



CITY OF SEATTLE

Gregory J. Nickels, Mayor



2008 Recycling Rate Report

July 1, 2009

City of Seattle 2008 Recycling Rate Report

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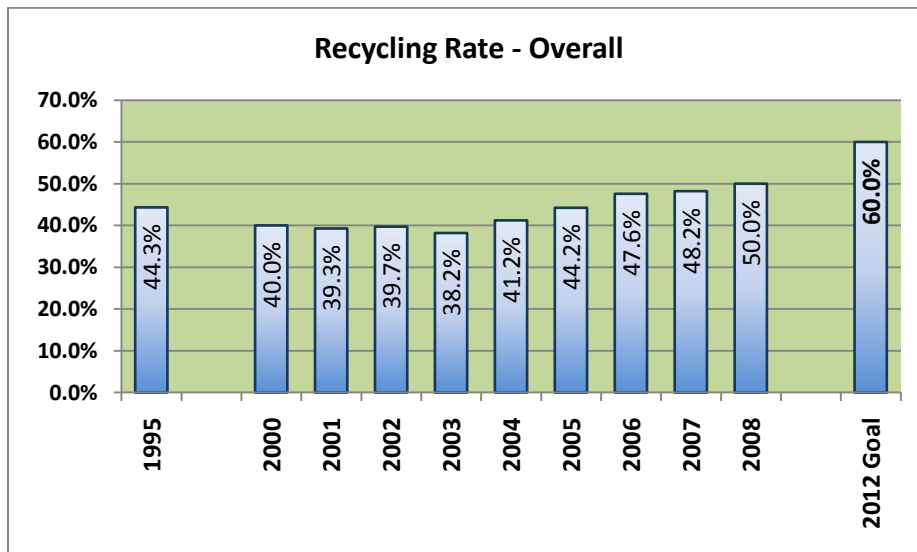
INTRODUCTION

SCOPE OF THE REPORT

This is the second annual recycling report for the City of Seattle. The report is called for in the 2007 Seattle City Council Resolution 30990.

“SPU will report to Council by July 1 of each year on the previous year’s progress toward recycling goals, as well as further steps to be taken to meet goals in the current and upcoming years.”

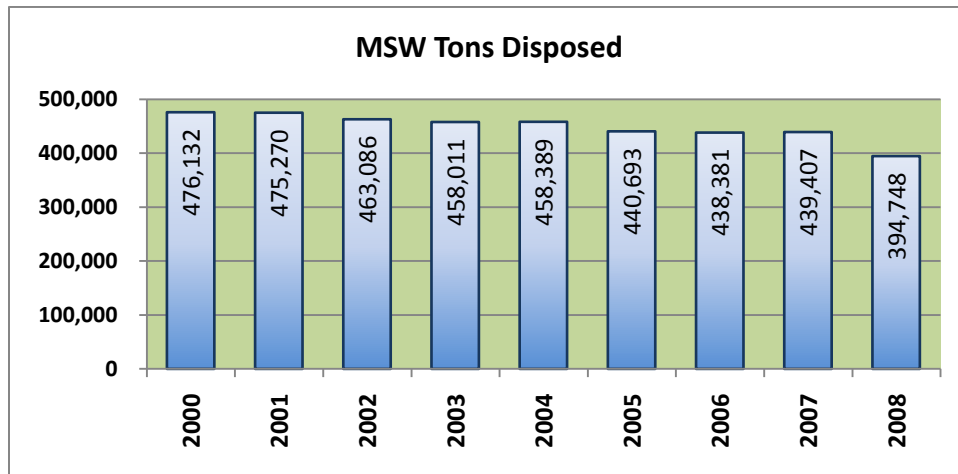
Seattle’s goal is to reach 60% recycling of municipal solid waste (MSW) by the year 2012, and 70% by 2025. In 2008 Seattle recycled 50.0% of its MSW, an increase of 1.8 percentage points compared to the year before, as illustrated below. Since 2003 the overall recycling rate has risen 11.8 percentage points.



The overall MSW rate is composed of different sectors: single family residential, multi family residential, self haul, and commercial. After a brief review of how Seattle calculates its recycling rate, the report’s first section describes the recycling results of each sector. Sector descriptions also include both new actions to meet the recycling goal as well as changes to existing programs.

The second section covers the Construction & Demolition Debris (C&D) stream--C&D material that is mostly handled at private facilities and is not part of MSW. The C&D section of this report summarizes tons and programs for the C&D waste stream.

The final section summarizes Seattle’s progress toward another solid waste goal, which is reducing total MSW tons disposed by one percent each year. 2008 disposed tons dropped more than 10% compared to 2007.



Lists of references and links for further information are at the end. Comments on the report from the Seattle Solid Waste Advisory Committee are attached, as required by the resolution.

ABOUT THE RECYCLING RATE

WHAT’S INCLUDED, WHAT IS NOT

Seattle’s recycling rate is the percentage of municipal solid waste (MSW) diverted from the landfill by reuse, recycling, and composting.

Seattle’s municipal solid waste (MSW) includes:

- Organic debris managed onsite by residents (yard debris and food scraps)
- All garbage, organic debris, or recyclables that businesses and residents set out for collection
- All garbage, organic debris, or recyclables hauled to the city’s recycling and disposal stations

Seattle’s 60% goal is a combination of separate goals for each of the four primary MSW sectors: single family residential, multi family residential, commercial, and self-haul. The recycling goals for each sector are different because material characteristics in their waste streams, opportunities to recycle, and expectations about participation vary.

There is currently not a goal for recycling in the C&D waste stream. It is anticipated a goal will be set as part of the update to the solid waste comprehensive plan that is now in the early stages of development. C&D tons recycled will be counted in the C&D stream, not in the MSW recycling goal.

The MSW goal also excludes other special (usually dangerous) wastes. Moderate Risk Waste (MRW) includes household hazardous waste (HHW) like garden pesticides, and small quantity generator waste (SQGW) like solvents used at a small business. Seattle’s moderate risk waste is managed through the

Local Hazardous Waste Management Program (a joint program supported and implemented by Seattle, King County, the Seattle/King County Department of Public Health, and the Suburban Cities). The Seattle Municipal Code prohibits disposal of HHW and SQGW in the garbage. Also excluded from the MSW recycling goal are other special categories of waste such as: biomedical wastes, biosolids, asbestos, petroleum contaminated soils; and Dangerous Waste (generally industrial) as defined by state regulation as excluded from municipal solid waste.

UPDATED 2007 RECYCLING RATE FIGURE

The 2007 overall recycling rate estimated for last year's report was 48.4%. Since then, because of additional data and further analysis, the recycling rate is now calculated at 48.2%. This year's report uses the revised 2007 numbers.

The change comes from the commercial sector, from recycling businesses turning in late reports, and the need to reconcile the data received in all the reports (correcting calculation errors, more detailed analysis of double counting). The 2007 commercial recycling rate in the report for 2007 was 52.8%. The revised figure is 52.5%.

Future annual reports will also include updated numbers for the prior year.

A CHANGE IN THE SELF HAUL CALCULATION

Starting with this report, the recycling rate calculation for the self haul sector has stopped including the wood and tires that end up being used as a fuel at pulp and paper mills or industrial boilers. This is considered to be "beneficial use", which is viewed as better than disposal, but still not true recycling. This change creates the appearance that self haul recycling performance dropped from 19.2% in 2007 to 18.4% in 2008. Without this change the 2008 self haul recycling rate would be about the same or slightly better than it was in 2007.

ACTION PLANNING BACKGROUND

In 1998 the Seattle City Council adopted Seattle's Solid Waste Plan *On the Path to Sustainability*. It established a policy framework of sustainability and stewardship and adopted the maximum possible elimination of waste as a guiding principle. It also identified programmatic goals and programs for the future to achieve these goals. The 2004 Plan Amendment renewed Seattle's commitment to these policies and goals.

In 2007 Seattle Public Utilities (SPU) and the City Council jointly conducted the *Seattle Solid Waste Recycling, Waste Reduction, and Facilities Opportunities* study. This study examined whether there were still other methods that Seattle could use to reduce the amount of solid waste and divert it from landfill disposal.

Subsequent to the study, the Mayor and City Council adopted Resolution 30990 re-committing the city to its 60% recycling goal, to be achieved by the year 2012, establishing a longer term goal of 70% by the year 2025, and outlining some additional actions and strategies for achieving these goals. These actions and

strategies are key additions into SPU's solid waste work plan for the next few years. Their progress is described in the following sector discussions.

Funding for 2009-10 actions was requested with the rate and budget proposals before the Seattle City Council in the fall of 2008. To keep the rate increase as low as possible, some program plans were scaled down, delayed or denied. The sector discussions have more detail where program plans changed compared to the 2007 annual recycling rate update.

PROGRESS AND ACTIONS

OVERALL MSW PERFORMANCE

The following table summarizes Seattle's recycling progress up through 2008.

Recycling Rate - Sector Summary						
Year	Residential			Self Haul	Commercial	Overall
	Single Family	Multi Family	Res Total			
2000	58.0%	17.8%	47.8%	17.2%	41.6%	40.0%
2001	57.0%	22.0%	48.5%	17.8%	39.6%	39.3%
2002	57.5%	21.5%	48.3%	18.1%	40.7%	39.7%
2003	57.5%	22.2%	48.4%	18.1%	37.3%	38.2%
2004	58.9%	22.2%	49.4%	18.8%	42.5%	41.2%
2005	61.4%	25.2%	52.1%	19.2%	46.6%	44.2%
2006	64.0%	26.3%	54.3%	18.8%	51.7%	47.6%
2007	64.8%	27.6%	55.1%	19.2%	52.5%	48.2%
2008	65.4%	28.3%	55.9%	18.4%	54.7%	50.0%
2012 Goal	70.0%	37.0%	60.0%	39.0%	63.0%	60.0%

In 2008, Seattle's total recycling increased from 48.2% to 50.0%, an increase of 1.8 percentage points. This marks the fifth straight year of continuous recycling rate growth since 2003.

The next table shows how many tons of material was generated, and of that amount, how many tons were disposed (landfilled) versus recycled. Disposed tons also include beneficial use tons.

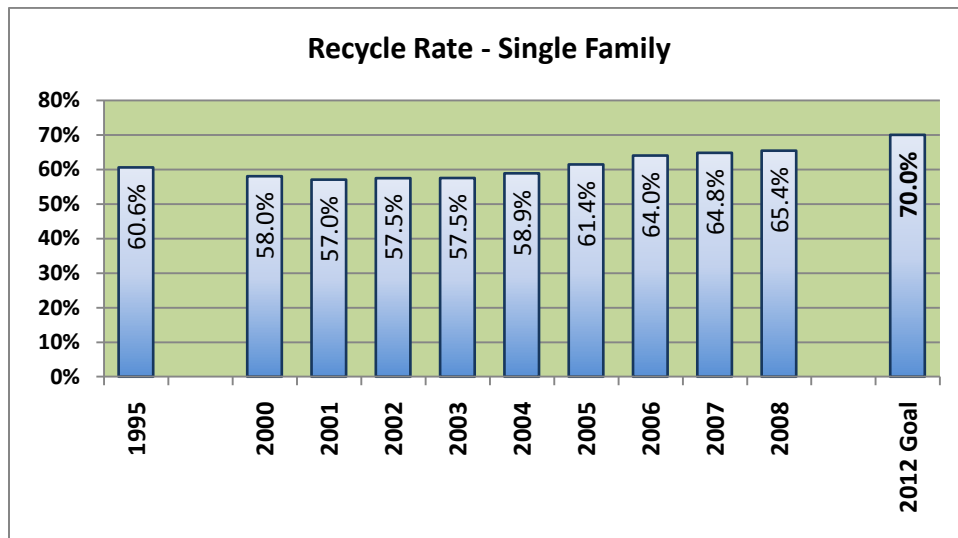
Tons of Municipal Solid Waste (MSW) - Overall				
Year	Generated	Disposed	Recycled	Recycle Rate
2000	793,842	476,132	317,710	40.0%
2001	782,809	475,270	307,539	39.3%
2002	768,346	463,086	305,260	39.7%
2003	741,094	458,011	283,083	38.2%
2004	780,044	458,389	321,655	41.2%
2005	790,457	440,693	349,763	44.2%
2006	836,499	438,381	398,118	47.6%
2007	848,759	439,407	409,352	48.2%
2008	789,608	394,748	394,860	50.0%

MSW SECTOR PERFORMANCE AND ACTIONS

RESIDENTIAL – SINGLE FAMILY

The residential single family sector includes tons collected for recycling, composting and disposal from residential households who are on a “can” (or cart) garbage service (as opposed to those having garbage dumpsters). These are mostly single family, and duplexes to 4-plex households. In 2008, recycling in the single family sector increased from 64.8% to 65.4%, an increase of 0.6 percentage points. This is the fifth straight year of growth of this sector, for an average annual rate of growth of 1.6% since 2003.

Along with the highest ever single family recycling rate, 2008 is also the first year since 2003 where tons decreased across the board. Single family generated tons decreased by 2.8%, disposed tons by 4.6%, and recycled tons by 1.9%



Tons - Single Family				
Year	Generated	Disposed	Recycled	Recycle Rate
2000	208,468	87,499	120,969	58.0%
2001	211,982	91,072	120,910	57.0%
2002	206,474	87,834	118,640	57.5%
2003	205,748	87,426	118,322	57.5%
2004	209,132	86,029	123,103	58.9%
2005	208,675	80,478	128,197	61.4%
2006	216,946	78,078	138,868	64.0%
2007	220,128	77,494	142,634	64.8%
2008	213,889	73,961	139,928	65.4%

SELECTED STATISTICS – SINGLE FAMILY

- Single family households set out almost 62,000 tons of curbside recyclables which is about 67.8 pounds per household per month. An additional 56,400 tons of organics were set out. The balance of diverted tons was organics composted at home, and grass clippings from mulch mowing left on the lawn.
- In 2006, there was about 28,000 tons of food waste disposed in the residential single family sector. In 2008 about 18,000 tons, or 64% of what was disposed of in 2006, was recovered. Yard waste continues to be diverted at a very high rate (over 95%).
- Customers signed up for 4,000 new yard/food waste (organics) subscriptions in 2007 and the increase continued into 2008 with an additional 2,700 subscriptions.

NEW ACTIONS AND EXISTING PROGRAM SPECIAL FOCUS – SINGLE FAMILY

Finalizing and planning for the 2009 changes to the new collections and processing contracts received major emphasis 2008. The change-over occurred as planned starting March 30, 2009. Highlights of changes implemented include:



Better recycling coming March 30 www.seattle.gov/util

- All single family accounts are now **required to sign up for organics service** (yard and food waste), which is now **collected weekly** instead of bi-weekly (garbage is still collected weekly). Now all food scraps can go in the organics cart, including meat, fish and dairy.
- The changes to the 2009 subscription fees (**rates**) reinforced incentives to subscribe to lower-cost organics service. (Customers who compost at home can apply for an exemption.) Customers have more food and yard waste cart sizes to choose from. More customers than expected downsized their garbage service (can size) with the change to weekly organics pickup. For example, SPU expected 64.2% of this sector to subscribe to the 32 gallon can, but as of April 2009 59.8% subscribed to this size.
- The city decided to take advantage of the collections changes and implement a **curbside electronics recycling** program. The City of Seattle is a registered collector under the new state agency, the Washington Materials Management and Finance Authority (WMMFA). For a \$20 fee, city collectors will pick up certain electronics at the curb by pre-arrangement. The fee covers the extra cost of curbside service that is not reimbursed to the city by WMMFA. Residents also have the option to drop off a more limited range of electronics for free at sites authorized by WMMFA.
- Single family residents may now also use the new **curbside waste motor oil (WMO)** service. In the first five weeks of the program city collectors picked up 1,360 gallons of waste motor oil placed out in gallon jugs on regular collection days. Not only does this program help keep WMO out of the waste stream, it should reduce WMO entering Seattle's drainage system, helping to keep this contaminant out of our local waters.
- **More paper, plastic and metal items can be recycled**, including cups, deli trays, aluminum foil, and plastic plant pots. Glass bottles and cans now go in the recycling cart ("co-mingling")—no more separating.

While doing early budget and planning work in 2008, SPU had hoped to increase resources (inspectors) devoted to **enforcement**. However, budget constraints could not accommodate this increase. Instead, SPU redirected existing resources from education and outreach to enforcement.

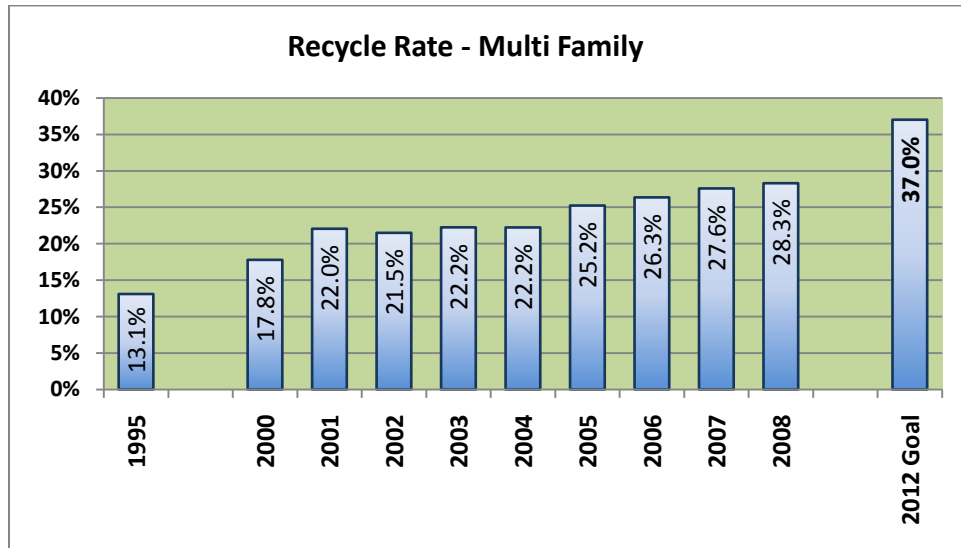
For **outreach**, SPU leveraged the education and outreach for the new collection contracts transition as much as possible. This effort resulted in a substantial, multi-media public education and outreach program conducted from late 2008 through the first half of 2009. This outreach program included special attention to historically underserved customers through translated materials, ethnic and immigrant community news media, and targeted community presentations with translations.

Although budget constraints forced a year's delay, late in 2009 SPU will begin the planning for studying **mandatory organics composting** (or a "food waste ban") for the single family sector.

RESIDENTIAL – MULTI FAMILY

The multi family sector includes material collected for recycling, composting and disposal from buildings in Seattle which have garbage dumpsters. These are mostly buildings with five or more units in them. In 2008 recycling in the multi family sector increased from 27.6% to 28.3%, an increase of 0.7 percentage points. This sector's recycling rate has been rising steadily since 2004, at an average of 1.5% per year.

Similar to the single family sector, while multi family recycling rate is its highest ever, 2008 is also the first year since 2005 during which tons decreased across the board. Multi family generated tons decreased by 3.7%, disposed tons by 4.7%, and recycled tons by 1.1%.



Tons - Multi Family				
Year	Generated	Disposed	Recycled	Recycle Rate
2000	70,944	58,333	12,611	17.8%
2001	68,611	53,487	15,124	22.0%
2002	70,144	55,076	15,068	21.5%
2003	72,149	56,106	16,043	22.2%
2004	72,640	56,498	16,142	22.2%
2005	72,325	54,080	18,245	25.2%
2006	75,545	55,643	19,903	26.3%
2007	77,108	55,847	21,261	27.6%
2008	74,223	53,199	21,024	28.3%

SELECTED STATISTICS – MULTI FAMILY

- The multi family sector set out 19,932 tons of recyclables for collection, or about 24 pounds per multi family household per month. While this was the first decrease in multi family recyclables collection since the program started, the decline was less than the decline in overall generation.
- The multi family curbside materials (glass, paper, tin, etc.) recovery rate needs to increase from approximately 66% to 85% to reach its sector goal. This goal does not presently include food waste as recyclable. As part of the comprehensive planning process, the utility will look at possibly changing the goal for this sector to include food waste.
- Citywide, 96.2% of all buildings are signed up for recycling service, a slight increase over the 2007 rate of 95.7%.

NEW ACTIONS AND EXISTING PROGRAM SPECIAL FOCUS – MULTI FAMILY

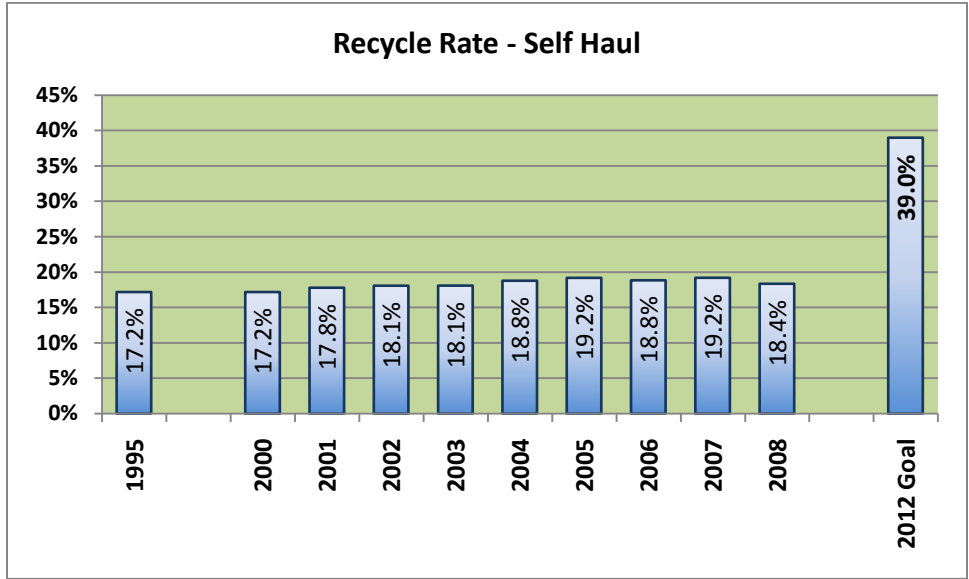
Finding ways to **increase organics recycling** is the main programmatic focus for multi family recycling. SPU conducted food waste pilots 2008-2009 which involved 41 buildings with a total of 2,464 units. The participating buildings were geographically and ethnically diverse. The goal of the pilots was to explore the most effective strategies for increasing food waste recycling (composting) from apartments and condos. Based on the findings from the pilots, SPU is currently designing strategies to encourage participation and developing participation targets for the multi family organics program. SPU expects to be actively promoting the new strategies mid-2009.

In 2010 SPU plans to begin the set up for **studying mandatory multi family organics** service. Some advance analysis will be done within the Recycling Potential Assessment (RPA) modeling for the next update to Seattle’s Comprehensive Waste Management Plan.

SELF HAUL

The self haul sector includes material from residents, businesses and governmental agencies brought (or “self hauled”) to the two city owned transfer stations. In 2008, self haul recycling decreased from 19.2% to 18.4%, a decrease of 0.8 percentage points. As earlier indicated, this drop is not actually a decrease in

performance. Starting 2008, SPU no longer counts the “beneficial use” materials, wood and tires burned for fuel at pulp and paper mills or industrial boilers, as recycled (they are counted as disposed). Beneficial use materials are not viewed as true recycling, but are better than disposal. Without this change in the recycle rate calculation, 2008 performance would hold steady or show a slight improvement compared to the 2007 level.



Tons - Self Haul				
Year	Generated	Disposed	Recycled	Recycle Rate
2000	123,024	101,883	21,141	17.2%
2001	124,453	102,305	22,148	17.8%
2002	125,710	102,981	22,729	18.1%
2003	123,597	101,232	22,365	18.1%
2004	122,819	99,750	23,069	18.8%
2005	124,364	100,499	23,865	19.2%
2006	127,444	103,429	24,015	18.8%
2007	132,545	107,098	25,447	19.2%
2008	111,229	90,814	20,415	18.4%

SELECTED STATISTICS – SELF HAUL

- Tons generated in this sector decreased 16.1%, the highest proportional decrease of all sectors.
- Recycling in the self haul sector includes organics (food and yard waste), appliances and metals, and other recyclable material dropped off at Seattle’s public and private transfer stations.
- In 2008 self haul organics tons are down by 16% compared to 2007, which is a greater decline than seen in the other sectors for program tonnages. Since the weather (rainfall and temperature) was similar for 2007 and 2008, the decline in tonnages is more likely due to the economy and the deferral of landscaping work.

NEW ACTIONS AND EXISTING PROGRAM SPECIAL FOCUS – SELF HAUL

The fee customers pay to dispose of self haul garbage at City of Seattle owned recycling and disposal stations increased 18% in 2008, to bring these fees in line with the actual cost to provide this service. In 2009 the fee increased 3.8%, similar to the 2009 fee increase for all sectors.

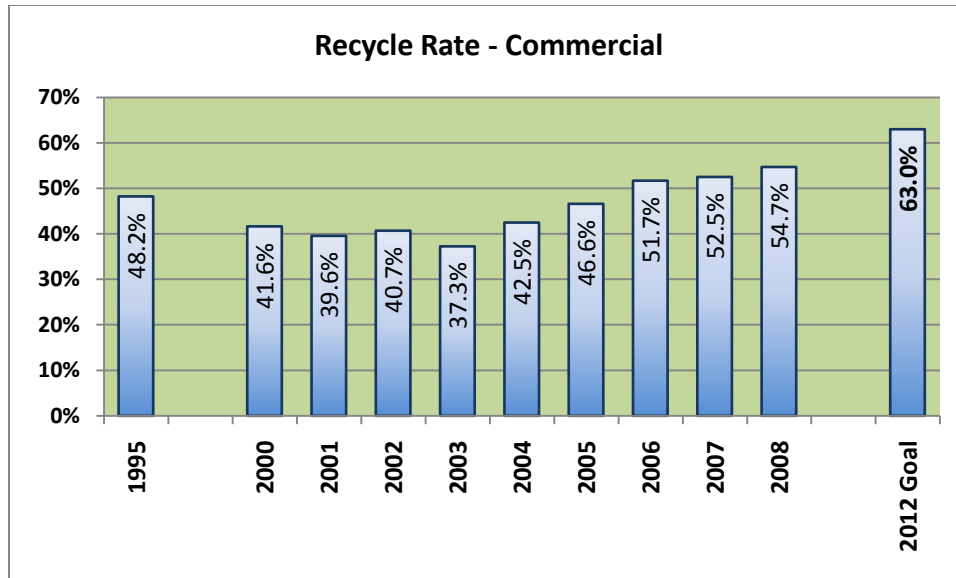
In 2008 SPU conducted a study to develop strategies for **reducing self haul** vehicle trips to the city's owned north and south recycling and disposal stations. Recommendations will be forwarded to the Mayor in the fall of this year. As of 2008, the stations' flat fee rates now match curbside bulky item rates. This was done in part to encourage residents to use the curbside bulky item program instead of bringing these small loads into the stations. SPU continues to promote programs to reduce small loads to the stations. A program change being considered for the C&D sector would also reduce trips to city stations. This involves re-routing C&D loads above a certain size to C&D processing facilities which have been certified by the city as achieving a certain recovery level for recycling and beneficial use.

For the self haul loads that will continue to be brought to city transfer stations, SPU does not expect to see significant recycling rate increases until the **station rebuilds** are complete. The first phase of the south rebuild is now expected to come on-line in 2012, with the replacement of both stations completed as soon as 2014. Separated recycling and reuse drop-off areas will make for easier access for self haul customers.

COMMERCIAL

The commercial sector includes garbage, recyclables and compostable collected from commercial businesses at the place of business. Using the best available data to date, the commercial sector's recycling rate increased to 54.7% [Note: The report for 2007 estimated 52.8%. The updated, revised 2007 rate is 0.3% lower.] This sector has also seen steady recycling rate gains, rising 17.4% since 2003, an average increase of 3.8% per year.

Consistent with other sectors, commercial tons decreased across the board for the first time since 2003. Commercial tons decreased in 2008 by 7% for total generated, 11% disposed, and 3% recycled.



Tons - Commercial				
Year	Generated	Disposed	Recycled	Recycle Rate
2000	391,406	228,417	162,989	41.6%
2001	377,927	228,405	149,522	39.6%
2002	366,224	217,195	149,029	40.7%
2003	339,844	213,247	126,597	37.3%
2004	375,739	216,112	159,627	42.5%
2005	385,093	205,637	179,456	46.6%
2006	416,564	201,231	215,333	51.7%
2007	418,979	198,968	220,011	52.5%
2008	390,267	176,774	213,493	54.7%

SELECTED STATISTICS - COMMERCIAL

- The overall recovery rate in this sector for paper (including newspaper, high grade paper, corrugated and mixed paper) has risen to almost 83% from 78% in 2007.
- Four out of five businesses surveyed indicated support of the ban on disposal of paper, cardboard and yard waste in commercial garbage.
- Commercial sector responsiveness to recycling requirements is positive. As of 2008 SPU levied no fines on commercial customers for recyclables in the garbage.
- In 2008, Seattle businesses set out for composting 37% of the total amount of food waste generated, or about 32,500 tons. This is up from 23% of the total or 18,100 tons in 2007. This figure includes fats, grease and oils, including grease picked up for the manufacture of biodiesel.
- Businesses sign-ups for food waste collections are increasing: 584 in 2007, 1,090 in 2008, and more than 1,320 so far in 2009. Most of this increase was due to sign-ups with a private food collection company.

NEW ACTIONS AND EXISTING PROGRAM SPECIAL FOCUS - COMMERCIAL

The **Clear Alley Program**, formerly called the Dumpster Free Alley program, began March 30, 2009 with the change to the new solid waste collection contracts. The main goal of the program is to eliminate “cover” for uncivil behavior in the city’s alleys. This program’s customers either (1) relocate their dumpsters to private property, (2) convert to carts for easier storage on private property, or (3) subscribe to pre-purchased bag service. By April 2009, 525 accounts changed to bag service. SPU is also watching to see if overall waste is reduced and/or recycling increases among these accounts. Customers’ increased interaction with their waste is expected to heighten their awareness and motivation to reduce fees and handling costs.

The program began in a few key city districts, and may expand to another district if the majority of accounts in the district “vote” in favor of it. SPU is conducting outreach to that district in 2009, and others going forward. SPU will begin an evaluation of the program in fall 2009. Evaluation elements will likely include how costs changed for customers, crime statistics, community aesthetics, and impacts on maintenance, monitoring and illegal dumping.

In 2008 SPU had planned to study, in the 2009-10 solid waste rates proposal, a special “**heavy**” rate for some commercial customers. The concept is most of these targeted accounts have consistently heavier - than-average waste, and that most of this waste comes from organics (food waste). We will be studying the impact a higher garbage rate might have on encouraging businesses to sign up for lower-cost organics service. The study was deferred in the rate process to 2009.

In the 2009-10 budget process SPU proposed to add resources for **commercial enforcement** but budget constraints prevented this addition. SPU has, however, in 2008 started a modified commercial enforcement strategy. SPU’s commercial inspector is now checking collection truck loads (for recyclables in garbage) and working back to the source of the material.

Also in the 2009-10 budget, SPU had hoped to maintain support for **education** and **customer-requested audits** for businesses. This service has been provided by the Resource Venture on behalf of SPU, but was significantly reduced 2009 due to budget constraints. The main focus for remaining resources is on increasing food waste diversion in the commercial sector.

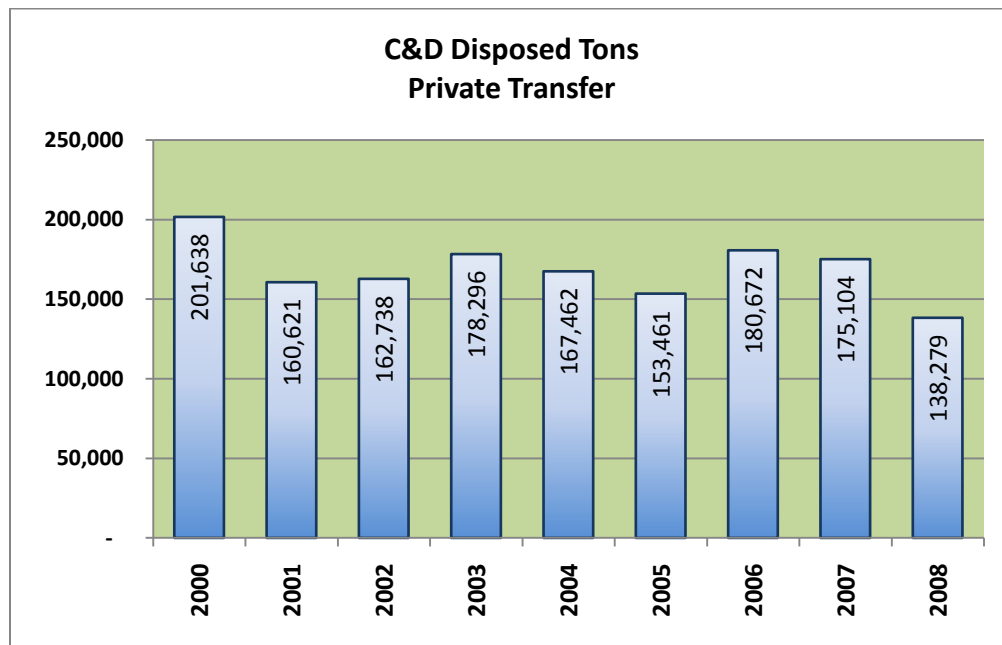
Since 2006 the city requires a **Recycler License** for all business collecting recyclable materials originating in the city. It’s also required for businesses operating recyclable materials processing facilities within the city. With the license comes a requirement to file an **annual report** of the quantities of recyclable materials the business handled the prior year. Reporting delays and data reconciliation are the primary influence on the timing for finalizing Seattle’s annual recycling rate. Reporting compliance improved 2007 but dropped for 2008.

OTHER PROGRAM AREAS – NON-MSW SECTOR

CONSTRUCTION AND DEMOLITION DEBRIS (C&D)

The C&D sector is comprised of C&D materials which are not mixed with MSW and are collected by either of the firms under contract with the city for C&D (sometimes “CDL”) collection, or are self hauled to private facilities. It does not include smaller amounts of C&D materials which have been mixed in with the MSW stream (and are therefore counted as MSW). In 2008 36,807 fewer tons were disposed compared to 2007, a 21% decrease. Note these are the C&D tons historically tracked by the city, which are transferred through Seattle’s privately owned transfer stations.

In general, C&D generation correlates closely with economic and building activity cycles.

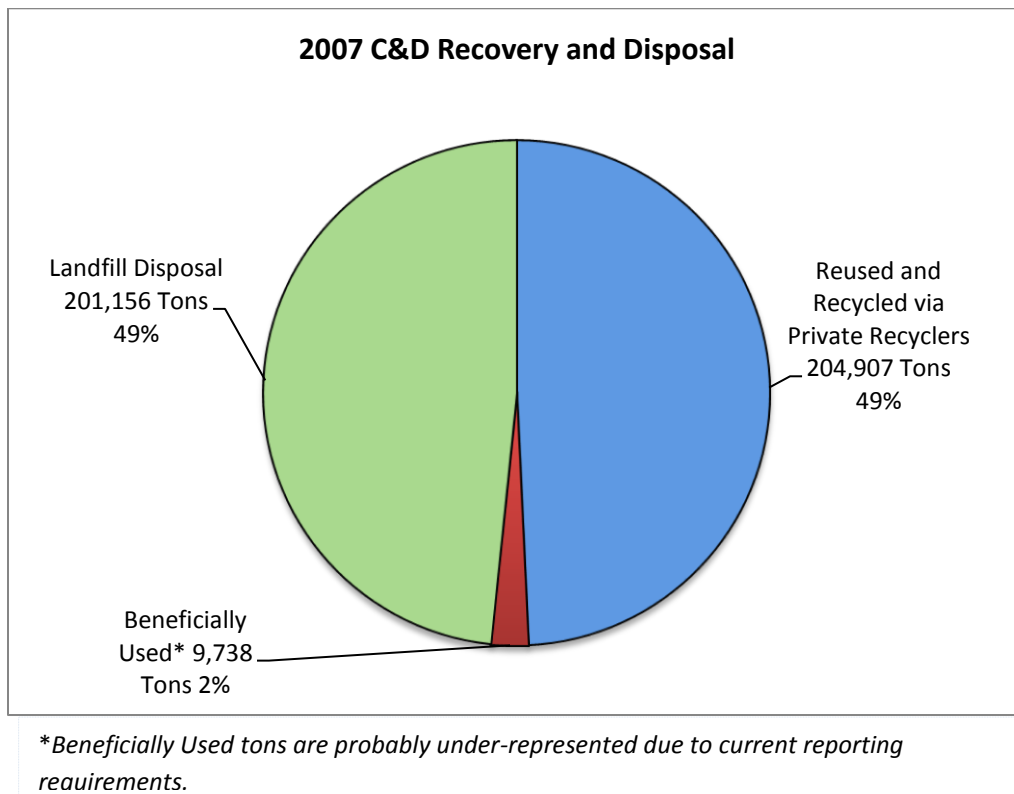


Year	Tons Disposed
2000	201,638
2001	160,621
2002	162,738
2003	178,296
2004	167,462
2005	153,461
2006	180,672
2007	175,104
2008	138,279

UNDERSTANDING C&D IN SEATTLE

The first step toward designing programs for increasing C&D recycling is to build a comprehensive grasp of all the C&D generated in the City of Seattle. The majority of Seattle's disposed C&D is separately collected under city contract and by self haulers, and is not part of MSW. It is transported to private transfer stations for landfill disposal. In order to build a robust baseline for the amount of C&D that is generated, the city conducted survey and modeling work on 2007 C&D tonnages. The survey found approximately 416,000 tons of C&D was handled by way of private recycling and disposal facilities in 2007.

About 201,156 of the 416,000 2007 C&D tons were disposed through the in-city private transfer stations and railheads. The 201,156 figure includes, in addition to the 175,104 tons reported as transferred, an additional 26,000 tons that were delivered directly to the railhead (but not included in the transferred tons annually reported to the city).



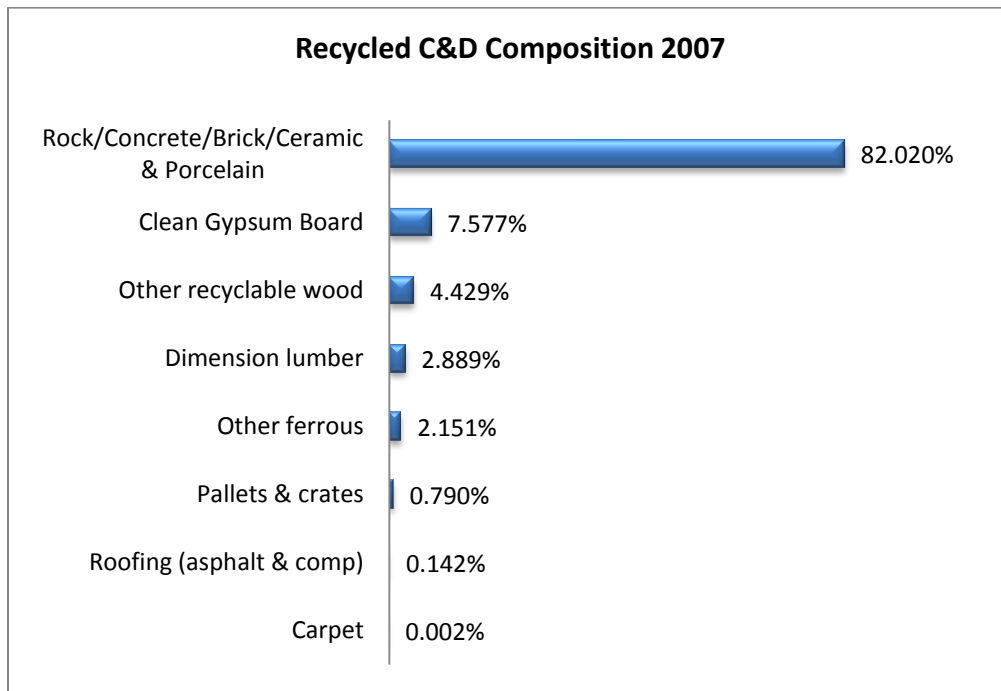
Another 215,600 tons was either recycled or beneficially used in 2007. These tons were diverted by way of separation at the source, separation at co-mingled processors, or sorting at the private transfer stations. The survey and modeling work therefore suggests the 2007 baseline recovery rate (recycling plus beneficial use) for C&D is about 51%.

About 49% was reused or recycled in 2007. Recycling includes the materials made in into new products, such as concrete into new aggregate, gypsum into new gypsum wallboard, or clean wood waste into chips

for paper pulp manufacture. Concrete is quantitatively the largest recycled material in the C&D stream. An example of reuse is salvaged lumber reused in new construction.

The 2% that was beneficially used is neither recycled nor reused, but used for some purpose instead of being disposed of in the landfill. For example some wood waste is used as fuel in industrial boilers.

The following chart lays out the major groups of C&D materials that were recycled and beneficially used in 2007, and their relative proportions.



OTHER C&D PROGRAM HIGHLIGHTS

New C&D Disposal Contract –Construction and demolition waste bound for disposal must, in most cases, be hauled by a state franchised hauler or a hauler operating under municipal authority. In order to open this work up to the broadest range of competitors, these services were bid out for separate contracting. This contract was awarded to Waste Management who now serves as Seattle’s exclusive hauler of C&D wastes for disposal. There are some exceptions to this exclusivity for businesses that haul their own wastes or haul wastes which are the true result of another service provided by the business. For example, roofing companies often haul the “tear-off” from a roofing job.

By the end of 2008, SPU piloted the **deconstruction** (or partial deconstruction) of eleven single family homes. The utility also provided pilot-project support for moving a single family house in the Fremont neighborhood, and garnered 30 tons of salvage from 15 structures related to the Sound Transit project in Capitol Hill. Case studies from both the deconstruction and **house moving** activities established them as viable alternatives to traditional building demolition. Cost remains a concern and in order to bring down deconstruction cost, SPU is studying ways to centralize deconstruction in a **Hybrid Deconstruction Center**. During 2009 SPU will use a Washington State Department of Ecology Coordinated Prevention Grant to develop a business case for such a program as a public-private partnership or private sector enterprise.

In 2008 a joint SPU and Department of Planning and Development (DPD) committee continued to look at **code and building permit changes** that would increase C&D reuse and recycling. DPD successfully introduced legislation changing land use code to ease deconstruction of residential housing. A new demolition permit option provides contractors and developers greater opportunities to salvage materials by providing early site access to applicants who agree to remove a structure through deconstruction. DPD may issue a demolition permit prior to issuing the associated new construction permit, providing developers more time for deconstruction.

In 2009 DPD is developing with SPU C&D recycling incentives through **regulatory changes** that would establish required recycling levels for projects above a certain threshold.

The 2008 SPU Study “Options for Increasing C&D Processing Capacity in Seattle” concluded that adequate local processing capacity exists such that the city does not have to issue an RFP for more processing capacity at the current time. The city will, however, need to establish a “**certification**” **program** for C&D processing facilities with high standards for recycling, heightened monitoring for recovery effectiveness and ample information to contractors and self-haulers.

The study further looked at a range of program options to enhance Seattle’s recovery rate for C&D could include:

- Applying the **transfer tax** to job site intermodal containers of C&D that would be delivered directly to a railhead for disposal (this recommendation was enacted through a DEA Ordinance).
- **Financial incentives** to encourage the reuse and recycling of C&D materials with inadequate end markets.
- A **voluntary deposit program** for contractors when they apply for a construction, demolition or remodeling project permit. Applicants would receive a refund at the end of a project by presenting documentation that their C&D materials were delivered to certified processing facilities for recycling.
- A **mandatory recycling requirement** for contractors when they apply for a construction, demolition or remodeling permit. This would require a waste diversion plan, and documentation at the end of the project that C&D materials were delivered to certified processing facilities for recycling.
- Possibly **banning the disposal of C&D** materials which have well established markets--such as concrete, asphalt, bricks, metal and unpainted and untreated wood waste
- Possibly **banning the disposal of other C&D** materials--such as carpet, unpainted gypsum, tear-off asphalt shingles--once markets are well established

Developing options and recommendations to increase C&D recycling continues into 2009 with DPD staff. SPU will conduct **stakeholder outreach and feedback** activities in the early fall. Modeling of a wide range of voluntary and mandatory recycling programs will also proceed this fall and be part of the solid waste comprehensive plan update process.

WASTE PREVENTION

SELECTED STATISTICS AND ACTIONS – WASTE PREVENTION

SPU continues to support the Northwest Product Stewardship Council (**NWPSC**), although at a reduced level compared to 2008. Examples of 2008 support and accomplishments include

- City leadership in supporting state legislation for product stewardship bills addressing mercury-containing lighting (CFLs), and medicines. These efforts established broad support such that when the economy improves, these bills stand a good chance of passing.
- The new associates membership program whereby more local governments are connected to and stay current on NWPSC activities.
- Participation in efforts on paint, unwanted phone books, and the medicine take-back pilot.
- Focusing on product stewardship solutions in developing recommendations from SPU's study of problem products (more below)

In 2009 SPU is a Gold Level supporter of the 5th Annual Product Stewardship Forum being held in Seattle, as well contributing staff support and providing funding for other Forum costs. SPU will also support other NWPSC activities and needs arise throughout the year.

Although electronics is now being managed through the new state program, Seattle continues to support, in conjunction with King County, the Take-It-Back-Network (**TIBN**). One major focus of the TIBN is placing expanding take-back sites for mercury containing (fluorescent) lights.

As a result of the city's **ban on expanded polystyrene** food service products, the restaurant industry, particularly fast food, has rapidly switched to compostable alternative products. Following this trend, SPU has increased outreach activities to help restaurants develop in-store collection systems so customers can sort compostable food service products along with leftover food into bins for transfer to food waste collection containers outside. SPU expects to have systems in place in most food courts and local fast food chains by the end of 2009, with complete compliance by the deadline for the required switch to compostable or recyclable food service products, July 1 2010.

The Seattle City Council passed the ordinance establishing a "**green fee**" on disposable shopping bags in 2008. However enough signatures were gathered to challenge the ordinance and the green fee will now go to a public vote on August 18, 2009. In the meantime SPU continues to encourage the use of reusable shopping bags as one of its waste reduction efforts.

Following the 2007 study of disposable shopping bags and disposable food service products, Seattle Public Utilities (SPU) completed a **study of other problem products in 2009**. Problem products are those that are under recycled or hard to recycle. SPU is currently preparing program recommendations stemming from the 2009 study. The recommendations will highlight eight products on which to propose action. The study made a special effort to identify which problem products could be managed through product stewardship solutions. The new state producer-paid electronics recycling law is one of the first examples of a successful product stewardship solution.

SPU's **market development** activities continue on several fronts:

- SPU continues its alliance with King County Link-Up to support asphalt shingle, urban wood waste and gypsum wallboard recycling. A major tear-off asphalt shingles paving pilot will occur during summer 2009 through the King County Department of Transportation.
- The March 2008 carpet industry conference led to serious interest by national carpet manufacturers to build a carpet recycling facility in our region, once the economy improves;
- Support for the Seattle-King County Industrial Ecology Roundtable, an intergovernmental-private sector organization established in 2007 SPU to maximize waste capture as feedstock for other products.
- Exploring options to increase By-Product Synergy organization's exchanges.

Backyard composting remains the lowest-cost way to remove organics from the waste stream. We have not re-estimated the backyard organics numbers and are simply holding them constant at the 2005 level (about 22,700 tons). This estimate remains unchanged because the study to gather the data necessary to calculate this number is only performed every five years, the last year being 2005 and that year showed a decline in the tons. In 2008 we expected actual tons diverted in the organics programs to be declining as customers increasingly chose to use their yard/food waste carts. Starting March 30, 2009 all single family customers are required to sign up for organics service. Backyard composting will continue to be promoted. The next study should be available in time for next year's recycling report.

Edible food waste recovery and Lean Path technical assistance to commercial kitchens programs continued through 2008 continue into 2009 and beyond. The methodology for estimating this program's diversion amounts is currently under review. Figures using the new methodology should be available in time for next year's recycling report.

Beginning in May 2008 a **reusable materials diversion** program was launched at the city's North Recycling & Disposal Station. This program partners with private companies to take the materials. Reusable materials diverted from self-haul customers prior to disposal include building materials, furniture, bicycles, tools and other materials. In 2008 34.84 tons and 54 bicycles were diverted. The program expanded to the South Recycling & Disposal Station in January 2009.

The **PaperCuts** program reduced city-office paper use by 26% compared to the 2004 baseline, besting the 25% in 2007. The 2008 reduction represents 89 tons and savings to the city of \$44,000 compared to 2004 levels. The reduced paper consumption plus continued use of 100% post-consumer-waste recycled paper eliminates almost 400 tons of CO₂ equivalents (greenhouse gases). The city PaperCuts committee recommends three measures for additional savings: reducing default margins in Microsoft Word documents, optional paystubs for employees with direct deposit, and increasing the number of and access to multifunction printers.

The Resource Venture worked to expand the Paper Cuts program to the private sector in 2008. The Resource Venture continues to provide advice on waste reduction and recycling for commercial accounts. However 2009-10 budget constraints significantly reduced this program.

The **Waste Prevention and Recycling Community Matching Fund** program was successfully launched in 2008. SPU received 50 applications for its 2008 and 2009 funding cycles, for a total request of \$902,101. SPU awarded grants totaling \$200,000 to 17 community projects focusing on multi family recycling and composting, materials reuse, business waste reduction, pesticide reduction and educations, food recovery, and school composting and education. All projects are currently underway. Plans are in progress for the 2010 funding cycle, with an anticipated \$100,000 in available funding.

SPU continued its investment in promoting **Waste Free Holidays** in 2008. SPU does not plan to promote this program in 2009-10 due to budget constraints.

The **Green purchasing** program is activities furthering the city's commitment to environmentally preferable purchasing, including environmental best practices, Climate Action initiatives, toxin reduction, and other environmentally sustainable considerations in acquisition of city goods and services. In 2008 the city's green purchasing team hosted a Green Office Fair, attended Vendor Education days, and spoke at green purchasing events. Other highlights of purchasing initiatives 2008-2009 include:

- Green servers – reducing cooling needs
- Large scale printing – requiring 100% recycled paper
- Bio-based lubricants
- EPEAT for imaging equipment
- Office Depot “green” criteria
- Green Seal standard update – for janitorial products
- Green Fleets Initiative
- Paperless utility billing
- Green Seal application
- Social responsibility – an integrated, complementary strategy for green and social responsible purchasing

OTHER RECYCLING ACTIONS

PARKS OUTDOOR OPEN SPACE RECYCLING

SPU supported an outdoor open space recycling pilot in the Department of Parks and Recreation's south region from April 2008 through December 2008. The pilot, which accepted aluminum, plastic and glass beverage containers, collected a total of 19.1 tons of recyclable material.

Lessons learned:

- Contamination levels were very low throughout the pilot. On average, contamination represented an estimated five percent of the total material collected by volume.
- There is a large seasonal effect on the volume of materials collected. The months of June, July and August yielded substantially higher volume than the other months.
- More important than seasonal effects, the location of the can itself was the primary determinant of the amount of recyclables collected. Regional parks collected significantly more recyclables than neighborhood parks. Picnic shelters, boat ramps, beaches, and park kiosks collected more recyclables per day than other outdoor collection areas, such as off leash areas and play areas.

For 2009, the outdoor open space recycling pilot collection cans will be distributed throughout parks citywide. Collection cans will be strategically sited based on lessons learned during the 2008 pilot.

TOTAL DISPOSED

Resolution 30990 also set goals for waste disposed:

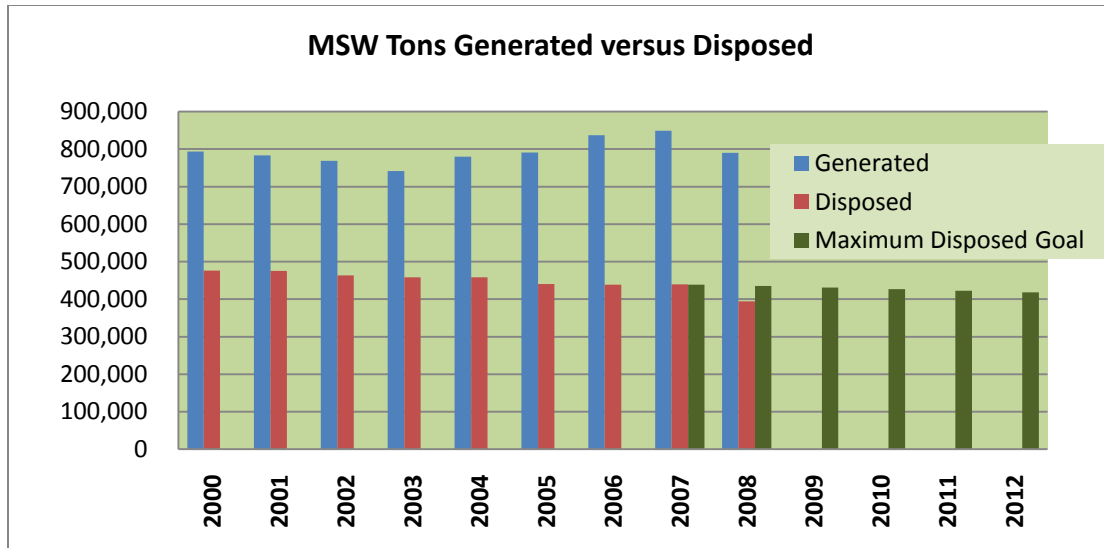
- The city will not dispose of any more total solid waste in future years than went to the landfill in 2006 (438,000 tons MSW),and;
- For the next five years, the city will reduce the amount of solid waste disposed by at least 1% per year (2008 – 2012).

The following table shows how many solid waste tons were generated, and the amount that was left over after diversion (recycling) that was landfilled. The table also shows percent change from the prior year.

MSW Tons - Overall Change from Prior Year				
Year	Generated	Percent Change	Disposed	Percent Change
2000	793,842	NA	476,132	NA
2001	782,809	-1.4%	475,270	-0.2%
2002	768,346	-1.8%	463,086	-2.6%
2003	741,094	-3.5%	458,011	-1.1%
2004	780,044	5.3%	458,389	0.1%
2005	790,457	1.3%	440,693	-3.9%
2006	836,499	5.8%	438,381	-0.5%
2007	848,759	1.5%	439,407	0.2%
2008	789,608	-7.0%	394,748	-10.2%

The following chart displays the data in the above table in graphical format. The limit of 438,000 tons (2006 level) was adopted mid-year 2007. Comparing to 2001, annual disposed tons are down more than eight percent.

We anticipate that further growth in our recycling and reduction programs will reduce MSW tons disposed. However, this effect can be muddled by factors in the overall economy which also drive MSW tons generated. For instance, we saw a 10% drop in our disposal system in 2008. We suspect that a good share of this is due to the economic downturn.



CONCLUSION

In 2008 Seattle continued to make great gains toward the 60% recycling goal. Once again, Seattle’s residents and businesses proved their commitment to recycling and waste reduction. The programmatic changes implemented in 2009 should yield more gains, even as the community faces uncertain economic times. Recycling continues to be a sound investment of the city as well as a key part of our climate action strategy.

FURTHER INFORMATION

More detailed sector and historical information may be found on SPU’s web site at www.seattle.gov/util/About_SPU, including reports and studies on:

- Waste composition
- R&D station tons and trips
- Construction, Demolition and Land-clearing Debris (C&D or CDL)
- Garbage
- Recycling composition
- Curbside and apartment (Multi family) recycling
- Recycling market and Seattle recycling value
- Seattle’s solid waste plan
- And more.