

Status Report on Reducing and/or Continuing the Use of
Waimanalo Gulch Sanitary Landfill
January 21, 2021
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 January 5, 2021, 2020 and posted on the City's Refuse Division website, 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 January 12, 2021, 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 January 21, 2020 public meeting 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 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 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.

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 November 2017 and is available online at 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 a 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.

At this time, the passage of SB 2386 (Act 73, Session Laws of Hawaii 2020) reduced the number of potential future landfill sites to four based on a preliminary

GIS zoning review (Keaau, Upland Kahuku 1, Upland Pupukea 1 and Upland Pupukea 2). Among other things, Act 73 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. Additional sites may be available depending on whether portions of the site can be set aside to meet the buffer. ENV is conducting further evaluation of all 11 potential sites. Although not required, the active area of WGSL complies with Act 73.

As a result of Act 73, PVT Landfill has announced they will no longer accept asbestos containing material (ACM) after January 1, 2021. WGSL is accepting ACM once a week as of January 6, 2021. DOH approval was obtained and employee training and sign installation have been completed.

- 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
October 2020	3,102.08	11,615.73	2,922.90
November 2020	3,788.68	11,043.33	3,363.87
December 2020	4,212.11	11,183.48	3,845.49

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

During the reporting period, there was one incident of note that was self-reported to DOH and has not resulted in a Notice of Violation. On October 27, 2020, the landfill reported to DOH that due to heavy rainfall events, several leachate sumps were beyond the compliance level (note that the compliance level is well below the ground surface and there was no spill). This is typical after heavy rainfall. Per the SOP, additional leachate pumping was dispatched as needed to catch up. On the same day, DOH Clean Water Branch conducted a compliance inspection of the landfill. The stormwater systems are separate from the leachate collection systems and operated as designed and in compliance with the permits and Consent Decree.

3. Progress Report on Landfill Diversion, Recycling and Planning

A. H-POWER

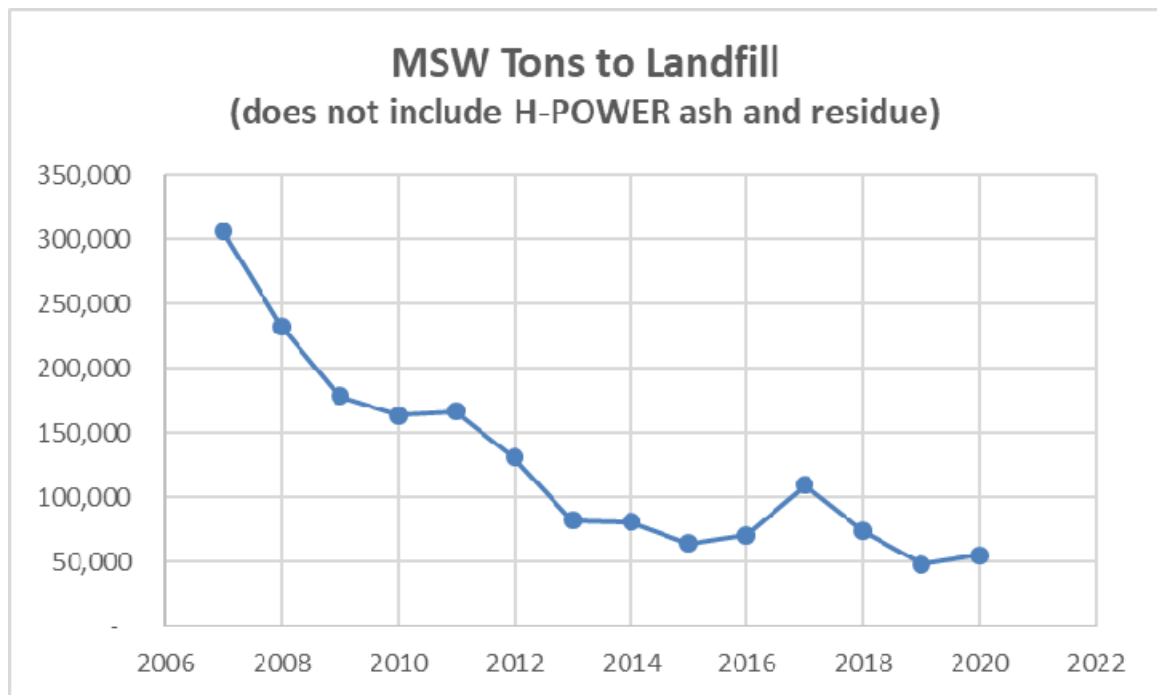
The H-POWER Waste-to-Energy facility is operating at full capacity, including processing of treated dewatered wastewater sludge, bulky waste, ENV-Refuse

collected used auto tires and treated non-sharps medical waste. A project for the processing and beneficial reuse of ash was awarded to Covanta Projects LLC.

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 in March 2021.

During the COVID-19 Emergency Declarations that began March 4, 2020, all the City's disposal sites are 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 continues to follow its normal schedule and services while expanding the bulky appointment system island-wide starting 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.



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 monthly 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 www.Opala.org. The City has initiated the requests for recycling data for 2020.

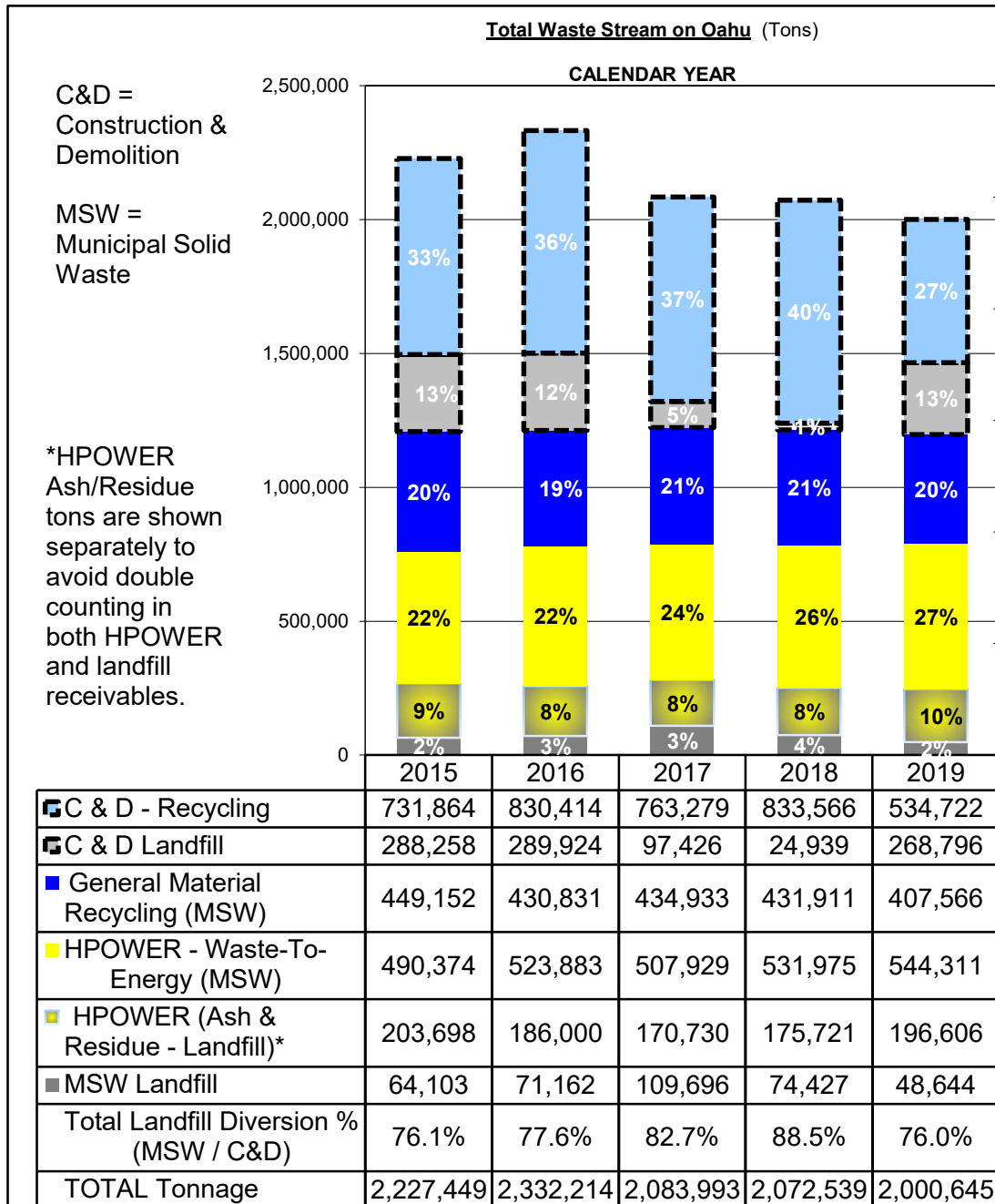
The island's waste data is presented in two charts:

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 was diverted from the landfill through recycling and waste-to-energy.

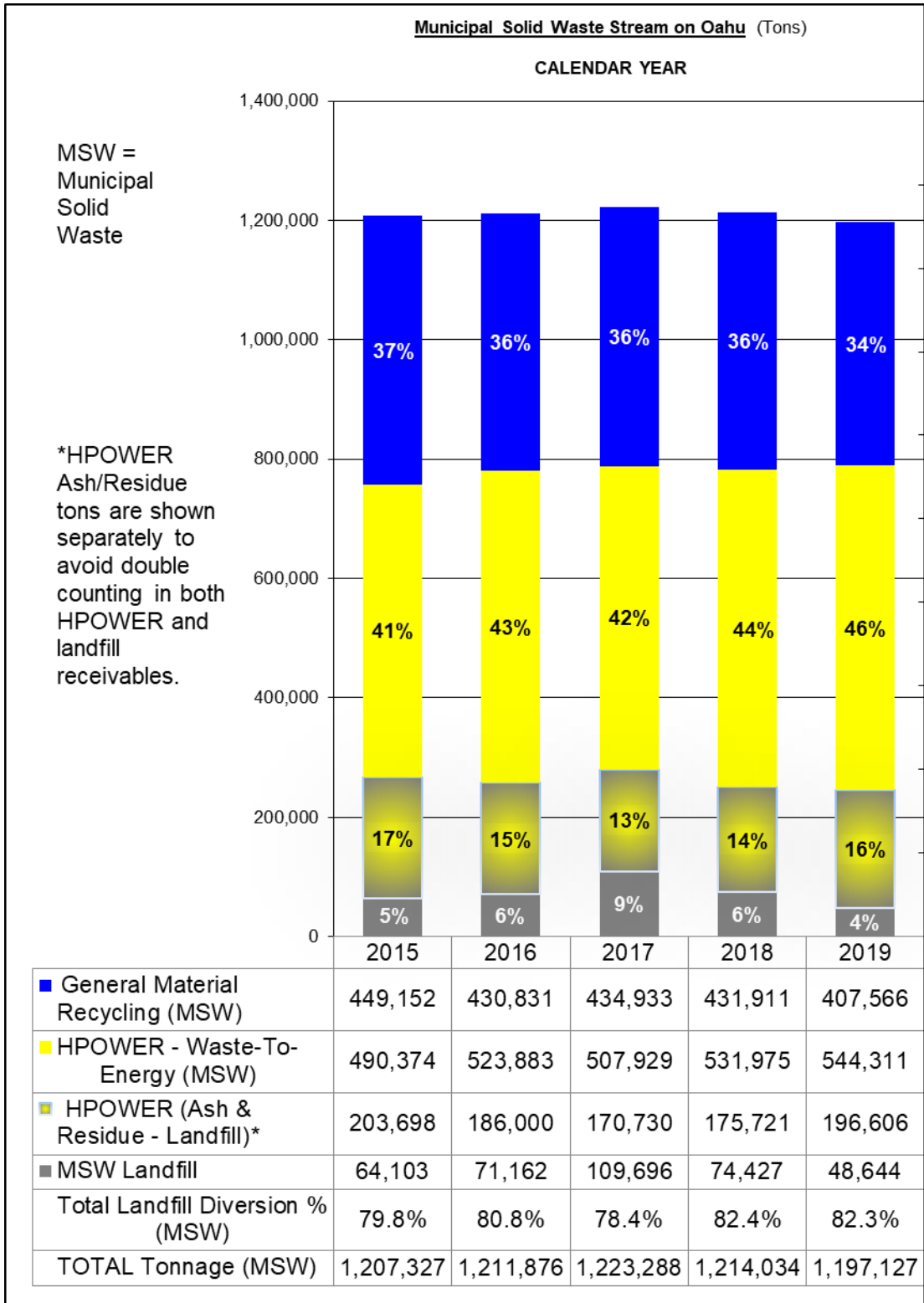
TOTAL WASTE data is presented in the chart below. For 2019, rates for C&D material recycling and disposal decreased overall from the 2018, while recycling and waste-to-energy combined to divert nearly 76% of waste from the landfill.

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.



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 WGSL. 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 non-combustible residue from HPOWER.



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 to ongoing major projects. In 2019, there was a significant drop in C&D Recycling due to a decrease in construction and the stored recyclable material stored on site.

Yearly Recycling Rates (tons)

Year	General Material Recycling	C&D Recycling	Total Recycled
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

Oahu Recycling 2019	
Material Type	Amount in tons
PAPER	
Corrugated Cardboard	40,955
Newspaper	
GLASS	13,647
PLASTIC	4,996
TIRES	7,784
CONSTRUCTION & DEMOLITION (rock, concrete, asphalt)	537,772
FOOD WASTE	31,947
TOTAL	942,288

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 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, efficiencies and to decrease contamination.
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 Kawaioloa 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 reimbursing 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 continues 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 Advance Disposal Fee (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 the recyclers are collecting. Disposal site bans/restrictions divert materials from the 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. All information pertaining to the ban is also posted online on www.Opala.org. 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. To continue with the City’s efforts to educate the public and business effected by ORD 19-30, the City provided an additional 90-day “Education Period” which will start January 1 to March 31, 2021. 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 www.Opala.org website, WasteLine e-newsletter and virtual presentations. 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 were 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 items such as branches and to aerobically compost 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. Due to the pandemic, composting workshops are through a virtual format.

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 11th 2020-21 season included a feature on HTY's HI-Way program aired through the television media. This program features environmental issues including solid waste management and concludes in late February. The program switch was due to the pandemic.

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 is posted online at 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 WGS� 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 refuse drop-off facilities and recommending improvements thereto.	Resolution adopted 8/7/19.
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.

BILL NO.	DESCRIPTION	STATUS
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 postponed in committee on 10/21/20.
63 (2020)	Relating to composting.	Bill postponed in committee on 10/21/20.
98 (2020)	Relating to food waste recycling requirements for food establishments.	Bill introduced on 12/29/20.

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

Markus Owens, Public Information Officer
 Manuel S. Lanuevo, Chief Refuse Division
 Ahmad Sadri, Energy Recovery Administrator
 Henry Gabriel, Recycling Branch Chief
 Anthony Estabillo, Intern, Refuse Division

Other: Tina Alder, District Manager, Waste Management

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

Questions and Answers:

Q: When will these meeting notes be posted on website?

A: Usually posted several weeks after the meeting.

Q: What is the timing for the DBA EIS?

A: Approximately one year due to pending consultant selection.

Q: Could we obtain a copy of the report for DOH's inspection on October 27, 2020?

A: A copy can be obtained by contacting ENV and submitting a 92F request.

Q: What was the date of the DOH inspection report?

A: The report is dated December 29, 2020.

Q: Which day is ACM being accepted?

A: ACM is being accepted on Wednesdays only at this time.

Q: For ACM waste profiling is the profile based on source?

A: It's best if each ACM source has a separate profile and comes in separate loads but we have determined that haulers can bring ACM from multiple sources in one load as long as each source has a shipping record.

Note: several attendees has trouble with the public notice link to the WebEx meeting. Most attendees were able to get it to work by copying and pasting the link into a web browser and one attendee called in by phone instead. For future notices, instead of providing a link, we will provide the WebEx meeting number with instructions to enter the meeting number in the WebEx app or website.