

New Westminster Multi-family Kitchen Scraps Collection

City of New Westminster in Metro Vancouver, BC



Population: 68,280 (2013 BC Stats)
Land Area: 15.63 km²
Density: 4,222 persons/km²
Median Age: 41.2
Housing Mix – SF/MF – 32:68
Average persons per household: 2.1
2012 Regional District (Metro Vancouver)
Disposal Rate:
561 kg/capita/year

Program Highlights / Summary

The City of New Westminster has 21,500 Multi-family (MF) dwelling units. The city-wide mandate to provide food scraps collection to both single family and multi-family sectors, is a first in the region, highlighting the City's commitment to waste diversion.

The Metro Vancouver Integrated Solid Waste and Resource Management Plan sets out a course of action to increase diversion rates. MV's goal is to achieve an overall 70 % composting and recycling rate by 2015, and an 80% waste diversion rate by 2020. Diverting compostable organics is a priority to meet the target for a total ban of organic waste from the landfill by 2015.

Additionally, the Metro Vancouver Zero Waste initiative has identified multi-family and industrial, commercial, and institutional (ICI) sectors as areas where significant gains can be realized in reaching the regional target of 70% waste diversion by 2015. The target of 70% implies a multi-family diversion rate of 30%.

The city's contractor contacted all MFs, and over a 3-month period (April – June 2013) posted notices in all MF parking garages and lobbies promoting "lobby events" (5-10 held per night), designed to educate all MF residents. Collection bin locations were chosen and 'kitchen catchers' handed out to each unit. The City currently exceeds an 80% participation rate of MF buildings signed on for the program (>400 out of 489 buildings).

Approximately 50 tonnes of food scraps are collected from MF buildings per month for composting. The estimated 600 tonnes/year would previously have gone directly into the landfill. Once the first year of program implementation is complete, staff will have a better idea of direct disposal impact.

Prior to the program the per-household disposal rate was estimated at 483 kg per year. Following partial program implementation the disposal rate had dropped to 455 kg per year, or 6%. However, this will improve once all multi-family buildings are participating in the program.

Organics Case Study 8: Waste Recycling – Multi-family Residential Kitchen Scraps Collection Program

Program Details

Collection

Each resident received a 10 L kitchen catcher for their unit to help them collect food waste. Each building received a 64-gallon (240 L) food waste bin (similar to a recycling bin) with compostable liners. The residents collect food scraps and food-soiled paper in their kitchen catchers and empty them into the larger bin. The organics truck empties the food waste bin weekly on a predetermined day and replaces the liner after each service.

Processing

The organics collected by the City are brought to Fraser Richmond Soil and Fibre where they are composted in a unique form of aerobic composting, where Unturned Covered Aerated Static Pile (UCASP) technology increases their operational efficiency and creates top quality compost.

Promotion / Education

The contracted hauler for the City, Waste Management (WM), contacted each MF in the City by sending notices, attending strata council meetings if requested, and scheduling ‘lobby events’ at each participating building. WM hosted an educational table in the lobby of the building to coincide with a time when most residents arrived home from work. They distributed program information and kitchen catchers and educated the residents about the program. Residents not able to attend received door-to-door delivery of their kits. Each resident received a kitchen catcher, a refrigerator magnet indicating what materials are accepted in the food waste bin, and an accompanying brochure to be used as a reference guide.

City staff promoted the program at festivals and public events and they will continue this outreach campaign to ensure program success.



Supporting Policies and Regulations

The MV Integrated Solid Waste and Resource Management Plan sets out a course of action to increase diversion rates. MV's goal is to achieve an overall 70 % composting and recycling rate by 2015, and an 80% waste diversion rate by 2020. Diverting compostable organics is a priority to meet the target for a total ban of organic waste from the landfill by 2015.

Additionally, the Metro Vancouver Zero Waste initiative has identified multi-family and industrial, commercial, and institutional (ICI) sectors as areas where significant gains can be realized in reaching the regional target of 70% waste diversion by 2015. The target of 70% implies a Multi-family diversion rate of 30%.

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Program Results

Financial Data

Capital Costs

Capital costs for the kitchen catchers, 240 L carts and liners (1 per 49 units), and all promotional materials were included in the 5-year contract with WM. Waste Management owns the bins.

Operating Costs

User fees are approximately \$20 per year per MF unit, which covers the cost of collection and processing, as well as the cost of the collection containers.

Staffing Implications

WM hired 20 people (teams of 2) to roll out the lobby events at every building complex in New Westminister over a 3-month period.

Cost Recovery

The City anticipates potential savings resulting from a reduction in overall waste disposal costs.

Environmental

Reduction and Diversion

The Metro Vancouver regional multi-family diversion rate is estimated to be 16%. New Westminister goal is that implementing the food waste collection program will help divert approximately 20% to 30% of waste generated from each MF building. During the pilot project, volumes of food scraps collected were consistent with that of the single family sector. On average, participating buildings saw a 25% reduction in waste.

Disposal Impact / Landfill Space Savings

Approximately 50 tonnes of food scraps are collected from MF buildings, per month, for composting. The estimated 600 tonnes/year that would previously have gone directly into the landfill. Once the first year of program implementation is complete, staff will have a better idea of direct disposal impact.

Pre-program Per Household Waste Disposal Rate: 483 kg/household/year

Pre-program Per Capita Waste Disposal Rate: 230 kg/capita/year

Current Per Household Waste Disposal Rate: 455 kg/household/year

Current Per Capita Waste Disposal Rate: 217 kg/capita/year

Staff note ~100 buildings (equating to 20% of MF units within New Westminister) are not yet participating (400 out of 489 buildings are signed up), leading to reduced diversion numbers. As remaining MFs join program, staff will have a better idea of diversion and disposal impact.

GHG Reduction

2013 GHG reduction* = 331.7 CO₂e diverted

(Diverting 600 tonnes of organics annually from landfill.)

*annual estimated as case study program initiated July 2013



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Social

Political Acceptability

The Mayor is quoted as saying “It’s a key part of New Westminster’s commitment to sustainability and we’ll continue to work with residents to offer even more ways to reduce our environmental footprint.” Staff noted the MF organics program was one of easiest things to have been accepted at Council!

Community / User Acceptability

There has been virtually zero contamination during the pilot, largely due to one-on-one education and the quality of the educational material distributed during lobby events at the onset of the program. Volumes of collected food scraps remained fairly consistent with trends found in the single family sector and have slightly increased overall since implementation. This increase may be a result of improved participation. Any initial hesitation with respect to costs or rodents has been quickly alleviated with the program rollout.

A survey completed by participants of a multi-family recycling pilot project showed 88% of respondents were interested in a City wide multi-family food scraps collection program. No respondents to the survey were opposed.

Community Economic Development

The compost and various soil amendments (topsoil/mulch) developed at Fraser Richmond Soil & Fibre (FRSF) are sold back to municipalities where the material originated through a network of bulk landscape distributors across the lower mainland. The liners used to line the MF bins are the only ones approved by FRSF and sold at a local outlet store



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Lessons Learned

- The contracted hauler for the City, WM, had a representative visit each building to determine the best location to place the new 64-gallon food waste bin prior to program roll-out. Spending the time to ensure space allocation and placement prior to the lobby event ensured residents could see where material would go at the same time as program information was being provided.
- Adoption of the full program followed a six-month trial phase, which ran from April to September 2011, and involved six multi-family housing buildings (two of the buildings had >150 units). Staff wanted to ensure acceptability of the program, address any challenges and determine a quick way to roll out the program city-wide. Site inspections, results from the trial project and resident feedback all ensured that once the RFP was written, staff knew exactly what was required.
- The lobby events and displays helped raise awareness in the building and were seen as crucial to success. Newspaper photos of residents happy with the new program boosted popularity.
- City staff did encounter a few minor issues. Special liners used to keep the collection carts clean occasionally slipped out of place causing the liner to fall into the cart. Waste Management along with City staff, found a remedy to this by retrofitting the collection cart to retain the liner – they did not want an ‘ick’ factor to discourage residents.

Communities with Similar Programs

- City of Burnaby – www.burnaby.ca
- City of Port Coquitlam – www.portcoquitlam.ca

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