

## **THE MAYOR'S COMMUNITY MEETINGS ON RECYCLING**

Tuesday, May 8, 2007

7:00 PM – 8:30 PM

Mission Memorial Auditorium

### **GROUP MEMORY**

#### **AGENDA**

- Welcome
- Meeting Overview
- Presentation
- Questions and Answers / Comments
- Closing Remarks

#### **Welcome and Introductions**

On behalf of Mayor Mufi Hannemann, Environmental Services Department Director Eric Takamura welcomed and thanked everyone for attending the fourth of seven community meetings in April and May sponsored by the City and County of Honolulu. He explained that Mayor Hannemann would be coming to the meeting shortly. The purpose of the meeting is to gather residents' input and ideas for developing a sustainable recycling system. The meetings will also serve as a venue for the City and County to explain what it is doing regarding recycling and the updating of its Integrated Solid Waste Management Plan. New data from comprehensive studies that analyze Honolulu's solid waste stream and its programs will be presented by Consultant Karen Luken from R.W. Beck.

#### **Meeting Overview**

The facilitator was introduced who then explained a lot of information would be provided and that her role was to give everyone an opportunity to ask questions and provide comments, and to ensure that the discussion stay focused on the topic. The facilitator provided an overview of the meeting which would include a powerpoint presentation by the City's Consultant followed by time for questions and answers as well as comments. The facilitator introduced the recorder and noted that comments made at these meetings will be recorded by the recorder via newsprint at the front of the meeting room. She asked that the persons making comments ensure their comments were recorded accurately. The facilitator noted that input from meeting participants, including questions and answers, will be recorded along with the group memory from each meeting and posted on the City and County's website within two weeks of each meeting. A consolidated summary will also be posted. For questions not answered this evening the City would post answers within 30 days. Also, resources, including the Consultant's studies, would be posted on the website, ([www.opala.org](http://www.opala.org)).

Handouts provided included an overview of the powerpoint presentation on the Integrated Solid Waste Management Plan which included space for notes and a comment sheet on the last page which could either be turned in at the end of the meeting or mailed to the address provided on the form (City and County of Honolulu's Department of Environmental Services' Refuse Division – Recycling, 1000 Uluohia Street, Suite 212, Kapolei, Hawaii

96707). The facilitator announced that questions and answers would be fielded after the Consultant provided her powerpoint presentation. She also announced that Mayor Hannemann and his Senior Cabinet members would be staying for a half hour beyond the end of the meeting to answer questions or discuss other matters of importance to meeting participants that were not on the agenda this evening.

In addition to the first meeting held on Tuesday, April 9 at Mililani Mauka Elementary School, a second and third meeting were held respectively on Tuesday, April 24 at Kaiser High School, and April 25 at Kahuku Intermediate and High School. In addition to these and tonight's meeting at the Mission Memorial Auditorium, the Mayor will be convening three other community meetings on:

- Thursday, May 10, 7:00 PM to 8:30 PM at Windward Community College
- Saturday, May 12 (Youth meeting) – 10:00AM-12:00 noon at Iolani School.
- Monday, May 21, 7:00 PM to 8:30 PM at Kapolei Hale

The facilitator introduced the Consultant Karen Luken. An overview of the meeting agenda was posted and reviewed by the facilitator and included a presentation by Consultant Karen Luken of R.W. Beck followed by questions and discussion. The facilitator reminded meeting participants to complete a survey handed to them from Q-mark Research as they entered by passing the surveys to the aisles for collection.

The following Meeting Guidelines were presented by the facilitator and accepted by the group:

- Be courteous to each other.
- Listen as an ally.
- Share the O<sub>2</sub>. Give everyone a chance to talk.
- It's okay to disagree.

Prior to the start of the presentation Mayor Mufi Hannemann arrived. He thanked everyone for attending the meeting and explained that this was an ongoing effort to reach out to constituents. Mayor Hannemann introduced Senior Cabinet and Environmental Services Department members who were present at the meeting: Managing Director Wayne Hashiro; Deputy Managing Director Trudi Saito; Informational Affairs Officer Mark Matsunaga; Emergency Management Services Director Peter Hirai; Planning and Permitting Department Director Henry Eng; Claire Hashimoto; Community Services Department Debbie Kim Morikawa, Office of the Mayor Ken Ishibashi; Corporation Counsel Carrie Okinaka; Budget Director Mary Pat Waterhouse; Design and Construction Department Deputy Director Craig Nishimura. Environmental Services Department Director Eric Takamura; Environmental Services Department Deputy Director Ken Shimizu; Recycling Coordinator Suzanne Jones; Refuse Division Coordinator Wilma Namnunart; Environmental Services Communication Officer Ken Kawahara; Martin Okabe. Others attending the meeting included Council Member Gary Okino, and Bill Brennan, assistant to the Mayor.

Mayor Hannemann noted that the City has engaged R.W. Beck, an experienced consultant known locally and nationally for their work, to present a brief history of the City's challenges, initiatives, and the proposed project that the city is about to embark on. Meeting

participants were encouraged to share their thoughts, suggestions, and comments. Mayor Hannemann emphasized that the City is facing an essential issue on how it handles its waste. How the City deals with it today will impact the future of our island, and hopefully through wise planning now we leave the island better than we found it.

Meeting participants were encouraged to attend or let others know about the remaining meetings that are scheduled on Thursday, May 10<sup>th</sup> from 7:00 p.m. to 8:30 p.m. at Windward Community College, on Saturday, May 12<sup>th</sup> from 10:00 a.m. to 12:00 p.m. at Iolani School with youth (grades 9-12), or Monday, May 21<sup>st</sup> from 7:00 p.m. to 8:30 p.m. at Kapolei Hale.

### **Presentation**

Consultant Karen Luken from R.W. Beck, has twenty years solid waste management experience throughout the United States. She recently completed the County of Kauai's Integrated Solid Waste Management Plan. The Consultant explained that the meeting agenda was aimed at gathering input, providing information and answers to questions relating to the City's Integrated Solid Waste Management Plan. The Consultant noted that the presentation would include where the City is, where it is going, and how it will get to the goal of developing a five-year Integrated Solid Waste Management Plan that includes the City's landfill diversion goal and current strategies to achieve the landfill diversion such as energy and material recycling. She noted that additional strategies to increase landfill diversion would also be discussed, including ways to optimize the performance of existing programs, instituting residential curbside recycling programs and expanding waste-to-energy capacity. The impact of additional strategies on landfill diversion would be analyzed and comparative benefits of energy and material recycling would be discussed.

#### *The Goal: Landfill Diversion*

The Consultant explained that material and energy recycling both aim to divert garbage from the landfill and be recycled into materials or serve as feedstock that can be converted to energy. Statistics were provided on where the City is right now and the impact of energy and material recycling on landfill diversion. The total waste generated in 2005 on Oahu was 1.76 million tons, of which 1.00 million tons were recycled into energy and/or materials and kept out of the landfill. The combined landfill diversion from this recycling initiative is 57%, which is above the national average of 44-46%. Of the total 1.76 million tons of waste generated, a total of 400,000 tons was converted into energy, with a diversion rate of 22%, which exceeds the national average of 14%.

#### *Energy Recycling*

The Consultant explained that H-POWER (Honolulu Program of Waste Energy) is a waste-to-energy facility that keeps waste out of the landfill. Waste taken to H-POWER is converted into energy. Annually, H-POWER receives 600,000 tons of garbage of which 400,000 tons are converted to energy and 200,000 tons of non-combustibles and ash (bi-products of waste-to-energy process) are disposed at the landfill. H-POWER recycles virtually 100% of the ferrous/non-ferrous metals by using metal magnets and other extraction methodologies to keep them out of the landfill.

There are several benefits of energy recycling to Oahu. Energy recycling produces enough energy for 40,000 homes. It also generates \$30 million in annual revenues from the sale of electricity along with another \$1.5 million from the sale of ferrous metals. It reduces the reliance on fossil fuel by replacing 600,000 barrels or 7% of oil imports per year.

### *Material Recycling*

The Consultant presented statistics on the impact of material recycling on landfill diversion. Of the total Oahu 1.76 million tons of waste generated in 2005, 612,000 tons were recycled into new products, with a diversion rate of 35%, which is higher than the national average of 27-32%. Since the late 1980's the percent of tonnage generated has increased six-fold by focusing on a wide variety of materials along with residential, commercial, and public/private partnerships. In 2005, the materials being recycled included paper, metals, glass, plastic, green waste, tires, auto batteries, electronic scrap, wood waste/pallets, construction and demolition debris, food waste, sewage sludge, and reuse of other materials. In 2005, 612,000 tons of materials were recycled, and as a result, these materials were kept out of the landfill, and H-POWER.

The City has focused on residential and commercial recycling of a variety of materials. For residential recycling, drop-off programs and bottle redemption programs have significantly reduced container littering. Started in the early 90's, the number of drop-off sites throughout Oahu that accept paper and mixed containers (glass, plastic, and aluminum) has increased from 20 bins to about 75 drop-off bins. Other residential material recycling includes appliance recycling and the conversion of green waste to compost through curbside pickups and convenience centers. The City has also addressed battery and tire recycling by banning these items from landfill disposal and requiring their drop-off at convenience centers.

The City has also focused on material recycling by commercial businesses since 1990 by mandating all City offices recycle their office paper. This has been expanded to all businesses where there is a market for reusing these materials. By 1996, this was expanded to all commercial office buildings. Hotels and restaurants must recycle their beverage containers. Commercial businesses must also recycle other types of paper materials (i.e., cardboard, newspaper, office paper, low grade paper) and are limited in the amount of green waste they are allowed to put out for collection. The City has also encouraged recycling food waste for compost or pigs and implemented the conversion of cooking oil to bio-diesel fuel.

The Consultant explained that the City has developed public-private partnerships with recycling businesses who are seeking to divert waste materials from the landfill. For example, the City has partnered with Schnitzer Steel to use magnets at the landfill for the extraction of ferrous metals. The City has contracted with Synagro to convert sewage sludge to compost or fertilizer pellets.

### *Strategies to Further Increase Landfill Diversion*

The Consultant explained that the City wants to increase recycling further. It is now faced with developing strategies to increase landfill diversion by increasing the performance of

existing programs (i.e., organic composting, drop bins and HI-5, and office paper and cardboard recycling), instituting curbside recycling for residential mixed recyclables, and increasing energy recycling. The City is looking at what it can do to get the public to recycle more and participate in the various programs that are offered.

The City is looking at ways of recycling more green waste into compost. Organics composting can be increased by optimizing the performance of existing Curbside Green Waste Collection. The curbside recycling program is the City's attempt to keep the green waste separated from other waste. By collecting, composting, and reusing green waste, it is being kept out of the waste stream that goes to the landfill and being converted to a recyclable product that can be used by residents i.e. mulch. Other organics include food waste that is recycled through different methods. For example, low-technology recycling of food waste goes to pig farmers, medium technology recycling of food wastes can go to composting facilities, and high-technology recycling of cooking oils to bio-diesel fuel for use by city vehicles and buses. Sludge can be composted and doesn't go to the landfill. The City is also increasing multi-material residential recycling programs by expanding drop-off community recycling bins (i.e., multi-material bins, site rotating HI-5 fundraiser bins) locations. Many schools have multi-material recycling bins situated on their campuses as a means for fundraising. The City wants to get this program out to more schools, which will generate more monies to the school, not the City.

#### *Proposed Curbside Recycling Program*

Currently, refuse is collected two times a week and green waste is collected every other week. The proposed curbside recycling program includes once/week refuse collection and once/week recycling collection. Recycling collection consists of alternating weekly pick-ups of green waste and mixed recyclables. A second day garbage collection will be made available by request (if needed) for \$10/month. Residents will have weekly refuse collection via a 96-gallon receptacle (grey bin), alternating weekly green waste or mixed recyclables collection via a 96-gallon receptacle (green bin) for green waste (i.e., grass, tree and hedge trimmings) and a 64-gallon receptacle (blue bin) for mixed recyclables (i.e., newspaper, corrugated cardboard, aluminum, glass, plastic (#1 and #2)). The Consultant explained how the collection service would change, including an additional green bin for high volume green waste households and an additional grey bin for high volume refuse households, collected once per week at no charge.

The Consultant cited a waste characterization study that was conducted by R.W. Beck to analyze the waste stream. The results of this study are posted at [www.opala.org](http://www.opala.org).

It is anticipated that the proposed program will decrease the need for second day refuse collection. The average 96-gallon bin holds 72 pounds of garbage. The average Oahu household sets out 40 pounds on the first day of collection and 25 pounds on the second day. Participating in recycling programs will decrease total refuse set out by 15 pounds per week.

The proposed program will increase overall collection service costs if residents elect to maintain twice per week refuse collection in addition to new curbside recycling collection. The Consultant explained that it all comes down to the number of times collection service is provided. Currently, a City collection vehicle drives by your home 10 times a month – 8 times for refuse and 2 times for green waste. The proposed curbside recycling program would

require 2 more collections per month (i.e., 3 pickups per week – refuse, recycling, and second-day refuse).one pick up every other week, alternating with green waste pick up) there by requiring collection vehicles to drive by your home 12 times per month, assuming everyone maintains twice per week refuse collection. The question is who should pay for the extra collection? Should it be those who recycle or those who are large garbage producers who put out their garbage 2 times per week and choose not to participate in recycling?

The proposal of the additional fee of \$10 for a second day refuse pick up assumes that the large garbage producers or those that do not want to participate fully in the City's recycling programs would bear the additional cost of having a second day of refuse pick-up. If a resident recycles, and requires only one day of refuse collections, they won't have to pay an additional fee. However, if a resident is using more services, i.e. second refuse collection, they will pay \$10/month.

### *Comparison with Other Islands*

Solid waste services on the other islands vary. For example, Maui County has once a week pickup for \$12 per month that may be increased to \$16 per month (if approved by the Maui County Council this month). An additional fee of \$17 per month is charged for curbside recycling and there is no curbside bulky item pickup. Kaua'i County has a once a week free curbside refuse collection with all other services paid for by the consumer. It has no bulky item pickup. Hawai'i County provides no collection services. All collection services must be contracted with private companies or residents self-haul their trash to transfer stations. The City and County of Honolulu currently has curbside refuse pickup two times a week, island-wide bulky waste pickup, and curbside green waste pickup twice a month.

### *Proposed Program Increases Participation*

To be successful, the proposed curbside recycling program seeks to increase participation, with the 3R's (reduce, reuse, recycle) there must be the 3C's (commitment, convenience, cost) to accomplish this goal. For example, some people will recycle because they are committed to recycling, some are willing to recycle if it is convenient, others will only recycle if there is an economic incentive.

The proposed program is not unique to Honolulu. The Consultant shared examples of other locations where recycling efforts have been successful. For example, San Francisco, California uses three carts for refuse: blue cart for glass, plastic, cans, foil, paper, and cardboard (recyclables); green cart for yard trimmings, food scraps, and soiled paper (green waste), and a black cart for non-recyclable, non-compostable refuse. Residents pay a \$19 monthly refuse fee and are provided 32-gallon carts as opposed to our 96-gallon cart. Another example is Tacoma, Washington where there the cost increases (i.e., \$16.69/month for 20-gallon container to \$41.85/month for 90-gallon container) as the size of the garbage container increases. There is no additional charge for green waste and mixed recyclables, which are collected on alternating weeks.

### *Potential Effectiveness of Proposed Programs on Material Recycling*

How will these programs impact the waste stream? Where will this take us in the future? The Consultant explained that the current recycling rate of 35% can potentially be increased to

46% by doing what we do better. Optimizing the performance of existing programs (+6%), instituting the Mayor's proposed curbside mixed recyclables collection (+2%), and additional green waste collection (+3%) will increase the potential effectiveness of materials recycling programs. However, increasing recycling will not eliminate the need for more waste-to-energy capacity. Additional waste-to-energy capacity is needed. Without additional capacity, the overage must be sent to the landfill. H-POWER was built in 1989 and has continued to perform beyond contract capacity (600,000 tons). Capacity limitations have required H-POWER to divert approximately 150,000 tons to the landfill in 2005. As population and commercial growth continue there is a need for additional waste disposal capacity on Oahu. The City and County has issued a RFP for future increased waste-to-energy processing capacity of approximately 200,000 to 400,000 tons per year.

### *Combined effectiveness of Energy and Material Recycling*

The Consultant noted that the potential effectiveness of the proposed expansion of energy recycling will be an additional 200,000 tons of waste converted to energy. The additional energy recycling rate of 11% would increase the current 22% energy recycling rate to 33% total energy recycling rate. The combined effectiveness of energy and material recycling of 46% added to this will increase to 79% materials being diverted from the landfill and recycled into energy or new products.

### *Comparative Benefits of Energy and Material Recycling*

What this all means is that both converting waste-to-energy and waste to other products has benefits. Reducing dependence on fossil fuels can lead to reducing greenhouse gas emissions. This reduced reliance and decreased dependence on foreign markets can help to create jobs and keep waste out of the landfill. Globally, fossil fuels are saved and greenhouse gases aren't produced when waste is converted to energy. Natural resources are saved and the need to ship recyclables elsewhere to manufacture new products is reduced.

Sustainability, or material to energy recycling, both yield environmental benefits by reducing greenhouse gas emissions, creating energy benefits, providing landfill diversion, and economic benefits related to jobs. Both create jobs (i.e., more jobs and more higher paying jobs). Waste-to-energy provides greater benefit when considering on-island impacts. Material recycling offers greater benefit when considering off-island impacts.

The facilitator announced that Q-Mark would be distributing a post-meeting survey at this time to be returned prior to the end of the meeting.

### **Questions / Discussion**

Note: Answers in bold denote answers that were supplied by the City after the meeting – those questions still unanswered will be answered within a month of the meeting date and will be underlined.

Q: I disagree with the comments made regarding fossil fuels reducing greenhouse gas emissions – H-POWER still produces emissions how are they less?

- A: The City used the Environmental Protection Agency's Waste Reduction Model (WARM) because it has a carbon dioxide benefit. Information is available at the City and County of Honolulu's website: [www.opala.org](http://www.opala.org).
- C: This meeting is about landfill diversion. H-POWER serves that function. There are trade-offs using this recycling method. The current Administration feels that it is a form of energy recycling.
- Q: Is there any way to make green waste pick-up available to condominiums?
- A: The City does not provide refuse service to condominiums for legal reasons - condominiums must contract to haul away their own green waste as they do their refuse. However, there are some condominiums that are "self-hauling" their green waste to convenience centers which are accepting their green waste at no charge.
- C: The City needs to address and overcome problems condominium owners face regarding green waste pickup.
- Q: Has the City considered dumping bulky items (i.e., appliances, metal scraps) for use as artificial reefs?
- A: Metal recycling is more valuable. There are more markets for these materials.
- C: Thanks for a very informative presentation. Information provided has been useful.
- Q: Like the curbside recycling with colored refuse receptacles. What will the bins cost the taxpayers?
- C: Don't see incentives out there in communities. The City needs to create incentives in residential communities to encourage people to participate.
- Q: Has any research been done on recycling options that are being used outside of the United States?
- C: Feel frustrated that condominiums are unable to compost trash easily.
- C: Need to move towards more education in our communities about the importance of the 3Rs. People need to be made conscious that they are using way too much and need to reduce what we use.
- C: Need to communicate with your Council members to provide more funds for education and building public/private partnerships.
- Q: Regarding the pie chart used in presentation, what percentage was food waste?
- A: 14-15%

Q: Is the City considering combining food waste with green waste?

A: City is exploring this option.

Q: Concerned about the negative affects of H-POWER – for example, whether the ash composition is toxic to the landfill?

A: Landfills today are highly regulated and closely monitored the ash is disposed of in special monofil area. It is not perfect, but there is oversight by state and federal agencies.

Q: What is the composition of construction debris/waste?

A: Construction debris is made up of different materials, i.e., asphalt, concrete, wood waste.

Q: Can it be considered for recycling?

A: The challenge is to generate new products from these materials. The City is looking at this and does recycle asphalt and cement – wood creates a problem as it is often treated and therefore can not be safely burned.

Q: What is the fee structure for waste pick-up?

A: There would only be a fee for pickup under the proposed system if a resident wanted two day a week refuse pick up.

C: In San Francisco, residents are provided 20-gallon bins that are picked up once a week. The 96-gallon bins that are currently being used are excessive. It is possible to get by with less.

C: We need to educate kids at an early age. We need to start much earlier.

C: The current Administration is trying to do this. It is sponsoring the “Discover Recycling Fair” to be held at the Neal Blaisdell Center. It has appointed four youth to serve as members of the Solid Waste Advisory Committee. It is also convening a community meeting with youth to discuss these issues. The meeting is scheduled for Saturday, May 12<sup>th</sup> from 10:00 a.m. to 12:00 p.m. at Iolani School.

C: The City will continue to educate everyone on this issue.

Q: As this recycling initiative moves forward, won't H-POWER need more trash?

C: Need to educate towards reducing consumption.

Q: Why don't public schools have mandatory recycling?

A: The State, through the Department of Education, has jurisdiction over the public schools. However, the City is willing to help.

- C: The City is expanding and setting up more community drop-off bins at the schools. Schools not only benefit from revenues earned from recycling. The drop-off bins are used by the schools for their recyclables and help to reduce the disposal costs that are incurred for waste disposal.
- Q: In the condominiums where the City has provided incentives for recycling, it has worked well. What can be done about newspapers?
- C: I feel that the \$10 fee is affordable. Perhaps the City should consider charging a higher fee (i.e., \$30) so that the “throw-away” culture changes. People would consume less if they have to pay more.
- C: People need to work at keeping the green waste out of the bins.
- Q: Is the City making any moves to put recycling bins similar to those used in Japan in public areas?
- A: The City is working with the State to develop a receptacle recycling system in Waikiki.
- C: One of the reasons Japan is successful with recycling is because it has the population and a market for these materials. There are businesses that can use/convert waste materials into products. In Hawaii, we usually have to ship out waste materials elsewhere – this is why the City has focused on closed loop system such as green waste and waste to energy.