



**Report on City Agency
Mandatory Recycling Ordinances**

Prepared by the Department of Environmental Services

Fiscal Year 2018

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Background

When the City established the Recycling Coordinator position in 1989, the first program initiated by the Refuse Division was an office program for City administration buildings in compliance with City Ordinance 89-117 (Section 9-1.11). The ordinance specified that the following materials be recycled: newspaper, cardboard, office paper, aluminum cans, glass containers and plastic containers. The ordinance directed that the program was to be undertaken first on a voluntary basis, and then, if necessary, on a mandatory basis.

Recycling containers were distributed to city employees, central collection containers were placed in work areas, employees and custodial staffs were instructed on the new system, and a contract was established with a local recycling company for collection from each building. The program began in the City's major administration buildings, including Honolulu Hale, the Fasi Municipal Building (then Honolulu Municipal Building), the Municipal Records and Reference Center (MRRC), the Board of Water Supply on Beretania Street, and the Pawaa Annex, and has since been expanded to include seventeen City facilities. See Exhibit A for the list of current sites.

In 2004, City Ordinance 04-10 removed the voluntary option and established the program as *mandatory*. Articles 5 and 6, which stipulate enforcement provisions that include fines and imprisonment, were to remain inapplicable to the mandatory recycling program, with a biennial review and recommendation by the City Refuse Division.

This report is a review of the program and recommendation regarding enforcement. Prior reports were submitted to City Council in 2006, 2008, 2010, 2012, 2014, and 2016.

Operations

The City Agency Recycling Program is designed to collect white office paper, colored office paper, newspaper, cardboard and aluminum/glass/plastic beverage containers. City employees are given a collection box to keep at their desks to store recyclable paper. Acceptable and unacceptable paper types are printed on the box along with the City Refuse Division phone number and website, should employees have questions.

Sets of two to three gray stackable bins for office paper recycling are positioned in central locations near copy machines. When necessary, employees bring the recyclable office paper from their desk collection box to the central collection points. Flattened cardboard boxes are left alongside the stackable bins or placed in a location agreeable for custodial staff to collect.

Custodial staff collects the recyclable paper from the central collection containers and then transports it directly to the collection dumpster. For larger buildings with multiple floors, that generate high volumes of recyclable paper, such as Fasi Municipal Building (FMB), paper is consolidated into wheeled carts and then transported via a freight elevator to the collection dumpster. For locations like Honolulu Hale that have large staircases and no freight elevator, custodial staff collect cardboard and fill large bags with the paper and transport them to the paper recycling dumpster outside near the Diamond Head entrance of the building. A recycling company contracted by the City services the dumpsters as frequently as needed.

Recycling receptacles for aluminum, glass and plastic beverage containers are placed on the ground floor of each building and are serviced by the custodial staff. Building surveys and inspections revealed that most of the beverage containers are collected and recycled by the employees themselves in their work areas. Container recycling has increased since the start of the HI-5 deposit

recycling program. If recycling receptacles need to be replaced, custodial staff will consult with ENV's Refuse Division, Recycling Branch.

There are City agencies not included under the recycling service contracts because their offices are tenants in commercial office buildings or they are small offices in outlying facilities that generate minimal volumes of paper. City agencies located in commercial buildings with 20,000 or more square feet of office space are advised to participate in the building's recycling program, which is required under City Ordinance 9-3.1. Small offices are able to drop off their paper at any of the facilities included in the City's recycling service contract. Collection containers are provided for their offices upon request. Honolulu Fire Department (HFD) Waipahu was split into two sites in September 2016 (Mech Shop and Storeroom). The Blaisdell Center is on a brief hiatus from this program while the facility undergoes a management change, the Gibson Building discontinued in 2016 due to collection constraints and program changes, and Kapalama Hale will be added to the contract as an amendment.

Education and Implementation

Initially, employees were educated through a coordinated series of slide show presentations. Brochures were distributed with their recycling container. Several articles appeared in employee newsletters. Currently, every new employee receives training and an informational sheet on the City's office paper recycling program at their orientation. Recycling information for City employees is also maintained online at Opala.org.

Each participating building has designated a site supervisor who coordinates with the Recycling Branch, oversees custodial operations and monitors the recycling company collection.

Recycling Specialists conduct inspections of City offices to ensure the City and County of Honolulu is in compliance with the ordinance, distribute equipment and informational brochures, and educate City staff when necessary. Upon request, Recycling Specialists may also conduct group training sessions for City employees, train custodial staff on proper paper collection and recycling procedures, assist with the installation and implementation of new collection equipment, and help introduce and reintroduce recycling programs to new sites or to sites that have experienced high employee turnover.

Service Contracts

Since the start of the program in 1990 and through 2005, paper recovered for recycling was auctioned to the lowest bidder under contracts that ranged from one to three year terms. Longer contracts allowed the unit bid price to be adjusted based on a national price index published by Fiber Market News. The City has earned annual revenues ranging from approximately \$80 to \$12,000, depending upon market conditions. There was no cost incurred to collect the recovered paper.

At the end of 2005, the contracted recycling company indicated that they would not be able to continue servicing the contract under the established unit prices and for the first time would need to charge the City to collect the recyclable paper.

The recycling contract was restructured to allow for separate unit price bids for collection charges and a credit back bid on the value of the paper. From FY2006 through FY2009, the winning bids included a charge for the collection and offered no credit for the paper value. The FY2010-11 contract charged for collection and provided a small credit based on the value of the collected paper. Since FY2014, the contract has included a charge but no credit for the paper.

In September 2015 the collection system began transitioning from a source-separated system to a mixed paper system, allowing white and colored ledger paper, cardboard and newspaper to be collected together in dumpsters. Previously, the collection system allowed sites to set their recyclable paper out for collection using either 96 gallon carts and/or dumpsters. The current agreement specifies the use of dumpsters only. By simplifying the collection system, this agreement was made accessible to more potential bidders, thus creating competition and an overall more efficient collection system. Very few companies on island have the ability to service both carts and dumpsters simultaneously, whereas several companies are able to service dumpsters.

The current mixed paper dumpster collection system is the most efficient and effective way to collect waste paper for recycling. The current contract that services this system expires in August 2019. The City plans to re-bid this service agreement in early 2019 to avoid any disruption in service.

Findings

City agency inspections are conducted every other year. This year, City Recycling Specialists inspected all 17 sites covered under the City's service agreement. These inspections have allowed specialists to discover ways to improve the effectiveness of the program, update inventory and assess collection equipment needs of the service sites, update instructional signage, and educate program participants (i.e. City employees). Below are memorable notes from the 2018 inspections.

- All collection equipment - stackables, desk boxes, and transportation carts - are in good, workable condition. Some collection dumpsters are starting to show signs of increased wear and may need to be replaced in the next one to two years. City Recycling Branch staff will work with the appropriate agencies to address this.
- 6 sites were given additional stackables and/or desk boxes.
- 13 sites had recycling desk boxes within view. Those that did not were offered more inventory but most did not need because the stackables were in close proximity to desks.
- 8 sites had occasional small amounts of paper in individual worker's trash cans. Recycling Tip Sheets were posted in the area of the trash can or put on employee's desk.
- 3 sites had excess bins that were removed and reassigned to other sites for proper use.
- Decals on dumpsters are starting to wear. Replacement decals are being ordered. Additional desk top recycling boxes are being ordered as well.
- City employees at a few sites questioned if the City agency paper recycling program was still in place; they thought the program was cancelled but that paper recycling was still available. Recycling Branch staff learned that this was likely due to change in onsite management with new management not being familiar with this program. To address this, communication with each site will be increased and sites will be checked on more frequently.
- All sites print classified/confidential information, which is shredded. HPD Headquarters and the Zoo shred almost all of their paper, so most of their recycled paper is cardboard.
- Recycling Specialists were pleased to find multiple departments reusing paper products. Multiple sites reuse 1-sided printings as scrap paper and also make envelopes out of used packaging. The printing department at Honolulu Hale makes note pads out of scrap paper, saving money and resources.

Evaluation & Recommendation

The City agency recycling program appears to be capturing the majority of targeted paper. Recycling Specialists have observed little to no bulk paper in random inspections of building refuse dumpsters.

Overall, building custodial supervisors have helped to ensure proper participation in this program, although some sites claim recycling paper can be difficult due to the high volume of the recycled paper generated at some sites, such as at FMB, which is the City's highest-generating site. Recycling staff communicates continuously with the sites included in this program to increase the amount of paper recycled, add recycling collection equipment when appropriate, and add new City locations to the contract. This program strives to recover a high percentage of recyclable paper from City agencies as efficiently and with as little impact to working conditions as possible.

The estimated cost per ton has increased over time due primarily to a significant downturn in the global recyclable commodities market. For 2018, the value of recycled mixed paper has decreased more than 80% compared to commodities prices listed in the recycling market index in October 2017. In FY's 2017 and 2018, the estimated cost per ton to collect and recycle office paper from City buildings was \$387 per ton, up about 10% from FY2016. See Exhibit A for paper recovery data. In September 2015, paper recycling began the switch from a source-separated collection system to a single stream collection system, meaning that all recyclable materials are now mixed and deposited into one dumpster, eliminating the use of 96 gallon carts. The weight values in Exhibit A (starting in September FY2016 to FY2018) were calculated using an estimate of 537 pounds per dumpster at unit rate of \$104.00.

City Agency recycling rates increased steadily from FY2011-2016. The City saw a moderate spike in recovery in FY2012 that is attributable to the addition of cardboard collection at several sites, and a 10% increase from FY15 to FY16 due to the start of implementation of the new mixed paper all dumpster collection system. Studies show single stream collection systems that allow all material to be deposited into the same collection dumpster are easier for participants to use and therefore tend to recover more material. However, from FY2016 to FY 2017 there was an 8% decrease in tonnage, partially due to the Gibson Building discontinuing service and the temporary halt in service at the Blaisdell Center.

The City's 2018 "Go Paperless" initiative and the need for confidential document shredding impacts paper recycling rates and may result in decreases in recovered tonnages. Shredding paper into a light and fluffy state makes the paper more difficult to handle and collection less efficient. Shredding also significantly devalues paper as a recyclable commodity, so it is not included in this program. Shredded paper offers greater value at lower costs in waste-to-energy. The Zoo finds shredded paper a valuable resource for animal bedding and acquires it from HPD, Attorney General's Office and HFD. Cardboard volume should remain about the same.

As of FY2017, 1,076 tons of City agency paper has been recycled since FY2011. The amount (by weight) of City agency paper recycled through this program has increased by 81% since FY2011, at an average of 11% annual increase. Understanding the volatility of the recycling market, amending the service contract to be more efficient and cost effective, continuing to educate City employees on the importance of recycling, and the City's push to "Go Paperless" are all key factors to the success of this program.

Although the overall City Agency Recycling Program seems to be working well, inspections have revealed that there may be individual employees not participating adequately. ENV continues to recommend that any violations should be addressed by education, incentives, and collaborative problem solving, and not by the enforcement provisions as specified in Articles 5 and 6 of Chapter 9.

Exhibit A: Tonnage & Cost Table

CITY AGENCY OFFICE PAPER RECYCLING TONNAGE & COST								
	FISCAL YEAR							
	2011	2012	2013	2014	2015	2016	2017	2018 (est)
All Sites (Past and Present)	ANNUAL POUNDS OF PAPER PER SITE							
BWS - Beretania	10,830	13,300	12,920	8,660	7,220	3,222	4,296	3,759
BWS - Pearl City	950	1,520	0	1,600	3,300	4,296	3,222	537
ENV - CSM	0	2,660	1,710	0	1,330	6,981	7,518	6,981
DFM - AES/Halawa	1,140	3,100	4,030	5,070	6,640	5,370	6,981	6,444
DFM - Corp Yard*	380	0	0	0	0	0	0	0
DFM DTS & DPR - Pearl City	2,700	3,730	8,090	6,700	7,820	8,055	9,129	7,518
Fasi Municipal Building	30,800	48,690	93,110	113,380	106,690	72,065	90,087	78,402
Gibson Building/51 Merchant St*	6,080	10,450	9,120	10,720	11,020	2,255	0	0
HFD Headquarters	3,990	2,660	4,750	1,830	4,100	4,833	6,981	5,370
HFD Waipahu*	4,660	7,820	6,300	6,480	5,700	1200	0	0
HFD Waipahu Mech Shop	0	0	0	0	0	5,370	5,370	7,518
HFD Waipahu Storeroom	0	0	0	0	0	3,759	5,370	3,759
Honolulu Hale	33,690	36,030	33,800	36,370	30,460	13,962	27,924	27,387
HPD Academy	0	1,500	2,720	2,910	2,100	5,907	6,444	4,296
HPD Beretania	12,190	21,330	21,330	21,140	20,050	24,165	26,850	26,850
HPD Pearl City*	2,280	1,520	1,520	1,600	2,470	0	0	0
HPD Wahiawa*	1,140	1,330	0	1,370	0	0	0	0
Kapolei Hale	14,240	14,400	14,320	19,200	12,500	9,666	11,277	12,888
Neal Blaisdell Center*	380	1,140	1,800	5,920	6,840	8,055	13,694	0
Oahu Transit Services/Middle St	54,030	68,730	68,650	59,550	64,980	71,743	82,161	85,383
Oahu Transit Services/Pearl City	4,940	16,830	16,830	17,940	24,230	13,425	17,721	17,721
Sand Island WWTP	1,140	1,140	1,140	2,740	1,520	1,074	3,759	3,759
Honolulu Zoo	4,400	6,400	6,400	10,560	19,600	20,406	15,036	2,685
TOTAL POUNDS PER YEAR	189,960	264,280	308,540	333,860	338,570	374,980	343,820	301,260
TOTAL TONS OF PAPER	95	132	154	167	169	187	172	151
TOTAL COST	\$12,840	\$26,120	\$33,620	\$40,116	\$39,397	\$65,189	\$66,587	\$58,345
AVERAGE COST PER TON (rounded)	\$135	\$198	\$218	\$240	\$233	\$349	\$387**	\$387**

* Indicates sites that are not participating in the program during FY2018.

** During these fiscal years, the contract regulates a fixed price per dumpster at \$104. Each dumpster is estimated at 537 pounds (calculation based on a FY2015 average recovery composition). Because both of these numbers are fixed, the Average Cost Per Ton will remain the same until the contract changes.

Exhibit B: Photo Gallery



Front-loader recycling dumpster being picked up by the contracted company



Equipment options for transporting paper from offices to dumpsters



Example of dumpster with proper signage provided by ENV



Transport cart filled with office paper



The Zoo recycles sardine packaging after feeding the penguins



HI-5 containers provided by ENV, located in the break room



HI-5 "Cannable" located outside of a City agency building



Stackable recycling container conveniently located under a printer

Exhibit C: Tip Sheet 2018 (Front)

DON'T DUMP ON HAWAII. SORT IT OUT.



CITY AGENCY PAPER RECYCLING

What to Recycle

YES

White Ledger Paper*

(Copier paper, black inked "blue" prints)

Colored Ledger Paper*

(Carbonless multi-copy forms, copier paper, file folders, yellow legal paper)

Newspapers

Corrugated Cardboard

*Staples need not be removed

NO

Bindings: glued, metal, spiral

Blue inked blueprints

Carbon paper

Envelopes

Glossy magazines

Labels, adhesives, tape

Paper bags, plates, cups

Paper clips, binder clips

Paper towels, napkins

Photographs

Rubber bands

Telephone books

Tissues

What to Recycle Beyond Paper

HI-5 Beverage Containers
(Aluminum, plastic, glass)

Ink Cartridges

Electronic Waste

Green Waste

Tires

Auto Batteries

Compressed Gas Cylinders

- What to Recycle
- It's The Law
- Program Goals
- City Facilities in the Program
- Office Paper Recycling Program

It's The Law

City agencies are required by ordinance to recycle office paper from City administrative facilities (Chapter 9, Section 9-1.11) and to purchase only recycled content paper and paper products (Chapter 1, Section 1-12.3). Additionally, City agencies are required to recycle aluminum cans, glass and plastic containers.

Program Goals

The City's goals are to promote paper recycling and establish City facilities and employees as role models for recycling.

City Facilities in the Office Paper Program

The following facilities are serviced under the City's office paper recycling contract.

BWS; Beretania Street and Pearl City

DFM; Automotive Equipment Service, Halawa

DFM; Traffic Electrical Maintenance Service, Pearl City

ENV; Collection System Maintenance, Halawa

ENV; Sand Island Wastewater Treatment Plant

Fasi Municipal Building

HFD; Headquarters and Waipahu

Honolulu Hale

HPD; Headquarters and Academy

Kapolei Hale

OTS; Middle Street and Pearl City

Honolulu Zoo

If your work site is not listed, contact ENV-Recycling Branch for information.

768-3200 opala.org

DON'T DUMP ON HAWAII. SORT IT OUT.

Office Paper Recycling Program



Employees place mixed recyclable paper into desk boxes.



Employees empty full boxes into centralized drop-off containers. Flattened cardboard boxes can be stacked next to centralized containers.



Custodial staff collects mixed paper from centralized drop-off containers and places it in the mixed paper dumpster. Paper is then picked up by the recycling company.

Important: Flatten cardboard boxes to make use of all space in the dumpster.

More Information

- www.opala.org, click on Services & Programs, City Agency Recycling
- Call 768-3200
- Subscribe to WasteLine, our e-newsletter

