

UNIVERSITY OF WASHINGTON



RECYCLING &
SOLID WASTE
ANNUAL REPORT

Fiscal Year 2009



OUR MISSION

Recycling & Solid Waste serves as a leader in sustainability by providing recycling and solid waste solutions to University students, faculty and staff, and the global community. We provide recycling and waste collection services to promote a safe and clean campus environment. We promote maximum recycling and encourage minimum waste generation through education and outreach.

UNIVERSITY OF WASHINGTON
RECYCLING & SOLID WASTE ANNUAL REPORT
FISCAL YEAR 2009



FACILITIES SERVICES
Serving today... preserving tomorrow



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Overview

The University of Washington's Recycling & Solid Waste program achieved great success in fiscal year 2009 (July 1, 2008 – June 30, 2009). A summary of the past year's accomplishments, detailed data analysis, and programmatic highlights are provided in the report that follows.

Reduction of More than 10,000 Tons of Greenhouse Gas Emissions

Although net greenhouse gas emissions resulted from the waste landfilled, there were net reductions in emissions from all materials recycled. Based on a model that estimates greenhouse gas emissions and reductions, the University's Recycling &

New Website

A focus this past year has been on improving communication between Recycling & Solid Waste, the campus community, and the general public. A comprehensive new website was launched in February 2009 that makes program information easily accessible and user friendly. The new website includes a history of the University's recycling program, online request forms, and recycling and disposal procedures for more than 100 different materials.

Thank You

Recycling & Solid Waste thanks the University's students, faculty, staff, and community partners for their commitment to the environment, willingness to recycle, and support of the program. It is through everyone's collective efforts that the University of Washington has achieved such great success.

Fiscal Year 2009 Accomplishments

- Achieved a 54% diversion rate
- Saved more than \$795,000 by recycling and composting
- Net reduction of more than 10,000 tons of greenhouse gas emissions
- Consolidated recyclable materials into more efficient combined streams
- Launched a new comprehensive and user-friendly website

54% Diversion Rate

For the first time since recycling began at the University, a diversion rate greater than 50% was achieved. The University diverted 54% of its waste during the 2009 fiscal year.

More Than \$795,000 Saved

This past year, costs to dispose of material in the landfill rose and costs to recycle materials decreased. If the material recycled in fiscal year 2009 had been landfilled, the University would have paid an additional \$795,442 in garbage disposal costs.

Solid Waste program had an overall net reduction in greenhouse gas emissions of 10,647 metric tons of carbon dioxide equivalent (MTCO₂E).

Consolidated Recyclable Materials

Recycling & Solid Waste transitioned the campus to a zero-sort, cart-based collection system for paper. The placement of mixed paper collection carts at loading docks and the purchase of a new collection vehicle allowed for efficient collection, transport, and compaction of paper from all University buildings on the Seattle campus.

Three key indicators used to determine the University's success are the diversion rate, net avoidable disposal cost, and carbon footprint.

Introduction

The fiscal year 2009 Recycling & Solid Waste Annual Report provides an overview of the University of Washington's recycling and solid waste programs for the Seattle campus from July 1, 2008, through June 30, 2009.

ABOUT THE DIVERSION RATE

The University of Washington's diversion rate is calculated by dividing the total tons of materials diverted from the landfill by the total tons of waste generated for the University's main Seattle campus.

SPECIAL WASTES

Spent lighting (fluorescent lamps), white goods (refrigerators), and electronics (CPUs/monitors) are considered recycled special waste because these items contain potentially toxic substances, such as mercury, refrigerants, and lead, and therefore are banned by law from disposal in the landfill. The tonnage for recycled special waste is not included when calculating the net avoidable disposal cost because recycled special waste cannot be landfilled and does not contribute to the savings achieved through recycling. It is

important to note that the inclusion of recycled special waste in the net avoidable disposal cost would significantly increase the average cost per ton to recycle. This would misrepresent the overall average cost per ton to recycle, which is comprised primarily of items that could be landfilled.

The tonnage for recycled special waste is included in total recycled tons when calculating the diversion rate.

Continued on next page



Sharps and untreated biomedical waste are considered landfilled special waste and are disposed of off site, separate from the municipal solid waste stream. The tonnage for landfilled special waste is not included when calculating the net avoidable disposal cost because the high costs associated with its disposal would skew the average cost per ton to landfill.

The tonnage for landfilled special waste is included in landfilled tons when calculating the diversion rate.

SURPLUS PROPERTY

The Surplus Property resale/reuse program is closely associated with Recycling & Solid Waste, but is an independent, self-sustaining University program (see page

25). Metrics for the Surplus Property program are provided for informational purposes and are not included in the diversion rate, except when the material transferred to Surplus Property is recycled as metal or construction and demolition (C&D).

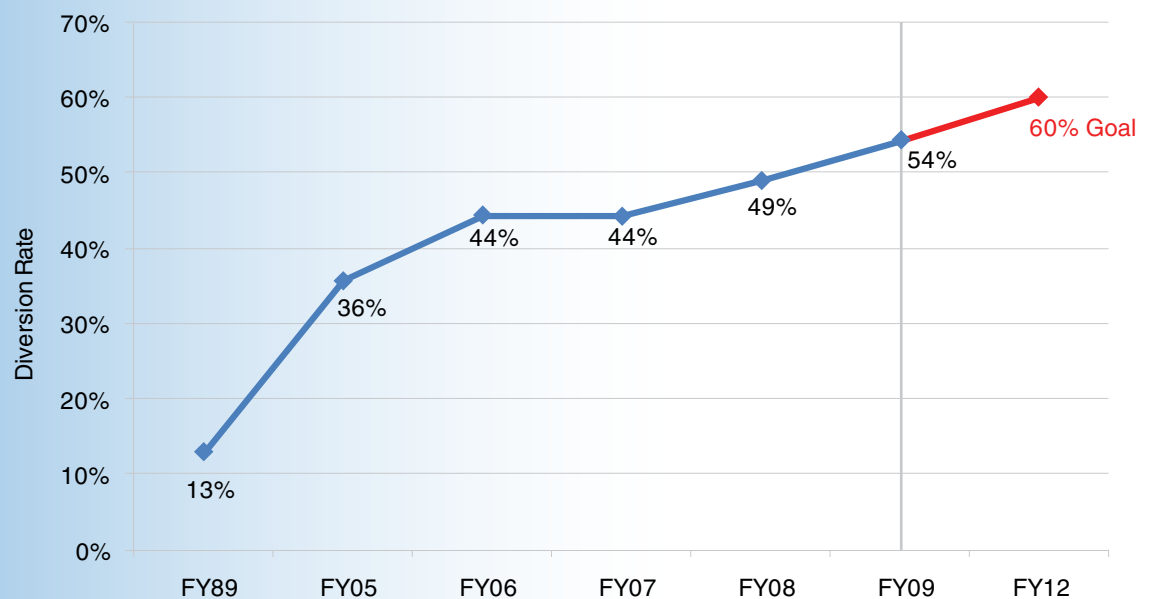
DIVERSION RATE

Diversion Rate: 54%

The diversion rate is the leading indicator of how successful the University of Washington is in keeping materials out of the landfill. The diversion rate is used to measure how our institution is doing compared to previous years, other higher education institutions, and the City of Seattle.

The diversion rate for fiscal year 2009 was 54%. The increase of nearly 20 percentage points since fiscal year 2005 is a reflection of the University's commitment to the environment and its ability to build on each year's successes.

Surpassing a 50% diversion rate was a significant milestone for the Recycling & Solid Waste program. The University can proudly state that it now diverts more waste than it landfills and is well on its way to meeting its 2012 goal of a 60% diversion rate.



NET AVOIDABLE DISPOSAL COST

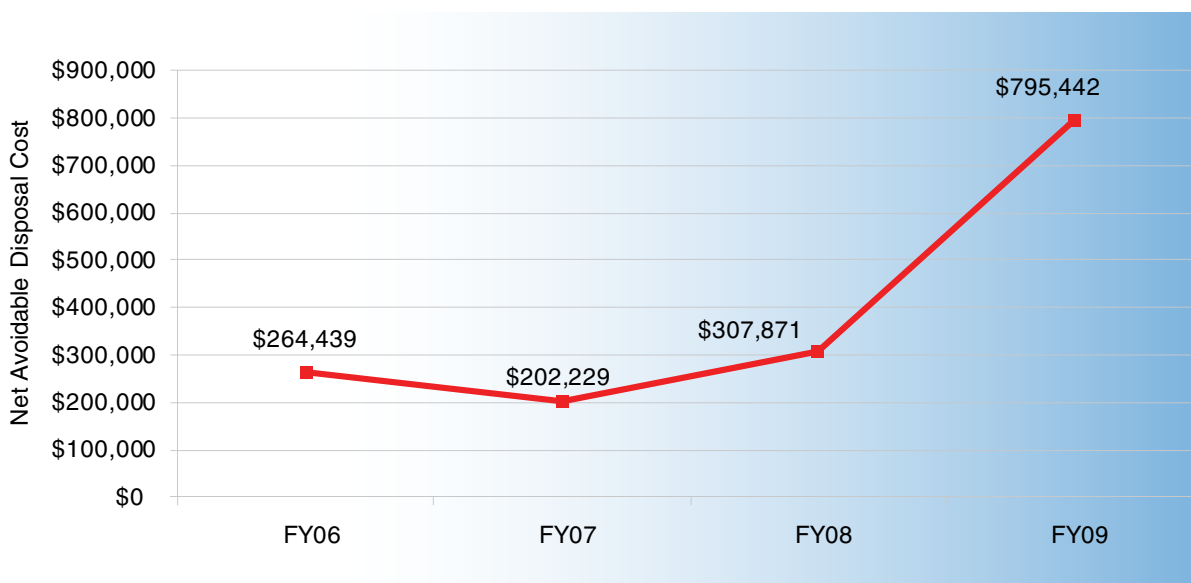
What is Net Avoidable Disposal Cost?

Net avoidable disposal cost shows why it makes good economic sense to recycle. A positive net avoidable disposal cost demonstrates that it costs less to recycle than to landfill waste.

The net avoidable disposal cost is calculated by subtracting the average cost per ton to recycle from the average cost per ton to landfill, and then multiplying the difference by the total tons recycled.

The fiscal year 2009 net avoidable disposal cost was \$795,442, which is more than \$487,000 greater than the previous fiscal year. The large increase resulted from the rising costs to dispose of materials in the landfill and the decreasing costs to recycle materials.

These rising disposal costs and decreasing recycling costs, combined with an increase in tons diverted, show the significant impact that recycling has on solid waste costs. If the material recycled in fiscal year 2009 had been landfilled, the University would have paid an additional \$795,442 on its garbage bill.



	Avg cost/ton to landfill	Avg cost/ton to recycle	Total tons recycled	Net avoidable disposal cost
FY06	\$199	\$146	5,000	\$264,439
FY07	\$198	\$155	4,703	\$202,229
FY08	\$220	\$164	5,455	\$307,871
FY09	\$262	\$124	5,768	\$795,442

CARBON FOOTPRINT

Greenhouse Gas Emissions Associated with Solid Waste

The disposal of solid waste produces greenhouse gas emissions. The anaerobic decomposition of waste in landfills produces methane, a greenhouse gas 21 times more potent than carbon dioxide. The transportation of waste to disposal sites produces greenhouse gas emissions from the combustion of the fuel used in transport. Making new products to replace items disposed of in the landfill produces greenhouse gas emissions because fossil fuels are used to obtain raw materials and/or manufacture the new items.

Estimating Greenhouse Gas Emissions

The US Environmental Protection Agency (EPA) Waste Reduction Model (WARM) is designed to estimate greenhouse gas (GHG) emissions and reductions associated with various waste management strategies. By calculating emissions in metric tons of carbon dioxide equivalent (MTCO₂E), the model divides waste into multiple categories depending on waste type and allows the user to designate landfill, incineration, recycling, or composting as the method of disposal.

Recycling & Solid Waste's Carbon Footprint

A carbon footprint is defined as the total set of GHG emissions caused directly and indirectly by an individual, organization, event, or product. Recycling & Solid Waste used WARM to estimate the carbon footprint of the University's recycling and solid waste programs for fiscal year 2009. First, a University-to-EPA waste category crosswalk was created to help map the waste categories Recycling & Solid Waste tracks with those tracked by WARM. Next, the total tons generated of each waste category in fiscal year 2009 were entered into the model. The results of the WARM calculations are in the chart below. WARM reports net emissions only from the "mixed MSW" (landfilled waste) category. Recycled or composted materials, 54% of the waste stream in FY09, all result in net reductions of GHG emissions, as indicated by the numbers in parentheses. Recycling and composting is considered less GHG intensive. By recycling or composting 54% of the waste generated in fiscal year 2009, the University's Recycling & Solid Waste program had a net reduction of greenhouse gas emissions of 10,647 MTCO₂E, resulting in a decreased carbon footprint.

The EPA's Waste Reduction Model (WARM) was used to estimate the greenhouse gas emissions or reductions associated with the management of the University's waste. Net emissions result from landfilled waste ("mixed MSW"). Net reductions result from all other materials because they were recycled or composted. In fiscal year 2009, the University's Recycling & Solid Waste program had a net reduction in greenhouse gas emissions of 10,647 MTCO₂E.

Material	Tons Generated	Total MTCO ₂ E
Mixed MSW	4,972	1,990
Food Scraps	766	(150)
Yard Trimmings	1,016	(200)
Cardboard	177	(550)
Concrete	276	(2)
Dimensional Lumber	206	(506)
Mixed Metals	562	(2,955)
Mixed Paper	1,831	(6,475)
Mixed Recyclables	553	(1,594)
Personal Computers	90	(205)
FY09 Total	10,449	(10,647)

By recycling and composting 54% of the waste generated in fiscal year 2009, the University's Recycling & Solid Waste program had a net reduction of greenhouse gas emissions of 10,647 MTCO₂E, resulting in a decreased carbon footprint.

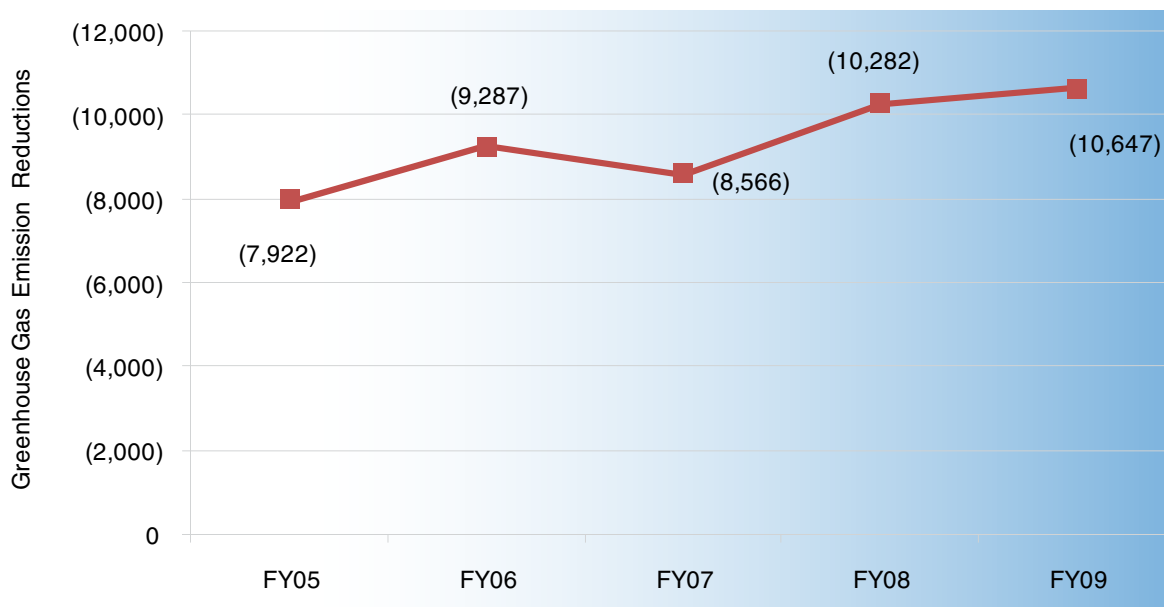
What Do These Numbers Mean?

The recycling efforts at the University of Washington have a positive effect on our environment and our community. In fiscal year 2009, the University's recycling and solid waste programs:

- Saved enough energy to supply electricity to more than 300 Seattle homes for one full year.
- Reduced pollution by preventing more than 3,000 tons of carbon dioxide and methane from being produced—the equivalent of taking more than 2,000 cars off the road for a full year.
- Saved more than 21,000 trees by recycling paper.
- Kept more than 1,000 tons of natural resources from being wasted in a landfill—enough to fill 50 dump trucks.
- Reduced energy consumption—the equivalent of saving 17,734 barrels of oil and 827,591 gallons of gasoline.

Trend in University Greenhouse Gas Reductions

The chart below shows greenhouse gas (GHG) reductions over the past five years. The numbers in parentheses represent the net reduction of GHG emissions as a result of the University's recycling and composting programs. The increase in GHG net reductions can be attributed to several factors, including increased paper recycling due to collection of fiber as a combined stream and an increase in food waste composting.



Recycling Streams

Industry changes for the collection and processing of recyclable materials led to changes in the University's systems in fiscal year 2009. Recyclable materials are now consolidated into combined material streams that mirror the industry standards. Recycled materials accounted for 54% (5,910 tons) of the total materials disposed of in fiscal year 2009.

Combined Fiber

Combined fiber is cardboard, mixed paper, and combined paper/cardboard. Cardboard collected in a packer truck is hauled directly to the off-site sorting facility. Mixed paper and combined paper/cardboard collected on campus is consolidated into a compactor located at one of the University's industrial yards. The compactor is hauled by the

University's waste and recycling collection services vendor to an off-site sorting facility.

Organics

Organics is landscape debris, clean wood/pallets, and food waste. Landscape debris is consolidated into roll-off containers, as is clean wood/pallets. The roll-off containers are hauled by the University's composting vendor to one of their facilities. Food waste is consolidated in carts located at building loading areas and the carts are serviced on site by the University's composting vendor.

Construction & Demolition

Construction and demolition (C&D) is mixed C&D, concrete/asphalt, and metal. Mixed C&D includes metal and concrete/asphalt when those items

cannot be separated out. Where possible, concrete/asphalt and metal are each collected separately for recycling. Mixed C&D, metal, and concrete/asphalt are consolidated in roll-off containers, which are hauled by the University's waste and recycling collection services vendor to off-site recycling facilities.

Mixed Recyclables

Mixed recyclables is cans/bottles and single stream. There are designated bins for cans/bottles in all campus buildings. Custodians service the bins and consolidate the material in loading dock containers. Recycling & Solid Waste staff service the loading dock containers and haul the material to a Material Recovery Facility (MRF). Single stream is collected in carts on each floor of each residence hall. Custodians empty the carts into compactors, which are hauled by the University's waste and recycling collection services vendor to a MRF.

Recycled Special Waste

Recycled special waste is all waste that contains potentially toxic substances, such as mercury, refrigerants, and lead, and therefore is banned by law from disposal in the landfill. This stream includes electronics, white goods, fluorescent lighting, and batteries. Also included in the tonnage for this stream are printer/copier cartridges and components; electronic media, such as DVDs and computer disks; and small personal electronics, such as cell phones and PDAs. The University has multiple vendors that recycle each of these items.



Mixed paper carts are serviced at each building's loading dock by Recycling & Solid Waste staff.



Staff participate in the self-serve food waste composting program.



The C&D container at one of the campus industrial yards.

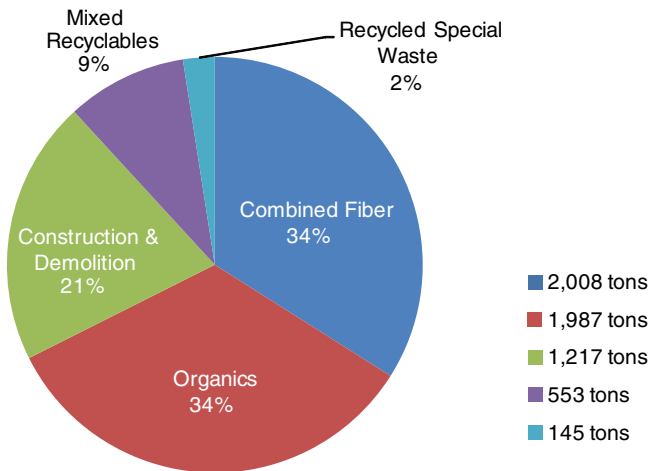


Recycling & Solid Waste staff service cans/bottles carts on campus.

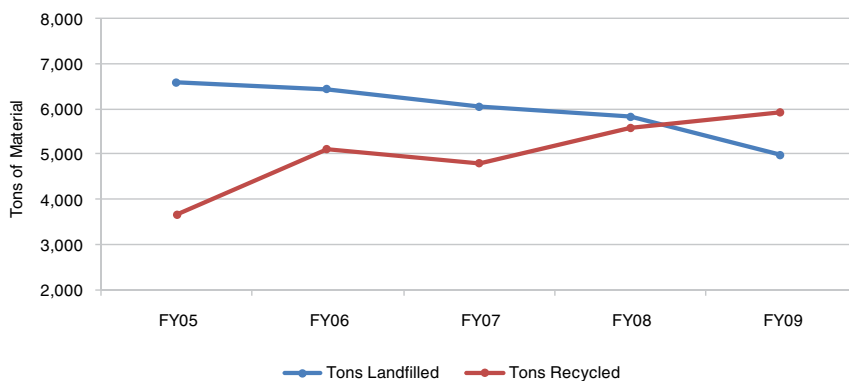


Fluorescent lamps contain mercury and must be recycled.

Recycling Streams Composition FY09



Tons Recycled vs. Tons Landfilled Trend



COMBINED FIBER

Combined fiber accounted for 34% (2,008 tons) of the total tons recycled in fiscal year 2009. Combined fiber includes cardboard, mixed paper, and combined paper/cardboard.

Cardboard

Cardboard, which includes old corrugated cardboard (OCC), is collected as a separate stream by the University of Washington Medical Center (UWMC) and Publications Services.

UWMC's custodians collect cardboard from inside the building and bale it on site. Publications Services consolidates cardboard into vendor-supplied containers. The University's combined fiber vendor collects the bales from UWMC and exchanges the containers at Publications

Services. The cardboard is transported to the vendor's recycling center.

Mixed Paper

Mixed paper is all clean paper and includes white paper, colored paper, newspaper, envelopes, magazines, boxboard, and shredded paper.

Mixed paper is collected as a separate stream by UWMC and Publications Services. UWMC treats all mixed paper as confidential and collects it in locking carts. Custodians empty the carts into a secure compactor and the University's combined fiber vendor hauls it to a secure facility, where the material is shredded and recycled. Publications Services consolidates mixed paper into vendor-supplied containers. The University's combined fiber vendor exchanges the

containers and transports the material to its recycling center.

Combined Paper & Cardboard

Combined paper/cardboard is all mixed paper and cardboard consolidated into a combined stream for recycling.

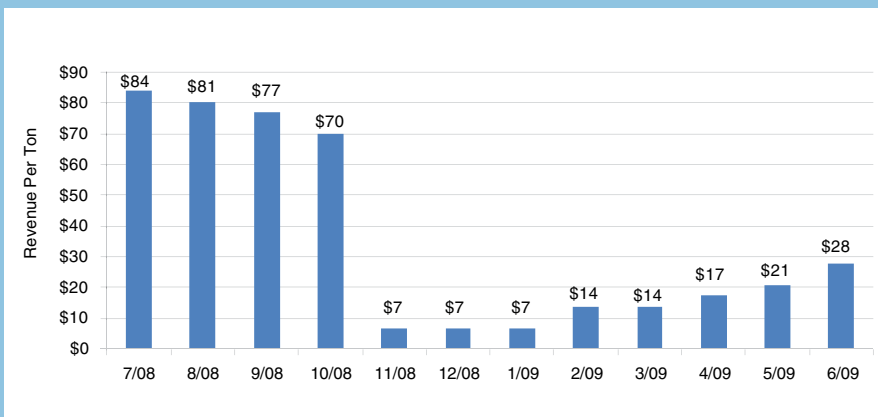
With the exception of UWMC and Publications Services, all combined fiber on campus is collected as combined paper/cardboard. Although the material is collected in separate containers at buildings, it is consolidated into one compactor for transport to the sorting facility.

In fiscal year 2009, the University transitioned the campus from collecting paper sorted by grade in multiple Bagits (polypropylene reusable bags that hang on a stand) to collecting all paper as a mixed paper stream in one Bagit. The Bagits are emptied by custodians into mixed paper carts staged at each building's loading dock. Some internal collection sites with large volumes of paper, such as copy centers, have a mixed paper cart instead of Bagits. Custodians exchange the full carts for empty ones from the loading dock. Small pieces of cardboard can be put into mixed paper carts, but most cardboard is consolidated in dumpsters at building loading docks by custodians.

Recycling & Solid Waste crew service the carts and dumpsters and consolidate the material into a compactor at a campus industrial yard. The University's waste and recycling collection services vendor transports the combined paper/cardboard to a sorting facility in South Seattle.

COLLAPSING RECYCLING MARKETS

The November 2008 US economic and financial crisis resulted in a similar collapse of the recycling commodity market. The chart below illustrates the University's revenue per ton of combined fiber sold over the course of fiscal year 2009 and shows the large decrease in revenue. Total revenue from the sale of the University's combined fiber in fiscal year 2009 decreased by \$140,000 over the previous fiscal year.





Newly designed Bagits for collection of mixed paper.

HISTORY OF PAPER RECYCLING AT THE UNIVERSITY OF WASHINGTON

1973 – Campus computer centers begin recycling computer tab cards and printout paper.

1994 – The UW Recycle Center opens. All paper sorting operations move to this location.

2003 – Recycling & Solid Waste commissions a waste characterization study. Of the 8,551 total tons disposed, recyclable paper is 39% (3,274 tons) of the waste stream.

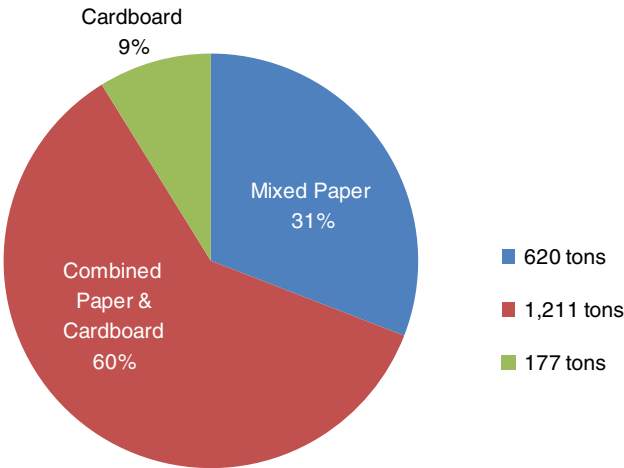
2005 – The City of Seattle passes an ordinance banning paper from the waste stream. In response, Recycling & Solid Waste runs a campaign to educate the campus about this ordinance. The campaign includes distribution of desk-side, self-service paper recycling collection boxes to every workstation.

2006 – To increase the amount of paper and other recyclables diverted from the waste stream, Recycling & Solid Waste begins placing recycling and waste bins in classrooms and conference rooms across campus.

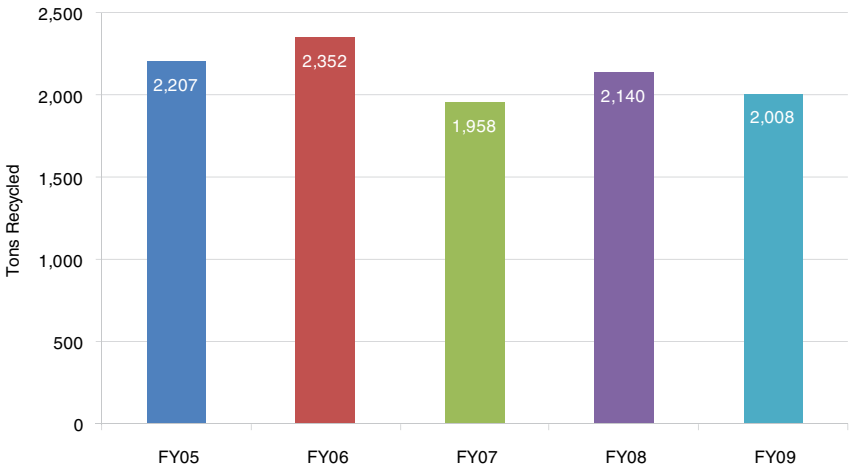
2007 – The UW Recycle Center closes in December and the sorting staff are reassigned to the Magnuson Health Sciences Building as the Green Team. The Green Team moves full mixed paper carts to the loading docks for service and replaces full carts with empty ones.

2008 – Recycling & Solid Waste transitions the campus to a new collection system for recyclable paper in fall 2008. All paper is collected in buildings as a mixed paper stream in Bagits, reusable polypropylene bags. The Bagits are emptied by custodians into large mixed paper carts at each building’s loading dock. Recycling & Solid Waste crew service the carts on site and the material is transported to an off-site sorting facility.

Combined Fiber Composition FY09



Combined Fiber Trend



ORGANICS

Organics accounted for 34% (1,987 tons) of the total tons recycled in fiscal year 2009. Organics includes landscape debris, clean wood/pallets, and food waste.

Landscape Debris

Landscape debris is all organic waste generated from landscaping activities and includes grass clippings, leaves, plant trimmings, and branches.

Landscape debris is collected and consolidated by University Grounds staff. Some of the material is chipped on site and used as mulch throughout campus. The landscape debris that cannot be chipped is loaded into roll-off containers located at a campus industrial yard and then hauled

by the University's composting vendor to one of their facilities, where the material is ground up, mixed with food waste, and composted.

Clean Wood & Pallets

Clean wood/pallets is wood scraps, large branches, stumps, pallets, and wood packing crates. Clean wood/pallets must be free of paint, oil, Styrofoam, and shrink wrap.

Clean wood generated by the University's Maintenance & Alterations shop during small renovation projects is placed in roll-off containers at the University's industrial yards. Smaller containers, such as hoppers and carts, are used by other shops on campus and are emptied by Recycling & Solid Waste crew into roll-off containers at

the campus industrial yards. Building staff place pallets and packing crates at loading areas for collection by Recycling & Solid Waste crew. Pallets in good condition are reused by Facilities Services staff. Crates and broken or otherwise unusable pallets are loaded into a roll-off container and hauled by the University's composting vendor to one of their facilities, where the material is ground up, mixed with food waste, and composted.

Food Waste

Food waste is all pre- and post-consumer food scraps, such as produce, meat, fish, dairy, bread, cereals, coffee grounds, and egg shells. Food waste includes all food-soiled paper, such as paper napkins, paper towels, paper plates, coffee filters, paper take-out boxes, and pizza boxes and also includes compostable serviceware items approved by the University's composting vendor.

Food waste generated in Housing and Food Services (HFS) dining facilities and coffee shops is collected in carts. HFS staff place full carts at building loading areas. Food waste generated through the office/kitchen composting program is transported by building staff to carts located at their building's loading area. The University's composting vendor services carts on site at the loading areas and hauls the material to one of their facilities, where the material is ground up, mixed with landscape debris and wood waste, and composted.

COMPOSTABLE SERVICWARE

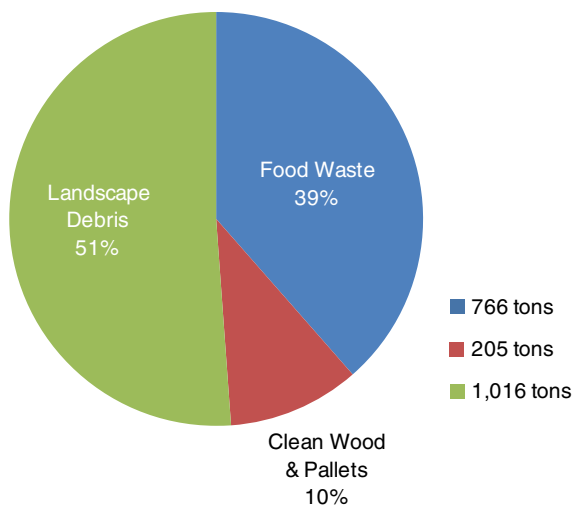
As part of the larger campus composting program, Housing and Food Services has compostable serviceware available at all of their food service locations and for events catered by their in-house catering company.

In January 2009, the first compostable cup designed specifically for soft drinks was introduced at all dining facilities. With the introduction of this cup, the University met the City of Seattle's requirement that all food packaging must be recyclable or compostable, a year and a half before the July 2010 deadline.

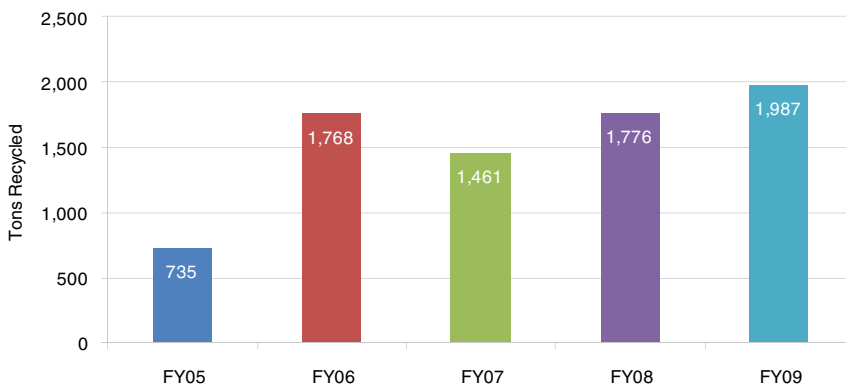


A sample of the compostable serviceware items offered at Housing and Food Services' dining facilities.

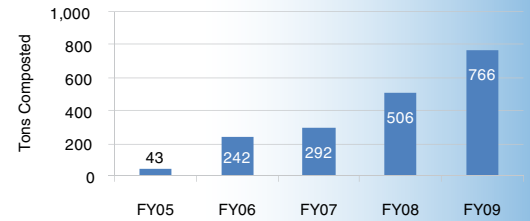
Organics Composition FY09



Organics Trend



Food Waste Trend



FOOD WASTE COMPOSTING

In 2003, the University contracted with a consulting company to perform a comprehensive waste characterization study. Results showed that 28% of the material in the landfill-bound waste stream was organics. This prompted the creation of a food waste composting pilot program in 2004 at UW Club and at three Housing and Food Services (HFS) kitchens.

Since 2004, the program has grown significantly. Initially, only vegetative waste was permitted. Now all food waste, including meat, fish, bones, and dairy, is permitted, which greatly increases the amount of material diverted. In addition, the University's composting vendor also accepts compostable serviceware items approved by their facility.

All HFS dining facilities and coffee shops collect pre- and post-consumer food waste. As of January 2009, HFS had a complete line of compostable serviceware available at their dining facilities and coffee shops. Compostable serviceware is available upon request for events catered by their in-house catering company. HFS is also piloting collection of food waste within several residence halls.

The University of Washington Medical Center (UWMC) collects pre-consumer food waste from all of its kitchens.

Many staff on the Seattle campus participate in the voluntary, self-serve compost program and the number of participants is always increasing. Staff collect food waste and compostable serviceware in small containers in their office, break room, or kitchen. Staff empty full containers into food waste carts that are at the loading docks of more than 50 campus buildings.

In fiscal year 2009, the University collected and composted 766 tons of food waste, 51% more than the previous fiscal year.

CONSTRUCTION & DEMOLITION

Construction and demolition (C&D) accounted for 21% (1,217 tons) of the total tons recycled in fiscal year 2009. Construction and demolition includes mixed C&D, concrete/asphalt, and metal.

Mixed C&D

Mixed C&D is wood, drywall, masonry, roofing, siding, metal, wire, insulation, concrete, asphalt, and packaging materials related to construction or demolition. The material results from construction, remodeling, repair, or demolition of buildings, roads, or other structures.

Concrete & Asphalt

Concrete/asphalt typically results from demolition of roads or construction lay-down areas.

Metal

Metal is ferrous and non-ferrous metal and includes shelving, sheet metal, wiring, desks, and chairs.

University Facilities

Maintenance & Alterations is the University's in-house provider for general maintenance, repair, alterations, and renovations of all campus facilities including building interiors, exteriors, and grounds. Maintenance & Alterations provides service to the entire campus and is the University's primary generator of C&D.

The material generated by Maintenance & Alterations is sorted into mixed C&D, concrete/asphalt, or metal roll-off containers located at the Plant Services building and the campus industrial yards.

The containers are hauled by the University's waste and recycling collection services vendor to off-site recycling facilities.

Instructional Laboratories & Shops

Multiple departments on campus generate C&D waste. The Department of Architecture operates wood-working and metal-working shops in conjunction with student design studios. The School of Art has facilities for ceramics processing and wood and metal fabrication. The College of Engineering has a structural research lab and a concrete lab. The Machine Shop for the Department of Chemistry supports both research and graduate teaching activities.

Based on type and volume of C&D material generated, carts, hoppers, or roll-off containers are staged at buildings that house the instructional laboratories and shops. Recycling & Solid Waste staff empty carts and hoppers into roll-off containers at the campus industrial yards, which are hauled by the University's waste and recycling collection services vendor to off-site recycling facilities. Roll-off containers staged at buildings are hauled by the University's waste and recycling collection services vendor to off-site recycling facilities.

Surplus Property

All items purchased with University funds or given to the University are considered University property and must be disposed of through Surplus Property. Such items include furniture, building fixtures, laboratory equipment, and metal items. Items that are not able to be resold are sorted into mixed C&D or metal roll-off containers at a University industrial yard and then hauled by the University's waste and recycling collection services vendor to off-site recycling facilities.

CARPET RECYCLING

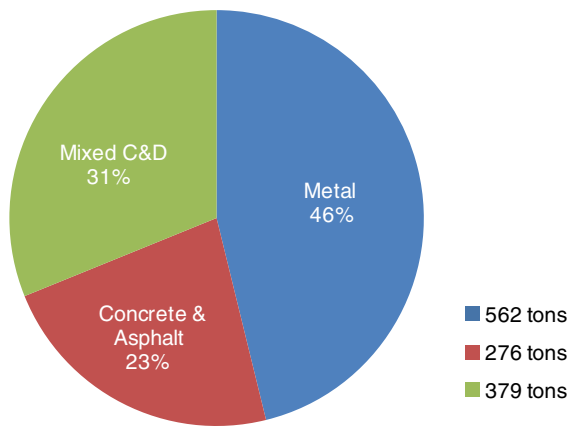


The Shop 53 Flooring Team in front of the roll-off container for carpet that will be recycled.

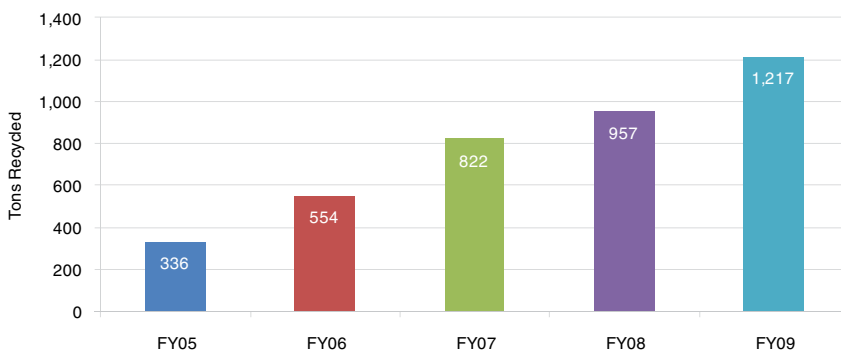
The University's Shop 53 Flooring Team recycles carpet they remove from campus buildings through Recovery 1, a resource recovery, recycling, and research facility in Tacoma, Washington. Higher-grade fibers and backing are turned into new carpet. Lower-grade fibers are sent to vendors for repurposing into construction components, such as insulation and fill.

Not only does Shop 53 recycle carpet they remove, they also offer material selections made partially or entirely from reclaimed carpet that, when removed, can be made into new carpet.

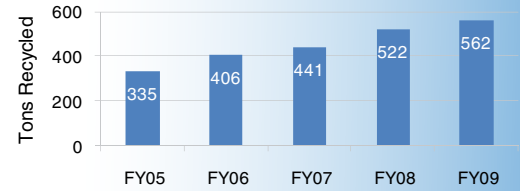
Construction & Demolition Composition FY09



Construction & Demolition Trend



Metal Trend



METAL RECYCLING

Maintenance & Alterations shops and Surplus Property are the primary generators of recyclable metal at the University.

The Maintenance & Alterations shops located within the Physical Plant Building, such as the Sheet Metal Shop and the Sign Shop, consolidate metal into a roll-off container at the building's loading dock. Maintenance & Alterations shops located elsewhere on campus transport their metal to the roll-off container at the Plant Services building or to a container at a campus industrial yard (Corp Yard 2 or Bryant Yard).

The University's Surplus Property program receives all items no longer needed by departments. All metal that cannot be resold is consolidated in a roll-off container at the Bryant Yard and hauled by the University's waste and recycling collection services vendor to an off-site recycling facility.

Groups that generate smaller quantities of metal have 1-yard, self-dumping hoppers or small bins that are serviced by Recycling & Solid Waste staff into a roll-off container. The container is hauled by the University's waste and recycling collection services vendor to an off-site recycling facility. Small generator groups include South Campus Maintenance, Fleet Services, ASUW Bike Shop, Bagley Hall, and Guggenheim Hall.

Over the past five years, Recycling & Solid Waste has increased and improved its metal collection services by providing temporary roll-off containers during renovation projects and by providing specialized hoppers in small shops and at other underserved areas. These changes have led to a 68% increase in total tons of metal recycled since fiscal year 2005.

Metal has been a consistent source of revenue for the University, even with the economic collapse of November 2008. In fiscal year 2009, the University recycled 562 tons of metal, resulting in \$42,530 of revenue.

MIXED RECYCLABLES

Mixed recyclables accounted for 9% (553 tons) of the total tons recycled in fiscal year 2009. Mixed recyclables includes cans/bottles and single stream.

Cans & Bottles

Cans/bottles is plastic bottles, jars, and jugs; plastic dairy tubs; glass bottles and jars; steel/tin cans; aluminum cans; milk, soy milk, and juice cartons; and aseptic food packages.

There are designated bins for cans/bottles in all campus buildings. The bins are typically part of a set that includes cans/bottles, mixed paper, and waste bins. Sets of bins are placed in hallways, large office suites, kitchens, break rooms, classrooms, and conference rooms. Custodians service the bins and consolidate the material in loading dock dumpsters or carts. Recycling & Solid Waste staff service the loading

dock containers and haul the material to a Material Recovery Facility (MRF).

The University collects cans/bottles separate from combined fiber in all University buildings and facilities, except residence halls and dining facilities. By doing so, the University maintains its ability to promote recycling for the “highest and best use”. Keeping cans/bottles separate from the combined fiber means the fiber is not contaminated by glass or other items. The separation of streams also preserves the revenue stream that the University receives from the sale of combined fiber.

Single Stream

Single stream is all material accepted as part of cans/bottles, as well as mixed paper, cardboard, and plastic film, collected in one container.

Single stream is collected in carts on each

residence hall floor and in the dining facilities. Custodians empty the carts into compactors, which are hauled by the University’s waste and recycling collection services vendor to a MRF.

Single stream collection is permitted within Housing and Food Services (HFS) residence halls and dining facilities because of space and labor limitations. By using single-stream collection carts, there are fewer carts for Custodians to service and only two compactors—single stream and waste—are needed at each building.

The single-stream system provides a simple and easy way to dispose of all recyclables and mirrors what some students are accustomed to at home. The benefits of single-stream collection at HFS locations outweigh concerns of a lower-quality recycling material stream. HFS is an example within the campus community where single-stream collection is the preferred choice and has been successful.

DUAL-COMPACTOR SYSTEM AT HFS

Housing and Food Services (HFS) provides carts for single stream and garbage on all floors of the residence halls and in the dining facilities. At each loading dock, there is a dual-compactor system: a single-stream compactor and a garbage compactor. Custodians empty the carts into the compactors, which are hauled by the University’s waste and recycling collection services vendor to a Material Recovery Facility (MRF).





ClearStream containers are used for indoor special events.



Carts are used for outdoor special events.

SPECIAL EVENT RECYCLING

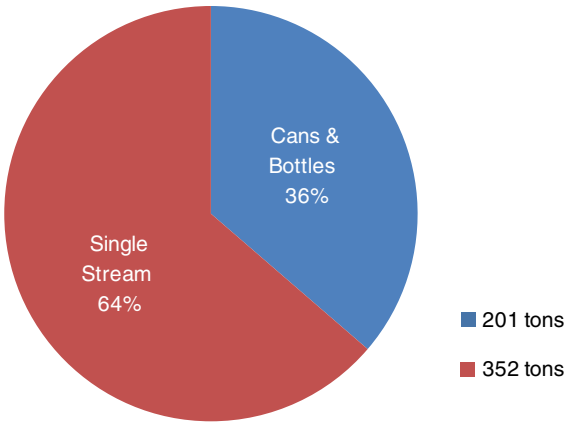
Recycling & Solid Waste provides recycling and waste containers for special events held on campus. Events occur both in campus buildings and on the University grounds and range between 20 - 5,000 attendees. The largest portion of recyclable materials generated at special events is aluminum cans and glass and plastic bottles.

ClearStream containers are used for indoor events. The containers consist of a bag hung on a frame with a labeled lid. The use of clear bags for recyclables allows event attendees to easily see the material that is being collected. The typical setup for an indoor special event is cans/bottles and waste ClearStream containers, but when needed, mixed paper and compost containers are provided.

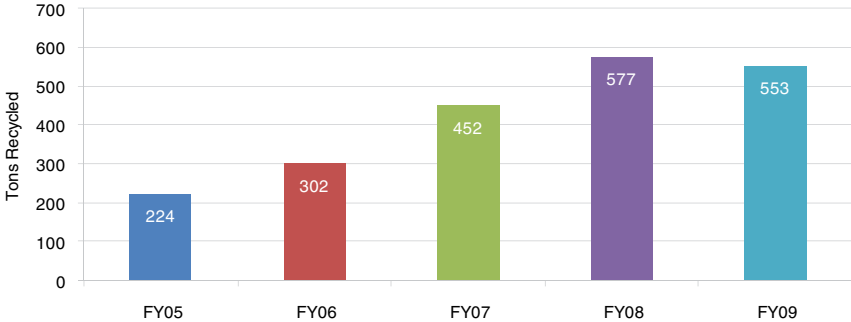
Carts are used for outdoor events. Depending on the size of the event, the carts are 35 gallons, 64 gallons, or 96 gallons. The typical setup for an outdoor special event is cans/bottles or single-stream carts and waste carts. When needed, compost carts are provided.

In fiscal year 2009, Recycling & Solid Waste provided service for more than 160 special events.

Mixed Recyclables Composition FY09



Mixed Recyclables Trend



RECYCLED SPECIAL WASTE

Recycled special waste accounted for 2% (145 tons) of the total tons recycled in fiscal year 2009. Recycled special waste includes electronics, white goods, e.Media, fluorescent lighting, cartridges and components, and batteries.

Electronics

Electronics include computers, monitors, and peripherals. Electronics in working and non-working condition that are no longer needed by a department are transferred to Surplus Property for resale or proper recycling. All electronics that cannot be resold are recycled by the University's e-waste vendor.

White Goods

White goods are heavy consumer durables, such as air conditioners, refrigerators, and

stoves. The term "white goods" came about because these items used to be painted with white enamel finish. Despite their present-day availability in varied colors, they are still referred to as white goods. White goods in working and non-working condition that are no longer needed by a department are transferred to Surplus Property for resale or proper recycling. All white goods that cannot be resold are recycled by a contracted vendor.

E.Media

E.Media is all non-confidential electronic media, such as CDs and DVDs. Also included in the tonnage for e.Media are small personal electronics, such as cell phones, pagers, portable music devices, and smart phones. All materials are recycled by a contracted vendor.

Fluorescent Lighting

Fluorescent, mercury vapor, metal halide, high pressure sodium, and neon lights all contain mercury, which is toxic and persistent in the environment. These lights are banned by law from disposal in the landfill. Spent lighting is consolidated in a roll-off container and recycled by a contracted vendor.

Cartridges & Components

Recycling & Solid Waste collects a variety of items as part of its printer/copier cartridges and components stream: toner cartridges, laser printer cartridges, ink jet printer cartridges, bubble jet printer cartridges, copier cartridges, fuser drums, imaging units, and transfer rollers. The University's contracted vendor refills cartridges for resale or returns them to the original manufacturer for refilling. When refilling is not possible, the vendor recycles the materials. Fuser units, imaging units, and transfer rollers are reconditioned for reuse or returned to the original manufacturer for reuse of parts.

Batteries

Batteries cannot be placed in the trash because they contain corrosive acids and toxic metals. The University of Washington recycles all types of batteries, including alkaline batteries. The University is considered a business and is therefore required to recycle alkaline batteries, even though residential customers are permitted to place them in the trash. Batteries are consolidated by the University's Environmental Health & Safety department and recycled by a contracted vendor.



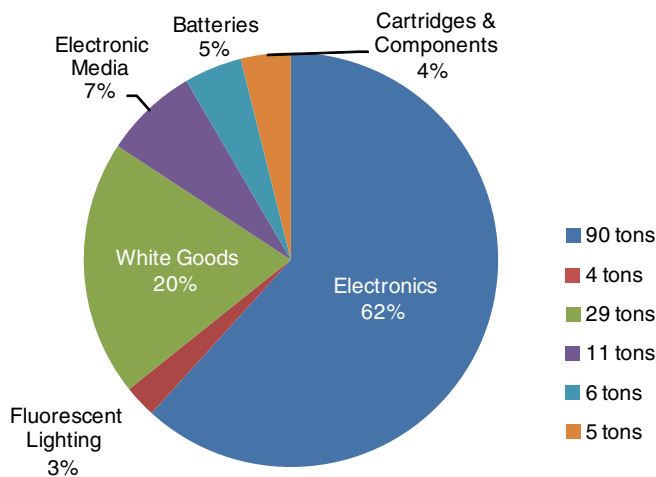
Left: University staff consolidate electronics, such as monitors and printers, at a campus industrial yard for pickup by the e-waste recycling vendor.



Right: White goods are stored in a roll-off container at a campus industrial yard for pickup by the University's recycling vendor.



Recycled Special Waste Composition FY09



E.MEDIA RECYCLING PROGRAM

The Electronic Media (E.Media) Recycling Program was established in 2007 to give University departments and individuals an opportunity to dispose of non-confidential end-of-use electronic media in a responsible way.

There are more than 50 e.Media public area bins in campus buildings for disposal of electronic media, as well as other small items. Recycling & Solid Waste also provides special pickups of large volumes of electronic media from departments. The items collected in the bins are:

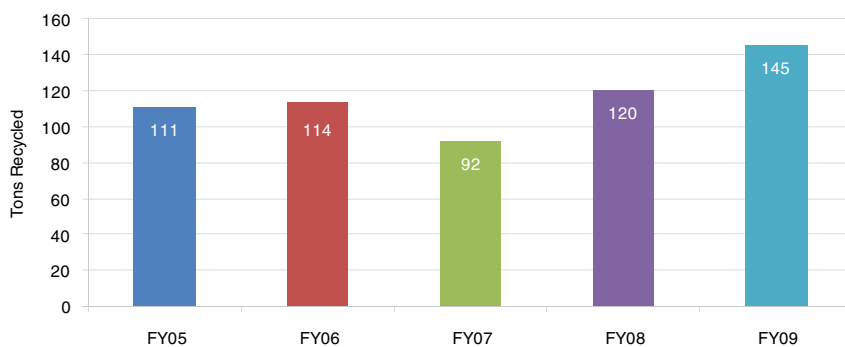
- E.Media: CDs, DVDs, videotapes, audiotapes, computer disks, and their cases
- Small personal electronics: cell phones, pagers, PDAs, smart phones, and small electronics
- Inkjet and bubble jet printer cartridges
- Batteries: alkaline, carbon, nickel-cadmium, zinc, lithium, nickel, metal hydride, and silver oxide

The recycling vendors for all items are based in Washington State. E.Media and personal electronics are recycled through GreenDisk. The small printer cartridges are consolidated with larger cartridges collected on campus and recycled by PCR (Print Cartridge Recycle). Batteries are transferred to the University's Environmental Health & Safety department and then recycled through Total Reclaim.

In fiscal year 2009, the University recycled 11 tons of electronic media and personal electronics through the E.Media Recycling Program.

Recycling & Solid Waste will place additional e.Media bins in the coming years, with the goal of having one bin in each campus building.

Recycled Special Waste Trend



Solid Waste

Solid waste accounted for 46% (4,972 tons) of the total materials disposed of in fiscal year 2009. Solid waste is collected by Recycling & Solid Waste staff and by the University's contracted waste and recycling collection services vendor.

Smart Can Service

Recycling & Solid Waste staff service more than 400 exterior garbage/recycling containers. These 36-gallon dual-purpose containers, dubbed "Smart Cans", feature a lower portion for garbage and an upper chamber for cans and bottles. The upper chamber is labeled for recycling and has a spring-loaded trap door for easy servicing.

Service areas expanded in fiscal year 2009 with the addition of Smart Cans at two campus buildings and all parking

gatehouses and exterior to food courts at the Magnuson Health Sciences Building.

Materials collected from Smart Cans are included in the University's self-haul garbage and recycling tonnage totals.

Self-Haul Service

Recycling & Solid Waste staff collect municipal solid waste (MSW) in University-owned vehicles from the loading docks of central campus buildings that can accommodate 2-yard dumpsters or 96-gallon carts. The self-haul garbage collection route services 89 collection containers at 76 buildings.

A total of 896 tons of MSW were collected through the University's self-haul garbage service in fiscal year 2009.

Vendor-Haul Service

Waste Management, the University's waste and recycling collection services vendor, collects from buildings and facilities that generate large volumes of municipal solid waste (MSW). Locations that require contracted vendor front-load and/or roll-off service include Housing and Food Services residence halls and dining facilities, Magnuson Health Sciences Building, Physical Plant, Maintenance & Alterations trade shops, and the campus industrial yards. Contracted vendor service is also used during special cleanout or renovation projects, for special events including Husky Football, and when a location requires regular weekend service.

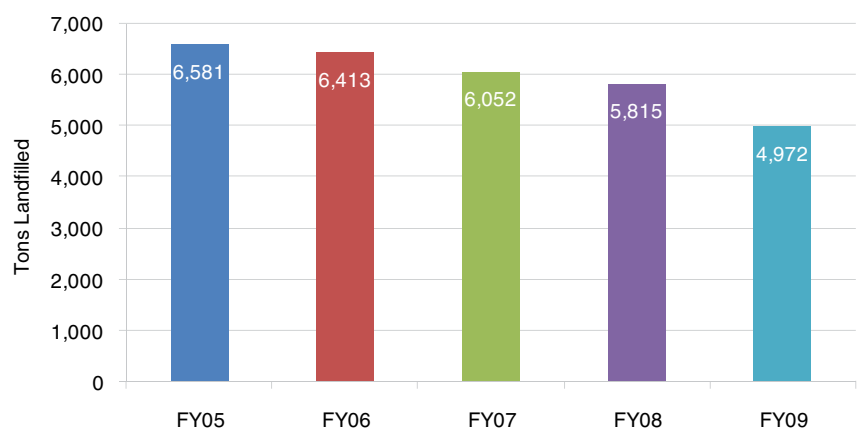
A total of 4,076 tons of MSW were collected by Waste Management in fiscal year 2009. The total cost was \$930,332 (\$228 per ton).

SELF-HAUL SAVES MONEY

Recycling & Solid Waste ended vendor front-load garbage service at six campus buildings and integrated service for those buildings into the University's self-haul garbage route. The front-load vendor containers were replaced with University-owned rear-load containers and service was incorporated into the existing self-haul garbage route.

This was completed without adding additional labor or collection vehicles and resulted in substantial savings (\$46,000 annually) for the University.

Solid Waste Trend



The costs associated with the disposal of treated and untreated biomedical waste are much higher than other waste streams.

Sharps & Biomedical Waste

Recycling & Solid Waste is responsible for developing and maintaining the disposal contracts for sharps and biomedical waste on campus. The two vendors that handle the materials are Waste Management (treated) and Stericycle (untreated). The disposal protocols for sharps and biomedical waste vary throughout the University and depend primarily on whether the material can be treated (autoclaved) internally.

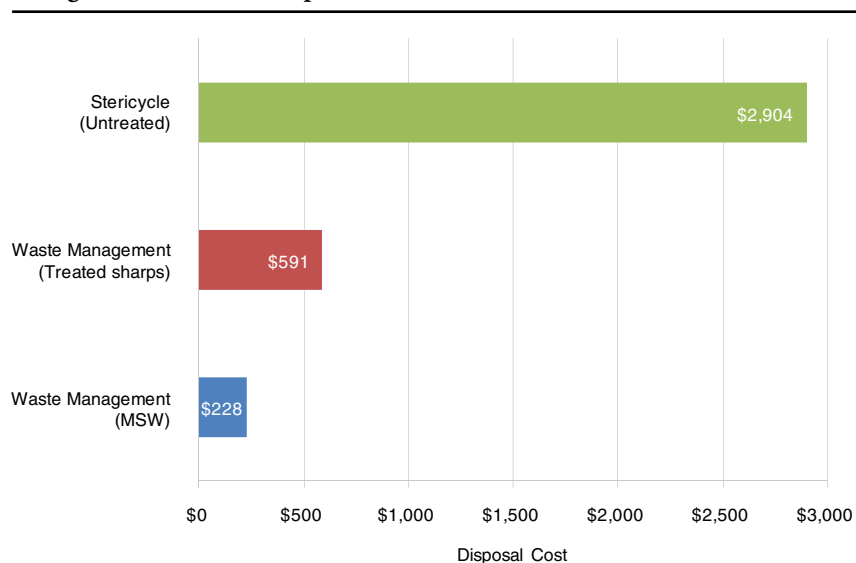
Sharps

Sharps are a restricted waste governed by state and local regulations and must not be disposed of in the municipal solid waste (MSW) stream. The term “sharps” is a regulatory waste classification associated with those instruments used to puncture, cut, or scrape body parts and that can cause punctures or cuts to solid waste handlers or the public.

Treated (autoclaved) sharps are disposed of in rigid, puncture-proof containers and placed in specialized lidded roll-off containers at the University of Washington Medical Center and Magnuson Health Sciences Building. The containers are hauled by Waste Management directly to the rail line and transported to their Columbia Ridge Landfill in Oregon, where the contents are placed in a segregated portion of the landfill.

When on-site treatment is not available, sharps are collected by Stericycle and transported to their facility in Morton, Washington, where the sharps are treated prior to being landfilled.

Average Cost Per Ton for Disposal



Biomedical Waste

Biomedical waste is a restricted waste stream and includes blood and blood products, cultures and stocks of etiologic agents and associated biologicals, and laboratory waste that has come into contact with these items.

When internal treatment (autoclaving) is available, biomedical waste is collected in a biohazard-labeled bag, autoclaved, and then disposed of as MSW. Recycling & Solid Waste maintains waste characterization profile forms and Public Health–Seattle & King County Waste Clearance Forms for the locations that internally treat and dispose of their biomedical waste as MSW.

When on-site treatment is not available, biomedical waste is collected by Stericycle

and transported to their facility in Morton, Washington, where the waste is treated prior to being landfilled.

Tonnage and Cost Information

In fiscal year 2009, the University of Washington generated 72.82 tons of treated sharps, untreated sharps, and untreated biomedical waste at a total cost of \$81,973. Treated biomedical waste is disposed of as part of the municipal solid waste stream and, therefore, tonnage and cost information is not available.

The average costs per ton for disposal of treated sharps and untreated sharps and biomedical waste are much higher when compared to the average cost to dispose of municipal solid waste (see chart above).

Annual Highlights

SCRAM: STUDENT MOVEOUT

Can't take it, donate it

Scram: Student Moveout is a program run by Recycling & Solid Waste at the end of each academic year that captures unwanted materials from approximately 5,000 students who are moving out of the residence halls. The goal of *Scram* is to divert reusable goods, such as food, clothing, household goods, books, school supplies, cleaning products, and toiletries, to local charitable organizations.

The program began as a result of a waste audit of residence hall garbage containers at the end of the 2003 academic year. Because the waste audit showed a large volume of reusable items in the garbage containers, a proposal was approved by

Housing and Food Services for Recycling & Solid Waste to run an end-of-the year donation program.

During *Scram 2009*, the following materials were collected and donated to local charitable organizations: 4.7 tons of clothing; 1.2 tons of household goods; 0.6 tons of food; 0.3 tons of books; 0.2 tons of toiletries and cleaning products; and 0.2 tons of school supplies. In addition, 1.6 tons of recyclable special waste were collected and put into the Surplus Property inventory.



Since *Scram* began in 2004, more than 57 tons of material have been donated to local charitable organizations.

HUSKY NEIGHBORHOOD HOOD CLEANUP

Keeping the neighborhood clean

Husky Neighborhood Cleanup is a program run by Recycling & Solid Waste, in cooperation with the City of Seattle, at

the beginning and end of each academic year. The goal of the event is to relieve the alleyways in the Greek housing area and surrounding neighborhoods of excess garbage that accumulates when students are moving in and out.

During the September 2008 move-in cleanup, 15.36 tons of garbage and 1.7 tons of recyclables were collected. During the June 2009 move-out cleanup, 7.14 tons of garbage, 0.6 tons of recyclables, and 0.3 tons of donations were collected.

Since the *Husky Neighborhood Cleanup* began, waste practices of the residents in this area have greatly improved. Although there is still occasional illegal dumping in alleyways, the volume has decreased significantly.

The program was started in 2005 as a passive event, with containers placed but not monitored. It has evolved into an active collection event with Recycling & Solid Waste and the contracted garbage hauler on site to accept the materials and provide education.



HUSKY FOOTBALL

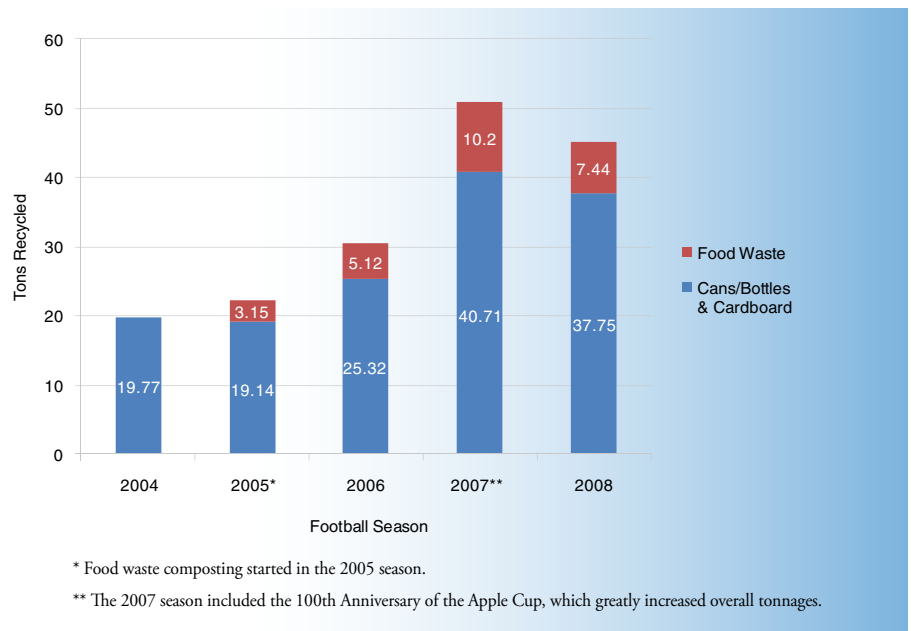
Greening the game

Prior to 2001, there were no recycling containers available in the parking lots for football fans to use during their tailgates. In 2001, Recycling & Solid Waste piloted a program for the collection of cans and bottles throughout the tailgate areas. It was a success and since that time, Recycling & Solid Waste, in cooperation with Intercollegiate Athletics, has continued to improve and expand the Husky Football recycling program each year.

Over the years, improvements have been made to all aspects of the football recycling program, from tailgating to post-game cleanup. Before the game, student outreach staff distribute blue recycling bags to tailgaters and provide instruction for using the bags to make recycling cans, bottles, and cardboard more convenient. The volunteers that clean the stadium after the game follow protocols to ensure that recyclables in the seating area are segregated and collected, instead of being thrown away as garbage.

To further reduce the amount of landfill-bound waste, Recycling & Solid Waste developed a composting program for the stadium concessionaires. All 33 concessionaires collect their pre-consumer food waste for composting.

Changes for the 2008 season included using 96-gallon, single-stream recycling carts throughout the parking lots instead of 64-gallon cans/bottles carts used in previous years. More recyclables were collected because the carts are larger and all recyclables, not just cans and bottles, are permitted. In an effort to increase the amount of materials recycled during Sunday cleanup of the parking lots, the cleanup crew collects recyclables off the



ground prior to a mechanical sweep of the lots.

During the 2008 season (September – December), a total of 148.61 tons of waste were generated. Of that total, 103.42 tons were sent to landfill, 37.75 tons were

recycled, and 7.44 tons were composted. The percentage of material diverted (recycled and composted) increased from 26.6% in the 2007 season to 30.4% in the 2008 season.

Blue Bag Recycling Outreach staff on game day.



UW TOWER PILOT PROGRAM

Live Green. Work Green. Go Green.

UW Tower is a 22-story building the University purchased and began occupying in 2008. As part of the larger sustainability focus for the building, UW Tower served as the pilot building for a new desk-side self-service recycling and waste collection program.

Recycling & Solid Waste provided a set of self-service bins at each of the approximately 2,000 workstations in UW Tower. The set consists of a 28-quart bin for recyclable paper and a 3-quart unlined bin for waste. Staff are responsible for

emptying their bins into centralized recycling and waste containers that are serviced by custodians.

The goals of the new system are to increase recycling, promote personal responsibility for waste generation, reduce the number of liner bags going to landfill, and permit custodians to direct their time to essential cleaning tasks.

The self-service waste and recycling program has been very successful at



UW Tower and, as a result, has become the standard for new construction and remodels.

NEW WEBSITE

In February 2009, Recycling & Solid Waste launched a new website that makes program information easily accessible. The new website greatly improves communication with the campus community and the general public. The format is consistent with other University Facilities Services' programs and the content management system allows for easy updates.

[Home Page](#)

The home page displays the newest program update or campaign, a tip for increasing environmental awareness, and rotating spotlights, which feature campus partners' sustainability success stories.

[About Us](#)

The *About Us* section includes the mission and vision, information about collection

services, a history of Recycling & Solid Waste, and highlights of several programs.

[What do I do with...?](#)

For those on campus, Recycling & Solid Waste provides an A-Z directory of more than 100 items, each of which links to the procedures for proper recycling or disposal of that item.

[Service and Container Requests](#)

For staff on the Seattle campus, the website has online request forms for the most commonly requested services and containers.

[Biomedical Waste Information](#)

This section provides general information about disposal of sharps and biomedical waste and has links to relevant University resources. There are also online request forms for setting up a vendor account and for requesting pickup of waste by the University's vendor.



Surplus Property

All items purchased with University monies or given to the University that are no longer needed by a department, whether they are in working or non-working condition, must be transferred to Surplus Property for resale, recycling, or disposal.

Surplus Property is a self-sustaining department. It receives no direct state funding and must generate revenue to cover all costs. Surplus Property revenue is generated through sales of items transferred from departments.

There are several ways items are sold. The Surplus Store is open to University departments, state agencies, non-profit organizations, and the general public. Public auctions are held approximately six times a year and sales are held for specialized equipment that retains a significant value and/or is located at an off-campus location.

Depending on the type of sale and the sale price, a portion of revenue received from a sale may be returned to the department that originally purchased the item. The department can use the money from a sale to purchase new property or offset operating costs.

In the 2009 fiscal year, Surplus Property focused on expanding the scope of service, building its customer base through new marketing opportunities, and thoroughly sorting items received to increase the inventory available for sale. The Surplus Property website was also greatly improved, with easier navigation and more detailed photographs and descriptions of items available for sale.

Surplus Property processed 47,971 items in fiscal year 2009. Of those items, 30% were sold, 45% were recycled, 15% were disposed of as garbage, and 10% remained in the sales inventory.

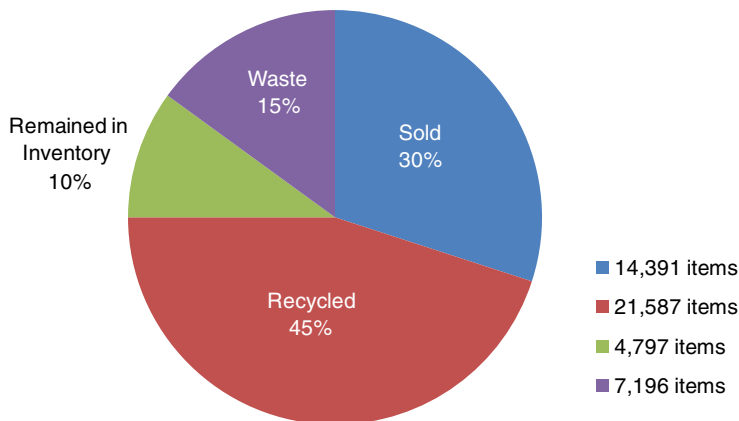


Computers are available for purchase in the Surplus Store.



Customers at the off-campus sale of surplussed card catalogs from Suzzallo Library.

Surplus Disposal Statistics



Bicycles abandoned on campus become property of the University and are sold during special sales.

Collection Services

Two types of collection services are provided at the University of Washington: self haul and vendor contracted. The type of service provided depends on the amount and type of materials generated.

SELF-HAUL SERVICE

Recycling & Solid Waste staff collect recyclables and waste in University-owned collection vehicles from the loading docks of most central campus buildings that accommodate 2-yard dumpsters or carts. The materials are transferred to designated recycling collection and waste disposal sites within Seattle.

VENDOR-CONTRACTED SERVICE

A contracted waste and recycling hauler collects from buildings and facilities that generate large volumes of waste and/or recyclables. Locations that require contracted vendor front-load and/or roll-off service include Housing and Food Services residence halls and dining facilities, Magnuson Health Sciences Building, Physical Plant, Maintenance & Alterations trade shops, and the campus industrial yards. Contracted recycling and waste vendor service is used during special cleanout or renovation projects, for special events including Husky Football, and when a location requires regular weekend service, such as the University of Washington Medical Center.

A contracted composting hauler collects and processes landscape debris, clean wood/pallets, and food waste. Other contracted vendors collect materials that

require special handling, such as sharps and biomedical waste, electronics, white goods, and fluorescent lighting.

CONTRACTS

In fiscal year 2009, the University awarded two new contracts and evaluated options for a third contract to be initiated in fiscal year 2010.

Waste Management: Waste and Recycling

A new comprehensive waste and recycling collection services contract was initiated in January 2009 with Waste Management, a national waste removal, recycling, and waste management service.

The new contract includes services for collection and disposal of municipal solid waste (MSW) and treated biomedical waste, hauling and disposal of treated sharps, and collection and processing of recyclables. The contract has a term of six-and-a-half years, with renewable extensions up to six years. For cans/bottles and single stream, the contract includes incentive pricing of a zero-cost processing fee, which replaces the \$65 per ton recycling fee under the old contract.

Cedar Grove Composting: Organics

A new organics collection and composting contract was initiated in January 2009 with Cedar Grove Composting, a Pacific Northwest company that composts organic materials and turns them into compost and compost-based soils.

The new contract, with a term of six-and-a-half years and renewable extensions

up to six years, ensures consistent and reliable service and puts the University in good position for growing its food waste composting program.

Total Reclaim/EcoLights: Electronics and Fluorescent Lighting

Total Reclaim is a Pacific Northwest company that recycles electronics, computers, monitors, and peripherals, and other materials, including refrigerant gases and white goods. Total Reclaim's child company, EcoLights, recycles fluorescent lighting.

The University's contracts with Total Reclaim for electronics recycling and with EcoLights for fluorescent lighting recycling expired at the end of June 2009. The University optioned to attach itself to Washington State's electronics and fluorescent lighting contract starting in fiscal year 2010.

The State of Washington contracted with Total Reclaim/EcoLights after a comprehensive public bid process. Recycling & Solid Waste determined that it was in the best interest of the University to participate in the state contract because it includes bulk pricing on a per ton basis for computers, monitors, peripherals, and other electronics, as opposed to a per item cost for those items in the previous contract. The University had previously been responsible for purchasing shipping containers from an outside supplier, but in the new contract, the vendor supplies them at no charge. It is expected that the new contract will result in substantial savings for the University.

Program Costs & Operations

The success of the Recycling & Solid Waste program is due primarily to the financial commitment of the University in providing funding for hiring and maintaining appropriate staffing levels, leasing and operating collection vehicles, purchasing equipment and supplies, and purchasing and placing waste, recycling, and compost collection containers.

FY09 EXPENDITURES	
Salaries	\$623,882
Vehicles/Fuel	\$143,372
Self-Haul Disposal	\$117,809
Other	\$137,705
Supplies	\$37,858
Equipment	\$138,215
Waste Management	\$774,551
Seattle Public Utilities	\$384,651
Stericycle	\$48,850
Total Reclaim/EcoLights	\$83,659
Cedar Grove	\$162,696
International Paper	\$31,911
Total Expenditures	\$2,685,159
FY09 REVENUE	
International Paper	(\$40,224)
Metals Express	(\$23,520)
Independent Metals	(\$19,011)
Total Revenue	(82,755)
FY09 TOTAL BUDGET*	\$2,602,404

*Recycling & Solid Waste pays for municipal solid waste disposal for the entire University, including departments that have self-sustaining budgets that bear their portion of solid waste removal costs. Recycling & Solid Waste recovers the costs for self-sustaining departments by recharging these costs back to the departments. In fiscal year 2009, total recharges to self-sustaining University departments for waste and recycling collection and disposal were \$856,412 and are factored in to the expenditures.

STAFF

21 Staff Members (16.75 FTE)

Managerial & Administrative

Assistant Director (.25 FTE)

Program Manager (1 FTE)

Program Coordinators (2 FTE)

Fiscal Specialist (.5 FTE)

Operations

Transportation Supervisor (1 FTE)

Waste Collectors (4 FTE)

Litter Collectors (2 FTE)

Recycling Truck Driver (2 FTE)

Warehouse

Driver/Warehouse Worker (1 FTE)

Warehouse Worker (1 x .5 FTE)

Custodial

Custodial Lead (1 x .5 FTE)

Recycling Custodians (4 x .5 FTE)

VEHICLES

Rear-load waste & recycling compaction vehicles (2)

Side-load recycling compaction vehicle (1)

Utility pickup trucks (3)

CONTRACTED VENDORS

Waste and Recycling – Waste Management**

Organics – Cedar Grove Composting**

Electronics and Fluorescent Lighting – Total Reclaim/EcoLights**

Untreated Sharps and Biomedical Waste – Stericycle

Combined Fiber – International Paper

**See page 26 for additional information.

Looking Ahead

Priorities for the coming year

- **MiniMax:** Minimize waste generation and maximize recycling by increasing campus participation in the use of self-service, desk-side waste and recycling bins
- **Classroom/Conference Room Recycling:** Place waste and recycling bins in classrooms and conference rooms to expand infrastructure across campus
- **Food Composting:** Pilot exterior compost collection at high-consumption areas and expand participation in campus food waste composting
- **E.Media:** Place e.Media bins in additional campus buildings and identify more opportunities for collection of e.Media
- **Educational Outreach:** Expand campus awareness regarding waste reduction and recycling with building-to-building education and campus-wide campaigns

Our Vision

We will advance sustainability at the University through leadership, collaboration and innovative and educational recycling and solid waste programs. We will promote personal environmental responsibility and action through quality educational outreach.

ACKNOWLEDGEMENTS

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