

# Chapter 7 Waste Reduction

Close-up.



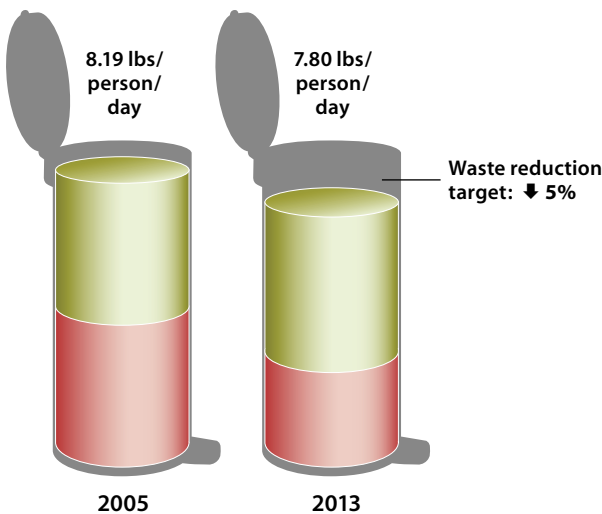
CHRIS JORDAN  
**Running the Numbers**  
 An American Self-Portrait  
*Plastic Bags, 2007*  
 60"x72"

This chapter presents the strategy and actions for reducing the total quantity of waste generated in Olympia over the next six years. The strategy and actions are in response to challenges and opportunities described in **Chapter 2** and **Chapter 3**, and are summarized in **Appendix 5**. The Utility's **Goal 1** is:

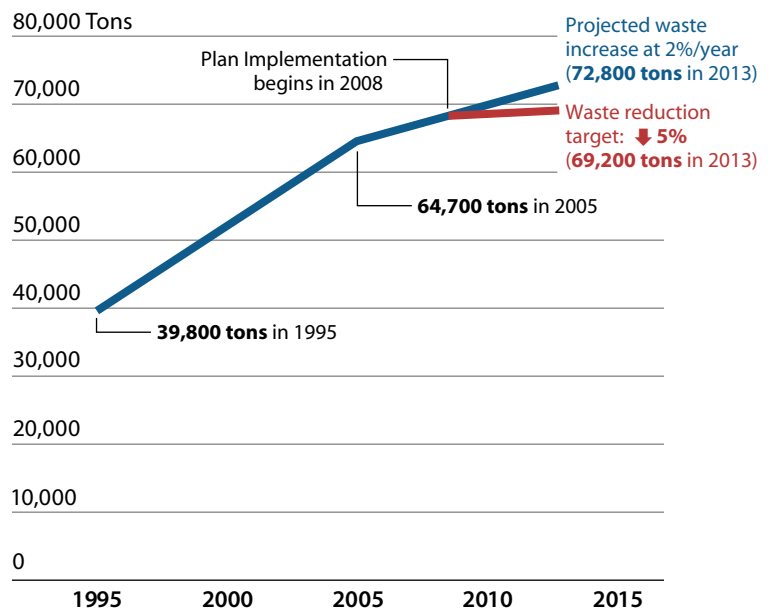
**“Reduce the overall waste generated in Olympia. The quantity of products and materials used and ultimately discarded by Olympia residents and businesses is steadily decreasing over time.”**

As discussed in **Chapter 2**, the total and per capita quantity of waste generated in Olympia has been increasing with population growth. Between 1995 and 2005, the estimated total waste (garbage, recycled materials and yard waste) increased from 39,800 to 64,700 tons, or from 5.72 to 8.19 pounds per capita per day.

Unless waste reduction efforts can decrease waste at a faster rate than population growth, the total “pile” of waste will likely continue to grow. Assuming that waste generation increases at the same rate as population growth (2 percent per year), the total waste in six years would be over 72,800 tons. With implementation of this Plan, Olympia aims to reduce this by 5 percent to about 69,200 tons, as shown in **Figure 7.1**. This means reducing per capita waste from 8.19 to 7.80 pounds per day.



**Figure 7.1**  
 Impact of Waste Reduction Strategy on Total Waste Generation



Long term, if individuals and businesses are able to reduce the total amount of materials used and discarded, waste reduction may eventually outpace waste increases due to population growth. Over time, the size of the total “pile” of waste could be slowed and eventually reduced despite the increase in population. Ultimately, the only remaining “waste” would be recycled or composted, and no garbage would be left to send to the landfill.

## Strategy 1.1 Encourage Waste Reduction

### IMPACT

**3,600 fewer tons of waste (garbage, recycled materials and yard debris)**

This strategy primarily aims to reduce waste “downstream” by influencing the behavior and consumption values of local waste generators (both residential and commercial). The City will also support regional and national efforts to prevent waste “upstream” by influencing extraction, manufacturing, transportation and distribution practices.

### MEASURE OF SUCCESS

	Total Waste Generated	Waste/Capita/Day
<b>Baseline 2005</b>	64,700 tons <sup>1</sup>	8.19 lb
<b>Target 2013</b>	<b>69,200 tons<sup>2</sup></b>	<b>7.80 lb (5% reduction)</b>

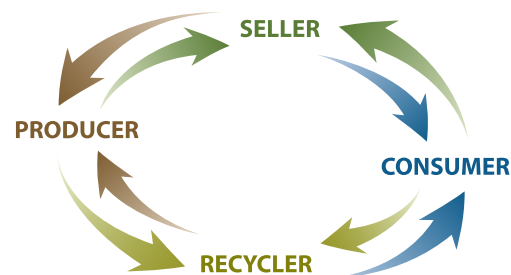
<sup>1</sup> Commercial recycling component is estimated.

<sup>2</sup> With current trends, total waste would be 72,800 tons, assuming a 2% annual increase in both population and waste generation.

The potential impact and measure of success for the waste reduction strategy are shown at left.

The six options selected for implementation are:

1. Educate residential customers about personal waste reduction strategies.
2. Provide technical assistance on waste reduction to commercial waste generators, including businesses, government agencies and other institutions.
3. Educate the public and City staff on the impacts of and alternatives to the use of pesticides and harmful chemicals so they can be eliminated over time (Resolution M-1621).
4. Establish a green business awards program and promote winners.
5. Create a moderated Internet discussion group about how to reduce waste.
6. Participate in national and regional product stewardship activities, promoting producer responsibility during the entire life cycle of a product, “from cradle to cradle.”





*More public awareness could reduce waste. For example, reusing building materials saves forest resources and avoids impacts of manufacturing, transportation and distribution.*

Options 1–6 were evaluated against three criteria: potential to reduce quantity or toxicity of waste, feasibility and customer acceptance. Results are shown in **Table 7.1** and summarized below.

Two other options were considered but not evaluated because they were inconsistent with one or more guiding principles:

7. Impose a surcharge or tax on products with excessive packaging (incentives were prioritized over mandates).
8. Ban the use of Styrofoam (inconvenient for customers if alternatives not available).

	Reduces Quantity or Toxicity	Feasibility/ Practicality	Customer Acceptance	TOTAL
Option 1	♻️	♻️ ♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️	9
Option 2	♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️	11
Option 3	♻️ ♻️ ♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️ ♻️	14
Option 4	♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️	11
Option 5	♻️	♻️ ♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️ ♻️	10
Option 6	♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️	♻️ ♻️ ♻️ ♻️	11

**Table 7.1**  
Assessment of Options for Strategy 1.1 – Waste Reduction

	<b>ASSESSMENT CRITERIA</b>		
	<b>Reduction Potential</b>	<b>Feasibility</b>	<b>Customer Acceptance</b>
<p><b>Option 1</b> <b>Educate residential consumers about personal waste reduction strategies.</b></p>	<ul style="list-style-type: none"> <li>■ Immediate waste reduction expected to be relatively modest.</li> <li>■ Long-term waste reduction potential good.</li> <li>■ Gets at the root cause of “throw-away society.”</li> </ul>	<ul style="list-style-type: none"> <li>■ Already done by many jurisdictions.</li> <li>■ No capital investment needed.</li> <li>■ No political or regulatory barriers.</li> </ul>	<ul style="list-style-type: none"> <li>■ Generally positive as long as the reasons and benefits are clear.</li> <li>■ Some people already practice the simpler life.</li> <li>■ Easy to ignore.</li> </ul>
<p><b>Option 2</b> <b>Provide technical assistance on waste reduction to commercial waste generators, including businesses, government agencies and other institutions.</b></p>	<ul style="list-style-type: none"> <li>■ Waste reduction potential is large. Businesses, agencies, and other institutions generate three-fourths of Olympia’s total waste.</li> </ul>	<ul style="list-style-type: none"> <li>■ No significant political or regulatory barriers.</li> <li>■ Employers report that they have to invest significant time and expense in training their employees.</li> <li>■ Providing one-on-one technical assistance is staff intensive. Technical assistance would have to be tailored to diverse business types.</li> </ul>	<ul style="list-style-type: none"> <li>■ Generally positive – participation would be voluntary.</li> <li>■ Acceptance rises with possibility of cost reductions.</li> <li>■ The challenge is that businesses tend to regard waste prevention and recycling behaviors as one and the same.</li> </ul>
<p><b>Option 3</b> <b>Educate the public and City staff on the impacts of and alternatives to the use of pesticides and harmful chemicals so they can be eliminated over time (Resolution M-1621).</b></p>	<ul style="list-style-type: none"> <li>■ Good chance of reducing purchase of toxic products due to concerns about health and water resources.</li> <li>■ Alternatives increasingly available.</li> </ul>	<ul style="list-style-type: none"> <li>■ Requires judgment about “wasteful or toxic product” types and potential opposition from producers.</li> <li>■ Will require additional staff expertise.</li> </ul>	<ul style="list-style-type: none"> <li>■ Public understanding of the harmfulness of certain pesticides and chemicals is rising.</li> <li>■ People are concerned about health of their children and pets.</li> </ul>
<p><b>Option 4</b> <b>Establish a green business awards program and promote winners.</b></p>	<ul style="list-style-type: none"> <li>■ Waste reduction potential is large.</li> <li>■ Reduction potential not known.</li> </ul>	<ul style="list-style-type: none"> <li>■ Takes staff time to design, kick-off and administer.</li> <li>■ Businesses would need to spend time submitting applications.</li> <li>■ Must identify criteria and judging strategies.</li> </ul>	<ul style="list-style-type: none"> <li>■ Generally positive – participation would be voluntary.</li> <li>■ Could be a burden for smaller businesses to apply.</li> <li>■ Promotion opportunity for businesses that meet criteria.</li> </ul>
<p><b>Option 5</b> <b>Create a moderated internet discussion group about how to reduce waste.</b></p>	<ul style="list-style-type: none"> <li>■ Reduction potential not known.</li> </ul>	<ul style="list-style-type: none"> <li>■ Already done by several jurisdictions.</li> <li>■ Neither labor nor capital intensive.</li> <li>■ Easy to do.</li> </ul>	<ul style="list-style-type: none"> <li>■ Geared towards those who prefer to use this medium.</li> </ul>
<p><b>Option 6</b> <b>Participate in national and regional product stewardship activities, promoting producer responsibility during the entire life cycle of a product, “from cradle to cradle.”</b></p>	<ul style="list-style-type: none"> <li>■ Short-term results would be small, but long term potential is large.</li> <li>■ Addresses some of the reasons materials and products can’t be recycled or reused.</li> </ul>	<ul style="list-style-type: none"> <li>■ New paradigm rapidly gaining momentum in Washington (e.g., passage of E-waste law).</li> <li>■ Council members have expressed intent to influence State law, where appropriate.</li> </ul>	<ul style="list-style-type: none"> <li>■ Consumers would benefit from take-back opportunities, and other ways to handle products.</li> <li>■ U.S. manufacturers tend to resist product responsibility, but some are recognizing the long-term benefits.</li> <li>■ Retailers would support if their costs are covered.</li> <li>■ Concept and benefits can be hard to grasp.</li> </ul>