

Status Report on Reducing and/or Continuing the Use of
Waimanalo Gulch Sanitary Landfill
Public Hearing
April 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 April 4, 2016, and on the City's Refuse Division website, 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

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.

In the final report, 11 potential sites were identified and ranked based on community criteria. The City's consultant is finalizing the methodology to further assess these 11 potential sites, including environmental impact, costs and ability to acquire, capacity requirements, logistics and waste transportation, 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
January 2016	10,950	10,470	7,603
February 2016	15,947	7,556	6,361
March 2016	4,051	11,995	4,037

Complaints: Three odor complaints were received this quarter (January 18, January 26 and February 11, 2016). Complaints came from residents of Ko Olina. Weather conditions on all three days were very calm. Site did not detect odors but has modified some operations practices to reduce potential odors from the working face. Working face is currently over a mile from Ko Olina.

*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

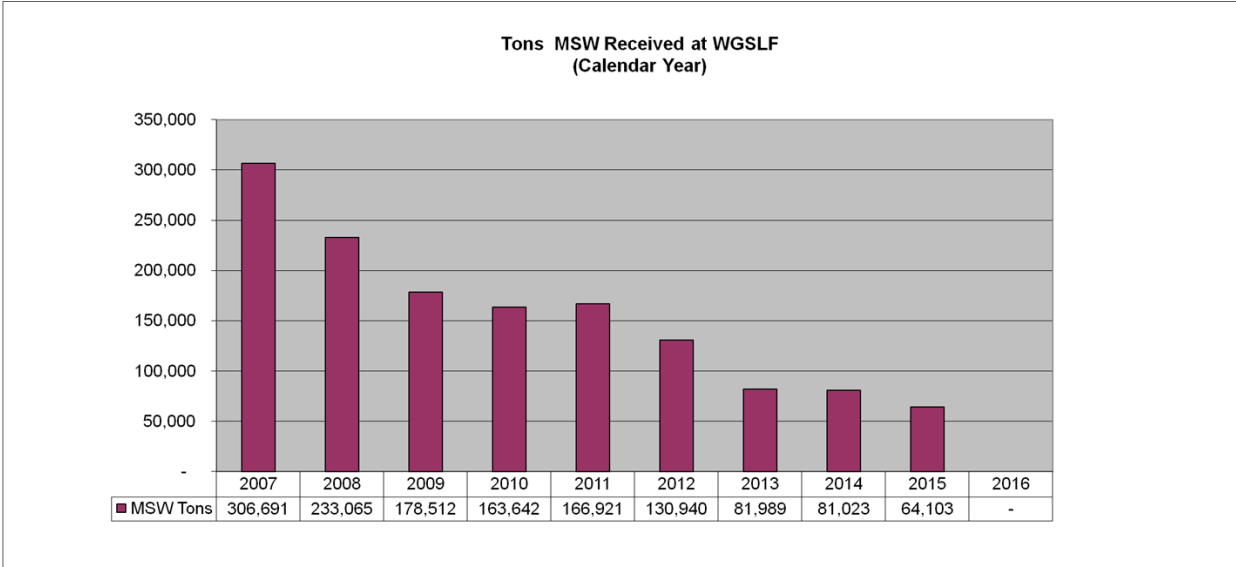
A. H-POWER

The H-POWER Facility is operating at full capacity, including processing of treated dewatered wastewater sludge, bulky waste and City-collected used auto tires. The facility began receiving treated non-sharps medical waste on December 30, 2015. 3rd Boiler emission testing with Auto Shredder Residue (ASR) mixed with feed stock was successfully

completed. Additional characterization of the material is planned for early May. If favorable, up to 22,000 tons per year of ASR could be diverted from the landfill to H-POWER.

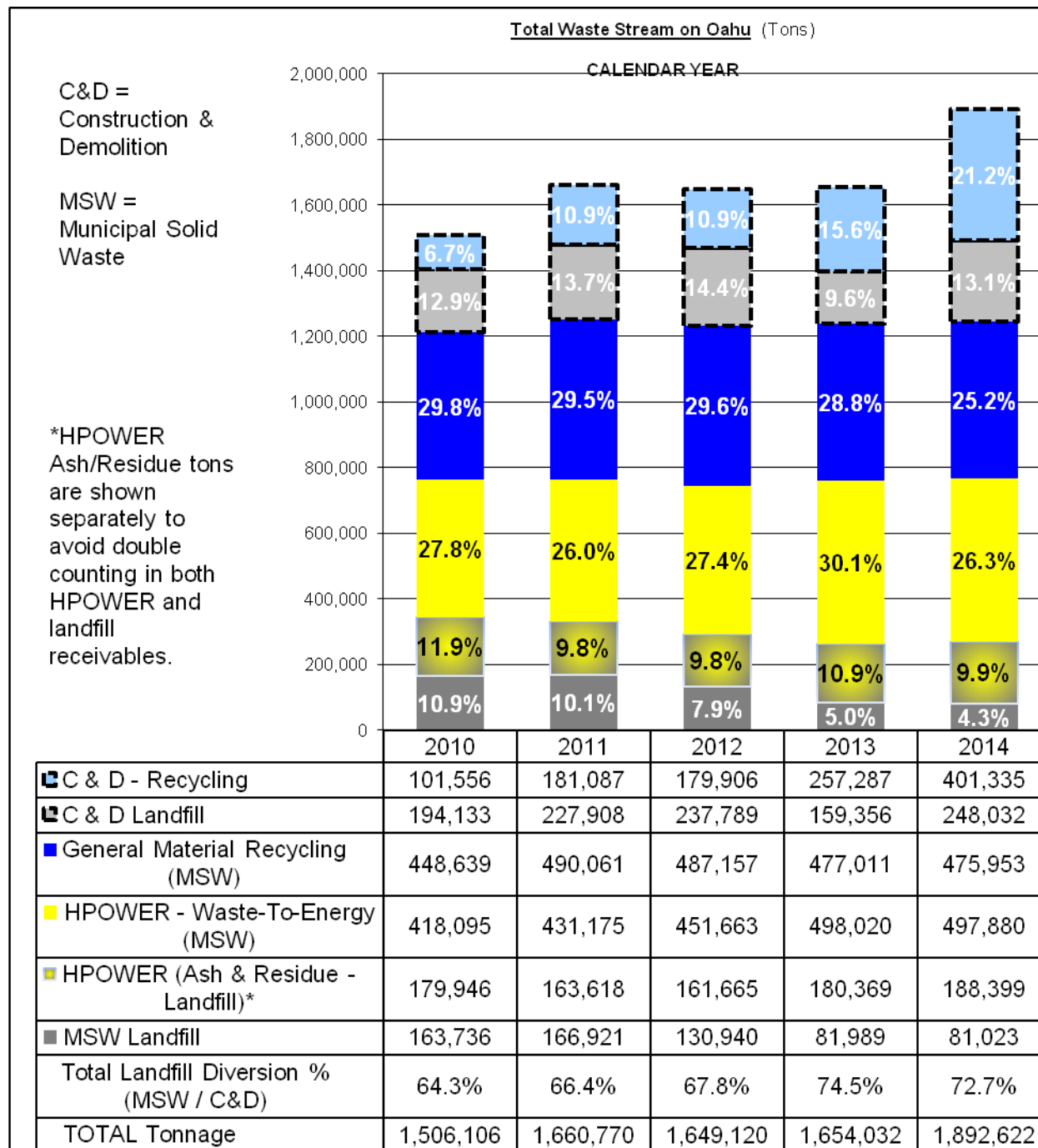
Diversion of other MSW currently landfilled, including meat/fish waste rendering sludge, expired food waste, and wastewater bar screenings are also being assessed.

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 shown due to it still being early in the year, but we anticipate that it will be less than or similar to the amounts from 2014 and 2015.)



B. Materials Recycling

To present a complete waste flow picture, the most recent available data is for calendar year 2014. 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 2015 will be compiled during the first half of 2016, and an updated chart and analysis will be posted online at 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 (2010–2014).

Brief analysis: The data in the chart above shows how Oahu's waste has been diverted from the landfill through recycling and waste-to-energy. Tonnage rates at the H-POWER waste-to-energy facility remained steady for 2014. General material recycling rates also leveled off, while rates for construction and demolition material recycling and disposal rose significantly due to major construction projects on island. Recycling and waste-to-energy combined for a total waste landfill diversion rate of nearly 73% for 2014.

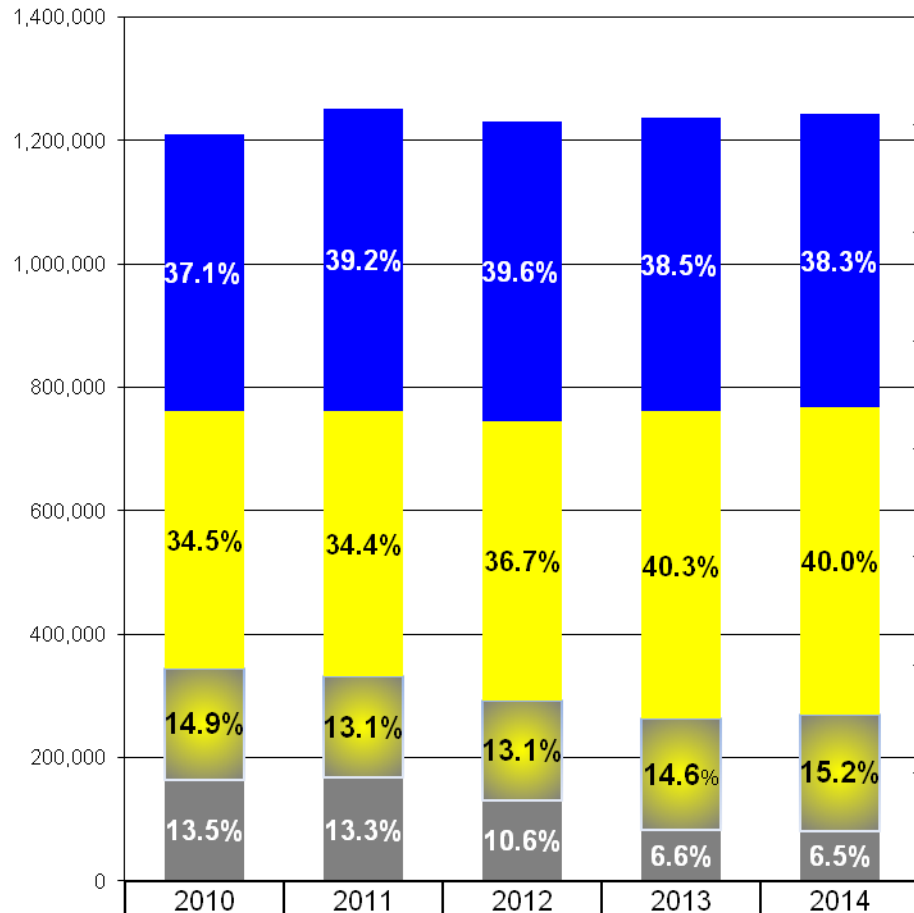
Total waste includes all types of wastes disposed/recycled on Oahu, including construction and demolition waste. There are two landfills on Oahu: the WGS�, which is designated for MSW, and the privately-owned PVT Landfill, which is permitted for construction and demolition waste only. When analyzing MSW only and landfill diversion specific to the WGS�, the landfill diversion rate achieved through recycling and waste-to-energy is over 78% and the general material recycling rate is about 38%. See the chart below for a fuller comparison of diversion rates for WGS� over the most recent five (5) years. Important to note that of the 21% of material landfilled at WGS� in 2014, less than 7% was MSW, with the rest consisting of ash and non-combustible residue from H-POWER.

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.



	2010	2011	2012	2013	2014
■ General Material Recycling (MSW)	448,639	490,061	487,157	477,011	475,953
■ HPOWER - Waste-To-Energy (MSW)	418,095	431,175	451,663	498,020	497,880
■ HPOWER (Ash & Residue - Landfill)*	179,946	163,618	161,665	180,369	188,399
■ MSW Landfill	163,736	166,921	130,940	81,989	81,023
Total Landfill Diversion % (MSW)	71.6%	73.6%	76.2%	78.8%	78.3%
TOTAL Tonnage (MSW)	1,210,417	1,251,775	1,231,425	1,237,389	1,243,255

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, contributes an additional 400,000 tons to the recycling rates, for a total of almost 900,000 tons recycled for 2014. 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 for 2014 due to the start of several major projects this past year.

Year	General Material Recycling	C&D Recycling	Total Recycled
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

Oahu Recycling 2014	
Material Type	Amount in tons
PAPER	
Corrugated Cardboard	45,314
Newspaper	15,016
Office Paper	11,789
Other Paper	1,326
METALS	
Ferrous (includes autos)	155,485
Non-Ferrous (includes aluminum)	11,819
GLASS	20,969
PLASTIC	6,528
TIRES	14,578
AUTO BATTERIES	3,541
ELECTRONIC SCRAP	2,258
GREEN WASTE (yard trimmings)	118,380
WOOD WASTE/PALLETS	10,178
CONSTRUCTION & DEMOLITION (rock, concrete, asphalt)	401,335
FOOD WASTE	39,287
OTHER REUSE (Goodwill, Salvation Army)	19,484
TOTAL	877,287

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

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 condo 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 some 35 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 Waiialua Base Yard in Haleiwa (Emerson Rd). The Waiialua 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.

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 four State legislative sessions (2012, 2013, 2014, 2015). 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, the City's Department of Environmental Services is assigned the responsibility to implement and enforce this ban. Informational sheets and compliance forms were sent to 9,000 potentially affected businesses at the beginning of February 2015. 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. Businesses will be required to submit annual compliance forms to verify their compliance with the ban.

Public education regarding recycling is ongoing, employing multiple media--distribution of brochures and print materials, opala.org website, WasteLine e-newsletter, Green Channel video, and 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.

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 the State Department of Health in December 2013 and can be viewed online at 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 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

RESOLUTION NO.	DESCRIPTION	STATUS
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,

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.	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 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 Res 14-175 introduced 7/24/14.
26 (2016)	Enacts recycling disposal discount for residue from recycling operations effective January 1, 2017	Bill introduced in Council 3/17/2016.

All resolutions and bills, and video of Council meetings, can be found at the City website, www.honolulu.gov

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

Public Attendees:

Sabrina Gramberg

David Brentlinger (did not attend but submitted written comments)

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

Q: Are any of the 11 sites being prepared for the new landfill?

A: The consultant is continuing their work and will assess the sites further based on the selection criteria, including capacity and timetable for replacement.

Q: Where can the information about the consultant be found?

A: The information can be found on opala.org. The next report will be posted online.

C: The siting of a construction debris landfill on Oahu should be relocated to the Barbers Point area, a designated commercial and industrial area. Concerned about potential for groundwater contamination from the CDL. Also, since returning to the island after 46 years, astounded by the increase in litter and illegal dumping at bus stops, beach parks and in the MS4s which convey storm water to the corral reefs.

Meeting adjourned at 5:30 pm.