

Solid Waste

Description

Management of waste materials and resources is an important concern for British Columbia cities, as it is expensive and has a range of environmental implications. Discarded materials include industrial by-products and waste, construction, demolition and land clearing materials, products and packaging, and organic materials like food waste and yard materials.



Foothills Boulevard Landfill – installation of gas extraction piping. Source: Wayne Watson Construction Ltd.

We often think of the environmental impacts of waste as greenhouse gas emissions and water-polluting leachate from landfills – “downstream” impacts. However, “upstream” consumption of goods, materials and resources also has significant impacts in terms of land, water, energy demand, and greenhouse gas emissions. When resources are “consumed” and disposed without reuse, recycling or recovery, the upstream impacts remain.

While all waste recycling and diversion programs involve expenditures, there are also upstream and downstream costs. This means that recovery of materials can be business opportunities when they recover valuable products. This cycling of materials is a key concept of a sustainable community.

Status and Trends

In Prince George, the City provides residential garbage collection while the Regional District of Fraser-Fort George (RDFFG) provides recycling drop-off, hauling, landfill operation, green waste composting, and waste reduction services.

As of 2007, the overall recycling rate for municipal waste in the Regional District was 21%. (Draft RDFFG Solid Waste Management Plan), far worse than that in many other jurisdictions (for example, Metro Vancouver and the Regional District of Nanaimo have achieved diversion rates of 50 to 60%). This rate is likely the same for the City because its population dominates the region. The draft Management Plan proposes a diversion target of 53% by 2014, a substantial improvement but still below rates achieved in leading cities of over 70%.

The biggest waste generation sector is residential at 43%, followed by industrial, commercial and institutional (ICI) at 36%, and demolition, land clearing and construction (DLC) at 21%.

Total waste management costs budgeted for the Regional District and the City were estimated at about \$13 million for 2009, of which about \$10 million are for Regional District waste services and the remainder for the City's services.

Performance Measurement

The following are ways Prince George could measure performance in this area:

- Waste generation rates
- Waste diversion rates, including recycling and composting
- Waste management costs, net of waste recovery revenues
- Availability of reuse mechanisms, like Freecycle, second-hand shops and garage sales

Questions for Consideration

- **Waste reduction:** What new initiatives could contribute significantly to waste reduction and provide business and employment opportunities?
- **Consumption:** Can the community take on the challenge of reducing consumption while maintaining a healthy economy?
- **Business partnerships:** How can local businesses and industries more effectively involve the public in product stewardship and recycling, stimulate creation of new opportunities, and reduce their own waste?

More Information

[2008 Regional Solid Waste Management Plan for the Regional District of Fraser Fort George](#)
[EPA Solid Waste Management and Greenhouse Gases – A Life Cycle Assessment of Emissions and Sinks](#)