



**County of Hawai'i Solid Waste Reduction Workshop**  
**Hawai'i County Sustainability Summit**  
**April 8th, 2024**  
**Ridge to Reef Restoration Center**  
***4/21/24 Final Report***

This is a brief report of major issues and opportunities raised at the overfilled Solid Waste Reduction Sustainability Summit Workshop held April 8, 2024. The Agenda:

8:45am	Registration Sign In
9:00am	Opening, Welcome and Purpose - Harvey Stone
9:15am	Keynote: <b>Private and Public Sector-general overview of where we are at now and where opportunities for improvement are</b> - Nick Riznyk (Hana Hou Recycling) and Elias Allen (Atlas Recycling)
10:00am	Break
10:10am	<p><b>Panel on County Policy Initiatives: How ordinances can motivate landfill waste reduction and diversion.</b></p> <p><i>Moderator: Georjean Adams</i></p> <ul style="list-style-type: none"> <li>• Ramzi Mansour, Director of Department of Environmental Management - County's Solid Waste Operations Analysis</li> <li>• Georjean Adams, Chair of the Environmental Management Commission - County Landfill Ban of Recyclable Materials</li> <li>• Rebecca Villegas, Hawai'i County Council, &amp; Megan Lamson-Leatherman, Hawai'i Wildlife Fund - Single-use Plastics Phase-Out Ordinance</li> <li>• Bethany Morrison, Director of the Office of Sustainability, Climate, Equity, and Resilience - Introduction to OSCER</li> </ul>

	<ul style="list-style-type: none"> <li>• Heather Kimball, Hawai'i County Council - Inter County, State, and National Policy Coordination</li> </ul>
11:00am	<p><b>Panel on Diversion of Organic Waste Initiatives Underway: How to overcome barriers and scale solutions.</b>  <i>Moderator: Monica Stone</i></p> <ul style="list-style-type: none"> <li>• Ka'u Global Learning Lab, 'Āina Akamu - Integrating in-vessel composter for food and food contaminated paper fiber waste at Ka'u High School.</li> <li>• Qan Group, Evan Lam - Distributed community composting systems</li> <li>• Organic Matters Hawai'i, Deano Maryama - Composting green/agricultural waste, fish aquaculture byproducts, and paper fiber/cardboard/brown paper</li> <li>• Hānai Kaiāulu, U'ilani Pieper and Charles Cravalho - Community cardboard shredding at Sustainable Saturday Events</li> <li>• Intergenerational Pig Farmer, K. Ku'ulei Kanahale - Diversion of food waste to piggeries <i>unable to attend</i></li> </ul>
12:00pm	Lunch (provided)
1:00pm	<p><b>Panel on Reuse and Repurpose of "Still Good Stuff" - Furniture, Textiles, Household Goods, Paper, Electronics, and C&amp;D</b>  <i>Moderator: Georjean Adams</i></p> <ul style="list-style-type: none"> <li>• ReUse Hawaii - Alexis Schultz (Virtual) - Deconstructing to reuse building materials <i>unable to attend</i></li> <li>• Junk Authority Hawai'i - Amanda Hurtado - Eco-friendly junk removal</li> <li>• Goodwill Hawaii - Katy Chen - Household goods, clothing paper recycling, and workforce development</li> <li>• The Transfer Station Thrift Stores - Elizabeth Monroe (Virtual) - Household goods, textiles, furniture and more. <i>unable to attend</i></li> <li>• Hawai'i County Electronic Waste Program – Chris Chin-Chance, Department of Environmental Management - Electronic waste reuse, recycling and collection</li> </ul>
2:00pm	<p><b>Presentations: Vision for the Future: What is a circular economy for Hawai'i Island?</b>  <i>Moderator: Noel Morin</i></p> <ul style="list-style-type: none"> <li>• Noel Morin, Sustainability Partners - Circular Economy</li> <li>• Nick Riznyk, Hana Hou Recycling &amp; Nick Doyle, Malama One Recycling - Resource Recovery Parks</li> <li>• Jennifer Navarra, Zero Waste Hawai'i Island - Reusable Packaging Systems</li> </ul>
3:00pm	<b>Break</b>
3:15pm	<p><b>Keynote:</b> Principles and Practices of Asset Based Community Development (ABCD): Advanced the indicators of success - Janice Ikeda, Executive Director of Vibrant Hawai'i. <i>ran out of time!</i></p>
3:30pm	<p>Facilitated Interactive Asset Based Community Development Activity  <i>Facilitator: Janice Ikeda ran out of time!</i></p>

4:00pm	Closing Remarks
4:30pm	Pau Hana

The focus of the workshop was to look at how this county community can do more to reduce solid wastes by leveraging what is working and what more can be done.

We kicked off the session with historical background from a couple of the homegrown businesses on Hawai‘i Island – [Atlas Recycling Centers](#) and [Hana Hou Recycling](#). – that are driven by a zero waste ethic and able to build and provide viable businesses services to the community. Elias Allen and Nick Riznyk gave an overview of current statistics and opportunities to recognize that a lot is happening in diverting solid waste from our landfill, but that much more can be done. They talked about the challenges of a rural island that must rely on its community working together to protect and ensure our island can thrive. **LOGISTICS** and **INFRASTRUCTURE** – being able to efficiently collect and move resources to where they can be recovered and reused - is a key sustainability challenge for Hawai‘i Island. (see DEM Recycling Program Update in Appendix I). they also talked about recent statistics that show how far we have to go:

At a rate of 205,000 tons/yr going into our only landfill in West Hawai‘i, we’ll have ~25 years before it’s full. Opportunities to reduce what is landfilled exist for these waste volumes:

- ~190 tons/day organics
- ~136 tons/day of Construction & Demolition
- ~230 tons/day metals, paper, plastics, glass

(See SW Overview Today slides in Appendix I)

### POLICY Initiatives Panel

The laws and regulations that can direct what and how we do waste reduction in the County.

Ramzi Mansour, DEM, started with describing an ongoing study to assess our current operations and proposals for new policies and processes that can extend our ability to manage wastes. That report will be done later this year. Input to the contractor Element Environmental is still possible: [ryamauchi@e2hi.com](mailto:ryamauchi@e2hi.com) (see Scope of Work in Appendix I)

Georjean Adams briefly described the Environmental Management Commissions recommendation to County Council to work on an ordinance to phase in bans on landfilling recyclable materials as diversion is feasible, starting with larger organizations and materials we are already recycling. (see Draft Ordinance meant to begin discussions in Appendix I)

Megan Lamson Leatherman and Rebecca Villegas talked about the struggles to move an ordinance and state law to phase out single-use plastics. Even though there are other state models, it has been Hawai‘i’s counties trying to push against a variety of lobbyists to adopt this policy at the state level. It’s been an ongoing saga of re-writes to close loopholes and find consensus, but they believe in the goal to move away from petroleum-based products and remain hopeful.

Bethany Morrison described beginning to form the newly created Office of Sustainability, Climate, Equity and Resilience (OS CER). Her focus is to catch the programs that are falling through the cracks between departments and bring people together to implement the county’s Integrated Climate Action Plan and Energy Management Plan, to identify where environmental

justice needs to be upfront in agency decision-making and identifying resilience challenges like natural hazards and food security that require better communication between departments. She's still building the office and staff, but sees our workshop topic as a key sustainability focus and has offered to help convene stakeholders for future action.

Heather Kimball talked about her work on EPA's Local Government Advisory Committee regarding the National Strategy to Reduce Plastic Waste (see Appendix I). That group asked for help from EPA to develop Extended Producer Responsibility because all local governments are struggling with the topic. Expect a white paper in September from EPA.

Policy requires **STAKEHOLDER COMMUNICATION** and **PERSEVERANCE TOWARD MUTUAL GOALS**.

### DIVERSION OF ORGANICS WASTE Panel

Lively and awe-inspiring set of presentations!

Ka'u Global Learning Center and Hanai Kaiaulu talked about how they have inspired students to take ownership, learn and design solutions for composting for not only their schools' waste but also working in concert with the community (for community service credit!). Hanai Kaiaulu's Sustainable Saturday Events are melding diversion and creative reuse of cardboard with local food giveaways. Students are learning about kuleana and the circular economy by using their thinking skills and leveraging technology and grants for practical results. Scalability? Individually, the efforts are small volume, but as the models propagate to other schools and communities the impact will grow. However, the bigger positive impacts:

**KIDS LEARNING HOW THEY AND THEIR COMMUNITIES CAN LIVE MORE SUSTAINABLY.**

**TEACHERS SHARING THEIR PASSION AND CUTTING THROUGH STANDARD OPERATING PROCEDURES** ("we don't do it that way").

Hurdles to scalability are **COSTS**, particularly **TRANSPORTING FEEDSTOCK** to the "student" processors and commercial users.

Evan Lam, shared his entrepreneurial spirit of collecting and sharing data and innovative ways to solve problems in distributed composting systems by looking at how different people are actually doing unheralded diversion within their own ecosystems. While there isn't a "silver bullet" to "fix" the problems, he thinks a useful solution for making compost for commercial use is to work on designing a **COMPOST QUALITY STANDARD** that composters can work toward.

Deano Maryama talked about his vision of producing high quality compost, but is struggling with the permitting challenges involving multiple agencies and their many fenced in hurdles that take years to work through to go commercial scale. He needs **STREAMLINING** and **INTERAGENCY COORDINATION** (state and county) to support viable composting businesses.

Ku'u lei Kanahale was not able to join us, but would have reported on significant food waste diversion happening from farms, restaurants and some grocery stores to **PIGGERIES** (and thus back to consumers as food).

### REUSE and REPURPOSE Panel

Technical connection made us miss two of the panelists, but please check out their websites:

[ReUse Hawaii](#) works with primarily commercial clients to do demolition and recovery of reusable construction materials that otherwise would be landfilled. High volume Construction &

Demolition (C&D) waste are relatively straightforward to recover – if there is land to operate on (eg, to grind up concrete) and if care is taken to deconstruct and protect still useful stuff for reuse.

[Transfer Station Thrift Stores](#) runs the reuse centers located at several county transfer stations selling “still good stuff” at low prices, keeping wastes from prematurely going to the trash chutes and helping residents save money. Owner Elizabeth Rollins sent the following:

*“...community members not to drop off things that are trash at our thrift stores. We need to figure out a way to stop being vandalized and we need more space and **SECURE BUILDINGS**. .... The weather and vandals ruin many of our items that get donated and therefore they become unusable and end up in the landfill.”*

Amanda Hurtado of [Junk Authority Hawaii](#) is picking up people’s junk and sorting out what can be reused, repaired and refurbished and taken to potential users or distributors, such as Memory Lane Too, the transfer station Reuse Centers, Local Thrift Stores, Directly to local residents, Big Island Scrap Metal and ReUse Hawaii. They are now trying to focus efforts that have the biggest return and finding partners. Her biggest challenges as a small business include: **AFFORDABLE** and **ACCESSIBLE STORAGE** for material prior to diversion to users, **LIMITED SPACE** and Donation Drop hours at existing donation centers, **DELIVERY COSTS**, Time & **COST** to **REPAIR & Refurbish** items in order to recirculate them back into the community, **PAYING TRAINED STAFF**. She thinks one potential solution could be to initiate a separate landfill diversion program funded by proceeds raised through a fiscal sponsor. She is hopeful that the community will establish an eco-center that can support not only our diversion efforts but also those of other Big Island junk haulers, thus enabling us to create a greater impact.

Katy Chen of [Goodwill Hawaii](#), whose focus is workforce development learning how to manage donated materials as well as providing training skills and connections to other employment. She wowed us with their ongoing plans for 1 ½ acres of Hilo land with 6000 sq ft of buildings to be a Island-wide hub for accepting donated material for sale and for bailing to sell to vendors (textiles and cardboard) and offering high security paper and cardboard shredding services to meet their own packaging needs for online sales. Plans include making the operations sustainable with PV energy. They are exploring partnership with ReUse Hawaii and co-locating at the landfill to divert C&D. She and other speakers were very excited to explore **SYNERGY** for sustainability. Goodwill has the **REVENUE STREAMS** from donated saleable goods and philanthropy to meet sustainability goals.

Chris Chin-Chance with commentary provided by Roy Kadota of Mr. K’s talked about the growing success (smoothing out of the roller-coaster path) of the state **EXTENDED PRODUCER RESPONSIBILITY** (EPR) program for (selected) electronics. Manufacturers are now paying Mr. K to take their products for recycling and safe disposal and for the County to do more public education and more frequent collection days around the island. Mr. K is working on getting more **REFURBISHING FOR REUSE** of electronics with partners. There still needs to be more effort and more types of electronics collected, but he’s optimistic about the new program (effective 2023). He is also supportive of looking at EPR programs for other products that have been implemented in other states. He pointed to the [Products Stewardship Institute](#) for further information.

VISION for the FUTURE: Circular Economy

Noel Morin, [Sustainable Partners](#) (SP), a public benefit corporation, shares his company's mission to enable sustainable, safe, and improving infrastructure. The company offers **infrastructure as a service** - SP provides the capital required to procure, install, and maintain essential infrastructure for municipalities, universities, hospitals, and other large durable entities. Customers can then focus on their mission without the burden of managing infrastructure. He gave an overview of the Circular Economy, including key considerations and implications on the waste reduction objectives discussed at the workshop. Concepts shared:

### Principles:

- Design out waste
- Extend useful life
- Restore and regenerate
- Learn from ancestors

### Key Strategies:

- Partner with communities
- Place and values-based approaches
- Systems thinking of cradle to cradle (aka circularity)
- Moving away for "ownership" mentality
- Resource recovery vs managing waste

### Opportunity Areas

- Product, material, and service innovations
- Behavior change
- Infrastructure
- Policy, regulations, incentives

Nick Riznyk discussed his vision of a circular economy based on Hawai'i Island where resources are kept here to be reused. The vehicle to do that would be to establish one or more **Resource Recovery Parks** (RRPs) on island that could accept and prepare materials for reuse and repurposing, providing space and cost-effective equipment to private entrepreneurs and the public to work together and learn as a community. (One policy approach is to force diversion to RRPs and other service providers for reuse and recycling via a landfill ban for recyclables where the capability is feasible.) An RRP can be a hub for learning and creation of island-scale technologies and products. The first step is creating the **LOGISTICS** to move materials at **SUFFICIENT SCALE** to be processed (at an RRP) and then used on island. The operations must be both environmentally and economically sustainable. (See his slides in RRPs in Appendix I for how that can happen.)

Nick Doyle his view of a circular economy for Hawai'i Island being a journey (see Appendix I). He highlighted components necessary for the journey and noted that these evolve as we learn and work together:

- o Policy- as navigation
- o Infrastructure – services and provisions
- o Technology – how we get there
- o Public-Private Partnerships – that will drive and fuel the journey
- o Scalable Place-based Solutions – as we go along

He thinks we have some of the basics, but we need to develop and integrate to eventually move to a circular economy.

Jennifer Navarra, Zero Waste Hawai'i Island, described the project for a Reusable Foodware Packaging System in Hilo. Working with the local community and restaurants, the project aims to demonstrate a program that can be expanded to other towns and resorts on island that supports REUSE instead of single-use disposal of service ware. (See the Design Document in Appendix I). Key is having **STANDARDS** for reusable wares to ensure reliable and interoperability systems that will be returned into a circular program for distribution and safe reuse. Support in the way of **POLICY** for Extended Producer Responsibility could help fund the investment in infrastructure necessary to scale this solution.

**CONCLUSIONS:** The day was almost overwhelming in the amount of information and ideas that were presented. Networking and passing of cards and contact information occurred at all the breaks. Many of the attendees want to continue the conversation and work toward opportunities to reduce solid waste. We will be setting follow up meeting and, hopefully ongoing working sessions to craft specific initiatives to implement and scale up solid waste reduction. Areas we could explore include:

Policies:

- o Banning landfill of feasibly recyclable materials
- o Additional materials to be subject to EPR programs at the county level
- o Enabling public private partnership
- o Developing standards for reusable and recycled products

Sponsoring Synergy:

- o Creating a forum to bring community groups together to learn from each other and propagate local programs across the island
- o Connecting groups with resources to those who need them
- o Streamlining interagency rigidity and lack of coordination
- o Developing logistical solutions for circularity

Creating a Resource Recovery Park

- o Designing and growing the functions and services provided by an RRP

Distributed Composting Plan

And many other areas the group should decide what they want to work on.

Mahalo to all participants!

Georjean Adams, Jennifer Navarra, Nick Riznyk, Harvey Stone

## **Appendix I**

### **Links to Background Documents**

[SW Overview Today slides](#)

[ISWMP 2019 Exec Summary.pdf](#)

[DEM Recycling program update 2024-02-21](#)

[Solid Waste Operational Study overview and scope of work](#)

[Draft Ordinance for Council – Recyclables Landfill Ban](#)

[EPA Draft National Strategy to Prevent Plastic Pollution](#)

[Hana Hou Recycling RRP Overview](#)

[The Future Hawaiian Circular Economy – Nick Doyle](#)

[Hilo-wide Reusable Foodware Project Draft 1 System Design Document](#)

[Recycle Hawai'i's Zero Waste Plan Update](#)

[ReUse Hawai'i Construction and Demolition Waste to Resources](#)

## Appendix II April 8 Attendees

<b>First Name</b>	<b>Last Name</b>	<b>Affiliated Organization</b>
Doug	Adams	<i>Research and Development</i>
Georjean	Adams	<i>Environmental Management Commission</i>
‘Āina	Akuma	<i>Ka‘u Global Learning Center</i>
Elias	Allen	<i>Atlas Recycling</i>
Katy	Chen	<i>Goodwill Hawaii</i>
Chris	Chin Chance	<i>Department of Environmental Management</i>
Charles	Cravalho	<i>Hānai Kaiāulu</i>
Mendy	Dant	<i>Fair Wind Cruises/ Kona-Kohala Chamber of Commerce</i>
Nick	Doyle	<i>Malama One</i>
John	Elkjer	<i>Sustainable Island Products</i>
Cindy	Evans	<i>County Council</i>
Kelly	Hartman	<i>Department of Environmental Management</i>
Amanda	Hurtado	<i>Junk Authority Hawaii</i>
Roy	Kadota	<i>Mr. K’s Recycle and Redemption</i>
Jenn	Kagiwada	<i>County Council</i>
Craig	Kawaguchi	<i>Department of Environmental Management</i>
Heather	Kimball	<i>County Council</i>
Kristine	Kubat	<i>Recycle Hawaii</i>
Evan	Lam	<i>Qan Group</i>
Megan	Lamson Leatherman	<i>Hawaii Wildlife Fund</i>
Nicole	Larson	<i>Hawai‘i Ocean Advocates</i>
Ramzi	Mansour	<i>Department of Environmental Management</i>
Deano	Maryama	<i>Organic Matters Hawaii</i>
Lyman	Medeiros	<i>Big Island TV</i>
Noel	Morin	<i>Sustainable Partners</i>
Beth	Morrison	<i>Office of Sustainability, Climate, Equity, and Resilience</i>
Lauren	Nakoa	<i>Formerly with Kona Village</i>
Jennifer	Navarra	<i>Zero Waste Hawai‘i Island</i>
U‘ilani	Pieper	<i>Hānai Kaiāulu</i>
Nick	Riznyk	<i>Hana Hou Recycling</i>
Kihei	Seto	<i>Hawaii Green Growth</i>
Kirsten	Snook	<i>Volcano Precious Plastics</i>
Harvey	Stone	<i>Mayor’s Sustainability Summit</i>

<b>First Name</b>	<b>Last Name</b>	<b>Affiliated Organization</b>
Monica	Stone	<i>In Harmony Hawai'i LLC</i>
Rebecca	Villegas	<i>County Council</i>
Alex	White	<i>Department of Environmental Management</i>
Katrina	Zavalney	<i>Aranya Solutions</i>