

Keeping It Green



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Paul J. Buklarewicz

Message from the Executive Director

DETOUR! – OFF “The Path to Zero Waste”
(continued from KIG Summer 2014 edition - Part 3)

County officials claim that a “waste-to-energy (WTE) facility,” euphemistically referred to as a “waste reduction” facility, will deal with Hawaii County’s municipal solid waste (MSW) after reuse, recycling and composting efforts continue to reduce the island’s MSW volume. While awaiting announcement of definitive techniques from selected respondents to the County’s request for proposal, let’s ponder whether or not any of the three short-listed respondents can offer the best disposal method in minimizing the inherent and documented WTE negative impacts to public health and the environment.

WTE will not eliminate the need to landfill tons of toxic ash residuals from the mass burn process these companies offer — **those residuals** will have to go to the Puuanahulu landfill in West Hawaii. There are many reasons why a WTE incineration plant has not been built in the last 17 years in this country. One reason points to airborne emissions documented in a 2001 health study of people living near two incinerators (Staessen et al – Lancet 357: 1660 – 1669). Findings include elevated PCBs and dioxins in children’s blood resulting in delayed and diminished sexual maturation correlated to concentrations of dioxins and serum PCB levels.

In December 2007, the County adopted Resolution 356-07: “A Resolution to Embrace and Adopt the Principles of Zero Waste as a Long-Term Goal for Hawai’i County.” It was followed by an island wide study leading to a ZW Implementation Plan in 2008-09; see website link: http://recyclehawaii.org/images/stories/3_14_09_Hawaii_Zero_Waste_Plan.doc.pdf.

This ZW Plan was subsequently adopted almost in its entirety in the most recent County of Hawaii, Integrated Resources/Solid Waste Management Plan, December 2009; see website link: http://www.hawaiizerowaste.org/uploads/files/1%20IRSWMP_Plan_Dec2009.pdf. The IR/SWMP committee appended the sub-title “On the Path to Zero Waste ...” to the report.

For the past twenty-two years, Recycle Hawaii has been educating the public on resource management that continually **reduces** use of commodities, then **reuses** and **recycles** what’s left. ZW communities aim for a 90% landfill diversion rate and many have been successful in doing so. How does an island community dedicated to steadily increasing materials recovery via recycling and composting, and decreasing mixed discards manage valuable resources in a flexible manner that excludes outdated technologies that are expensive and potentially harmful to the health and well-being of the community?

Consider: **MRBT** – Materials Recovery/Biological Treatment.*

Material Recovery, Biological Treatment is a process to pre-treat leftover waste before landfilling in order to recover additional materials for recycling and minimize the impacts from landfilling. MRBT can involve different methods, but for this study the researchers assumed the following steps:

Step 1: Source separation. After extensive source separation for recycling and composting in the community, the remaining community leftovers are sent to an MRBT facility.

Step 2: Material Recovery. The leftovers are sorted by machines and by hand to recover and market additional recyclable materials, primarily mixed paper, PET and HDPE plastics, metals and small appliances, and cardboard.

Step 3: Biological Treatment. The leftovers are then sent through a composting-like system where the organic fraction biodegrades and reduces in total volume due to moisture and carbon losses. The resulting stabilized output is often too dirty to market as a soil amendment, so this study assumes the residual output is landfilled. However, in some MRBT processes, the stabilized residuals may be used for restricted applications, such as land reclamation of old mines and landfills or landscaping along railways and highways, which increases the environmental benefits of using MRBT.

Step 4: Landfill. The remaining inert leftovers are then trucked to a landfill for burial. Because the residuals have been stabilized and produce little to no landfill gas when buried, we assumed the processed leftovers were buried in a landfill with no gas capture system.

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Recycle Hawai’i is a 501(c)3 non-profit educational organization serving the people of Hawai’i. We currently offer free public recycling educational services on behalf of the County of Hawai’i, the State Department of Health and our Recycle Hawai’i contributors.

Our mission is to promote resource awareness and recycling enterprises in Hawai’i. To achieve this, we educate the community about sound resource management and recycling opportunities for a more environmentally sustainable future.

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**COMPOSTING WORKSHOPS**

(December dates pending funding)

Adults \$10 fee. To register contact:
 Ann Hassler at 937-1100 or
crazy4compost2@gmail.com

Kea'au: Sat., October 11, 10 AM – 12 PM
 Kea'au Recycling & Reuse Center

Volcano: Sat., October 25, 10 AM – 12 PM
 Volcano School of Arts & Sciences
 Keakealani Campus, 19-4024 Haunani Road

Waimea: Sat., November 22, 10 AM – 12 PM
 Waimea Country School
 St. James Circle, Waimea

Honokaa: Sat., November 22, 2 PM – 4 PM
 N. Hawaii Education & Research Center
 45-539 Plumeria St, Honokaa

Pahala: Sat., November 29, 10 AM – 12 PM
 Pahala Community Center
 96-1149 Kamani St, Pahala

Ocean View: Sat., November 29, 2 PM – 4 PM
 Ocean View Community Center
 92-8924 Leilani Parkway, Ocean View

Kea'au: Sat., December 6, 10 AM – 12 PM
 Kea'au Recycling & Reuse Center

Kalapana: Sat., December 6, 2 PM – 4 PM
 SPACE Farmer's Market
 Uncle Robert's Club, Kalapana

Volcano: Sat., December 13, 10 AM – 12 PM
 Volcano Garden Arts
 19-3834 Old Volcano Rd, Volcano

Hilo: Sat., December 13, 2 PM – 4 PM
 Church of the Holy Apostles
 1407 Kapiolani St, Hilo

WAIMEA HOMESTEAD FARMERS MARKET
 Every other Saturday from 9 to 11 AM
 Oct. 4 & 18, Nov. 1, 15 & 29, Dec. 13 & 27
 (on Hwy 19 next to 55 mile marker at Kuhio
 Hale West Hawaii Office of DHHL)

Adults \$10 fee. Register at farmer's market or
 contact Samantha Robinson at:
 747-2737 or samillater@hotmail.com

**KEEP AMERICA BEAUTIFUL
 RECYCLE BOWL COMPETITION**

October 20-November 15
 School Incentive Program
<http://recycle-bowl.org>



**America Recycles Day
 NOVEMBER 15**

November 15
 National Recycling Initiative
<http://americarecyclesday.org>

**HOUSEHOLD HAZARDOUS
 WASTE COLLECTION**

December 6

Hilo Transfer Station 7:30 AM – 2:30 PM

December 13

Kealakehe Transfer Station 7:30 AM – 2:30 PM

ONGOING

Drop off or pick up good condition,
 reusable items at the following County
 Transfer Stations:

Kea'au Recycling & Reuse Center
 Open daily 8 AM – 5 PM

Hawi Recycling & Reuse Center
 Monday, 11 AM – 3:30 PM,
 Tues., Wed., & Thurs., 10:30 AM – 5 PM

Kealakehe Recycling & Reuse Center
 Open daily 8 AM – 4 PM

Keauhou Recycling & Reuse Center
 Open daily 8 AM – 4 PM

Pāhoā Recycling & Reuse Center
 Open daily 8 AM – 4 PM

Waimea Recycling & Reuse Center
 Open daily 9 AM – 4:30 PM

Recycle Hawai'i
 PO Box 4847 • Hilo, HI 96720
 (808) 329-2886 or (808) 961-2676
info@recyclehawaii.org • www.recyclehawaii.org

MARINE DEBRIS

Recycle Hawaii received a 2013 grant for Marine Debris Educational Outreach. Funding came from NOAA administered by the State Department of Health. The project received additional sponsor support from Matson, Method and the County of Hawaii-Department of Environmental Management.

This collaborative project focused on educating the public about marine debris through a series of classroom sessions, beach clean-ups and public presentations taking place between August 2013 and September 2014. Project Manager Kristine Kubat states, "There were two unique things about this program. It established a method for recycling marine debris and provided an educational component for cultural practitioners to mentor students while sharing their mana'o (wisdom, belief) on the cultural significance of the coastal region and ocean conservation practices."



*La'akea Carvalho with students of Malamalama Waldorf Summer Camp
photo credit: Kanani Frazier*

Cultural practitioner-educators Hawane Rios, Hualalai Keohulua, La'akea Carvalho and Kanani Frazier led informative, hands-on sessions with students at Hipu'u Virtual Academy, Malamalama Waldorf, Waimea Middle,



*Malamalama Waldorf Summer Camp students sort through marine debris.
photo credit: Kanani Frazier*

Kalaniana'ole Elementary-Middle and Laupahoehoe Elementary-Middle schools. Their goal was to expose students about the concepts of mālama 'āina and aloha 'āina. Students were engaged with hands-on types of marine debris and which "ocean plastic" could be up-cycled into Method soap containers. More was discussed on how debris gets into the ocean, what happens when it's in the ocean, when it's on land and its affect on ecosystems. Students were challenged to share specific actions they could take in their community to prevent marine debris and future ocean pollution.



*Hipu'u Virtual Academy students pick up trash along Miloli'i.
Photo credit: Kanani Frazier*

Four beach clean ups were organized by Megan Lamson, of Mehana Consulting and Hawaii Wildlife Fund. The clean ups covered 8.26 miles of southeastern coastline and resulted in a total of 210 participants removing 8,036 lbs or 77,965 pieces of marine debris contained in 175 bags.



*Volunteer action at 'Onikinalu Bay beach cleanup.
Photo credit: Kathleen Crabill/Nurdle in the Rough*

(Message from the Director continued from page 1)

The proposed County detour to WTE is counter-productive to commitments made to ZW goals as WTE will require more not fewer materials to burn — a liability borne by the community to satisfy the negotiated 20-30 year “put or pay” contracts that these facilities often require.

Zero Waste goals rely on a “No Burn, No Bury, No Emissions” approach to handling our discards. As an ocean-bound island community, we can do better in cleaning up our act by adopting a form of MRBT system that fits the needs of this island. It is an approach being used in Europe as well as many emerging economy nations around the world.

Note: Executive Director Buklarewicz attended the 29th International Conference on Solid Waste Technology and Management, March 30-April 2, 2014 in Philadelphia which included a continuing professional education course on various solid waste technologies employed worldwide; and the 5th Annual Resource Recycling Conference, September 15-17, 2014 in New Orleans under a scholarship provided by several recycling trade industry sponsors.

*What is the best disposal option for the “Leftovers” on the way to Zero Waste?, by Dr. Jeffrey Morris, Dr. Enzo Favoino, Eric Lombardi, Kate Bailey; visit <http://www.ecocycle.org/specialreports/leftovers> for more details.



'Koa'
RH's Recycling Mascot

There are many environmental issues we face, but one of the most pressing is that of climate change. There are still a number of people who for political or economic reasons, deny that climate change is happening, or if it is, that we humans are not at all responsible for it. However for those who believe in the scientific method, the signs of climate change are everywhere to be seen. The vast majority of scientists studying climate change have concluded that it is happening and in large part caused by human activity.

On September 21, 2014 a large-scale activist event took place to advocate for global action against climate change. The People's Climate March resulted from 1574 organizations holding 2646 events in 162 countries plus 630,000 social media posts. One major event took place in New York City where over 400,000 people participated. For more on the march, visit: <http://peoplesclimate.org/wrap-up/>.

On September 22, President Obama chaired the United Nations Climate Summit and spoke of our collective need to address this important issue. What actions can individuals or a family take towards reducing carbon emissions that will make a difference in climate change? Check out “Top 10 ways to reduce your CO2 emissions footprint” at: <http://bravenewclimate.com/2008/08/29/top-10-ways-to-reduce-your-co2-emissions-footprint/>.

You'll see that one way is to practice the 3 Rs: reduce, reuse and recycle. There is a limit to the planet's supply of raw materials. To look upon our discards as valuable natural resources calls upon us to make do with less, to reuse over one-time use and to reclaim or fix before replacing. We can seek out products for energy saving features and choose ones that come in widely recyclable packing. What will you pass on and what actions will you take to insure that our children and their children have an earth that will sustain them?



*Kids fight for climate justice in New York City! This action was in conjunction with thousands of events around the world for the Global Peoples Climate March, pressuring world leaders who are meeting in NYC to take real action on climate change.
Photo credit: Emma Cassidy*



*Fossil Free bloc of the march in London, UK
Photo credit: courtesy <http://peoplesclimate.org/wrap-up/#>*

BECOME A MEMBER OF RECYCLE HAWAI'I

Become a member of **Recycle Hawai'i** and receive a free Recycle Hawai'i tote bag with your paid membership or contribution.

Sponsoring Contributor
Non-Profit - \$50
Corporate - \$100

Individual Contributor
Student / Senior - \$10
Individual - \$20 • Family - \$30

Other Contributors
Friend - \$50 • Lifetime - \$50
Donor - \$100 • Patron - \$250

Go to www.recyclehawaii.org now and become a supportive member of our recycling community!