

Status Report on Reducing and/or Continuing the Use of  
Waimanalo Gulch Sanitary Landfill  
Public Hearing  
July 18, 2016  
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 July 4, 2016, 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 Hawaii Land Use Commission (LUC) 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 Waimanalo Gulch Sanitary Landfill (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 LUC 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 (LAC) 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 LAC final report was completed on September 25, 2012. All committee meetings were open to the public and to public comment. Handouts provided to the LAC, 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 is proceeding with this process by having the consultant further review and analyze the sites based on the following technical and engineering considerations: capacity, cost, feasibility, land ownership (including cost and ability to acquire, capacity and infrastructure requirements, logistics and transportation, development costs, and capacity projections for current landfills, WGSL and PVT), and a timetable for WGSL, new landfill development and construction. Based on the remaining capacities of the existing landfills and the projected fill rates, it is prudent to analyze if any of the 11 identified sites could become more or less favorable based on this timetable.

The consultant's original contract called for an Environmental Impact Statement (EIS) to be undertaken as a part of their scope of work. Because the Landfill Advisory Committee identified 11 potential sites, it was not feasible to do an EIS at this stage. Therefore, the consultant's contract was amended to include the further analysis of the 11 sites as indicated above. The consultant is proceeding to evaluate the relevant criteria as described above. It is anticipated that the project will be completed before the end of the year.

- 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 2016	2,794	12,105	2,877
May 2016	9,377	9,899	1,937
June 2016	6,381	11,938	3,369

\*Note: MSW includes the following waste streams: MSW, auto shredder waste, special waste, sludge. Does not include homeowner loads.

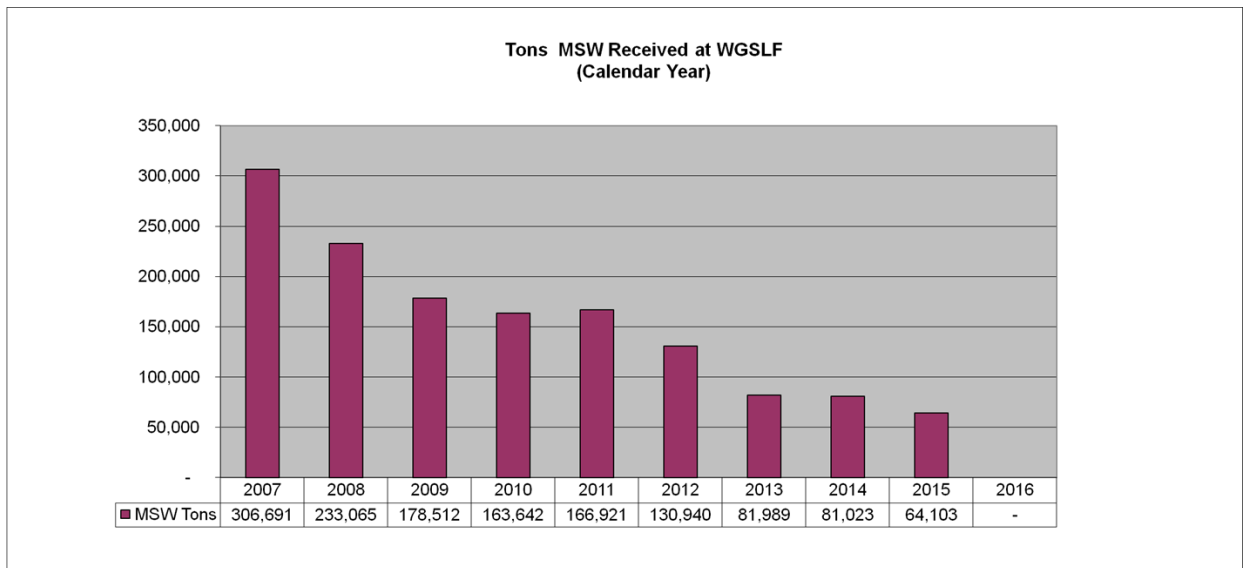
3. Progress Report on Landfill Diversion, Recycling and Planning

A. H-POWER

The H-POWER Facility is operating at full capacity, including processing of treated dewatered wastewater sludge, bulky waste, City-collected used auto tires and treated non-sharps medical waste. Laboratory test results of Auto Shredder Residue (ASR)/MSW mixture samples are due in several weeks that will be used to establish ASR to MSW proportioning guidelines to minimize chlorine impact on boiler equipment. If the results are favorable, up to 23,000 tons per year of ASR could be diverted from the landfill to H-POWER.

Diversion of other MSW currently landfilled, including meat/fish waste rendering sludge, expired food waste, and wastewater bar screenings are also being assessed.

The following graph illustrates the annual reduction of MSW delivered to the landfill generally as a result of diverting more waste to H-POWER. (Note that a 2016 MSW projection is not yet available.)



## B. Materials Recycling

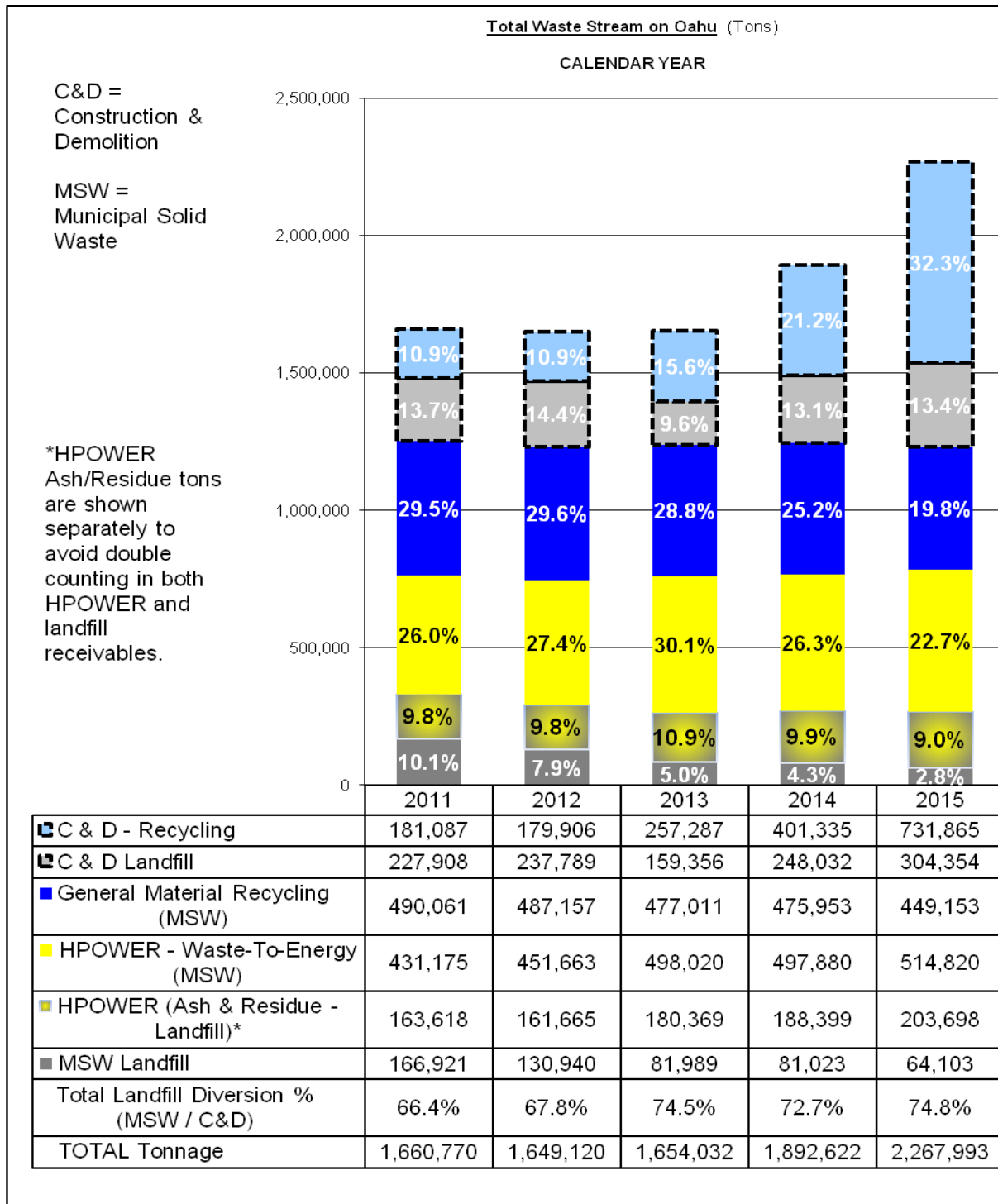
To present a complete waste flow picture for Oahu, the most current data available is for calendar year 2015. Although waste to the landfill and H-POWER is tracked every month by ENV, recycling data is provided by commercial recycling companies that are surveyed annually. Recycling data for 2015 was gathered and compiled during the first half of 2016; updated charts and analysis are posted below. Recycling data for 2016 will be gathered and compiled during the first half of 2017 and posted by mid year.

The island's waste data is presented in two charts:

1. TOTAL WASTE which includes Municipal Solid Waste (MSW) and Construction and Demolition (C&D) material, processed through recycling, waste-to-energy or landfilling; and
2. MSW only, processed through recycling, waste-to-energy or landfilling.

Both charts present data for the most recent five (5) calendar years (2011-2015). Moreover, this data shows how Oahu's waste has been diverted from the landfill through recycling and waste-to-energy.

**TOTAL WASTE** data is presented in the chart below. For 2015, rates for C&D material recycling and disposal rose significantly for a second straight year due to ongoing major construction projects on island, while recycling and waste-to-energy combined to divert nearly 75% of waste from the landfill.



There are two landfills on Oahu: the City's Waimanalo Gulch Sanitary Landfill (WGSL), which is designated for MSW, and the privately-owned PVT Landfill, which is permitted for Construction and Demolition (C&D) waste only.

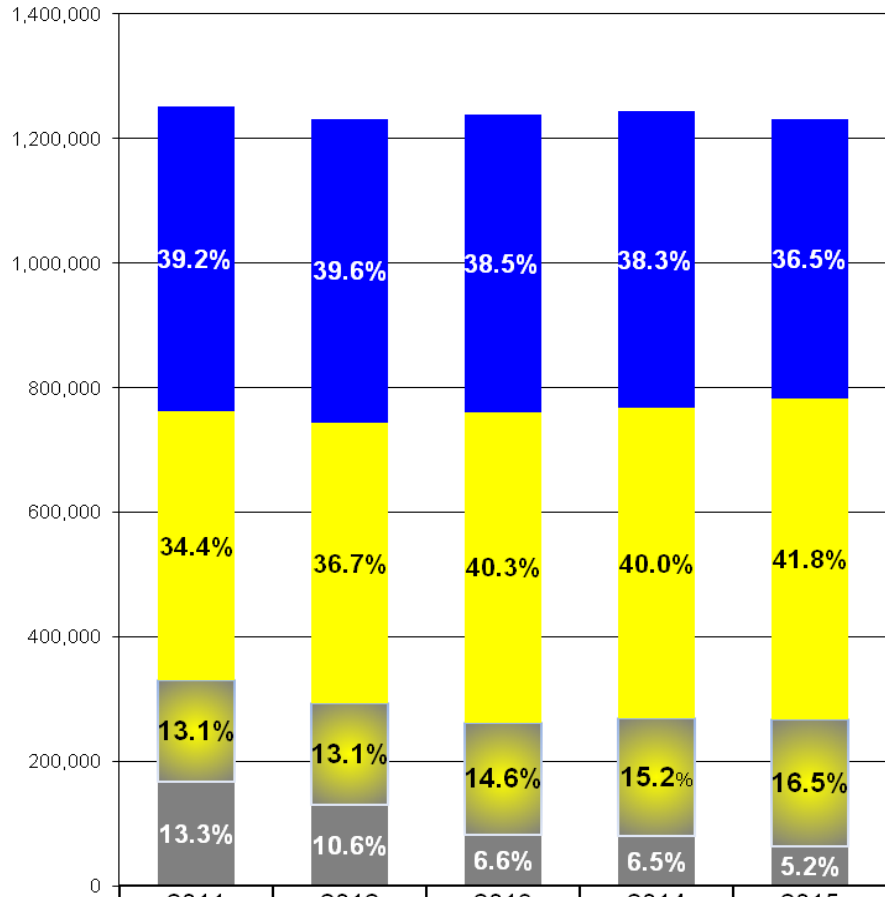
**MSW ONLY** data is presented in the next chart below. Robust recycling and waste-to-energy rates continue to contribute to the steady decline of MSW tonnage going to the Waimanalo Gulch Sanitary Landfill. Considering MSW only and landfill diversion specific to the WGSL, the landfill diversion rate achieved through recycling and waste-to-energy is over 78%, and the general material recycling rate is almost 37%. Landfill diversion rates for the most recent five (5) years at WGSL are charted below, allowing for a better visual assessment of the data. Important to note that of the 22% of material landfilled at WGSL in 2015, less than 6% was MSW, with the rest consisting of ash and noncombustible residue from HPOWER.

**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.



	2011	2012	2013	2014	2015
■ General Material Recycling (MSW)	490,061	487,157	477,011	475,953	449,153
■ HPOWER - Waste-To-Energy (MSW)	431,175	451,663	498,020	497,880	514,820
■ HPOWER (Ash & Residue - Landfill)*	163,618	161,665	180,369	188,399	203,698
■ MSW Landfill	166,921	130,940	81,989	81,023	64,103
Total Landfill Diversion % (MSW)	73.6%	76.2%	78.8%	78.3%	78.3%
TOTAL Tonnage (MSW)	1,251,775	1,231,425	1,237,389	1,243,255	1,231,774

**Recycling data:** The tables below provide detail of tons 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 nearly 500,000 tons today. Recycling of construction and demolition (C&D) materials, such as concrete, rock and asphalt, contributed an additional 700,000+ tons to the recycling rates, for a total of almost 1.2M tons recycled for 2015. C&D recycling rates tend to fluctuate based on the volume and type of construction projects undertaken from year to year but have risen significantly over the past two years due to several ongoing major projects across the island.

### Yearly Recycling Rates (tons)

Year	General Material Recycling	C&D Recycling	Total Recycled
2015	449,153	731,865	1,181,018
2014	475,953	401,335	877,286
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 2015</b>	
<b>Material Type</b>	<b>Amount in tons</b>
<b>PAPER</b>	
Corrugated Cardboard	46,619
Newspaper	14,108
Office Paper	12,432
Other Paper	1,376
<b>METALS</b>	
Ferrous (includes autos)	128,812
Non-Ferrous (includes aluminum)	19,487
<b>GLASS</b>	19,087
<b>PLASTIC</b>	6,143
<b>TIRES</b>	12,395
<b>AUTO BATTERIES</b>	3,541
<b>ELECTRONIC SCRAP</b>	2,255
<b>GREEN WASTE (yard trimmings)</b>	108,712
<b>WOOD WASTE/PALLETS</b>	11,050
<b>CONSTRUCTION &amp; DEMOLITION (rock, concrete, asphalt)</b>	731,865
<b>FOOD WASTE</b>	40,188
<b>OTHER REUSE (Goodwill, Salvation Army)</b>	21,306
<b>TOTAL</b>	<b>1,181,017</b>

The City's efforts to increase residential recycling rates have continued with its ongoing efforts to educate residents about the value and benefits of its three cart curbside program, and the continued promotion of its condominium recycling assistance program. 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** – Curbside recycling participation remains strong; recovery rates gradually increasing. 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 22,000 tons of mixed recyclables and 70,000 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 is producing 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.

**Multi-Material Recycling Centers** – Recycling through HI-5 redemption and other recycling drop-off is available to those without curbside collection service. 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 approximately 60 locations around Oahu that offer “HI-5 plus” recycling, accepting paper, plastic and glass containers, and metals, along with providing HI-5 redemption, including a City recycling drop-off location fronting its Waialua Base Yard in Haleiwa (Emerson Rd). The Waialua location includes 10 96-gallon blue carts, complete with instructional signage and stickers for the community to use. All blue cart recyclables are acceptable, including plastics (1 & 2), glass bottles and jars, metal cans, newspaper, corrugated cardboard and white and colored office paper.

**Condominium 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)** – A State law requiring manufacturers to provide take-back programs for electronic waste went into effect January 1, 2010, and is administered by 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 four State legislative sessions (2012, 2013, 2014, and 2015). In 2015 the law was amended to require electronic device manufacturers to establish drop-off locations for e-waste and prohibited mail-back only recycling options for some devices. 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.

**Plastic Bag Ban** – As of July 1, 2015, businesses are prohibited from providing plastic checkout bags and non-recyclable paper bags to their

customers at the point of sale. Per ORD-12-8, amended by ORD 14-29, ENV is responsible for implementing and enforcing the ban. Prior to the ban's effective date, ENV mailed compliance surveys and tip sheets to approximately 10,000 potentially-affected businesses and asked them to return the compliance forms and indicate how they planned to comply with the ban. Public notices were placed in the Star Advertiser and MidWeek in May. All information pertaining to the ban is also posted online on Opala.org. On July 1, 2015, City staff began enforcing the ban. Initial retail industry feedback indicated that about 43% of businesses will not provide bags. Of the remaining 57% offering bags, 44% are offering paper bags, 31% are offering reusable bags and 25% are offering compostable bags. ENV mailed the forms again in 2016 and businesses are being inspected for compliance. Businesses will be required to submit annual compliance information to verify their compliance with the ban.

**Public education** – Public education regarding recycling is ongoing and includes the distribution of brochures and print materials, dissemination of information via the Opala.org website, WasteLine e-newsletter and several annual events including Tour de Trash and Discover Recycling. Green Channel – On Oceanic 332 and streaming online at opala.org provides video shorts about the City's recycling initiatives. Dozens of episodes are archived to keep viewers entertained. These videos provide easy visuals for better understanding and teaching tools for classrooms. The partnership with Oceanic Time Warner Cable was launched in 2009. The format is interactive, supporting 24/7 viewing of all episodes on demand. As part of its agreement with the City, Oceanic runs cross-promotional ads for The Green Channel on many of its other channels.

Recycling education in the schools -- Recycling education shows presented by the Honolulu Theatre for Youth combined with classroom activity books educate our youth to become expert recyclers and encourage them to support their family to recycle at home. Every year, the program reaches approximately 20,000 students and teachers. The sixth season of performances includes a Tenney Theatre presentation that took place in November and December 2015. The second part of the season featured a traveling "Sort It Out" show that conducted 21 recycling performance workshops at 17 local schools and was seen by nearly 7,500 students in February-March 2016. Planning is underway for the 2016-17 season.

In-store recycling education – reaches island residents where they shop for the products that will eventually make their way to the blue bin. 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). The City continues to maintain and promote these displays.

#### 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 DOH 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 WGSL 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 WGSL 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 WGSL 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 WGSL to continue accepting MSW until the landfill reaches its capacity as permitted by DOH.

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 (KOCA), 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 LUC's condition imposing the MSW deadline. The Supreme Court further ordered that the matter be remanded to the Circuit Court and the LUC for action on the SUP consistent with the Supreme Court decision. The LUC 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.

At a public hearing before the LUC on October 22, 2015, ENV provided a report on the status of the proceedings before the Planning Commission. ENV reported that it made progress in negotiating with KOCA and that the parties needed additional time to establish objectives for further landfill waste diversion. Accordingly, ENV and KOCA represented that they would file a stipulation with the Planning Commission to commit to an 18-month schedule to implement additional alternative uses or disposal methods to increase waste diversion. The LUC requested that the parties include Colleen Hanabusa, who was an intervenor in the matter remanded by the Hawaii Supreme Court, in the negotiations.

At a hearing before the LUC on May 18, 2016, ENV reported that it reached an agreement with all parties except Colleen Hanabusa. ENV was subsequently informed that Colleen Hanabusa would not sign the agreement to continue the proceedings before the Planning Commission to April 22, 2017. Thus, the City filed a motion to stay the proceedings with the Planning Commission.

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 WGSL 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.
14-175	To request a study on the use and impacts of single-use food service containers. Report to Council due June 30, 2015.	Resolution adopted 8/27/14.
15-167	To establish a city policy to expedite the closure of the WGSL and the implementation of sustainable waste management practices.	Resolution adopted 7/8/15,
16-147	Authorizes the City to enter into an agreement with the State for the allotment of funds for a glass recycling program.	Resolution introduced 5/31/16.
<b>BILL NO.</b>	<b>DESCRIPTION</b>	<b>STATUS</b>
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.	Bill passed into law 9/25/14.
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	Bill introduced in Council 7/9/14

	feedstock.	
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 Res 14-175 introduced 7/24/14.
50 (2015)	Enacts recycling disposal discount for residue from recycling operations.	Bill passed into law effective January 1, 2017.
80 (2015)	Provides a discounted tip fee to the Navy for disposal of green waste infected by Coconut Rhinoceros Beetle.	Bill passed into law effective June 20, 2016.
24 (2016)	Enforcement of illegal dumping.	Bill passed into law effective May 18, 2016.

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  
Manny Lanuevo, Chief Refuse Division  
Suzanne Jones, Assistant Chief Refuse Division  
Wayne Hamada, Energy Recovery Administrator  
Ahmad Sadri, Interim Disposal Operations Engineer  
Mike O'Keefe, Recycling Branch Chief

Other:

Brian Bowen, Senior District Manager, Waste Management  
Dee Dee Letts, Resolutions Hawaii

Public Attendees:

None.

Questions, Answers, Comments and Responses to comments from the meeting:

Q: None.

Meeting adjourned at 5:20 pm.