

Status Report on Reducing and/or Continuing the Use of  
Waimanalo Gulch Sanitary Landfill  
October 20, 2020  
10:00 a.m.  
WebEx Meeting

Status Report

1. Introduction and Background

Notice of this public hearing was published in the Honolulu Star Advertiser on October 6, 2020 and posted on the City's Refuse Division website, [www.opala.org](http://www.opala.org).

The City and County of Honolulu, Department of Environmental Services ("ENV"), holds a public hearing once every three months in accordance with the terms of the FINDINGS OF FACT, CONCLUSIONS OF LAW, AND DECISION AND ORDER APPROVING WITH MODIFICATIONS THE CITY AND COUNTY OF HONOLULU PLANNING COMMISSION'S RECOMMENDATION TO APPROVE SPECIAL USE PERMIT certified on November 1, 2019, by the State of Hawaii Land Use Commission (LUC) in Docket No. SP09-403 (the LUC Order). This public hearing is held to comply with Conditions 15 and 16 of the LUC Order, which states:

"15. The Applicant 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 Applicant shall have a public hearing every three months in either Wai`anae, Mā`ili, or Nānākuli to report on their efforts to either reduce or continue the use of the WGSL."

The complete LUC Order is available at the State LUC website:

<https://luc.hawaii.gov/>

In a letter dated October 13, 2020, the City notified the LUC and Honolulu Planning Commission of the need to hold this meeting remotely via the WebEx platform. The meeting room at Kalanianaʻole Beach Park in Nanakuli that the City used for its public meeting on January 21, 2020, is still closed to the public due to the COVID-19 emergency. Instead of postponing or canceling the public hearing, the City will hold this meeting remotely via the WebEx platform, where the public may still participate. The City plans to resume its public hearings at Kalanianaʻole Beach Park when the meeting rooms reopen to the public.

In accordance with the foregoing, 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 5 of the LUC Order states in relevant part:

“By no later than December 31, 2022, the Applicant shall identify an alternative landfill site that may be used upon closure of WGSL.”

The City has been engaged in an ongoing effort to identify a landfill site. Condition 4 of the prior LUC Order in Docket No. SP09-403, which was certified on October 22, 2009 (“2009 LUC Order”), stated:

“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.”

In accordance with Condition 4 of the 2009 LUC Order, the Landfill Advisory Committee (LAC) met in 2011 and 2012, and completed its final report on September 25, 2012. All committee meetings were open to the public and to public comment. In the final report, 11 potential sites were identified and ranked based on community criteria. 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).

The City retained a consultant to further review and analyze the sites based on technical and engineering considerations. The report, “Assessment of Municipal Solid Waste Handling Requirements for the Island of Oahu”, was completed in November 2017 and is available online at [www.opala.org](http://www.opala.org).

Funding has been requested and approved for the Fiscal Year 2021 Capital Improvements Budget to begin planning for siting a new landfill based on the results of these reports. Project #2010046 Oahu Sanitary Landfill (District Boundary Amendment (DBA) for current landfill site and planning for future landfill site) has been approved for \$501,000.

For preparing the DBA, ENV is following the requirements of the Hawaii Revised Statutes Chapter 343 and will determine whether an environmental assessment or supplemental or new environmental impact statement is required before submitting the DBA application. At this time, the environmental review process is expected to take at least one year to complete.

The passage of SB 2386 has reduced the number of potential future landfill sites to four (Keaau, Upland Kahuku 1 and Upland Pupukeya 1 and 2). SB 2386

prohibits the construction, modification, or expansion of waste disposal facilities without first establishing a buffer zone of no less than one-half mile around the waste or disposal facility. The active area of WGSL is in compliance with this requirement.

Also as a result of the passage of SB 2386, PVT Landfill has announced that they will no longer accept asbestos after January 1, 2021. We are evaluating alternate asbestos disposal options. WGSL is permitted to accept asbestos but has not been due to PVT being the primary option. The City, Waste Management and PVT have begun characterizing this waste stream and evaluating a potential option for accepting, consolidating and shipping asbestos to the mainland. If that is not feasible, another possibility would be for WGSL to become the City's primary disposal option for asbestos until an alternate disposal option is found or until WGSL closes.

- 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
July 2020	3,220	12,616	3,465
August 2020	2,543	11,610	2,912
September 2020	3,388	12,226	4,339

\*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, ENV-Refuse collected used auto tires and treated non-sharps medical waste. A project for the processing and beneficial reuse of ash is in the process of being awarded (one responsive bid received).

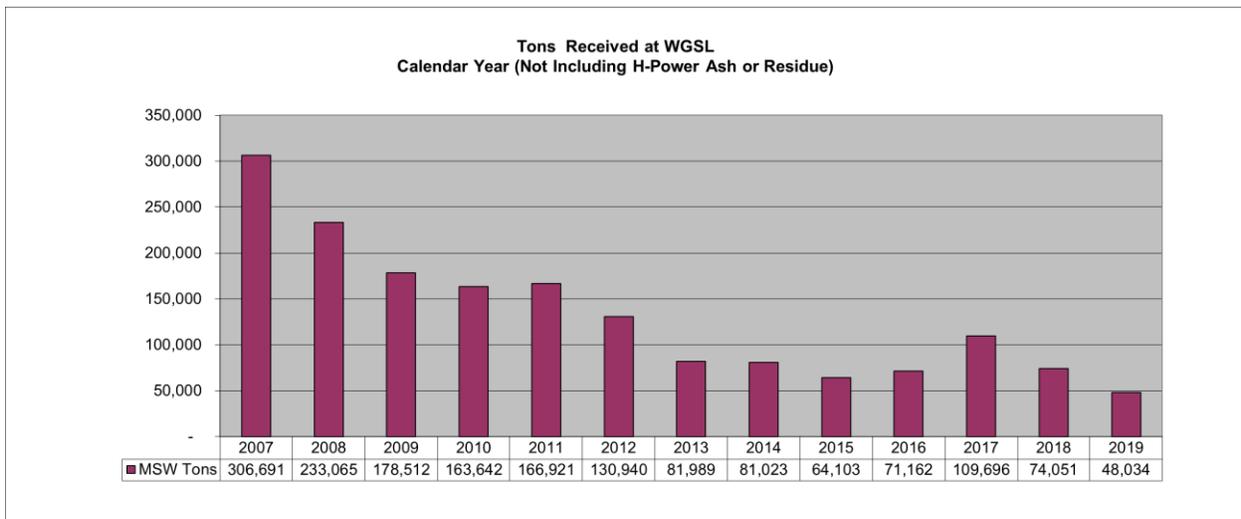
ENV and Covanta are planning in-feed waste processing improvements to the Refuse Derived Fuel (RDF) Waste Processing Facility that will include a mobile baling system. The project will allow processing of bulky waste into RDF. The mobile baler will provide flexibility to store waste during extended maintenance outages. The baled waste would be stored and processed later, further reducing

diversion of waste to the landfill. The equipment is projected to be installed, tested and commissioned by the end of 2020.

The City and Covanta are coordinating with Island Commodities Corporation (ICC) to devise various options for processing the material at H-POWER and to schedule test loads. ICC has installed new equipment at their facility to further reduce the need for landfill or H-POWER disposal.

During the COVID-19 Emergency Declarations that began on March 4, 2020, all the City's disposal sites have continued to be open to the public at the normal hours and services while expanding dedicated metals bins to seven (7) additional sites starting on July 1, 2020. The City's refuse collection system has also continued to follow its normal schedule and services while expanding the bulky appointment system island-wide starting on July 1, 2020. The expansion of dedicated metals bins and the bulky appointment system island-wide are intended to improve the enforcement of illegal dumping, source separation and recycling and to prevent unacceptable items from entering H-POWER and causing damage to the boilers, shredders and processing lines.

The following graph illustrates the reduction of MSW delivered to the landfill generally as a result of diverting more waste to H-POWER. Note that the increase in MSW landfilled in 2017 was due to major refurbishment of the processing lines at H-POWER, a once in 30-year project. The 2020 tonnage is currently projected to be around 60,000 tons.



## B. Materials Recycling

To present a complete waste flow picture for Oahu, the most current data available is for calendar year 2019. Although waste to the landfill and HPOWER is tracked every month by ENV, recycling data is provided by commercial recycling companies that are surveyed annually. Recycling data for 2019 was gathered and compiled during the first half of 2020; updated charts and analysis are posted below. Recycling data for 2019 is posted on Opala.org.

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 (2015-2019). 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 2019, rates for C&D material recycling and disposal decreased overall from the 2018, while recycling and waste-to-energy combined to divert nearly 76% 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.

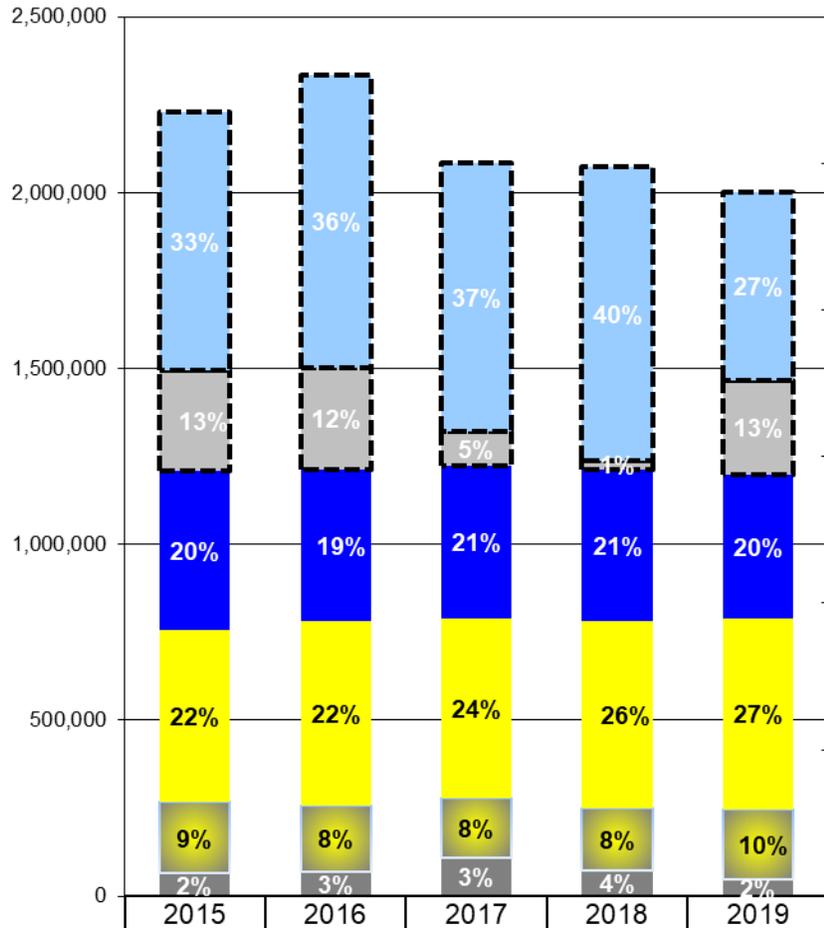
**Total Waste Stream on Oahu (Tons)**

CALENDAR YEAR

C&D =  
Construction &  
Demolition

MSW =  
Municipal Solid  
Waste

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



	2015	2016	2017	2018	2019
■ C & D - Recycling	731,864	830,414	763,279	833,566	534,722
■ C & D Landfill	288,258	289,924	97,426	24,939	268,796
■ General Material Recycling (MSW)	449,152	430,831	434,933	431,911	407,566
■ HPOWER - Waste-To-Energy (MSW)	490,374	523,883	507,929	531,975	544,311
■ HPOWER (Ash & Residue - Landfill)*	203,698	186,000	170,730	175,721	196,606
■ MSW Landfill	64,103	71,162	109,696	74,427	48,644
Total Landfill Diversion % (MSW / C&D)	76.1%	77.6%	82.7%	88.5%	76.0%
TOTAL Tonnage	2,227,449	2,332,214	2,083,993	2,072,539	2,000,645

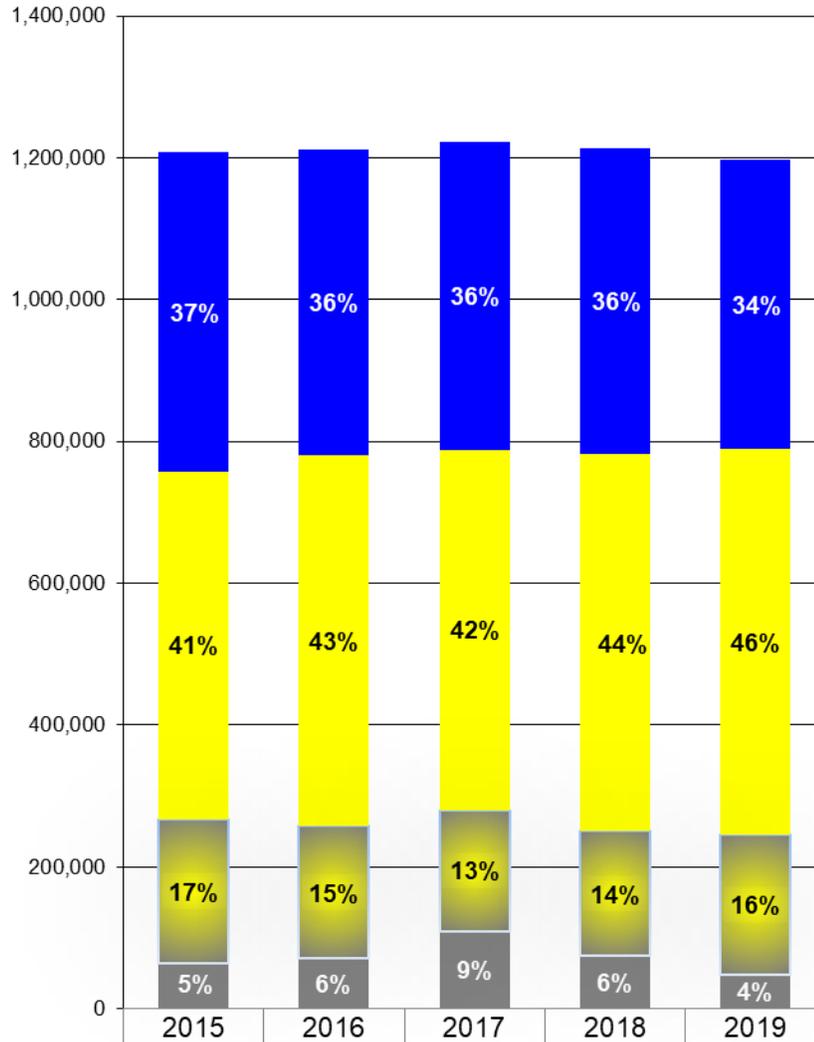
**MSW ONLY** data is presented in the chart below. Robust recycling and waste-to-energy rates continue to contribute to the steady decline of MSW tonnage going to the Waimanalo Gulch Sanitary Landfill. Considering MSW only and landfill diversion specific to the WGSL, the landfill diversion rate achieved through recycling and waste-to-energy is nearing 76%, and the general material recycling rate is dropped to 34% mostly due to the drop in general recycling tonnage. 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 20% of material landfilled at WGSL in 2019, only 4% 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  
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	2015	2016	2017	2018	2019
■ General Material Recycling (MSW)	449,152	430,831	434,933	431,911	407,566
■ HPOWER - Waste-To-Energy (MSW)	490,374	523,883	507,929	531,975	544,311
■ HPOWER (Ash & Residue - Landfill)*	203,698	186,000	170,730	175,721	196,606
■ MSW Landfill	64,103	71,162	109,696	74,427	48,644
Total Landfill Diversion % (MSW)	79.8%	80.8%	78.4%	82.4%	82.3%
TOTAL Tonnage (MSW)	1,207,327	1,211,876	1,223,288	1,214,034	1,197,127

**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 407,000 tons in 2019. Recycling of construction and demolition (C&D) materials, such as concrete, rock and asphalt, contributed an additional 534,722 tons to the recycling rates, for a total of almost 1.0M tons recycled for 2019. 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 since 2015 due ongoing major projects across the island. In 2019, there was a significant drop in C&D Recycling due to decrease in construction and the stored recyclable material stored on site.

### **Yearly Recycling Rates (tons)**

<b>Year</b>	<b>General Material Recycling</b>	<b>C&amp;D Recycling</b>	<b>Total Recycled</b>
2019	407,566	534,722	942,288
2018	431,911	868,617	1,300,528
2017	434,933	763,279	1,198,212
2016	430,831	830,414	1,261,245
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 2019</b>	
<b>Material Type</b>	<b>Amount in tons</b>
<b>PAPER</b>	
Corrugated Cardboard	40,955
Newspaper	11,595
Office Paper	6,432
Other Paper	1,115
<b>METALS</b>	
Ferrous (includes autos)	138,675
Non-Ferrous (includes aluminum)	12,440
<b>GLASS</b>	13,647
<b>PLASTIC</b>	4,996
<b>TIRES</b>	7,784
<b>AUTO BATTERIES</b>	7,652
<b>ELECTRONIC SCRAP</b>	1,210
<b>GREEN WASTE (yard trimmings)</b>	103,429
<b>WOOD WASTE/PALLETS</b>	6,6067
<b>CONSTRUCTION &amp; DEMOLITION (rock, concrete, asphalt)</b>	537,772
<b>FOOD WASTE</b>	31,947
<b>OTHER REUSE (Goodwill, Salvation Army)</b>	19,621
<b>TOTAL</b>	<b>942,288</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 and rejuvenation 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.

1. Curbside Recycling – Curbside recycling participation remains strong and material recovery rates are increasing every year. ENV completed the final phase expansion of the fully-automated 3-cart curbside recycling program in May 2010. There are currently 170,000 homes participating in the program, capturing material at a rate of 23,000 tons of mixed recyclables and 75,000 tons of green waste per year. Increased public experience with identifying and sorting recyclables is producing higher results for the City's curbside recycling program. The program continues to be evaluated to identify strategies for improving participation and efficiencies.
2. Multi-Material Recycling Centers – Recycling is available to those without curbside collection service. There are two City recycling drop-off locations in Haleiwa, one fronting its Waialua Base Yard (Emerson Rd) and the other at its Kawaihoa Transfer Station. Both locations feature several 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, paper bags, corrugated cardboard and white and colored office paper.

3. 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.
4. 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.
5. 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. It is no longer mandatory for ADF glass to be sorted by the liquor establishments but the recyclers still receive ADF glass through their commercial accounts. The City suspended the ADF portion of the glass relating to the glass ordinance but the City still receives the State Subsidy for ADF glass that the recyclers are collecting. Disposal site bans/restrictions divert materials from landfill and H-POWER, including green waste, cardboard, metals, tires, auto batteries, and 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.
6. Plastic Bag Ordinances – 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. The City mailed out a Plastic Bag Ban Compliance Form dated March 7, 2016 with a return date of April 29, 2016. Retail industry feedback based on the returned forms indicates that about 35% of businesses will not provide bags. 28% of businesses indicated they were exempt from the ban. Of the remaining 37% offering bags, 13% are offering paper bags, 7% are offering reusable bags, 3% are offering compostable bags, and 15% are offering some combination of the three types of allowable bags. Businesses are required to submit annual compliance information to verify their compliance with the ban. The ban was amended by Ordinance 17-37, in 2017 to require businesses to charge a minimum of 15 cents per bag for reusable, recyclable paper or compostable bags to customers at the point of sale, effective July 1, 2018. Beginning January 1, 2020, compostable bags were banned and plastic film bags were no longer considered to be reusable bags. The ban was amended by Ordinance 19-30 changing the definition of “plastic” and amending the definitions for “plastic checkout bag” and “plastic film bag”.

7. Disposable Food Ware Ordinance – Ordinance 19-30 is effective on January 1, 2021 and has been termed the Disposable Food Ware Ordinance or DFWO. The intent of the DFWO is to protect human safety and welfare and to improve environmental quality on the island, in the neighboring marine environment and globally. The DFWO affects all food vendors and businesses operating within the City. The DFWO amends the Oahu Plastic Bag Ban and restricts the use and sale of polystyrene foam food ware, disposable plastic food ware and disposable plastic service ware. It also dictates when disposable service ware may be provided.
8. 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 annual events such as Tour de Trash. There has been an increase in social media participation to assist with the public education program. Source reduction will be another component to add to our Public education program.

Composting workshops – Composting workshops presented by City staff have been reinstated as part of the City’s public education program. The workshop teaches residents to manage green waste at home by utilizing the green cart for large type green waste such as large diameter branches and to compost, aerobically, the grass trimmings, leaves and small

diameter branches. The City is also gathering information to provide food waste composting through the use of worms called vermiculture and beneficial microbes with the Bokashi method.

Recycling education in the schools -- Recycling education shows presented by the Honolulu Theatre for Youth (HTY) combined with classroom activity books educate our youth to become expert recyclers and encourage them to support their family to properly sort their waste at home. Every year, the program reaches approximately 20,000 students and teachers. The tenth 2019-20 season included an “Opala Remix”, a recycling performance workshop type show at local schools concluded in late February. Due to the large demand, additional shows were added to expand the educational outreach. The program ended prior to the COVID-19 emergency declaration ordered in late March.

C. Integrated Solid Waste Management Plan

Hawaii Revised Statutes (HRS) Section 342G-24 requires 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 has completed the most recent Integrated Solid Waste Management Plan, dated November 2019. The plan was completed after Solid Waste Advisory Committee meetings, DOH review, and a public comment period. Comments from each step were incorporated. The Plan has been posted online at [www.opala.org](http://www.opala.org).

5. Relevant City Council Resolutions and Bills

RESOLUTION NO.	DESCRIPTION	STATUS
15-167	To establish a city policy to expedite the closure of the WGSF 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 adopted 7/6/16.
17-340	Urging the City to develop composting facilities.	Resolution adopted 2/28/18.
18-35	Requesting the Office of the City Auditor to evaluate the use and impacts of single-use food service containers and plastic bags.	Resolution adopted 2/14/18.
19-101	Requesting ENV to prepare a report evaluating operations of Leeward Coast	Resolution adopted 8/7/19.

	refuse drop-off facilities and recommending improvements thereto.	
20-119	Amends the Land Use Ordinance pertaining to the siting of waste disposal and processing facilities.	Resolution postponed in zoning, planning and housing committee 5/21/20.
20-211	Encouraging the City to support a circular economy, etc.	Resolution adopted 9/9/20.
<b>BILL NO.</b>	<b>DESCRIPTION</b>	<b>STATUS</b>
92 (2018)	Restricts the use of polystyrene foam food containers by food vendors and food packagers.	Bill passed first reading and referred to public works committee 12/5/18.
97 (2018)	Restricts the use of single-use plastic straws.	Bill passed first reading and referred to public works committee 1/30/19.
13 (2019)	Authorizes the City to charge for refuse collection and disposal services.	Bill postponed in budget committee 5/14/19.
40 (2019)	Addresses single-use plastic goods and plastic bags.	Bill enacted as Ordinance 19-30 on 12/15/19.
64 (2019)	Relating to illegal dumping.	Bill enacted as Ordinance 20-4 on 3/5/20 effective 7/1/20.
62 (2020)	Relating to food waste collection.	Bill passed first reading and referred to public works committee 9/9/20.
63 (2020)	Relating to composting.	Bill passed first reading and referred to public works committee 9/9/20.

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

- Markus Owens, Public Information Officer
- Manuel Lanuevo, Chief, Refuse Division
- Henry Gabriel, Recycling Branch, Refuse Division
- Ahmad Sadri, Disposal and H-POWER Branches, Refuse Division
- Joshua Nagashima, Planning Branch, Refuse Division

Other: Tina Alder, District Manager, Waste Management

Public: Christopher Goodin, Cades Schutte  
Ian Sandison, Schnitzer Steel Hawaii Corp.  
Joyce Tam-Sugiyama, Schnitzer Steel Hawaii Corp.  
Cynthia Rezentes, Neighborhood Board #36  
Librado Cobian, (AA&C) Asbestos Analytical & Consultants

Note: The meeting started at about 10:05 am due to technical difficulties experienced with the WebEx platform. One attendee reported not being able to use the video option but was able to call in to participate over the phone. Other attendees were able to participate both via video and phone. The City IT Department investigated and confirmed that there was an issue with the City's WebEx accounts that especially affected meetings later that morning.

### Questions and Answers:

Christopher Goodin

Q: Is ENV going to be preparing a Supplemental EIS (SEIS) for the DBA? When will it be available for public comment?

A: ENV will be following the environmental review process in HRS Ch. 343 and is determining whether the review will be an environmental assessment or supplemental or new environmental impact statement. The environmental review process is expected to take at least one year to complete. There will be an opportunity for comment early on, as soon as the pre consultation period, but there will be no actual document to review until the draft comes out, which would be in the 6-12 months range.

Q: Is ENV going to be conducting the historical review required by HRS Sec. 6E-8?

A: A new historical review may or may not be required depending on what form the environmental review takes. We are consulting to determine that. For example, if the environmental review takes the form of a SEIS, it may be determined that the historical review done for the 2009 EIS is adequate.

Librado Cobian

C: Shipping asbestos is highly cost prohibitive and that having no local disposal options would result in illegal dumping or a disposal black market. A spike in construction is expected for jump starting the economy for recovering from the pandemic that could result in double the C&D waste generated.

Q: Has WGSL made a decision yet whether or not to accept asbestos?

A: WM provided an update that PVT will not be considering an option for receiving and consolidating asbestos at this time. This means that WGSL may become the primary option unless another option can be developed or until WGSL closes.

Cynthia Rezendes

Q: Can you verify for me which 4 sites would still be under consideration due to SB2386? I heard Keaau, Kahuku 1 & 2 but I didn't get the fourth site.

A: The four remaining sites are Keaau, Kahuku 1, and Pupukea 1 & 2.

#### Additional Written Questions and Comments Received

Q: From Librado Cobian, AAC: I am submitting testimony regarding WGS�. The PVT C&D landfill will no longer accept Regulated Asbestos Materials starting Jan 2021 and currently the only Asbestos Disposal Site on Oahu. ASBESTOS is NOT a EPA Hazardous Waste that affects or contaminates the ground water table. Asbestos is a Regulated Waste not a RCRA hazardous waste. Asbestos waste Packaged and sealed as per DOH and DOT rules eliminates any risk of air borne exposure or hazard during handling and transportation. We are requesting that the City and DOH allow and support that WGS� accept asbestos regulated waste. If Oahu does not have a approved site for asbestos waste, it will lead to illegal disposal and unsafe illegal handling and potential exposure to the public.

Q: From Joanna Boyette, Myounghee Noh & Associates LLC: I understand that PVT will stop taking asbestos waste as of January 2021. I was wondering if you knew if this was definite and/or there will be alternate disposal sites for asbestos waste?

Q: From Lyle Tabata, QRSE LLC: HART received the attached letter from PVT Land Company the C&D disposal facility. Can you direct me to who at ENV Solid waste we can seek assistance with options for disposal especially for asbestos containing material (ACM)?

Q: From Jason Mori, NAVFAC: PVT Landfill has informed the construction industry that they will no longer be accepting asbestos waste beginning January 2021. Waimanalo Gulch is permitted to accept asbestos waste but has not been doing so since PVT has been accepting. With PVT's recent position (could change), there is no on-island disposal facility for asbestos waste and that would require off-island disposal which will increase costs. Does the City have plans to allow Waimanalo Gulch to begin accepting asbestos waste?

Q: From Dana Directo, Penhall Company: Can you confirm that we can dispose of asbestos waste at WGS� after 1/1/2021 without limitation?

A: ENV responded by email to these questions with the following information: We are evaluating alternate asbestos disposal options assuming that PVT will no longer be an option for asbestos after January 1, 2021. Waimanalo Gulch Sanitary Landfill (WGS�), which is City-owned, is permitted to accept asbestos but hasn't due to PVT being the primary option and the City's policy of reducing the use of WGS�. The City, Waste Management and PVT have begun characterizing this waste stream and are evaluating

a potential option for accepting, consolidating and shipping asbestos to the mainland. If that is not feasible, another possibility would be for WGSL to become the City's primary disposal option for asbestos until an alternate disposal option is found or until WGSL closes (A recent State Land Use Commission order has set March 2, 2028 as the date on which the WGSL will close).

If WGSL becomes an option for asbestos, ENV may still have to limit acceptance to only City agency projects and self-hauling residents. More consultation is needed with ENV, legal counsel, and WM on what should be the City's policy, how the ROH Chapter 9 Ordinance applies, and on the requirements for permit compliance, reporting and material handling.