

**SECOND 6-MONTH REPORT
STATUS OF OPERATIONS
WAIMANALO GULCH SANITARY LANDFILL
AND
ACTIONS TAKEN TO FURTHER REDUCE WASTE
VOLUMES DISPOSED OF AT THE LANDFILL**

Prepared For:

**Land Use Commission
State of Hawaii**

Prepared By:

**Department of Environmental Services
City and County of Honolulu**

March 2009

PREFACE

This report was prepared in accordance with the State Land Use Commission's (LUC) Findings of Fact, Conclusions of Law, and Decision and Order Adopting With Modifications, the City And County of Honolulu Planning Commission's Recommendation to Approve Amendment to Special Use Permit, dated March 14, 2008. Under Item 2 of the Decision and Order, the Applicant (City) is required to report to the LUC every six months on the actions taken to alleviate the further use of the Waimanalo Gulch Sanitary Landfill.

This 6-month report is the second in the series and covers the period from September 2008 to March 2009. The report has been streamlined and focuses on the progress of landfill operations and actions to reduce waste volumes disposed at the landfill.

STATUS OF LANDFILL OPERATIONS

1. Tonnage

Over the six-month period beginning August 1, 2008 through January 31, 2009, the landfill received the following amounts of material:

H-POWER Ash.....	42,878 tons
H-POWER Residue.....	48,470 tons
Municipal Solid Waste (MSW).....	125,388 tons

The above tonnages reflect an overall reduction in waste compared to the previous period (February 1, 2008 through July 31, 2008). The downward trend may be attributed to the slowing economy and the expansion of the City's curbside recycling program.

2. Remaining Capacity

Landfilling of MSW is currently occurring in Cell E-4, which is the last area available in the existing landfill footprint. The remaining capacity of the landfill for MSW under the existing Special Use Permit is approximately 560,000 tons, or about 14 months under the current input rate.

3. Landfill Expansion

Actions taken in pursuit of the expansion of the landfill include the following:

a. Solid Waste Permit

Solid waste permit application for the lateral expansion submitted to the Department of Health on December 1, 2008. Approval will be contingent on land use approval and be for a five-year period.

b. Special Use Permit (SUP)

A Special Use Permit (SUP) application was submitted to the Department of Planning and Permitting on December 3, 2008.

c. Boundary Amendment

A Boundary Amendment petition was submitted to the State Land Use Commission on December 2, 2008.

ACTIONS TO REDUCE WASTE VOLUMES DISPOSED AT THE LANDFILL

1. H-POWER

The H-POWER waste-to-energy facility continues to process over 600,000 tons per year of municipal solid waste. Negotiations with the H-POWER operator to expand the facility with the addition of a third boiler are substantially complete. Engineering and the purchasing of long lead equipment for the expansion is underway and construction will begin in October 2009. Start-up and testing is scheduled for December 2011 and commercial operations is anticipated in July 2012. A Draft Environmental Impact Statement (DEIS) was published in January 2009. The Final EIS is expected to be completed and approved by May 2009.

The new mass burn combustion system will give the current 600,000 tons per year facility an additional 300,000 tons per year of waste combustion capacity. Combined with implementation of the residential curbside recycling program and other recycling programs, the added capacity will significantly reduce the quantity of MSW that requires landfill disposal. However, the expansion of H-POWER will result in increased amounts of ash and residue being produced, and these will require landfill disposal.

2. Interim Offsite Shipping of Waste

In January 2008, the City issued an Invitation for Bids (IFB) for the baling, shipping, off-loading, transporting and disposing (transshipment) of City-provided MSW to a mainland landfill for a term of at least 36 months. For this procurement, the City has the option to extend the agreement for an additional 36 months. In addition to MSW, bidders may request to provide transshipment for other non-MSW material. The transshipment contract is intended to provide an interim solid waste disposal alternative until such time as the H-POWER facility is expanded with the addition of a third boiler.

Three bids were received and opened on June 17, 2008. The two highest bidders filed a total of four procurement protests, disputing for various reasons the adequacy of the low bid. These protests were resolved after several months, with all the protests ultimately being denied, and no appeals being taken of those denials. Pursuant to the requirements of the State Procurement Code, the City was prohibited from taking any actions toward the award of a contract during the pendency of the protests. With the protests resolved, the City is in discussion with the low bidder and reviewing the bid submittal documentation.

Under the terms of the IFB solicitation, the interim transshipment of MSW is to begin by July 1, 2009. However, transshipment could occur earlier if both the City and the service provider are able to agree to an earlier date following the award of a contract.

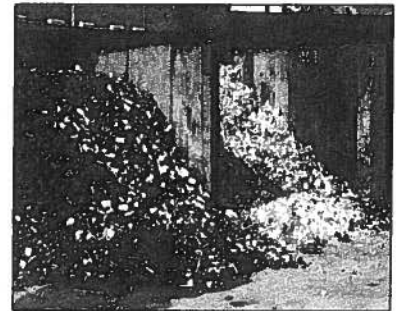
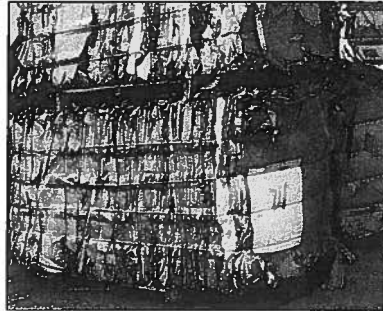
3. Material Recycling

As of 2007, the City landfill diversion rate through material and energy recycling programs has remained constant at 57% (the national average is 44-46%). The material recycling programs account for a 35% landfill diversion rate, which means that approximately 600,000 tons per year is diverted out of the total waste stream of 1.79 million tons per year. Compared with the 2005 material recycling rates presented in the initial 6-month report, the City has since increased recycling rates for paper, metals, glass, plastic and green waste by more than 45,000 tons, but saw a decline in recycling for construction and demolition (C&D) material by the same amount. C&D material will vary annually depending upon the volume and extent of projects.

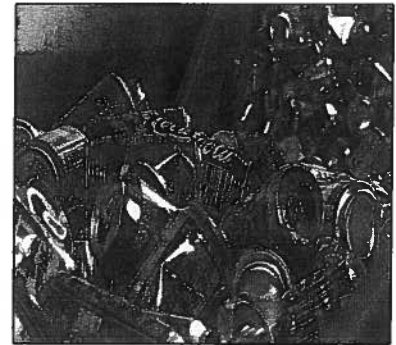
The City's efforts to increase residential recycling have continued with the expansion of the island wide curbside recycling and the community recycling bin program, and increases in budget commitments to support these efforts.

Recycling data from 2007 shows the following tonnage diverted from the landfill.
(Recycling companies are being surveyed for 2008 data collection).

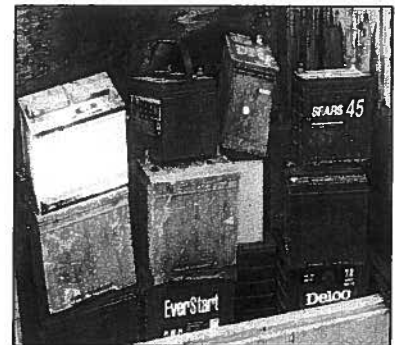
- Paper (80,000 tons)
- Glass (21,000 tons)
- Plastic (4,000 tons)
- Green Waste
(91,000 tons)



- Tires (8,000 tons)
- Auto Batteries
(8,000 tons)
- Metals (185,000 tons)
- Electronic Scrap
(600 tons)



- Wood Waste/Pallets
(10,000 tons)
- C&D Debris
(149,000 tons)
- Food Waste
(28,000 tons)
- Sewage Sludge
(8,000 tons)



- Other Reuse (18,000 tons)

a. Curbside Recycling

Curbside Recycling for Residential Mixed Recyclables and Green Waste continues to expand, with island wide expansion expected to be complete by May 2010. The following information summarizes the program expansion dates, number of households involved, and communities being serviced.

October 2007 (18,500) Mililani and Hawaii Kai

November 2008 (39,000) Kuliouou to Manoa, Kapahulu; Kailua, Lanikai; Mokuleia to Sunset

May 2009 (40,300) Waipio Gentry to Halawa; Wahiawa, Whitmore, Waipio Estates, Launani Valley; Kaneohe; Waimanalo

November 2009 (22,400) Foster Village to Makiki; Kahuku to Kahaluu

May 2010 (36,000) Makakilo to Waikele, Waipahu; Ewa Beach to West Loch; Honokai Hale to Makua

The City is changing how it collects refuse as curbside recycling is integrated into the system. The twice per week refuse pickup is shifting to one day per week for refuse and one day per week for recycling pickup, alternating weekly between the blue and green recycling carts. The once a week pickup schedule provides households with an incentive to sort and recycle their trash. Households utilize a set of three color-coded carts – gray for refuse, green for green waste and blue for mixed recyclables. The rollout schedule will incorporate about 40,000 homes into the new system every six months. Once the program is fully implemented, the City estimates it will divert approximately 28,000 tons of mixed recyclables and 46,000 tons of green waste, a net gain of 53,000 tons over existing recycling activity.



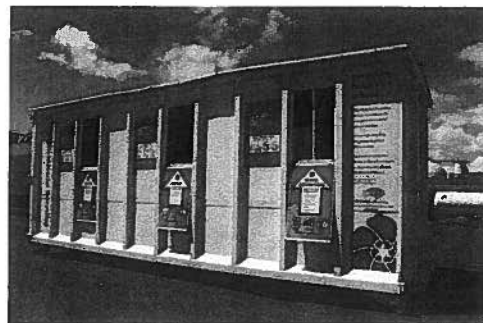
Actual tonnage collected in the City's curbside recycling service is presented below, starting in November 2007 when the pilot program began and continuing through the first phase expansion in November 2008. Mixed recyclables tonnage is from blue cart collection (partial island implemented), green waste tonnage reflects curbside collection in carts and bags (total residential collection). Mixed recyclables recovery increased exponentially with the program expansion. Curbside green waste recovery for 2008 increased by 3,500 tons from the previous year (trends are more difficult to spot in monthly data due to seasonal variations in green waste generation).

Curbside Collection (tons)		Mixed Recyclables	Green Waste
Pilot Program	Nov 2007	289	1825
18,500 homes	Dec	240	2212
	Jan 2008	249	2132
	Feb	228	1904
	Mar	293	1933
	Apr	226	1900
	May	294	1933
	Jun	241	2144
	Jul	237	1944
	Aug	307	2041
	Sept	243	1749
	Oct	294	1775
Expansion	Nov	630	2287
Phase 1	Dec	744	2108
57,500 homes			

b. **Community Recycling Bins**

The City has increased the number of community recycling bins by an additional 25 since the start of a new contract in March 2008.

The Community Recycling Bin Program began in 1990 and grew from an initial 20 participating schools to approximately 100 locations as of March 2009. The recycling bins are placed at schools around the island and collect plastics, paper, aluminum, and glass from the surrounding communities and are also used by the schools for campus generated



recyclable materials from classrooms, administrative offices, cafeterias and vending machines. Revenue from the recyclables goes to the schools, which encourages their participation in the program as well as support from the surrounding community.

Under a new service contract, which began in March 2008, the City has been able to expand the program to a total of 120 sites. Additional HI-5 only bins are provided to support collection events and campaigns. The new contract provides additional financial incentives to the schools to encourage more schools to join and increase participation from the community. For calendar year 2008, the program recovered more than 10,700 tons of recyclable material and paid more than \$500,000 to the participating schools.

c. Condo Recycling Program

The City continues to promote condominium recycling through a program that reimburses condominium properties for costs associated with the start up of a recycling program.

Most multi-family dwellings contract with private hauling companies to collect their refuse and would likewise need to establish their own recycling programs. Multi-family recycling is voluntary. The City provides technical assistance in conducting waste audits, designing recycling systems and identifying private recycling services. The City also provides recycling containers and educational materials. In September 2007, the City launched this new program to provide reimbursement for recycling program start-up costs up to \$2000.

d. Electronic Waste (e-waste)

The City worked with State legislators to enact producer responsibility-based legislation to help provide electronic product recycling through manufacturer-financed opportunities. Legislation introduced in the 2007 session failed to make the list of bills for consideration, but was reintroduced as part of the House and Senate Majority packet in the 2008 session and was passed into law. Statewide implementation is scheduled for January 2010. Currently, only commercial e-waste is banned from the Waimanalo Gulch Landfill. The ultimate long-term goal is to ban all e-waste from landfills with this new law requiring manufacturers to be responsible for the collection, transportation, recycling and disposal of their products.

4. Integrated Solid Waste Management Plan

The draft Integrated Solid Waste Management Plan Update was submitted to the State Department of Health (DOH) for comments on June 30, 2008. The DOH reply on September 26, 2008, stated "We note that the plan document contains all components as required by HRS Sec. 342G-26 and 27." Revisions and updates were written into the plan as requested by the DOH. A public hearing was held on December 1, 2008, during the sixty-day public comment period. No public comments were received. A draft resolution has been submitted to the City Council for adoption. Subsequently, the Plan Update will be resubmitted to the DOH for further action.

CONCLUSION

The foregoing report is submitted to update the first 6-month report submitted in September 2008, in accordance with reporting requirements set forth in the LUC's Decisions and Orders of March 14, 2008, and June 9, 2003. The report focuses on the further progress of landfill operations and the City's efforts to reduce the island's dependency on the landfill by pursuing the expansion of the H-POWER facility, transshipment of waste off-island, and recycling.

It is the City's intent to continue its efforts to ensure proper solid waste management for the people of Oahu, in close coordination with the Land Use Commission and others.