

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

LAND USE COMMISSION  
STATE OF HAWAII  
2009 SEP 14 A 10:43

**Prepared For:**

**Land Use Commission  
State of Hawaii**

**Prepared By:**

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

**September 2009**

**EXHIBIT K64**

## 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 third in the series and covers the period from April 2009 to September 2009. The report 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 February 1, 2009, through July 31, 2009, the landfill received the following amounts of material:

H-POWER Ash.....	44,949 tons
H-POWER Residue.....	44,737 tons
Municipal Solid Waste (MSW).....	101,891 tons

The above tonnages reflect an overall reduction in waste compared to the previous period (August 1, 2008 through January 31, 2009). 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 in the area covered by existing Special Use Permit is approximately 120,000 tons, or about 6 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

A solid waste permit application for the lateral expansion of the landfill was submitted to the State Department of Health (DOH) on December 1, 2008. Approval will be contingent on obtaining the necessary land use entitlements and will be for a five-year period. Waste Management and the City continue to meet monthly with the DOH to further the issuance of the permit.

#### b. Special Use Permit (SUP)

A Special Use Permit (SUP) application was submitted to the Department of Planning and Permitting on December 3, 2008. The Planning Commission voted to approve the SUP on July 31, 2009. The record of decision has been provided to the Land Use Commission (LUC), which is expected to take up the SUP application during its September 24, 2009, meeting.

c. Boundary Amendment

A Boundary Amendment petition was submitted to the State Land Use Commission on December 2, 2008. A hearing on the petition was begun on May 14, 2009. The Boundary Amendment petition may be withdrawn if the LUC approves the SUP application currently before it.

## **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. The Final EIS has been completed and the air permit is expected to be issued in October. Engineering and the purchasing of long lead equipment for the expansion is underway and construction is expected to begin in October 2009. Start-up and testing of the expanded facility is scheduled for December 2011, with full commercial operations anticipated to begin by July 2012.

The new mass burn combustion system will give the current 600,000 tons per year (TPY) facility an additional 300,000 TPY 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.

To further reduce the amount of material disposed of at the landfill, the City has issued an RFP for a 100,000 TPY in-vessel facility to process green waste, food waste and sewage sludge and an RFP for demonstration waste-to-energy facilities. At the end of September 2009 two additional RFPs will be issued, one for recycling H-POWER residue and the other for recycling H-POWER ash.

### **2. Interim Off-island 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 apparent 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 reviewed the apparent low bid submitted by Hawaiian Waste Systems, LLC (HWS), and eventually the City's Chief Procurement Officer issued a determination that the low bid was not responsive to the requirements of the IFB. Pursuant to the State Procurement Code, this determination was eventually appealed by HWS to the Office of Administrative Hearings at the Department of Commerce and Consumer Affairs (DCCA).

Following a hearing at DCCA, and prior to the deadline for the Hearings Officer to issue a decision on the appeal, the City and HWS agreed to settle the procurement protest. The settlement was confirmed in an Order approved by the Hearings Officer. Pursuant to the Settlement and Order, the contract for interim shipment of MSW was awarded to HWS on August 27, 2009. The commencement of services under the contract is to begin by the end of September 2009. As noted, the contract is for a term of at least 36 months, and may be extended.

### 3. Materials Recycling

Most recent data shows recycling rates increased by approximately 60,000 tons, from 610,000 tons in 2007 to 670,000 tons reported for 2008. There was a drop in cardboard recycling, which industry representatives attribute to the downturn in the economy – less commerce means a decrease in products and its associated packaging. However, there were increases in recovery for glass, plastic, metals and green waste, indicating a growing effectiveness in City initiatives such as curbside recycling, and in the state's HI-5 redemption program. There were also increases in recovery for electronics, wood waste and construction and demolition materials.

Overall, with these increases in recycling rates the City landfill diversion rate through material and energy recycling programs has increased from 57% to 60% (the national average is 44-46%). The material recycling programs account for a 38% landfill diversion rate (3% increase compared to 2007). Estimates are based on total waste stream of 1.79 million tons per year.

The City's efforts to increase residential recycling have continued with the expansions of islandwide curbside recycling, community recycling bin program, condo recycling assistance programs and increases in budget commitments to support these efforts.

Recycling data from 2008 shows the following tonnage diverted from the landfill.

- Paper (63,000 tons)
- Glass (25,000 tons)
- Plastic (5,000 tons)
- Green Waste (96,000 tons)
- Tires (10,200 tons)
- Auto Batteries (6,500 tons)



- Metals (190,000 tons)
- Electronic Scrap (1,200 tons)
- Wood Waste/Pallets (13,500 tons)
- Construction and Demolition Debris (217,000 tons)



- Food Waste (30,000 tons)
- Sewage Sludge (data in research)
- Other Reuse (16,000 tons)



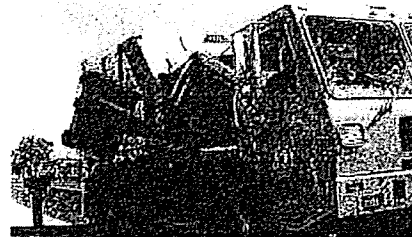
- a. Curbside Recycling for Residential Mixed Recyclables and Green Waste continues to expand, with islandwide expansion expected to complete by May 2010. The following information summarizes the program expansion dates, number of households involved, and communities being serviced.

<b>October 2007</b> (18,500)	Mililani and Hawaii Kai
<b>November 2008</b> (39,000)	Kuliouou to Mānoa, Kapahulu; Kailua; Lanikai; Mokuleia to Sunset
<b>May 2009</b> (40,300)	Waipio Gentry to Halawa; Wahiawa, Whitmore, Waipio Estates, Launani Valley; Kaneohe; Waimanalo
<b>November 2009</b> (22,400)	Foster Village to Makiki; Kahuku to Kāhaluu

May 2010 (36,000)

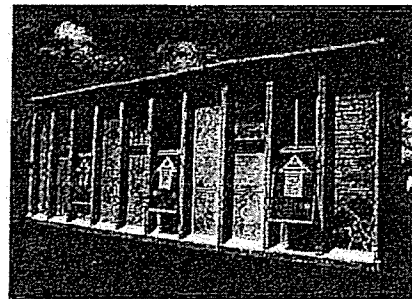
Makakilo to Waikale, Waipahu; Ewa Beach to West Loch; Honokai Hale to Makua

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 for refuse and one day 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 incorporates 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.



b. Community Recycling Bin

The City has increased the number of community recycling bins to approximately 100 sites around the island. The community recycling bins provide convenient drop-off to areas not yet serviced by curbside, for residents living in condos, and for the host schools.



The Community Recycling Bin Program began in 1990 and grew from an initial 20 participating schools to approximately 100 locations as of September 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, cafeteria 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.



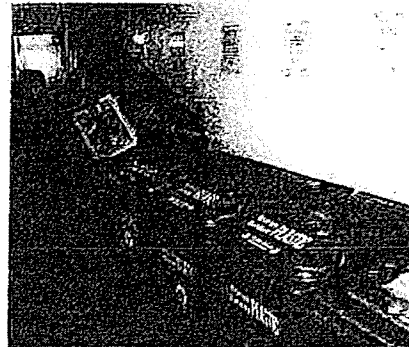


Under a new service contract which began in March 2008, the City is able to expand the program to a total of 120 sites. Additional HI-5 only bins are provided to support collection events and campaigns. The new contract provides additional financial incentives to the schools to encourage more schools 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 \$2,000, which continues to date.



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 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 was resubmitted to the DOH on June 19, 2009, for further action.

## **CONCLUSION**

The foregoing report is submitted to update the second 6-month report submitted in March 2009, 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 such efforts as the expansion of the H-POWER facility, the interim transshipment of waste off-island, and recycling.

The City intends to continue its efforts to ensure proper solid waste management for the people of Oahu, in close coordination with applicable regulatory agencies and decision-makers.