

Resource Conservation Ordinance - 2006 Annual Report
San Francisco Department of the Environment
City and County of San Francisco

INTRODUCTION

San Francisco made recycling history again in 2006. New statistics document that San Francisco City departments achieved an 80 percent landfill diversion rate, reaching beyond our adopted goal of 75 percent landfill diversion by 2010, three years ahead of schedule. We are clearly well on our way to achieving zero waste by 2020.

Our diversion rate far exceeds the requirements of the California Integrated Waste Management Act of 1989 (AB 939), which directs municipalities to divert 50 percent of their waste from landfill. AB 939 was enacted in an effort to conserve water, energy and other natural resources, to protect the environment, and to save landfill space.

In order to help the City meet AB 939 requirements, the Board of Supervisors adopted the Resource Conservation Ordinance (RCO) in 1992, mandating that City departments reduce their waste. The RCO was amended in 2000 to strengthen its objectives of conserving landfill space and natural resources, lowering City disposal costs, and purchasing recycled content products.

In October 2006, Mayor Newsom reaffirmed the City's commitment to resource conservation by issuing Executive Order 06-05, directing departments to achieve eight critical goals with regard to recycling and resource conservation including:

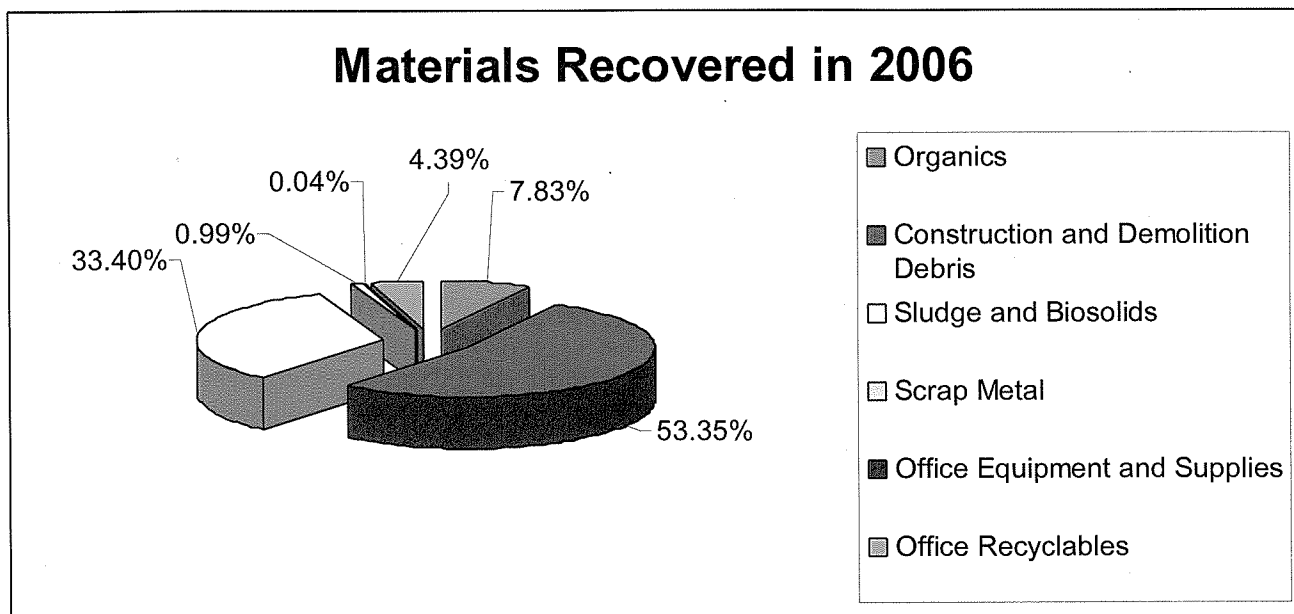
- Upper management support of waste diversion goals and collaboration with the Environment Department
- Recycling Coordinator appointment and support
- Double-sided printing and copying of City forms and documents
- Reuse of office equipment, furniture, and supplies through the Virtual Warehouse program
- Purchase of products with recycled content
- Participation in the City's food scrap composting program for departments with food service
- Maximizing recycling at events and venues
- Recycling construction and demolition debris

The following report documents the types and quantities of materials recycled and reused at City departments in 2006, and their compliance with the requirements of the Resource Conservation Ordinance.

WASTE REDUCTION AND RECYCLING

Materials Reused and Recycled in 2006

Materials used by City departments are grouped into five categories: construction and demolition debris, wastewater sludge, organics, scrap metal, and office recyclables. In 2006, City departments recycled 129,750 tons of construction and demolition (C&D) debris, 81,228 tons of wastewater sludge, 19,052 tons of organics, 2,414 tons of scrap metal, 10,670 tons of office recyclables, and 100 tons of office equipment (furniture, computers, and electronics). The following chart depicts the proportion of each type of material recycled.



Construction and Demolition Debris

Construction and demolition debris is generated from building construction and renovations, and street and water line repairs. It can consist of such materials as wood, concrete, asphalt, brick, tile, dirt, metal, and salvaged fixtures.

The Department of Public Works (DPW) is responsible for street and sewer repair operations that result in large quantities of concrete and asphalt debris. DPW reuses and recycles this debris. In addition, the City undertook several major construction, demolition, and renovation projects in 2006. Recreation and Parks facilities, the Port and the San Francisco International Airport all generated construction or demolition debris.

In 2006 Board of Supervisors adopted the Construction and Demolition Debris Ordinance, now Chapter 14 of the Environment Code, which provides guidelines for the both public and private sectors to recycle construction and demolition waste properly. As a result of the Ordinance, the Department of the Environment hired a Construction and Demolition Recycling Assistant to assist in implementing

the Ordinance. The Assistant is responsible for tracking and monitoring construction and demolition recycling for City Departments, holding construction managers and haulers accountable for maximizing recycling from City construction projects.

In 2006, City departments reused or recycled approximately 129,750 tons of construction and demolition debris. This successful program captured large quantities of recyclable materials and significantly increased the City Government diversion rate.

Wastewater Sludge and Biosolids

In 2006, wastewater sludge and biosolids accounted for the second largest category of material recovered in the municipal waste stream. The Public Utilities Commission controls the wastewater treatment process where solids and contaminants are removed from wastewater, both run-off and domestic. The by-products are clean wastestream (or treated effluent) and wastewater sludge (or biosolids), both suitable for discharge or reuse back into the environment. The sludge is always tested after the process, as it is sometimes inadvertently contaminated with toxic organic and inorganic compounds. After testing, the treated, non-contaminated sludge is reused in a variety of ways. The sludge is either used for application on agricultural land, as a high value soil amendment for turf, as landfill liner construction, is composted or used as alternative daily cover to control vectors, fires, odors, blowing litter, and scavenging. In 2006, the Public Utilities Commission reused 81,228 tons of wastewater sludge and biosolids.

Organics

The Recreation and Park Department and the Department of Public Works (DPW) generate the bulk of organic materials, including brush, grass, trees, and manure. The Recreation and Park Department collects organics from parks throughout the City. The organics are taken to a central City location for chipping and composting. The process converts the material to mulch, which is then reapplied to various City parks for landscaping. Additionally, grass clippings make up a significant tonnage of material recycled at City golf courses.

DPW collects tree trimmings and brush from City streets. Tree trimmings were chipped and stored at the DPW Yard at Cesar Chavez and reused at various City properties. Additionally, brush is hauled to Norcal's Transfer Station and recycled as organic material.

Additionally, City departments have the opportunity to compost their food scraps through Sunset Scavenger Company or Golden Gate Disposal & Recycling Company. These collection companies send organics to Jepson Prairie Organics in Dixon, where the material is converted into organic compost. City departments that participate in the food scrap composting collection program include San Francisco Fire Department, Environment Department, City Hall, San Francisco General Hospital, the California Academy of Sciences, and a few Recreation and Park sites. A highlight in 2006 was introducing food scrap composting collection at the county jails. The Sheriff's Department is now composting 264 tons of food scraps and compostable paper per year.

The Department of the Environment has used the City Composting resolution as a tool to encourage City departments with food service operations to compost. Progress has been slow because initiating a

food scrap composting program often requires the purchase of compostable foodservice ware, which can be cost-prohibitive. Fortunately, with the passage of the Food Service Waste Reduction Ordinance in 2006, all City departments must be purchasing compostable or recyclable food service ware by June 1st 2007. This should facilitate participation in the City's composting program.

City departments recycled or composted approximately 19,052 tons of organics in 2006.

Scrap Metal

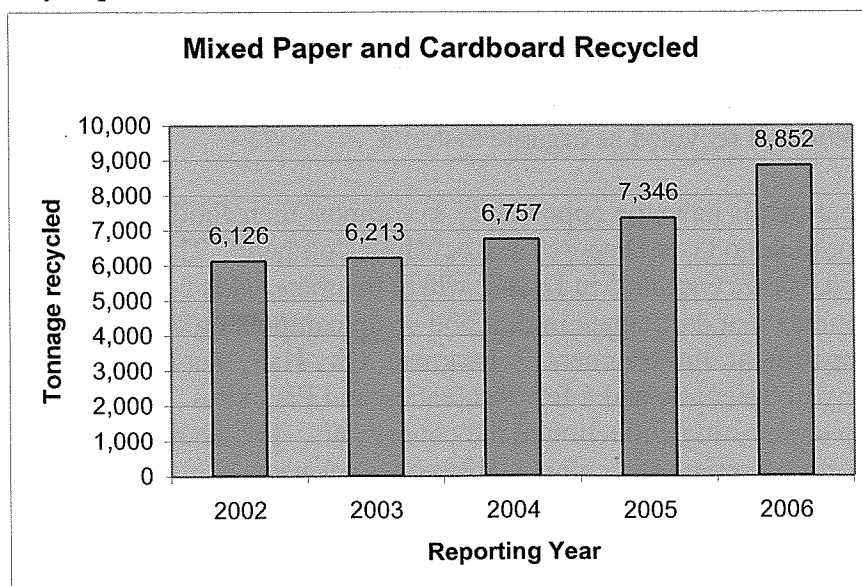
City departments recycle scrap metal in the form of excess or broken equipment containing a significant portion of metal. City departments are required to first contact Surplus Disposal staff to determine whether the equipment can be redistributed to another department for reuse, then sold to the public, or donated to nonprofits. If the equipment is unable to be reused, the department may recycle the equipment as scrap metal.

Various types of scrap metal are recycled together, such as old metal desks, metal filing cabinets, MUNI rails, brass fixtures, and copper pipes. The City receives revenue from the scrap metal recycler. In 2006, approximately 2,414 tons of scrap metal was recycled according to the City's scrap metal contract.

Office Recyclables

Office recyclables include paper, cardboard, bottles, cans, and wood pallets. Overall, 10,670 tons of office recyclables were reused or recycled by City departments in 2006.

Paper makes up the largest component of office recyclables by weight. Mixed paper is currently recycled at over 200 City department locations. In 2006, City departments recycled 8,852 tons of mixed paper and cardboard, the largest tonnage yet recorded. One reason for this increase is that shredded paper recycling from the hospitals was not included in past year's data. The weight of mixed paper recycled at City departments between 2002 and 2006 is shown in the graph below.



Most City departments also recycle bottles & cans. The Convention Center, Monster Park, and the airport generated the majority of bottles and cans at City departments, since they hold large-scale public events that involve food service. City departments recycled 1,818 tons of bottles and cans.

Larger City facilities such as the hospitals and the airport generated a substantial number of wood pallets. In 2006, City departments recycled 166 tons of wood pallets.

Some City departments not only recognize the importance of recycling office materials but of reducing waste as well. By reusing office supplies, City departments can help to reduce the amount of waste produced. In 2006, the City finalized a contract for Multi Function Devices (MFDs - machines that copy, print, fax, and scan all-in-one). The Department of the Environment worked with all of the MFD vendors to ensure that the machine defaults were set to print and copy double-sided. Installations of these machines ramped up at the end of 2006. This achievement is expected to reduce the amount of paper consumed by City Departments. We plan to track paper waste reduction through paper purchasing data in 2007.

Other waste reduction measures include reusing packaging material, purchasing rechargeable batteries, minimizing the use of forms and documents, and maximizing correspondence through email. Some of our most creative departments worked directly with vendors to reduce packaging material or collected leftover food from events to donate to local food shelters.

Office Furniture, Equipment and Supplies – Virtual Warehouse

The Virtual Warehouse is an online exchange system for surplus items among City departments. Overseen by the Department of Administrative Services Surplus Disposal Program, the Virtual Warehouse serves to implement the San Francisco Administrative Code Chapter 21.03(i) (Disposal of Surplus) and the San Francisco Environment Code Chapter 5 (Resource Conservation Ordinance).

Once a department no longer has a need for certain items such as desks, filing cabinets, and computers, Virtual Warehouse staff makes the surplus available to all other City departments. Departments can select surplus items and post wanted items wanted on the Virtual Warehouse webpage. Items not taken by a City department are donated to certified 501C non-profit organizations.

In 2006, there were over 800 transactions on the Virtual Warehouse. Over 30 tons of material was reissued and reused among City departments, with a fair market value of over \$10,000. Over 70 tons of material was donated for reuse or recycling, with a value of over \$42,000.

PROCUREMENT OF MATERIALS WITH RECYCLED CONTENT IN 2006

The Resource Conservation Ordinance (RCO) requires all City departments to maximize the purchase of recycled content material. The RCO further designates to the Director of the Environment Department as the authority to annually review and to raise, but not lower, the minimum post-consumer content level. Currently, all City departments purchase paper products with a minimum of 30% post-consumer recycled content including copier paper, bond paper, and paper for publications, forms, letterhead, promotional materials, advertisements, business cards, and more.

Environment Department staff has worked directly with the Office of Contract Administration to ensure that supply contracts specify the minimum post-consumer content level mandated by the RCO. These include contracts for paper, janitorial products, and office supplies.

RESOURCE CONSERVATION ORDINANCE COMPLIANCE

The RCO requires that each City department complete an Annual Recycling Survey to report on the amount of recycling, reuse, and procurement of products with recycled content. Some City departments occupy multiple locations, such as Department of Public Health, Public Utilities Commission, and the Police Department and are therefore required to complete multiple surveys.

Ninety-four percent (94%) of departments completed the 2006 Annual Recycling Survey for at least one of their locations, **the highest compliance rate achieved since the inception of the Resource Conservation Ordinance**. However, only eighty-five percent (85%) of City department locations submitted an annual reporting form.

In order for a recycling program to be successful, it is necessary to designate a Recycling Coordinator for each City department location. Twelve percent of City department locations currently do not have an assigned Recycling Coordinator; and consequently, there were no Annual Recycling Surveys submitted for these locations. Notably, of the 188 locations that *do* have a designated Recycling Coordinator, only four did not submit a report. This emphasizes the need for a Recycling Coordinator to be assigned to each location, since the great majority of Recycling Coordinators promptly completed the reporting forms to the best of their ability.

In order to adequately prepare Recycling Coordinators for their duties, workshops and trainings in 2006 were held for 73 Coordinators. The trainings were designed to meet the specific needs of Recycling Coordinator's based on their experience level and operations. The focus of the workshops was to provide tools for Recycling Coordinators to work more independently. They were presented with ways to encourage their colleagues to recycle more, strategies for reducing waste in the office, toxic disposal information, and basic steps to achieving a high recycling rate. These efforts led to some impressive achievements from many Recycling Coordinators.

To name just a few Recycling Coordinator successes, the City Hall Recycling Coordinator initiated a building-wide recycling education program, the Entertainment Commission and Treasure Island Development Authority incorporated recycling requirements into their permit processes, and Animal Care and Control's Recycling Coordinator doubled their recycling rate by implementing collection programs for bottles, cans and yard trimmings.

The City Government Recycling Program also makes general recycling presentations to City employees regularly. In fact, in 2006, over 600 City employees were trained on the requirements of the RCO, recycling procedures, the Virtual Warehouse, recycling at events, environmental principles, City and State policy and waste reduction.

The following table lists the Resource Conservation Ordinance compliance rate at City departments for 2006.

<i>Department Name</i>	<i>Recycling Coordinator assigned for all locations?</i>	<i>Report turned in for all locations?</i>
Academy of Sciences		
Adult Probation		
Aging and Adult Services	X	
Animal Care and Control	X	X
Arts Commission	X	
Asian Art Museum	X	X
Assessor/Recorder	X	
Board of Appeals		
Board of Supervisors	X	X
Building Inspection	X	X
Children, Youth and Their Families	X	X
Child Support Services	X	X
City Attorney's Office	X	X
Civil Service Commission	X	X
Controller	X	X
District Attorney	X	X
Elections	X	X
Emergency Communications		
Employee Retirement System	X	X
Environment	X	X
Ethics	X	X
Fire Department	X	X
Film and Video Arts Commission	X	X
General Services Agency	X	X
Human Resources	X	X
Human Rights Commission	X	X
Human Services	X	X
Juvenile Probation	X	X
Library	X	X
Mayor's Office	X	X
Municipal Transportation Agency	X	X
Office of Contract Administration		
Planning	X	X
Police	X	X
Port	X	X
Public Defender	X	X
Public Finance and Business Affairs	X	X
Public Health	X	X
Public Utilities Commission	X	X
Public Works	X	X
Recreation & Parks	X	X
Rent Arbitration Board	X	X
SF International Airport	X	X
Sheriffs Department	X	X
Status of Women	X	
Taxi Commission	X	X
Telecommunications and Information Services	X	X
Treasurer/Tax Collector	X	X
War Memorial & Performing Arts Center	X	X

METHODS OF DATA COLLECTION

The Annual Survey Reports were not the only source of information collected on City department recycling. Norcal Waste Systems (the parent company of the haulers of all of the trash and most of the recyclable materials generated at City departments) provided information on the monthly recycling service at all City department locations. Construction, demolition, and organics recycling data were obtained directly from Norcal Waste Systems, contractors of City construction projects, and key City personnel involved in large-scale reuse and recycling projects. The Administrative Services provided the figures on the quantity of scrap metal data recycled and the PUC provided sludge data.

It should be noted that several City departments are located in privately owned and managed buildings. At these locations, City departments may share trash service with other private tenants. Quantifying waste generation for a single tenant in a shared trash collection system is challenging, and the accuracy of the data is questionable. Therefore, some recycling data from privately owned and City occupied buildings was excluded.

MAJOR ACHIEVEMENTS OF 2006

Overall, San Francisco municipal government made significant progress in 2006. The Environment Department hired HDR consultants to perform a diversion study of City government waste. The study showed that City government recycles and reuses 80 percent of the waste we generate. This is an incredible accomplishment given that the City as a whole has a rate of 69 percent. The City diversion rate is bolstered by a high recovery rate from construction and demolition waste and sludge. We were also able to calculate the office recycling rate which has greatly increased and is at about 50 percent, which is ahead of the commercial sector.

One tool that helped us make large strides towards zero waste was the Mayor's Directive on Resource Conservation and Recycling. The directive helped initiate critical relationships with upper management and increased City department commitment to recycling.

One of the most significant achievements of 2006 was the initiation of recycling working groups at San Francisco General Hospital, Laguna Honda Hospital and the Recreation and Parks Department. For large, complex institutions such as the hospitals and parks, it became clear that one Recycling Coordinator was not sufficient to manage all of the complicated tasks involved in initiating and improving recycling programs. These working groups include representatives from all sectors involved in handling and making decisions on waste, and now meet monthly to discuss recycling progress and delegate tasks. Since the launch of the recycling working groups, SF General has initiated a bottle and can recycling program, Laguna Honda has expanded its office and kitchen recycling program, and Recreation and Parks has public recycling containers at over 20 park sites.

The Hall of Justice was no stranger to recycling and composting success. After nearly five years of collaboration, the Department of the Environment and the Sheriff's Department began a food scrap composting program in the jails and an expanded paper, bottle and can recycling program throughout the building. Overall, this building that generates 1050 tons of waste annually – the 3rd largest generator in the City – increased its recycling and composting rate from 20 percent to an impressive 47

percent. The significant progress made at the Hall of Justice, Recreation and Parks and the Hospitals is expected to continue—and since they generate a large portion of the City Government waste, their success will be critical to achieving zero waste by 2020.

RECOMMENDATIONS FOR FUTURE ACTIONS

While it is clear that municipal government is making noteworthy progress, the potential for further waste reduction and recycling at City departments is still great. Some of our goals for improving existing programs and implement waste reduction measures are explained below.

SF Stat is a new process that collects departmental performance data for various measures, including recycling and reuse, and reports this data to the Mayor, the SF Stat panel, and the public. At the end of 2006, the Environment Department reported on the top 15 City waste generators including their annual trash, recycling and composting tonnage as well as their diversion rate. Since the Environment Department will be reporting waste and recycling information quarterly, SF Stat will be a valuable tool that will track progress and help drive departments to improve their diversion rate. In 2007, we expect to use SF Stat to ensure that the top waste generators are doing everything they can to maximize recycling and reuse.

Also in 2007, SF Environment plans to enforce new City legislation that is intended to drive recycling and composting. On June 1st, 2007 the Food Service Waste Reduction Ordinance will take effect, which will prohibit the use of polystyrene foam food service ware and require the purchase of compostable or recyclable products. We are currently working with Laguna Honda Hospital and San Francisco General Hospital to plan for composting programs in their cafeteria and nutrition services programs. The use of compostable food service ware such as paper plates and compostable plastic utensils will facilitate departmental participation in the food scrap collection program.

Construction and demolition recycling at City departments is also an opportunity for improvement. The City Government Recycling Program and the Construction and Demolition Assistant from the Environment Department plan to conduct trainings for City department construction managers to teach them how to properly recycle and manage their contractor's construction and demolition waste.

Events and commercial businesses operating on City property are also a target group. We plan to work with the Recreation and Parks department, Treasure Island Development Authority, Department of Parking and Traffic, Port, and Property Management to leverage their ability to enforce recycling requirements on City owned property. We plan to insert recycling requirements into their event permit processes and leases and educate permittees about recycling requirements.

The Resource Conservation Ordinance, City Composting Resolution, and the Mayor's Directive on Resource Conservation and Recycling should continue to be used as tools to encourage waste reduction and recycling. By holding City department directors accountable to the RCO requirements, building the capacity of Recycling Coordinators, and promoting a resource conservation ethic among City employees, the City Government Recycling Program hopes to further the objectives of the RCO and achieve zero waste by 2020.

