



## FROM CURBSIDE TO ENVIRONMENTALLY RESPONSIBLE LANDFILL DISPOSAL WHAT HAPPENS TO YOUR GARBAGE AFTER IT LEAVES THE CURB

In the past four Zero Waste newsletters we tracked the recycling loop for curbside recyclables and how food waste from your green bin is collected and processed into soil-enriching compost. In this edition we follow the things that can't be recycled or composted – your household garbage – and show how it is safely disposed of in the Regional Landfill.



Residential garbage tipped at the CRTS

### Collection

The household garbage you take to the curb is collected in a specially designed vehicle with two compartments. This ensures garbage is kept separate from food waste that is collected at the same time.

### Consolidation at the Church Road Transfer Station

Garbage collected from the 21,000 serviced homes on routes between Lantzville and Deep Bay is tipped and consolidated at the Church Road Transfer Station in Parksville for efficient transport to the Regional Landfill on Cedar Road in Nanaimo.

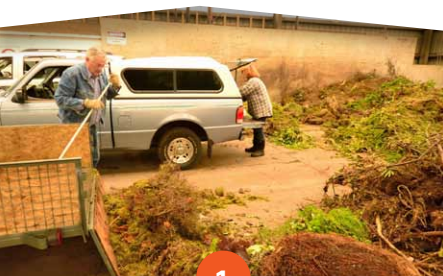
Curbside garbage collected from the 6,000 serviced homes on routes south of Lantzville and on Gabriola Island goes direct to the Regional Landfill (see next page).

### A true Zero Waste facility

When the Church Road Transfer Station (CRTS) was recently upgraded and retrofitted, it was designed to serve a growing community, improve customer service and reflect the region's commitment to Zero Waste. In 2012, the CRTS received LEED (Leadership in Energy and Environmental Design) Gold Certification for its innovations to reduce energy, water consumption and greenhouse gas emissions. This is the first transfer station in Canada to receive this certification.

### Some noteworthy features of the upgraded CRTS include:

- 1 Separate buildings to receive food waste and garbage from commercial vehicles, and yard waste and garbage from self-haul customers;
- 2 "Green" roofs on both the Operations Building and Scale House to reduce storm water run-off and to cool the buildings, and rooftop solar panels on the Operations Building to pre-heat hotwater;
- 3 An on-site treatment plant and rainwater collection system that reduces water consumption by 80 per cent and provides water for floor washing in the transfer buildings;
- 4 A recycling area that provides easy and safe access to drop off scrap metal, wood waste and recyclable paper, cardboard, glass, tins and plastic; and
- 5 Use of translucent wall and ceiling panels to bring natural light into the building interiors and reduce energy use.



1

Yard waste drop-off area at the CRTS self-haul building.



2

Green roof and solar panels on the CRTS Operations Building.



3

Waste water from the CRTS is treated at the on-site treatment plant and reused for floor washing in the transfer building.



4

5

The recycling drop-off area at the CRTS and transfer buildings with translucent light panels.





## THE REGIONAL LANDFILL – IT'S ANYTHING BUT A DUMP!

Advanced engineering and integrated environmental protection measures are what differentiates the RDN Regional Landfill from a garbage dump. The region's only landfill received more than 53,000 tonnes of municipal solid waste or garbage in 2012. Diverting waste through recycling and composting programs is critical to extending the landfill's lifespan and realizing the long term investment in the facility.

### 6 Scaling and Tipping

When garbage trucks arrive at the Regional Landfill they are scaled to record the weight of the load. The drivers are directed to the landfill's working area known as the active face, which is set out in the landfill fill plan.

Non-commercial traffic such as residential customers with a car or pickup truck also cross the scale. They deposit their garbage in the bin area, near the scale house. When full, these bins are taken to the active face for tipping.

### 7 Cells and Lifts

The landfill's working face is divided into areas called cells. Here drivers tip their loads and the garbage is spread and compacted. At the end of each day, the area is temporarily covered with a mix of soil and ground wood waste or a tarp. Completed cells are laid out in rows and layers called lifts, which are usually two to three metres high.

When the fill plan for a working area of the landfill is completed, it is closed by applying a heavy duty plastic cap that is covered with soil and planted with grass.

## Environmental Protection Measures

### Leachate

Waste inside the landfill's cells decomposes over time. Moisture that comes into contact with garbage accelerates this process. The resulting liquid is called leachate. To prevent contact with surface and groundwater, leachate is contained by landfill liners and collected and piped off site for treatment at the Greater Nanaimo Pollution Control Centre.

### 8 Landfill Gas

Landfill gas (LFG) is produced when bacteria break down garbage anaerobically or in the absence of oxygen. LFG is composed of roughly equal amounts of carbon dioxide and methane, a potent greenhouse gas. At the Regional Landfill, LFG is collected by a network of wells and piping which is installed in the completed garbage cells.

The methane gas collected at the Regional Landfill is piped underground and used to produce electricity at an on-site conversion plant operated by Cedar Road Bioenergy Inc. In partnership with the RDN and the BC Bioenergy Network their facility is a showcase known as the Nanaimo Bioenergy Centre. The LFG power plant is part of an investment in infrastructure that has enabled the region to reduce LFG emissions by 50 per cent and produce electricity to supply 1,300 homes.

### Design and Operations Plan Integrates Landfill's Long Term Development

Landfills in BC are required to have a Ministry of Environment approved Design and Operations Plan. This Plan details the environmental protection measures which will be put in place and it outlines how to manage the site to get the best use of the capacity available for garbage disposal.

The Plan must also include how the site will be managed after it closes. Development of a nature park will soon begin on a closed portion of the RDN landfill.

*The Regional Landfill's scale house.*

6



*Garbage is covered daily at the landfill.*

7



8

*The landfill's working face.*



*Methane from the landfill is used to generate electricity.*

## DON'T GET THE GREEN BIN SUMMERTIME BLUES HELPFUL WAYS TO PREVENT ODOURS AND PESTS

Summer has arrived, bringing with it an abundance of local fresh fruit, vegetables, and seafood. Remember, any food item that goes to waste, or food soiled paper can easily be recycled in your green bin. During warm weather, food waste decomposes faster, so here are some tips to prevent odours and pests:

### Give it a wrap!



Wrap your wet food waste in a paper towel, newspaper, empty milk cartons or cereal boxes to **reduce moisture and odours**, and prevent nuisances.

### Put a lid on it!



Avoid leaving food waste exposed by keeping your green bin and kitchen catcher lids tightly closed.

### Cool it!



When the weather is hot, freezing your food waste can reduce odours and pests. **Keep a small compostable liner, paper bag or empty milk carton in your freezer** to store cooking grease, bones, and leftover meat and fish scraps. Don't forget to add them to your green bin on collection day.

### Be Aware!

If your home is located in an area frequented by bears and other pests, remember to:

- Store your green bin and garbage container **in a secure location** and keep the lids latched.
- Take containers to the curb **on the morning of your collection day**. Don't leave them out overnight.
- Deodorize the lid and exterior of your green bin with **Lysol or bleach solution** to prevent food odours from attracting wildlife.
- For more tips, see the "**Preventing Problems with Bears**" on the Curbside Collection Guidelines at [www.rdn.bc.ca](http://www.rdn.bc.ca)



### Keep it clean!

Hose out your green bin regularly to remove any food particles and reduce odours, minimize flies and other pests. You can also wash your kitchen catcher and green bin with hot water and bio-degradable detergent.



### Reminders!

#### Don't be Late! Get it out by 8!

Avoid missed pick-ups by ensuring your food waste, garbage and recyclables are at the curb by 8 a.m.

on your collection day. Changes in route scheduling by the RDN's collection contractor means your pick-up time could vary during your collection day. Putting your food waste, garbage and recyclables out on time will avoid unnecessary phone calls and extra work for you and your collector.



**Check your Collection Schedule** for changes in pick-ups over the summer. Curbside **collection schedules follow an add-a-day system**. **After each statutory holiday your collection day will advance by one day**. Please check your schedule for changes to your collection days over the summer period or call the collection contractor, BFI Canada toll-free at 1-866-999-8227 if you have questions. Schedules are online at [www.rdn.bc.ca](http://www.rdn.bc.ca); click on the Curbside Collection tab near the top of the page.

*Note – Town of Qualicum Beach residents should check with the Town if they have garbage collection questions.*

