



County:	Hawaiʻi	Solid Waste Issue:	Mattresses
Population (2020 Census):	200,700		
Last Update to SWMP:	2019		
Waste Characterization Data:	There is no Countywide information available on the amount of mattresses being disposed. According to the 2008 waste composition study, approximately 2,177 tons of bulky waste were disposed (one percent of the total waste stream)—a portion of which includes mattresses. ¹		
Waste Diversion Data:	There is no information available on the total amount of mattresses being diverted Countywide.		
County Ordinances:	SW Rule 2-1-3: "Bulky material" means large items of solid waste, such as household appliances, furniture and other oversize wastes which may be prohibited for disposal at transfer stations (convenience centers) or would typically not fit in transfer station (convenience center) chutes or solid waste transport trailers."		
Overview:	Institute the re-	ne County of Hawai'i does aste collection services for tead, citizens on the Bigeir mattresses to the language and transfer station and transfer station and transfer station.	or mattresses. g Island can deliver dfill or the County's ions. Habitat for
County Programs & Funding:	The are no Countywide programs related to the management of mattresses.		
Estimated Annual Material Type Generation:	There is no information available on the total amount of mattresses being generated Countywide.		
Permitted Collectors, Recyclers/Processors, and Landfills:	 Glenwood Recycling & Transfer Station Habitat for Humanity ReStores² Hāwī (Ka'auhuhu) Recycling & Transfer Station Hilo Recycling & Transfer Station Honoka'a Recycling & Transfer Station Honomū Recycling & Transfer Station Kailua-Kona (Kealakehe) Recycling & Transfer Station Kalapana Recycling & Transfer Station Ka'ei Recycling & Transfer Station Kea'au Recycling & Transfer Station Keauhou Recycling & Transfer Station Laupāhoehoe Recycling & Transfer Station Ocean View Recycling & Transfer Station Pa'auilo Recycling & Transfer Station Pāhala Recycling & Transfer Station Pāhoa Recycling & Transfer Station Pāpa'ikou Recycling & Transfer Station Papa'ikou Recycling & Transfer Station Volcano Recycling & Transfer Station Wai'ōhinu Recycling & Transfer Station Waiea Recycling & Transfer Station Waiea Recycling & Transfer Station Waimea Recycling & Transfer Station 		
News Articles:	Spectrum Local News: "What Happens	to Hawaii Island's Trasl	h and Recyclables?"
Solid Waste Stream Issue Statement:	The Hawai'i 2000 Plan for Integrated S including mattresses, account for nearl waste stream. Although used mattress	y five percent (5%) of th	e State of Hawaii's



State of Hawai'i Solid Waste Management Issue - Baseline Conditions



by weight), most are not recycled due to the bulky size and lack of affordable, convenient recycling options. Mattress materials are often not biodegradable, so when landfilled, they spend decades and even centuries taking up landfill space. Their large, heavy-duty frames can also damage expensive landfill equipment. Furthermore, chemicals in some materials can leach out into the surrounding soil and groundwater.

Solid Waste Management
Issue Statement:
(County to provide issue
statement and potential
solutions regarding the
management of this material
type.)

Issue Statement - N/A

Potential Solutions - N/A

¹ Waste Composition Study County of Hawaii (hawaii.gov)

² Restores (habitathawaiiisland.org)





County:	Honolulu	Solid Waste Issue:	Mattresses
Population (2020 Census):	1.02 million		
Last Update to SWMP:	2019		
Waste Characterization Data:	According to the 2017 waste characterization study report, approximately 9,652 tons of furniture were disposed countywide (1.2 percent of the total waste stream)—a portion of which includes mattresses.		
Waste Diversion Data:	There is no countywide information available on the quantity of mattresses being diverted.		
County Ordinances:	Honolulu Code of Ordinances § 42-4.8: The failure of any owner or association of apartment owners to properly dispose of or remove bulky wastes within seven days after written notice shall constitute a public nuisance. Any person responsible for noncompliance with § 42-1.4(d) shall be liable to the city for the cost of removing such bulky wastes. Effective as of July 1, 2021, mattresses and box springs delivered to H-Power are subject to Special Handling Charges in accordance with Revised Ordinances of the		
Overview:	City and County of Honolulu Section 9-4.2. ^{2, 3}		
County Programs & Funding:	Bulky Item Collection Progran		
Estimated Annual Material Type Generation:	There is no countywide information available on the quantity of mattresses being generated.		
Permitted Collectors, Recyclers/Processors, and Landfills⁴:	 Ewa Beach Convenience Cer Habitat for Humanity (new or H-POWER Kapaa Transfer Station Kapolei Convenience Center Kawailoa Transfer Station Laie Convenience Center Wahiawa Convenience Center Waianae Convenience Cente Waimanalo Convenience Cer Waimanalo Gulch Sanitary La Waipahu Convenience Cente 	unused mattresses) ⁵ er r ter undfill	





News Articles:

Spectrum Local News: "What Happens to Oahu's Trash and Recyclables?"

<u>Hawaii News Now</u>: "City Rolls Out Appointment-Only System for Bulky Item Trash Pickup to All of Oahu"

<u>Civil Beat</u>: "Mountains Full Of Trash': Residents Say Bulky Pickup Pilot Isn't Working - Honolulu Civil Beat"

Solid Waste Stream Issue Statement:

The Hawai'i 2000 Plan for Integrated Solid Waste Management notes that furniture, including mattresses, account for nearly five percent (5%) of the State of Hawaii's waste stream. Although used mattresses are highly recyclable (over 75% of material by weight), most are not recycled due to the bulky size and lack of affordable, convenient recycling options. Mattress materials are often not biodegradable, so when landfilled, they spend decades and even centuries taking up landfill space. Their large, heavy-duty frames can also damage expensive landfill equipment. Furthermore, chemicals in some materials can leach out into the surrounding soil and groundwater.

Solid Waste Management Issue Statement:

(County to provide issue statement and potential solutions regarding the management of this material type.) **Issue Statement** – Mattresses are accepted at H-POWER but are challenging due to their large size, difficulty to shred, metal springs and use of fire-retardant materials in their manufacture. Bulk loads of mattresses, predominantly from renovations of hotels, condos and military housing, are charged special handling fees per 2021 ROH Ch. 42.

Potential Solutions – The City has partnered with mattress reuse organizations that are ramping up operations to add more capacity to refurbish used mattresses. The end goal is to be in a position to divert all mattresses from H-POWER to reuse and recycling.

¹ 2017 Waste Composition Study Final Report (honolulu.gov)

² Bulk Mattress and Box Spring Disposal (hibuwebsites.com)

³ ROH Chapter 9 Collection and Disposal of Refuse (honolulu.gov)

⁴ Recycling and Disposal Guide for Oahu (honolulu.gov)

⁵ Acceptable Donations Guideline (honoluluhabitat.org)



solutions regarding the



Country	Kouoʻi	Solid Woote Jeans	Mottrocco
County:		Solid Waste Issue:	เงเสเนียรรยร
Population (2020 Census):			
Last Update to SWMP:	2021		
Waste Characterization Data:	, and the second		
Waste Diversion Data:	There is no Countywide information available	on the amount of mat	tresses being diverted.
County Ordinances:	Section 21-7.3 of the Kaua'i County Code identifies prohibited materials from transfer stations, including bulky items greater than three feet in dimension. The ordinance also states that, "Not withstanding any provision to the contrary, the Lihu'e Refuse Transfer Station may accept, from residential self-haulers only, bulky items such as bed mattresses & box springs and other whole furniture items made of wood."		
Overview:	According to the County's website, there are reuse locations for mattresses in Kaua'i.² In addition, the County does not offer bulky item collections services.³ Residents are encouraged use social media outlets to advertise unwant mattresses or give them away. Alternatively, mattresses can be disposed of at the Kekaha Landfill or at the Līhu'e Refuse Transfer Stati According to the County ISWMP, a planned of reduction activity includes advocating for EPF potential candidate materials, including mattre among other materials.⁴	ged to ge	
County Programs & Funding:	Recycling and Waste Diversion Gran	t Program⁵	
Estimated Annual Material			
Type Generation:	·	on the amount of mat	resses being generated.
Permitted Collectors, Recyclers/Processors, and Landfills ⁴ :	Kekaha LandfillLīhu'e Refuse Transfer Station		
News Articles:	Kaua'i Now News: "New Trash Removal Con	npany Looks to Clean ເ	up Island"
	<u>Honolulu Civil Beat:</u> "The Kauai Landfill 'Con Hazard"	undrum' Could Quickly	Become A 'Public Health
Solid Waste Stream Issue Statement:	, , , , , , , , , , , , , , , , , , , ,		
Solid Waste Management Issue Statement: (County to provide issue statement and potential solutions regarding the	Mattresses are large bulky items that do not Significant sums of capital and time is spent that have little to no effect on foam mattresse	on equipment to comp es Foam mattresses a	act solid waste at landfills re even more problematic

as they have no metal springs reducing their recyclability. Foam is generally reused or



management of this material type.)

repurposed. BASF has a process that recovers polyols and isocyanates from old foam mattresses to make new foam mattresses but is not widespread. The Hawaiian Islands have the additional burden of a large visitor industry that generates a significant amount of waste in the form of mattresses.

Potential Solutions -

The likely best solution for mattresses would be enacting Extended Producer Responsibility legislation. To help reduce the impact from the visitor industry, legislation could potentially be enacted that would require vendors selling mattresses to this industry to take back the used mattresses and process them off island.

¹ Materials Prohibited at the Kekaha Landfill (kauai.gov)

² FAQ (kauai.gov)

³ Community Profile (kauai.gov)

⁴ Kaua'i Integrated Solid Waste Management Plan (kauai.gov)

⁵ Recycling Grants (kauai.gov)



Statement:

Potential Solutions – N/A

(County to provide issue statement and potential solutions regarding the management of this material type.)

State of Hawaiʻi Solid Waste Management Issue – Baseline Conditions



County:	Maui	Solid Waste Issue:	Mattresses
Population (2020 Census):	165,000		
Last Update to SWMP:	2009		
Waste Characterization Data:	According to the 2019 County ISWMP, approximately 2,012 tons of mattresses were disposed countywide (0.9 percent of the total waste stream).1		
Waste Diversion Data:	There is no information available on the total amount of mattresses being diverted Countywide.		
County Ordinances:	There are no Countywide ordinances related to the management of mattresses.		
Overview:	The County of Maui does not provide bulk item collection services. ² Instead, residents may self-haul mattresses at the County landfills. Alternatively, some local business offer mattress collection and disposal services for a fee. Residents are also encouraged to donate mattresses to local charities, such as a homeless shelter or thr store.	es Comparison (MADA)	
County Programs & Funding:	County of Maui Environmental Protection and Sustainability Grants: • Green Grants Program (estimated funds for FY 2024 are \$100,000) • Recycling Grants Program (estimated funds for FY 2024 are \$500,000)		
Estimated Annual Material Type Generation:	There is no information available on the total Countywide.	al amount of mattresse	s being generated
Permitted Collectors, Recyclers/Processors, and Landfills³:	 Central Maui Landfill Hana Landfill Ka Hale A Ke Ola Homeless Resou Lanai Landfill Molokai-Naiwa Landfill & Recycling 		
News Articles:	Maui Now: "Ask The Mayor: How Do I Disp	ose of Old Furniture?"	
Solid Waste Stream Issue Statement:	The Hawai'i 2000 Plan for Integrated Solid Waste Management notes that furniture, including mattresses, account for nearly five percent (5%) of the State of Hawaii's waste stream. Although used mattresses are highly recyclable (over 75% of material by weight), most are not recycled due to the bulky size and lack of affordable, convenient recycling options. Mattress materials are often not biodegradable, so when landfilled, they spend decades and even centuries taking up landfill space. Their large, heavy-duty frames can also damage expensive landfill equipment. Furthermore, chemicals in some materials can leach out into the surrounding soil and groundwater.		
Solid Waste Management Issue	Issue Statement – N/A		



State of Hawai'i Solid Waste Management Issue – Baseline Conditions



¹ Waste Stream (mauicounty.gov)

² Ask the Mayor: Does Maui Have a Bulky Item Pickup Service? (mauinow.com)

³ Ask The Mayor: How Do I Dispose of Old Furniture? (mauinow.com)



State of Hawai'i Solid Waste Management Issue - Baseline Conditions



State: State of Hawai'i Solid Waste Issue: Mattresses

Population (2020 Census):

Last Update to ISWMP:

Waste Characterization Data:

2000

1.45 million

There is no Statewide waste characterization data available specific to mattresses.

Overview:

Without any take-back programs for mattresses within the state of Hawai'i, most mattresses end up being landfilled and in some cases, illegally dumped. Mattresses do not compact well and take up landfill space. Illegally dumped mattresses can present costly and unnecessary burdens for local governments. Only a small fraction of mattresses are reused or recycled each year, despite the fact that mattresses are readily recyclable and have components with high value.



The County of Honolulu is the only county within the state that offers bulky item collection services. The collections are scheduled through an appointment system, and unwanted bulky items must be placed at the curb by six in the morning on the day of the scheduled appointment. Honolulu residents can also dump unwanted mattresses off at City Convenience Centers for Refuse & Recycling, Kapaa and Kawailoa Transfer Stations or the landfill. Mattresses from Commercial entities are not accepted at City Transfer Stations and Waimanalo Gulch Sanitary Landfill. Alternatively, commercial businesses can deliver their mattresses to H-POWER.

The Counties of Hawai'i, Kaua'i, and Maui do not offer bulky item collection services for mattresses. Citizens on the Big Island can deliver their mattresses to the landfill or the County's recycling and transfer stations. In Maui, mattresses may be self-hauled to the County landfills as well. Alternatively, some local businesses offer mattress collection and disposal services for a fee. Residents are also encouraged to donate mattresses to local charities, such as a homeless shelter or thrift store. In Kaua'i, there are no reuse locations for mattresses. Residents are encouraged to use social media outlets to advertise unwanted mattresses or give them away. Unwanted mattresses can be disposed of at the Kekaha Landfill or at the Līhu'e Refuse Transfer Station.

Located in Oʻahu, Ross' Appliance and Mattresses rebuilds and refurbishes old mattresses to create new mattresses. All mattresses undergo a sanitation process when they arrive. If the mattresses are in good condition and have been well-protected, they are cleaned, bagged and resold. If the mattresses are in bad condition, Ross' Appliance and Mattresses will strip the upholstery off and rebuild them at their Green Bed Factory. Service areas include Honolulu, Kapolei, Kaneohe, North Shore, and 'Ewa, and shipping services are offered to all islands.

Legislative Actions and State Statute:

House Bill 1326 (2023) was a proposed bill that would have established the Hawai'i Zero Waste Initiative to manage the State's transition to a zero-waste economy. It also would have required the Department of Health to "seek market-based solutions that internalize the external costs to producers that have been borne by taxpayers in the past, beginning with considering programs for products that have successful extended producer responsibility programs in other jurisdictions, including but not limited to . . . mattresses."

Hawai'i Administrative Rules (HAR):

Hawai'i Administrative Rules §11-58.1-03 defines "bulky waste" as "large items of refuse, such as appliances, furniture, and other oversize wastes which would typically not fit into reusable or disposable containers."



State of Hawai'i Solid Waste Management Issue – Baseline Conditions



	There are no administrative rules in the State of Hawai'i related to the management of mattresses.	
Federal Government:	While not federally regulated, some states have established mattress recycling laws.	
Estimated Annual Generation and Diversion:	Estimated Generation : There is no Countywide information available on the amount of mattresses being generated. Estimated Diversion : There is no Countywide information available on the amount of mattresses.	
	being diverted.	
Permitted Collectors, Recyclers/Processors, and Landfills:	Estimated Diversion: There is no Countywide information available on the amount of mattresses being diverted. Hawai'i County: Glenwood Recycling & Transfer Station Habitat for Humanity ReStores ⁴ Häwi (Ka'auhuhu) Recycling & Transfer Station Hilo Recycling & Transfer Station Honoka'a Recycling & Transfer Station Kailua-Kona (Kealakehe) Recycling & Transfer Station Kailua-Kona (Kealakehe) Recycling & Transfer Station Kae'au Recycling & Transfer Station Kee'au Recycling & Transfer Station Kea'au Recycling & Transfer Station Kea'au Recycling & Transfer Station Kea'au Recycling & Transfer Station Cean View Recycling & Transfer Station Pa'auilo Recycling & Transfer Station Pahala Recycling & Transfer Station Pahala Recycling & Transfer Station Pahoa Recycling & Transfer Station Pahoa Recycling & Transfer Station Papa'ikou Recycling & Transfer Station Papa'ikou Recycling & Transfer Station Volcano Recycling & Transfer Station Wai'ōhinu Recycling & Transfer Station Waiea Recycling & Transfer Station Watea Recycling & Transfer Station	
	 Kawailoa Transfer Station Laie Convenience Center Wahiawa Convenience Center Waianae Convenience Center 	
	 Waimanalo Convenience Center Waimanalo Gulch Sanitary Landfill Waipahu Convenience Center 	
	Maui County:	

Maui County:

- Central Maui Landfill
- Hana Landfill
- Ka Hale A Ke Ola Homeless Resource Center



State of Hawai'i Solid Waste Management Issue – Baseline Conditions



Lanai Landfill

Molokai-Naiwa Landfill & Recycling Center

Kaua'i County:

- Kekaha Landfill
- Līhu'e Refuse Transfer Station

Material Management Complaints:

N/A

Advance Disposal Fee (ADF):

There is no Statewide disposal fee for mattresses.

Solid Waste Stream Issue _____ Statement:

The Hawai'i 2000 Plan for Integrated Solid Waste Management notes that furniture, including mattresses, account for nearly five percent (5%) of the State of Hawaii's waste stream. Although used mattresses are highly recyclable (over 75% of material by weight), most are not recycled due to the bulky size and lack of affordable, convenient recycling options. Mattress materials are often not biodegradable, so when landfilled, they spend decades, and even centuries, taking up landfill space. Their large, heavy-duty frames can also damage expensive landfill equipment. Furthermore, chemicals in some materials can leach out into the surrounding soil and groundwater.

Industry Expert Speaker(s):

Mike O'Donnell, Chief Operating Officer, Mattress Recycling Council

Email: mikeo@mrc-us.org Phone: (206) 558-3303

¹ Reuse - County of Hawai'i Department of Environmental Management (hawaiizerowaste.org)

² Repurposing With Style (hawaiibusiness.com)

³ Ross' Appliance & Mattress Honolulu (rossapplianceandmattress.com)

⁴ Restores (habitathawaiiisland.org)

⁵ Acceptable Donations Guideline (honoluluhabitat.org)