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Subject **Solid Waste Advisory Committee Meeting #2**

Project Name County of Kaua'i 2020 Integrated Solid Waste Management Plan Update

Project Number D3251000

Prepared by Jacobs

Location County Moikeha Meeting Room 1

Date/Time Tuesday, December 10, 2019

Participants SWAC:
Eli Brainerd – Pacific Concrete Cutting and Coring (Not Present)
Jesse Brown-Clay – Zero Waste Kaua'i
George Costa – Hawai'i Lodging and Tourism Association (Not Present)
Fred Cowell – Kaua'i Coffee Company
Allen Evans – Resource Recovery Solutions
Allison Fraley – Solid Waste Program Coordinator, County of Kaua'i
Howard Greene – Gay and Robinson
Scott Kouchi – Garden Isle Disposal
Conrad Murashige – Shioi Construction
Lane Otsu – State Department of Health Solid Waste Branch
Rick Renaud – Solid Waste Superintendent, County of Kaua'i (Not Present)
Brad Rockwell – Power Supply Manager, Kaua'i Island Utility Cooperative
Ben Sullivan – Energy & Sustainability Coordinator, County of Kaua'i

Other County Staff:
Lyle Tabata

Public:
Christina Kaser - OED
Ruta Jordans – Zero Waste Kaua'i
Niki Kunioka-Volz - OED

Jacobs Team:
Elizabeth Schwing and Lyndsey Lopez

Notes

The meeting was recorded and is documented in two audio files. Part 1 runs from the Welcome to the break. Part 2 runs from the return from break through the meeting adjournment. The time stamp for each agenda item is shown below. Key items and identified action items are summarized.

Agenda	Time Stamp	Key Item/Action
1 Welcome and Agenda Overview	Part 1. 00:00 to 03:07	No action

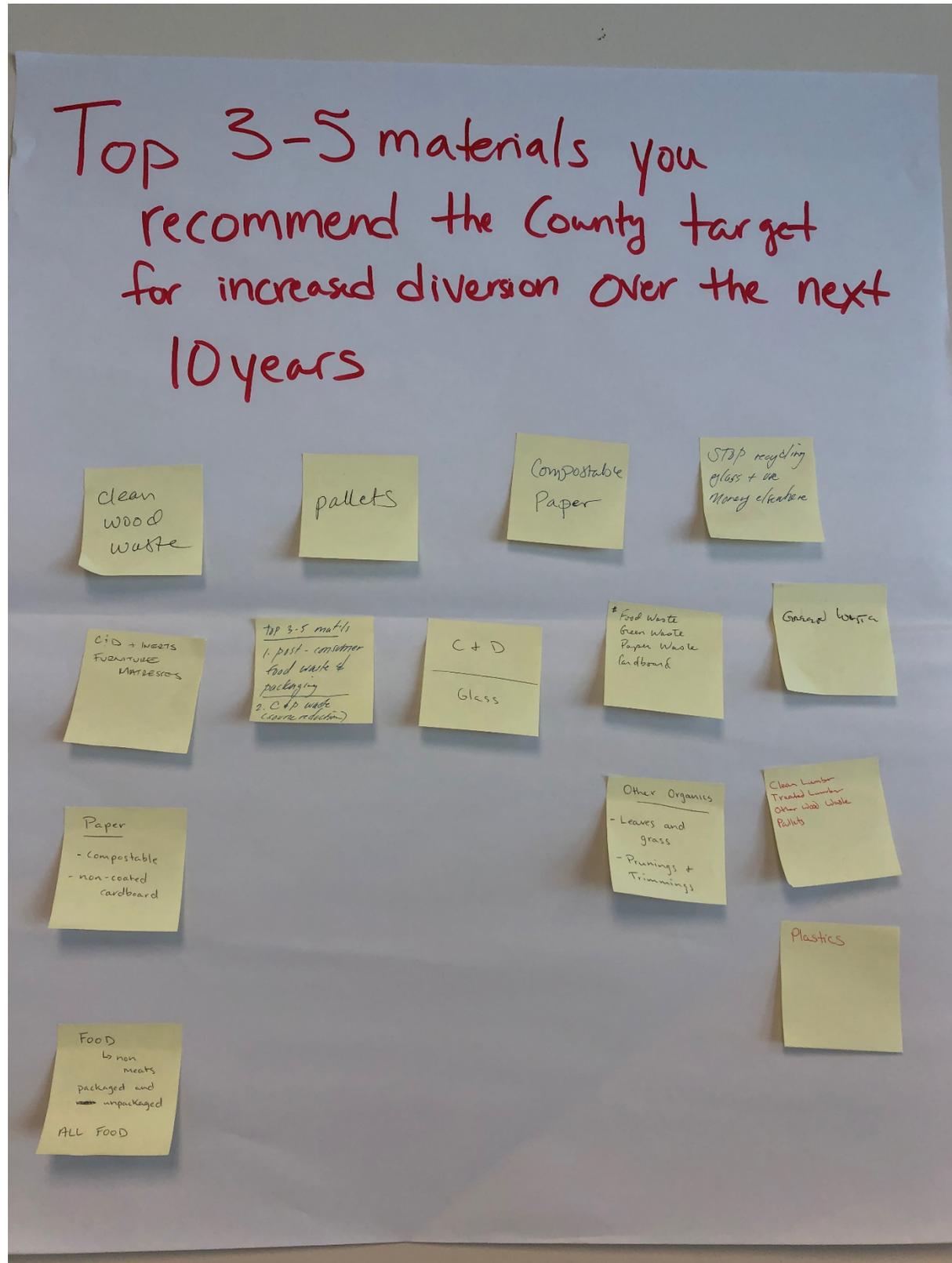
Agenda	Time Stamp	Key Item/Action
2 Review & Approve October 15, 2019 Meeting Summary	Part 1. 03:07 to 07:24	Reviewed meeting action items and progress. Meeting summary approved as is, SWAC approved of format, no requested changes to the meeting summary. SWAC Member arrived at 05:50
3 Discuss State of Hawaii Plastics Source Reduction Working Group (SRWG) Purpose, Timeline, and Potential Relevance to ISWMP	Part 1. 07:24 to 17:20	<p>Lane Otsu provided an overview of the general purpose (focus on plastics source reduction) and the first meeting, as well as a handout that includes additional details about the working group. The SRWG will hold six meetings ending in September 2020 and submit a report to Legislature during the 2021 session. Timeline might not sync up with the development of this Plan, unsure how it may affect Kaua'i's Plan. Meeting minutes may provide information for Kaua'i Plan. This working group is separate from City and County of Honolulu's Bill 40. Next meeting for the State SRWG is January 9, 2020</p> <p>13:22 Lyle Tabata arrived.</p> <p>14:00 Lyle Tabata welcomed and thanked the SWAC for their participation in this important effort. Encouraged active participation in the process. The next 10 years will have significant changes. Discussed Kekaha Landfill expansion, confirmed siting of new Ma'alo Landfill despite continued objections from the Airport. The County has submitted all required Federal Aviation Administration (FAA) materials and is working on the Environmental Impact Statement (EIS) for the proposed landfill. Will be Kaua'i's biggest public works project. Need to reduce the materials that are sent to the landfill. Interested with landfill bans, but it will depend on what the community can bear.</p>
4 Review Waste Characterization Study Results and FY19 Diversion Tonnages and Diversion Rate	Part 1. 17:20 to 52:24	<p>Reviewed the results from 2016 Waste Characterization that was performed for the County.</p> <p>Discussed some of the definitions of how materials were sorted/categorized. Conrad Murashige asked to see the definition of the treated lumber category from the study. He asked whether it included borates which are a large component of treated lumber. Action: Allison Fraley to contact the contractor to ask whether the treated lumber included borates. Ben Sullivan asked if the study looked at sources of waste. Is there data that can help understand the sources better. Lyndsey Lopez discussed some of the recent generation studies that have been conducted elsewhere and may help provide the County with some estimates. Allison clarified that it did not, but mentioned that volunteers are doing interviews to help gather information from restaurants and hotels. Jesse Brown-Clay asked if we could make some general assumptions. For example, can we say all restaurants privately hauled. Will include information in the Plan. A member of the public mentioned that a 2015 Statewide study from UH had looked at food waste. Allison indicated that the study found 20% food waste, whereas Kaua'i has 10%, so may not be representative.</p> <p>Some opportunity to capture more of the leaves and grass, textiles, and sewage sludge.</p> <p>Discussed the Request For Information (RFI) (37:02) that the Wastewater Department currently has out to look at ways to eliminate sewage sludge from entering the landfill. Responses are due at the end of December. The County has an end user for the pellets (Green Energy will take for their tree farm), but is looking for methods of getting them to Class B and</p>

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<p>5 Breakout Session 1: Brainstorm How Above Results May Illuminate Some Focus Areas (Introduction)</p>	<p>Part 1. 52:24 to 01:12:01</p>	<p>the best process for dealing with the volume of all the sewage sludge and transport to Līhu'e. The treatment plant is near airport so another FAA challenge. Lyle: Sludge project would include food waste, but needs a warehouse due to attracting birds, which present a safety concern for airport.</p> <p>Mentioned that the interviews that are being conducted are also collecting information about food that could be donated/redirected to food banks and other places to feed hungry people.</p> <p>Reviewed population projections and FY19 diversion data.</p> <p>Takeaways: C&D, other organics, paper, plastic and food had opportunities for additional diversion. Plastics had the lowest diversion and C&D had biggest potential impact on diversion.</p> <p>Ben asked if there is anything that equates weight to volume. The study did not do that, but the conversion could be done.</p> <p>Reviewed more of the categories. Mixed paper is a high cost item now. Markets very challenging right now for mixed paper. Mixed paper is what is in the Kaua'i Recycles and the commercial recycling program.</p> <p>Note: decided to introduce the breakout session 1 ahead of break.</p> <p>SWAC members were asked to brainstorm around the following 2 questions:</p> <ul style="list-style-type: none"> - The top 3-5 materials you recommend that the County target for increased diversion over the next 10 years. - The top 3-5 programs or strategies you recommend that the County implement to maximize feasible diversion of the materials identified above. <p>Lyndsey requested that SWAC start with the first question (focused on materials).</p> <p>Ben asked if we could look at market data to help inform brainstorming. Jumped to the slides at the end of the presentation to look at the general market data. County of Kaua'i is a little different because material is source separated. Discussed the changing market conditions.</p> <p>Talked about understanding diversion quantities in terms of volume. Some interest in understanding the volume of disposed waste. Action: Convert waste characterization weight data to volumes.</p> <p>Ben asked if we will consider the merits of diverting certain types of materials over others (glass is inert, whereas food waste causes issues). We will consider multiple perspectives (environmental, financial, etc.)</p> <p>Discussed the possibility of mining Kekaha Landfill (environmental benefit plus cost/space benefit).</p> <p>Lyle mentioned that paper is a big issue, tons coming into the landfill from schools. Jesse mentioned there was a task force of people that want to assist with issues like schools and paper.</p> <p>Jesse asked if the County has looked at methane capture. Lyle explained that they are currently capturing and flaring but that the composition of the gas is not what they expected. Ben explained that the County has looked at it extensively for transportation.</p>

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6 Break		<p>As battery technology for buses improved, they switched to looking at that. Utilization of gas is still an opportunity. The biggest challenge is that they don't have a backup on island for natural gas. If landfill system goes down and all trucks are CNG, they can't run. Scale is too small. Flaring is the most economical. Costs a lot to build infrastructure to use it, still looking for the right opportunity.</p> <p>No action</p>
7 Breakout Session 1: Brainstorm How Above Results May Illuminate Some Focus Areas (Brainstorm)	Part 2. 00:00 to 11:33	<p>Returned from break. Reintroduced the brainstorm activity and allowed SWAC to conduct activity.</p> <p>Discussed that food waste going to pig farmers – informal program between small farmers and haulers. Big farms are stopping practice – need a new solution.</p>
8 Review and Discuss Existing Solid Waste Management System	Part 2. 11:33 to 01:10:52	<p>Reviewed the existing system, programs, and facilities.</p> <p>Since the 2010 plan, one change is the County's PAYT program. Jesse asked whether PAYT is a good program. Has a difficult time marketing a diversion assistance program when the difference between one 64-gal and one 94-gal container is only \$8. Jesse said it is challenging to get people onboard because there is no real cost savings to offer.</p> <p>The program includes a base fee of \$6 that is charged to every residence to help pay for the transfer station. Residential curbside collection is an additional \$4 for a 64-gallon can or \$12 for a 96-gallon can.</p> <p>Base fee collected as separate line item on property taxes.</p> <p>Collection actually costs around \$60, so the County subsidizes with the general fund (funds large portion) to make up the portion not covered by tip fees from the landfill and PAYT base and service fees.</p> <p>There was a question about whether the County has a study that shows all the costs of landfilling (\$/ton). A study was done several years ago, but nothing done since. This helped establish the tip fee.</p> <p>Lyle – challenge is getting increased rates approved.</p> <p>Ben - Very important to share the information on costs in a simple format (infographics). Essential for public, Council, etc. to understand what it actually costs, how much is getting subsidized, how this is holding back the ability to implement new programs. SWAC Member Ben left (28:50).</p> <p>Working on finding additional ways to do more resource recovery at the Kaua'i Resource Center. Working on a way to divert textiles through Arc of Hawaii.</p> <p>Some discussion on the green waste program.</p> <p>Allison – the way contract diversion works, is has to go to a State certified facility, doesn't specify end-use. Action – report back on how much getting used and how (if data is available).</p> <p>Jesse – interested in whether there are opportunities to make changes in use of mulch to get more carbon sequestration.</p> <p>Allen Evans - Puhi Metals is working on a solution for acetylene tanks, difficult to get rid of, but keep showing up, want to push the responsibility back on the manufacturer. Working on a better procedure to</p>

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		<p>make inert and then ship off (rather than shipping off as hazardous waste).</p> <p>Some discussion on whether RTS could take batteries. The challenge is existing permitting doesn't allow. Prefer to have the stores to take back.</p> <p>Discussion of using extended producer responsibility to deal with difficult materials. This has been successful with electronics.</p> <p>Discussed asbestos disposal and procedures.</p> <p>(51:40) Conrad left meeting</p> <p>Discussion regarding who enforces bans at landfills. When loads dropped off they are screened to make sure they don't have more than the 10%. At first had a lot of non-compliance, but worked with generators, and that has improved. GID took a stance that if something is banned, customers using their hauling services can't include that item in their loads. The 10% that is in the ordinance was intended to protect haulers. Those banned materials are restricted from disposal.</p> <p>Public – asked about Extended Producer Responsibility (EPR) and how it gets started. Typically is dictated at the State Level.</p> <p>Lane – At State level, typically gets modified/watered down after lobbyists from manufacturers get involved. Need to have the population and markets to make something like this happen. For example, California has the will and the population to force markets. Hawaii is smaller and doesn't have the same power.</p> <p>(01:10:52) Scott left meeting</p>
<p>9 Breakout Session 2: Revisit Focus Areas/Options</p>	<p>Part 2 01:10:52 to 01:21:05</p>	<p>Reviewed results of brainstorming activity looking at both of the questions (see Attachment 1).</p> <p>Discussed tiered regulations for compost facilities. Action: share information with the group when available.</p> <p>Large focus on finding better ways of processing materials or using materials differently - looking at on island solutions.</p> <p>Problem is that there isn't the critical mass of material to make some of these alternative material processing options feasible.</p>
<p>10 Public Comments</p>	<p>Part 2. 01:21:05 to 01:26:09</p>	<p>Asked about working with other counties to get that critical mass.</p> <p>All the islands are connected through the department of health, but the separation of islands by water makes it difficult. Important to communicate with counterparts and neighbor islands, share ideas, learn from each other.</p>
<p>11 Next Steps Moving Forward</p>	<p>Part 2: 01:26:09 to 01:27:21</p>	<p>Next meeting will be held January 21st to discuss options. Asked what other information might be helpful for the options discussion.</p>
<p>12 Adjournment</p>	<p>Part 2: 1:27:21</p>	<p>No action</p>

Attachment 1.



The top 3-5 programs or Strategies you recommend that the County implement to maximize feasible diversion of the materials identified (in the other question)

Mixed paper from schools

C&D Materials from Landfill
Divert/Recycle/Export Material

Sludge Composting

dry wall Composting

Implement your Response to the Residents

pallet program

reduce regulatory req's for composting (craft, towel req's) and ban food waste over time

Mixed paper + food + green + cardboard as curbside organic pickup for compost

COST OF SERVICE for curbside pickup
- eliminate rural curbside after route analysis

investigate separated plastics to H-power

GREEN WASTE Loop at their own BLANDS

On Farm Composting Site that will be able to divert compost-able waste; allow full cycle breakdown, and immediate (low transport cost) use in ag fields.

Food waste volume reduction strategies w/ shredding, etc. and avoid crushing, away waste (glass, plastic) that could be landfilled locally to reduce

Glass crushed and used as landfill cover and road aggregate.

Ramp up Composting programs + facilities
• commercial ban on food waste
• huge focus on education, cultural shift
• work w/ DSH to review and adjust regulations around composting food
• create permits for paper, cardboard, pallet composting to expedite permitting
• use non-agricultural compost generated for landfill cover

Anaerobic Digestion

Large Scale Composting

Waste to Energy (All organics, paper, C&D)