

Advisory Committee Meeting 06— July 10, 2018

City and County of Honolulu
2018 Integrated Solid Waste
Management Plan Update

ATTENDEES:

ADVISORY COMMITTEE (AC) MEMBERS

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| Ms. Tina Alder, Waste Management Hawaii | Mr. Lane Otsu, State of Hawaii, Department of Health |
| Mr. Michael DeCaprio, Hawaiian Electric Company | Ms. Breanna Rose, Hawaii Green Growth |
| Mr. Justin Gruenstein, City and County of Honolulu, Office of Climate Change, Sustainability and Resiliency (standing in for Mr. Joshua Stanbro) | Mr. Steven Serikaku, City and County of Honolulu, Department of Environmental Services |
| Mr. Stephen Joseph, PVT Landfill | Ms. Georgette Silva, West Oahu Aggregate |
| Ms. Natalie McKinney, Kokua Hawaii Foundation | |
| Mr. Michael O'Keefe, City and County of Honolulu, Department of Environmental Services | |

MEMBERS OF THE PUBLIC

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| Mr. Rafael Bergstrom, Surfrider Foundation | Ms. Jodi Malinoski, Sierra Club Oahu |
| Mr. Darryl Kaneyuki, Hawaii Business | Ms. Doorae Shin, Kokua Hawaii Foundation |
| Ms. Sacha Lin, Kokua Hawaii Foundation | |

CITY AND COUNTY OF HONOLULU, STATE OF HAWAII, AND PLAN CONSULTANTS

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| Ms. Hayley Cook, City and County of Honolulu, Office of Climate Change, Sustainability and Resiliency | Mr. John Padre, CH2M |
| Mr. Josh Nagashima, City and County of Honolulu, Department of Environmental Services | Mr. Dan Pitzler, CH2M |
| | Ms. Elizabeth Schwing, CH2M |

- COPY TO:** City and County of Honolulu, Department of Environmental Services, Refuse Division
- PREPARED BY:** CH2M
- MEETING DATE:** July 10, 2018
- PROJECT:** City and County of Honolulu 2018 Integrated Solid Waste Management Plan Update
- VERSION:** Final

This document provides notes from the July 10, 2018 Advisory Committee (AC) meeting.

Objectives

The purpose of this meeting was to confirm accuracy of the June 12, 2018 AC Meeting 05 meeting minutes; review comment/resolution on AC comments from Section 8; and discuss and review the following draft sections of the City and County of Honolulu 2018 Integrated Solid Waste Management Plan Update (Plan): Section 2, Solid Waste Generation; Section 10, Energy Balance and Alternative Technologies; and Section 11, System Cost Analysis.

Summary

Topics and discussions from the meeting are summarized below.

Introductions, Agenda Overview

- CH2M reviewed the meeting agenda, which is as follows:
 1. Welcome and Agenda Overview
 2. June 12, 2018 Meeting Minutes – Comments or Corrections
 3. Review of Comment/Resolution on Section 8
 4. Presentation and Discussion – Section 2, Solid Waste Generation
 5. Public Comments on Section 2
 6. Presentation and Discussion – Section 10, Energy Balance and Alternative Technologies
 7. Public Comments on Section 10
 8. Presentation and Discussion – Section 11, System Cost Analysis
 9. Public Comments on Section 11
 10. Next Steps, Thank You, and Adjournment

June 12, 2018 Meeting Minutes – Comments or Corrections

- No additional comments were received on the Meeting 05 Minutes.

Review of Comment/Resolution on Section 8

- It was noted that comments specific to Section 8.0 (Facility Capacity and Siting) were provided via email.
- No further comments were received for the comment/resolution on Section 8.

Section 2: Solid Waste Generation

Information regarding the following components of Section 2, Solid Waste Generation, was presented:

- Goals and Objectives
- Legislative Requirements
- Waste Generation Forecast Basis
- De Facto Population for the City and County of Honolulu
- Waste Generation and Recycling Data
- Projected Municipal Solid Waste (MSW) and Recycled Material
- Waste Composition Study and Results

AC discussion covered the following topics:

- There was a question regarding exclusion of ash and construction and demolition (C&D) debris from waste generation totals. It was noted that waste generation focuses on the amount generated by residential and commercial sources, handled by the City. Ash and residue are included in waste disposal totals, but not waste generation totals. Most C&D debris is not handled by the City and totals are not well documented.
- There was a suggestion that waste generation totals be adjusted to account for source reduction initiatives moving through the timeframe of the Plan and a question regarding how to quantify source reduction.

- There were questions regarding whether the waste generation totals account for economic fluctuations and initiatives to reduce packaging, and whether historic data can accurately portray future conditions. It was noted that historic waste generation data does show a dip between 2005 and 2010 due to the economic downturn and that economic factors tend to affect waste generation totals much more than source reduction efforts.
- It was announced that the 2017 Waste Composition Study has not been made public yet and is scheduled for publication on the City’s website at the same time the Draft Plan is released for public review.
- It was noted that the results of the 2017 Waste Composition Study indicate large quantities of organic material and paper in the waste stream, signaling opportunities for source reduction.
- It was noted that most of the waste collected by the City goes to H-POWER to produce energy, and concern was expressed that a reduction in total material sent to H-POWER would result in adverse environmental and economic impacts due to an increase in fossil fuel consumption (typically, Oahu dispatches its available wind and solar generation capacity before fossil fuels, thus H-POWER typically displaces fossil fuel consumption). There was discussion regarding the relative quantities of air emissions that result from combustion of waste compared to fossil fuel. It was also noted that importing fossil fuel sends money off-island, while H-POWER and local recycling alternatives keep money and jobs on-island, boosting the local economy.
- There was a question regarding the nature of the H-POWER outages in 2017. It was noted that the outages were due to planned maintenance on the refuse derived fuel (RDF) processing lines, which is required every 20-25 years. It was further noted that the RDF processing lines have been running well since maintenance and testing were completed in March 2018. It was recommended that the outages be referred to as ‘planned maintenance’ throughout the Plan to avoid giving the impression that the outages represented unplanned operational issues.
- It was recommended that the City consider increased diversion of organics, given that they represent a significant portion of the waste stream and diversion would result in a reduction of ash from H-POWER. It was noted that any additional organics, such as food waste, would not be delivered as a single-stream, and would require separation prior to diversion. It was recommended that this challenge be further discussed by the Source Reduction Working Group.
- It was noted that a comparison of the 2006 Waste Composition Study and 2017 Waste Composition Study results showed a reduction in the amount of paper, plastics, and glass in the waste stream, likely due to implementation of the blue cart curbside collection program and the downturn in the economy. Reductions in green waste were likely due to implementation of the curbside green waste collection program.
- There was a question regarding whether the increase in treated and untreated wood waste since the 2006 Waste Composition Study could be the result of changes in commercial pallet management. It was noted that several companies re-use pallets, but it is cheaper for many to dispose of the pallets than to ship them back and reuse them.
- There was a question regarding whether combustion of pallets treated with methyl bromide has resulted in increased air emissions at H-POWER. It was noted that H-POWER does not accept treated pallets, and also that the vast majority of pallets used on-island are untreated.
- It was noted that the side-by-side comparison of the 2006 Waste Composition Study and 2017 Waste Composition Study results may not support the conclusions drawn because of the different sampling methodologies used for each study. It was recommended that the Plan focus on the 2017 Waste Composition Study results and future actions as opposed to comparisons to the 2006 Waste Composition Study results. It was clarified that the Hawaii Revised Statutes (HRS) require

comparison of waste composition over time, to the extent possible, in the Plan. As such, there was agreement that all conclusions drawn in the Plan resulting from these comparisons should be qualified so that readers recognize the implications of using the different sampling methodologies.

- It was noted that the Plan needs to account for the worst-case waste generation to ensure sufficient capacity and funding. Though source reduction is a priority, it should not be assumed when assessing waste generation and disposal capacity.
- It was noted that C&D debris composition has remained relatively unchanged over time, though asbestos containing material and treated wood quantities have decreased.
- It was recommended that the Plan address increases in packaging waste due to increases in consumer purchasing from online retailers such as Amazon.

Comments received from the public included:

- No additional comments received.

Section 10: Energy Balance and Alternative Technologies

Information regarding the following components of Section 10, Energy Balance and Alternative Technologies, was presented:

- Goals and Objectives
- Legislative Requirements
- Energy Balance Scenarios
- EPA WARM Model
- Energy Use Comparison: Scenarios 1 and 2
- Alternative Technology Assessment
- Anaerobic Digestion
- Pyrolysis/Gasification
- Waste-to-Energy
- MSW Composting

AC discussion covered the following topics:

- There was a comment noting that some of the goals and objectives listed as City goals on Slide 23 are actually State goals, and a request to confirm clarity and accuracy in the Plan. There was a further request to confirm inclusion of the exact language describing the City's 70% solid waste reduction by 2030 goal in the Plan. It was noted that language posted to the Aloha Plus Challenge website regarding this goal was found to contain an error.
- It was noted that the HECO Corporate Sustainability Report is available on HECO's website and provides a good overview of electricity generation on Oahu. AC Member Michael DeCaprio offered to send a copy of the report to the AC.
- There was a question regarding the scenarios analyzed using the WARM model and whether the model assesses the best overall balance from an energy perspective. It was noted that the HRS regulations do not require determining the "best" overall energy balance, rather they require assessing the energy balance of the existing system and an alternative or alternatives. There was a suggestion that it would be interesting to explore alternatives such as increased composting or recycling to determine the best balance of energy for the waste stream overall.

- It was noted that some of the regulatory requirements covering Integrated Solid Waste Management Plans are unclear. Each required component should be addressed in the Plan to the extent that it makes sense, as determined through collaboration with the AC and Hawaii Department of Health.
- There was a recommendation that the State review the statutes and consider revision. It was noted that the purpose and scope of energy balance section are unclear based on the statutes, and that questions regarding requirements have come up several times throughout the course of the Plan update (i.e. the City does not deal with Enterprise Zones).
- It was noted that the main driver for pyrolysis/gasification is the shortage of hydrogen, essential to operations at Hawaii Gas and the refineries. There was a comment that BYU is putting in an anaerobic digester with a feedstock consisting of their own waste, green waste/agricultural material, and wood from PVT. BYU plans to use the energy produced on-site.
- It was noted that the product coming out of the gasifier is a high carbon char, about 40% of which can be recycled. In this way, the gasification process results in both energy and recyclable product.
- Several requests for changes to the Plan were made:
 - That month and year be included when noting specific dates (as opposed to 'last December').
 - That discussion be generalized where things could change (i.e. shipping overseas vs. to Shanghai).
 - That other composting facilities referenced generally be listed by name (HER is the only facility named currently).
 - That the percentage of Oahu's total power that is generated at H-POWER be noted throughout.
 - That the study mentioned in the 'risk factors' section be cited.
- There was a recommendation to revisit Plan sections discussed previously to incorporate the results of the 2017 Waste Composition Study, which could inform future strategies.

Comments received from the public included:

- There was a request for data to support the noted reduction in greenhouse gas (GHG) emissions from waste-to-energy compared to fossil fuel combustion, and a further recommendation to clarify that operation of H-POWER also generates emissions. It was noted that landfilling of waste and importing of fossil fuels to produce energy result in GHG emissions as well. There was a consensus that the Plan should clearly identify all emissions associated with each option when making a comparison. In response, it was noted that the energy balance section does not focus on GHG emissions, and the report will clarify any places where they are addressed.
- There was a comment that the Aloha Plus Challenge 70% reduction goal covers diversion from disposal and is worded in such a way that H-POWER is carved out. AC Member Breanna Rose offered to provide exact language clarifying the intent of the goal and what is included.
- There was a question regarding whether the WARM model accounts for waste generated upstream as a result of production, which is a huge component of total energy. It was confirmed that the WARM model does account for this, which helps explain why the total energy for recycling is negative.

Section 11: System Cost Analysis

Information regarding the following components of Section 11, System Cost Analysis, was presented:

- Goals and Objectives

- Legislative Requirements
- Solid Waste Fund Revenue Sources FY 2019 Estimate
- Solid Waste Fund Operating Expenses Estimated FY 2019 Budget
- Solid Waste Fund Balances, Estimated FY 2019. Note that this presentation covers the existing system. The system cost analysis will be updated to include proposed actions based on previous sections of the Plan.
- Capital Improvement Program
- System Cost Analysis Conclusions

AC discussion covered the following topics:

- It was noted that some facilities that the City is proposing to construct are not included in the Capital Improvement Program (i.e. appliance recovery facility, Materials Recovery Facility [MRF]), since they will be funded through a separate funding source.
- There was a question about the funding for closure activities listed in Table 11-5. It was noted that the funding in question is for closure of the Waipahu Incinerator, and that landfill closure costs are included in the operating budget.
- There was a comment that many residents are already paying a waste collection user fee, specifically those who are required to pay for private collection in addition to property taxes. It was recommended that a fee be implemented for all to increase equity and raise awareness of costs associated with waste disposal, and it was noted that a user fee would encourage waste reduction where there currently is no incentive.
- It was further noted that the City provides an incredible level of service, especially compared to other jurisdictions, including nine locations throughout the island for refuse drop-off, curbside pickup, and bulky item collection free of charge.
- There was a request to include H-POWER minimum tonnage requirements, which inform operation and budget, in the Plan. It was also recommended that the Plan document the financial impact to the City from the put-or-pay portion of the Covanta contract.
- It was noted that there is a widespread miscommunication among the public that blue bin material is not being recycled, but is instead being sent to H-POWER. This argument is being used to justify not recycling. There was a recommendation to clarify in the Plan that the City is prohibited from sending material from the blue bins to H-POWER per ordinance to help correct this miscommunication.

Comments received from the public included:

- There was a question about H-POWER cost compared to revenue and whether the City makes money overall despite historically owing Covanta as a result of the put-or-pay agreement. It was noted that the put-or-pay agreement frequently comes up during discussions about source reduction, and may act as a barrier to reduction efforts. Per recent discussion among City staff, the put-or-pay agreement is not a concern and the City is committed to source reduction even if the put-or-pay quantity is never met.
- It was clarified that the City pays Covanta for operation of H-POWER, but also pays for Covanta's share of lost electrical revenues from waste not provided per the contract (the City gets 85% of the electrical revenue, Covanta gets 15%). It was further noted that total waste received toward the put-or-pay agreement is adjusted to account for material diverted due to unexpected outages at H-POWER.

Next Steps

- The schedule for the next meeting was discussed. It was noted that the schedule was adjusted to give AC members three full weeks with the next sections and the Draft Plan. The meeting will cover Section 11: System Cost Analysis (future system portion); Section 12: Implementation Plan; and the Draft ISWMP.
- It was recommended that AC Meeting 07 be moved from October 9, 2018 to October 2, 2018 due to AC member scheduling conflicts, and that the meeting be held from 8 a.m. – 12 p.m.
- There was an overview of the Public Hearing schedule and final steps. It was recommended that the proposed Public Hearing date be moved to November 28, 2018 to avoid the week of Thanksgiving.

Source Reduction Working Group

Information regarding the proposed Source Reduction Working Group was presented and comments from the AC were solicited. It was noted that source reduction efforts should be ongoing and collaborative, and that a mechanism is needed for implementation of source reduction initiatives between Plan updates.

AC discussion covered the following topics:

- It was recommended that the committee focus on items that can be implemented relatively quickly first to achieve early success and build momentum.
- It was noted that the Department of Education is banning Styrofoam containers and trays in favor of paper products in their latest round of contracts.
- There was a suggestion to target development of reuse areas at Transfer Stations as an early win.
- It was requested that AC members provide comments on the Draft Source Reduction Working Group language in the next two weeks. CH2M/Jacobs offered to revise the draft language based on comments received and provide an electronic version to be shared with the public. It was noted that the City has committed to the Source Reduction Working Group, however the Plan language provided for discussion is still in draft form.
- AC Members and members of the public expressed support for the Source Reduction Working Group concept.

Comments received from the public included:

- It was announced that the Zero Waste summit is scheduled for Saturday July 14, 2018 and is open to the public.
- There was a recommendation to include specifics regarding how initiatives that come out of the Source Reduction Working Group will be incorporated into the City's long-term planning as a part of the Plan.