

Kaua'i County Integrated Solid Waste Management Plan

Solid Waste Advisory Committee

Meeting #3 – April 24, 2006

Summary Minutes

The following represents the list of individuals who attended the SWAC meeting.

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| 1. Jennifer Tosaki
(for Lane Otsu) | Office of SW Management, Hawaii Dept. of Health |
| 2. Jeff Kaohi | Kekaha Resident |
| 3. Diane Zachary | Kaua'i Planning Action and Alliance |
| 4. Bill Cowern | Kaua'i County Farm Bureau |
| 5. Jean Camp | Anahola Resident |
| 6. Jeff Deren | Kaua'i Island Utility Cooperative |
| 7. Allison Fraley | County of Kaua'i – Recycling Coordinator |
| 8. Larry Dill | Princeville Corporation |
| 9. David Hinazumi
(for Mike Furukawa) | Grove Farm Properties |
| 10. Glenn Sato | County of Kaua'i – Office of Economic Development |
| 11. Kathleen West-Hurd | Hanapēpē resident |
| 12. Ray Maki | Permaculture Kauai |
| 13. Ron Kouchi | Kaua'i Chamber of Commerce |
| 14. Karen Luken | R.W. Beck, Inc. |
| 15. Connie Clausen | Kaua'i Community Federal Credit Union |
| 16. JoAnn Yukimura | Kaua'i County Council |
| 17. Troy Tanigawa | County of Kaua'i – Public Works |
| 18. Dave Gerow | Kilauea resident |
| 19. Rhoda Libre | Kaua'i Westside Watershed Council |
| 20. Leland Nishek | Kauai Nursery and Landscape |
| 21. Jesse Fukishima | Resident |
| 22. Arthur K. Defrees | Resident |

The following represents a summary of the meeting:

INTRODUCTION

Karen Luken opened the meeting welcoming some of the new attendees. SWAC members introduced themselves again stating their affiliations.

Meeting minutes for previous SWAC meetings will be posted on the website and forwarded to SWAC members prior to the next meeting.

ACTION ITEMS FROM MARCH SWAC MEETING

Karen Luken provided the following responses to the action items from the March SWAC meeting

- ✓ **R.W. Beck to review sharps numbers and provide explanation** – The statistical results reflect the confidence intervals (high and low range) of the quantity of materials that we have a 90 percent confidence that would be in the entire waste stream. The sharps range is from 0 percent to 0.1 percent. In reviewing the individual data sheet for the quantity of sharps that were actually found during the sort, the total quantities were negligible (i.e. less than 50 lbs.) The finalized results in the tables will be clarified to reflect the projected quantities are negligible.
- ✓ **R.W. Beck to provide update on moisture analysis** – R.W. Beck has received the finalized technical results from the laboratory. The results reflect a wide range of moisture content by material type in the various items. The statistics are still being reviewed to formulate conclusions.
- ✓ **Question regarding relative cost estimates for different alternative technologies** – After reviewing this request, R.W. Beck prefers to defer a detailed response until further facility sizing has been completed. Planning level cost estimates require facility sizing to project per ton costs.

Yet, the total amortized capital and O&M costs are highly likely to exceed the threshold of \$60 per ton for each of these technologies as described in the alternatives matrix. This does not include an offset from the revenues generated for the outputs (i.e. energy, compost, etc.) for each of the conversion processes. These revenues will vary considerably.

Because WTE is a commercially proven technology, the cost information available for this technology is more reliable and is likely to be in the \$60 to \$75 per ton range. MSW composting per ton fees that incorporate annualized capital and O&M would likely range from \$75 to \$100 based on actual operating facilities. Both anaerobic digestion (AD) and pyrolysis are difficult to project. AD is being utilized in Europe primarily for source separated organics such as food waste and yard wastes and the available facility per ton data does not reflect the actual costs. As for pyrolysis/gasification, only pilot projects have been implemented using MSW as feedstock. The per ton costs are likely to be similar to at least the level of MSW composting and are likely to exceed these levels depending on the technology and throughput.

- ✓ **What are air emissions impacts (get info from Honolulu)** – R.W. Beck has contacted the staff for the City and County of Honolulu requesting available information as it relates to air emissions at the H-Power. They have offered to provide some emissions information. The challenge is that the periodic testing results are very technical and presentation of this information needs to be put in context. R.W. Beck is working with the staff to receive and characterize the information appropriately. The information will be presented at the June SWAC meeting. R.W. Beck is also working with Honolulu to obtain operating and regulatory expenses.
- ✓ **Need to email KIUC to get projections on rates** - Per an e-mail from Jeff Deron of KIUC (SWAC member), KIUC does not have an official price forecast. They are

currently working on their Integrated Resource Plan which will include a price forecast. This is likely to be completed later in 2006.

Historically, a rough correlation is that KIUC's rates change 1¢/kwh for each \$5/barrel change in the price of #2 diesel. Please note that fuel forecasts vary widely depending upon methodologies used.

COMMERCIAL SURVEY

R. W. Beck distributed a commercial survey instrument to the SWAC, explained the survey process and said that they may need certain SWAC members to help obtain responses from certain businesses.

ORGANICS DIVERSION

R.W. Beck presented information on the percent of the waste stream that is comprised of the following organics:

- Large Green Waste
- Small Green Waste
- Food Waste
- Non-Treated Wood Waste

While paper is also an organic it not typically included in composting facilities using the windrow technology that is used in Kauai. Therefore, it was not included in today's agenda and will be addressed during the next SWAC meeting.

Based on the 2006 waste composition study conducted by R. W. Beck, approximately 23 percent of the Kauai waste stream is comprised of these materials.

R. W. Beck then presented information on the organic diversion strategies that were identified in the 1994 Kaua'i County solid waste management plan and the status of the County's implementation of those strategies. As a result of implementing organic diversion strategies, the County has accomplished the following:

- 10,535 tons of green waste diverted in 2005
- 1,150 backyard composting bins distributed free of charge since 2001
 - Recipients watch a composting video
 - Recipients are annually surveyed

R. W. Beck presented the following strategies to further increase the amount of organics from the waste stream or respond to comments from the public meetings:

- Enhance backyard composting bin program
- Purchase mobile chipper/grinder for use at transfer stations
- Establish curbside collection program for green waste

- Develop centralized facility for organics

With the exception of enhancing the backyard composting bin program, R. W. Beck presented an overview of how the strategy would be implemented and planning level cost estimates. R. W. Beck informed the SWAC that R. W. Beck would be working with Allison Fraley and Hastings and Pleadwell to develop tactics to enhance the education and outreach initiatives to promote programs such as the backyard composting bin program. These tactics will be presented at the next SWAC meeting.

DISCUSSION AND Q&A

Question – Are costs associated with the various strategies reflective of what it would cost to implement them in Kauai?

Answer - R. W. Beck answered that these costs are from other communities and that we will refine them to reflect Kauai unique conditions that impact costs, such as transporting equipment from the mainland and higher salaries. The costs were presented at this meeting to provide SWAC with a broad perspective on the financial element of these strategies.

Question – What fuel rate was used for fuel estimates?

Answer - \$2.50 per gallon

Question – Did you conduct a cost comparison between only providing backyard composting bins to all homeowners versus curbside collection of green waste?

Answer – No, but we will. A SWAC member pointed out that the compost bins are not large enough to handle all of the yard waste generated by homeowners and that certain homeowners may be reluctant to compost their green waste.

Question – Why is there no large green waste in the waste composition data? It is not possible that we do not generate large green waste.

Answer – The waste composition study represents what is disposed, not what is generated. It is correct that large yard waste is generated, but it is being composted rather than disposed.

Question - What percent of food waste pre-consumer versus post-consumer?

Answer – In general, most residential food waste is post-consumer food waste. There is not a lot of data on the percent of pre-consumer versus post-consumer food waste in the commercial waste stream. Based on the work we have done in other communities, most grocery stores are pre-consumer and restaurants are maybe 60 percent post-consumer and 40 percent pre-consumer. However, fast food restaurants are mostly post-consumer.

Question – Why don't we have generation quantities for all waste stream materials and why isn't the quantity of waste stream materials projected out for the length of the plan? What about land use projections? Will we presented with system alternatives and costs?

Answer – That will be part of the planning process, we have not completed these tasks yet.

Question – Are you going to be developing strategies to divert biosolids?

Answer – Yes.

Question – Why don't we give food waste to farmers?

Answer – We would need to check if that is legal.

Karen Luken asked the SWAC if there were any other strategies for diverting organics we should consider and if there were any strategies for increasing recycling that you would like us to consider for the next SWAC meetings. Responses included:

- PAYT
- Advanced Disposal Fees
- The State Department of Health updating solid waste regulations
- Franchising the island for curbside recycling
- Eco industrial parks
- The County's recycled-content procurement policies
- The geographic distribution of the waste stream

Action Items

- E-mail presentation to Allison to forward to the SWAC members
- Bring copies of the presentation on CD
- Distribute hard copies of the presentation to SWAC members at the meeting so they can take notes
- Make sure that small business creation and sustainability are considered when evaluating strategies
- Obtain recycled-content procurement policies from other communities

PUBLIC COMMENTS

None