

Status Report on Reducing and/or Continuing the Use of  
Waimanalo Gulch Sanitary Landfill (WGSL)  
Public Hearing  
July 14, 2014  
5:00 p.m.  
Kapolei Hale , 1000 Uluohia Street,  
Conference Room A

Presentation

1. Opening and Welcome

Notice of this public hearing was published in the Honolulu Star Advertiser on June 30, 2014, and on the City's Refuse Division website, [www.opala.org](http://www.opala.org)

This public hearing is being held to comply with Conditions 15 and 16 of the State of Hawai'i Land Use Commission's FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER WITH MODIFICATIONS, certified on October 22, 2009, in Docket No. SP09-403 (the LUC Order), which states:

"15. 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."

"16. 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."

The complete LUC Order is available at the State Land Use Commission website: [http://luc.state.hi.us/co\\_sphonolulu.htm](http://luc.state.hi.us/co_sphonolulu.htm)

The following report covers developments during the last calendar quarter regarding the matters set forth in Conditions 15 and 16 of the LUC Order.

2. Progress Toward Another Landfill Site

A. Condition 4 of the LUC Order states in relevant part:

"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 first meeting of the Landfill Advisory Committee was held on January 20, 2011, and subsequent meetings were held on February 10, March 10, March 31, May 12, July 19, November 8, 2011 and February 1, March 16, and April 20, 2012. The Landfill Advisory Committee's final report was completed on September 25, 2012. All Committee meetings were open to the public and to public comment. Handouts provided to the Landfill Advisory Committee, the Group Memory of each meeting, and the final report are posted online at [www.opala.org](http://www.opala.org).

In the final report, 11 potential sites were identified and ranked based on community criteria. The City's consultant is continuing to further review and analyze the sites based on the following technical and engineering considerations: capacity, cost, feasibility, environmental impact, land ownership – costs and ability to acquire, capacity and infrastructure requirements, logistics and waste transportation, development costs, capacity projections for current landfills – WGSL/PVT, and a timetable for WGSL/new landfill development/construction.

- B. The following table summarizes the amount of municipal solid waste (MSW), and H-POWER ash and residue delivered to WGSL during the last three months.

MONTH	MSW	ASH	RESIDUE
April 2014	7,525 tons	10,340 tons	4,787 tons
May 2014	5,830 tons	11,386 tons	4,404 tons
June 2014	7,011 tons	9,726 tons	3,637 tons

There were no complaints received during this reporting period.

### 3. Progress Report on Landfill Diversion, Recycling and Planning

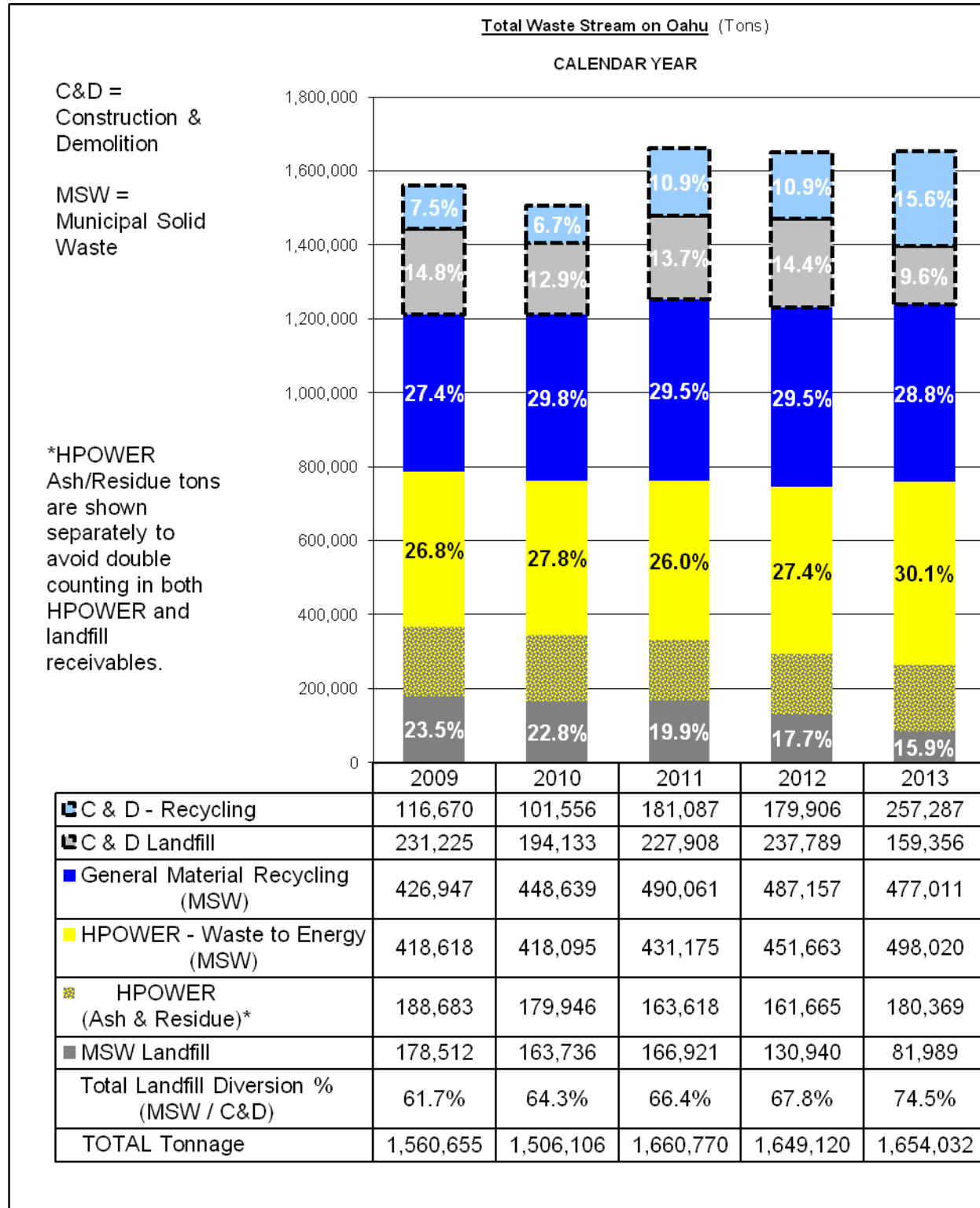
- A. H-POWER

The H-POWER expansion project (specifically the third boiler) is operating at full capacity, including the processing of bulky items and City-collected tires through a DOH variance. DOH approved an extension to the variance. It is subject to renewal every 5 years with the same effective dates as the DOH solid waste permit. The sludge project, which will divert sewage sludge from the landfill to H-POWER, is anticipated to be completed by end of 2014. Diversion of other combustible wastes from the landfill, including medical waste and auto shredder residue are also being assessed.

- B. Materials Recycling

To present a complete waste flow picture, the most recent available data is for calendar year 2013. Although waste tracking to 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 2014 will be compiled during the first half of 2015, and an updated chart and analysis will be posted online at [www.opala.org](http://www.opala.org) mid year.



The data in the chart above presents the annual quantity of waste (in tons) that is processed through recycling, waste-to-energy or landfilling for the most recent five (5) calendar years (2009–2013).

*Brief analysis:* The data shows how Oahu's waste has been diverted from landfill through increases in recycling and waste-to-energy. Recycling rates are remaining steady, just under 30% for general material recycling and about 15% for construction and demolition material, while expansions to the H-POWER waste-to-energy facility have enabled WTE to exceed 30%, for a combined total waste landfill diversion rate of almost 75%.

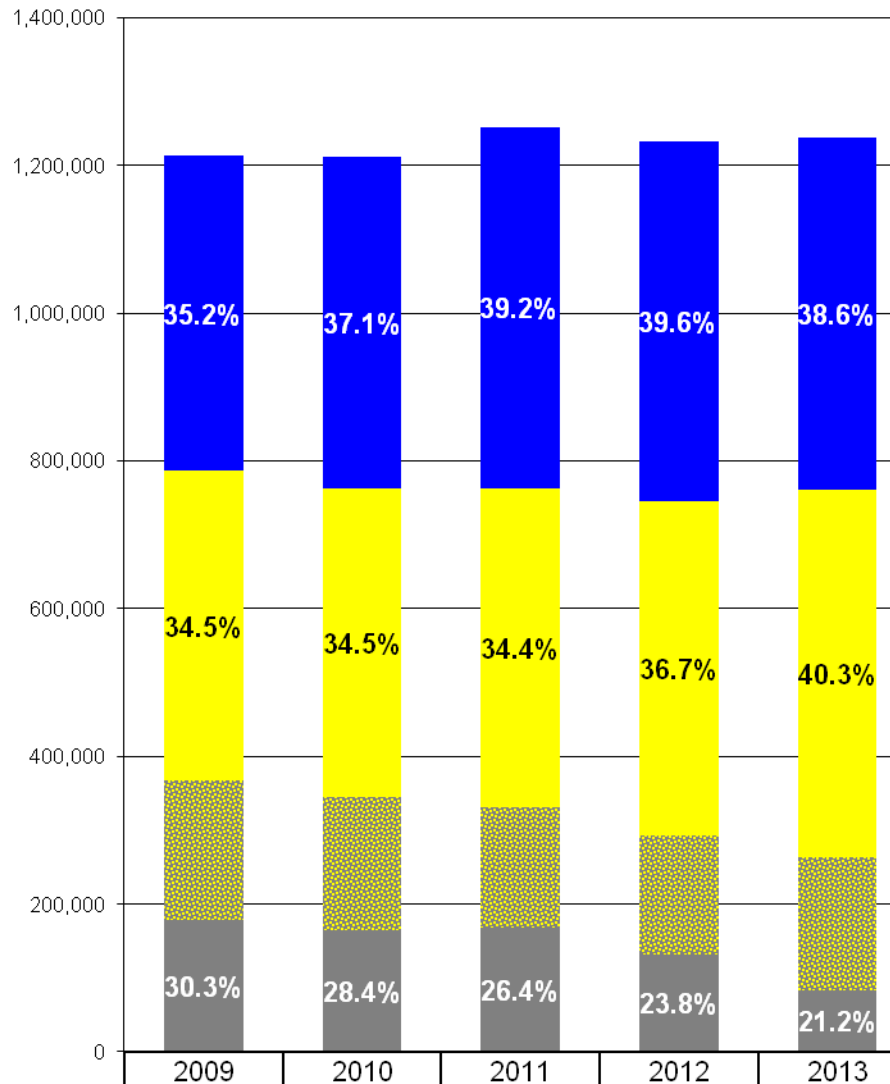
Total waste includes all waste of all types disposed/recycled on Oahu, including construction and demolition waste. There are two landfills on Oahu: the City's Waimanalo Gulch Sanitary Landfill (WGSL), which is designated for MSW, and the private PVT Landfill, which is permitted for construction and demolition waste only. When analyzing municipal solid waste (MSW) only and landfill diversion specific to the WGSL, the landfill diversion rate achieved through recycling and waste-to-energy is over 78% and the general material recycling rate is about 39%. See the chart below for a fuller comparison of diversion rates for WGSL over the most recent five (5) years. Important to note the breakdown of material to the WGSL – of the 21% of material landfilled in 2013, less than 7% was MSW. The rest is ash and residue from H-POWER processing.

**Municipal Solid Waste Stream on Oahu (Tons)**

CALENDAR YEAR

MSW =  
Municipal  
Solid  
Waste

\*HPOWER  
Ash/Residue tons  
are shown  
separately to  
avoid double  
counting in both  
HPOWER and  
landfill  
receivables.



	2009	2010	2011	2012	2013
■ General Material Recycling (MSW)	426,947	448,639	490,061	487,157	477,011
■ HPOWER - Waste to Energy (MSW)	418,618	418,095	431,175	451,663	498,020
■ HPOWER (Ash & Residue)*	188,683	179,946	163,618	161,665	180,369
■ MSW Landfill	178,512	163,736	166,921	130,940	81,989
Total Landfill Diversion % (MSW)	69.7%	71.6%	73.6%	76.2%	78.8%
TOTAL Tonnage (MSW)	1,212,760	1,210,417	1,251,775	1,231,425	1,237,389

*Recycling data:* The tables below provide detail of what was recycled by material type. The City has gathered annual recycling data since 1988 (except for 1989 and 1990). Note the upward trend of general material recycling from approximately 75,000 tons in 1988 to well over 400,000 tons today. The recycling of construction and demolition (C&D) materials, such as concrete, rock and asphalt, accounted for about 250,000 tons in 2013. C&D recycling rates tend to fluctuate based on the volume and type of construction projects undertaken from year to year.

Year	General Material Recycling	C&D Recycling	Total Recycled
2013	477,011	257,287	734,298
2012	487,159	179,906	667,065
2011	490,061	181,087	671,148
2010	448,639	101,556	550,195
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

<b>Oahu Recycling 2013</b>	
<b>Material Type</b>	<b>Amount in tons</b>
<b>PAPER</b>	
Corrugated Cardboard	45,235
Newspaper	14,415
Office Paper	12,548
Other Paper	1,326
<b>METALS</b>	
Ferrous (includes autos)	171,143
Non-Ferrous (includes aluminum)	14,016
<b>GLASS</b>	22,934
<b>PLASTIC</b>	5,903
<b>TIRES</b>	12,926
<b>AUTO BATTERIES</b>	2,654
<b>ELECTRONIC SCRAP</b>	2,247
<b>GREEN WASTE (yard trimmings)</b>	104,065
<b>WOOD WASTE/PALLETS</b>	11,436
<b>CONSTRUCTION &amp; DEMOLITION (rock, concrete, asphalt)</b>	257,287
<b>FOOD WASTE</b>	38,466
<b>SEWAGE SLUDGE (Tonnage data being researched)</b>	
<b>OTHER REUSE (Goodwill, Salvation Army)</b>	18,235
<b>TOTAL</b>	<b>734,298</b>

<b>Oahu Recycling 2012</b>	
<b>Material Type</b>	<b>Amount in tons</b>
<b>PAPER</b>	
Corrugated Cardboard	51,382
Newspaper	13,600
Office Paper	11,177
Other Paper	3,537
<b>METALS</b>	
Ferrous (includes autos)	189,722
Non-Ferrous (includes aluminum)	14,679
<b>GLASS</b>	22,616
<b>PLASTIC</b>	6,264
<b>TIRES</b>	13,106
<b>AUTO BATTERIES</b>	7,503
<b>ELECTRONIC SCRAP</b>	2,356
<b>GREEN WASTE (yard trimmings)</b>	97,807
<b>WOOD WASTE/PALLETS</b>	10,145
<b>CONSTRUCTION &amp; DEMOLITION (rock, concrete, asphalt)</b>	179,906
<b>FOOD WASTE</b>	25,845
<b>SEWAGE SLUDGE (Tonnage data being researched)</b>	-
<b>OTHER REUSE (Goodwill, Salvation Army)</b>	17,420
<b>TOTAL</b>	<b>667,065</b>

The City's efforts to increase residential recycling have continued with the expansions of island-wide curbside recycling and condo recycling assistance programs. 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.

Curbside Recycling -- ENV completed the final phase expansion of the fully-automated 3-cart curbside recycling program in May, 2010. There are currently 160,000 homes participating in the program, and capturing material at a rate of 20,000 tons of mixed recyclables and 50,000 tons of green waste per year. In November 2011, the City completed an evaluation of the first year of full operation, which indicated that the program had achieved a 77% capture rate for green waste and 53% capture rate for mixed recyclables. Increased public experience with identifying and sorting recyclables should produce higher results for the mixed recyclables as the program continues to mature. The program continues to be evaluated to identify strategies for improving participation and efficiencies. Additionally, the City plans to further expand curbside recycling to the remaining 20,000 homes around Oahu still serviced with a manual collection system, beginning with a pilot program on the North Shore tentatively scheduled to start in late 2014.

Multi-Material Recycling Centers -- HI-5 redemption centers now accept a wide array of recyclable materials, providing the community with a one-stop recycling center for all their materials. Currently, there are some 60 locations around Oahu that offer "HI-5 plus" recycling, accepting paper, plastic and glass containers, and metals, along with providing HI-5 redemption.

Condo Recycling -- 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, and additionally provides technical assistance, educational materials, wheeled carts and guidance in establishing collection services.

Electronic Waste (e-waste) -- State law requiring manufacturers to provide take back programs for electronic waste went into effect January 1, 2010, and is administered by the State Department of Health (DOH). In general, the covered electronics include computers and televisions. Collection and recycling of e-waste has increased, but the law is weak in its requirements for the manufacturers to achieve recovery goals or to provide consumer convenience in take back programs. DOH is looking for ways to strengthen the collection programs, and has proposed bills in the most recent three State legislative sessions (2012, 2013, 2014). The most



recent versions had been developed with input from a task force of all the state, county and industry stakeholders. ENV will continue to work in collaboration with DOH and local e-waste recycling companies to support local programs and legislative proposals.

**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, e-waste. 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.

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, ENV 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. New episodes are produced annually with an archive of dozens to keep viewers entertained. The format is interactive, supporting 24/7 viewing of all episodes on demand. City ENV supports recycling education for our youth through school recycling projects, classroom activity books and recycling education shows presented by the Honolulu Theatre for Youth. The fourth season of performances featured a theatre presentation that ran in January and February 2014 plus a traveling show to local schools entitled "Sort It Out!" for January 2014. The shows include distribution of Opala IQ Books and educational materials to students and teachers. A fifth season of performances is planned for November 2014 – February 2015. In September 2013, in partnership with Costco, the City installed large 3D displays at all four Costco stores, delivering the message, "Sort It Out For Recycling And Energy. Nothing Wasted, Nothing To Landfills", and distributing brochures and a handy list of what to recycle (sticker).

#### C. Solid Waste Integrated Management Plan

Hawaii Revised Statutes (HRS) Section 342G-24 now require each county to submit revised integrated solid waste management plans every 10 years with an interim status report submitted five years after every submission of a revised plan. The City's revised management plan was submitted December 2008 and will be updated again in 2018. The interim

status report was submitted to the State Department of Health in December 2013 and can be viewed online at [www.opala.org](http://www.opala.org) in the Resource Library/Technical Studies.

#### 4. Special Use Permit (SUP) Amendment

The current SUP provided that WGS� stop accepting MSW for disposal as of July 31, 2012. As stated in Condition 14 of the SUP, "Municipal solid waste shall be allowed at the Waimanalo Gulch Sanitary Landfill up to July 31, 2012, provided that only ash and residue from H-POWER shall be allowed at the Waimanalo Gulch Sanitary Landfill after July 31, 2012." While some types of MSW may be disposed of at H-POWER, certain wastes such as sewage sludge, animal carcasses, and treated medical sharps cannot be disposed of at H-POWER. Moreover, because H-POWER's operating permit requires a permitted landfill as a back-up disposal option, it is conceivable that H-POWER will have to shut down if WGS� is required to stop accepting MSW.

On June 28, 2011, ENV filed a SUP Amendment Application with the City Department of Planning and Permitting, to delete Condition No. 14 of the SUP. This will allow WGS� to continue accepting municipal solid waste until the landfill reaches its capacity as permitted by the State Department of Health.

The City and County of Honolulu Planning Commission (Commission) convened a public hearing on October 5, 2011, to consider ENV's application to delete Condition No. 14 of the SUP. The Commission heard public testimonies and granted petitions to intervene in the SUP proceeding to Ko Olina Community Association, Maile Shimabukuro, and Schnitzer Steel Hawaii Corp. With the granting of the petitions to intervene, the matter proceeded as a contested case. A pre-hearing conference to discuss procedural and others matters in the contested case was held on October 12, 2011. A contested case hearing began on December 7, 2011, with opening statements given by ENV and intervenors. The contested case hearing continued on January 11, 25, February 8, March 7, 14, April 4, 11, 23 and May 25, 2012. On May 25, 2012, the Commission stayed the matter for six (6) months in light of the Hawaii Supreme Court's (Supreme Court's) decision to strike Condition No. 14 of the SUP described below.

The City had filed an appeal to the Supreme Court on February 22, 2012 to delete Condition No. 14. On May 4, 2012, the Supreme Court ruled in favor of the City and struck down Condition No. 14, which was the State Land Use Commission's condition imposing the MSW deadline. The Supreme Court further ordered that the matter be remanded to the Circuit Court and the Land Use Commission for action on the SUP consistent with the Supreme Court decision. The State Land Use Commission convened on July 5, 2012, to discuss procedural options only, in light of the Supreme Court remand and stayed Commission proceeding.

Upon request by ENV, the LUC directed the parties to file written briefs regarding the proper procedural steps. ENV argued that the case decided by the Supreme Court remain with the LUC for decision-making. The intervenors argued to remand the Supreme Court case back to the Planning Commission with a request to consolidate the amendment application and the Supreme Court cases. The LUC decided at its meeting on September 14, 2012, to remand the Supreme Court case to the Planning Commission with a recommendation to consolidate the two cases. On December 19, 2012, the Planning Commission continued its consideration of the LUC request to consolidate the two cases to allow the incoming City administration to weigh in on the matter and the possibility of a joint recommendation from the parties. On February 20, 2013, the Planning Commission again continued its consideration of the LUC request to consolidate based upon the parties' representation that they intended to file a joint recommendation to the Planning Commission regarding both the consolidation and the subject matter of the remand. On May 16, 2014, the LUC requested a status report on the remanded matter. The City represented that the parties are continuing to negotiate a joint recommendation. The LUC directed the City to provide an update to the LUC and the parties of these negotiations every two months, beginning in July 2014.

The landfill will continue operations under the current SUP while the deadline for receipt of MSW is resolved by the Planning Commission and the LUC.

5. Relevant City Council Resolutions and Bills

<b>RESOLUTION NO.</b>	<b>DESCRIPTION</b>	<b>STATUS</b>
12-290	To establish a City policy to continue the Waimanalo Gulch Sanitary Landfill as an Oahu landfill.	First reading in committee on 10/10/12.
13-083	To assess methods to reduce the improper disposal of bulky wastes on public streets and sidewalks.	Resolution adopted 6/5/13.
14-127	To enter into an intergovernmental agreement with the State for the allotment of funds for operating and maintaining a glass recycling program.	Resolution adopted 7/9/14.

BILL N O.	DESCRIPTION	STATUS
10 (2012),CD 1	Regulate use of nonbiodegradable plastic bags and other bags provided to customers. Takes affect 2015.	Bill passed into law 5/10/12.
38 (2014)	Amends ban on plastic bags to disallow biodegradable plastic bags. Effective date remains July 2015.	Under review by Council.
61 (2012), FD1	Terminates recycling disposal discount for residue from recycling operations effective July 1, 2013.	Bill passed into law 11/29/12.
62 (2012), CD1	Amends City Ordinance to conform State HRS related to required submittal dates for the integrated solid waste management plans.	Bill passed into law effective 12/21/12
009 (2014)	Amend Chapter 9, Revised Ordinance of Honolulu, 1990, as amended, relating to City provided refuse services, to allow the City to charge for City provided refuse collection services.	Bill deferred in Council.
47 (2014)	Establishes authority to waive H-POWER disposal fees for processed feedstock.	Bill introduced in Council 7/9/14
41 (2014)	Establishes a one-year pilot program for bulky waste pickups to be administered by the city by appointments only.	Bill deferred in Council. 6/25/14
40 (2014)	Prohibits certain types of disposable food containers (polystyrene foam)	Bill deferred in Council. 6/25/14

All resolutions and bills, and video of Council meetings, can be found at the City website, [www.honolulu.gov](http://www.honolulu.gov)

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City Attendees:

- Department of Environmental Services-Refuse Division
- Mike O’Keefe, Recycling Coordinator
- Ahmad Sadri, Interim Disposal Operations Engineer
- Wayne Hamada, Interim Energy Recovery Administrator
- Manny Lanuevo, Chief
- Suzanne Jones, Assistant Chief

Other:

- Joe Whelan, General Manager, Waste Management of Hawaii
- DeeDee Letts, Resolutions Hawai`i

Public:

Cynthia Rezendes, NB 36

Polly Grace, NB 36

Paulette Dibibar

The following are the questions that were asked during the public hearing and respective answers that were provided during or obtained after the public hearing:

**Q: Is there a deadline for the landfill site selection process as it has been going on for several months now with no information shared with the public?**

A: A timetable is being developed.

**Q: Is the H-POWER Facility able to keep up with the incoming waste stream – I have noticed truck lines and waste staging area backups?**

A: H-POWER was designed to receive and process more waste than what is currently delivered to H-POWER, provided that the facility is fully functional. The recent truck lines and excessive waste buildup at the waste staging (receiving) areas were due to a combination of a scheduled boiler outage (to do maintenance work) and unscheduled boiler outages that significantly reduced plant production. The City continues to coordinate with H-POWER to strategically schedule maintenance outages to maximize boiler availability, and to resolve design and operational issues that cause unscheduled outages.

**Q: Is the 3<sup>rd</sup> Boiler waste staging area capacity adequate if one boiler is down?**

A: The 3<sup>rd</sup> Boiler waste staging area was not designed to withstand long 3<sup>rd</sup> Boiler outages. An auxiliary waste storage building is under construction that will supplement the 3<sup>rd</sup> Boiler waste storage capacity to address extended boiler outages. In addition, more attention is being given to schedule maintenance outages during months when waste volumes are typically low.

**Q: Is there a place for the treatment of medical waste?**

A: There are two (2) medical waste treatment facilities on Oahu; NCNS in Kalihi and Hawaii Biowaste on Sand Island. Both facilities are regulated by the Department of Agriculture and the Department of Health.

**Q: When is H-POWER maintenance scheduled? They used to occur during low waste months in the winter, but now it looks like they are done in the summer. What is the current schedule and reasoning?**

A: Maintenance outages were scheduled during the late winter/early spring period but were shifted to the late spring/early summer to avoid diverting refuse trucks to the landfill during the wet season (when landfill operations are delayed because of muddy conditions). With the 3<sup>rd</sup> Boiler now in operation and with ongoing improvements to ensure adequate boiler availability, H-POWER will be capable of sustaining through maintenance outages without landfill diversions.

**Q: What's up with glass not being shipped off island?**

A: The City set its non-deposit glass recycling incentive payment at \$.045/lb for fiscal year 2015 based on the anticipated available funding from the State. At \$.045/lb, local glass recyclers decided to stop accepting non-deposit glass for recycling. Consequently, with no on-island recycling option for non-deposit glass, the City temporarily suspended the applicability of the City Ordinance (ROH Section 9-3.1) that requires businesses to recycle their non-deposit glass. Note that businesses are still required to recycle their HI-5 deposit glass. Also note that all glass that is collected in the City's blue cart curbside collection program (both deposit and non-deposit) is still being recycled.

State Resolution No. 74, which was adopted this past legislative session, calls for a State audit of the advanced disposal fee program, and an investigation into whether there are more cost-effective ways of handling recyclable glass (both HI-5 and non-deposit), including potential local end-uses. Whatever the conclusion of the audit and investigation, the City is hopeful that the State's efforts will result in adequate funding and/or a local recycling option being made available to fully resume non-deposit glass recycling.

**Q: What happens to this glass?**

A: Non-deposit glass that is disposed with regular trash is processed at HPOWER.

**Q: Has anyone considered opening an inert landfill to take recyclable material like glass for mining at a later date?**

A: The State is continuing its investigation of glass end use and reuse options.

**Q: Could there be a negotiation with PVT to take it and landfill it in a certain area that could be mined later?**

A: This is something perhaps the State could investigate.

The meeting was adjourned at 6:00 p.m.