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## **Refuse Collections Division Solid Waste Services Department**

*Anchorage: Performance. Value. Results.*

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### **Mission**

Provide solid waste collection and disposal service to rate-paying customers within our defined service area.

### **Core Services**

- Provide dumpster service to commercial and multifamily residential customers.
- Provide automated garbage and curbside recycle collection and disposal to residential customers.
- Provide manual garbage collection to residential customers not serviced by automated routes

### **Accomplishment Goals**

- Reduce refuse disposal volumes by promoting waste reduction and increased curbside recycling diversion.
- Reduce injuries associated with residential refuse collection.

### **Performance Measures**

Progress in achieving these goals will be measured by:

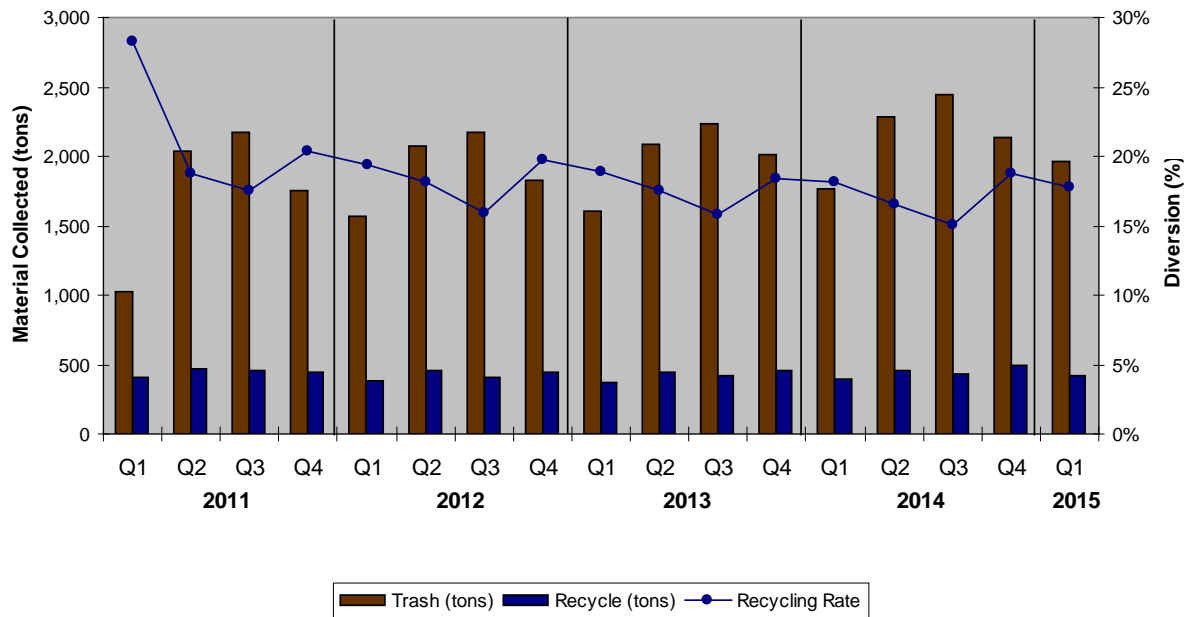
- Percent change in recyclable material diversion from the residential waste stream.
- Percent change in worker injuries

The following provides actual data from previous years which quantify these measures:

**Measure #2: Increase curbside recycle diversion.**

**Waste and Recycle Tonnage**

Automated Refuse / Recycle Collection  
2011 (Q1) through 2015 (Q1)



### Measure #3: Improved safety for refuse collection workers

#### Workers Comp Losses 2011 - 2015 Municipal Refuse Collection Utility

Service Type	Injury Type	2011		2012		2013		2014		2015 Q1	
		Incidents	Losses	Incidents	Losses	Incidents	Losses	Incidents	Losses	Incidents	Losses
Manual Residential	TLI	1	\$17,771	3	\$126,687	0	\$0	1	\$1,802	0	\$0
	MO / RO	1	\$98	3	\$2,426	2	\$81	1	\$173	0	\$0
Automated Residential	TLI	0	\$0	0	\$0	3	\$52,992	0	\$0	0	\$0
	MO / RO	1	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Commercial	TLI	0	\$0	0	\$0	0	\$0	1	\$3,490	0	\$0
	MO / RO	0	\$0	7	\$3,246	2	\$154	1	\$552	1	\$0
Vehicle Maintenance	TLI	0	\$0	0	\$0	1	\$5,473	0	\$0	0	\$0
	MO / RO	0	\$0	0	\$0	0	\$0	0	\$0	0	\$0
Other	TLI	0	\$0	0	\$0	0	\$0	0	\$0	1	\$0
	MO / RO	4	\$2,806	0	\$0	1	\$1,379	1	\$0	0	\$0
<b>Total</b>	TLI	1	\$17,771	3	\$126,687	4	\$58,465	2	\$5,292	0	\$0
	MO / RO	6	\$2,904	10	\$5,672	5	\$1,614	3	\$725	0	\$0

TLI = Time lost incident

MO = Incident required medical attention but no lost time

RO = Incident required no medical attention or lost time

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**Performance Measure Methodology Sheet**  
**Refuse Collections Division**  
**Solid Waste Services Department**

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<b>Measure #2: Improved safety for Refuse Collection Workers.</b>
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**Type**

Effectiveness

**Accomplishment Goal Supported**

Reduce injuries for Refuse Collection Workers

**Definition**

SWS will provide fleet improvements and training to all Refuse Collection staff to improve operational safety of this group. We will track costs and lost time associated with worker injuries by operational activity.

**Data Collection Method**

All accident and injury related data is reported to and compiled by the Municipal Risk Manager's office in accordance with Municipal policies and procedures and Occupational Health and Safety Administration (OSHA) requirements.

**Frequency**

Data is collected on a per incident basis.

**Measured By**

Injuries and incidents are measured and reported per OSHA standard reporting requirements.

**Reporting**

The Municipal Risk Management department provides monthly reports which detail losses by month and year-to-date. The SWS Safety Officer attributes incidents to job-specific activities.

**Used By**

Data is used by the SWS Safety Officer and Director to identify high risk activities, perform job safety analyses, and develop training and safety system adjustments to focus on reducing incidents.

**Explanatory Information**

From 2002 through 2006, the Refuse Collection Utility incurred approximately \$860,000 in Worker's Compensation medical claims. In 2008 SWS began implementation of automated refuse collection for residential customers. Currently 90% of all residential trash is collected by automated equipment.

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**Performance Measure Methodology Sheet**  
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<b>Measure #3: Increase curbside recycle diversion.</b>
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**Type**

Effectiveness

**Accomplishment Goal Supported**

Achieve an overall recycle diversion rate of 20 percent for all residential customers.

**Definition**

Refuse Collections currently diverts between 16 percent and 20 percent of the waste stream from residential customers to recycle markets. We currently service about 90 percent of our customers on automated routes. With the next year, all residential refuse collection routes will be automated. Increasing diversion of recyclables reduces our operating costs.

**Data Collection Method**

All refuse and recycle loads are weighed by commercial scales at the Central Transfer Station. The diversion rate is calculated as the percentage of materials delivered to the recycle center out of all materials collected by the residential collection trucks. Customer participation is currently measured solely by subscription rate. SWS is evaluating means of estimating actual household participation by other measures, such as lift arm cycles on the recycle collection vehicles.

**Frequency**

All vehicles are weighed prior to unloading. Weights are automatically entered into our load management system, with scale house staff entering vehicle numbers on the weight transaction. Lift arms have an on-board cycle counter. Route drivers would record the beginning and ending count on the cycle counter for every shift.

**Measured By**

Weights are measured using the SWS commercial scales. Load counter data are recorded by route drivers on their daily route sheets. Diversion rate is calculated as the ration of tonnage diverted to total tonnage collected.

**Reporting**

Weight and arm cycle data are provided to the SWS Recycling Coordinator who reviews the data and calculates the diversion rates and household participation.

**Used**

Data is used by SWS to budget for disposal and recycle processing costs. Diversion and participation rates can be used to focus educational materials and customer outreach to better promote the program.

**Explanatory Information**

The automated refuse collection program includes a voluntary curbside recycling program which is provided to the customers at no additional charge. Source reduction and diversion of recyclables extends the life of the landfill. The Collection Utility realizes a savings for each ton of recyclable materials diverted. The cost to dispose of refuse delivered to the Transfer Station is \$68/ton whereas the cost to process recycled materials is currently \$40/ton.

Approximately 13 percent of customers refused to have a recycling roll cart when they selected their automated service level. There are many other customers who have a recycling roll cart but do not use it.