

CGR4M0 Grade 12 Environmental and Resource Management  
**Our Interactions with the Environment – Part 1: The Local Level**

Garbage and human waste removal is a problem for most municipalities. Solid waste (household garbage) can be put into a landfill site, incinerated, or diverted. Garbage that is diverted can be recycled or composted. Sewage waste is treated by mechanical and chemical means.

In 1997, Canada was ranked 18th out of 29 Organization for Economic Cooperation and Development (OECD) countries for the amount of waste per person. On average, Canadians produced 490 kilograms of waste per person. Mexico produced the least waste at 300 kilograms, while the United States had the greatest amount, over 700 kilograms.

<b>Total Waste disposed, by province and territory, 2002 and 2004</b>			
<b>Province/Territories</b>	<b>2002 (tonnes)</b>	<b>2004 (tonnes)</b>	<b>Change (Percent)</b>
Newfoundland and Labrador	376,594	400,048	6.2
Prince Edward Island	N/A	N/A	6.9
Nova Scotia	389,194	399,967	2.8
New Brunswick	413,606	442,173	6.9
Quebec	5,846,459	6,159,960	5.4
Ontario	9,645,633	10,053,154	4.2
Manitoba	896,556	928,118	3.5
Saskatchewan	795,124	833,511	4.8
Alberta	2,890,294	3,077,311	6.5
British Columbia	2,687,882	2,841,361	5.7
Territories	N/A	N/A	16.2
<b>Canada</b>	<b>24,081,371</b>	<b>25,291,015</b>	<b>5.0</b>

Source of Information: Statistics Canada

Here are some of the facts about Ontario's waste collection and diversion programs:

- Ontario has 81 landfills, down from 730 in operation in 1989.
- Only a handful of landfills have been approved in the last 10 to 15 years
- Ontarians generate more than 12 million tonnes of waste annually. That's the equivalent of 34,000 fully loaded Boeing 777 jets.
- Because the amount of waste requiring disposal outstrips available landfill capacity, we send about 4 million tonnes to landfills in the United States. Presently, Toronto ships about 300 trucks of garbage a day to a landfill site operated by a private company near Detroit, Michigan.
- The household hazardous waste diversion program currently diverts over 20,000 tonnes annually from Ontario landfills.

## **Sewage Waste**

Of the OECD countries, Canada was ranked 9th out of 29 countries for municipal sewage treatment. With 78% of the population served by public sewage treatment, Canada is above the OECD average of 60 percent. Of the remaining population, 12% are connected to public sewage networks but the water is not treated and the remaining 10% of Canadians are not served by public sewage treatment. There are three levels of treating sewage waste. Thirty-three percent of the Canadian population is served by a tertiary service which is the best. On the other hand, primary treatment, the least effective, is provided to 19% of the population. Victoria, Halifax, and St. John's still discharge raw untreated sewage into the ocean.

## **The Life of a Cell Phone**

Go to:

<https://download.elearningontario.ca/repository/1180250000/CGR4MPU02A05/mme/life%20of%20a%20product/lop.html>

or go to the course website and click on the link. Open a Word page with the title at the top of this page and answer these questions:

- 1) Why is it important to understand the lifecycle of a product?
- 2) How many cell phones were discarded in the United States in 2005? How many is that for each Canadian?
- 3) Why do cheap materials promote waste? Why are “trendy” designs not favourable when it comes to waste prevention?
- 4) What are the pros and cons of the 3 kinds of battery choices? Which is best?
- 5) What is strange about the Chinese government’s practices regarding cell phones?
- 6) Name the kinds of materials and their corresponding percentages used to make a cell phone.
- 7) Give an example of how the material used in a cell phone directly affected the biosphere.
- 8) Rank the 3 choices of power supply from best to worst and say why each is good/bad.
- 9) What were the outcomes of Nokia’s decision to reduce the size of their cell phone boxes by half?
- 10) List 3 things that you can do to combat excessive packaging.
- 11) What kinds of things should you consider when choosing your cell phone plan?
- 12) Finish this sentence: “A user would be much more inclined to keep a cell phone for a much longer period of time ...”
- 13) Which is the best discarding option and why?