

## **Grand Forks Food Scraps Collection Service**

City of Grand Forks in the Regional District of Kootenay Boundary, BC



**Population: 4,026 (2013 BC Stats)**

**Land Area: 10.43 km<sup>2</sup>**

**Density: 382.0 persons/km<sup>2</sup>**

**Median Age: 52.3**

**Housing Mix – SF/MF – 92:8**

**Average persons per household: 2.1**

**2012 Regional District Disposal Rate:  
680 kg/capita/year**

**Pre-program Single Family Waste Disposal Rate:  
125 kg/capita/year**

**Current Single Family Waste Disposal Rate:  
56.7 kg/capita/year**

### **Program Highlights / Summary**

The City of Grand Forks and the Regional District of Kootenay Boundary are the first BC local governments outside of Lower Mainland / Vancouver Island to provide residents with a Green Bin Food Scraps curbside collection service. The weekly curbside collection service became available to 1,830 Grand Forks' households in October 2012. The organic materials are processed in open windrows at the Grand Forks Landfill.

The RDKB put out a Request for Proposals (RFP) identifying three goals: increased diversion, GHG reductions, and an acceptable cost to the taxpayer. All three goals have been successfully achieved with the implementation of the food scraps collection program.

Prior to implementing the green bin program, Grand Forks collected an average of 264 kg of garbage per household per year. After implementation of the program, garbage collected at the curb decreased to 119 kg per household per year. This equates to a 55% reduction in waste sent to disposal. With the collection of 123 kg of food waste per household annually, the overall diversion rate increased from 18% with recycling to 62% with recycling and food waste collection.

Grand Forks City Council supported the program from beginning and now hopes to expand it to the commercial and multi-family sectors.



## Organics Case Study 5: Waste Recycling – Single-family Collection Program, Kitchen Scraps Only

### Program Details

#### Collection

Weekly food scraps collection is by a semi-automatic, split-body vehicle, which collects garbage and recycling at the same time on alternating weeks. All food scraps are accepted (as well as diapers, dog waste and kitty litter). No polymer plastics are allowed – only kraft paper liners.

#### Processing

For years the municipality of Grand Forks has composted all yard and garden waste collected in the community at the Regional landfill, now they also include green bin material in the mix. The aerobic composting procedure is considered ‘low-tech’, with turning done by a Front-End Loader in 10’ high windrows. Finished material is used as final cover at the landfill and the composting operation is considered part of RDKB landfill operations.

#### Promotion / Education

The RDKB have developed a great Facebook site to engage residents as well as a brand: “kNOw Waste”. All residents are provided with information explaining what can be placed in the green bins as well as tips to avoid wildlife issues. Information about the Green Bin program is included in the annual Recycling Collection calendar and on-line at the RDKB’s website ([www.rdkb.com](http://www.rdkb.com)).



#### Supporting Policies and Regulations

With the recycling contract set to expire, the RDKB put out a Request for Proposals (RFP) for recycling collection identifying three goals: increased diversion, GHG reductions, and an acceptable cost to the taxpayer. They ended up with a couple of bids for organics collection (in addition to recycling). One collector was particularly enthusiastic about kitchen scraps collection. All three goals have been successfully achieved with the implementation of the food scraps collection program.

### Program Results

#### Financial Data

##### Capital Costs

The RDKB purchased 2,000 curbside food scrap collection containers at approximately \$30 each (\$60,000). The contractor purchased a split body truck to accommodate the new service and was hired under a 5-year contract.



##### Operating Costs

The City of Grand Forks operates the garbage and food scrap collection service as a utility. The service costs \$12/month/home and covers weekly collection of food scraps and alternating bi-weekly collection of either garbage or recycling. Residents still get yard and garden waste collection 9 times per year as well. The RDKB operates the recycling collection service. The service is funded through a tax requisition however the RDKB will receive a financial incentive from MMBC to offset the cost of this service.

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### Staffing Implications

No new staffing required for the City or RDKB, duties integrated into existing staff workload.

### Cost Recovery

Utility billing covers food scrap collection program costs. Processing costs are included in the landfill operations budget. The finished material is currently used in landfill operations, offsetting the costs of final cover, which would otherwise need to be purchased elsewhere.

### Environmental

#### Reduction and Diversion

With the collection of 123 kg of food waste per household annually, the overall diversion rate increased from 18% with curbside recycling only to 62% with the addition of food waste collection.

#### Disposal Impact / Landfill Space Savings

Prior to implementing the green bin program, Grand Forks collected an average of 264 kg of garbage per household per year. After implementation of the program garbage collected at the curb decreased to 119 kg per household per year. This equates to a 55% reduction in waste sent to disposal.

**Pre-program Per Household Waste Disposal Rate: 264 kg/household/year**

**Pre-program Per Capita Waste Disposal Rate: 125 kg/capita/year**

**Current Per Household Waste Disposal Rate: 119 kg/household/year**

**Current Per Capita Waste Disposal Rate: 56.7 kg/capita/year**

### GHG Reduction

2013 GHG reduction\* = 121.4 CO<sub>2</sub>e diverted

(Diverting 226 tonnes of organics from landfill.)

\*as a result of case study program which began October 2012

### Social

#### Political Acceptability

Grand Forks City Council supported the program from beginning and hopes to expand it to the commercial and multi-family sectors.

#### Community / User Acceptability

By applying Community Based Social Marketing principles during the pilot phase, two important goals were met: 1) having the higher-income bracket community take ownership of the program, and 2) once the pilot group had 'bought in' the rest of the community understood and accepted the importance of the GHG reductions more easily.

#### Community Economic Development

A local hauler was hired to perform the organics collection contract.



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### Lessons Learned

- The pilot was based on Social Marketing principles targeting an ‘upper-income’ area first to create ‘buy in’. Since the more affluent residents are also typically the opinion leaders in the community, generating a positive response during the pilot program was critical to the overall program success.
- The pilot tested both 23- and 46-litre green bins. The smaller bins are handled manually while larger bins can be placed onto a semi-automatic arm by the hauler and then lifted into the truck hydraulically. Staff decided to go with the larger size, as the cost was not significantly higher and potential Worksafe issues could be avoided with the semi-automated version.
- The municipality plans to expand the program to rural residents around Grand Forks. To do so, they anticipate the need to expand the processing capacity at the landfill and are investigating the Gore Cover system.

### Communities with Similar Programs

- Regional District of Nanaimo – [www.rdn.bc.ca](http://www.rdn.bc.ca)
- Town of Ladysmith – [www.ladysmith.ca](http://www.ladysmith.ca)
- Municipality of North Cowichan – [www.northcowichan.bc.ca](http://www.northcowichan.bc.ca)

### Program Contact

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