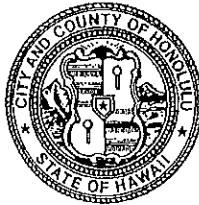


DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY AND COUNTY OF HONOLULU

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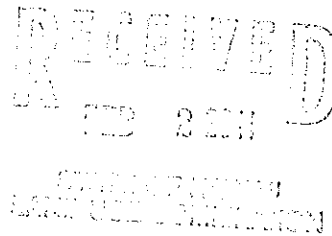
IN REPLY REFER TO:

DIR 11-003

February 2, 2011

VIA HAND DELIVERY

Mr. Orlando "Dan" Davidson
Executive Officer
Land Use Commission
Department of Business, Economic
Development and Tourism
State of Hawaii
235 South Beretania Street, Suite 406
Honolulu, Hawaii 96813



Dear Mr. Davidson:

Re: Docket No. SP09-403
Department of Environmental Services (Waimanalo Gulch Sanitary
Landfill)

Pursuant to the State Land Use Commission's (LUC) letter dated January 21, 2011, the Department of Environmental Services hereby submits the attached Status Report as requested.

Sincerely,

A handwritten signature in black ink, appearing to read "Timothy E. Steinberger". The signature is fluid and cursive.

Timothy E. Steinberger, P.E.
Director

Attachment

**STATUS REPORT
ON
WAIMANALO GULCH SANITARY LANDFILL**

Prepared For:

**Land Use Commission
State of Hawaii**

Prepared By:

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

February 2, 2011

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PREFACE

This report was prepared pursuant to the State Land Use Commission's (LUC) request as stated in its letter to the Department of Environmental Services (ENV) dated January 21, 2011. The LUC requested that ENV provide a status report on the Waimanalo Gulch Sanitary Landfill (WGSL) detailing the following information: (1) the circumstances surrounding the recent discharges from WGSL; (2) the steps being taken to preventing any discharge reoccurrence; (3) an update regarding the status of the City and County of Honolulu's (City's) efforts to identify and develop alternative sites to replace or supplement WGSL as required by Condition 4 of the LUC's October 22, 2009 Decision and Order (LUC Order) in this matter; and (4) an update of ENV's July 28, 2010 Annual Report regarding compliance with the 16 Conditions contained in the LUC Order. This status report shall also address ENV's efforts to use alternative technologies as appropriate, and to seek beneficial re-use of stabilized, dewatered sewage sludge.

STATUS OF IDENTIFYING AND DEVELOPING NEW LANDFILL SITES ON OAHU

1. General

Condition 4 of the LUC Order requires that, on or before November 1, 2010, the City's Department of Environmental Services (ENV) shall "begin to identify and develop one or more new landfill sites that shall either replace or supplement the WGS�."

2. Current Status

Funding for the new landfill site selection process was appropriated in the City's Fiscal Year (FY) 2010 budget with additional funds appropriated in FY 2011. In November 2009, ENV began the procurement process to contract a consultant. On June 25, 2010, the City contracted consultant, R.M. Towill Corporation, to facilitate the landfill site selection process, specifically to assist the Mayor's Landfill Site Selection Advisory Committee (Landfill Advisory Committee). The Landfill Advisory Committee is charged by the Mayor to provide advisory recommendations to the City concerning the selection of a future site or sites for a landfill to accept municipal solid waste (MSW), ash and residue from the City's H-POWER waste-to-energy facility, and construction and demolition debris waste. The procedure involving the use of an advisory committee to assist in landfill site selection was set forth in the City's Integrated Solid Waste Management Plan (October 2008). The Mayor chose 12 members to serve on the Landfill Advisory Committee based upon numerous criteria including technical expertise and experience, community involvement, and availability to serve.

The members of the Landfill Advisory Committee are: Bruce Anderson, David Arakawa, Thomas Arizumi, David Cooper, John DeSoto, John Goody, Joe Lapilio, Tesha H. Malama, Janice Marsters, Richard Poirier, Chuck Prentiss, and George West.

The first meeting of the Landfill Advisory Committee was held on January 20, 2011. At this time, the tentative schedule of further meetings is as follows: February 10, March 10, March 31, May 12, June 23, and July 21, 2011. Additional meetings may be scheduled as needed by the Landfill Advisory Committee. A tentative list of potential landfill sites is expected to be ready for discussion by the Landfill Advisory Committee at its March 10, 2011 meeting. Barring unforeseen delays, the Landfill Advisory Committee's final report is expected to be completed and sent to the Mayor by late summer or early fall 2011. All Committee meetings will be open to the public and to public comment.

Once a site or sites are identified and selected, as acknowledged in the PC decision that was adopted by the LUC Order, it will take more than seven years to identify and develop a new landfill.

On January 7, 2011, ENV sent a written inquiry to Colonel Robert Rice, Base Commander of Marine Corps Base Kaneohe, as to the availability of land located within the Bellows Air Force Base Station as a possible location for a new landfill facility. Also

on that date, ENV sent a similar inquiry to William Aila, Acting Director of the State Department of Land and Natural Resources, as to the availability of State-owned land located at Waimanalo North (Tax Map Key: 4-1-008:013) as another possible location for a new landfill facility. As these lands are owned by the federal government and the state, respectively, the City has no ability condemn these properties. The City would therefore require the consent of the property owner to acquire one or both of these properties. If the state and federal governments provide consent, these sites would be added to the list of the many potential sites to be considered. These letters do not indicate any priority. ENV has not yet received responses to these letters.

STATUS OF LANDFILL OPERATIONS

1. Tonnage

Over the 12-month period beginning January 1, 2010, through December 31, 2010, the WGSL received the following amounts of material:

| | |
|----------------------------------|--------------|
| H-POWER Ash..... | 87,982 tons |
| H-POWER Residue..... | 91,678 tons |
| Municipal Solid Waste (MSW)..... | 163,736 tons |

The above tonnages reflect an overall reduction of about 23,500 tons in the amount of waste deposited compared to the previous calendar year. The downward trend may be attributed to the down economy, the expansion of the City's curbside recycling program, and the diversion from the landfill of as much combustible bulky waste as possible to H-POWER. Also, approximately 20,000 tons of MSW were diverted from WGSL, intended for shipment and disposal in a mainland landfill pursuant to the unsuccessful City contract with Hawaiian Waste Systems Inc. (HWS), discussed later.

2. Recent Discharge of Municipal Solid Waste (MSW) into Ocean from WGSL

In December 2010, heavy rainfall and at least 2 large storm events caused WGSL to become inundated with flood waters from upstream of the landfill. The National Oceanic and Atmospheric Administration, National Weather Service Forecast Office, Honolulu, Hawaii noted, "All of the rain gages on Oahu recorded near to well above normal rainfall for the month of December. Six gages had monthly totals over 20 inches with the highest amount of 22.12 inches (451 percent of [the] normal [4.90 inches]) posted by the Palehua gage [sic]." See <http://www.prh.noaa.gov/hnl/hydro/pages/dec10sum.php>. The Palehua rain gauge is located just to the north of WGSL. To put 22 inches into context, WGSL normally receives 19 inches of rain in an entire year.

Specifically, on December 19, 2010, the Palehua Rain gauge preliminarily showed that the area above WGSL received about 7.9 inches of rain in 13 hours. The storm flooded the active area of the landfill, Cell E6. Following that storm, Waste Management Hawaii (WMH) constructed a temporary berm at the southern end of Cell E6 to prevent a catastrophic release of stormwater from Cell E6 to the Kahe Power Plant, brought in additional pumps, fortified the on-site ditches and reinforced the inlet for the construction drainage system which diverts water from the construction area just above Cell E6.

On December 27, 2010, the Palehua Rain gauge showed that the area above WGSL received an additional 3.9 inches of rain in 4 hours. WMH reinforced and enlarged the temporary berm at Cell E6 to prevent the stormwater from Cell E6 from flooding the Kahe Power Plant. WMH also reinforced the inlet for the construction area

drainage system, placed diversion structures in front of the inlet and constructed additional berms around the inlet.

The discharge of MSW, which included a very small amount of sterilized medical waste, occurred on the night of January 12, 2011. On that night, the Palehua Rain gauge showed that the area above the landfill received another 10.7 inches in 24 hours (and 7.6 inches in 6 hours). The landfill was overwhelmed by the sheer volume of this January storm event. The stormwater again flooded Cell E6 and caused the sedimentation basin at the bottom of the landfill to overflow. When this happened, stormwater carrying floatable waste, including a small amount of sterilized medical waste, flowed over the edge of the sedimentation basin and into the storm drainage outlet, which flows out under Farrington highway to the ocean.

The three storms that occurred within a month's time were an extremely rare weather event, and although the operating permit and landfill regulations only require WMH to design the landfill for a 24-hour, 25-year storm event, it is currently constructing a stormwater diversion system that is designed for a 100-year storm. To our knowledge, such a discharge has never happened before at WGSF.

The small amount of sterilized medical waste that escaped from the landfill is considered "special waste." Special waste is subject to profiling, which means that the company disposing of the waste must characterize it under federal and state guidelines, and provide documentation to show that it has been rendered noninfectious prior to disposal at WGSF. DOH has verified that the medical waste accepted at the landfill had been properly sterilized according to law.

3. Cleanup of Waste Following January 2011 Storm

WMH discovered that waste had been released from the landfill, the day after the January storm on January 13, 2011. On that date, WMH began cleaning the area just beyond the sedimentation basin as soon as it was safe to do so. The next day, WMH hired temporary workers and cleaned the drainage outlet near Ko Olina. On that day, WMH's cleanup crew found twenty (20) 40-gallon bags worth of MSW and about one (1) gallon of medical waste. The most medical waste WMH found on any beach on any day was two syringes and a vial. To date, WMH has collected a total of about fifty-two (52) 40-gallon bags full of storm debris waste, and a little over one gallon of medical waste.

WMH established a telephone hotline on January 16, 2011. After the hotline had been established, WMH cleaned the beaches in response to reports made by the public. WMH sent clean up crews to White Plains Beach, Nimitz Beach, Pokai Bay, Kahe Beach, Tracks and Ko Olina. One week after the waste release, reports of medical waste drastically diminished to almost nothing. WMH has not received any confirmed calls of medical waste since January 20, 2011. Nonetheless, WMH will continue to keep the hotline open, and will investigate and evaluate any calls it receives.

On January 13, 2011, at the direction of DOH, ENV posted warning signs at beaches located nearby WGSL and mobilized crews to conduct ocean water sampling. During these efforts, crews encountered storm debris waste, including some medical waste, and notified WMH. As reported in its press release dated January 16, 2011, the DOH found that the results from the water samples taken on January 13, 2011, showed levels of enterococcus and clostridium perfringens consistent with polluted runoff with storm events typically found in the ocean after heavy rains in Hawaii.

On January 14 and 15, 2011, ENV posted additional warning signs and continued sampling ocean water.

Also on January 15, 2011, ENV dispatched its Oceanographic Team to scour the surface zone and shoreline areas for storm debris and medical waste.

On January 17, 2011, the City's Department of Emergency Services (ESD) instructed all City lifeguards to inspect beaches for medical waste and sharps containers were distributed to ensure proper disposal. These efforts continued from January 18 to 21, 2011.

On January 19, 2011, the City's Department of Parks and Recreation (DPR) deployed its scarifier (sand sifter) machine to assist in beach clean up efforts, together with eighteen (18) to twenty-one (21) prisoners on work release. DPR patrolled and utilized the scarifier at Maunalahelahe and Pokai Bay on January 20, 2011, and found no medical debris. On January 21, 2011, DPR patrolled and utilized the scarifier at Maile Beach Park and found no medical debris.

On January 23, 2011, at the direction of DOH, the City removed the warning signs posted at various beaches.

WMH notified the DOH immediately after the first storm on December 19, 2011. Since then, WMH and ENV have been working closely with DOH and the U.S. Environmental Protection Agency (EPA) in addressing the accumulated stormwater, the clean-up of the debris inadvertently released into the ocean, in repairing the area of the landfill damaged by the heavy rains and efforts to re-open the landfill.

4. Steps Being Taken to Prevent Any Discharge Reoccurrence at WGSL

WMH is currently in the process of pumping out the stormwater from the sedimentation basin located adjacent to the office building.

WMH is continuing to construct the stormwater diversion system, which is approximately two weeks from functional completion. This stormwater diversion system project, which is located outside of the old SUP boundary, was started just after the LUC approved a new SUP in October 2009. When functional, it is designed to capture and convey stormwater around the landfill.

WMH has also improved the effectiveness of the drainage system which diverts water from the construction area just above Cell E6, by grading the area and placing large boulders around the inlet. This drainage system had been clogged by sediment from rushing stormwater during the January 2011 storm. WMH believes that these improvements will help prevent the drainage system from becoming clogged again.

5. Current Status of WGSL

WGSL was closed to the general public on January 12, 2011, in anticipation of the January 13, 2011 storm, and has remained closed to the public to address the damage caused by the storm.

This closure of WGSL did not stop ENV's collection of MSW and recyclables deposited into the grey, green, and blue bins because this waste could be burned at H-POWER or recycled. However, this closure delayed the disposal of H-POWER residue, bulky item waste, and wastewater sludge, all of which cannot be disposed of at H-POWER and must be disposed of in the landfill. The closure hampered H-POWER's ability to accept MSW because of the backlog of residue that has been accumulating at the facility. City refuse transfer stations that depend on H-POWER for waste disposal were also adversely impacted and experienced heavy buildups of trash. City wastewater treatment facilities have resorted to onsite storage of sewage sludge to cope with the situation. Further, ENV had to cease collection of bulky item wastes resulting in unsightly piles of waste on sidewalks.

On January 28, 2011, after WMH completed partial repairs to the damaged cell E-6 and worked around the clock with DOH and EPA, ENV and WMH were able to reopen WGSL for the limited disposal of critical waste that had backlogged as a result of WGSL's closure, specifically sewage sludge, residue from H-POWER, other special wastes and accumulated bulky item waste from convenience centers.

On January 29, 2011, ENV commenced pick-up of bulky item waste, drawing upon additional resources to make this happen as quickly as possible, despite logistical and financial constraints.

The seventeen-day period, from January 12 to January 28, 2011, that WGSL was closed, only highlights the need for a landfill. Certain waste cannot be combusted, recycled, reused or shipped, and must be landfilled at WGSL.

6. Landfill Expansion Permits

a. Solid Waste Permit

The final solid waste permit for the proposed lateral expansion was approved by the State of Hawaii, Department of Health (DOH) on June 4, 2010. General site excavation, new cell construction, and improvements to the west side drainage system are ongoing.

b. Special Use Permit (SUP)

A Special Use Permit (SUP) application was submitted to the City Department of Planning and Permitting on December 3, 2008. The Planning Commission voted to approve the SUP on July 31, 2009. The LUC subsequently approved the SUP with modifications. Condition 14 restricts WGSL from accepting any MSW after July 31, 2012. ENV appealed that provision, along with Condition Nos. 15 and 16 of the LUC Order, relating to certain reporting requirements imposed upon the City Council, to the Circuit Court of the First Circuit. Oral arguments were presented to the Court on July 14, 2010. On August 3, 2010, the Court denied ENV's request to strike Condition 14, and modified Conditions 15 and 16 by requiring ENV to comply with these conditions instead of the City Council and City Administration. ENV timely appealed to the Intermediate Court of Appeals (ICA) that portion of the decision which affirmed the July 31, 2012, deadline on acceptance of MSW at the landfill. This case is pending at the ICA.

c. District Boundary Amendment

A District Boundary Amendment (DBA) petition was submitted to the LUC on December 2, 2008, to reclassify the site from the State Land Use Agricultural District to the Urban District. A hearing on the petition was held on May 14, 2009. Given the critical public health and safety need for a permitted landfill in order to properly manage Oahu's solid waste, and to maximize the likelihood that the necessary approvals could be obtained in a timely manner, ENV submitted both the DBA petition to the LUC, and an SUP application to the Planning Commission and the City Department of Planning and Permitting to permit the desired landfill expansion. In doing so, ENV clearly indicated that depending on the timing of the approval processes, one of the two petitions could eventually be withdrawn. The DBA petition was subsequently withdrawn on October 15, 2009.

COMPLIANCE WITH CONDITIONS OF ORDER

The LUC adopted the Planning Commission's Findings of Fact, Conclusions of Law, And Decision and Order dated August 4, 2009, as its own Findings of Fact, Conclusions of Law, And Decision and Order, subject to sixteen (16) conditions. The general description and status of each condition is as follows:

| Condition No. | Description |
|---------------|--|
| 1 | <p>The Applicant shall obtain all necessary approvals from the State Department of Health (DOH), Department of Transportation, Commission on Water Resources Management, and Board of Water Supply for all onsite and offsite improvements involving access, storm drainage, leachate control, water, well construction, and wastewater disposal.</p> <p><u>Status:</u> All applicable permits/approvals have been obtained.</p> |
| 2 | <p>In accordance with Chapter 11-60.1 "Air Pollution Control," Hawaii Administrative Rules, the Applicant shall be responsible for ensuring that effective dust control measures during all phases of development, construction, and operation of the landfill expansion are provided to minimize or prevent any visible dust emission from impacting surrounding areas. The Applicant shall develop a dust control management plan that identifies and addresses all activities that have a potential to generate fugitive dust.</p> <p><u>Status:</u> Dust control measures and management plan have been provided for as part of the Solid Waste Management Permit issued by the DOH.</p> |
| 3 | <p>The City and County of Honolulu shall indemnify and hold harmless the State of Hawaii and all of its agencies and/or employees for any lawsuit or legal action relating to any groundwater contamination and noise and odor pollution relative to the operation of the landfill.</p> <p><u>Status:</u> So noted.</p> |
| 4 | <p>On or before November 1, 2010, the Applicant shall begin to identify and develop one or more new landfill sites that shall either replace or supplement the WGSL. The Applicant's effort to identify and develop such sites shall be performed with reasonable diligence, and the Honolulu City Council is encouraged to work cooperatively with the Applicant's efforts to select a new landfill site on Oahu. Upon the selection of a new landfill site or sites on Oahu, the Applicant shall provide written notice to the Planning Commission. After receipt of such written notice, the Planning Commission shall hold a public hearing to reevaluate 2008/SUP-2 (SP09-403) is appropriate at that</p> |

| Condition No. | Description |
|---------------|---|
| | <p>time. The Planning Commission shall make a recommendation to the Land Use Commission.</p> <p><u>Status:</u> See Status of Identifying and Developing New Landfill Sites on Oahu of this report.</p> |
| 5 | <p>The Applicant shall continue its efforts to use alternative technologies to provide a comprehensive waste stream management program that includes H-POWER, plasma arc, plasma gasification and recycling technologies, as appropriate. The Applicant shall also continue its efforts to seek beneficial reuse of stabilized, dewatered sewage sludge.</p> <p><u>Status:</u> See section on Alternative Technologies of this report.</p> |
| 6 | <p>The Applicant shall provide, without any prior notice, annual reports to the Planning Commission and the Land Use Commission regarding the status of identifying and developing new landfill sites on Oahu, the WGSL's operations, and Applicant's compliance with the conditions imposed herein. The annual reports also shall address the Applicant's efforts to use alternative technologies, as appropriate, and to seek beneficial re-use of stabilized, dewatered sewage sludge. The annual reports shall be submitted to the Planning Commission and Land Use Commission on June 1 of each year subsequent to the date of this Decision and Order.</p> <p><u>Status:</u> Subsequent reports will be submitted by June 1 of each year.</p> |
| 7 | <p>Closure Sequence "A" for the existing landfill cells at WGSL as shown on Exhibit "A12" must be completed, and final cover applied, by December 31, 2012.</p> <p><u>Status:</u> Closure Sequence "A" will be completed and final cover applied by December 31, 2012.</p> |
| 8 | <p>WGSL shall be operational only between the hours of 7:00 a.m. and 4:30 p.m. daily, except that ash and residue may be accepted at the Property 24 hours a day.</p> <p><u>Status:</u> The Solid Waste Management Permit issued by DOH requires that landfill operations be confined to between the hours of 7:00 a.m. and 4:30 p.m. Permission to extend hours to accommodate refuse loads during H-POWER outages shall be obtained from DOH on an as-needed basis.</p> |

| Condition No. | Description |
|---------------|---|
| 9 | <p>The Applicant shall coordinate construction of the landfill cells in the expansion area and operation of WGS� with Hawaiian Electric Company (HECO), with respect to required separation of landfill grade at all times and any accessory uses from overhead electrical power lines.</p> <p><u>Status:</u> Coordination with HECO will be done to ensure that landfill construction and operations are adequately separated from overhead electrical power lines.</p> |
| 10 | <p>The operations of the WGS� under 2008/SUP-2 (SP09-403) shall be in compliance with the requirements of Section 21-5.680 of the Revised Ordinances of the City and County of Honolulu 1990, to the extent applicable, and any and all applicable rules and regulation of the State Department of Health.</p> <p><u>Status:</u> Revised Ordinances of Honolulu § 21-5.680 is inapplicable to the WGS� as that Property is a public use and said ordinance therefore does not impact operations at WGS�. The operations of the WGS� are in compliance with any and all applicable rules and regulations of the State Department of Health.</p> |
| 11 | <p>The Planning Commission may at any time impose additional conditions when it becomes apparent that a modification is necessary and appropriate.</p> <p><u>Status:</u> So noted.</p> |
| 12 | <p>Enforcement of the conditions to the Planning Commission's approval of 2008/SUP-2 (SP09-403) shall be pursuant to the Rules of the Planning Commission, including the issuance of an order to show cause why 2008/SUP-2 (SP09-403) should not be revoked if the Planning Commission has reason to believe that there has been a failure to perform the conditions imposed herein by this Decision and Order.</p> <p><u>Status:</u> So noted.</p> |
| 13 | <p>The Applicant shall notify the Planning Commission and Land Use Commission of termination of the use of the Property as a landfill for appropriate action or disposition of 2008/SUP-2 (SP09-403).</p> <p><u>Status:</u> Respective notifications will be made prior to termination of the use of the property as a landfill.</p> |

| Condition No. | Description |
|---------------|---|
| 14 | <p>Municipal solid waste shall be allowed at the WGSL up to July 31, 2012, provided that only ash and residue from H-POWER shall be allowed at the WGSL after July 31, 2012.</p> <p><u>Status:</u> The date restriction on acceptance of MSW at the WGSL was appealed to the Circuit Court of the First Circuit. On August 3, 2010, that court denied ENV's request to strike Condition 14. ENV timely appealed to the ICA that portion of the decision which affirmed the July 31, 2012, deadline on acceptance of MSW at the landfill. The case is pending at the ICA.</p> |
| 15 | <p>The Honolulu City Council through the City Administration shall report to the public every three months on the efforts of the City Council and the City Administration in regard to the continued use of the WGSL, including any funding arrangements that are being considered by the City Council and the City Administration.</p> <p><u>Status:</u> On August 3, 2010, the Circuit Court of the First Circuit issued its order modifying this condition by substituting ENV for the City Council and the City Administration. That portion of the order was not appealed. The status of ENV's efforts in regard to the continued use of the WGSL, including any funding arrangements that are being considered by the City Council and the City Administration, are reported to the public during the public hearings conducted every 3 months (see Condition 16 Status).</p> |
| 16 | <p>The City Council and the City Administration shall have a public hearing every three months to report on the status of their efforts to either reduce or continue the use of the WGSL.</p> <p><u>Status:</u> On August 3, 2010, the Circuit Court of the First Circuit issued its order modifying this condition by substituting ENV for the City Council and the City Administration. That portion of the order was not appealed. Public hearings are being conducted every 3 months to report on the efforts of ENV in regard to the continued use of the WGSL, including any funding arrangements being considered by the City Council and the City Administration. As of the date of this report, four public hearings have been held at Kapolei Hale on January 21, 2010, April 21, 2010, July 21, 2010, and October 19, 2010. A fifth public hearing was held in the Mayor's Conference Room, Honolulu Hale, on January 18, 2011. For the five meetings, a grant total of six (6) members of the public have attended; on average, one (1) member of the public has attended each meeting. Due to this poor attendance, in addition to publishing public notice of the public hearings in the newspaper, announcing the meetings at the meetings of the landfill community oversight committee and posting notice on opala.org, ENV has requested that the Neighborhood Board Commission notify each</p> |

| Condition No. | Description |
|---------------|---|
| | Neighborhood Board of forthcoming meetings. Reports of what occurred during the hearings are posted on opala.org. |

ALTERNATIVE TECHNOLOGIES

1. H-POWER

The H-POWER waste-to-energy facility continues to process over 600,000 tons per year of municipal solid waste. The facility has operated reliably for over twenty years and has disposed of over 13,000,000 tons of municipal solid waste, generating in excess of \$40,000,000 annually from the sale of electricity and recovered metals, and avoided the importation of 13,000,000 barrels of oil. The facility is being upgraded with state of the art air pollution control equipment and refurbishment of major equipment including boiler water walls.

The facility is being expanded with the addition of a third boiler. As of the end of January 2011, the H-POWER Third Boiler Expansion Project achieved 60 % overall progress. Engineering and procurement have been completed. All permits have been received and construction is 30% completed. The project is on schedule and within budget. The expanded facility is anticipated to be completed by the end of 2011 and fully operational by July 2012.

Once built, the expanded facility with its new mass burn combustion system will increase waste combustion capacity from the current 600,000 tons per year (TPY) by an additional 300,000 TPY. 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.

The expansion of H-POWER will result in increased production of ash and residue, both of which will require landfill disposal. At the end of September 2009, two (2) RFPs were issued, one for the beneficial reuse of H-POWER residue and the other for processing H-POWER ash. Subsequently, the City issued separate RFPs for H-POWER fly ash and H-POWER bottom ash in response to early feedback received. The City received no proposals in response to the H-POWER residue RFP or the H-POWER fly ash RFP. The City received one proposal for the H-POWER bottom ash RFP. That proposal, however, was deemed non-responsive for failure to submit all required documents.

In July 2009, the City also issued an RFP for a Demonstration Waste to Energy Facility. The City received one proposal for this RFP. However, that proposal was rejected as non-responsive for failure to submit all required documents.

2. Sludge Re-use

a. General

The City and County of Honolulu currently operates nine (9) wastewater treatment plants (WWTPs) on Oahu. The percentage of total sewage sludge generated from the nine (9) City WWTPs is as follows:

| WWTP | % of Total Sludge |
|-------------|-------------------|
| Honouliuli | 23 |
| Kahuku | 1 |
| Kailua | 29 |
| Laie | <1 |
| Paalaa Kai | <1 |
| Sand Island | 25 |
| Wahiawa | 6 |
| Waianae | 10 |
| Waimanalo | 1 |

b. Current Actions/Efforts to Re-use Sludge

Laie WWTP: Compost green waste with sewage sludge using the Windrow process.

Sand Island WWTP: Process sewage sludge to fertilizer pellets using the Synagro process. In FY 09, about 46% of the Synagro pellets were disposed at the landfill and 54% was beneficially reused. In April 2010, about 88% of the Synagro fertilizer pellets were beneficially reused with about 12% of the pellets disposed at the landfill. In June 2010, nearly all of the Synagro fertilizer pellets were beneficially reused in the community, diverting about 25% of the City's sewage sludge away from the landfill. From July 2010 to December 2010, Synagro sent 70% of the product to market and 30% of the product to the landfill.

Kailua, Wahiawa And Honouliuli WWTPs: The City awarded a contract on July 15, 2010, to Hawaiian Earth Recycling (HER) to process approximately 100,000 tons annually of combined green waste, food waste, and sewage sludge from Kailua WWTP, Wahiawa WWTP, and Honouliuli WWTP. The operation will be based on the In-vessel Conversion process and is anticipated to divert an additional 58% of the City's sewage sludge away from the landfill, while creating a marketable soil amendment product. HER is currently working on an environmental impact statement as required by the contract with the City.

3. Materials Recycling

The table below shows material recycling data by year from 1988 to 2009. Although waste tracking to the landfill and H-POWER is managed every month by ENV, recycling data is provided by commercial recycling companies which are surveyed annually. Recycling data for data is currently being gathered.

There has been an upward trend of general material recycling from approximately 75,000 tons in 1988 to well over 400,000 tons today. Recycling of construction and demolition materials, such as concrete, rock and asphalt, has added between 100,000 to 200,000 tons to the recycling rates. These C&D recycling rates tend to fluctuate based on the volume and type of construction projects undertaken from year to year, and are shown separately so as not to skew the data.

| Year | General Material Recycling | C&D Recycling | Total Recycled |
|-------------|-----------------------------------|--------------------------|-----------------------|
| 2009 | 426,947 | 116,670 | 543,617 |
| 2008 | 456,876 | 216,745 | 673,621 |
| 2007 | 453,282 | 148,952 | 602,234 |
| 2006 | 421,072 | 121,675 | 542,747 |
| 2005 | 417,669 | 193,829 | 611,498 |
| 2004 | 386,338 | 173,916 | 560,254 |
| 2003 | 366,639 | 106,773 | 473,412 |
| 2002 | 352,699 | 139,055 | 491,754 |
| 2001 | 367,300 | 114,070 | 481,370 |
| 2000 | 327,710 | 165,000 | 492,710 |
| 1999 | 314,075 | 225,200 | 539,275 |
| 1998 | 318,690 | 148,800 | 467,490 |
| 1997 | 313,394 | 204,400 | 517,794 |
| 1996 | 299,574 | 95,300 | 394,874 |
| 1995 | 294,340 | 44,400 | 338,740 |
| 1994 | 290,412 | 35,700 | 326,112 |
| 1993 | 241,600 | 30,000 | 271,600 |
| 1991 | 167,152 | 0 | 167,152 |
| 1988 | 73,992 | 0 | 73,992 |

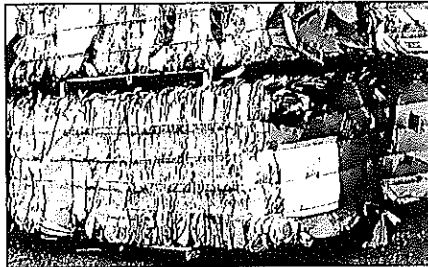
Most recent data shows steady increases in general material recycling rates as a percentage of the total waste. In 2009, the recycling tonnage dropped about 30,000 tons from the previous year, but this decrease is correlated with a similar drop in overall waste generation due to the economy. The actual recycling rate increased from 25% to 27%. Construction and demolition recycling decreased by 100,000 tons from the previous year.

In comparing 2008 and 2009, although there were moderate decreases across the board for each material, there was an increase in paper recovery from 63,000 tons to 72,000 tons and a slight increase in plastics recycling.

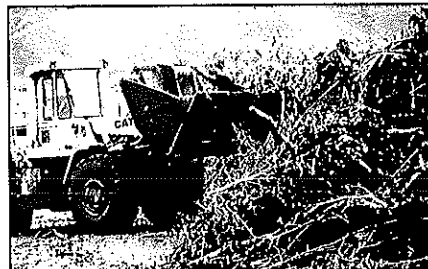
The City's efforts to increase residential recycling have continued with the expansions of island-wide curbside recycling, community recycling bin program, condo recycling assistance programs and budget commitments to support these efforts. Additionally, the City requires commercial sector recycling through mandatory laws established by City ordinance, and provides assistance to businesses to setup and expand their recycling programs.

Recycling data from 2009 shows the following tonnage diverted from the landfill:

- Paper (72,300 tons)
- Glass (21,300 tons)
- Plastic (4,900 tons)
- Green Waste (88,000 tons)
- Tires (10,300 tons)
- Auto Batteries (6,000 tons)



- Metals (166,000 tons)
- Electronic Scrap (700 tons)
- Wood Waste/Pallets (16,000 tons)
- Construction and Demolition Debris (117,000 tons)



- Food Waste (25,000 tons)
- Sewage Sludge (data in research)
- Other Reuse (16,000 tons)

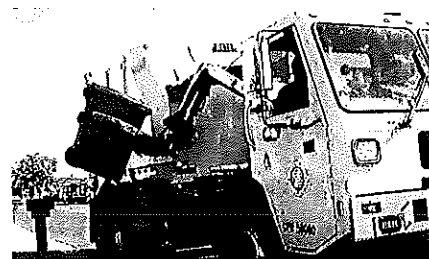


a. Curbside Recycling

The island-wide expansion of Curbside Recycling for Residential Mixed Recyclables and Green Waste was completed in May 2010. More than 160,000 homes on Oahu are now included in the program. The following information summarizes the program expansion dates, number of households involved, and communities being serviced.

| | |
|-------------------------------|--|
| October 2007 (18,500) | Millilani 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 changed how it collects refuse as curbside recycling was integrated into the system. The twice per week refuse pickup shifted 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. Once the program has time to mature, the City projected it would divert approximately 28,000 tons of mixed recyclables and 46,000 tons of green waste, a net gain of 53,000 tons over previous residential recycling activity. Most current data shows steady gains in mixed recyclables collection at a rate of 20,000 tons annually with green waste exceeding expectations at 50,000 tons.



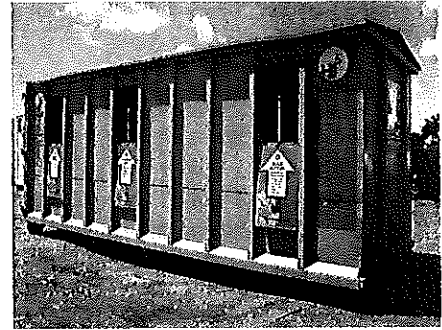
b. Community Recycling Bin

The City continues to maintain community recycling bins at approximately 100 sites around the island. The community recycling bins provide convenient drop-off to areas not serviced by curbside,



for residents living in condos, and for the host schools.

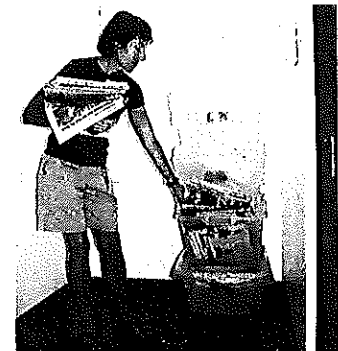
The Community Recycling Bin Program began in 1990 and grew from an initial 20 participating schools to approximately 100 locations as of May 2010. The recycling bins are placed at schools around the island and collect plastics, paper, aluminum, and glass from the surrounding communities and are also 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.



The contract provides financial incentives to the schools to encourage more schools to join and increase participation from the community. For fiscal year 2010, the program recovered about 6,000 tons of recyclable material and paid more than \$200,000 to the participating schools. Additional HI-5 only bins are provided to support collection events and campaigns, and offer the schools more opportunity to raise funds.

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. The new law requires manufacturers to be responsible for the collection, transportation, recycling and disposal of their products.

Statewide implementation began in January 2010, affecting computer equipment and expanded to include televisions in January 2011. Currently, only commercial e-waste is banned from the Waimanalo Gulch Sanitary Landfill. The ultimate long-term goal is to ban all e-waste from landfills once the manufacturers' take-back programs are fully in place.

e. **Business Recycling Programs**

The City continues to provide assistance to commercial sector recycling efforts and to ensure compliance with mandatory recycling policy established in the mid 1990's, which requires office buildings to recycle office paper, bars/restaurants to recycle glass and a variety of food operations to recycle food waste. Disposal site bans/restrictions divert materials from landfill and H-POWER, including green waste, cardboard, metals, tires, auto batteries, ewaste. The City provides technical assistance to businesses for designing and implementing recycling programs through how-to guides, workshops and on-site support, and works collaboratively with the State's Green Business Program.

f. **Public Education**

Public education regarding recycling is ongoing--distribution of brochures and print materials, opala.org website, WasteLine e-newsletter and annual events including Tour de Trash and Discover Recycling. In October 2009, the City and Oceanic Time Warner Cable launched "Opalavision" on The Green Channel at Oceanic 332 and online at opala.org. Short stories about the City's recycling initiatives and programs are featured in 3-minute episodes that educate and entertain. New episodes are produced monthly. The format is interactive, supporting 24/7 viewing of all episodes on demand.

The City coordinates numerous programs targeting our youth and supporting recycling projects in the schools. In addition to providing recycling bins and equipment to support collection activities, the City provides recycling educational professionals to aid teachers in the classroom through the Recycling Teaching Partners program. To further enhance the outreach to schools, the City is sponsoring two educational shows for our youth scheduled for April/May 2011 – Honolulu Theatre for Youth production of "Where Do Things Go?" at the Tenney Theatre and a traveling show to local schools entitled "Sort It Out!" Both shows will include distribution of Opala IQ Books and educational materials to students and teachers

4. **Interim Off-island Shipping of Waste**

No waste was ever shipped to the mainland due to various problems encountered by HWS, the bidder awarded the contract to ship waste to the mainland. These problems culminated in the U.S. District Court, Eastern District of Washington ruling on August 30, 2010 to enjoin the shipment of waste from Hawaii to Washington or Oregon ports on the Columbia River and/or to the Roosevelt Landfill in Washington. Consequently, the U.S. Department of Agriculture canceled the compliance agreement

permits of all Hawaii shippers that might otherwise have enabled the shipment of waste to the mainland. At the point where shipping was no longer possible, HWS had approximately 20,000 tons of baled waste stored at three locations. To dispose of this baled waste, HWS agreed to disassemble the bales, sort the waste and take the burnable waste to H-POWER and the non-burnable waste to the Waimanalo Gulch Landfill. As of January 2011, approximately 11,000 tons had been taken to H-POWER and 140 tons had been taken to WGSL. On January 6, 2011, there was a fire at the HWS facility that damaged the building in which the waste bales were disassembled. Because HWS' solid waste permit requires the waste to be processed under cover, without the use of the building, HWS' breaking apart and sorting of the waste for disposal at H-POWER and WGSL had to be suspended. HWS is currently exploring whether it will be able to rebuild its facility. In the meantime, HWS still has approximately 8,000 tons of baled waste stored at its facility.

CONCLUSION

The foregoing status report is submitted in response to the LUC's request for updated information and in accordance with the reporting requirements set forth in the LUC Order. As requested by the LUC, this report provides information regarding; (1) the recent discharges from WGSL; (2) the steps being taken to prevent such discharges; (3) the status of the City's efforts to identify and develop one or more landfill sites that shall either replace or supplement the WGSL; and (4) the 16 Conditions contained in the LUC Order. This report also discusses the further progress of WGSL's operations and the City's active efforts to reduce waste volume that is directed to the landfill, such as the expansion of the H-POWER facility 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. However, as evidenced by the difficulties faced by the closing of WGSL due to the unprecedented storm events, the City will not be able to ensure proper solid waste management without a landfill because certain waste cannot be burned, recycled and now cannot be shipped. The landfill is an integral part of the island's integrated solid waste management plan and is a permit condition for H-Power because the landfill is required to be the back-up for H-POWER when it is undergoing maintenance or the waste going to H-POWER exceeds its capacity.