

**REPORT TO THE TWENTY-FOURTH LEGISLATURE
STATE OF HAWAII
2007**

SOLID WASTE MANAGEMENT

PURSUANT TO SECTION 342G-15, HAWAII REVISED STATUTES
REQUIRING THE OFFICE OF SOLID WASTE MANAGEMENT TO GIVE AN
ANNUAL REPORT ON SOLID WASTE MANAGEMENT

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I. INTRODUCTION

The Office of Solid Waste Management (OSWM) is required to provide an annual report to the legislature to describe the State's progress toward achieving the waste reduction goal. The report also contains general program information about OSWM programs and the counties' solid waste and recycling efforts.

This report covers activities of both the OSWM and the Solid Waste Section (SWS) conducted during the 2005-06 fiscal year. Both organizations are contained within segments of the Department of Health's Solid and Hazardous Waste Branch. The SWS is the regulatory entity responsible for permitting and monitoring solid waste facilities within the state, while planning functions are contained within the OSWM. The Office of Solid Waste Management (OSWM) of the SHWB provides technical and programmatic assistance to the counties in their development of solid waste management and recycling programs.

In 1991, the legislature established a waste stream reduction goal of 50% by the year 2000. The OSWM works to enhance the development of county and private recycling programs through a combination of statewide funding mechanisms and statewide guidance and mandates.

II. Solid Waste Management

Hawaii Revised Statute section 342G-2 requires the department and the counties to consider solid waste management practices and methods in the following order of priority:

- 1) Source Reduction
- 2) Recycling (to include composting)
- 3) Landfilling and incineration

The first two practices reduce the amount of waste to be either landfilled or incinerated.

Source reduction, also called "waste prevention", means creating less waste. "Reuse", although not included in the list of priorities, means using a product over without first having to reprocess it. The product may be used for its original or intended use, or may be used in a different capacity. "Recycling" is the process by which materials are collected and used as "raw" materials to create new products. Collectively, these methods are sometimes referred to as "waste diversion".

Because waste reduction avoids creation of waste it is inherently difficult to quantify. In some cases, comparisons can be made to waste levels before a waste reduction practice was employed to waste levels afterward. In other cases, an estimate of the amount of waste reduced is all that is possible.

Reuse of products or materials is marginally easier to measure than waste reduction. Because it involves actual material, it is possible to quantify reuse. Quantification can be made in numerous ways including counting number of individual product units or measuring its tonnage. However, effectively measuring reuse is still difficult because it takes place at so many levels and on a widespread scale. For example, many people regularly reuse plastic containers for

food storage at home or in the workplace. While this particular activity contributes to overall waste reduction, it is impossible to accurately measure. However, some reuse activity is accounted for in the diversion statistics presented in this report. An example of a reuse activity that is quantified is the amount of material that is donated and sold to non-profit organizations such as the Salvation Army or Goodwill Industries.

Recycling is the most easily quantified activity of the waste diversion trio for at least two reasons. First, like reuse, it involves actual material that can be measured. Second, many recycling facilities regularly submit data to the counties for tracking. In addition to that, most recycling facilities are regulated by the Department of Health under solid waste management regulations. This means that recycling statistics are readily available.

The diversion rates presented below are mainly based on data collected by the counties with some Department of Health supplementation. The diversion rate is composed primarily of recycling activity and a small amount of reuse activity.

The State's current diversion rate of 36% is in line with the most recent national statistics. The Environmental Protection Agency's (EPA) data indicates a national recycling rate of 32.1% in 2005. The state's goal of 50% waste diversion was set in 1991 and mirrored the EPA's recycling goal at the time. The EPA has since revised its recycling goal of 50% recycling by the year 2000 to 35% by 2005. This change was made in recognition of the fact that states and municipalities needed a broader time frame in which to reach higher waste reduction levels.

Some mainland states and municipalities have taken great strides in increasing recycling rates, while Hawaii's commercial recyclers continue to deal with long standing issues. Most notable is the high cost of shipping to the Far East or the mainland U.S. where most recycling markets are located. Volatility in recycled materials markets, combined with the relatively small amounts of materials generated in Hawaii also continues to challenge recyclers.

Solid Waste Disposal and Diversion Rates

The OSWM reports disposal and diversion rates by aggregating county collected data with data collected under authority of the solid waste program's permitting system. Diversion rates include recycling activity for metals, paper, plastic and greenwaste. The state's fiscal year begins July and ends on June 30.

Waste Diversion Statistics for FY 2005-06

	Disposal (Tons)	Diversion (Tons)	Generation (Tons)	Diversion Rate
Hawaii	223,026	77,734	300,759	25.8%
Maui	230,511	98,845	329,356	30.0%
Oahu*	882,119	612,998	1,495,117	41.0%
Kauai	90,096	11,796	101,892	11.6%
State	1,425,752	801,373	2,227,124	36.0%

* Calendar Year 2005 data

Diversion rates for fiscal years 2001 through 2006

FY	02	03	04	05	06
Hawaii*	1.4%	15.1%	15.8%	19.1%	25.8%
Maui	26.9%	34.3%	31.8%	30.1%	30.0%
Oahu [#]	31.0%	31.7%	31.0%	35.0%	41.0%
Kauai	7.6%	19.6%	25.8%	5.3%	11.6%
State	25.2%	29.4%	29.1%	31.0%	36.0%

Notes:

Data are county derived

*Large fluctuations may reflect reporting lapses, rather than lapses in programs. No significant losses have occurred in the State's recycling programs that would be reflected in the data.

[#] Previous calendar year data

III. OFFICE OF SOLID WASTE MANAGEMENT ACTIVITIES

Beverage Container Deposit Program

The 2005-06 fiscal year was the deposit program's first full fiscal year of operation. A full report on program activities is being submitted to the legislature separately.

Glass Advance Disposal Fee (ADF) Program

The OSWM continues to administer a statewide glass recovery program that is funded through an advance disposal fee (ADF). The department collects the fee from distributors of products contained in glass containers that are not deposit beverage containers. The department then contracts with each county to establish glass buy back programs that divert glass from the waste stream and direct it to recycling. As directed by statute, the funds are distributed to the counties based on de facto population. Each county is allowed enough flexibility to structure its glass-recycling program to maximize recycling of the glass.

The Glass ADF Program has been significantly affected by implementation of the Beverage Container Deposit Program. Beginning October 1, 2004, glass deposit beverage containers were transferred from the purview of the ADF program to that of the Deposit Beverage Container Program. This reduced the number of containers covered by the ADF Program by approximately 55% and brought with it a corresponding decrease in program revenue. The decreasing revenue trend seems to have stabilized, which leads program staff to conclude that the full transition of glass containers from the ADF program to the DBC program is complete.

The decrease of containers covered by the ADF program also has been reflected in a decrease of the amount of glass collected through each county operated buy back programs. The department has reduced the amounts of the county contracts in accordance with the decrease in program revenue and material covered by the program. The leveling off in the amount of fees received by the program seems to indicate that the decrease in ADF revenue has stabilized.

County Recycled Glass Tonnages

FY	02	03	04	05	06
Hawaii	1,266	1,585	1,486	1,289	582
Maui	2,181	3,078	3,382	2,263	2,040
Oahu	9,945	9,514	9,575	7,796	632
Kauai	588	645	795	754	0
Total	13,980	14,822	15,238	12,100	3,254

Revenue and Expenditures of the Glass ADF Program:

Glass ADF Revenue

FY	02	03	04	05	06
	\$2,753,631	\$3,076,701	\$3,381,455	\$1,500,015	\$651,746

Expenditures for County Collection Programs

FY	02	03	04	05	06
Hawaii	\$216,000	\$283,000	\$298,000	\$298,000	\$71,000
Maui	\$220,000	\$285,000	\$300,000	\$300,000	\$225,000
Oahu	\$1,600,000	\$1,570,000	\$1,647,000	\$1,647,000	\$215,000
Kauai	\$112,000	\$127,000	\$134,000	\$134,000	\$10,000
Total	\$2,148,000	\$2,265,000	\$2,379,000	\$2,379,000	\$521,000

Motor Vehicle Tire Surcharge Program

Established under HRS Ch. 342I-27 in 2000, the Motor Vehicle Tire Surcharge Program assessed a \$1 surcharge on each motor vehicle tire imported into the state. The program's primary purpose is the clean up of illegal used tire dump sites.

The surcharge took effect on October 1, 2000. In 2002 the legislature, through Act 191, capped the surcharge collections at \$3,000,000. Act 191 also required the Department to waive collection of the \$1 surcharge whenever the funds collected exceeded the \$2,750,000 mark. This mark was reached on June 30, 2003 and collection of the surcharge was subsequently discontinued.

In 2004 the OSWM completed a \$1.2 million contract to clean-up one of the largest known used tire piles in the state located in Maili on Oahu. Authority to collect the fee expired on January 1, 2006. The SWS continues to dedicate staff time to used tire sites and issues.

Construction & Demolition Waste Minimization and Diversion Outreach

The OSWM continues to provide compliance assistance to Hawaii's construction industry, which is comprised of general contractors, subcontractors, builders, developers and other interested

parties. The purpose is to promote compliance with State illegal dumping laws established in Chapters 342G and 342H, HRS, and Chapter 11-58.1, HAR, "Solid Waste Control". The OSWM occasionally participates in workshops convened by the department's Compliance Assistance Office and also attends General Contractor's Association of Hawaii meetings. It also participates in special meetings coordinated by the Buildings Industry Association and other agencies of the State, such as DAGS and the Strategic Industries Division of DBEDT.

IV. Solid Waste Management Funding

The department collects the Solid Waste Management Disposal Surcharge, which is primary source of funding for the department's Solid Waste Section (SWS) and two other positions, and the amount of funding from the surcharge raises concerns.^a The department collects the surcharge from owners and/or operators of landfills within the state. Law requires that the surcharge be passed on to the person or entity doing the disposal.

Originally proposed at 75¢ per ton, the disposal surcharge was initially set by statute at 25¢ per ton in 1993; and subsequently raised to 35¢ in 1997. The disposal surcharge is a common funding mechanism for solid waste management programs across the country. Past research has indicated that seventeen states utilize disposal surcharges to fund solid waste management functions. The average surcharge among that group is \$1.43 per ton, with a high of \$3.00 and a low of \$0.25 per ton.

As indicated in the table below, surcharge revenue has been relatively stable in the past several years at approximately \$500,000 a year. Both the SWS and OSWM have been able to maintain operations in the past due to cost savings incurred through position vacancies. However, vacancies are being filled and personnel in both programs are now reaching maximum allowed levels in order to meet workload demands, and more revenues to meet expenditures are an immediate and critical concern. Program costs, including personnel, now exceed \$600,000 annually.

The revenue situation already limits existing SWS permitting, monitoring and enforcement activities. The SWS staff of four engineers and four environmental health specialists handle approximately 300 permitted facilities; 100 to 200 permit applications; 200 to 300 solid waste complaints; illegal dumping sites; and numerous miscellaneous inquiries annually. Additionally, the revenue situation keeps the OSWM from undertaking other activities stipulated in statute, which include waste reduction, recycling and market development.

^a The adequacy of Deposit Beverage Container Special Fund amounts is not a concern now. Both the department's current Office of Solid Waste Management (OSWM) and SWS were originally contained within the OSWM. They were separated through an administrative reorganization in 2003. The OSWM administers the state's Deposit Beverage Container (DBC) Program, and also has 2 other positions. DBC Program personnel and activities are funded through the separate deposit beverage container special fund, which is covered in a separate report. The DBC special fund contains adequate funds for now

In order for the SWS and OSWM to perform basic functions outlined in statute, the 2000 Revised Integrated Solid Waste Management Plan recommended that the legislature increase program funding by, among other methods, increasing the existing disposal surcharge.

In addition to the existing revenue shortfall, the SWS section is aware of at least two proposed facilities that would ship waste out of the Hawaii for disposal. If built to full capacity, the proposed facilities would be able to ship out 60% of the solid waste currently generated in the state. This would severely reduce the revenue collected through the disposal surcharge without reducing the regulatory responsibilities of either the Solid Waste Section or the Office of Solid Waste Management. Because of this situation the department is currently considering different revenue enhancing options for its solid waste programs.

Solid Waste Disposal Surcharge Revenue

FY	02	03	04	05	06
	\$506,775	\$511,870	\$507,255	\$490,850	\$535,391

V. Summary

The statewide recycling rate has steadily increased over the past several years and has reached 30%.

Long standing challenges to further increasing the diversion rate remain; namely Hawaii’s small market for generating recyclable material, and the high cost of shipping that material to markets.

The department has achieved substantial implementation of the Deposit Beverage Container Program.

Ongoing revenue situation affects implementation of mandated duties for both the Solid Waste Section and the Office of Solid Waste Management.

New proposals to ship waste out of state for disposal may make the revenue shortfall critical.