

# **King County Waste Monitoring Program**

## **2006 Transfer Station Customer Surveys**

*March 2007*



**King County**

Department of Natural Resources and Parks  
**Solid Waste Division**

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# Chapter 1

## Executive Summary

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### 1.1 OVERVIEW

#### Project Purpose & Background

Since 1990, the King County Solid Waste Division has conducted its King County Waste Monitoring Program to help plan for future community needs, improve services, and track progress towards recycling goals. The Transfer Station Customer Survey provides King County with answers to crucial questions such as where the waste comes from, how to increase recycling, and why and how often people visit a Transfer Station. These surveys help the County understand and track its customers and provide effective service.

Between February and December 2006, the Waste Monitoring Program conducted 5,665 customer surveys at nine facilities (seven King County public transfer stations and the Cedar Falls and Skykomish drop-boxes.)<sup>1</sup> Of the nine facilities, six transfer stations were surveyed quarterly and the two drop-boxes and Vashon Transfer Station were surveyed twice a year, due to their low traffic volumes.

This report presents the results of those customer surveys<sup>2</sup>.

#### Study Methods

The 2006 study collected customer data at King County waste facilities using three steps:

- **Develop a sampling plan.** Customer surveys were scheduled for each waste facility on randomly selected days throughout the year. The survey instrument was designed by King County in collaboration with Cascadia Consulting Group. The consultant team pre-tested the survey at the Factoria Transfer Station and incorporated the feedback into the final survey instrument.
- **Train and Implement the Customer Survey.** Surveyors completed a one day, on-site training prior to the first day of surveying. The trained surveyors gathered information such as vehicle type, collection type, and source of the material from drivers bringing loads to waste facilities. Data from each month's surveys were then reviewed for accuracy and completeness.

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<sup>1</sup> First Northeast is closed for renovation and was excluded from surveying.

<sup>2</sup> In the past, this report has been completed along side the Waste Characterization Study but due to timing (the Customer Surveys were completed in 2006, the Waste Characterization Study is scheduled for 2007) two separate reports will be drafted.

- **Analyze data and prepare report.** Survey data was entered into a customized database, compiled and summarized. The survey results are presented here in a report format similar to previous years.

Chapter 2 provides additional information on the project purpose, background, and methods.

## Understanding King County's Facility Customers

To manage waste and to plan for the future, King County gathers information about its solid waste stream and transfer station users. In analyzing the customer surveys, waste flows were divided into various substreams, according to the source of the waste and type of hauler. Such analysis is useful in waste management planning because the different substreams may have different waste types, user profiles, and public programs designed to reach target customers.

In this study, the customers surveyed were first divided according to how materials were delivered to transfer stations: commercially collected by franchised waste hauling companies or self-hauled by residents or other businesses that bring loads to waste facilities.<sup>3</sup> Then the wastes were further categorized according to the source, or generator, of the waste: residential or nonresidential substreams.

### 1.2 KEY CUSTOMER SURVEY FINDINGS

- **Self-hauled loads represented 78% of the customers surveyed.** Passenger vehicles compose more than ninety percent (92%) of the self-hauled traffic surveyed.<sup>4</sup>
- **Self-hauled loads came primarily from residences (91%).**
- **The majority (66%) of commercially collected loads** originated from nonresidential sources.
- **Mixed garbage accounted for 73% of all loads surveyed.** Construction and demolition materials represented 17%, and yard waste accounted for 8%. The remaining 1% of loads surveyed brought household hazardous waste<sup>5</sup>.

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<sup>3</sup> Commercial haulers are firms that contract with local governments to operate a garbage collection company or operate under a state franchise in a particular geographic area. The Town of Skykomish operates its own waste collection systems, rather than contracting with commercial haulers. Loads hauled by the Town of Skykomish are considered commercially hauled.

Self-hauled loads are categorized as residential or nonresidential according to the source of the load, not the type of hauler. For example, some companies collect waste from homes or businesses, but they are not the franchised haulers that deliver commercially collected waste to transfer stations. These loads are considered self-hauled residential if the waste is produced from homes, even though a company, not the residents, delivers the material to a waste facility.

<sup>4</sup> Passenger vehicles include autos, pick-up trucks, vans, and sport-utility vehicles.

<sup>5</sup> Household hazardous waste is collected at the Factoria Transfer Station.

- **Most residential self-haulers subscribed to curbside garbage service (70%),** but the thirty percent that did not subscribe reported bringing loads to waste facilities three times more often than the subscribers.
- **“Large Amount of Garbage”** was the top reason for self-hauling waste for both residential (24%) and nonresidential (25%) self-hauled loads.
- **Most self-haulers (78%) would separate** their wood, metals, and yard waste to save \$10/ton or approximately \$2/load. However, nearly 20% of contractors/landscapers would be unwilling to separate recyclable materials regardless of the cost savings.

### 1.3 REPORT OUTLINE

The 2006 Transfer Station Customer Survey report is organized as follows:

- **Executive Summary – Chapter 1** provides an overview of study methods and key findings.
- **Introduction – Chapter 2** describes the Waste Monitoring Program’s purpose and background, summarizes the study methods, and discusses how to interpret the results.
- **Customer Survey Results – Chapter 3** presents the results of the customer surveys, including vehicle types, waste types, waste categories, generator types, geographic origins, and other information gathered from waste facility users.
- **Appendices** present additional information on the customer surveys, including field forms, and methodologies.



# Chapter 2

## Introduction

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### 2.1 PROJECT PURPOSE & BACKGROUND

Each year, residents and businesses in King County throw away nearly 1 million tons of garbage, also known as mixed municipal solid waste (MMSW).<sup>6</sup> What are people disposing, where does this waste come from, and where does it go? The King County Solid Waste Division's Waste Monitoring Program was started in 1990 to answer these questions and learn more about disposed waste. This ongoing program seeks to characterize King County's waste disposal and to understand the customers using its waste facilities. Monitoring the waste stream helps the County provide effective and efficient services, plan for future needs, and track progress towards its recycling goals.

#### Solid Waste Management in King County

The County's waste monitoring efforts are designed to track its complex waste management system. Private waste management companies collect much of the waste from homes and businesses. Some individuals and companies also choose to haul their own waste, either occasionally or on a regular basis. Most of King County's solid waste destined for disposal first goes to one of 12 facilities: eight County-owned transfer stations<sup>7</sup>, two County-owned drop-boxes, or two privately owned transfer stations.

For the purpose of this study, only County-owned transfer stations and drop-boxes were surveyed. The County-owned transfer stations included in the study were: Algona, Bow Lake, Enumclaw, Factoria, Houghton, Renton, and Vashon<sup>8</sup>. The two drop-boxes are located at Cedar Falls and Skykomish. From these transfer stations and drop-boxes, trucks haul King County's waste to the Cedar Hills Regional Landfill for disposal.

#### King County's Waste Monitoring Program

The Waste Monitoring Program assesses where, why, how, and which materials both residents and businesses dispose. To help King County provide services and plan for the future, customer surveys help track the types of vehicles using the waste facilities as well as the types of waste and the wastes origins. These surveys help the County understand its customers and serve them more effectively.

Between February and December 2006, the Waste Monitoring Program conducted 5,665 customer surveys at the publicly-owned waste facilities in King County. This

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<sup>6</sup> This figure excludes wastes originating within the city of Seattle, which manages its solid waste separately from the rest of King County.

<sup>7</sup> The County owns 8 transfer stations, but only 7 were operating when the customer surveys were implemented. First Northeast was closed for renovation.

<sup>8</sup> First Northeast is closed for renovation and was excluded from surveying.

report presents the results of those customer surveys. Table 2-1 shows the number of customer surveys conducted since 1993-4 as part of King County's Waste Monitoring Program. The number of surveys obtained in 2006 represents an 11% decline from the 2002-2003 study period. However, it is important to note that First Northeast, a busy facility with historically high traffic volumes, was closed for renovation in 2006 and was therefore not included in the survey.

**Table 2-1. Customer Surveys Conducted<sup>9</sup>**

<b>Study Period</b>	<b>Customer Surveys</b>
2006	5,665
2002-2003	6,381
2001	7,050
1999-2000	7,809
1998	22,645
1997	12,610
1995-1996	11,132
1993-1994	12,523
<b>TOTAL</b>	<b>85,815</b>

## **2.2 SUMMARY OF METHODS**

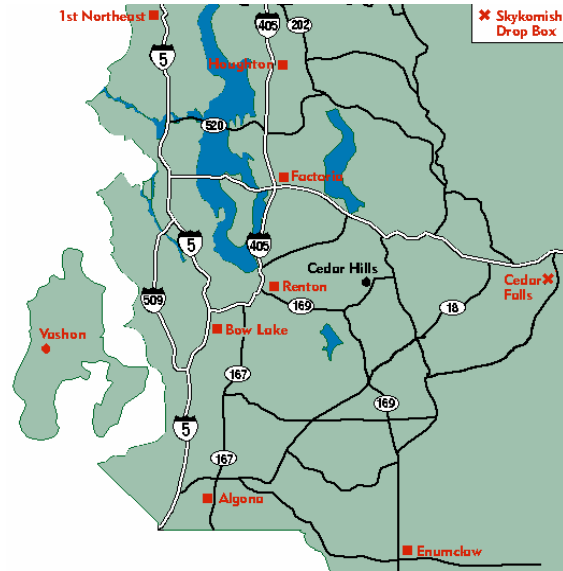
The following section provides an overview of the 2006 study methodology. This study of customer use involved three major steps, as described below. See Appendix A for a detailed description of the surveying methodology.

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<sup>9</sup> Since 1998, the number of surveys obtained during each study period has decreased due to budgetary constraints and construction related facility closures.

### Step 1. Develop Survey Plan

- A survey schedule was constructed for the study period of February to December 2006. Quarterly surveys occurred at each transfer station except for Vashon, Skykomish and Cedar Falls. Vashon and the two drop-boxes were surveyed every six months due to their low traffic volume. The survey days assigned to each facility were randomly selected in order to ensure unbiased sampling and statistically representative results. Consistent with previous customer surveys, error ranges and confidence intervals were not calculated and the report does not address statistically significant differences among the facilities. The data do reveal trends and can be used to identify County-wide transfer station customer use patterns.



King County transfer stations and drop-boxes



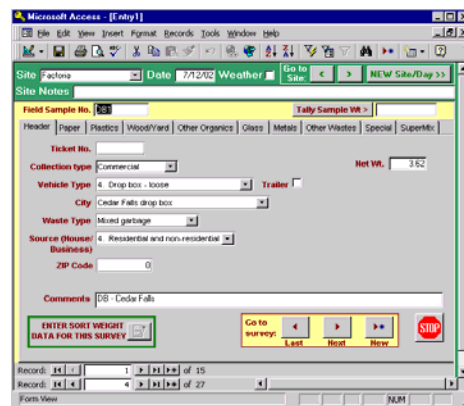
Surveyor gathering information from a driver

### Step 2. Survey Incoming Vehicles

- The surveyor gathered information from the driver such as the vehicle type, collection type (commercially collected or self-hauled), category of waste brought for disposal (e.g., mixed garbage, yard waste, construction/demolition), source or generator of the material (residential or nonresidential), and their willingness to separate materials for a reduction in their tip fee.

### Step 3. Analyze Data & Prepare Report

- Each month, the survey data was entered into a customized database and reviewed for data entry errors.
- At the conclusion of the study, the information gathered from the surveys was analyzed to determine key findings, such as who uses the site and why.



Example data-entry form in customized database

Table 2-2 shows the number of surveys that were obtained from each facility during the study.

**Table 2-2. Total Number of Customer Surveys  
February – December 2006**

<b>Transfer Stations and Drop Boxes</b>	<b>Total Surveys</b>
Algona	954
Bow Lake	1,531
Cedar Falls Drop Box	119
Enumclaw	318
Factoria	1,051
Houghton	976
Renton	577
Skykomish Drop Box	6
Vashon	133
<b>Total</b>	<b>5,665</b>

## 2.3 UNDERSTANDING THE WASTE STREAM

To better understand King County's overall solid waste stream, it is divided into various substreams. The overall waste stream can then be analyzed at the substream level or as a whole. Such analysis is useful because the different substreams often:

- Produce different waste types
- Have different user profiles, and
- Require different communication, outreach, and education programs.

Substreams are identified according to factors such as how materials are delivered to waste sites (commercially collected or self-hauled) and the source, or generator, of the waste (residential or nonresidential). The sources of waste and types of delivery are defined as follows:

- **Commercial haulers** are firms that contract with local governments to operate a garbage collection company or operate under a state franchise in a particular geographic area.<sup>10</sup>
- **Self-haulers** are residents or businesses that bring waste to transfer stations or drop-boxes themselves.<sup>11</sup>

<sup>10</sup> The Town of Skykomish operates its own waste collection systems, rather than contracting with commercial haulers. Loads hauled by the Town of Skykomish are considered commercially hauled.

<sup>11</sup> Self-hauled loads are categorized as residential or nonresidential according to the source of the load, not the type of hauler. For example, some companies collect waste from homes or businesses, but they are not the franchised haulers that deliver commercially collected waste to transfer stations. These loads are considered self-hauled

- **Residential waste** comes from single-family or multifamily dwellings.
- **Nonresidential waste** comes from businesses, schools, government offices, and other institutions that are not residences.

In this study, customers surveyed are first divided into commercially collected and self-hauled waste categories. Then those categories are further divided between residential and nonresidential categories, as shown in Figure 2-1. In some cases, loads contain a mixture of waste from residential and nonresidential sources, these “mixed loads” represent only a small portion of the total waste (about 6% of commercially collected loads and 1% of self-hauled loads).

**Figure 2-1. Substream Definitions**

	<b>Commercially Collected</b>	<b>Self-hauled</b>
<b>Residential Waste</b>	Commercially collected waste from residential sources	Self-hauled waste from residential sources
<b>Nonresidential Waste</b>	Commercially collected waste from nonresidential sources	Self-hauled waste from nonresidential sources

## 2.4 WASTE CATEGORIES

All customers were asked what type of waste they were hauling. The waste was then classified into one of the five options below:

- **Yard Waste** is organic waste made primarily of plant material. This includes grass, leaves, and prunings.
- **Construction and Demolition** is waste that is created by construction and/or demolition activities.
- **Special Waste** is petroleum-contaminated soil, sludge, or asbestos.<sup>12</sup>
- **Household Hazardous Waste** is potentially hazardous products that must be disposed of at a Household Hazardous Collection Site (e.g., oil, paint, and pesticides).
- **Mixed Garbage** is waste that does not fit into any of the above four categories or is a mix of several categories.

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residential if the waste is produced from homes, even though a company, not the residents, delivers the material to a waste facility.

<sup>12</sup> No customers surveyed reported hauling Special Waste.

## 2.5 INTERPRETING THE RESULTS

### Rounding

When interpreting the results presented in the tables and figures in this report, it is important to consider the **effect of rounding**.

To keep the waste composition tables and figures readable, estimated percentages are rounded to the nearest percent. Due to this rounding, the percentages, when added together, may not equal 100%.

# Chapter 3

## Customer Survey Results

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### 3.1 CUSTOMER SURVEY OVERVIEW & KEY FINDINGS

Between February and December 2006, King County conducted nearly 889,000 transactions at the seven County transfer stations and two drop-box facilities. During that time, the project team conducted 5,665 interviews with customers at those waste facilities to determine who uses the sites and why. Each survey day an interviewer asked the driver of every vehicle entering the site a series of questions.<sup>13</sup>

This chapter presents the findings of these customer surveys. Appendix A provides additional details on the study methodology and includes examples of the field forms used in the survey. Survey results are presented for commercially collected and self-hauled substreams.

The figures presented describe the portion of waste transactions (customers, loads, visits, or users) surveyed at waste facilities – *not* the weight or tonnages of the waste they delivered. The percentages reported refer to the portion of drivers surveyed, not the number of waste loads delivered during the study period.

#### Key Customer Survey Findings

- **Self-hauled loads represented 78% of the customers** surveyed at waste facilities. Passenger vehicles composed more than ninety percent (92%) of the self-hauled traffic surveyed at waste facilities.<sup>14</sup>
- **Self-hauled loads came primarily from residences (91%).**
- **The majority (66%) of commercially collected loads** originated from nonresidential sources.
- **Mixed garbage accounted for 73% of all loads** surveyed. Construction and demolition materials represented 17% and yard waste accounted for 8%. The remaining 1% of loads surveyed brought household hazardous waste<sup>15</sup>.
- **Most residential self-haulers (70%) subscribed to curbside garbage service.** The thirty percent that did not subscribe reported bringing loads to transfer stations three times more often than the subscribers.
- **“Large Amount of Garbage” was the top reason for self-hauling waste** reported for both residential (24%) and nonresidential (25%) loads.

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<sup>13</sup> If traffic became too congested, a few vehicles skipped the survey to avoid traffic flow problems at the site.

<sup>14</sup> Passenger vehicles include autos, pick-up trucks, vans, and sport-utility vehicles.

<sup>15</sup> Household hazardous waste is only collected at Factoria Transfer Station.

- **Most self-haulers (78%) would separate their wood, metals, and yard waste to save \$10/ton or approximately \$2/load.** However, nearly 20% of contractors/landscapers would be unwilling to separate regardless of the cost savings.

### 3.2 VEHICLE TYPE

Table 3-1 shows the vehicle types for commercial and self-haul customers. Self-haulers generated 78% of the transactions at waste facilities, and used passenger vehicles (autos, sedans, vans, pick-up trucks, sport-utility vehicles) for 92% of their visits. Commercial haulers primarily delivered loads in drop-boxes (60%). Commercial haulers accounted for 22% of the vehicle traffic at King County waste facilities.

A more detailed *Observed Vehicle Types, by Collection Type and Facility* table can be found in Appendix B.

**Table 3-1. Observed Vehicle Types, by Collection Type  
February 2006 – December 2006 (n=5,665)**

	Commercial	Self-haul	Overall
Packer	40%	0%	9%
Dropbox	60%	0%	13%
Large Other	0%	8%	6%
Passenger Vehicle	0%	92%	72%
<b>Subtotal</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<i>No Response</i>	<i>0%</i>	<i>0%</i>	<i>0%</i>
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.*



### 3.3 WASTE TYPE

#### Waste Types for Commercially Collected & Self-hauled Loads

Table 3-2 shows the types of wastes hauled by commercial and self-haul customers. The majority of loads from both the commercial and self-haul waste stream contained *mixed garbage* (99% and 66%, respectively). Self-haulers delivered the majority of the *construction/demolition* waste loads and all of the loads containing *yard waste*.

Overall (commercial and self-haul customers combined), 73% of loads delivered *mixed garbage*, and 17% of loads contained primarily *construction/demolition* waste. The remaining loads brought *yard waste* (8%) and *household hazardous waste* (1%)<sup>16</sup>.

A detailed *Reported Waste Types, by Collection Type and Facility* table can be found in Appendix B.

**Table 3-2. Reported Waste Types, by Collection Type  
February 2006 – December 2006 (n=5,665)**

	Commercial	Self-haul	Overall
Mixed Garbage	99%	66%	73%
Construction/Demolition	1%	22%	17%
Yard Waste	0%	10%	8%
Special Waste	0%	0%	0%
<b>Subtotal</b>	<b>100%</b>	<b>98%</b>	<b>99%</b>
<i>No Response</i>	0%	0%	0%
<i>Household Hazardous Waste</i>	0%	2%	1%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.*

<sup>16</sup> Household hazardous waste is only collected at Factoria Transfer Station.

### 3.4 GENERATOR TYPE

#### Commercially Collected Loads

Table 3-3 shows the proportion of commercial vehicle traffic arriving at each facility by generator type: *residential*, *nonresidential*, and *mixed residential and nonresidential*. The *residential* generator type is further subdivided into *single-family residential*, *multifamily residential* and *mixed single-family and multifamily residential* generator types. As shown, the relative proportion of loads by generator type can vary greatly by site. For example the proportion of *nonresidential* generators ranges from 0% of the loads at Vashon to 79% at Bow Lake. Of commercially collected loads delivered to the seven public facilities, the *residential* generator type accounted for 28% of the loads; the *nonresidential* generator type accounted for 66%; and the mixed generator type accounted for 6%. The only commercial loads accepted at the Skykomish drop-box are from the Town of Skykomish. Commercial customers are not accepted at the Cedar Falls drop-box.

**Table 3-3. Reported Generator Types for Commercially Collected Loads  
February 2006 – December 2006 (n=1,229)**

	Algona	Bow Lake	Enumclaw	Factoria
<b>Residential</b>	<b>38%</b>	<b>16%</b>	<b>29%</b>	<b>37%</b>
Single Family	26%	8%	29%	29%
Multi-Family	9%	5%	0%	6%
Mixed Single Family & Multi-Family Residential	3%	2%	0%	2%
<b>Nonresidential</b>	<b>55%</b>	<b>79%</b>	<b>67%</b>	<b>57%</b>
<b>Mixed Residential and Nonresidential</b>	<b>7%</b>	<b>6%</b>	<b>4%</b>	<b>6%</b>
<b>Subtotal</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<i>No Response</i>	0%	0%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

	Houghton	Renton	Vashon	Overall
<b>Residential</b>	<b>41%</b>	<b>44%</b>	<b>0%</b>	<b>28%</b>
Single Family	30%	32%	0%	19%
Multi-Family	9%	11%	0%	7%
Mixed Single Family & Multi-Family Residential	2%	2%	0%	2%
<b>Nonresidential</b>	<b>52%</b>	<b>51%</b>	<b>0%</b>	<b>66%</b>
<b>Mixed Residential and Nonresidential</b>	<b>7%</b>	<b>5%</b>	<b>100%</b>	<b>6%</b>
<b>Subtotal</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<i>No Response</i>	0%	0%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.*

## Self-hauled Loads

Table 3-4 shows the proportion of self-hauled loads arriving at each facility, by generator type. More than 90% of the self-hauled loads came from *residential* generators. Other than at Skykomish, the proportion of loads by generator type varies very little from site to site.

**Table 3-4. Reported Generator Types for Self-hauled Loads  
February 2006 – December 2006 (n=4,436)**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria
<b>Residential</b>	<b>91%</b>	<b>89%</b>	<b>94%</b>	<b>94%</b>	<b>92%</b>
Single Family	88%	84%	92%	92%	90%
Multi-Family	3%	4%	2%	2%	3%
Mixed Single Family & Multi-Family Residential	0%	0%	0%	0%	0%
<b>Nonresidential</b>	<b>7%</b>	<b>10%</b>	<b>4%</b>	<b>3%</b>	<b>7%</b>
<b>Mixed Residential and Nonresidential</b>	<b>2%</b>	<b>1%</b>	<b>1%</b>	<b>3%</b>	<b>1%</b>
<b>Subtotal</b>	<b>100%</b>	<b>100%</b>	<b>99%</b>	<b>100%</b>	<b>100%</b>
No Response	0%	0%	1%	0%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

	Houghton	Renton	Skykomish	Vashon	Overall
<b>Residential</b>	<b>91%</b>	<b>97%</b>	<b>67%</b>	<b>91%</b>	<b>91%</b>
Single Family	87%	94%	67%	90%	88%
Multi-Family	3%	2%	0%	1%	3%
Mixed Single Family & Multi-Family Residential	0%	0%	0%	0%	0%
<b>Nonresidential</b>	<b>8%</b>	<b>2%</b>	<b>17%</b>	<b>7%</b>	<b>7%</b>
<b>Mixed Residential and Nonresidential</b>	<b>1%</b>	<b>1%</b>	<b>17%</b>	<b>2%</b>	<b>1%</b>
<b>Subtotal</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>99%</b>	<b>100%</b>
No Response	0%	0%	0%	1%	0%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.

## Contractors & Landscapers (Self-hauled Only)

For this study, the surveyor asked self-haulers bringing loads of yard waste or construction and demolition (C&D) waste if they were a contractor or landscaper. Table 3-5 presents the proportion of C&D/yard waste loads from each generator type (*residential, nonresidential, and mixed*) brought by contractors, landscapers, and other self-haulers.

As shown, contractors and landscapers together brought most (70%) of the surveyed C&D/yard waste loads from nonresidential sources. In contrast, only 36% of residential C&D/yard waste loads surveyed were delivered by contractors or landscapers. Overall, most (59%) loads of C&D/yard waste were brought to King County facilities by self-haulers that were neither contractors nor landscapers.<sup>17</sup>

A detailed *Reported Self-haul Contractors and Landscapers, by Facility and Generator Type* table can be found in Appendix B.

**Table 3-5. Reported Contractors & Landscapers, by Generator Type  
February 2006 – December 2006 (n=1,407)**

	Residential	Nonresidential	Mixed Residential & Nonresidential	Overall
Contractors	31%	69%	67%	36%
Landscapers	5%	11%	10%	6%
All Others	63%	20%	24%	59%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.*

<sup>17</sup> The number of surveyed residential self-haulers with C&D/yard waste (1249) greatly exceeds the number of nonresidential (137) and mixed self-haulers (21).

### 3.5 CURBSIDE GARBAGE SUBSCRIPTION LEVELS REPORTED BY RESIDENTIAL SELF-HAULERS

#### Service Levels

Table 3-6 shows the proportion of self-haulers with *residential* waste that subscribe and do not subscribe to curbside garbage collection service. Most residential self-haul customers reported that they subscribe to curbside garbage service (70%), while 29% residential self-haulers do not subscribe. The “No Response” group makes up the remaining 1%. The percentage of self-haulers that do not subscribe to curbside garbage collection service is higher at the rural facilities than at the urban locations. For example, self-haul customers without curbside garbage service accounted for the largest share of residential self-haulers at Vashon (80%) and Enumclaw (50%) – both rural locations. Most Factoria (82%) and Houghton (81%) customers subscribe to curbside garbage collection.

**Table 3-6. Reported Usage of Curbside Garbage Collection Service by Residential Self-haulers  
February 2006 – December 2006 (n=3,491)**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria
<b>Subscribe</b>	69%	68%	55%	47%	82%
<b>Don't Subscribe</b>	29%	31%	44%	50%	16%
<b>Subtotal</b>	99%	99%	99%	98%	98%
<i>No Response</i>	1%	1%	1%	2%	2%
<b>Total</b>	100%	100%	100%	100%	100%

	Houghton	Renton	Skykomish	Vashon	Overall
<b>Subscribe</b>	81%	69%	0%	20%	70%
<b>Don't Subscribe</b>	18%	30%	100%	80%	29%
<b>Subtotal</b>	99%	99%	100%	100%	99%
<i>No Response</i>	1%	1%	0%	0%	1%
<b>Total</b>	100%	100%	100%	100%	100%

*Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.*

## 3.6 EFFECT OF SERVICE LEVELS ON TRIP FREQUENCY

### Residential Generators

Table 3-7 and Table 3-8 show the annualized average number of visits surveyed residential self-haulers made to each King County facility. Residential self-haulers are sorted into two groups: those who subscribed to curbside garbage collection service and those who did not subscribe.

During the survey, self-haul customers reported the number of visits on a per day, per week, or per month basis. These responses were then converted to *visits per year* (i.e., “twice a week” equals 104 visits per year).

Comparable with the data presented in previous customer survey reports, the data shown in Table 3-7 include all self-haulers (including contractors, landscapers, and independent haulers) who brought *residential* waste.

Based on the observations of the vehicle surveyors contractors, landscapers, and independent haulers (e.g., the company “Got Junk”) tend to haul waste to the County’s transfer stations much more frequently than do residents hauling their own material. Contractors, landscapers, and independent haulers bring waste several times a day, every day of the week. When viewing the data, especially as compared to previous customer survey reports, it is important to consider that the market presence of independent hauling businesses (particularly franchised companies like “Got Junk”) has grown considerably over the past several years. It is also possible that surveyed drivers say they bring material to the transfer station more often than they actually do.

### **ALL RESIDENTIAL USERS**

Surveyed customers that do not subscribe to curbside garbage service made, on average, about three times as many visits per year as residential self-haulers that do subscribe.

On average, surveyed customers who subscribe to curbside garbage collection service made 13.5 visits per year to a King County owned transfer station (slightly more than once per month). Users of the Enumclaw transfer station who subscribe to curbside garbage collection made the fewest annual visits (9.9). Users of the Factoria and Houghton transfer station who subscribe to curbside garbage collection made the most annual visits (16.0 and 15.5, respectively) to a King County owned transfer station.

**Table 3-7. Average Visits per Year by All Residential Self-haulers With and Without Curbside Garbage Service  
February 2006 – December 2006 (n=4,058)**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria
Subscribe	11.1	13.9	11.6	9.9	16.0
Do not subscribe	37.8	19.7	19.2	19.8	66.1
Combined Average	19.0	15.7	15.0	15.0	24.2

	Houghton	Renton	Skykomish	Vashon	Overall
Subscribe	15.5	10.8	0.0	10.3	13.5
Do not subscribe	154.0	13.3	25.0	30.3	41.4
Combined Average	40.7	11.6	25.0	26.3	21.7

**RESIDENTIAL USERS MAKING FEWER THAN TWO VISITS PER DAY**

Surveyed customers who made fewer than two visits per day and do not subscribe to curbside garbage service visited a transfer station, on average, about twice as often as customers who subscribe to curbside garbage collection.

On average, these surveyed customers who subscribe to curbside garbage collection make 10.8 visits per year to a King County owned transfer station (slightly less than once per month). Users of the Factoria transfer station who subscribe to curbside garbage collection make the fewest annual visits (9.4). Users of the Bow Lake and Cedar Falls transfer station who subscribe to curbside garbage collection make the most annual visits (11.7 and 11.6, respectively).

**Table 3-8. Average Visits per Year by Residential Self-haulers With and Without Curbside Garbage Service Making Fewer than Two Visits per Day February 2006 – December 2006 (n=4,022)**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria
Subscribe	11.1	11.7	11.6	9.9	9.4
Do not subscribe	20.5	19.7	19.2	19.8	22.8
Combined Average	13.9	14.2	15.0	15.0	11.5

	Houghton	Renton	Skykomish	Vashon	Overall
Subscribe	11.5	10.8	0.0	10.3	10.8
Do not subscribe	28.5	13.3	25.0	30.3	21.1
Combined Average	14.4	11.6	25.0	26.3	13.8



## Nonresidential Generators

Table 3-9 and Table 3-10 show the annualized average number of visits surveyed *nonresidential* self-haulers made to each King County facility. Nonresidential self-haulers are sorted into two groups: those who subscribed to curbside garbage collection service and those who did not subscribe.

During the survey, self-haul customers reported the number of visits on a per day, per week, or per month basis. These responses were then converted to *visits per year* (i.e., “twice a week” equals 104 visits per year).

Comparable with the data presented in previous customer survey reports, the data shown in Table 3-7 include all self-haulers (including contractors, landscapers, and independent haulers) who brought *nonresidential* waste.

Based on the observations of the vehicle surveyors contractors, landscapers, and independent haulers (e.g., the company “Got Junk”) tend to haul waste to the County’s transfer stations much more frequently than do businesses hauling their own material. Contractors, landscapers, and independent haulers bring waste several times a day, often every day of the week. When viewing the data, it is important to consider that the market presence of independent hauling businesses (particularly franchised companies like “Got Junk”) has grown considerably over the past several years. It is also possible that surveyed drivers say they bring material to the transfer station more often than they actually do.

### **ALL NONRESIDENTIAL USERS**

Surveyed nonresidential customers that do not subscribe to garbage service made, on average, more than four times as many visits per year as the subscribers.

On average, surveyed customers who subscribe to curbside garbage collection make 42.1 visits per year to a King County owned transfer station (slightly less than once per week). Users of the Cedar Falls and Enumclaw transfer stations who subscribe to curbside garbage collection make the fewest annual visits (3.0 and 18.0, respectively). Users of the Houghton and Algona transfer station who subscribe to curbside garbage collection make the most annual visits (50.9 and 46.2, respectively).

No nonresidential customers using the Renton, Skykomish, or Vashon transfer stations subscribed to curbside garbage collection.

**Table 3-9. Average Visits per Year by All Nonresidential Self-haulers With and Without Curbside Garbage Service  
February 2006 – December 2006 (n=307)<sup>18</sup>**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria
Subscribe	46.2	40.4	3.0	18.0	38.8
Do not subscribe	192.7	132.0	0.0	38.0	22.3
Combined Average	96.6	85.3	3.0	26.0	35.5

	Houghton	Renton	Skykomish	Vashon	Overall
Subscribe	50.9	0.0	0.0	0.0	42.1
Do not subscribe	216.8	1095.0	730.0	95.3	170.6
Combined Average	113.8	1095.0	730.0	95.3	95.3

<sup>18</sup> The number of nonresidential surveys collected, n, at the Skykomish drop box is 2. At Renton, the n for nonresidential self-haul vehicles is 15.

**NONRESIDENTIAL USERS MAKING FEWER THAN TWO VISITS PER DAY**

Surveyed nonresidential customers that make fewer than two visits per day and do not subscribe to curbside garbage service visited a transfer station, on average, slightly more often than nonresidential customers who subscribe to curbside garbage collection.

On average, surveyed customers who subscribe to curbside garbage collection make 42.1 visits per year to a King County owned transfer station (slightly less than once per week). Users of the Cedar Falls and Enumclaw transfer stations who subscribe to curbside garbage collection make the fewest annual visits (3.0 and 18.0, respectively). Users of the Houghton and Algona transfer station who subscribe to curbside garbage collection make the most annual visits (50.9 and 46.2, respectively) to a King County owned transfer station.

No customers using the Renton, or Vashon transfer station subscribe to curbside garbage collection.

**Table 3-10. Average Visits per Year by Nonresidential Self-haulers With and Without Curbside Garbage Service Making Fewer than Two Visits per Day  
February 2006 – December 2006 (n=293)**

	Algona	Bow Lake	Cedar Falls	Enumclaw
Subscribe	46.2	40.4	3.0	18.0
Do not subscribe	102.5	61.1	0.0	38.0
Combined Average	64.4	50.1	3.0	26.0

	Factoria	Houghton	Vashon	Overall
Subscribe	38.8	50.9	0.0	42.1
Do not subscribe	22.3	56.0	95.3	67.9
Combined Average	35.5	52.7	95.3	52.1

### 3.7 WILLINGNESS TO RECYCLE WOOD, METAL, YARD DEBRIS

In 2006, King County added a survey question directed at self-haulers to assess recycling savings incentives. Self-haulers were asked, “In the future, would you be willing to recycle wood, metals, and/or yard waste into separate containers if you could save \$2 per load?” If the driver responded “no” the surveyor asked if the driver would be willing to do so for a cost savings of \$4 per load. This process continued until the driver indicated the price point at which he or she would be willing to separate material for recycling, or until the driver indicated the he or she would be *unwilling* to separate materials for recycling *regardless* of the cost savings.<sup>19</sup> This section presents the survey results for this question.

#### All Self-hauled loads

As shown in Table 3-11 most self-haul customers (78%) would be willing to separate and recycle their wood, metal, and yard waste for a two dollar per load savings. Of the contractors surveyed, 17% would not separate materials for recycling regardless of the savings. For landscapers, 12% would not separate materials for recycling, and for all other self-haulers, 10% would not recycle regardless of the savings.

**Table 3-11. Self-haul Customers,  
Savings Required to Separate and Recycle  
February 2006 – December 2006 (n=4,436)**

	Contractor	Landscaper	All Others	Total
Savings of \$2/load (\$10/ton)	66%	78%	80%	78%
Savings of \$4/load (\$25/ton)	6%	6%	4%	4%
Savings of \$8/load (\$50/ton)	6%	3%	2%	3%
The materials were free to recycle	2%	0%	1%	1%
Will not separate	17%	12%	10%	11%
<b>Subtotal</b>	<b>98%</b>	<b>100%</b>	<b>98%</b>	<b>98%</b>
<i>No Response</i>	2%	0%	2%	2%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.*

A detailed table, by facility, can be found in Appendix B

<sup>19</sup> If the self-hauled vehicle was larger than a passenger vehicle (e.g., car, van, pick-up truck) the surveyor asked the question on a per ton basis.

### 3.8 REASONS FOR SELF-HAULING WASTE

The surveyor asked every self-haul customer their reason for self-hauling waste to the transfer station. Table 3-12 presents the five most frequent responses by facility for both residential and nonresidential customers. The data includes subscribers to curbside garbage service as well as non-subscribers.

For both residential and nonresidential customers, the most frequent response was *large amount of garbage* (24% and 25%, respectively). For residential customers, the remaining top 4 reasons for self-hauling were *items too big to fit in garbage can* (12%), *cheaper/saves money* (11%), *remodeling* (9%), and *moving home and workplace* (6%). The remaining top 4 reasons for nonresidential customers differed from the residential customers, and included *independent hauler* (21%), *no response* (11%), *cheaper/saves money* (7%), and *cleaning home/workplace* (6%).

All reasons for self-hauling waste by residential and nonresidential customers can be viewed in Appendix B.

**Table 3-12. Five Most Common Reasons for Self-hauling Waste  
February 2006 – December 2006 (n=3,645)**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria
<b>Residential</b>					
Large amount of garbage	28%	24%	20%	21%	23%
Items too big to fit into garbage can	11%	13%	8%	3%	16%
Cheaper / Saves money	13%	12%	18%	12%	5%
Remodeling	9%	8%	6%	6%	8%
Moving home or workplace	5%	6%	11%	6%	7%
<b>Subtotal</b>	<b>66%</b>	<b>63%</b>	<b>63%</b>	<b>47%</b>	<b>60%</b>
<i>All other responses</i>	34%	37%	37%	53%	40%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Nonresidential</b>					
Large amount of garbage	38%	19%	50%	33%	24%
Independent hauler	24%	15%	0%	17%	12%
No Response	6%	10%	0%	17%	16%
Cheaper / Saves money	3%	10%	0%	0%	8%
Cleaning home or workplace	9%	4%	0%	17%	8%
<b>Subtotal</b>	<b>79%</b>	<b>58%</b>	<b>50%</b>	<b>83%</b>	<b>68%</b>
<i>All other responses</i>	21%	42%	50%	17%	32%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

	Houghton	Renton	Skykomish	Vashon	Overall
<b>Residential</b>					
Large amount of garbage	18%	32%	0%	11%	24%
Items too big to fit into garbage can	15%	9%	0%	4%	12%
Cheaper / Saves money	10%	12%	0%	14%	11%
Remodeling	13%	9%	0%	4%	9%
Moving home or workplace	7%	4%	0%	1%	6%
<b>Subtotal</b>	<b>62%</b>	<b>66%</b>	<b>0%</b>	<b>33%</b>	<b>61%</b>
<i>All other responses</i>	38%	34%	100%	67%	39%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<b>Nonresidential</b>					
Large amount of garbage	22%	0%	0%	0%	25%
Independent hauler	22%	100%	100%	83%	21%
No Response	16%	0%	0%	0%	11%
Cheaper / Saves money	9%	0%	0%	0%	7%
Cleaning home or workplace	3%	0%	0%	0%	6%
<b>Subtotal</b>	<b>72%</b>	<b>100%</b>	<b>100%</b>	<b>83%</b>	<b>69%</b>
<i>All other responses</i>	28%	0%	0%	17%	31%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.*

## 3.9 CITY OF ORIGIN

### Commercially Collected Loads

Table 3-13 shows the reported city of origin for commercially collected loads to each of the County's facilities. With the exception of Vashon<sup>20</sup> and Enumclaw, over 90% of the commercially collected loads to each facility originated from incorporated areas.

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<sup>20</sup> Please note that Vashon Island is considered unincorporated King County.

**Table 3-13. Reported City of Origin, Commercially Collected Loads  
February 2006 – December 2006 (n=1,202)**

	Algona	Bow Lake	Enumclaw	Factoria	Houghton	Renton	Vashon	Overall
Algona	5%							1%
Auburn	46%	8%	8%					9%
Bellevue		1%		61%	6%			10%
Black Diamond								
Bothell					18%			3%
Burien		6%						3%
Carnation					2%			
Clyde Hill				1%				
Covington	5%							1%
Des Moines		2%						1%
Duvall					2%			
Enumclaw	1%		67%					1%
Federal Way	32%	2%		1%				5%
Issaquah				13%		1%		2%
Kenmore					2%			
Kent	5%	43%						21%
Kirkland				1%	21%			3%
Lake Forest Park					1%			
Maple Valley	2%					1%		
Mercer Island				9%				1%
Newcastle						5%		
Normandy Park								
North Bend				4%				1%
Pacific	2%							
Redmond				3%	25%			4%
Renton		10%		1%	3%	86%		13%
Sammamish				4%	2%			1%
SeaTac		11%						5%
Seattle		1%			1%	1%		1%
Skykomish					1%			
Snoqualmie				3%				
Tukwila		13%						6%
Woodinville					14%			2%
<b>Incorporated</b>	<b>98%</b>	<b>99%</b>	<b>75%</b>	<b>99%</b>	<b>97%</b>	<b>94%</b>	<b>0%</b>	<b>98%</b>
<i>Unincorporated</i>	1%	1%	17%	1%	2%	6%	100%	2%
<i>Multiple King County Cities</i>	1%				1%			
<b>Subtotal King County</b>	<b>99%</b>	<b>100%</b>	<b>92%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
<i>Outside King County</i>	1%		8%					
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.



## Self-hauled Loads

Table 3-14 shows the origin of self-hauled loads delivered to King County disposal facilities. As shown, about 5% of self-hauled loads originated from outside the County, while the majority of loads (89%) originated from King County's incorporated cities, and 6% originated from unincorporated areas.

**Table 3-14. Reported City of Origin, Self-hauled Loads  
February 2006 – December 2006 (n=4,436)**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria	Houghton	Renton	Skykomish	Vashon	Overall
Algona	2%									
Auburn	30%	4%		3%						7%
Bellevue			1%		39%	9%	1%			9%
Black Diamond				10%						1%
Bothell					1%	12%				2%
Burien		8%								2%
Carnation			3%		1%	1%				
Clyde Hill										
Covington	5%	3%		5%			1%			2%
Des Moines		12%								3%
Duvall			1%			2%				
Enumclaw				46%						3%
Federal Way	24%	6%								6%
Issaquah			1%		14%	1%	6%			4%
Kenmore						4%				1%
Kent	9%	25%		3%	1%		6%			8%
Kirkland					2%	28%				6%
Maple Valley	3%	1%		17%			6%			3%
Medina					1%	1%				
Mercer Island					9%	1%				2%
Milton	2%									
Newcastle					2%		2%			1%
Normandy Park		2%								1%
North Bend			59%		1%					2%
Pacific	2%									
Redmond					3%	17%				3%
Renton		8%			3%		62%			9%
Sammamish					13%	3%				3%
SeaTac		12%								3%
Seattle	1%	10%			6%	3%	5%			4%
Shoreline										
Skykomish								50%		
Snoqualmie			24%		1%					1%
Tukwila		4%								1%
Woodinville					1%	13%				3%
Yarrow Point										
<b>Incorporated</b>	<b>81%</b>	<b>96%</b>	<b>87%</b>	<b>84%</b>	<b>97%</b>	<b>95%</b>	<b>91%</b>	<b>50%</b>	<b>0%</b>	<b>89%</b>
<i>Unincorporated</i>	2%	2%	12%	7%	3%	2%	9%	50%	100%	6%
<i>Multiple King County Cities</i>										
<b>Subtotal King County</b>	<b>82%</b>	<b>98%</b>	<b>99%</b>	<b>92%</b>	<b>100%</b>	<b>97%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>95%</b>
<i>Outside King County</i>	18%	2%	1%	8%		3%				5%
<i>No Response</i>										
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.

The surveyors also asked self-haul customers to identify the ZIP code where the load originated. The following four pages of Table 3-15 show these results.<sup>21</sup>

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<sup>21</sup> Some self-haulers did not know the ZIP code of origin for their load. It is possible that these self-haulers recently moved, work on a contract or landscaping job in the area, or are a friend or relative of a nearby resident. If the driver did not know the ZIP code, the surveyor recorded "No Response".

**Table 3-15. Reported ZIP Code of Origin, Self-hauled Loads  
February 2006 – December 2006 (n=5,142)**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria	Houghton	Renton	Skykomish	Vashon	Overall
97038										
98000										
98001	13%	1%								3%
98002	8%	1%								2%
98003	7%	3%								2%
98004					4%	3%				1%
98005					4%	2%				1%
98006					14%					3%
98007			1%		5%					1%
98008					7%	1%				2%
98009										
98010				7%						1%
98011				1%		7%				1%
98012						2%				1%
98013										
98014			3%		1%	1%				
98015										
98016										
98017										
98018										
98019			1%			2%				
98020										
98021						3%				1%
98022		1%		45%		1%				3%
98023	11%	2%		1%						3%
98024			5%		1%					
98025										
98026										
98027			1%		7%		6%			2%
98028						3%				1%
98029					4%					1%
98030	3%	3%		1%						1%
98031	1%	9%					2%			2%
98032	2%	6%								2%
98033	1%				1%	13%				3%
98034					1%	11%				2%
98035										
98036										
98037										
98038	2%	1%		15%			6%			2%
98039						1%				
98040					7%					1%
98041										
98042	8%	5%		10%			3%			4%
98043										
98044										
98045			62%		1%					2%
98046										
98047	2%									
98048										
98050			1%	1%			1%			

Continued on next page...

**Table 3-15. Reported ZIP Code of Origin, Self-hauled Loads, Contd.  
February 2006 – December 2006**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria	Houghton	Renton	Skykomish	Vashon	Overall
98051				2%						
98052					2%	10%				2%
98053						4%				1%
98054										
98055		2%					7%			1%
98056					2%		12%			2%
98057							2%			
98058		4%					19%			3%
98059					1%		23%			3%
98060										
98061										
98062										
98064										
98065			23%		1%					1%
98068			2%							
98070									42%	1%
98072					1%	8%				2%
98073										
98074					4%	3%				1%
98075					7%					1%
98077						4%				1%
98078			1%							
98079										
98083										
98084										
98088										
98090										
98091										
98092	8%	2%		4%						2%
98093										
98095										
98098										
98101										
98102										
98103										
98104										
98105										
98106										
98107										
98108		1%								
98109										
98112										
98115					1%					
98116		1%								
98118		2%					1%			
98119										
98121										
98122										
98123										
98124										
98125										

Continued on next page...

**Table 3-15. Reported ZIP Code of Origin, Self-hauled Loads, Contd.  
February 2006 – December 2006**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria	Houghton	Renton	Skykomish	Vashon	Overall
98126										
98128										
98129										
98132										
98133										
98134										
98136										
98142										
98144					1%		1%			
98145										
98146		2%								
98148		2%								
98150										
98155										
98158										
98159										
98160										
98163										
98166		6%								1%
98168		4%								1%
98170										
98172										
98173										
98177										
98178		3%					5%			1%
98180										
98188		8%								2%
98189										
98192										
98198		12%								3%
98199										
98200										
98201										
98203										
98204										
98205										
98214										
98218								17%		
98221										
98224								17%		
98239										
98250										
98251										
98253										
98255										
98256										
98258										
98272										
98273										
98288								33%		
98290										

Continued on next page...

**Table 3-15. Reported ZIP Code of Origin, Self-hauled Loads, Contd.  
February 2006 – December 2006**

	Algona	Bow Lake	Cedar Falls	Enumclaw	Factoria	Houghton	Renton	Skykomish	Vashon	Overall
98294										
98296						1%				
98308										
98310										
98320										
98321				3%						
98323										
98327										
98328										
98344										
98350										
98352										
98353										
98354	2%									
98359										
98360										
98370										
98371	1%									
98372	4%									1%
98373										
98374	1%									
98375										
98387										
98390	2%									
98391	4%			1%						1%
98394										
98396				1%						
98397										
98402										
98404										
98405										
98421										
98422	1%									
98423										
98424										
98443										
98445										
98446										
98512										
98543										
98558										
98676									58%	2%
98702										
98771										
98892										
98922										
98926										
<b>Subtotal</b>	<b>90%</b>	<b>89%</b>	<b>98%</b>	<b>97%</b>	<b>86%</b>	<b>87%</b>	<b>93%</b>	<b>67%</b>	<b>100%</b>	<b>90%</b>
<i>No Response</i>	10%	11%	2%	3%	14%	13%	7%	33%	0%	10%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

*Note: Estimated percentages are rounded to the nearest percent and, when added together, may not equal 100%, due to rounding. For more detail, please see Interpreting the Results on page 12.*