. By reducing waste and encouraging the reuse of materials, effective solid waste management helps preserve limited resources, reduces greenhouse gas emissions, and avoids dangerous levels of climate change. Effective solid waste management also helps ensure that toxic materials are managed appropriately to protect the health and safety of people and the natural environment upon which they depend. Given these considerations, effective waste management was identified as a sustainability priority focus area to be included in the City's Sustainability Framework. To advance this initiative, it is suggested that staff develop and report back on a proposed Solid Waste Strategic Program, based largely on the details provided in the Report 2010, in collaboration with the City's Sustainability Services unit.

#### **Financial Impact**

There is no direct financial impact with this report.

#### Conclusion

The Report 2010: Towards Excellence in Recycling and Solid Waste Management presents a reflection of where we have been, where we currently are, and where we are going in relation to responsible waste management for the Richmond community. The significant progress and expansion of the City's services, as highlighted in the report, is a testament to the investment and continued commitment Council has made in delivering excellence in recycling and waste management services. This report also recommends that the Report 2010 be used as a basis to develop a proposed Solid Waste Strategic Program, in order to complete another major milestone in the development of the City's Sustainability Framework.

Suzanne Bycraft

Manager, Fleet & Environmental Programs

(604-233-3338)

SJB:





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## RESPONSIBLE WASTE MANAGEMENT

### EXPANDING SERVICES & COMMUNITY INVOLVEMENT

As little as 20 years ago, almost everything was considered garbage. Composting was for the dedicated garden crowd and reuse efforts were generally related to garage sales and hand-me-down clothes for friends and family. The community wasn't thinking about running out of landfill space, and environmental impacts were not part of general consciousness. But even 20 years ago, the City of Richmond recognized the importance of safe and responsible solid waste management and the need to shift away from dumping everything in a landfill. The City started introducing new recycling services and promoting the importance of finding ways to reuse products and reduce waste.

Today, the challenges are more evident to everyone. Existing landfill space is filling up quickly. Establishing new landfill sites for disposing of garbage is controversial due to political and environmental concerns. New energy recovery facilities within the Lower Mainland can offer greater operational efficiencies and reduced emissions from waste collection and transport vehicles, but the combustion of waste for energy production can also be controversial. Waste diversion is not an option—it's a necessity.

In 2010 Report: Towards Excellence in Recycling and Solid Waste Management, the City of Richmond reports to the community on the significant progress made towards increased recycling through a variety of convenient services currently available. With its comprehensive, convenient and successful recycling programs and full-service Recycling Depot, Richmond residents are now diverting 50% of their waste. New programs like the Green Can and expanded collection of hazardous waste like fluorescent lights are further expanding opportunities for simple and efficient waste diversion.

Looking to the future, Richmond has adopted a Corporate Sustainability Policy as part of its overarching Sustainability Framework. The Policy provides the commitment, shared vision, guiding principles and corporate strategic practices for how the City of Richmond embraces and advances sustainability. The vision will be achieved by applying the guiding principles and practices of sustainability to both the City's internal operations and services delivered in the community.

The Sustainability Policy is the first building block within the City's Sustainability Framework. The Framework is being developed to establish a comprehensive set of sustainability goals, action programs and targets for the City. Effective solid waste management contributes to two key sustainability goals: sustainable resource use and climate change leadership. By reducing waste and encouraging the reuse of materials, effective solid waste management helps preserve limited resources. It also supports the City's climate change goals by helping to reduce greenhouse gas emissions.



Effective solid waste management contributes directly to these sustainability targets, and Richmond is working with Metro Vancouver to implement its Integrated Solid Waste and Resource Management Plan as the foundation for future waste reduction. Current recycling levels are helping, but they are not yet sufficient to achieve a sustainable model for effective waste management. Richmond's new goal is 70% waste diversion by 2015, aspiring to 80% by 2020. These targets are achievable, but will take a concerted effort by residents as well as the business and industrial sectors. Everyone will need to expand recycling and take the extra steps needed to weed out the remaining materials in the waste stream. Residential recycling remains a key component, and recycling food scraps and yard trimmings is one of the top priorities as they represent 21% of the materials still in the waste stream. Richmond is also promoting its product stewardship program partners who take back products like tires, electronics, medications, paints and solvents to recycle and ensure safe disposal.

In the coming years, it's clear that expanding recycling and the reuse of products to reduce overall waste will take partnerships and community involvement. Richmond will continue to build on its successful programs and is exploring options to expand recycling in the community. The City is supporting the implementation of regional policies and bans on materials at the landfill to enforce proper recycling and waste management. Product stewardship partners are facilitating collection of banned materials. And the community will ultimately drive the success of each initiative by getting involved and taking steps to recycle appropriately, reuse where possible and make purchasing decisions that support reduced waste.

This report highlights Richmond's progress to date, and the multiple opportunities, programs and resources available to further support success in reducing waste in Richmond. There is information related to every aspect of waste management, a list of community programs, details on community partners involved in take back programs, a summary of Richmond's plans for the future, and tips and resources for residents.

Together, the City and Richmond's community can achieve its goals for improved waste management, and the benefits will be enjoyed today and by future generations.









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### 1 PROGRAMS AND SERVICES

## DELIVERING EXCELLENCE IN RECYCLING AND WASTE MANAGEMENT

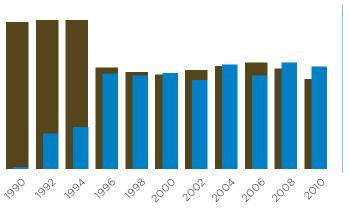
The City of Richmond offers a comprehensive and diverse range of waste reduction and recycling services for all residents. Since recycling services first began in 1990, the program has grown into one of the most successful in the Lower Mainland, and has become an integral part of the City's waste and resource management planning. Richmond residents have enthusiastically embraced these programs, and it is their participation that has led Richmond to collectively recycle about half of what used to be garbage.



Total Garbage

Total Recycled

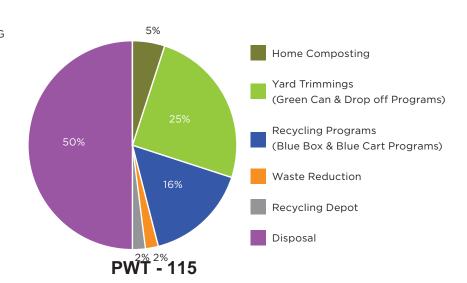
Residents in single-family homes have significantly reduced the amount of garbage sent to landfill, from 27,236 tonnes in 1990 to 16,633 tonnes in 2010. At the same time, they have increased the amount recycled from 350 tonnes to nearly 19,000 tonnes.



30,000 tonnes 25,000 tonnes 20,000 tonnes 15,000 tonnes 10,000 tonnes 5,000 tonnes

#### RICHMOND RESIDENTIAL RECYCLING

Collectively, all residents, including those in single-family homes, townhomes and apartments, are recycling approximately half of the overall waste generated.



City of Richmond

#### **PROGRESS TOWARDS GOALS**

### RESIDENTIAL RECYCLING PROGRAMS

Recycling is easy and convenient for Richmond residents thanks to a range of services and resources in the community. Through the Blue Box and Blue Cart Recycling Programs explained below, Richmond residents recycle more than 10,000 tonnes of material on average each year.

#### Blue Box Recycling Program

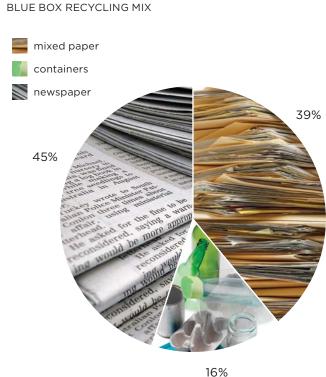
The Blue Box Recycling Program provides convenient collection services in the community. Residents in single-family homes and some townhome complexes use City-provided blue boxes, blue bags and yellow bags to recycle newspaper, paper products and cardboard along with tin, aluminium and glass food and plastic containers (codes 1) 2 3. Nearly 40,000 residential units are serviced with weekly collection under this program.

Since the program started in 1990, nearly 145,000 tonnes of material have been recycled and diverted from the landfill. Of this, 45% is newspaper, 39% is mixed waste paper and 16% is co-mingled containers. Items that can be recycled through this program are listed in the Tips and Resources section of this publication or at www.richmond.ca/recycle.









#### **TIPS FOR RESIDENTS**

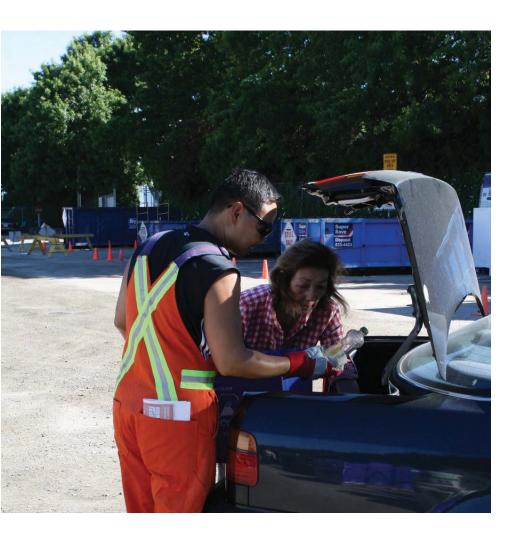
Residents can pick up a complimentary blue box and yellow/blue bag supplies at the Richmond Recycling Depot and City Hall, or order them online at www.richmond.ca/recycle.

## = 10,200+ tonnes recycled per year

#### **Blue Cart Recycling Program**

People who live in multi-family complexes can recycle the same products as residents who use the Blue Box program through the City's Blue Cart Recycling Program. The City provides recycling carts for a mini recycling depot at each complex, which are generally located in the garbage enclosure or other convenient location. This service is currently available to over 27,000 multi-family units, and the City has information tools such as Blue Cart decals, posters and brochures that are offered to stratas and property managers to help raise awareness and increase participation. The Blue Cart Program started as a pilot project in 1993 and was expanded to all residences in 1995. Over 27,000 tonnes of material have been recycled since then. For a detailed list of items that can be recycled through the Blue Cart recycling program see the Tips and Resources section or visit www.richmond.ca/recycle.





#### **DID YOU KNOW?**

The Recycling Depot sells rain barrels (45 or 50 gallon for \$20), backyard compost bins for \$25 and Garbage Disposal Vouchers for \$5 that will be worth \$20 at the Vancouver Landfill.

#### **RECYCLING DEPOT PROGRAM**

The City's Recycling Depot, located at 5555 Lynas Lane, offers a central location for drop off recycling services that benefit residents and small commercial waste generators. It is open from 9:00 a.m. – 6:15 p.m., Wednesday to Sunday. This facility accepts a wide range of materials including cardboard, yard and garden trimmings, mixed paper, newspapers and now also accepts fluorescent lights and cooking oil. The facility also accepts large appliances (e.g. fridges, stoves, washing machines) and metal items (bike frames, barbecues, lawn mowers).

In 2010, Richmond expanded its drop off program at the Recycling Depot to include compact fluorescent lamps (CFLs) including fluorescent lights and fluorescent tubes, and used cooking oil and animal fat. Accepting CFLs helps reduce the potential health risk and environmental impact of improper disposal of fluorescent lamps, and accepting cooking oils and animal fats helps prevent this waste from being deposited down sinks and drains, which can cause blockages in sewer lines and increase sewer maintenance costs. Over 1,575 lbs of used cooking oil and animal fat have been collected to date. The range of materials accepted at the Recycling Depot is expanded as markets and stewardship programs develop.

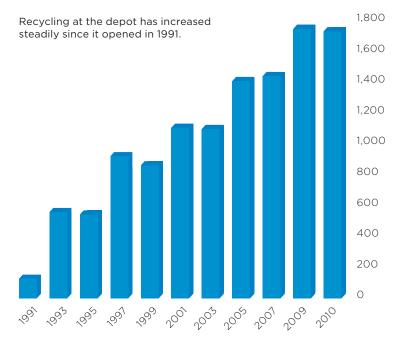
2010 RECYCLING DEPOT COLLECTION				
Collected through "Take Back" Program	Equivalent Litres			
Paint	295,488			
Aerosols	2,625			
Solvents & Pesticides	13,392			

The Recycling Depot is owned and operated by the City of Richmond, with two full-time staff and additional staff support in the summer months to manage increased recycling volumes. Staff on site are available to answer questions and provide assistance with unloading awkward or heavy items. The Recycling Depot is a Provincial Product Stewardship (Take Back) Collection site for paints, solvents, flammable liquids, pesticides and fluorescent lamps. For more information on Product Stewardship, see the Working in Partnership section.

### RECYCLING DEPOT — MATERIALS AND AMOUNTS COLLECTED

A 'parking lot' depot opened in 1991, but it was quickly expanded in 1993 to a full facility at its current location. Over 20,000 tonnes of cardboard, mixed paper, magazines, newsprint, glass, plastics, scrap aluminium, tin can and scrap metal have been recycled since the facility opened, with approximately 1,700 tonnes now being recycled annually. For a full list of items that can be recycled at the Recycling Depot, please see the Tips and Resources section.

#### DEPOT RECYCLING: TONNES PER YEAR



Yard trimmings are also collected at the depot, but are not reflected in the above chart. See "Composting Programs."

> glass: 22.06 plastics: 32.53 scrap aluminium: 14.98 tin can: 8.68

DEPOT RECYCLING—BREAKDOWN OF MATERIALS COLLECTED IN 2010

cardboard: 252.02

mixed paper: 341.02

magazines: 72.83

newsprint: 199.50

scrap metal 761.08

1704.70 tonnes in 2010





Since starting
the compost bin
distribution program
in 1992, over 10,000
bins have been sold.
Based on estimated
waste diversion, this
program has resulted
in over 3,000 tonnes
of green material
being diverted from
the garbage disposal
system annually.

#### **COMPOSTING PROGRAMS**

Composting is a simple and organic process that can reduce household waste by up to 40%—significantly reducing the amount of waste that goes to the landfill. Fruit and vegetable peelings, along with grass, leaves and other yard trimmings can be added to a compost bin. In addition, composted matter produces a very nutrient-rich soil to keep lawns and gardens healthy.

### Backyard Compost Bin Distribution Program

The City of Richmond supports composting by providing free composting workshops from January to November, which include information on backyard and worm composting and how to harvest compost. The City offers compost bins for sale at the Recycling Depot for \$25.00 each. Backyard composting is the most effective way to dispose of fruit and vegetable peelings, egg shells, coffee grounds, filters and tea bags and yard trimming materials. Since starting the compost bin distribution program in 1992, over 10,000 bins have been sold. Based on estimated waste diversion, this program has resulted in over 3,000 tonnes of green material being diverted from the garbage disposal system annually. Additional tips and information on composting are provided in the Tips and Resources section and at www.richmond.ca/recycle.

#### **Compost Demonstration Project**

To help residents learn about backyard composting, the City offers a Compost Demonstration area in the Terra Nova Rural Park Centre located at 2631 Westminster Highway just west of No.1 Road. It is open from dawn to dusk year-round, and residents are encouraged to take a self-guided tour to learn about different types of compost bins and the benefits of composting.

#### **DID YOU KNOW?**

The Environmental Information Line is open five days a week to answer enquiries about where to recycle, report service-related issues and collect feedback from residents. In 2010, there were approximately 10,000 calls, including enquiries, information requests and service requests.

#### YARD TRIMMINGS DROP-OFF PROGRAMS

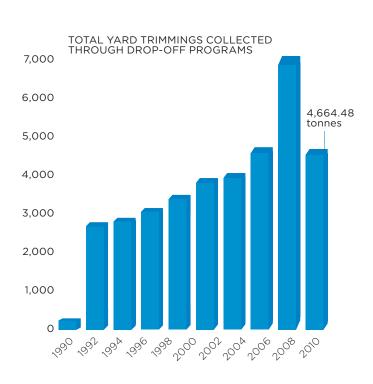
#### Eco-Waste Industries

The City offers residents the option to drop off unlimited quantities of yard and garden trimmings for free at Ecowaste Industries located at 15111 Triangle Road. Visit <a href="https://www.ecowaste.com">www.ecowaste.com</a> for hours of operation and directions.

#### Recycling Depot

Residents may drop off limited quantities of yard and garden trimmings (up to 1 cubic yard) at the City's Recycling Depot. A fee of \$20 applies for each additional cubic yard. Commercial operators may also use the Recycling Depot for dropping off trimmings for a fee of \$20 per each cubic yard. For a detailed list of all items that can be recycled at the Depot, please refer to the Tips and Resources section.





More than 77,000 tonnes of material have been diverted from the landfill and into a useful soil supplement through these two drop off programs, with over 4,600 tonnes recycled annually. Note: Drop from 2008 to 2010 is due to restrictions being implemented for commercial users.

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#### Green Can Program

Richmond expanded its recycling services in 2010 to include food scraps through its Green Can program, which is provided to single-family homes. This enhanced program will help to divert additional waste since food scraps represent approximately 21% of waste currently going to landfill. This program builds on the designated weekly curb side collection program for yard and garden trimmings first introduced for single-family homes in 1996. When combined, food scraps and yard trimmings represent approximately 40% of generated waste, so community use of this program will help achieve the City's new waste diversion goal of 70%.

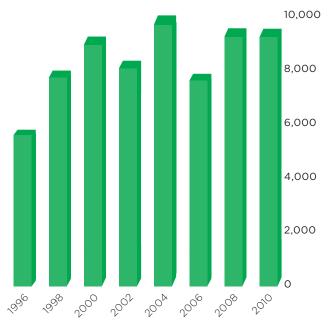
Through the City's Green Can program, residents can recycle fruit and vegetable scraps, coffee and tea grounds, meat, bones and other food waste, pizza boxes, lawn and yard trimmings. With the introduction of the Green Can program, residents use 80 L or smaller containers with Green Can decals provided by the City. The City also transitioned from plastic bags to paper yard waste bags and containers for yard trimmings, reducing plastic waste.

Residents can place unlimited amounts of Green Cans, paper yard waste bags or tied bundles for collection each week. There is a 20 kg (44 lbs) weight limit, and no plastic is permitted as it affects the quality of the compost. The materials collected are delivered to Fraser Richmond Soil and Fibre where they are composted to produce a nutrient-rich soil product. For a detailed list of items that can be recycled through this program, please refer to the Tips and Resources section of this publication or at www.richmond.ca/recycle.

SREEN CAN

With the introduction of the Green Can Program in 2010, an additional 529.28 tonnes of food scraps and yard trimmings was collected at curbside and an additional 330.73 tonnes of yard trimmings were collected at the Recycling Depot—a combined increase of over 850 tonnes. In addition, garbage volumes collected from single-family homes at curbside reduced by more than 2,000 tonnes.

OVERALL TONNAGE DIVERTED FROM LANDFILL THROUGH SINGLE-FAMILY YARD TRIMMINGS AND FOOD SCRAPS RECYCLING PROGRAMS



Richmond's composting initatives have resulted in more than 130,000 tonnes of green waste materials being diverted from the landfill since 1996, with over 9,400 tonnes being diverted annually.

#### WASTE REDUCTION PROGRAM

By introducing user-pay initiatives such as a maximum number of garbage containers collected each week (i.e. two-can limit for singlefamily homes) along with manufacturer return programs for items such as electronics, tires, beverage containers and many other items, the City of Richmond estimates that over 1,200 tonnes is diverted from the landfill each year. Through a variety of targeted programs and efforts, the City of Richmond is successfully working towards new waste reduction targets where the goal is to see 70% of all waste being diverted from the landfill by 2015.

#### **Public Spaces Recycling**

The City encourages waste reduction and recycling in public areas such as City parks and at the Canada Line stations. In 2010, over 94 containers for paper and beverage containers recycling were installed throughout Richmond. In addition, six solar-powered garbage compactors with recycling bins (mixed paper and bottles) were installed along the Canada Line and main Richmond Central bus stop. This initiative is aimed at improving the appearance of SkyTrain and bus stop stations by reducing the number of garbage containers without reducing capacity needs, while also providing for recycling opportunities.

#### Special Events Recycling

The City of Richmond is an active and vibrant community so when public events take place there are sure to be many people and many opportunities for recycling. In 2010, the City planned and implemented a very successful recycling initiative at the O Zone celebration site. A total of 4,446 volunteer hours were recorded and approximately 41% of waste was diverted from landfill including food scraps recycling. Approximately 288 Green Ambassadors (student volunteers), assisted with these recycling efforts by monitoring and educating patrons about the importance of recycling while ensuring materials were placed in proper receptacles. Other community events where recycling is made available includes the Salmon Festival and the Public Works Open House.



#### **WASTE MANAGEMENT PROGRAM**

#### **Curbside Collection Services**

The City of Richmond provides weekly garbage collection services for all single-family homes and some townhome developments. In providing these services, the City has aimed to strike a realistic balance between meeting its recycling goals while enabling residents to have reasonable means to dispose of garbage by implementing a two-can limit each week for curbside collection. Additional garbage cans may be put out, but each extra container or bag must display a tag that can be purchased at City facilities for \$2.00. Certain items, such as hazardous waste materials and those items that can be recycled, are prohibited from garbage bins.

#### **Dealing with Hazardous Waste**

The careless handling of hazardous products can cause serious injury as well as damage to the environment. Hazardous products that are dumped in sewers or green spaces can kill or injure livestock, wildlife and plant life. Careful and often specialized disposal is essential for these materials.

Many common hazardous household and automotive products must be recycled or disposed through special depots. Please visit www.richmond.ca/services/recycling/hhp for more information.

#### **Banned and Prohibited Materials**

There are certain materials that Metro Vancouver disposal facilities do not accept, either because there are already disposal programs set up for these items, or because they are hazardous to waste collection workers, the public and the environment.

At disposal sites, garbage loads are inspected for banned and prohibited materials. Loads that arrive at the disposal sites containing prohibited materials are assessed a \$50 minimum surcharge, plus the cost of removal, clean-up or remediation. Loads containing banned materials are assessed a 50% tipping fee surcharge.

## EXAMPLES OF MATERIALS BANNED/PROHIBITED FROM LANDFILL

Please refer to the Tips and Resources section for ways to safely dispose of these materials or call RCBC at 604-RECYCLE (732-9253).

- · Asbestos
- · Automobile bodies and parts
- Batteries
- · Barrels or drums in excess of 205 litres (45 gallons)
- · Clean or treated wood exceeding 2.5 m in length
- · Electronics and electrical products
- · Fluorescent lights
- Gypsum
- · Hazardous waste
- · Inert fill materials including soil, sod, gravel, concrete and asphalt in quantities exceeding 0.5 cubic metres per load
- · Lead acid batteries
- · Liquids and sludge
- · Recyclable Mattresses
- · Oil containers, oil filters, paint products, solvents and flammable liquids
- · Metal household or commercial appliances
- · Pesticide products
- · Pharmaceuticals
- · Propane tanks
- $\cdot$  Thermostats
- · Tires

### BANNED MATERIALS THAT BELONG IN RECYCLING:

- · Corrugated cardboard
- · Recyclable paper
- · Yard and garden trimmings
- · Containers made of glass, metal or banned recycled plastic (1) (2) (4) (5)
- · Beverage containers (all except milk cartons)

For a list of Banned and Prohibited Materials, please visit www.metrovancouver.org/services/solidwaste/disposal/Pages/bannedmaterials.aspx

#### **DID YOU KNOW?**

Most used mattresses can be recycled. Residents can take them to Recyc-Mattress Inc. in Langley (604-856-8383), Pacific Mattress Recycling Inc in Burnaby (604-551-9409) or Canadian Mattress Recycling Inc on Annacis Island (604-777-0324). (Please call for information on pick up charges and

recycling rates.) Residents may also purchase a \$5 voucher at City facilities to use at the Vancouver Landfill (valued at \$20) for dropping off mattresses or other large items such as furniture and appliances. Mattresses that can be recycled will be sent to recycling from the landfill.

#### COMMERCIAL **BUILDING GUIDELINES**

Effective garbage and recycling management at commercial buildings is most successful when these facilities are integrated into the design and operations of the building or site. To support this, the City of Richmond has developed commercial building guidelines that are outlined in the City of Richmond Design Considerations for Commercial Properties Recycling and Garbage. These guidelines assist designers and developers of commercial buildings in three key areas:

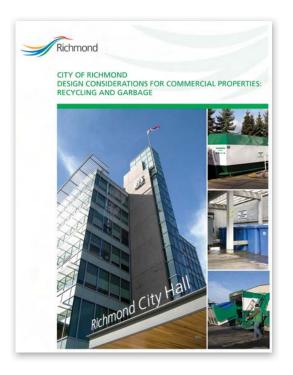
- · the design of storage facilities for garbage and recycling;
- · selection of containers for garbage and recycling; and
- · planning of access for both tenants and collection service providers.

These guidelines help commercial property owners by giving general advice for meeting City regulations and suggesting goals for effective garbage and recycling programs. This information is provided as a resource and should be used with, not in place of, all applicable building codes, City standards and other relevant legislation. For more information, visit www.richmond.ca/services/ recycling/guidelines/commercial.htm.

#### **MULTI-FAMILY BUILDING GUIDELINES**

All multi-family residential and mixed-use buildings in Richmond require adequate storage for garbage and recycling, and these storage areas must meet Building Code Regulations. At the same time, garbage and recycling collection at multi-family and mixed-use buildings is an area where there is potential for future expansion and improvement.

As an important foundation, the City of Richmond has developed Multi-family Building Guidelines to help support consistent standards at all buildings. The guidelines include information such as basic service requirements, container access for residents and collection, and maximum container size. The information is provided as a convenient source of information, and property owners are responsible for ensuring they meet all applicable building codes, City standards and other relevant legislation. For more information, visit www.richmond. ca/services/recycling/guidelines/multifam.htm.



#### LITTER COLLECTION SERVICES

Maintaining a litter-free city is a challenge given the number of people using public spaces in Richmond. The City of Richmond has made efforts to ensure that there are garbage cans, and in many cases recycling options, in public spaces throughout the city. In addition, City crews work seven days a week to collect litter from parks, roadsides, sidewalks and boulevards. They also empty garbage from approximately 3,700 City litter and recycling receptacles in the community each week, and assist with removing graffiti from City garbage cans. As well, they collect illegally-dumped materials found on City property and provide safe disposal and recycling of these items. Together, these measures help to support a safe and appealing community.







**PWT - 125** 













Landfill space is filling up quickly and Richmond's population is expected to grow to 282,000 by 2041. all community members—residents and businesses—will need to increase recycling and reduce total garbage to achieve a 70% waste reduction goal by 2015, and 80% by 2020.

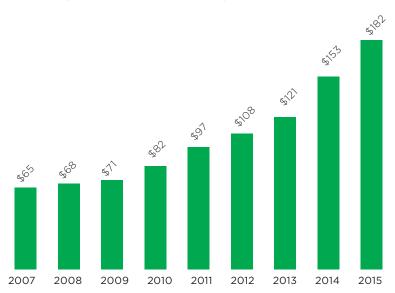
### 2 THE ROAD AHEAD

#### **FUTURE SUCCESS: THE INTEGRATED SOLID** WASTE AND RESOURCE MANAGEMENT PLAN

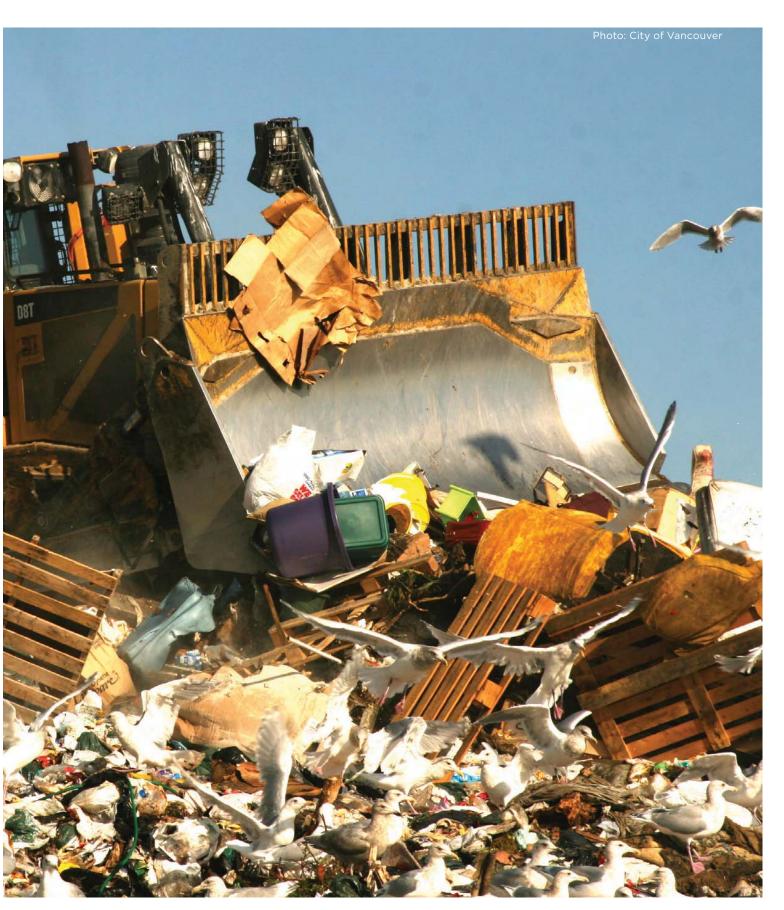
Existing landfill space is filling up quickly. Establishing new landfill sites for disposing garbage is controversial due to political and environmental concerns. Establishing energy recovery facilities within the Lower Mainland offers greater operational efficiencies and reduced emissions from waste collection and transport vehicles. The combustion of waste for energy production can also be controversial due to public concerns over health and environmental concerns and despite the availability of proven technologies.

Managing this dynamic, along with an increasing population base, is not without its challenges. Richmond's population alone is expected to grow to 282,000 by 2041. In addition, disposing of garbage is becoming much more expensive. Tipping fees have increased almost 50% since 2007 and are projected to rise to over \$180.00/tonne by 2015. With these considerable increases in costs, the importance of achieving 70% waste reduction by 2015 is becoming increasingly evident.





Tipping fees have increased by almost 50% since 2007, and are expected to rise to more than \$180/tonne by 2015.



**PWT** Re**128** Towards Excellence in Recycling and Solid Waste Management

### INTEGRATED SOLID WASTE AND RESOURCE MANAGEMENT PLAN: CITY OF RICHMOND GOALS



Minimize waste generation.



Recover energy from the waste stream after material recycling.

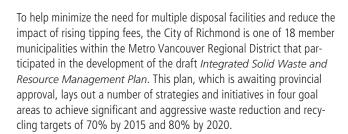


Maximize reuse. recycling and material recovery.



Dispose of all remaining waste in landfill, after material recycling and energy recovery.

Integrated Solid Waste And Resource Management Plan, available at www.metrovancouver.org/services/solidwaste/planning



#### **RICHMOND FOCUS: GOALS 1 & 2**

Since the City of Richmond is responsible for garbage collection and recycling program service delivery, actions that will be undertaken by the City will center primarily around Goals 1 and 2. Richmond City Council has endorsed these actions to support achieving the new recycling targets for the region.

What does all this mean for Richmond residents? How we toss out the trash is going to look different. We will need even greater emphasis on expanding reuse and recycling options to minimize the amount of garbage going to disposal sites. Together, we have made great strides to divert approximately half of our waste. Moving beyond this to reach these new targets can be achieved by continuing to work collectively.

Reducing and reusing products to cut back on garbage overall is about education and changing behaviours – at home, as consumers and in the work place. Both of these areas will involve strategies that link governments, community organizations and partners, business/industry and community members.

Richmond residents are already recycling about 50% of their waste, so the challenge is finding ways to achieve the next 20-30% reduction targets. Considering the various categories of materials left in the waste stream, food scraps represent about 21%. This is why the City of Richmond introduced the Green Can program in 2010.

Richmond will also be considering options to expand recycling to new areas such as food scraps and yard trimmings for residents in multifamily housing, and new recycling services for residential, industrial and commercial sectors to determine their potential to increase waste diversion. Each option will be measured in terms of effectiveness in contributing toward the 70% and 80% targets, while maintaining appropriate economies of scale. The options being reviewed in a preliminary manner at this time are outlined under each goal area.



Minimize waste generation.



Maximize reuse, recycling and material recovery.

### Provide information and education on options to reduce waste

Local strategies for this goal relate primarily to supporting initiatives to provide information and education options to reduce waste. Richmond is already very proactive in providing education and information programs in the community, such as free environmental workshops offered year round. There is also information on the City's website and a public information line. The City will prepare expanded communications and outreach plans and delivery programs for both the public and businesses to further promote waste reduction and recycling. This will include exploring social media and other new and emerging communication methods designed to raise awareness and foster changing behaviours.

# Advocate that senior governments transfer additional waste management responsibilities to producers and consumers

The City will actively promote policy development at senior government levels to limit the manufacturing of non-recyclable products and promote manufacturer accountability for product handling, recycling and/ or safe disposal. In addition, the City will advocate for policies that promote manufacturing of products using recycled content to help expand market demand for recycled materials.

#### Reduce or eliminate materials entering the solid waste system that hinder or limit the opportunities to achieve reuse, recycling or energy recovery, or that may exacerbate environmental impacts of disposed residuals.

The City will work to implement programs, either in partnership with others or independently, to help remove materials from the waste stream that have detrimental environmental impacts. In addition, the City will ensure local bylaws are introduced to support regional disposal bans.

As the primary service provider for garbage and recycling services in Richmond, the City will focus most of its efforts on supporting this goal by increasing recycling and reuse programs in the community. Richmond is evaluating several strategies in this area.

#### Increase opportunities for reuse

The City will work with appropriate government partners to review and advocate for changes to existing regulatory barriers that discourage reuse of materials, promote material exchange networks and re-engineer recycled materials.

### Increase effectiveness of existing recycling programs

Building on its success with recycling, Richmond will explore options to increase the effectiveness of existing recycling programs to achieve higher recycling rates. Some options being explored include:

- · Increased emphasis and education on maximizing recycling via existing services and programs (i.e. Blue Box, Blue Cart, Recycling Depot, etc.);
- Enhanced recycling depots or "Eco Centres" with a one-stop facility for recycling, reuse centres and banned materials;
- · Expanding recycling to public spaces;
- $\cdot$  Continued program development with school districts and individual schools to promote waste reduction and recycling; and
- Evaluation of options to expand recycling programs for businesses/commercial sector.

#### Provide opportunities to increase private sector recycling

While there are businesses interested in opening private recycling facilities, there are potential negative impacts on the community and region that must be addressed. The City of Richmond will be reviewing its zoning bylaws to determine a balanced approach that provides greater opportunity for these private recycling companies while ensuring appropriate safety requirements are in place to encourage responsible recycling and material recovery activities in approved zones.

#### Target demolition, land clearing and construction (DLC) sector for increased reuse and recycling

Developing requirements for DLC recycling at construction/demolition sites is also a priority for consideration. This may involve reviewing permitting processes within the municipality to include more restrictive requirements related to recycling as part of a demolition permit.

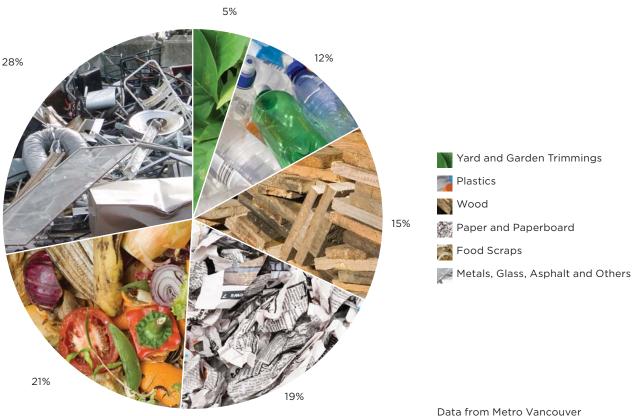
#### Target organics for recycling and energy recovery

Approximately 40% of waste generated is food scraps and yard and garden trimmings, and about 26% of these materials are going to landfill (the rest has already been diverted), so this strategy is one of the most effective means of achieving the targets for 70% diversion by 2015. This strategy area is particularly important as yard trimmings are already banned at landfills, and food scraps will be banned at landfill for single-family homes by 2015. The City of Richmond has already introduced recycling of organics (food scraps and yard and garden trimmings) for single-family residences and will be running a pilot program in 2011 for multi-family residences. The next targeted group is the industrial/commercial/institutional (ICI) sector.

#### Reduce paper and paperboard being disposed

This strategy will involve social-based marketing and outreach to promote reduction and recycling of paper, including opportunities to pilot junk mail reduction initiatives.

#### 2007 DISPOSED WASTE COMPOSITION-RESIDENTIAL, ICI AND DLC



Zero Waste Challenge: Goals, Strategies and Actions Report 2009

### Target wood for reuse, recycle and energy recovery

This is primarily a regional strategy for Metro Vancouver; however, the City of Richmond may also consider local initiatives such as setting up bins to take wood at an eco-centre in the community.

#### Target plastics for increased recycling

Plastic recycling in Richmond currently accommodates numbers A S. Expanding this to other plastics depends on having a sufficient number of facilities in place to accept them as well as the availability of recycling opportunities and markets. Richmond would be able to review this strategy as an option when more facilities become available.

### Target multi-family and ICI sectors to improve diversion rates

For Richmond, this strategy relates primarily to implementing additional recycling services in multi-family and commercial buildings. Some of these services are already in place; however, there may be additional options and opportunities to enhance recycling rates in the multi-family sector, as well as opportunities for greater recycling in the commercial business sector.

#### **DID YOU KNOW?**

Each plastic recycling symbol represents a different type of plastic. Richmond currently accepts symbols (1) (2) (3) through its recycling services.

#### **PLASTIC RECYCLING GUIDE**

The following table outlines the types of recycling symbols used for plastics		TYPICAL PRODUCTS	RECYCLED PRODUCTS
PETE	Polyethylene Terephthalate  Clear and tough with the ability to contain carbon dioxide.  Most commonly recycled plastic in North America.	Soft drink bottles Peanut butter jars Liquor bottles	Pullover sweatshirts Pillow stuffing Carpet backing
HDPE	High Density Polyethylene  Excellent protective qualities and very strong. Second most recycled plastic in North America.	Milk or juice jugs Motor oils Shampoo or bleach bottles	Plastic lumber Blue boxes & compost bins Consumer bottles
3	Polyvinyl Chloride <b>not accepted</b> Clear. Extensive use in construction industry.	Wrapping for meat Water bottles Siding, doors, frames	Drainage pipes Cable insulation
LDPE	Low Density Polyethylene  Flexible and strong. Most commonly used in flexible plastic film.  Note: The City of Richmond accepts hard plastic LDPE. The City does not accept soft plastics such as plastic film or grocery bags.	Bread bags Milk pouches Grocery bags	Plastic lumber (playgrounds) Compost bins
25) PP	Polypropylene  Strong with a high melting point. Good for packaging 'hot-filled' products.	Syrup and ketchup bottles Appliance parts Luggage	Ice scrapers Industrial packing cases Automotive battery cases
263 PS	Polystyrene <b>not accepted</b> Clear, can be 'foamed' and provides excellent insulation and protection.	Foam cups Compact disk cases Filler in concrete forms	Cassette & CD cases Office accessories
OTHER	Other <b>not accepted</b> Includes other resins, composites and laminates.	Safety glasses Automotive tail lights	Picnic tables Outdoor signs

#### **THREE EASY STEPS**

Richmond can achieve its targets with the help of community commitment to the three easy steps to reduce waste.

#### 1. REDUCE

Be choosy when you shop—select products with minimal or no packaging and items that can be recycled.

#### 3. RECYCLE

Ramp up recycling—expand your recycling to include food scraps and other recycling services available through Richmond's collection services, Recycling Depot and multiple Product Stewardship Partners. See Tips and Resources for a full list of recycling services and contacts, and watch for new recycling options in future.

#### 2. REUSE

Donate before you dispose—consider donating or selling gently used products. See Tips and Resources for a list of services available to make it easy to reuse products.













Attend free Community
Workshops hosted by
the City of Richmond for
tips and best practices in
gardening, composting,
waste reduction and
recycling.

### **3 COMMUNITY PROGRAMS TO SUPPORT AWARENESS & EDUCATION**

Public education and community outreach is integral to achieving the City's new waste reduction goals. Making information and educational resources accessible is key to effectively fostering behavioural change. Richmond residents are encouraged to practice the three R's-reduce, reuse and recycle when and wherever possible. The City offers free workshops, provides recycling opportunities at community events, and sponsors outreach initiatives to elementary and high school students. Following are highlights of the community programs available.



#### **COMMUNITY WORKSHOPS**

Throughout the year workshops on everything from composting to creating waterwise gardening and reducing pesticide use are offered to interested Richmond residents. These free sessions help develop a sense of community and expand the community's understanding of how to better support and protect the environment. The program is part of an ongoing effort to provide informative, fun and educational resources to the community on waste reduction, climate change and other environmental initiatives. Hundreds of people attend these workshops each year.

In 2010, over 50 workshops were offered which was an increase of 40% over the previous year. Topics included pesticides awareness, organic gardening, fruit tree management, waste reduction and recycling, composting and waterwise gardening. Due to the increasing popularity of these workshops, they were expanded to provide some that were translated into Chinese. This was done to help eliminate the language barrier to increasing environmental awareness.

For information on the workshops, email esoutreach@richmond.ca. To attend free workshops offered by the City visit www.richmond.ca/ register or call 604-276-4300 and press "2" at the prompt (Monday to Friday from 8:30 a.m. to 5:30 p.m.) to register.

#### **ACTIVITY KITS**

There are many activity kits and displays related to environmental awareness that are available for groups to use. From natural home and garden care to understanding your ecological footprint to learning more about recycling, these activity kits provide useful information in an easy-to-use format. For a list of kits that are available go to <a href="https://www.richmond.ca/services/recycling/aboutrg/outreach">www.richmond.ca/services/recycling/aboutrg/outreach</a>. To request a kit please contact esoutreach@richmond.ca.

#### SCHOOL RECYCLING— PARTNERSHIP PROGRAMS FOR CLEANER SCHOOLS

The Richmond School District and the City are active partners, working to create awareness and effect behaviour change among students to help enhance their sense of community stewardship and social responsibility. Since 2006, the City has sponsored and coordinated outreach initiatives for the Climate Change Showdown workshops in elementary schools, along with theatrical shows Re-Think, Keep Cool and Clean up Your Act. This initiative provides positive messages to over 6,000 students annually. In addition, students are encouraged to demonstrate what they learn by participating in the City's annual "Make Richmond Sparkle" contest. This challenges students to keep their school litter, graffiti and vandalism free.

#### **ACTIVITY KITS**

The City of Richmond offers the following activity kits to groups:

- · Beverage Containers Recycling
- Composting
- · Eco (Reusable/Litterless) Lunch Kit
- · Ecological Footprint
- · Environmentally-Friendly Packaging
- · Natural Home and Garden Care
- · Reuse
- $\cdot \ \text{Recycling}$
- · Waste Reduction

#### **2010 COMMUNITY OUTREACH PROGRAMS**

- · Pest Management for Fruit Trees
- · Green Living Easter Celebrations
- · Garden Wisdom, Companion Planning
- · Edible Wild
- · Backyard and Worm Composting
- · Native Plants Garden
- · Salmon Friendly Gardening
- · Container Gardening: As Local as It Gets
- · Tasty Trees Home Grown Organic Fruit
- · Seed Starting
- · Zero Mile Diet Garden
- · Organic Spring Vegetables Gardening
- · Edible Ornamentals
- · Green Living Easy on You & the Environment
- · Organic Food Gardening
- · Pest Management for Small Fruits
- · Grow the Most Food in the Smallest Space (with the least work)
- · Beautiful Flower/Food Gardens without Pesticides
- · Safe and Sensible Lawn Care (Spring)
- · Waterwise Gardening
- · Organic Salad Green Gardening
- · Pesticide Free Gardening
- · Invasive Plants and the Ecosystem
- · Organic Seasonal Vegetables Gardening
- · What Can I Plant Now
- · Seed Saving and Drying Herbs
- · Harvesting Compost
- · Organic Fall Vegetables Gardening
- · Beautiful Gardens without Pesticides (Fall)
- · Safe and Sensible Lawn (Fall)
- · Organic Winter Gardening
- · Establishment & Management of Fruit Trees
- · Understanding Fruit Tree Canopy Management
- · Green Living
- · Green Can Promotions
- · Capital Project Open House Green Can display
- · Richmond Centre Earth Day Green Can display
- · Terra Nova Earth Day Pesticide Awareness & Waste Reduction Awareness
- · Cambie Earth Day Pesticide Awareness & Green Can display
- · Project WET Green Can display
- · Science Jam Pesticide Awareness & Green Can display
- · Public Works Open House Pesticide Awareness & Green Can display
- · Steveston Salmon Festival Waste Reduction & Recycling Display
- · Grow UP event Pesticide Awareness & Green Can display
- · Hamilton Clean Up Waste Reduction Awareness

In 2010, over 900 attendees participated in 33 different workshops on a wide variety of topics ranging from composting and pest management to organic gardening and green living.





















Help turn used items like tires, paint, electronics, fluorescent lights and car batteries into raw materials for new products by recycling these items through Product Stewardship Programs.

### **4 WORKING IN PARTNERSHIP TO IMPROVE WASTE MANAGEMENT**

There are many organizations in the waste management industry, including the regional district, municipalities, collectors and other partners who support reuse and recycling. Together, these organizations are working in partnership to reduce the amount of waste going to landfill, along with the safe disposal of garbage like hazardous waste. Richmond works closely with these community and government partners to achieve its waste management targets.

#### **METRO VANCOUVER**

Metro Vancouver is responsible for the region and for how the waste produced by 2.3 million residents and businesses in the Lower Mainland will be handled. Their goal is to improve reduction, reuse and recycling efforts in accordance with provincially approved plans as well as manage residual waste. Metro Vancouver establishes disposal sites, manages the transfer station network and sets disposal bans to encourage recycling. Metro Vancouver also developed the *Integrated Solid Waste and Resource Management Plan* in partnership with communities such as Richmond. The Plan's main goal is to improve reduction, reuse and recycling efforts so that by 2015, a minimum of 70% of waste is kept out of disposal sites. The *Integrated Solid Waste and Resource Management Plan* establishes an aspirational target of achieving 80% by 2020. Remaining waste will be managed to recover the maximum amount of energy.

The City of Richmond's *Solid Waste and Recycling Regulation Bylaw* 6803 mirrors the regional disposal bans to ensure compliance with those established by Metro Vancouver. The City also works with Metro Vancouver to support achieving the waste diversion targets, adheres to the guidelines and requirements set by Metro Vancouver for waste management and delivers the local garbage collection and recycling services in the community.

#### Metro Vancouver Recycles— Reuse and Recycle in the Region

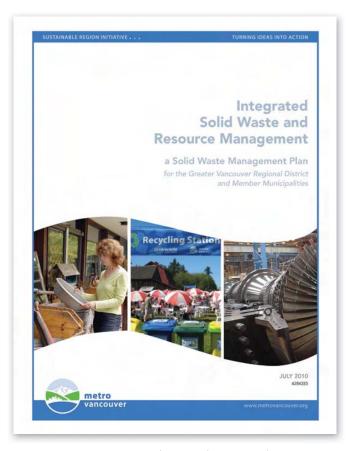
A convenient web tool called Metro Vancouver Recycles makes it easy to connect with people who could use products you don't need, or to find options for recycling products that cannot be included in your curb-side collection, visit www.metrovancouverrecycles.org.

There are also convenient links to online services if you want to sell or give away goods. The following are just a few examples in the Metro Vancouver region:

RCBC www.bc.reuses.com

Richmond Shares

www.richmondshares.bc.ca



www.metrovancouver.org/services/solidwaste/planning

#### **DID YOU KNOW?**

If electronics items are still working, consider options to sell or give them away using the resources above, but you can also give them to a number of organizations who accept donated equipment to redistribute in the community. Please contact these agencies in advance to ensure they will accept specific items for donation.

BC Electronics Material Exchange www.bcemex.ca

Free Geek Vancouver www.freegeekvancouver.org

#### RECYCLING COUNCIL OF BRITISH COLUMBIA (RCBC)

Richmond works with the Recycling Council of British Columbia (RCBC) to promote awareness and education about recycling. RCBC is a multisectoral, non-profit, membership driven organization that promotes the principles of zero waste through information services, the exchange of ideas and research. It is Canada's longest-serving recycling council.

RCBC also provides information and resources to support recycling in the community. They offer a Recycling Hotline that provides a free, province-wide live information service for recycling, pollution prevention, waste avoidance, safe disposal options and regulations. Their live Hotline Information Officers answer over 120,000 inquiries each year, providing information to B.C. residents from its comprehensive database containing over 120 product and service categories and 4,000 listings of businesses, services, organizations and programs, covering a wide range of topics. Other resources include materials exchange programs for residents and businesses, and an online tool to find recycling drop off locations, called the RCBC Recyclepedia at www.rcbc.bc.ca/recyclepedia.

#### **RCBC Community Resources**

Recycling Hotline Monday to Friday, 9:00 a.m. to 4:00 p.m.

Phone: 604-RECYCLE (604-732-9253)

hotline@rcbc.bc.ca Email:

#### RCBC Materials Exchange Program (MEX)

The RCBC MEX program is a completely self-serve web-based program comprised of Residential Reuses Programs and the BC Industrial Materials Exchange (BC IMEX) and is available at www.bc.reuses.com.

#### COMPOST HOTLINE

Richmond encourages composting and connects residents to the Compost Hotline, which is a community program that provides additional support and tips for best practices in home composting. The Compost Hotline for the Metro Vancouver region is operated by City Farmer. City Farmer has researched and promoted the best methods of urban composting since 1978. In addition to the Compost Hotline, they maintain the Vancouver Compost Demonstration Garden.

#### **Compost Hotline**

Phone: 604-736-2250

Email: composthotline@telus.net

#### **DID YOU KNOW?**

Residents can use www.rcbc.bc.ca to find recycling drop off locations and disposal tips for more than 120,000 different products.

#### **DID YOU KNOW?**

Residents can learn more about BC Product Stewardship Programs using the British Columbia Recycling Handbook. This booklet is available at www.env.gov.bc.ca/epd/ recycling/ipsp.htm

# PRODUCT STEWARDSHIP PROGRAMS

The City of Richmond works with local companies and organizations like Product Care and Encorp to support BC's Product Stewardship Programs. These programs are often called take back programs or Extended Producer Responsibility (EPR) programs, and they are based on the principle that whoever designs, produces, sells or uses a product is also responsible for minimizing that product's environmental impact. The key participants in these programs are the BC government, local governments, producers, retailers and consumers who bring their products to designated collection sites when they are at their end of life. The cost of these programs are covered by consumers and producers, sometimes in the form of a deposit or levy that is charged at the time of purchase. In the case of beverage containers, there are refunds available when they are returned at a collection site.

Take back programs are important as they expand the opportunities for recycling beyond the curbside collection services. There are many household items that can be recycled through businesses and organizations in the community who participate in BC's Product Stewardship Program. Many of these items are also considered hazardous waste, and they are restricted from garbage as they are not accepted at the landfill. The take back program helps to ensure that these expired or end-of-life products will be disposed of safely, and recycled where possible.

# PRODUCTS CURRENTLY INCLUDED IN THE PRODUCT STEWARDSHIP PROGRAM

- $\cdot$  Paint products, flammable liquids, gasoline, pesticides and solvents
- · Beverage containers
- · Electronics and electrical products
- · Car batteries
- $\cdot$  Medications and pharmaceuticals
- · Motor oil, oil filters and empty oil containers
- · Vehicle tires
- $\cdot$  Compact fluorescent lights (CFLs) and fluorescent tubes



# PRODUCTS BEING CONSIDERED FOR EXPANDED RECYCLING THROUGH PRODUCT STEWARDSHIP

- · Lead acid batteries
- · Antifreeze & antifreeze containers
- · Smoke detectors
- · Small appliances

For more information, visit: www.env.gov.bc.ca/epd/recycling/newpa.htm

#### **DID YOU KNOW?**

Since August 1, 2007, the Return-It Electronics program in BC collected over 27 million kilograms of electronic waste, which is equal to over 70,000 pallets. If these pallets were stacked, you would have a wall 1.5 metres high and more than 85.3 kilometres long, which is approximately the distance from Richmond to Abbotsford.

Approximately 40,000 tonnes of scrap tires are diverted annually from landfills through take back programs.

Product Care collects over 2 million litres of paints, solvents, pesticides and gasoline annually, more than enough to fill an Olympic sized swimming pool.

Just by recycling beverage containers, consumers help take the equivalent of 39,000 cars off BC's roads for a year, save enough energy to light 63,000 BC homes annually, and reduce the amount of carbon dioxide emissions (a harmful gas emission) being released into the atmosphere by 135,000 tonnes.

\*Industry statistics from Encorp and from British Columbia's Recycling Handbook

#### PRODUCT STEWARDSHIP PROGRAM-**DROP-OFF SITES IN RICHMOND**



#### PAINT PRODUCTS, FLAMMABLE LIQUIDS, GASOLINE, PESTICIDES **AND SOLVENTS**

#### Stewardship Partner:

Product Care is a not-for-profit industry association that manages product stewardship programs for hazardous household and special waste across Canada. This includes hazardous liquids that require proper disposal to keep them out of landfills and waterways. Visit www.productcare.org/BC-Paint-Program or call 604-RECYCLE for more information

#### Products included:

In BC, this take back program includes paints such as interior/exterior latex, alkyd, enamel and oil-based, porch, floor and deck paints, stains, paint aerosols, varnishes and urethanes, primers and sealers, flammable liquids like paint thinner or camp fuels, gasoline, pesticides and solvents.

#### Take back site in Richmond:

City of Diehmand's	5555 Lynas Lane
City of Richmond's Recycling Depot	
	604-276-4010

#### **BEVERAGE CONTAINERS:**

#### Stewardship Partner:

Encorp Pacific (Canada) is the industry product stewardship corporation responsible for developing and managing a consumer-friendly and cost effective system to recover end-of-life consumer products and packaging for recycling. The Return-It Depot system collects used beverage containers from consumers and returns them for recvcling on behalf of more than 1,000 beverage brand owners.

#### Products Included:

Almost all types of beverage containers are included in this take back program. Beverage containers like pop and juice cans and bottles can be recycled with the Blue Box or Blue Cart or can be dropped off at Richmond's Recycling Depot as part of the City's recycling services. Beverage containers can also be returned for a refund on the deposit at a number of Return-It Depots locations in Richmond.

Deposit refund for beverage containers:

Beverage containers 1 L and smaller	\$0.05
Alcohol containers 1 L and smaller	\$0.10
Beverage containers larger than 1 L	\$0.20

\*\*Milk cartons are not accepted in Blue Box or Blue Cart (plastic milk jugs are accepted); however, milk cartons and jugs are accepted for recycling at Bottle and Return-It Depots. There is no deposit at purchase, which means there is no refund paid at drop off.

#### Bottle and Return-It Depots in Richmond:

ronwood Bottle & Return-It Depot	11020 Horseshoe Way	
	Ph: 604-275-0585	
OK Bottle Depot	8151 Capstan Way	
OK Bottle Depot	Ph: 604-244-0008	
Blundell Return-It	130 - 8180 No. 2 Road	
Centre	Ph: 604-274-1999	
Richmond Return-It Bottle Depot	135 - 8171 Westminster Highway	
	Ph: 604-232-5555	
Regional Recycling	13300 Vulcan Way	
Richmond	Ph: 604-276-8270	
Steveston Bottle Depot	2 - 12320 Trites Road	
	Ph: 604-241-9177	

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## ELECTRONICS AND ELECTRICAL PRODUCTS

#### Stewardship Partner:

The Electronic Stewardship Association of BC (ESABC) is a not-forprofit agency that was set up by major producers and retailers of electronics to help ensure end-of-life electronics are diverted from the landfill, processed and recycled where possible.

#### Products Included:

For this program, electronics include televisions and computer and printer products such as desktop computers, display devices, portable (laptop) computers, desktop printers and fax machines and computer accessories like keyboards, pointing devices, track balls and mice. Visit www.encorp.ca/electronics or call 604-473-2400 for more information.

#### Take back sites in Richmond:

ronwood Bottle & Return-It Depot	11020 Horseshoe Way
	Ph: 604-275-0585
OK Bottle Depot	8151 Capstan Way
	Ph: 604-244-0008
Ralph's on Mitchell	12011 Mitchell Road
rta.p.r.o.orr.	Ph: 604-325-8323
Regional Recycling	13300 Vulcan Way
Richmond	Ph: 604-276-8270
	5971 No. 3 Road
London Drugs	Ph: 604-448-4811
(computers only)	3200 - 11666 Steveston Highway
	Ph: 604-448-4852



#### **LEAD ACID (CAR) BATTERIES**

#### Stewardship Partner:

Interstate Battery System of Canada, Inc. (ISBC) and the Canadian Battery Association work together to support product stewardship for take back of car batteries.

#### Products Included:

Lead acid (car) batteries are a hazardous waste product that require special handling for proper disposal.

#### Take back sites in Richmond:

Some retailers listed below only accept a used car battery when a new one is purchased.

	3500 No. 3 Road
Canadian Tire	Ph: 604-273-2939
Canadian Tire	11388 Steveston Highway
	Ph: 604-271-6651
Kal Tire (Richmond Centre)	6551 No. 3 Road
	Ph: 604-207-1203
Ralph's on Mitchell	12011 Mitchell Road
	Ph: 604-325-8323
Regional Recycling	13300 Vulcan Way
Richmond	Ph: 604-276-8270

#### **DID YOU KNOW?**

Cellular phones and household batteries are also included in the take back program. For or refer to the Tips and Resources — Household Hazardous Waste Products section of this publication.





#### **MEDICATIONS AND PHARMACEUTICALS**

#### Stewardship Partner:

The BC Medications Return Program is a product stewardship initiative funded by the pharmaceutical and consumer health products industries to help ensure old medicines are disposed of safely. This improves safety by helping to keep medications away from children and other people who might use them inappropriately. It also keeps drugs out of landfills.

#### Products Included:

All expired or leftover prescription medication, non-prescription medication and mineral supplements can be returned through this program.

#### Take back sites in Richmond:

All pharmacies in Richmond accept medications and mineral supplements to provide safe disposal. Please do not wash them down the drain or throw them in the garbage.

Visit www.medicationsreturn.ca or call 604-RECYCLE for more information.

# MOTOR OIL, OIL FILTERS AND EMPTY OIL CONTAINERS

#### Stewardship Partner:

The BC Used Oil Management Association is responsible for managing the collection and recycling of used oil, oil filters and plastic oil containers in BC. The program's goal is to keep these hazardous materials out of water systems and landfills by providing proper disposal options. Used oil is re-refined into new lubricating oil and used as fuel in pulp mills, cement plants and asphalt plants. Oil filters are re-used for metal products such as nails, rebar and wire. Plastic oil containers become new oil containers, flower pots, pipe, guardrails and patio furniture. Visit www.bcuoma.com or call 604-RECYCLE for more information.

#### Products Included:

Motor oil, oil filters and empty oil containers are all included in this program. Residents who change motor oil at home are encouraged to bring in used oil to ensure no spillage into waterways.

#### Take back sites in Richmond:

Esso Service Station	7991 No. 1 Road	
	Ph: 604-277-1105	
	3500 No. 3 Road	
Canadian Tire	Ph: 604-273-2939	
	11388 Steveston Highway	
	Ph: 604-271-6651	
Kal Tire (Richmond	6551 No. 3 Road	
Centre)	Ph: 604-207-1203	

**PWT - 145** City of Richmond



#### **VEHICLE TIRES**

#### Stewardship Partner:

Tire Stewardship BC (TSBC) is a not-for-profit society that is responsible for the collection, processing and proper disposal of all scrap tires designated under the BC Recycling Regulation. Almost 100% of the scrap tires generated through this take back program are then collected and recycled in Delta, BC. Most are recycled into crumb rubber, which are granules of rubber with the steel and fibre removed. Crumb is used to create a variety of products including playground safety surfacing, athletic tracks, synthetic turf fields and flooring in recreation facilities. The steel and fibre are also recycled. Visit www.tirestewardshipbc.ca or call 1-866-759-0488 for more information.

#### Products Included:

The tires included in this program are car tires, truck tires and some agricultural and logger/skidder tires.

#### Take back sites in and near Richmond:

Country Tire	11831 Machrina Way
Country The	Ph: 604-270-3333
Canadian Tire	3500 No. 3 Road
Canadian The	Ph: 604-273-2939
Kal Tire (Richmond	6551 No. 3 Road
Centre)	Ph: 604-207-1203
City of Vancouver	5400 72nd Street, Delta
Landfill	Ph: 604-873-7000

#### **DID YOU KNOW?**

Approximately 40,000 tonnes of scrap tires are diverted annually through take back programs, which roughly equates to one tire perperson in BC.

In 2009, TSBC reached its 50 millionth tire milestones — which is enough rubber to form a single line of tires laid flat stretching around the earth at the equator.\*

\*From British Columbia's Recycling Handbook

# COMPACT FLUORESCENT LIGHTS (CFLs) AND FLUORESCENT TUBES

#### Stewardship Partner:

Product Care is a not-for-profit industry association that manages product stewardship programs for hazardous household and special waste across Canada. This includes fluorescent lights and tubes that require proper disposal to keep them out of landfills and waterways. Visit www.lightrecycle.ca or call 604-RECYCLE for more information.

#### Products Included:

Fluorescent lights accepted in this program include compact fluorescent lights (CFLs), and fluorescent tubes in sizes that are 8 feet or shorter (T5s, T8s or T12s).

#### Take back sites in Richmond:

Richmond Recycling	5555 Lynas Lane			
Depot	Ph: 604-276-4010			
Canadian Tire	11388 Steveston Highway			
	Ph: 604-271-6651			
Home Depot	2700 Sweden Way			
	Ph: 604-303-7360			
Home Hardware	402 - 5300 No. 3 Road			
(Lansdowne Centre)	Ph: 604-278-0100			
	5971 No. 3 Road			
	Ph: 604-482-4811			
London Drugs	3200 - 11666 Steveston Highway			
	Ph: 604-448-4852			

## **5 TIPS AND RESOURCES**

The City of Richmond and its partners in waste management and recycling provide multiple opportunities to support reuse and recycling in the community. The following tips and resources provide the community with at-a-glance information on the various types of recycling programs and services available through the City of Richmond and in the community to assist with recycling as well as tips on how to properly recycle household items and other materials.

Resources also include contact information and locations for Richmond services and community partners involved in recycling and tips on proper disposal of hazardous waste and other banned materials. Together these tips and resources help to support maximum recycling with minimum contamination in the waste going to landfill.

#### **BLUE BOX**

In Richmond, recyclable materials from blue boxes, blue bags and yellow bags are collected from single-family homes and some townhome complexes on the same day that garbage is collected.

The residential Recycling and Garbage Schedule 2010 is available on the Internet at www.richmond.ca/recycle or call 604-276-4010 to request a copy. Recyclable materials are banned from the garbage.



	WHAT TO RECYCLE	HOW TO RECYCLE	DO NOT INCLUDE
Newsprint	Newspaper     Non-glossy flyers and inserts	· Place all items in the blue bag	Other types of paper     Plastic or paper bags     Strings
Paper Products	100% fibre paper     Catalogues     Empty pizza boxes     Glossy paper     Junk mail     Magazines     Office papers     Paper boxes     Paper egg cartons     Window envelopes	Remove all food scraps Remove plastic liners Remove metal attachments Flatten Place in yellow bag	Bathroom tissue Carbon paper Drink boxes Metallic gift wrap Milk cartons Paper clips Paper towels Plastic bags Plastic tabs Tissue paper Waxed paper
Corrugated Cardboard	Small pieces of clean corrugated cardboard     Clean corrugated cardboard boxes     One bundle per week     Oversized or excessive amounts of cardboard can be dropped off at the City Recycling Depot	<ul> <li>Flatten</li> <li>Place in yellow bags</li> <li>Or</li> <li>Flatten</li> <li>Bundle &amp; tie to 3 feet x 2 feet x 4 inches (90 cm x 60 cm x 10 cm)</li> <li>Set at curb with blue box</li> </ul>	Plastic or wax coated cardboard     Un-flattened boxes
Containers	- Aluminum food & beverage cans, foil & plates - Glass food & beverage containers - Plastic beverage, detergent, food & shampoo containers with coding 🗘 🏖 - Tin cans	Remove lids Remove labels Flatten Place in blue box	· Aerosol cans · Containers with code

Beverage containers can be returned for deposit at retail stores or Return-It depots. For details visit www.encorp.ca or call 1-800-330-9767

**Set Out Time**Before 7:30 a.m. on collection day.

Report a missed collection Call 604-276-4010 or email garbageandrecycling@richmond.ca. How to Get a Blue Box, Blue Bag or Yellow Bag There is no charge for new or replacement blue boxes, blue bags or yellow bags. For additional boxes and bags call 604-276-4010 or pick them up at the following locations: City Recycling Depot 5555 Lynas Lane Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays) 9:00 a.m. to 6:15 p.m. City Hall 6911 No. 3 Road Monday to Friday (Closed on Saturdays, Sundays & Statutory Holidays) 8:15 a.m. to 5:00 p.m.

#### **BLUE CART**

All vertically stacking multi-family dwellings and some townhome complexes have a recycling depot consisting of a number of blue recycling carts. They are generally located in the garbage room or other convenient location. For information about the recycling depot location in your building, contact your building manager or property manager.

The carts are emptied once a week. Statutory holidays do not affect the collection; Christmas Day may delay collection by one day if it falls on a weekday.

	WHAT TO RECYCLE	HOW TO RECYCLE	DO NOT INCLUDE
Newsprint	Newspaper     Non-glossy flyers and inserts	· Place all items in the "Newsprint" blue recycling cart	Other types of paper     Plastic or paper bags     Strings
Paper Products	- 100% fibre paper - Catalogues - Empty pizza boxes - Glossy paper - Junk mail - Magazines - Office papers - Paper boxes - Paper egg cartons - Window envelopes	Remove all food scraps Remove plastic liners Remove metal attachments Flatten Place in "Paper Products" blue recycling cart	Bathroom tissue Carbon paper Drink boxes Metallic gift wrap Milk cartons Paper clips Paper towels Plastic bags Plastic tabs Tissue paper Waxed paper
Corrugated Cardboard	Small pieces of clean corrugated cardboard     Clean corrugated cardboard boxes     Over-sized or excessive amounts of cardboard can be dropped off at the City Recycling Depot if there is no onsite corrugated cardboard container.	· Cut to 1 foot x 1 foot (30 cm x 30 cm)     · Place in "Paper Products" blue recycling cart     Or     · Flatten     · Place in the onsite "Corrugated Cardboard" recycling container	Plastic or wax coated cardboard     Un-flattened boxes
Containers	· Aluminum food & beverage cans, foil & plates · Glass food & beverage containers · Plastic beverage, detergent, food & shampoo containers with coding	Rinse clean Remove lids Remove labels Flatten Place in "Containers" blue recycling cart	· Aerosol cans · Containers with code

Beverage containers can be returned for deposit at retail stores or Return-It depots. For details visit www.encorp.ca or call 1-800-330-9767

#### **Cart Emptying**

Some carts are retrieved from their site, however, some are brought out to a collection area. Carts brought out must be at the collection area before 7:30 a.m.

Report a missed collection Call 604-276-4010 or email garbageandrecycling@richmond.ca.

How to Get an Indoor Collection **Bag for Blue Cart Recycling** There is no charge for new or replacement blue cart recycling bags. For additional bags call 604-276-4010 or pick them up at the City Recycling Depot.

City Recycling Depot 5555 Lynas Lane Wednesday to Sunday (Closed on Mondays, Tuesdays & Statutory Holidays) 9:00 a.m. to 6:15 p.m.

#### **GREEN CAN**

Green Can food scraps and yard trimmings are collected weekly for single-family homes and some multi-family homes. Collection occurs on the same day garbage and blue box recycling is picked up.

There is no limit on the amount of food scraps and/or yard trimmings disposed. However, all food scraps and yard trimmings must be contained in:

- · 80 litres or smaller garbage type container, must weigh less than 20 kg (44 lbs) when filled and affixed with Green Can decal; or
- · Paper yard waste bags or secure tied bundles no more than 3 ft in length and 2 ft thick.

Food scraps and yard trimmings must be separated from garbage and recycling. Green Cans lined with plastics, biodegradable or compostable bags will not be collected. Please use paper bin liners or newspaper instead.



#### WHAT TO RECYCLE HOW TO RECYCLE DO NOT INCLUDE

# Food scraps

#### Emilia.

- · Breads, pasta, rice & noodles
- · Coffee grounds & filters
- Table scraps & food scrapings
- · Meat, poultry, fish, shellfish & bones
- · Eggshells
- · Paper towels/napkin/plates
- · Pizza delivery boxes
- · Vegetables
- · Tea bags
- $\cdot \ \mathsf{Dairy} \ \mathsf{products}$

## · Collect food scraps in kitchen food

- scraps container
- Empty kitchen food scraps container contents in Green Can

#### Cereal & cracker box liners

- · Chips & cookie bags
- Coffee cups
- · Cork or Styrofoam cups, meat trays or takeout containers
- · Dental floss
- Diapers & baby wipes
- · Grease or liquids
- Makeup remover pads, cotton swabs & balls
- · Pet feces or kitty litter
- Plastic bags, biodegradable or compostable bags
- Plastic wraps
- · Takeout containers
- · Vacuum contents/bags

#### Yard Trimmings



- · Flowers
- · Grass clippings
- · Leave:
- $\boldsymbol{\cdot}$  Other organic yard materials
- · Plants (living or dead / dried)
- · Plant trimmings
- · Tree & hedge prunings
- Set Green Cans, with Green Can decal facing the street, at the curb along with unlimited paper yard waste bags, tied bundles of yard trimmings by 7:30 a.m. on collection day.
- · Diseased plants
- · Garden hoses or flower pots
- · Prunings over 4 inches (10 cm) in diameter
- Rocks, dirt or sod
- · Wood products

#### Yard and Garden Trimmings Drop-off locations Richmond residents can drop off yard trimmings (see above for materials accepted) at the following locations, free of charge with proof of residency.

Charge will be applied to anyone deemed to be operating for commercial purposes.

#### **Ecowaste Industries**

15111 Williams Road Open Monday to Friday from 7:00 a.m. to 6:00 p.m. (last load in at 5:00 p.m.)

Visit www.ecowaste.com or call 604-277-1410 for detailed information.

#### City's Recycling Depot

5555 Lynas Lane Open Wednesday to Sunday from 9:00 a.m. to 6:15 p.m. (closed on Mondays, Tuesdays, Statutory Holidays.) No charge for dropping off amounts less than one cubic yard (a car, station wagon or minivan load). Large loads are charged a fee of \$20.00 per cubic yard.

#### **GARBAGE**

The City's garbage collectors will not pick up the following items:

#### **HOW TO RECYCLE OR DISPOSE**

Animal waste	Call the Recycling Council of BC (RCBC) Recycling Hotline at 604-RECYCLE (732-9253) for a list of companies that pick up pet waste.	
Demolition waste	Check Metro Vancouver's website at www.metrovancouver.org/buildsmart or call the RCBC Recycling hotline at 604-RECYCLE	
Dirt, rock, concrete or bricks	Take to Ecowaste Industries. Visit www.ecowaste.com or call 604-277-1410 for accepted items and operating hours.	
Drywall	Take to Ecowaste Industries. Visit www.ecowaste.com or call 604-277-1410 for accepted items and operating hours.	
Garbage beyond the two can limit	Purchase a \$2.00 garbage tag for City facilities and put on can or bag. See extra item disposal options for more information.	
Garbage that is too big or may damage truck	Take garbage to the City of Vancouver Landfill at 5400 72nd Street, Delta. See Extra Item Disposal Options for more information.	
Hazardous Waste	Call RCBC Recycling Hotline at 604-RECYCLE or visit www.metrovancouverrecycles.org for recycling or disposal options.	
Provincial Product Stewardship Collection (take-back) items	Visit www.env.gov.bc.ca/epd/recycling or call 604-RECYCLE.	
Recyclables accepted through blue box or cart recycling collection	Place in appropriate recycling receptacle unless it is contaminated by food or other waste.	
Unwrapped or loose garbage	Must be in garbage bag or can.	
Yard trimmings	Single-family homes to place at curbside on garbage collection day. Or if one cubic yard or less, drop off at Recycling Depot. Unlimited amounts can be dropped off at Ecowaste Industries with proof of residency. Check Green Can section for restrictions and accepted materials.	

#### Two Can Limit

Garbage is collected weekly for all single-family residents and some townhome complexes.

Garbage pickup in Richmond is limited to two containers (cans or bags) per week for each address or service. A \$2.00 tag is required for each additional container or equivalent.

#### How Big Is A "Can"?

For the purposes of garbage pickup in Richmond, each of the following represents one can:

- · A garbage can with lid
- · Standard size: 19 inches x 22 inches (48 cm x 56 cm)
- · Maximum size allowed: 24 inches x 32 inches (60 cm x 80 cm)
- · An equivalent container should not exceed 3 cubic feet (100 L)

#### A Garbage Bag

City of Richmond

Standard size: 24 inches x 36 inches (60 cm x 1 m) Maximum size allowed: 30 inches x 48 inches (76 cm x 120 cm)

An equivalent item should not exceed 3 feet x 2 feet (1 m x 60 cm)

#### **Preparing Garbage for Collection**

Loose garbage must be securely packed in plastic bags. This includes ashes, kitty litter, disposal diapers, vacuum cleaner sweepings and other loose household garbage.

To reduce litter and damage by animals, place bags and other garbage in plastic cans wherever possible. Garbage must be packed in plastic bags and then placed in cans with secure lids. Loose plastic bags must not rip when lifted.

All garbage must be placed at curbside, within three feet of the curb, before 7:30 a.m. on collection day. Do not place receptacles or other items on the road.

Residents are responsible for cleaning up any loose materials the have been scattered over the ground by animals, wind or vandalism.

#### **Extra Item Disposal Options**

Purchase garbage tags or garbage disposal vouchers to dispose of extra garbage.

#### \$2.00 Garbage Tags

Richmond residents may purchase garbage tags at all City facilities or online at www.richmond.ca/recycle.

#### **Garbage Disposal Vouchers**

Richmond residents may purchase a garbage disposal voucher for \$5.00 at all City facilities. These vouchers are good for \$20.00 at the Vancouver Landfill, and are valid anytime. They are limited to one per household. Visit www.richmond.ca/recycle for a list of City facilities selling garbage tags and garbage disposal vouchers.

City of Vancouver Landfill Location and Hours Visit the City of Vancouver Landfill webpage at Vancouver.ca/engsvcs/solidwaste/landfill/index.htm or call 604-873-7000 for hours of operation and rates.

Report A Missed Collection Call Environmental Information Line at 604-276-4010 or email garbageandrecycling@richmond.ca.



#### **RECYCLING DEPOT**

The City of Richmond Recycling Depot is located at 5555 Lynas Lane and is open from Wednesday through Sunday from 9:00 a.m. to 6:15 p.m. The depot accepts large appliances, large metal items and yard trimmings, as well as recyclables normally placed at curbside.

Residents are encouraged to use the curbside recyclables collection. Businesses are encouraged to subscribe to onsite collection services if a large quantity of recyclables is produced. Residents and small business operators can drop off only 1 cubic yard of recyclables and 3 large appliances at the depot per day.

In addition, the depot is a Provincial Product Stewardship (Take Back) Collection site for paint, solvents, flammable liquids and pesticides.

The depot accepts the following items:



	WHAT TO RECYCLE	HOW TO RECYCLE	DO NOT INCLUDE
Corrugated Cardboard	· Clean corrugated cardboard boxes     · Clean pizza boxes	Flatten     Discard Styrofoam & plastic packaging     Place in "Corrugated Cardboard" bin	Plastic or waxed coated cardboard     Styrofoam/packaging material     Un-flattened boxes
Cooking Oil and Animal Fat	· Cooking oil · Animal fat or grease  Note: this program is limited to hydrogenated and non-hydrogenated food-based oils and fat only.	Bring cooking oil and animal fats/grease in food cans or other suitable containers. Up to 2 x 5-litre containers are accepted.	· Vehicle oil or fluids
Fluorescent Lamps (residential use only)	Compact fluorescent lights (CFLs)     Fluorescent tubes — T5s, T8s or     T12s (8 ft or shorter)      Maximum of 16 per return	· Handle fluorescent lights carefully, wrap lights in paper or place them in original packaging	Broken or punctured CFLs or fluorescent tubes     Halogen lights     Incandescent lights     Light-emitting diode LED lights     Commercial-use lights
Glass bottles & Jars	· Glass bottles & food jars (clear & coloured)	Rinse Remove & discard caps Place in "Clear Glass" or "Coloured Glass" bin	<ul> <li>Aquariums</li> <li>Ceramics (plates/cups)</li> <li>Drinking glasses</li> <li>Fluorescent tubes</li> <li>Headlights</li> <li>Light bulbs</li> <li>Mirrors</li> <li>Window glass</li> </ul>
Large Appliances	<ul> <li>Dishwashers</li> <li>Fridges &amp; freezers</li> <li>Furnaces</li> <li>Hot water tanks</li> <li>Metal microwaves</li> <li>Stoves</li> <li>Video cassette recorders/players</li> <li>Washing machines &amp; dryers</li> </ul>	Remove door from fridges and leave freon systems complete Place in area marked "Refrigerators & Freezers" or Furnaces & Hot Water Tanks" or "Large Appliances"	Computer monitors     Hazardous waste bins     Helium tanks     Paint cans     Propane & fuel tanks     Televisions

	WHAT TO RECYCLE	HOW TO RECYCLE	DO NOT INCLUDE
Large Metal Items	Bike frames Clean 45-gallon drums (one end open) Clean automotive parts Clean barbeques Lawn chairs Lawn mowers Sheet & scrap metal Steel coat hangers Steel or lead piping	Remove non-metal attachments Remove fuel tank Drain out gasoline Place in area marked "Large Metal Items" or bin	Computer monitors     Hazardous waste bins     Helium tanks     Paint cans     Propane & fuel tanks     Televisions
Magazines	· Glossy catalogues · Glossy flyers · Glossy magazines	· Remove plastic covers · <b>Place in "Magazine" bin</b>	<ul> <li>Drinking boxes</li> <li>Mixed paper</li> <li>Newspaper</li> <li>Paperback books</li> <li>Pizza boxes</li> <li>Waxed paper</li> </ul>
Mixed Paper	Cereal & paper boxes     Envelopes     Junk mail     Non-glossy inserts     Office papers     Packaged food boxes     Paper egg cartons     Paperback books     Telephone books	Remove all food scraps Remove plastic liners or tabs Remove metal attachments Flatten Place in "Mixed Paper" bin	Bathroom tissue     Corrugated cardboard     Drink boxes     Juice boxes     Metallic gift wrap     Milk cartons     Paper towels     Pizza boxes     Plastic bags     Tissue paper     Waxed paper
Newspaper	· Newspapers · Non-glossy flyers and inserts	· Do not bag or bundle · <b>Place in "Newsprint" bin</b>	<ul><li>Glossy paper</li><li>Mixed paper products</li><li>Paperback books</li><li>Shopping bags</li><li>Packing paper</li></ul>
Paints, Solvents & Pesticides	Domestic pesticides (maximum container size: 10 L or 2.6 gallons) Flammable aerosols (maximum container size: 660 g or 24 oz) Flammable liquids (maximum container size: 10 L or 2.6 gallons) Gasoline (maximum container size: 25 L or 6.5 gallons) Household paints (maximum container size: 18.9 L or 4.9 gallons / full or empty) Paint aerosols (maximum container size: 660 g or 24 oz / full or empty)	In original containers bearing the "flammable" symbol     In approved Underwriters     Laboratories of Canada (ULC) containers     In original containers showing skull & crossbones & Pest Control Product (PCP) numbers	Brushes, rags & rollers Caulking tubes Cosmetics, health & beauty Diesel, propane or butane Fertilizer Helium tanks Insect repellents, disinfectants & pet products Non-flammable glues & adhesives Products that are leaking or improperly sealed Products that can't be identified Roof patch, tars & grease

	WHAT TO RECYCLE	HOW TO RECYCLE	DO NOT INCLUDE
Plastic Containers	Beverage containers     Dairy containers & milk jugs     Detergent / shampoo bottles     Food containers	Rinse Remove lids or caps Remove labels (if possible) Flatten Place in "Plastics Containers" bin	<ul> <li>Aerosol cans</li> <li>Flower pots</li> <li>Milk cartons</li> <li>Motor oil containers</li> <li>Other plastics</li> <li>Plastic bags</li> <li>Styrofoam</li> </ul>
Tin & Aluminium Cans	Aluminium foil     Clean aluminium pie plates     Food & beverage cans	· Rinse · Remove labels · Flatten cans · Place in "Tin & Aluminium Cans" bin	<ul><li>Aerosol cans</li><li>Fuel cans</li><li>Paint cans</li></ul>
Yard & Garden Trimmings	Branches & limbs     Trees & shrubs     Grass & leaves  Drop-off Limit & Charges      Richmond residents can drop off one cubic yard free at the City's Recycling Depot. Charged \$20.00 per cubic yard if over limit.      Commercial operators are charged \$20.00 per cubic yard.	<ul> <li>Limbs or trunks up to 4 inches (10 cm) in diameter only</li> <li>De-bag all material at the depot</li> <li>Put in area marked "Trees &amp; Shrubs" or "Grass &amp; Leaves" bin</li> </ul>	- Asphalt or concrete - Dirt - Large limbs - Lumber or wood products - Plastic bags - Rocks or stones - Sod - Soil - Stumps



#### HOME COMPOSTING

Composting helps reduce the cost of vard waste collection, and finished compost can be spread on lawns and flowerbeds to condition the soil and retain moisture.

#### **Backyard Compost Bin**

"Garden Gourmet" compost bins are available to Richmond residents at the Recycling Depot for \$25.00 plus tax. The bin dimensions are 36 inches (90 cm) high, 22 inches (56 cm) wide and 22 inches (56 cm) deep. They are suitable for residential backyard composting of grass, leaves, vegetable trimmings, fruit trimmings and other miscellaneous organic garden trimmings.

#### **Composting Workshops**

To learn about composting, attend a Richmond composting workshop, which are held from March to September. Visit www.richmond.ca/ services/recycling/composting/compost.htm for workshop dates and locations or call Parks & Recreation at 604-276-4300 and press '2' from Monday to Friday between 8:30 a.m. to 5:30 p.m.

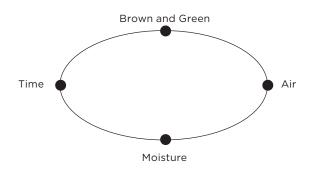
#### **Regional Compost Hotline**

For composting questions, call the regional Compost Hotline at 604-736-2250.

#### **Compost Demonstration Garden**

A compost demonstration garden is located at 2631 Westminster Highway in the Terra Nova Rural Park. Composting demonstration units are on display for viewing year-round, from dawn to dusk.

"THE RECIPE"



Green Materials:

Brown Materials:

- · Plant trimmings
- · Fruit and vegetable peelings
- · Fresh grass clippings
- · Coffee grounds and tea leaves
- · Dry leaves
- · Sawdust
- · Straw
- · Shredded newspaper
- clippings



#### COMPOSTING STEPS

- 1. Start with a good layer of coarse organic material, such as straw, leaves or pruning at the bottom to allow air to circulate.
- 2. Add a good layer of nitrogen-rich green material followed by one layer of carbon-rich brown material, until the bin is full.
- 3. Compost requires air. Turn and stir your compost weekly so the organisms get necessary oxygen.
- 4. Compost requires moisture. Water your compost bin frequently, to ensure it stays as moist as a wrung-out sponge.
- 5. Give it time In 12-18 months, material at the bottom and middle of the bin should be composted. Use this throughout your garden. Use the uncomposted material to start a new batch. Chipping or chopping the material can increase the speed of the process. Regular aeration is key to successful composting.

# HOUSEHOLD HAZARDOUS WASTE PRODUCTS

The careless handling of hazardous products can cause injury or death as well as damage to the environment. Hazardous products that are dumped in sewers or green spaces can kill or injure livestock, wildlife and plant life.

For the safety of people and the environment, it is essential that we dispose of these materials carefully.

Many common household and automotive products must be recycled or disposed through special depots. Hazardous waste covered under Product Stewardship Programs is also included as a reference.

The following products are not accepted in blue boxes, or at public landfill sites. For your information, we have provided suggestions on where to dispose these products.

This list of disposal sites is not guaranteed, and is provided for your convenience. Please call first to confirm that the site is still open to accept hazardous products, and to check hours of operation.

#### **TIPS FOR RESIDENTS**

To spot hazardous waste, look for the words Danger, Warning, or Caution on the product label, and any of the following symbols:









## TYPE OF PRODUCTS

SP Stewardship Program DB Disposal Ban	NAME	ADDRESS	PHONE	
Antifreeze	Canadian Tire	3500 No. 3 Road	604-273-2939	
Tanana.		11388 Steveston Highway	604-271-6651	
Audio-visual and Consumer Electronic Equipment SPDB	Ironwood Bottle & Return-It Depot	11020 Horseshoe Way	604-275-0585	For a complete list of audio-visual and
	OK Bottle Depot	8151 Capstan Way	604-244-0008	consumer electronic equipment accepted, please visit www.encorp.
	Ralph's on Mitchell	12011 Mitchell Road	604-325-8323	ca/electronics or call 604-473-2400.
	Regional Recycling Richmond	13300 Vulcan Way	604-276-8270	_
Automotive Batteries	Canadian Tire	3500 No. 3 Road	604-273-2939	
SF DB		11388 Steveston Highway	604-271-6651	
	Kal Tire (Richmond Centre)	6551 No. 3 Road	604-207-1203	
	Ralph's on Mitchell	12011 Mitchell Road	604-325-8323	
188	Regional Recycling Richmond	13300 Vulcan Way	604-276-8270	
Automotive Oil (Maximum 10L) SPDB Oil Filters SPDB	Canadian Tire	3500 No. 3 Road	604-273-2939	
		11388 Steveston Highway	604-271-6651	For a complete list of automotive oil, oil filters
	Esso Service Station (Blundell)	7991 No. 1 Road	604-277-1105	and plastic oil containers accepted, visit
Plastic Oil Containers SP DB	Kal Tire (Richmond Centre)	6551 No. 3 Road	604-207-1203	www.bcuoma.com/en/bc or call 604-RECYCLE.

#### TYPE OF **PRODUCTS**

SP Stewardship Program DB Disposal Ban NAME **ADDRESS** PHONE All cellular phone stores accept used cellular phones for refurbishing or recycling. Cellular Phones SP DB Visit http://recyclemycell.ca or call 1-888-797-1740 for a list of collection sites. Pre-paid mail-back label to return cellular phones through Canada Post is available through http://recyclemycell.ca. Cellular phones are also accepted by all http://recyclemycell.ca locations (see Household Batteries below). 604-276-4010 City's Recycling Depot 5555 Lynas Lane Compact Fluorescent Lights (CFLs) SP DB Canadian Tire 11388 Steveston Highway 604-271-6651 Fluorescent Tubes-Home Depot 2700 Sweden Way 604-303-7360 Residential Use Only SP 5300 No. 3 Road Unit 402 Home Hardware 604-278-0100 (no PCB ballasts) London Drugs 5971 No. 3 Road 604-448-4811 11666 Steveston Highway 604-448-4852 Unit 3200 Computers SP DB Ironwood Bottle & Return-It Depot 11020 Horseshoe Way 604-275-0585 For a complete list of computers, computer monitors/keyboard/mice Computer Monitors/ **OK Bottle Depot** 8151 Capstan Way 604-244-0008 and other peripherals, Keyboard/Mice & Other printers and televisions Ralph's on Mitchell 12011 Mitchell Road 604-325-8323 Peripherals SP DB accepted, please visit www.encorp.ca/ Regional Recycling Richmond 13300 Vulcan Way 604-276-8270 electronics or call Printers SP DB 604-473-2400. 604-448-4811 London Drugs (computers only) 5971 No. 3 Road Televisions SP DB 11666 Steveston Highway 604-448-4852 Unit 3200 Drywall DB Ecowaste Industries Ltd. 15111 Triangle Road 604-277-1410 (no other materials attached City of Vancouver Landfill 5400 72nd Street 604-873-7000 to or on drywall) 604-276-4010 Gasoline (must be in City's Recycling Depot 5555 Lynas Lane approved ULC containter) For a complete list of gasoline, paint & SP DB paint aerosol containers and pesticides & Paint & Paint Aerosol solvents accepted, please Containers SP DB visit www.productcare. org/BC-Paint-Program or call 604-RECYCLE. Pesticides SP DB Solvents SP DB Hazardous Materials Hazco Environmental 13511 Vulcan Way Unit 160 604-214-7000 General 7483 Progress Way Unit 9 604-940-9655 Newalta

#### TYPE OF **PRODUCTS**

SP Stewardship Program DB Disposal Ban NAME **ADDRESS** PHONE 5300 No. 3 Road Unit 319 **Batteries Included** 604-270-9989 **Household Batteries** For a complete list including rechargeable of household batteries Canadian Tire 11388 Steveston Highway 604-271-6651 ones (weight five kilograms including rechargeable ones accepted, please or less) SPDB 13900 Maycrest Way Unit 135 604-273-8248 Dr. Battery visit www.call2recycle.ca or call 1-888-224-9764. Home Depot 2700 Sweden Way 604-303-7360 10151 No. 3 Road Unit 116 604-241-2898 Pharmasave Rona 7111 Elmbridge Way 604-273-4606 2780 Sweden Way Unit 110 Staples 604-303-7850 London Drugs 5971 No. 3 Road 604-448-4811 11666 Steveston Highway 604-448-4852 Unit 3200 Hypodermic Needles Shoppers Drug Mart (Blundell 8180 No. 2 Road 604-274-3023 Centre) Downtown Eastside Youth 612 Main Street, Vancouver 604-685-6561 Activities Society (DEYAS) Prescription Drugs SP DB All pharmacies accept left over or outdated prescription drugs, non-prescription medications and mineral supplements for safe disposal. For a list of pharmacies and/or drugs, medications and supplements accepted, visit www.medicationsreturn.ca/british\_columbia\_en.php or call 604-RECYCLE. Note: Please do not wash these items down the drain or throw them in the garbage. Propane Tanks (empty) Steve's Husky Service 8011 No. 3 Road 604-270-3822 9060 Bridgeport Road 604-278-0011 **Husky Autogas** Thermostats SP DB Andrew Sheret Ltd. 4500 Vanguard Road 604-278-3766 Tires SP DB Country Tire 11831 Machrina Way 604-270-3333 Canadian Tire 3500 No. 3 Road 604-273-2939 Note: All retail locations Kal Tire (Richmond Centre) 604-207-1203 6551 No. 3 Road City of Vancouver Landfill 5400 72nd Street, Delta 604-873-7000 (passenger or light truck with or without rims, limit of 10) Non Hazardous Ecowaste Industries Ltd. 15111 Triangle Road 604-277-1410 Miscellaneous Items

For items not listed, contact the RCBC Recycling Hotline 604-RECYCLE (732-9253) or 1-800-667-4321 Commercial Business may contact Metro Vancouver 604-432-6200

For a complete list of thermostats accepted, visit www.switchthestat. ca/eng/index.php or call 1-416-922-2448

accept a used tire for a new one purchased. For a complete list of tires accepted, visit www. tirestewardshipbc.ca or call 1-866-759-0488.

Note: Ecowaste will accept the following items at specified costs:

- · concrete
- · dirt
- · nursery potting containers
- · sand and soil
- $\cdot$  wire
- · wood

## **ACKNOWLEDGEMENTS**

The information and data for this report included input from a number of organizations working in solid waste management and recycling in the region. The City of Richmond thanks the following organizations for generously providing assistance, information, photographs, and data to support the development of this report:

Metro Vancouver
City of Vancouver
Encorp Pacific (Canada)
Tire Stewardship BC
BC Used Oil Management Association
Product Care Association
Recycling Council of British Columbia

City of Richmond Environmental Programs Information Line: 604-276-4010 www.richmond.ca/recycle

Recycling Council of British Columbia Recycling Hotline: 604 RECYCLE (732-9253) www.rcbc.bc.ca Printed on: Reincarnation Matte Coated— 100% recycled-60% post consumer waste.

