

State of Hawai'i Debris  
Management Operational  
Support Plan (DM-OSP)

September 2024

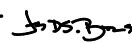

State of Hawai'i  
Emergency  
Management  
Agency (HI-EMA)



# RECORD OF CHANGES

The HI-EMA Operations Branch is responsible for the *State of Hawai'i Debris Management Operational Support Plan (DM-OSP)* and is authorized to make changes. All maintenance to the *State of Hawai'i Debris Management Operational Support Plan (DM-OSP)* will be tracked and recorded in the following table to ensure the most recent version is disseminated and implemented. The *State of Hawai'i Debris Management Operational Support Plan (DM-OSP)* will be maintained on an annual basis and after every incident requiring its implementation.

Updates and changes that are administrative in nature may be approved by the Operations Branch Chief. Substantial revisions must be approved by the Administrator of Emergency Management.

Change Number	Date of Change	Page or Section Changed	Summary of Change	Authorization Signature	Date of Signature
1	December 30, 2021	All	Initial Version Signed	Previous Document	12/30/2021
2	September 2024	All	Update to include State Agencies, County Coordination, and New Formatting	 	09/26/2024
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# 1. INTRODUCTION

## 1.1 PURPOSE

The State of Hawai'i is vulnerable to numerous hazards. Tropical storms, hurricanes, tsunamis, wildfires, volcanoes, windstorms, and floods pose the highest natural threats to the state. These hazards have the potential to generate large amounts of debris that may hinder the efforts of first responders and lengthen recovery time. Counties possess the resources and capabilities to clear debris at the local level but may become overwhelmed in the case of a statewide disaster.

This plan serves to facilitate coordination between state and county emergency management officers (EMOs) as they assist in the following tasks:

1. Clear incident-generated debris from critical and essential areas.
2. Remove previously cleared debris and transport to temporary debris storage and reduction (TDSR) sites.
3. Open TDSR and other Debris Management Sites (DMS) to reduce the amount of debris prior to disposal.
4. Safely dispose incident-generated debris in accordance with federal and local regulations.

This plan covers the roles and responsibilities that various organizations and State Emergency Support Functions (SESFs) may take. It is imperative the counties and state be ready and able to provide all necessary disaster recovery services, and have the means to recover eligible costs from federal agencies. In most incident responses, county agencies will take the lead while state agencies will play a support role in debris management. It is also essential to plan for and implement a quick, safe and effective response and recovery process to restore economic viability and environmentally safe conditions to the affected areas.

## 1.2 SCOPE

The Debris Management Operational Support Plan (*DM-OSP*) is designed to support existing debris management plans and processes already present in county emergency management and in various state agencies. The scope is to work with state, county, local, and other agencies to coordinate removal, collection, processing, and disposal of incident-generated debris. This may include mitigation of debris-related damage to public property and essential facilities, as well as efforts to recover incident costs through Public Assistance (PA) and other federal programs.

This plan is not comprehensive, giving full precedence to county and local agency plans. Agencies that have yet to develop a plan for debris management may use this document as a guide to better coordinate their efforts with that of the state agencies.

# 2. SITUATION AND ASSUMPTIONS

## 2.1 SITUATION OVERVIEW

The State of Hawai'i is located far away from the continental United States (CONUS) and is at risk for many debris-generating natural disasters, referred to in this document as incidents or debris-generating incidents.

The state comprises four main counties and one state-administered county across seven inhabited islands. Each county, except for the Hawai'i Department of Health (DOH) administered Kalawao County, possesses its own local government complete with transportation, utility, and emergency management or civil defense agencies. The State of Hawai'i administers services to each county, including inter-island and inter-state transportation infrastructure, state roads and highways, state parks, national guard, public schools and colleges, and various regulatory services.

The state's population center, capital, and main trade and transport hub is located on the island of O'ahu in the city of Honolulu. Other urban centers include Lihu'e, Kaua'i; Kahului/Wailuku, Maui; Kailua-Kona, Hawai'i; and Hilo, Hawai'i. All these communities are located on or near low-lying, coastal areas. Incidents such as hurricanes and tsunamis have the potential to generate large amounts of debris and shut down transportation, trade, and critical infrastructure. Aside from the main population centers, a large portion of Hawai'i residents live in isolated rural communities often only accessible via limited infrastructure. A large debris-generating incident would likely cut these populations off from the main urban hubs.

## 2.2 PLANNING FACTORS & ASSUMPTIONS

The following assumptions inform the State of Hawai'i Debris Management Operational Support Plan:

1. All counties feature an overlap of local, state, and federal jurisdictions. This is most pronounced in the City and County of Honolulu, where large geographic portions of the county are state-administered or managed federally through the United States Indo-Pacific Command (USINDOPACOM).
2. USINDOPACOM assets, including health and safety infrastructure, will likely focus on debris management internally unless made available through the Defense Support of Civil Authorities (DSCA) or a memorandum of agreement/understanding (MOA/MOU).
3. State assets exist across all four counties, with most state assets located in the City and County of Honolulu.
  - a. State highways exist on most islands and often serve as the only link to rural and isolated communities.
4. There is only one Level I Trauma center within the state, The Queen's Medical Center (QMC) in Honolulu. To ensure other critical life safety operations, maintaining access to QMC and other trauma centers is essential.
5. State trade and shipping operations use a hub-and-spoke model, with Honolulu Harbor acting as the hub and main point of entry and exit for cargo in the state. Access to Honolulu Harbor is a critical priority of debris operations.
6. Barber's Point Deep Draft Harbor is the main harbor for receiving fuel shipments in the state.

7. Daniel K. Inouye International Airport (HNL) is the main entry and exit point for both air cargo and passenger transport in the state. Maintaining access to HNL and other airport facilities throughout the state is a critical priority of debris operations.
8. County landfills may not be able to accommodate a surge in large quantities of incident-generated debris. Thus debris management should emphasize reduction and recycling efforts.
9. A large debris-generating incident will likely exceed state and county capacities to respond, necessitating an Emergency or Major Disaster Declaration and assistance from federal entities.
10. This assistance will come largely in the form of Public Assistance (PA) as outlined in the FEMA Public Assistance Program and Policy Guide (PAPPG). Debris removal falls under Category A of Emergency Work under FEMA PA.

## 2.2.1 DEBRIS-GENERATING INCIDENTS

All counties in the State of Hawai'i are at risk for the following debris-generating incidents:

### 2.2.1.1 TROPICAL STORMS AND HURRICANES

Hawai'i is at highest risk during the Central Pacific hurricane season from June to November each year. Historical data and climate studies suggest that the state is at risk of up to Category 4 hurricanes (out of a scale of 1-5). High winds (130 - 156 mph) can generate large amounts of vegetative debris, as well as construction and demolition debris. Storm surge can damage small vessels and boats, while heavy precipitation may overrun sewage and other utilities. Damaged fuel storage may lead to contamination with hazardous waste. Modern forecasting and storm tracking technology allows for up to 5 days of warning pre-impact, permitting time for risk assessment and mitigation activities.

### 2.2.1.2 TSUNAMIS

Earthquakes alongside tectonic plate boundaries around the Pacific can generate tsunamis powerful enough to reach Hawai'i within hours. Tsunamis can also be triggered by undersea landslides or volcanic activity in close proximity resulting in little to no lead time. As most urban and densely populated areas in the state are in low-lying coastal areas, these can be the source of large amounts of debris. Tsunamis may generate many types of debris, including vegetative, soil, construction and demolition, metals, vessels and boats, putrescent, and vehicular debris. Hazardous waste may arrive from fuel or chemical spills caused by the tsunami.

### 2.2.1.3 HEAVY RAINS

Hawai'i is prone to flooding caused by heavy rains, generally during the winter and spring wet season. Extreme precipitation may generate large amounts of soil and vegetative debris from water runoff, while flash floods near urban areas may cause construction and demolition, vehicular, and utility systems debris. Landslides and rockfalls frequently obstruct roads, often blocking access to rural areas.

#### 2.2.1.4 ACTS OF TERROR

These may vary depending on the nature of the incident. Hazardous or infectious waste may result from biological attacks, while conventional acts of terror may create large amounts of construction and demolition debris.

#### 2.2.1.5 WILDFIRES

Wildfires are common in the state, especially during the drier summer and autumn months and particularly along leeward coasts. They can generate vegetative and putrescent debris but may also cause construction and demolition, vehicular, household hazardous waste, and other types of debris if allowed to spread unchecked into urban and highly populated areas.

### 2.2.2 DEBRIS MODELS

The following models created by the US Army Corps of Engineers (USACE) estimate the amount of debris generated by a Category 4 hurricane on a per county basis. Refer to attachment (USACE model guide) for a detailed explanation.

Table 1 US Army Corps of Engineers (USACE) Debris Estimate Models

County Name	Debris Volume (CY)*	Storage Site Requirements (Acres)*	Households	Storm Category	Vegetation	Commercial Density	Precipitation
Honolulu	32,213,318	1,999	330,393	Category 4 (50 CY)	Heavy (1.5)	Heavy (1.3)	None to Light (1.0)
Hawai'i	5,355,150	332	71,402	Category 4 (50 CY)	Heavy (1.5)	Light (1.0)	None to Light (1.0)
Maui	4,043,925	251	53,919	Category 4 (50 CY)	Heavy (1.5)	Light (1.0)	None to Light (1.0)
Kaua'i	1,700,100	105	22,668	Category 4 (50 CY)	Heavy (1.5)	Light (1.0)	None to Light (1.0)
Model County	220,000	14	100,000	Category 1 (2 CY)	Light (1.1)	Light (1.0)	None to Light (1.0)

\*16,117 cubic yards (CY) per one acre, assumes 10-foot debris stack height

Table 2 Debris estimate chart (by county)

Impact	Hawai'i County	Maui County	Honolulu County	Kaua'i County	State Total
Debris Tonnage Generated (millions)	4.00	1.90	5.30	1.50	12.70
Trucks Required for Debris Removal (25 Tons/Truck)	160,000	76,000	212,000	60,000	508,000

## 2.3 STATE ASSET OVERVIEW

This section briefly details the state-owned or managed assets in Hawai'i that are relevant to Debris Management.

### 2.3.1 ROADS AND HIGHWAYS

State roads managed through the Hawai'i Department of Transportation-Highways Division (DOT-HWY) exist in all counties and across all islands, excluding Kaho'olawe and Ni'ihau.

The state's four interstates are all located on O`ahu. While they are federal assets, it remains DOT-HWY's responsibility to maintain them. In addition to providing passage through the most densely populated areas of O`ahu, the interstates serve to link all main INDOPACOM facilities and bases on the island.

The numbering of Hawai'i State Highways utilizes a cluster system based upon which island they are located on. Highways in the 100s and 200s or those between 11 and 19 are found on the island of Hawai'i. Maui is home to routes numbered in the 30s or 300s. Molokai and Lanai use routes numbered in the 400s. Kauai follows with routes in the 50s and 500s. O`ahu rounds out the numbering with highways between 60-99 and the 600s and up. Generally, roads with two or less digits belong to the National Highway System (NHS), a classification of roadways identified by the Federal Highway Administration (FHWA) as being important to the nation's economy, defense, and mobility.

County highways utilize the same route clustering as their state route counterparts. Most branch off the parent state route and utilize a 4-digit numbering where the first two numbers are those of the parent. When signed, the county highways utilize the same shield style as regular state highways. However, most county highways are not posted and exist as local access roads or residential thoroughfares.

The Strategic Highway System (STRAHNET) is a federally designated classification for highways and roads needed for emergency mobilization of heavy armor, fuel, ammunition, and other supplies for defense. In Hawai'i, the only officially designated STRAHNET roads are the interstates and a few state highways, all exclusively on O`ahu.

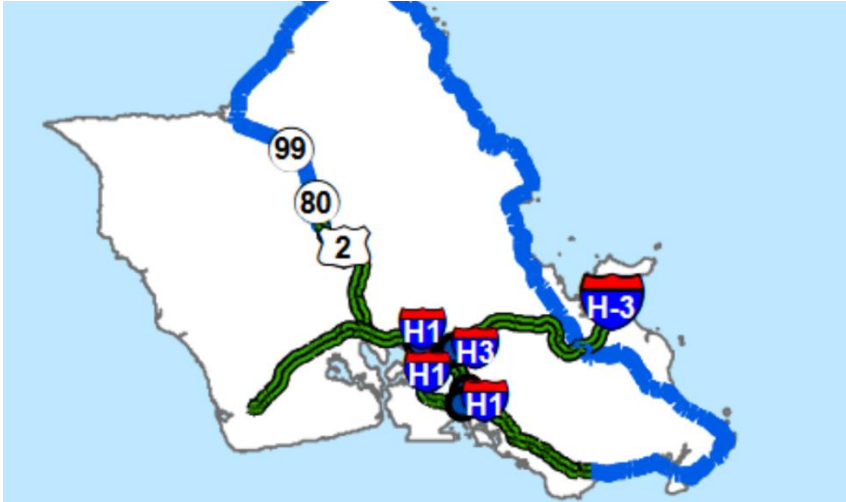


Figure 1 Interstates and other STRAHNET Highways on O`ahu. (Cowan 2013)

The FHWA groups US roadways into 7 main functional classification (FC) levels delineating their main purpose and priority levels. This classification should aid in determining clearance and removal priorities.

Table 3 Route Type, Functional Classification (FC) Level, National Highway System (NHS), STRAHNET, and Ownership

Route Type	FC Level	NHS	STRAHNET	Ownership
Interstate	1	Y	Y	State
Principal Arterial – Other Freeways and Expressways	2	Y	Y	State
Principal Arterial – Other	3	Y	Y	State
Minor Arterial	4	Y	Y	State or County
Major Collector	5	Y	Y	County
Urban Minor Collector	6			County
Local or Private	7	Y		County or Private

Table 4 State Roadways by Category

Category	Identifier Example	Responsibility	Est. Mileage
Federal	H1, H2, H201, H3	State	109.77 lane mileage 54.91 center lane mileage
State	11, 30, 45, 56, 99	State	1126.08 lane mileage
County	3700, 7853, 803, 303, 581	County	650.82 lane mileage

### 2.3.2 HARBORS

The state harbor system is managed by the Hawai'i Department of Transportation, Harbors Division (DOT-HAR). While DOT-HAR is responsible for regulating harbor traffic and leasing pier space, its actual physical assets are limited. Most daily operations are performed by private shipping firms like Matson, Pasha, and Young Brothers. Almost all marine shipments into the state of Hawai'i must first pass through the Port of Honolulu or Barber's Point Deep Draft Harbor before unloading and transferring to smaller barges for inter-island transit. Both of these ports are vital for the state's ongoing objectives of life safety and life-sustaining operations.

Table 5 State Harbor Infrastructure

Harbor Name	Vessel Accommodated	County
Honolulu	Yes	Honolulu
Barber's Point Deep Draft	Yes	Honolulu
Hilo	Yes	Hawai'i
Kawaihae	No	Hawai'i
Kahului	Yes	Maui
Kaunakakai	No	Maui
Kaumalapau	No	Maui
Nawiliwili	Yes	Kaua'i
Port Allen	No	Kaua'i

### 2.3.3 AIRPORTS

Public airports in the state are managed by the Hawai'i Department of Transportation, Airports Division (DOT-AIR). DOT-AIR manages 15 airports in the state, of which seven are considered primary by the Federal Aviation Administration (FAA). Daniel K. Inouye International Airport (HNL) is the largest airport in the state and the primary connector hub to the Continental United States (CONUS). Kahului (OGG), Ellison Onizuka International (KOA), Hilo International (ITO), and Līhu'e (LIH) Airports all have less frequent connections to CONUS as well. Moloka'i (MKK) and Lāna'i (LNY) Airports are small non-hub primary airports for their respective islands, connecting to both HNL and OGG. Kalaheo Airport (JRF) serves both the Hawai'i Air National Guard (HIANG) and Coast Guard, as well as the general aviation community and as an alternate should HNL be inaccessible due to an incident. Waimea-Kohala (MUE), Kapalua-West Maui (JHM), Hana (HNM), and Kalaupapa (LUP) Airports exist to serve more isolated populations of the state, while 'Upolu (UPP), Dillingham (HDH), and Port Allen (PAK) Airfields serve mostly recreational, small cargo, and emergency medical transport purposes. Debris clearance efforts will need to prioritize airports, especially main hubs like HNL and OGG, and airports in isolated communities for medical evacuation purposes.

Table 6 State Airport Infrastructure

FAA Airport Code	Name	Classification	County
HNL	Daniel K. Inouye International Airport	Medium-Hub Primary	Honolulu
OGG	Kahului Airport	Medium-Hub Primary	Maui
KOA	Ellison Onizuka Kona International Airport at Keāhole	Small-Hub Primary	Hawai'i
ITO	Hilo International Airport	Small-Hub Primary	Hawai'i
LIH	Līhu'e Airport	Small-Hub Primary	Kaua`i
MKK	Moloka'i Airport	Nonhub Primary	Maui
LNY	Lāna'i Airport	Nonhub Primary	Maui
MUE	Waimea-Kohala Airport	Commercial Service	Hawai'i
JRF	Kalaeloa Airport	Reliever	Honolulu
HNM	Hāna Airport	General Aviation	Maui
PAK	Port Allen Airport	General Aviation	Kaua`i
JHM	Kapalua-West Maui Airport	General Aviation	Maui
HDH	Dillingham Airfield	General Aviation	Honolulu
LUP	Kalaupapa Airport	General Aviation	Kalawao
UPP	'Upolu Airport	General Aviation	Hawai'i

### 2.3.4 STATE PARKS AND RESERVES

The Department of Land and Natural Resources (DLNR) manages around 50 state parks and historic monuments across five islands. Some of these can be potential staging areas, while others are important cultural or natural resources that will require special attention when clearing debris.

In addition to state parks, DLNR also manages forest and wildlife reserves across most islands. Although, these areas would be less likely to qualify as potential debris management sites, they remain state property nonetheless.

### 2.3.5 HAWAI'I NATIONAL GUARD

The Hawai'i State Department of Defense (DOD) oversees the Hawai'i Army National Guard (HIARNG) and the Hawai'i Air National Guard (HIANG). The Governor is the Commander-in-Chief, except when the Guard is temporarily federalized by the US Congress or the President of the United States (POTUS). During incident activation the Hawai'i National Guard (HING) will serve as part of SESF #20, Military Support. HING possesses several facilities in-state that may be considered priorities for debris clearance and management.

Table 7 Hawai'i National Guard Units

Unit	Focus	Location
Medical Detachment (MED DET)	Medical Services	Kalaeloa, O`ahu
State Army Aviation Office (SAAO)	Aviation Maintenance	Kalaeloa, O`ahu
Joint Force Headquarters (JFHQ)	Command and Emergency Response	Kapolei, O`ahu
29 <sup>th</sup> Infantry Brigade Combat Team (29 IBCT)	National Defense	Kalaeloa, O`ahu
227 <sup>th</sup> Brigade Engineer Battalion (227 BEB)	Intelligence and Disaster Management	Kapolei, O`ahu
1 <sup>st</sup> Squadron, 299 <sup>th</sup> Cavalry Regiment (1-299 CAV)	Reconnaissance and Security	Hilo, Hawai'i
29 <sup>th</sup> Brigade Support Battalion	National Defense	Kapolei, O`ahu
103D Troop Command	National Defense	Pearl City, O`ahu
1950 <sup>th</sup> Contingency Contracting Team (1950 CCT)	Contracting Support	Pearl City, O`ahu
230 <sup>th</sup> Engineer company (230 ENG)	Infrastructure Support	Kihei, Maui
297 <sup>th</sup> Engineer, Firefighting Team (297 FFT)	Fire Protection	Pearl City, O`ahu

### 2.3.6 PUBLIC SCHOOLS USED AS SHELTERS

Public K-12 schools in the state are managed by the Department of Education (DOE). K-12 facilities exist on every island excluding Kaholo`awe and Ni`ihau. County emergency management agencies may use these facilities as evacuation or as post-disaster housing shelters, depending on circumstances and the school's location relative to tsunami evacuation zones (TEZ) and flood prone areas. If they are used as shelters, clearance and removal efforts may need to prioritize access to them.

### 2.3.7 FACILITIES FOR CONTINUITY OF GOVERNMENT (COG)

During an incident, critical government services still need to be carried out. Several facilities require at least partial clearance and access for operations. The State Emergency Operations Center (SEOC), located within Lē`ahi (Diamond Head) crater in Honolulu, needs to be accessible by State Emergency Response Team (SERT) personnel. Additionally, the State Capitol, located in downtown Honolulu, will require regular access so that the state executive branch leadership can continue to function. Other critical state areas in downtown Honolulu include the Hawai'i Department of Health (DOH), and the Kalanimoku building, which houses much of the state's administration and IT infrastructure. In the case of severe emergency, the Governor may elect to temporarily relocate the seat of government at his or her discretion (HRS §130-1).

State agencies such as DOH and DOT utilize additional facilities across all four counties to provide essential government services. Therefore these agencies need to share their list of facilities critical to their functioning

with their relevant county emergency management agencies. A list of critical and essential state facilities by county and island can be found in the APPENDIX (*insert reference page here*).

## 2.4 OTHER PRIVATE INFRASTRUCTURE

### 2.4.1 TRAUMA CENTERS

The American College of Surgeons designates qualified hospitals with emergency services as trauma centers from Level I through V, with Level I Trauma Centers being the most qualified (Southern and Celik 2023). Currently, there is only one Level I Trauma Center, Queen’s Medical Center (QMC) in Honolulu. As a vital facility for life safety and stabilization needs, QMC should take precedence for debris clearance and immediate access. Two other facilities on O’ahu offer notable specialized trauma services: Tripler Army Medical Center, which specializes in military trauma, and Kapiolani Medical Center, which is the only pediatric trauma center in the state. Hawai’i, Maui, and Kaua’i host Level III Trauma Centers capable of providing 24-hour emergency services. Clearance and access to these facilities should be a top priority to ensure life safety and stabilization for those islands.

Table 8 Hospital Infrastructure

Hospital Name	Location	Trauma Center	Notes
<b>Hawaii County</b>			
Hilo Medical Center	Hilo	Level III	
Kona Community Hospital	Kailua-Kona	Level III	
North Hawaii Community Hospital	Kamuela	Level III	
<b>Maui County</b>			
Maui Memorial Medical Center	Wailuku	Level III	
<b>City &amp; County of Honolulu</b>			
The Queen’s Medical Center	Honolulu	Level I	
Tripler Army Medical Center	Honolulu	Level II	INDOPACOM facility
Pali Momi Medical Center	‘Aiea	Level III	
Kapiolani Medical Center	Honolulu	Level III	Pediatric Trauma Center
<b>Kauai County</b>			
Wilcox Memorial Hospital	Līhu‘e	Level III	

### 2.4.2 POWER PLANTS

Hawaiian Electric Company (HECO) provides general power for most of the State. HECO subsidiary companies include Maui Electric Company (MECO), and Hawaii Electric Light Company (HELCO). Kaua’i is powered by the Kaua’i Island Utility Cooperative (KIUC). Depending on incident circumstances, debris planners and operators may need to prioritize clearing routes to power generation facilities or access to distribution networks for

maintenance. Often, the main transmission lines follow the main roads. The main power stations in the state are detailed below.

Table 9 Power Infrastructure (*Hawaiian Electric 2023*) (*Kauai Island Utility Cooperative 2023*)

Facility Name	Location	Generation (Megawatts)	Source	Owner
Kahe	Kapolei, O‘ahu	650 MW	Oil	HECO
Waiau	Pearl City, O‘ahu	500 MW	Oil	HECO
Campbell Industrial Park	Kapolei, O‘ahu	130 MW	Diesel	HECO
Schofield	Wahiawā, O‘ahu	50 MW	Biodiesel	HECO
Keāhole	Kailua-Kona, Hawai‘i	77.6 MW	Oil	HELCO
Puna	Puna, Hawai‘i	36.7 MW	Oil	HELCO
Kanoiehuea	Hilo, Hawai‘i	21 MW	Oil	HELCO
Waimea	Waimea, Hawai‘i	7.5 MW	Oil	HELCO
Hill	Hilo, Hawai‘i	34.7 MW	Oil	HELCO
Maalaea	Kīhei, Maui	212.1 MW	Oil	MECO
Kahului	Kahului, Maui	37.6 MW	Oil	MECO
Moloka‘i	Moloka‘i, Maui	12 MW	Oil	MECO
Lāna‘i	Lāna‘i, Maui	9.4 MW	Oil	MECO
Port Allen	‘Ele‘ele, Kaua‘i	83.0 MW	Fossil	KIUC
Kapaia	Līhu‘e, Kaua‘i	27.5 MW	Fossil	KIUC
Waiahi	Līhu‘e, Kaua‘i	1.5 MW	Hydro	KIUC
KRS1	Anahola, Kaua‘i	12.0 MW	Solar	KIUC
KRS2	Kōloa, Kaua‘i	12.0 MW	Solar	KIUC

## 2.5 PUBLIC ASSISTANCE OVERVIEW

The Federal Emergency Management Agency (FEMA) provides Public Assistance (PA) to state or territorial governments affected by a declared Major Disaster. The cost share covered by the federal government is no less than 75 percent of costs deemed eligible by FEMA, and may be increased to 90 percent in specific situations. Eligibility is determined by four factors: applicant, facility, work, and cost. State and county agencies are responsible for documenting eligible costs as defined by FEMA.

In the case of a federally declared disaster, FEMA may cover between 75 to 100 percent of the costs associated with debris removal as Category A of emergency work, provided that the documentation of the work performed indicates that it is eligible for reimbursement (PAPPG 99).

### 2.5.1 APPLICANT

The “applicant” is defined by FEMA as the state, county, or private non-profit (PNP) that requests PA. Federal agencies or programs cannot be counted as applicants. The state or county submits requests for PA with Standard Form (SF) 424. The applicant must have an administrative plan describing how federal assistance will be used and demonstrate that all procedures comply with federal regulations.

## 2.5.2 FACILITY

Any facility directly benefitting from debris clearance or removal operations must meet the following requirements to be reimbursed through the PA program:

1. Be owned or under the jurisdiction of the applicant.
  - a. Any facility/Critical Infrastructure Key Resource (CIKR) under federal responsibility is not eligible for PA. In Hawai‘i, this includes INDOPACOM facilities and federally owned navigable waterways at main harbor entrances.
2. Provide a key government service (or, in the case of PNP, provide a service supplementing local governments).
  - a. Key government services include: transportation, utilities, water/wastewater treatment, public shelters, or others used by the general public.
  - b. For detailed information on eligible facilities and services, please see the Public Assistance Program and Policy Guide (PAPPG) published by FEMA.
3. The facility cannot be an unimproved property, nor can it be land used for agriculture or commercial use.

## 2.5.3 WORK

For the debris removal to be eligible for PA, it must fall into Category A (Emergency Work) or Category B (Permanent Work) of FEMA-defined PA funding.

Most initial debris removal will fall under Category A. For the work to qualify, the applicant must:

1. Show that the removal of debris is related to the federally declared disaster and located within the designated disaster area.
2. Have legal responsibility over the work performed.

Debris removal under this category must pose an imminent threat to life safety or critical operations. Examples of this include removal of trees and vegetation determined to be a hazard to public safety, clearance and removal of debris on public roads, and containment and cleanup of oil and HAZMAT spills. Restoration of non-essential services such as parks, bridges, and utilities will fall under Category B.

## 2.5.4 COST

All expenditures need to be properly documented. Additionally, work costs need to reflect reasonable rates for the service provided. The applicant will need to demonstrate that it procured services and equipment from a wide range of clearance, removal, and management firms, including consideration for small businesses and

historically disadvantaged groups. Contracts must follow all Hawai'i state and federal regulations, and the contractor must regularly be monitored by an unaffiliated party. For more detailed information, refer to 2 Code of Federal Regulations (CFR) §200.318-200.327.

## 3. ROLES AND RESPONSIBILITIES

The following section delineates roles for various county, state, and federal organizations before and during a debris-generating incident. This section is not a comprehensive guide, as each organization is responsible for its own planning.

### 3.1 DEBRIS MANAGEMENT TASK FORCE

Overseeing state debris operations will be the responsibility of the Debris Management Task Force. Roles in the Task Force will be staffed by Emergency Management Officers (EMO's) from various State Emergency Support Functions (SESF), notably SESFs 1, 3, 4, 10, 11, and 13.

#### 3.1.1 ACTIVATION

Once it is determined that a significant debris generating incident is eminent, occurring, or has occurred, the State Director of Emergency Management (or the HI-EMA Administrator in their stead) may choose to activate the Debris Management Task Force from within the Infrastructure Branch of the Operations section.

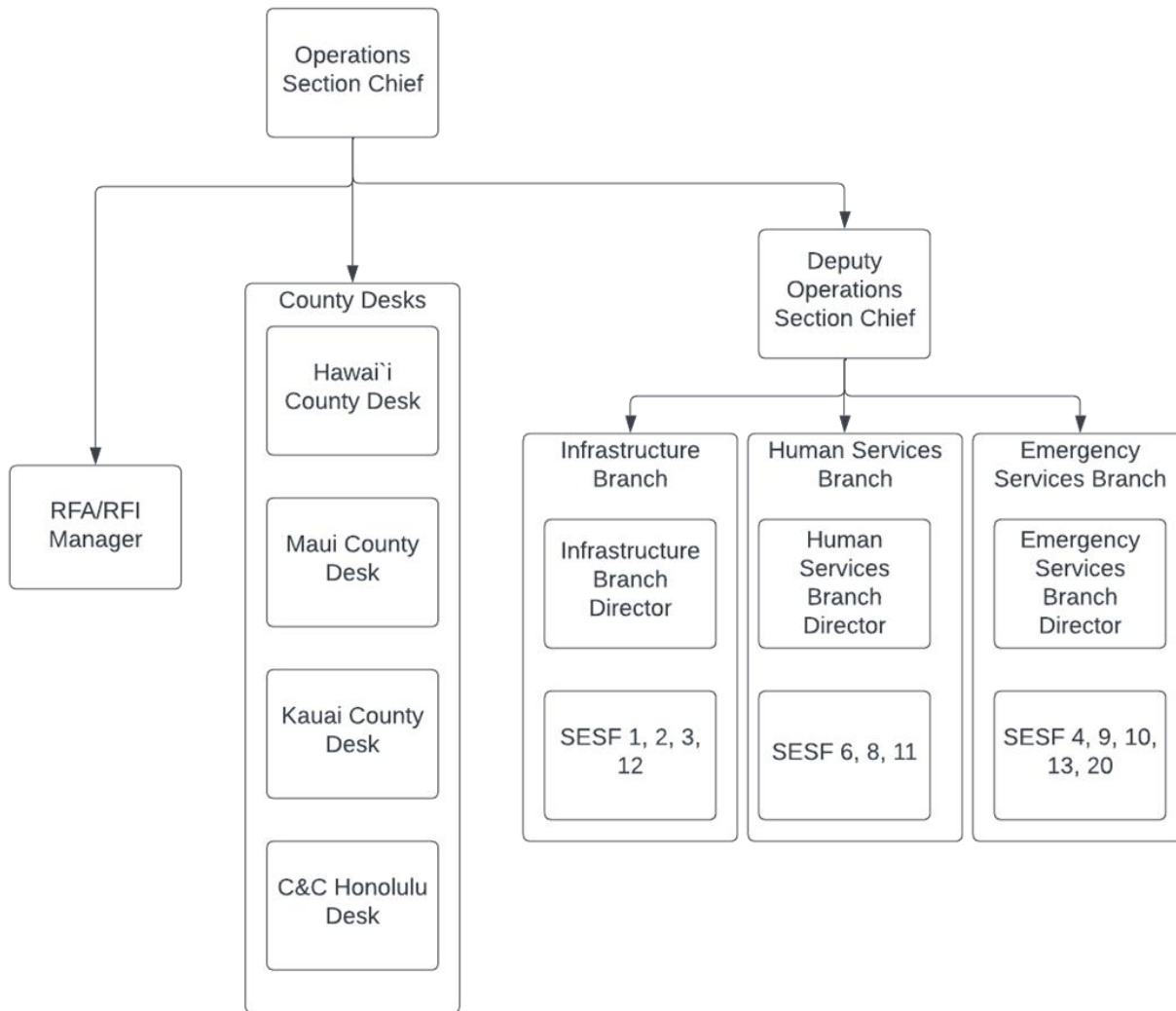


Figure 2 State EOC Operations Section Organization

### 3.1.2 DEFINITION

The Debris Management Task Force is responsible for coordinating debris operations between state agencies and federal, county, and private agencies.

The responsibilities of the Debris Management Task Force are to coordinate resources and personnel with relevant SESFs by doing the following:

1. Recommend operational directives to the Infrastructure Branch Director and the Operations Section Chief (OSC) for all post-incident debris operations.
2. Execute the goals and priorities for debris clearance, removal, reduction, and disposal.
3. Organize clearance and removal of debris by private and public entities.

4. Establish safety and training guidelines, and ensure all parties engaged in debris management adhere to them.
5. Organize the surveying, selection, and management of TDSR sites and other Debris Management Sites (DMS).
6. Facilitate coordination amongst county, state, federal, private and non-profit agencies.

### 3.1.3 ROLES

The Debris Management Task Force roles are described below.

#### 3.1.3.1 DEBRIS MANAGEMENT TASK FORCE LEAD

- Provide timely, accurate, and regular reports to the SEOC on the status of debris operations in the State.
- Oversee debris management operations from preparation/staging to clearance, removal, reduction, disposal, and demobilization.
- Outline key objectives throughout the various stages of debris operations, including priority clearance routes and locations of temporary storage and reduction sites.

#### 3.1.3.2 COUNTY AND INDOPACOM LIAISONS

- Report to Debris Management Task Force Lead on specific needs or requests from county or INDOPACOM partners.
- Coordinate with county environmental, public works, and transportation agencies on connecting clearance efforts.
- Coordinate amongst county, state, and federal partners to share resources and personnel equitably.

#### 3.1.3.3 RECOVERY OFFICER

- Oversee documentation of expenses that qualify for FEMA PA.
- Provide subject matter expertise in determining whether expenses are eligible for reimbursement.

#### 3.1.3.4 PLANS OFFICER

- Ensure all plans take into account life safety and other Critical Information Requirements (CIRs).
- Identify critical infrastructure areas that may be affected by debris operations.
- Modify plans based on incident circumstances.

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### 3.1.3.5 TRANSPORTATION/LOGISTICS LEAD

- As directed by the Debris Management Task Force Lead, identify clearance routes and priorities.
- Oversee vehicle inspection guidelines for contractors involved in removal and disposal operations.
- Oversee load ticket issuing.
- Lead representatives from SESF-1, SESF-3, and SESF-7 involved in debris operations.

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### 3.1.3.6 DEBRIS SAFETY LEAD

- Ensure debris monitoring standards are enforced.
- Oversee debris air reconnaissance and preliminary debris quantity estimates.
- Ensure debris personnel follow fire safety protocols and provide for contracting of fire safety experts as necessary.
- Ensure the layout of TDSR sites follow all applicable OSHA, HIOSH, and FEMA safety guidelines.

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### 3.1.3.7 ENVIRONMENTAL LEAD

- Oversee TDSR site selection.
- Organize and contract debris reduction operations and verify they have minimal effect on the surrounding environment.
- Contract collection and disposal of oil and HAZMAT.
- Contract and monitor site cleanup and shut down once disposal operations are completed.

## 3.2 FEDERAL JURISDICTION

Federal agency responsibilities for debris management are detailed below:

Table 10 Federal Agency Responsibilities

Agency	Functions
<b>Federal Emergency Management Agency (FEMA)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Identify key objectives, lifelines, and directives for emergency managers to follow when engaging in debris management.</li> <li>2. Coordinate with HI-EMA and other state and county agencies to draft a Preliminary Damage Assessment (PDA) when a large debris-generating incident is expected.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Following a Presidential Disaster Declaration (PDD) or Mission Assignment (MA), assemble a PA Debris Management Team best suited to supporting the size and scope of the incident.</li> <li>2. Coordinate Federal ESFs to assist if an incident exceeds state and county capacities. This may include issuing MAs.</li> <li>3. Provide state and county EOCs with subject matter experts versed in PA to help with recovery.</li> </ol>
<b>US Army Corps. Of Engineers (USACE)</b>  <b>Local: Honolulu District, Pacific Ocean Division (POD)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Develop and update design disaster models to estimate the amounts of debris caused by incidents.</li> <li>2. Perform assessments on state and county infrastructure to determine incident vulnerability and likelihood of causing debris.</li> <li>3. Help to recommend clearance, removal, and management contractors.</li> <li>4. Provides guidelines for contractor pay and bidding standards.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Work together with SESF # 3 Public Works and Engineering.</li> <li>2. Identify emergency federal contractors to supplement existing state and county levels. If incident exceeds local and state capacity, assist with contracting.</li> <li>3. Assist other agencies with debris estimates.</li> <li>4. Work with other federal agencies to clear the navigable federally owned channels of maritime debris.</li> <li>5. In the case of a FEMA mission assignment (MA), serve as the primary debris removal and disposal agency for the incident.</li> </ol>

Agency	Functions
<p><b>US Coast Guard (USCG)</b></p> <p><b>Local: District 14, Sector Honolulu</b></p>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Maintain equipment and personnel readiness.</li> <li>2. Work with DOT-HAR, USACE, and private partners to develop debris mitigation strategies for state and federal waterways.</li> <li>3. Upon notification that an incident is eminent, decide whether to close and evacuate ports.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Assist SESF # 9: Search and Rescue.</li> <li>2. Participate in air and water debris reconnaissance to help estimate the debris present.</li> <li>3. Monitor waterways for oil or HAZMAT spills, coordinating with SESF #10 Oil and HAZMAT where necessary.</li> <li>4. Assist USACE in the clearance of federally owned waterways.</li> <li>5. In the case of a FEMA mission assignment (MA), clear small boat harbors of debris and HAZMAT.</li> </ol>
<p><b>Civil Air Patrol (CAP)</b></p>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Secure loose equipment and assets that could become debris in an incident.</li> <li>2. Maintain personnel and equipment readiness.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Provide the initial air reconnaissance flight over state areas to help inform the Preliminary Damage Assessment (PDA).</li> <li>2. Lead Debris Reconnaissance Efforts through the State Air Coordination Annex.</li> <li>3. Assist SESF #9: Search and Rescue.</li> </ol>
<p><b>Environmental Protection Agency (EPA)</b></p>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Provide and enforce regulation for DMS and TDSR site selection.</li> <li>2. Establish and enforce Federal regulations relating to the creation, storage, reduction, and disposal of various types of hazardous waste.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. If state and local resources are exceeded, provide personnel and resources to assist in site monitoring and regulation.</li> <li>2. In the case of a FEMA mission assignment (MA), assist in removal and disposal of household hazardous materials (HHM) and other HAZMAT.</li> </ol>

### 3.3 STATE JURISDICTION

1. The HI-EOP divides state organizations into State Emergency Support Functions (SESFs) to be activated by the incident commander (HI-EMA Director) when an incident necessitates.

- Each SESF should have one or more emergency management officer responsible for coordinating plans and determining that the SESF is prepared for activation.

### 3.3.1 STATE AGENCY ROLES

Table 11 State Agency Roles

Agency	Functions
<b>Department of Transportation- Highways Division (DOT-HWY)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>Maintain a list of debris clearance routes on state roads.</li> <li>Communicate with INDOPACOM and county emergency management agencies to agree on clearance priorities for critical infrastructure in each county.</li> <li>Maintain clear drains, streams, and runoff areas near state roads and under state jurisdiction.</li> <li>After notification of an approaching incident, pre-position important assets in protected areas to prepare for clearance operations.</li> <li>Identify and prioritize the inspection of road bridges, identify available inspectors, identify available civil engineering contractors, and establish civil engineering contracts for road inspection and repair.</li> <li>Establish regulations for commercial vehicles and haulers.</li> <li>Establish and enforce regulations involving the hauling of hazardous waste by motor vehicles (HRS §286-223).</li> </ol> <p><i>Note that County agencies issue permits based on DOT regulations.</i></p> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>Lead debris clearance operations on state roads and highways (HRS §286-8).</li> <li>Provide liaisons to each county EOC to coordinate state clearance efforts with county efforts.</li> <li>Collaborate with the US Department of Transportation (USDOT) to ensure that clearance operations adhere to highway code.</li> <li>Assist with traffic control near and at Temporary Debris Storage and Reduction (TDSR) sites.</li> <li>Assign or contract vehicle inspectors to verify that contracted equipment and personnel meet FEMA public assistance guidelines and issue permits.</li> <li>Activate pre-positioned debris management contracts.</li> <li>Participate in SESF #1: Transportation.</li> </ol>

Agency	Functions
<b>Department of Transportation-Harbors Division (DOT-HAR)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. If an incident is deemed imminent, advise USCG Sector Honolulu on whether to close harbor operations and evacuate vessels.</li> <li>2. Collaborate with private shipping partners to ensure that they have plans for debris mitigation and clearance.</li> <li>3. Identify and communicate critical access routes to and from state harbors for clearance teams to prioritize.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Work with private and federal partners to ensure that state harbors are cleared of debris and can resume partial operations.</li> <li>2. Participate in SESF #1: Transportation.</li> </ol>
<b>Department of Transportation-Airports Division (DOT-AIR)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Verify that aircraft are secured or evacuated from state airports prior to incident landfall.</li> <li>2. Identify essential points for debris clearance to prioritize access to airports.</li> <li>3. If an incident is expected to cause severe damage, draft a preliminary damage report.</li> <li>4. Collaborate with private air cargo and airline firms to verify plans have been made for debris mitigation.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Work with private partners to ensure partial clearance of critical state airports occur to facilitate medical evacuation and personnel transport.</li> <li>2. Identify collection points for debris management operators to remove debris from airports and transport to TDSR sites.</li> <li>3. Participate in SESF #1: Transportation.</li> </ol>

Agency	Functions
<b>Department of Land and Natural Resources-Engineering Division (DLNR-ENG)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Identify state historic floodplains and other areas that may generate large amounts of debris during an incident through the Hawai'i Flood Hazard Assessment Tool (FHAT).</li> <li>2. Ensure that areas recommended for debris storage do not exist on any state floodplains or wetlands.</li> <li>3. Advise on the integrity of dams and reservoirs.</li> <li>4. Enforce state regulations on dams and reservoirs to ensure safety.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Provide guidance so that debris operations do not negatively impact floodplains, wetlands, or wildlife.</li> <li>2. Record flood data for use in the PA process. Based on the location of debris, FEMA may or may not find removal operations eligible.</li> <li>3. Oversee any issues that may compromise the safety of dam or reservoir structures.</li> </ol>
<b>Department of Land and Natural Resources-Land Division (DLNR-LAND)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Identify State conservation districts that may or may not be used for debris operations.</li> <li>2. Review potential TDSR site applications based on environmental, social, and legal concerns.</li> <li>3. Help keep stream mouths on State property clear of sand and silt.</li> <li>4. Upon notification of an approaching incident, help to trim trees and other vegetation on State property to minimize debris.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Authorize additional state lands for use as TDSR or other debris management sites as needed. <ol style="list-style-type: none"> <li>a. This may include the issuing of emergency permits as authorized by HAR 13-5-35.</li> </ol> </li> <li>2. Assist with clearing debris such as sand and silt from stream beds and mouths under state jurisdiction.</li> <li>3. Help to clear fallen trees on state property.</li> </ol>
<b>Department of Land and Natural Resources-Historic Preservation Division (DLNR-SHPD)</b>	<ol style="list-style-type: none"> <li>1. Ensures that potential TDSR and storage sites do not exist on important archeological or cultural sites.</li> <li>2. Advises on archeological and historic concerns during the debris removal process.</li> </ol>

Agency	Functions
<b>Department of Land and Natural Resources- Forestry and Wildlife Division (DLNR-DOFAW)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Maintain personnel and equipment readiness.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Provide fire-fighting support to debris operations inside state jurisdiction.</li> <li>2. Assist in debris clearance and removal efforts from state property.</li> <li>3. Coordinate debris removal and clearance from State Forest Reserves and Trails</li> </ol>
<b>Department of Accounting and General Services, Land Survey Division (DAGS/SURVEY)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Assist in identifying state land that may be used as staging areas, pickup sites, or TDSR sites based on land area, use, and other qualifications.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Participate in SESF # 3 Public Works.</li> </ol>
<b>Department of Accounting and General Services, Public Works Division (DAGS-PWD)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Help to designate debris management contractors via the state’s bidding system.</li> <li>2. Ensure that state standards for private contracting are met.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Activate Debris Management contracts for clearance, removal, and TDSR.</li> <li>2. Participate in SESF #3 as the lead agency for Public Works.</li> <li>3. Issue Load Tickets for debris operators and document estimated debris removed.</li> <li>4. When designated, participate in the Debris Management Task Force.</li> </ol>
<b>Department of Health, Solid and Hazardous Waste Branch (DOH-SHWB)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Maintain lists of certified haulers and recyclers of general and some specific hazardous wastes for use as management contractors during an incident.</li> <li>2. Issues permits for hauling, operating, disposing of waste.</li> <li>3. Ensures that listed potential TDSR sites are in compliant areas.</li> <li>4. Oversees debris management planning processes and makes recommendations based on federal and state regulations.</li> <li>5. Develops procedures for safely handling and disposing of radioactive, chemical and biological materials, including fugitive materials and wastes.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Participate in SESF #10 HAZMAT and Oil.</li> <li>2. Determines the need for disaster debris clearance from private property.</li> <li>3. Coordinates public education programs.</li> </ol>

Agency	Functions
<b>Hawai'i State Energy Office (HSEO)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Assist with identifying Critical Infrastructure Key Resources (CIKR) for power generation, fuel operations, and other state energy operations.</li> <li>2. Inform state planners of the consequences of failure of each CIKR to help designate clearance priorities.</li> <li>3. Ensure equipment and personnel readiness.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Assist in identifying debris caused by downed power lines, fuel leaks, or other energy-related debris.</li> <li>2. Inform the SEOC of any changes in clearance priorities based on the specific incident.</li> <li>3. Coordinate with private electric utilities (HECO, KIUC, etc.) to make sure that the SEOC is aware of their needs for access to specific facilities.</li> </ol>
<b>Department of Hawaiian Homelands (DHHL)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Maintain equipment and personnel readiness.</li> <li>2. Advise on problem areas and vulnerable populations within DHHL lands.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Assist in preliminary clearance efforts, especially in isolated or underserved DHHL lands.</li> <li>2. Assist in removal and collection from DHHL lands.</li> </ol>
<b>Office of Planning and Sustainable Development (OPSD), Land Use Commission (LUC)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Assist with special permitting for selected TDSR or other debris management sites, as needed.</li> </ol> <p><b>DURING AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Assist with post-incident permitting of any additional TDSR or other debris management sites as needed.</li> </ol>

### 3.4 COUNTY JURISDICTION

Each county will take the lead for debris management inside its own borders. Counties are responsible for maintaining their own plan for debris management and delegating specific tasks to county agencies. If county resources for debris management are exceeded or are expected to be exceeded State resources may be used to support operations.

There will be significant overlap between State and County jurisdictions. Because of this, planners at both levels should coordinate pre-incident to make sure that debris clearance and removal priorities are shared by both parties. As a general rule, state agencies will take care of state-owned assets, while county agencies will focus on county-owned assets. Memorandums of Understanding/Agreement (MOU/MOA) will be established to allow for jurisdiction sharing under specific circumstances.

This section is not a comprehensive list of county duties in debris management, nor does it attempt to identify county objectives or operational procedures. Full preference will be given to county agency debris management plans. The purpose of this section is to identify areas of coordination between State and county efforts to avoid duplication of effort.

### 3.4.1 COUNTY EMERGENCY MANAGEMENT AGENCIES

#### **Before an Incident**

1. Coordinate with other pertinent county and private agencies to ensure sufficient debris management planning and debris mitigation efforts take place.
2. Communicate with HI-EMA and other relevant state agencies the critical infrastructure key resources (CIKR) for county continuity of operations.
3. Assist with debris forecasting for areas under county jurisdiction.
4. Communicate to state agencies the areas where county debris management efforts will be dependent upon state operations to be completed.
  - a. This may include clearance routes on state roads, inter-county transportation of equipment, recovery and PA costs, among others.
5. Work with other county and State agencies to agree upon joint clearance routes, TDSR and other debris management sites, and disposal sites.

#### **During an Incident**

1. Coordinate between county level debris management teams and liaisons in the State Debris Management Task Force.
  - a. This includes communicating the locations and statuses of community shelters and identifying county clearance priorities.
2. Adjust county CIKR clearance priorities based on incident circumstances.
3. Assist in documenting eligible expenses for later PA reimbursement.

### 3.4.2 COUNTY TRANSPORTATION, PUBLIC WORKS, AND OTHER AGENCIES

Most counties are responsible for local roadways, as well as wastewater and water treatment facilities. These usually fall under Transportation, Public Works, Environmental Services, and Water agencies, but this may vary by county.

#### **Before an Incident**

1. Depending on county organization, participate in debris clearance and management planning for county area.
2. Ensure operability of equipment for rapid incident mobilization.
3. Agree on staging areas outside of hazard zones.
4. Register and maintain a list of all commercial haulers that do business inside the county jurisdiction.

**During an Incident**

1. Participate in debris clearance and management operations as designated by county plans.
2. Communicate key resources and routes needed for restoration of water and wastewater services to county EOCs.

### 3.5 REGULATED PRIVATE AGENCIES

Some private agencies perform critical tasks for debris management and will need to coordinate closely with the State Debris Management Task Force.

#### 3.5.1 PRIVATE UTILITIES

*Table 12 Private Utilities' Responsibilities*

Agency	Functions
<b>Hawaiian Electric Company (HECO)</b>	<p><b>BEFORE AN INCIDENT</b></p> <ol style="list-style-type: none"> <li>1. Identify CIKRs managed by HECO (power plants, transformer stations, etc.) and provide information on location, capacity, and cascading impacts in the case of failure. Help to determine debris clearance priorities based on CIKRs and redundancies built into the electrical grid.</li> <li>2. Develop plans for debris mitigation, including a checklist for pre-landfall operations to reduce the number of incident-generated debris.</li> </ol> <p><b>During an Incident</b></p> <ol style="list-style-type: none"> <li>1. Fix or clear debris caused by downed electrical lines or advise which lines may still be active for personnel safety concerns.</li> <li>2. Communicate to SESF # 12 Energy any changes in HECO CIKR priorities for debris clearance.</li> <li>3. Work to clear debris from HECO property for later collection.</li> </ol>

Any responsibilities attributed to HECO can also be assumed to be responsibilities of KIUC or other electrical utility agencies for their respective counties or geographical areas.

#### 3.5.2 DEBRIS MANAGEMENT CONTRACTORS

This section details potential roles for private firms engaged in debris management via contract with the state. Specific responsibilities may be expanded upon by DAGS-PWD or county contractors. In order to be eligible for PA funding, all contractors will need to follow FEMA regulations regarding eligibility.

#### **BEFORE AN INCIDENT**

1. Perform hazard training for all personnel in accordance with OSHA and HIOSH guidelines, to include hazard communication (OSHA 29 CFR 1910.1200), and Hazardous Waste Operations and Emergency Response (HAZWOPER) training.
2. If an incident is eminent, pre-position assets in strategic locations.

#### **DURING AN INCIDENT**

1. Hire Debris management experts as state budget permits.
2. Document Expenses for later reimbursement.
3. Follow guidance from the State Debris Management Task Force on operational objectives.

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#### **3.5.2.1 DEBRIS MANAGEMENT CONTRACTOR ROLES**

##### **Site Manager**

- Supervises site operations,
- Makes executive decisions about locations of various site functions.
- Prepares site progress reports.

##### **Safety Officer**

- Supervises traffic control.
- Ensures that safety and environmental regulations are followed and that all site personnel are educated on them.
- If required, complete the ICS form 208 Safety Message plan.

##### **Site Documentation Officer**

- Supervises record keeping of all site contractors and load tickets received.
- Maintains accurate estimate of debris tonnage present on site.

##### **Other Roles**

- Site Monitors
- Site Traffic Controllers
- Debris Monitor
- Debris Removal Operator
- Load inspector
- Reduction Operator
- Traffic Control



# 4. GENERAL CONCEPT OF OPERATIONS

## 4.1 GENERAL

All islands and counties possess varying concentrations of local, state, and federal jurisdictions. However, they do share the same key debris management principles. This section breaks down the damage assessment process and the four main steps of debris operations and explains how the State will support these operations.

Major debris operational steps include:

1. Debris Clearance
2. Debris Removal
3. Temporary Storage and Reduction (TDSR)
4. Disposal

## 4.2 INCREASED READINESS

This phase begins after the State Warning Point (SWP), National Weather Service (NWS), or other monitoring agencies indicate that a future incident is possible or predicted. At this time, the SEOC may activate to Level 3 as indicated in the State of Hawai'i Emergency Operations Plan (HI-EOP), or may wait until further development necessitates activation.

All involved agencies should review debris plans and identify shortfalls and changes to be made should the prospective incident make landfall. Planners and operators in State and county EOCs should review debris models to estimate the potential impact of the incident. All EOCs should review contacts with other involved State and county agencies to make sure that information remains up to date.

*Note that this phase may not occur in the case of a no-notice or short-notice incident.*

## 4.3 PRE-IMPACT AND STAGING

As soon as trustworthy government sources (NWS, PTWC, etc.) indicate that an incident is highly likely, all agencies involved should begin pre-impact staging for debris operations. The SEOC, if not previously activated, may activate to Level 3 at this time. The State Director of Emergency Management, HI-EMA Administrator, or SEOC Operations Section Chief may decide to activate the Debris Management Task Force in advance of the approaching incident to assist with mitigation efforts.

State agencies should prepare and disseminate public information regarding debris operations, making sure that the public is aware that roads may be closed, and collection of solid waste and debris may be suspended for some time post-disaster.

Depending on the anticipated severity of the incident, State agencies may begin staging equipment and personnel at secure or hardened locations around the State. In preparation for landfall, all State agencies should

clean their facilities and areas of jurisdiction to mitigate potential debris generation. DLNR and DOT in particular should be engaged in preparing their areas for potential flooding and large-scale debris buildup.

## 4.4 PRELIMINARY DAMAGE ASSESSMENT

As soon as the all-clear is called, State and County EOCs will begin drafting a Preliminary Damage Assessment (PDA). If the State of Hawai'i determines that an incident has exceeded or will exceed State and county capacity to respond, the Governor may petition for Federal aid and a Presidential Disaster Declaration.

County EOCs will generally coordinate assessment of the following:

- Solid Waste Infrastructure
- County Transportation Infrastructure (county roads, bridges, etc.)
- Water Treatment Facilities
- Wastewater Facilities
- County and Municipal building infrastructure
- Medical Facilities and Trauma Centers

The State EOC will coordinate assessment of:

- Energy Infrastructure (through HSEO, SESF-12)
- Communications Infrastructure (SESF-2)
- State Transportation Infrastructure (State Highways, Harbors, Airports; through SESF-1)
- State building infrastructure

Once the PDA is completed, State and county debris planners should modify clearance routes based on the status of the assessed CIKRs. Details on clearance prioritization can be found in Section 4.5.2 below.

## 4.5 CLEARANCE

Debris Clearance involves pushing a path through incident debris on roadways to allow for emergency and other critical government services to reach communities throughout the state. As the incident progresses, space may be made for supply chain and other public and private entities to restore state operations to normal. Debris clearance does not mean transporting the debris from its initial location to TDSR or other sites. Instead, most debris will be pushed to the shoulder or external road lanes, to be removed once TDSR sites begin to open.

### 4.5.1 CLEARANCE CONCEPT OF OPERATIONS

Most clearance operations will take place under SESF # 1: Transportation, and SESF # 3: Public Works. DOT, Highways Division (DOT-HWY) will take the lead in planning clearance routes on State roads, unless otherwise directed by the Debris Management Task Force (DMTF). Prior to incident operations, DOT-HWY and the Department of Accounting and General Services, Public Works Division (DAGS-PWD) will prepare a list of approved clearance contractors, verifying with HI-EMA that all qualify under FEMA public assistance guidelines.

Should the incident be expected to exceed regular State clearance capabilities, assigned contractors should pre-position with SESF # 1 prior to impact.

Clearance efforts will focus on clearing a path through debris, not clearing the entire road. Debris should be pushed to the side of the road without obstructing regular right-of-way (ROW). If roads are completely obstructed, paths should only be cleared to allow for one-lane or two-lane traffic. Clearance crews should not attempt to remove any type of debris.

#### 4.5.1.1 DOWNED ENERGY INFRASTRUCTURE

Downed telephone or electrical poles should be treated with extreme caution. If possible, crews should clear a path around the poles, leaving them for HECO, SESF # 12, or other electrical experts to resolve. All downed lines presumed to be live should be reported to the SEOC and an SESF #12 representative.

#### 4.5.1.2 OIL AND HAZMAT

Clearance crews should note areas where oil or other hazardous materials are present along roadways and inform SESF # 10 for future removal. Oil and HAZMAT teams should focus on cleaning up spills or HAZMAT debris that pose an immediate threat to life safety, leaving smaller or more contained spills for future debris operations. Any HAZMAT left for future removal should be clearly marked and coned to avoid disruption or spreading.

### 4.5.2 CLEARANCE PRIORITIES

The following guidelines should dictate which areas are cleared first. Priorities should focus first on facilities needed for critical life safety and related operations before progressing to facilities used for life sustaining and recovery operations.

The clearance priorities for Critical Infrastructure Key Resources (CIKR) are clearly delineated below:

Table 13 CIKR Clearance Priorities

Priority Level	1	2	3
Time Post Landfall	48 Hours	72 Hours	120 Hours
Facility Description	Facilities needed for critical life safety and response. Accessible via State primary roads (minor collector or higher).	Facilities that support critical operations and exist to support life sustaining response. Accessible via State roads.	Facilities that support priorities 1 and 2 and with easy access to State roads.
Examples	Main Harbors, Hub Airports, Main Fire/Police Stations, State/County EOC, Level I trauma centers (or highest available in the county).	Main electric (HECO, KIUC, etc.) facilities and lines, Auxiliary hospitals and trauma centers, Main water	Community centers, food distribution centers, secondary power stations and utilities.

		pumping, waste treatment stations.	
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During the clearance phase of operations, the State EOC should coordinate with the County EOC to adjust priorities based on current county needs. County emergency management or civil defense agencies are responsible for maintaining general CIKR priority lists and updating them according to incident circumstances.

### 4.5.3 COUNTY CLEARANCE

As a general rule, county highway, transportation, or facilities management departments or agencies will take the lead for debris clearance on county-owned and maintained roads, streams, and other public spaces (HRS §46-11-51). The Governor may authorize counties to help clear State roads, especially in areas where State assets may be temporarily unable to reach (HRS §27-31).

### 4.5.4 PUBLIC MESSAGING

State and County transportation agencies should stress the importance of keeping the roadways clear during the initial phases of debris operations. The public should be advised to refrain from operating motor vehicles to avoid getting in the way of emergency services and clearance crews. The public may be asked to help clear debris from local residential roadways to allow for right-of-way access.

## 4.6 DEBRIS REMOVAL AND TRANSPORTATION TO DM AND TDSR SITES

This section derives most of its direction from the FEMA Public Assistance Program and Policy Guide (PAPPG), which dictates when debris removal work will be eligible for PA. Debris planners should be familiar with the PAPPG standards and review them when developing an incident debris management plan.

### 4.6.1 DEBRIS SHEDS

Most counties and islands are divided into natural regions by geographic barriers like mountain ranges, volcanoes, ocean channels, or rivers. Collection of debris should be organized according to geographic regions to maximize collection efficiency and minimize unnecessary road traffic. These regions, dubbed “debris sheds,” may be based off district designations in HRS §4-1, *moku* or island subdivision, or other political or geographic distinctions. A summary of districts and potential debris sheds by county can be found in Section 5. The county agency responsible for debris collection should designate debris shed boundaries and collection points based on TDSR site location.

### 4.6.2 REMOVAL OPERATIONS

Debris route planners will need to verify that contracted removal operators stay on roads where federal regulations allow certain heavy vehicles. The Load Ticket Manager will issue load tickets to removal operators. Load tickets may specify the following:

1. Name of contracting company or vehicle owner.
2. Permitted debris types for each load.
3. Estimated debris quantity in cubic yards (cy) for each load.
4. Time when load ticket remains valid.
5. Start and end location of route.
6. Specific areas of focus, if necessary.

Debris removal operators should only be qualified contractors previously identified by county or state agencies. Prior to issuing a load ticket, Transportation and Logistics should verify that the vehicle operating is registered and permitted to haul large amounts of debris.

Route Managers should prioritize removing debris that hinders critical operations or poses a threat to public health or the environment. The full priority list is detailed below.

Priority	Definition	Timeframe	Example
1	Areas that require frequent access by emergency services for life-saving operations AND priority 2 areas that are nearby.	1-2 weeks after incident landfall.	Roadways and debris piles on public land near main harbors/airports, hospitals, fire/police stations, etc.
2	Areas that require access for life-sustaining operations AND priority 3 areas that are nearby.	2-3 weeks after incident landfall.	Roadways and debris piles on public land near water/wastewater treatment facilities, energy CIKR. Debris that poses an eminent threat to public health.
3	Areas used by the general public or needed for commercial or government services on a regular basis.	4 weeks after incident landfall.	High-traffic roadways and highways, debris piles near essential government buildings and community centers, schools.
4	Remaining public right-of-way, household debris.	1-2 months after incident landfall, dependent upon TDSR and disposal space.	Residential roadways and debris remaining in neighborhoods and non-essential government areas such as state parks, beaches, etc.

Table 14 Debris Removal Route Priorities

### 4.6.3 SPECIAL CONSIDERATIONS

The State of Hawai'i has unique laws determining the removal of specific types of debris. As indicated in section 4.6.2 above, load tickets may need to specify the type of debris that a removal operator may take. Briefly referenced here are recommended best practices for removal.

#### 4.6.3.1 SAND

Sand deposited onto roads and eligible facilities by storm surge or high surf will generally be pushed back towards the shoreline during the clearance phase of operations. In more severe circumstances large deposits of sand may be pushed farther inland or obstruct drainage canals. §HRS §205A-44 generally prohibits the removal of sand or coral from beaches and shorelines, but provides an exception in subsection (a)(7) for removal during State or local disasters. If possible, sand should be returned to its beach of origin. In the case of contamination by HAZMAT or other mixed debris, the sand may be moved to a TDSR site for separation and recycling as long as it meets eligibility requirements. In general, all removal of sand should be done with the consultation of DLNR-LAND.

#### 4.6.3.2 MUD AND SILT

Heavy rains may leave large soil deposits on public or other eligible facilities. Much like sand, this type of debris will likely be pushed to the side during the clearance phase and left to the facility owner to remove or disperse post-incident. If a buildup of mud and silt poses an immediate threat to life safety or public property, it may be removed under direction from DLNR-LAND or the agency responsible for the facility. This also applies to soil contaminated or suspected to be contaminated by hazardous materials.

### 4.6.4 REMOVAL AND TRANSPORTATION MONITORING

For debris removal to qualify for Public Assistance under FEMA category A, thorough documentation of the work performed must be provided through debris monitors operating independently of removal contractors. Debris monitors may be volunteers, State workers, or temporary hires. Monitors should travel with both force account and contract laborers and ensure that removal operations are conducted in accordance with FEMA PA regulations.

Monitors should perform the following tasks:

- Take before and after photographs of public roads, buildings, and other eligible facilities during the debris removal process.
- Document the time that debris is loaded and dropped off at TDSR sites.
- When necessary, make estimates of debris types and quantities picked up and deposited.
- Serve as a reference for determining eligible debris, referring to a PA expert in the State DMTF or FEMA PA Debris Task Force when necessary.
- Ensure that removal contractors do not perform ineligible work or remove ineligible debris.

## 4.7 TEMPORARY DEBRIS STORAGE AND REDUCTION (TDSR) SITES

As the debris collection process begins, the State Debris Management Task Force should simultaneously oversee the opening of Temporary Debris Storage and Reduction (TDSR) sites. Depending on county and state space available and the types of debris present, the Debris Management Task Force may elect to open separate TDSRs for each debris shed. In small incidents or counties, there may be only one TDSR per island. Section 4.7 details recommendations for site selection, layout, and management.

## 4.7.1 SITE SELECTION GUIDELINES

Prior to incident landfall, State, County, and other interests should agree on one or more Temporary Debris Storage and Reduction (TDSR) sites. Potential sites located on private or federally owned lands must be designated by a written memorandum of agreement or understanding (MOA/MOU). State-owned lands should be the first option for these sites.

### 4.7.1.1 EXISTING COUNTY LANDFILLS AND CONVENIENCE CENTERS

Most counties in the State manage relatively small solid waste drop-off centers for resident convenience. These facilities may serve as temporary storage and/or reduction sites based on size, available equipment, and county approval. Most of these facilities are designed for small-scale household or vegetative waste, so these areas may become quickly overwhelmed unless expanded. County solid waste agencies generally lead and approve this type of facility for use in debris management.

See Section 5 for maps of convenience centers and landfill stations by county.

### 4.7.1.2 NEW TDSR SITES

Guidelines for selection:

1. Site should provide ample space for traffic flow of heavy equipment.
2. Site should be located in an area that will not impact other essential operations, including safety and security, food and water, shelter operations, energy and fuel, communications, or wastewater treatment.
3. Site should be easily accessible via state roads.
4. Site should not be located close to wetlands or where it could negatively impact state aquifers.
5. Site selection should account for schools and residential areas and ensure that negative impacts to these locations are minimized.
6. Site should be reviewed by SESF-10 to ensure that it will have a minimal impact on the surrounding environment.
7. If the site is located outside of State-owned land, a lease agreement should be obtained with conditions detailing the setup and takedown of the site.
8. Site should avoid areas with significant archeological or cultural value.
9. The proposed site location should be analyzed to ensure that it does not impact one socioeconomic group more than another. Specific attention should be paid to Hawaiian Homelands (DHHL) and lower-income areas.
10. A land use permit application should be filed to DLNR-LAND detailing compliance with the above guidelines and a proposed site map or plan (HAR 13-5-31).

If the Debris Management Task Force and relevant SESFs are unable to locate a site that meets the above requirements in a timely manner, the Governor has the authority to temporarily suspend State environmental regulations during a state of emergency (HRS § 127A-13).

## 4.7.2 SITE SETUP

Every site should have the following:

1. A traffic-controlled site entrance where removal workers must check in with inspectors prior to accessing the site.
2. Monitoring stations at both ingress and egress points.
3. Designated storage areas for fuel and equipment.
4. Strategically positioned water storage and fire suppression equipment around the entire site.
5. Clearly marked traffic flow, usually a one-way loop from entrance to exit.
6. Paved or gravel roadways averaging at least 25 ft in diameter.
7. Safety equipment, including first-aid and trauma kits.
8. Portable restrooms, areas for site monitors to take breaks, and generators (if needed).
9. Separate locations for each type of debris.
  - a. Almost all TDSR sites should have locations for construction and demolition, vegetative, and household hazardous waste.
  - b. Some site may have areas for less common waste, such as vessels, white goods, oil, vehicular, and other types of waste that require special processing.
10. Ample space for reduction equipment to prevent accidents, fire, or debris contamination. Actual distances may vary.
11. Depending on staffing and space availability, public drop off areas may be opened to allow for the general public to leave disaster related vegetative and Construction and Demolition debris.

### 4.7.2.1 DEBRIS SEPARATION

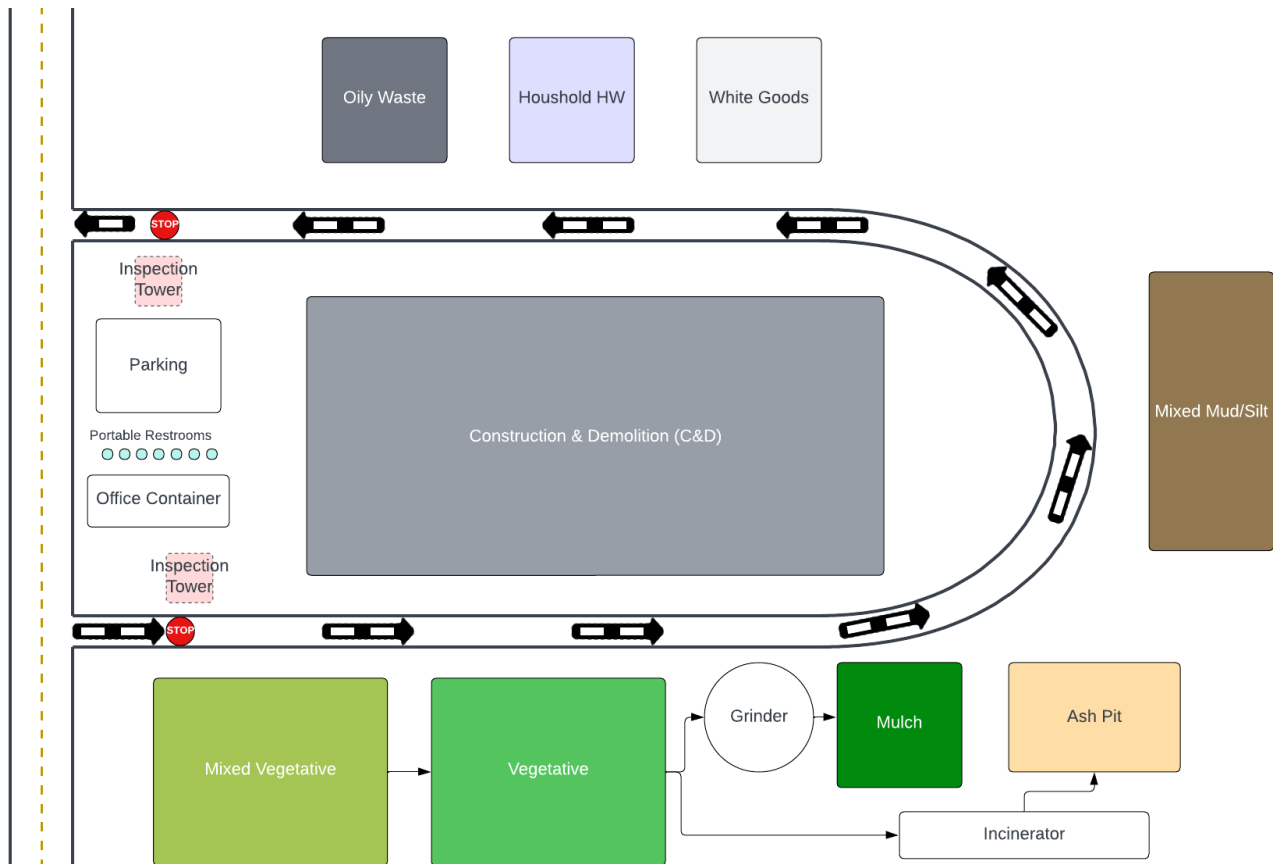


Figure 4 Example TDSR Site Layout

### 4.7.3 SITE ACCESS

Before granting access to the TDSR site, inspectors will verify the following:

1. Vehicle registration and permit to haul debris.
2. Load ticket, including date and type of debris.
3. Visually inspect the debris contents to ensure it matches the debris specified in the load ticket.
4. Document the time, date, and estimated quantity of debris for future consultation and reimbursement.

Before exiting the TDSR site, inspectors will perform the following tasks:

1. Ensure that the exiting vehicle remains free of any debris.
2. Initial the load ticket, including the date and time at which the vehicle departs.
3. Document the exiting vehicle's departure date and time in internal records.

### 4.7.4 DEMOBILIZATION

Once the last of the debris has been transferred to disposal sites, SESF # 10 will take the lead for ensuring that the site takedown meets State and federal environmental standards. Cleanup operations should commence to ensure that any residual toxic materials remain at safe concentrations in the soil and water of the former TDSR site. If the lease agreement for the location specified that the site be restored to pre-impact status, the state may contract landscaping and construction to do so.

## 4.8 DISPOSAL

Reduced debris will be disposed at a county approved landfill or removed from the island via private shipping. County environmental or public works agencies will take the lead on identifying locations for disposal in counties.

Certain types of debris, such as oil, white goods, and electronics will need to be privately disposed of through recycling or specialized disposal centers.

# 5. COUNTY SPECIFIC CONCEPT OF OPERATIONS

County agencies are responsible for leading debris planning efforts within their jurisdictions. This section summarizes unique county situations and details how the State may assist. This section is not a substitute for County Debris Management Plans.

State agencies identified as debris management leads should have a liaison in each county EOC to coordinate State resources in conjunction with county efforts.

## 5.1 HAWAI'I COUNTY

This section is not a debris management plan for Hawai'i County. It is only an overview of debris operations in the county from the State perspective. For detailed plans refer to the Hawai'i County Debris Management Plan (available upon request from HCCDA).

### 5.1.1 STATE JURISDICTION AND CRITICAL INFRASTRUCTURE

#### 5.1.1.1 DEPARTMENT OF TRANSPORTATION (DOT)

The State of Hawai'i manages two harbors in Hawai'i county, Hilo and Kawaihae. Additionally, two small-hub airports, KOA and ITO, exist on opposite sides of the island. Critical State highways on Hawaii island include the Hawai'i Belt Road (State Routes 11, 190, 19; combinations of Māmalahoa Hwy, Ka'ahumanu Highway, among others), Saddle Road (State Route 200, also known as Daniel K. Inouye Highway), Kohala Mountain Road (State Route 250), and Akoni Pule Hwy (State Route 270).

#### 5.1.1.2 DEPARTMENT OF LAND AND NATURAL RESOURCES (DLNR) & DEPARTMENT OF HAWAIIAN HOMELANDS (DHHL)

The State owns significant amounts of land on Hawai'i island, most notably on undeveloped slopes of Mauna Kea and Mauna Loa. Hawaiian Homelands exist throughout the county as well. Debris management efforts should be conscientious of underprivileged and native hawaiian communities, ensuring that the reduction and disposal phases do not negatively impact a specific group more than others.

#### 5.1.1.3 DEPARTMENT OF HEALTH (DOH)

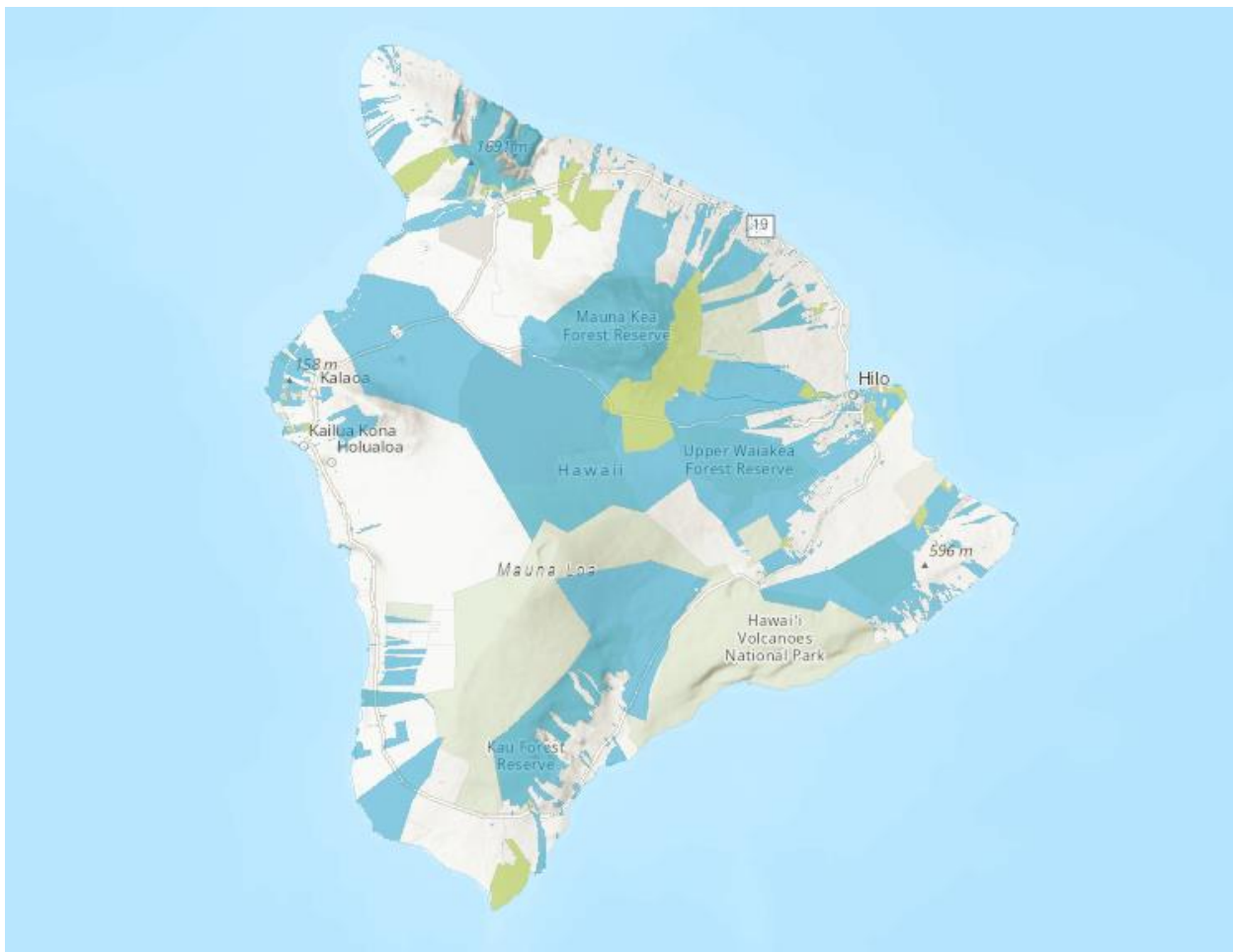
The Department of Health (DOH) maintains three district offices in the county (Hilo, Kona, and Waimea). Debris management efforts should take into account these areas to quickly restore essential government health services.


#### 5.1.1.4 OTHER STATE OFFICES


Several State agencies maintain regional offices in urban Hilo or Kailua-Kona. While not critical to life-saving or sustaining operations, these areas should be prioritized for later restoration of important government services.

#### 5.1.1.5 DEPARTMENT OF EDUCATION (DOE)

DOE facilities fall into three complex areas around the island, including Hilo-Waiakea, Ka'ū-Kea'au-Pāhoa, and Honoka'a-Kealakehe-Kohala-Konawaena (often abbreviated as HKKK). While Hawai'i County does not always use DOE facilities as shelters, debris clearance should take into account school locations for a quick restoration of regularly scheduled classes.



 Hawai'i State Owned Land

 Dept. of Hawaiian Homelands (DHHL) Land

## 5.1.2 COUNTY AGENCY SUMMARY

All agencies mentioned in section 5.1.2 are county agencies not directly accountable to the State, unless otherwise noted. Acronyms used may not be consistent with the rest of this document. Agency responsibilities may be subject to change without notice from HCCDA.

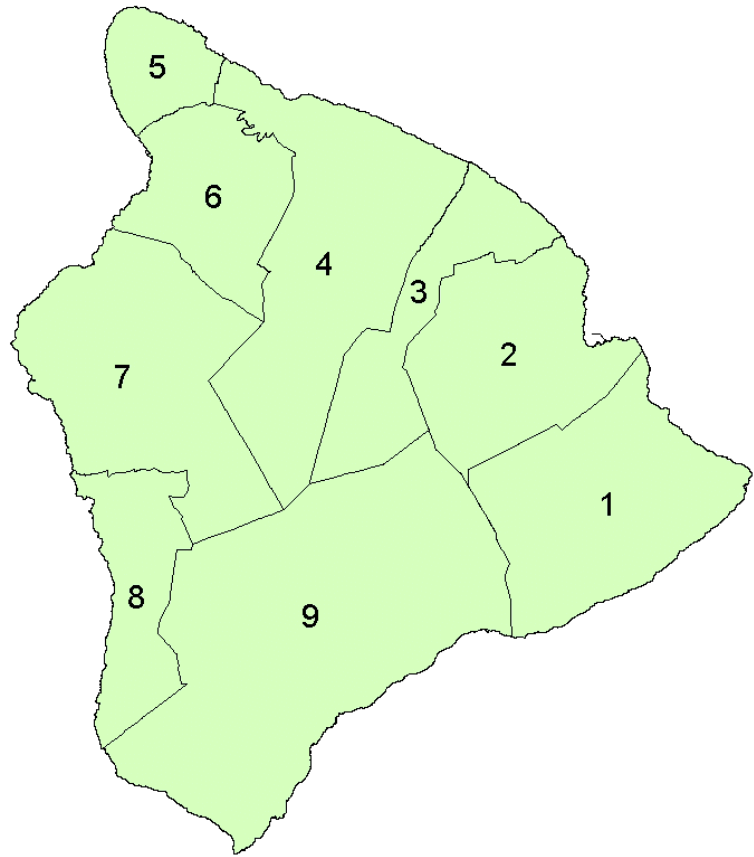
Function	Agency
<b>Coordinating Agency</b>	Hawai'i County Civil Defense Agency (HCCDA).
<b>Debris Clearance</b>	Department of Public Works, Highways Division (DPW-HWY).
<b>Debris Removal</b>	DPW-HWY and private contractors.
<b>TDSR</b>	Department of Public Works, Engineering Division (DPW-ENG), Department of Environmental Management, Solid Waste Division (DEM-SWD).
<b>Disposal</b>	Department of Environmental Management, Solid Waste Division (DEM-SWD), privately contracted.

## 5.1.3 HAWAI'I ISLAND REGIONS

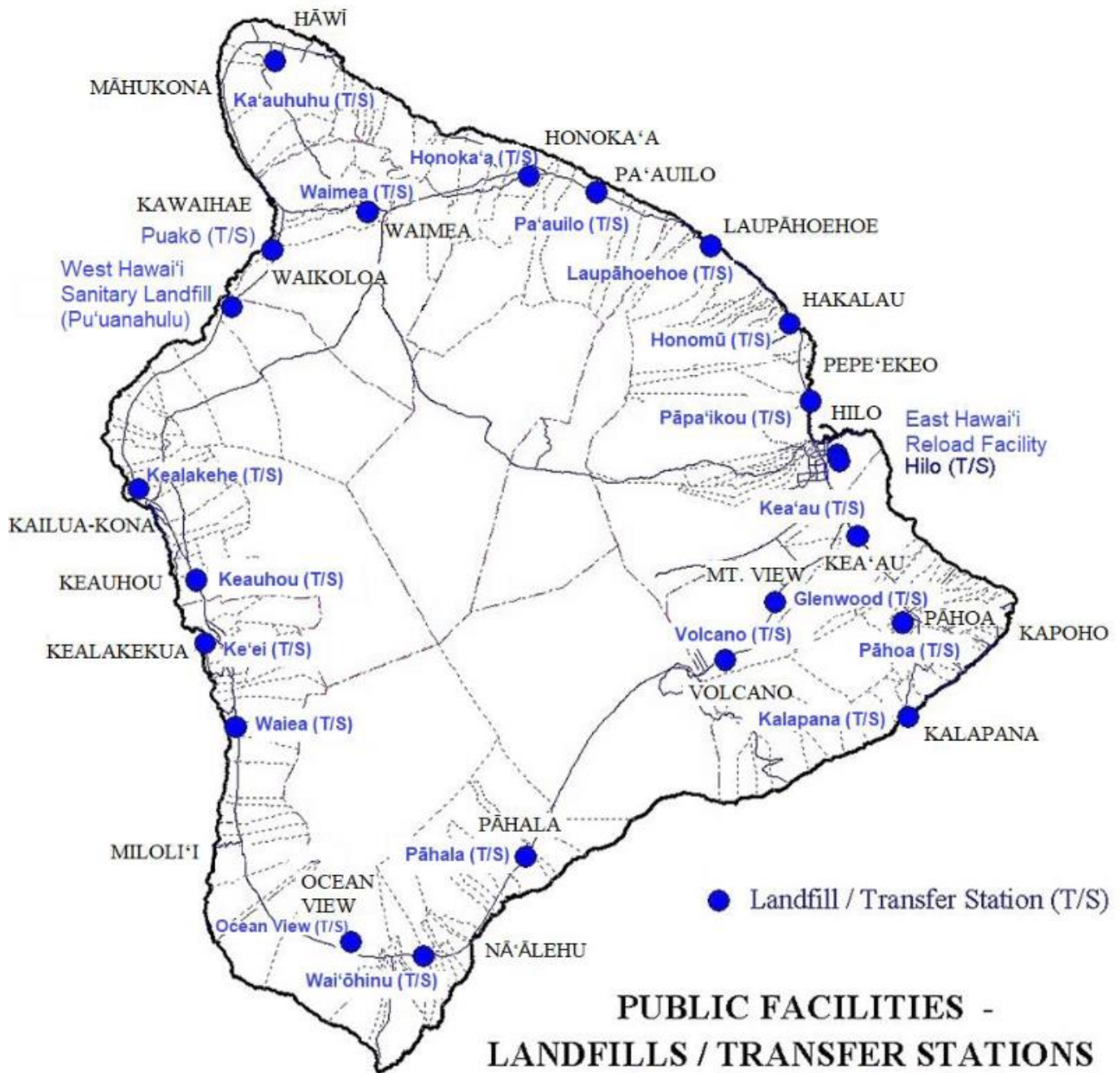
Hawai'i island is divided into nine main districts (based on moku). Debris removal and collection operations may follow these districts or may follow another model as directed by HCCDA and other Hawai'i County local agencies. The districts are explained below.

1. **Puna** covers the region on the east flank of the Kilauea volcano. This region will generate large amounts of vegetative debris in the case of a hurricane or tropical storm.
2. **South Hilo** includes the urban center of Hilo town, as well as Hilo Harbor and ITO airport. This region may be combined with Puna and/or North Hilo to form a debris shed, depending on incident circumstances. The county seat, as well as the county EOC, are located here in downtown Hilo.
3. **North Hilo** includes the area from Hakalau to Laupahoehoe on the east or windward flank of Mauna Kea. It is separated from other districts by deep river valleys, and only connected via State Route 11 (Māmalahoa Hwy). Debris operations may group this together with Hamakua and/or South Hilo, depending on incident circumstances.
4. **Hāmākua** includes coastal areas on the Northeast flank of Mauna Kea. Much like North Hilo, deep river valleys have the potential to isolate communities, most of which are only accessible from the rest of the county via State Route 11.
5. **North Kohala** makes up the extreme north of the island, with population centers Hawi, Kapaau, and Halaula. Two state highways connect this region to others, State Routes 250 and 270.
6. **South Kohala** includes the valley between the north flank of Mauna Kea and south flank of the Kohala volcano. Waimea and Kamuela make up the population center of this district, which also includes the coastline north of Hilo and Kawaihae harbor. MUE airport also is in this district.

7. **North Kona**, which includes the population center of Kailua-Kona as well as KOA airport. This region is typically bordered on the south by Kealahou, flanked on the east by shield volcanoes Mauna Loa and Hualalai, and bordered on the north by Waikoloa. This region may be combined with South Kona to form a debris shed depending on incident circumstances.
8. **South Kona**, which stretches from Kealahou in the north to Miloli'i in the south, bordered by the flank of Mauna Loa in the east. This region is more sparsely populated than North Kona and may be combined with the latter region to form a debris shed depending on incident circumstances.
9. **Ka'u**, which covers the extreme south end of Hawai'i Island from Ocean View to Hawai'i Volcanoes National Park. This region is sparsely populated and easily isolated from the rest of the county by debris or lava flows. State Route 11 (Māmalahoa Hwy) is the only ground access to this region.



#### 5.1.4 LANDFILLS AND TRANSFER STATIONS



Source: County of Hawai'i, Department of Environmental Management, Solid Waste Division

## 5.2 MAUI COUNTY

### 5.2.1 STATE JURISDICTION AND CRITICAL INFRASTRUCTURE

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### 5.2.1.1 DEPARTMENT OF TRANSPORTATION (DOT)

The State of Hawai'i manages three commercial harbors in Maui County: one in Kahului, one in Kaunakakai, and one in Kaunapau. The county's main airport at Kahului (OGG) serves most of Maui island's population, while islands Moloka'i (MKK) and Lāna'i (LNY) each have their own non-hub primary airports. DOT-AIR manages three other small airports: in Hāna (HNM), Lāhainā (JHM), and Kalaupapa (LUP).

A major part of the road network in Maui is maintained by the State. Honoapi'ilani Highway (Ste Route 30, 3000) connects Lāhainā and West Maui with the remainder of the island, serving as the only land access for several communities. Pi'ilani and Maui Veterans Highway (State Route 31, 310), connect Kihei with the central valley and Kahului. Haleakalā Highway (Route 37, 377) connects the Upcountry region to the rest of the island. Finally, Hāna Highway (State Route 36, 360) is one of two routes into the Ko'olau and Hāna regions.

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### 5.2.1.2 DEPARTMENT OF LAND AND NATURAL RESOURCES (DLNR) & DEPARTMENT OF HAWAIIAN HOMELANDS (DHHL)

The State owns significant land in all islands except Lāna'i, which aside from the airport and harbor is exclusively private. On Maui Island, most of the state land is located on rugged, isolated mountain slopes, areas generally unfit for TDSR sites. State agencies will need to coordinate with county solid waste agencies to reduce and dispose of state debris. Like other counties, Maui County has land administered under DHHL, particularly on Moloka'i and East Maui.

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### 5.2.1.3 DEPARTMENT OF EDUCATION (DOE)

The DOE Maui district has two complex areas, Baldwin-Kekaulike-Kūlanihāko'i, which covers the valley, upcountry, and Kihei areas of Maui Island; and Hāna-Lahainaluna-Lāna'i-Moloka'i, which consists of the remainder of the outlying schools on Maui Island and schools on Moloka'i and Lāna'i. If schools are used as shelters during or post-incident, clearance efforts should prioritize these DOE facilities.

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### 5.2.1.4 OTHER STATE FACILITIES

DOH, DAGS and other State agencies have offices in Kahului/Wailuku. While not critical in the first stage of response and debris clearance, these essential government offices will need later attention to quickly restore public services.

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## 5.2.2 COUNTY AGENCY SUMMARY

This section briefly describes the Maui County agencies involved in the various phases of debris management. This is not a substitute for a debris management plan. For more detailed information on Debris operations in Maui County, please consult the County of Maui Disaster Debris Action Plan (2009).

Function	Agency
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<b>Coordinating Agency</b>	Maui Emergency Management Agency (MEMA)
<b>Debris Clearance</b>	Department of Public Works, Highways Division (DPW-HWY).
<b>Debris Removal</b>	Privately Contracted; DPW-HWY
<b>TDSR</b>	Department of Environmental Management (DEM), Solid Waste Division
<b>Disposal</b>	Privately contracted in conjunction with DEM Solid Waste.

Please note that the acronyms used in this section may not be consistent with the remainder of the document.

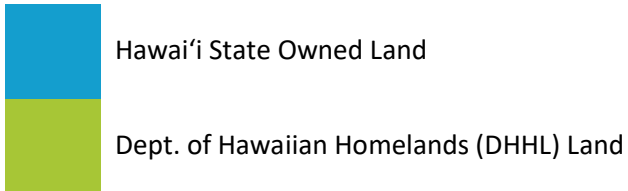
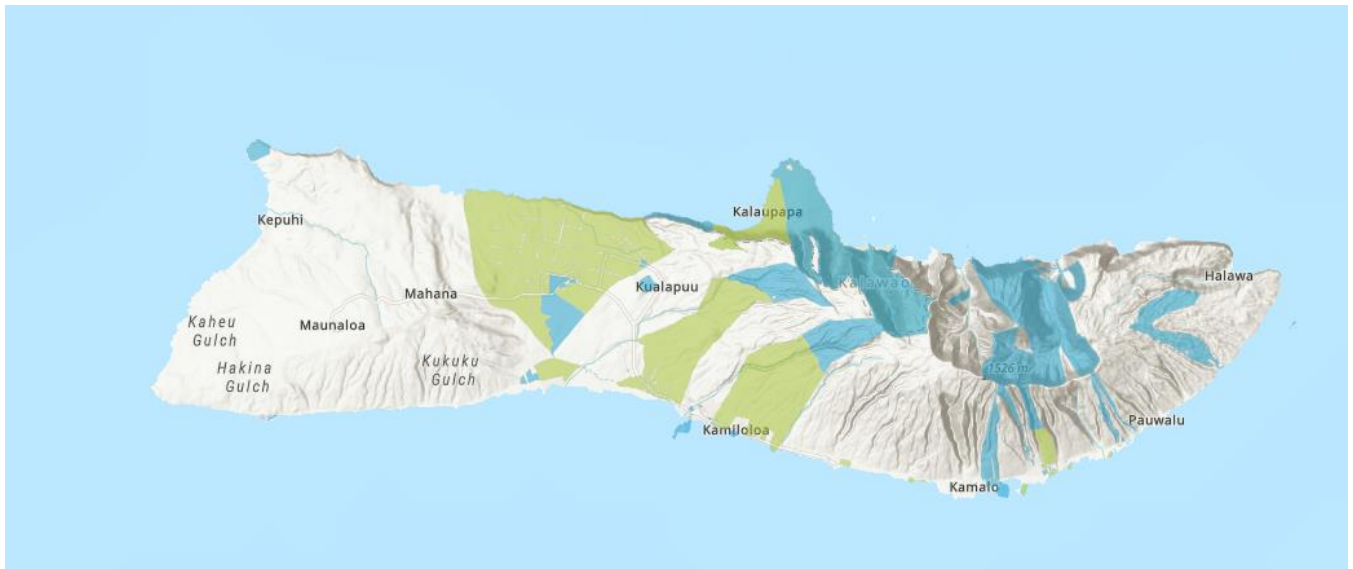
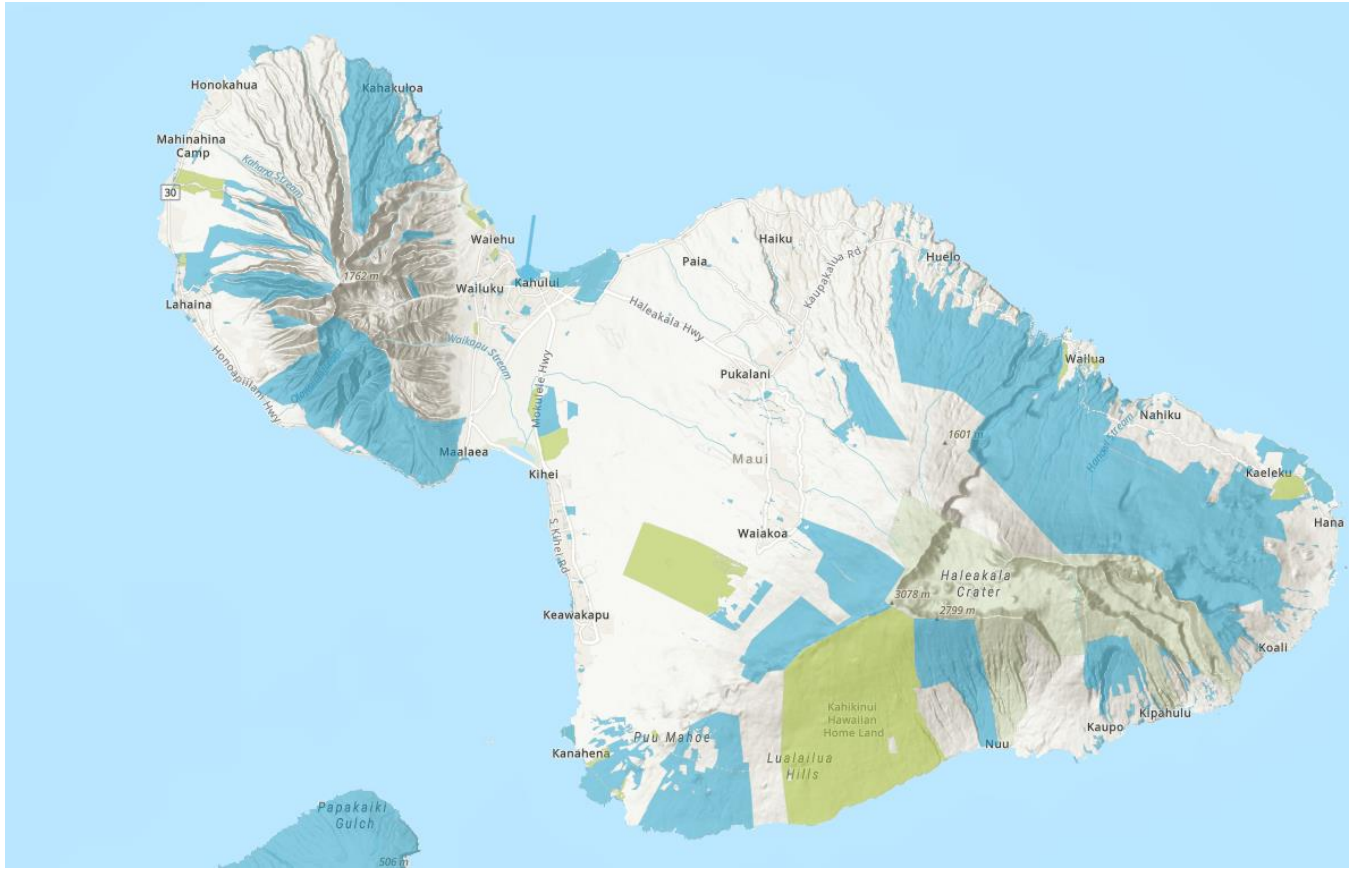
### 5.2.3 MAUI COUNTY REGIONS

Maui County divides the land into six regions for the purpose of debris operations (2009). State efforts should focus on supporting and matching county efforts in these geographic areas. Some of these areas are only accessible via state roads or airports.

2. **Lāhainā**, which includes most of West Maui. This area is easily isolated from the rest of the island by mudslides or rockslides.
3. **Wailuku**, which includes the more densely populated valley areas from Wailuku and Kahului in the north to Kīhei and Wailea in the south. The County seat and several regional state offices exist here. This area features several floodplains susceptible to large amounts of debris. State highways cut through most of this area.
4. **Makawao**, which includes the upcountry areas alongside the western flank of Haleakalā.
5. **Hāna**, which includes the extreme eastern end of Maui Island and the remote communities of Hana and Kīpahulu. These areas are easily cut off by small amounts of vegetative debris or mud.
6. **Molokaʻi**, which includes the entire island of Molokaʻi. The south-eastern part of the island is often cut off from the rest of the island by flash floods. Additionally, the northern Kalaupapa peninsula has no ground access aside from a mule trail likely to be heavily degraded in the case of a debris-generating incident.
7. **Lānaʻi**, which included the entire island of Lānaʻi. Almost all Lānaʻi residents and infrastructure exists in elevated areas, making the island less susceptible to flood damage but more vulnerable to high wind damage.

### 5.2.4 LANDFILLS AND TRANSFER STATIONS

The Maui County Department of Environmental Management (DEM) maintains four landfills and one convenience center for drop-off. The main landfill is located in Puʻunene in central Maui and is the main destination of most solid waste in the county. The Hāna, Lānaʻi, and Molokaʻi landfills all serve the more isolated parts of the county, while the Olowalu Refuse Convenience Center serves residents in West Maui.



## 5.3 CITY AND COUNTY OF HONOLULU

The island of O‘ahu presents a unique situation for Debris Management Operations due to the overlapping jurisdictions of the City and County of Honolulu, the State of Hawai‘i, and the US INDOPACOM. Careful coordination is necessary to prevent duplication of effort or issues receiving federal aid in the form of FEMA public assistance. Please see Section 9.1 and 9.2 for specific memorandums of understanding and agreement detailing how and where these jurisdictions will overlap.

This section is not a debris management plan for the City and County of Honolulu. It is only an overview of debris operations in the county from the state perspective. For detailed plans please see the Honolulu County Debris Management Plan (Available upon request from DEM).

### 5.3.1 STATE JURISDICTION AND CRITICAL INFRASTRUCTURE

#### 5.3.1.1 DEPARTMENT OF TRANSPORTATION (DOT)

On the island, the State manages one medium-hub airport (HNL), one reliever (JRF), and one general service (HDH). The state also manages two commercial harbors: Barber’s Point, and Honolulu. Of these two, Honolulu harbor is the most critical, as it is the only location in the county equipped to regularly receive container shipments. Barber’s Point is also important, as it receives most of the state’s bulk shipments, including fuel.

State road infrastructure includes four interstates and a significant network of state highways. Outside of the interstates, which should occupy high clearance priority, several State roads offer the only land access to their respective communities and regions. State Routes 72 (Kalaniana‘ole Hwy), 83 (Kahekili Hwy, Kamehameha Hwy), and 93 (Farrington Hwy), are critical routes that will leave large portions of the county isolated if cut off. The State also manages several roads key for commerce and distribution near county industrial centers, including State Routes 92 (Nimitz Hwy, Ala Moana Blvd), and 64 (Sand Island Access Road).

The O‘ahu District Debris Plan (2020) details DOT-HWY operations during the clearance and removal phases. In the case of a notice incident, DOT-HWY will begin pre-staging clearance equipment and personnel up to 12 hours before estimated incident landfall. Most of these will report to the hurricane hardened Tetsuo Harano Tunnel located in the center of the island alongside the H-3 Freeway. Others will report to one of two minor shelter facilities in Hau‘ula or Wahiawā. DOT-HWY will prioritize clearing the following routes:

1. H-3 tunnel to urban Honolulu.
2. Ala Moana Blvd/Nimitz Highway (State Route 92) from Waikiki to HNL.
3. Remaining portions of Interstates H-1, H-2, H-201, and H-3.
4. Kalaniana‘ole Hwy (State Route 72)
5. Kunia-Ewa Beach (State Route 76, 750)
6. Kapolei-Mākaha (State Route 93)
7. Waialua-Mokulē‘ia (State Route 930)
8. Likelike Hwy (State Route 63), Pali Hwy (State Route 61)

Smaller clearance teams in Wahiawā and Hau‘ula will simultaneously work on clearing Kamehameha HWY (State Route 83), linking the Waialua and Koolau regions to wider clearance efforts.

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#### 5.3.1.2 DEPARTMENT OF EDUCATION (DOE)

O‘ahu hosts the majority of the public schools in the state, organized into four districts (Honolulu, Central, Windward, and Leeward). The City and County of Honolulu may decide to open shelters in DOE facilities before, during, or after a debris-generating incident. In this case, the Debris Management Task Force should prioritize clearing routes linking shelter locations to distribution sites. During the reduction phases of post-incident debris management, TDSR site selectors should remain conscientious of school complex areas to avoid disruption of classes.

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#### 5.3.1.3 DEPARTMENT OF LAND AND NATURAL RESOURCES (DLNR) AND DEPARTMENT OF HAWAIIAN HOMELANDS (DHHL)

DLNR owns large portions of land in the mauka regions of O‘ahu. Most of these areas would be disqualified from TDSR site use because of their proximity to essential aquifers. Debris planners should consult DLNR when selecting a TDSR site located on state owned land to prevent disruption of aquifers or wetlands. The most notable DHHL lands exist in Waimānalo and Nānākuli.

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#### 5.3.1.4 OTHER STATE INFRASTRUCTURE

As discussed in section 2, the island of O‘ahu hosts the State Capitol, central administrative offices, and the State EOC, most of which are in downtown Honolulu.



<b>Disposal</b>	Privately contracted in conjunction with ENV.
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### 5.3.3 O‘AHU ISLAND REGIONS

O‘ahu is divided into natural regions by geographic barriers like the Ko‘olau and Waiānae mountain ranges. Collection of debris should be organized according to geographic regions in order to maximize collection efficiency and minimize unnecessary road traffic. Possible “debris sheds” are listed below. Debris planners for the City and County of Honolulu designate specific collection points.

1. **Honolulu**, which comprises the area from Hawai‘i Kai in the east to Moanalua in the west, bordered on the northeast by the Koolau mountain range and southwest by the Pacific Ocean. This area is linked primarily by the H1 and H201 interstates, State Route 72, and State Route 92. This region is highly urbanized and located in low-lying, flood-prone areas. Heavy amounts of debris can be expected to be generated or accumulate here.
2. **Ewa**, which comprises the Ewa plain and south central O‘ahu from ‘Aiea in the east to Kahe point in the west and extends all the way to Wahiawā in the north. This area is densely populated and hosts large INDOPACOM facilities. Interstates H1 and H2 link most of this region together.
3. **Waiānae**, which is made up of the Waianae coast from Nanakuli in the south to Kaena point in the north, bordered on the east by the Waianae range and the west by the Pacific Ocean. This area comprises mostly coastal communities that can be easily cut off by a failure of State route 93.
4. **Wahiawā**, which comprises the very central areas of O‘ahu between Ewa and Waialua. This area may be combined with Waialua or Ewa depending on circumstances.
5. **Waialua**, which comprises the north coast of O‘ahu from Ka‘ena Point in the west to Kahuku Point in the east. This area is prone to extreme flooding and is highly dependent upon State roads 83 and 99, among others.
6. **Ko‘olauloa**, which comprises the northern half of the windward coast from Ka‘a‘awa to Kahuku. This sparsely populated area can only be accessed by State Route 83. Heavy rainfalls often cause landslides. State debris clearance crews should be prepared to address heavy amounts of mud, sand, and vegetative debris.
7. **Ko‘olaupoko**, which comprises the southern half of the windward coast from Makapu‘u to Waikāne. Interstate H3 and State routes 61 and 63 connect this moderately populated region with Honolulu. Heavy rainfall and debris along these routes are very likely.

### 5.3.4 SOLID WASTE CENTERS

The City and County of Honolulu Department of Environmental Services (ENV) manages nine solid waste collection centers. Six are small convenience centers for residential waste, located in:

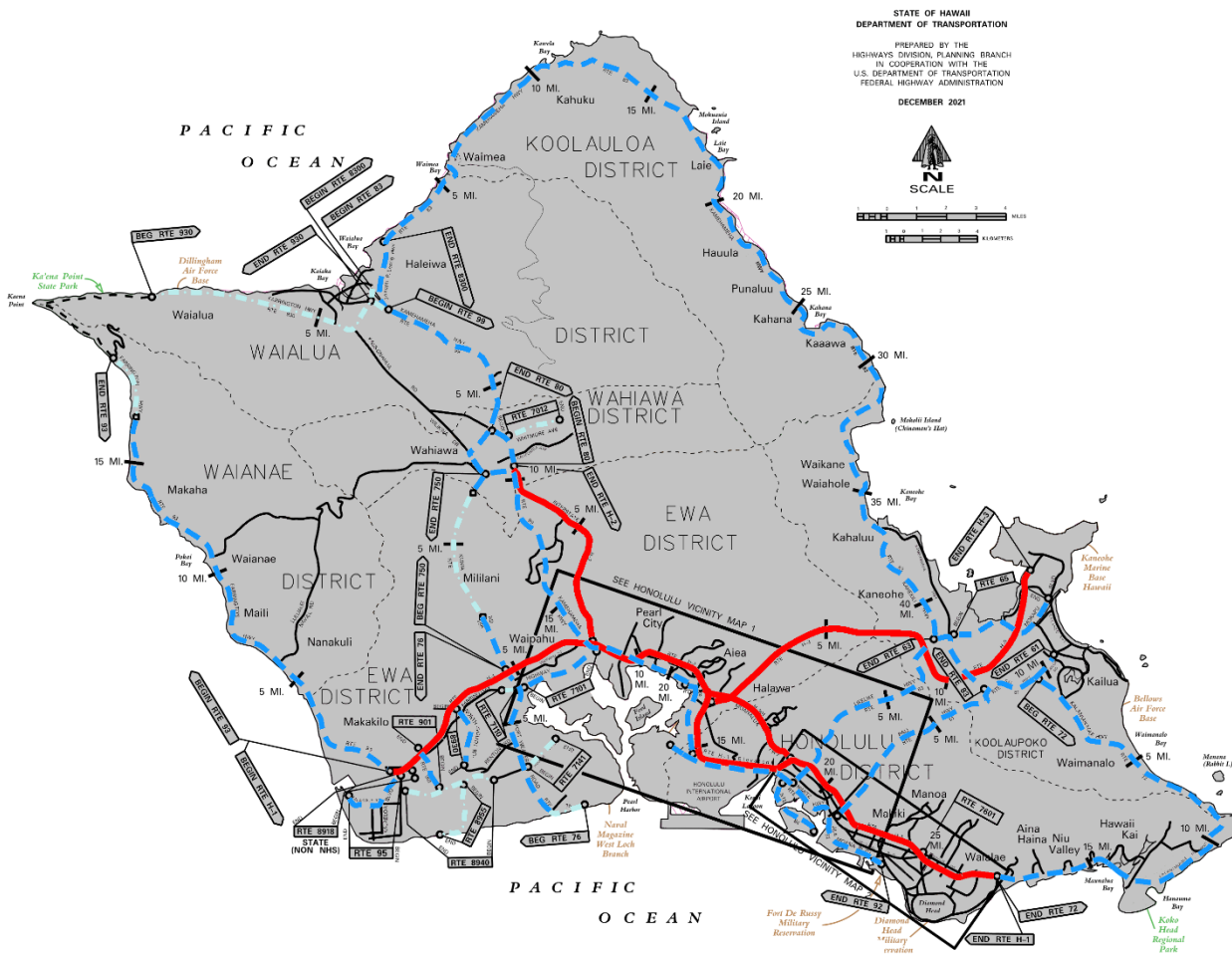
1. Waimānalo
2. Waiānae
3. Waipahu
4. Ewa Beach
5. Lā‘ie
6. Wahiawā

Three are larger transfer stations for commercial and residential waste, located in:

1. Kailua (Kapa'a)
2. Hale'iwa (Kawailoa)
3. Honolulu (Ke'ehi)

Finally, the disposal location for solid waste is at Waimānalo Gulch Sanitary Landfill (WGSL) in Kapolei.

O'ahu has two facilities specifically designed for the disposal of green waste. H-Power in Kapolei is a biofuel facility that generates electricity from green waste. Hawaiian Earth Recycling manages a green waste composting facility in Wahiawā.



## 5.4 KAUA'I COUNTY

This section is not a debris management plan for Kauaʻi County. It is only an overview of debris operations in the county from the state perspective. For detailed plans please see the Kauaʻi County Debris Management Plan (Available upon request from KEMA).

## 5.4.1 STATE JURISDICTION AND CRITICAL INFRASTRUCTURE

### 5.4.1.1 DEPARTMENT OF TRANSPORTATION (DOT)

DOT-AIR maintains two airports on Kauaʻi. LIH is the main passenger and commercial terminal, while PAK serves mostly recreational and emergency services.

Nāwiliwili harbor is the main port of entry for commercial shipments, while Port Allen Harbor receives most fuel shipments for the island.

The state road network on Kauaʻi island consists of two main highways: State Route 56 (Kuhio Hwy) and State Route 50 (Kaumualiʻi Hwy). The State also maintains Route 58, 51, and 570 within urban Līhuʻe, along with a few non-NHS roads to mauka communities. Communities on the northern side of the island are most susceptible to being cut off by large amounts of debris obstructing roads.

### 5.4.1.2 DEPARTMENT OF EDUCATION (DOE)

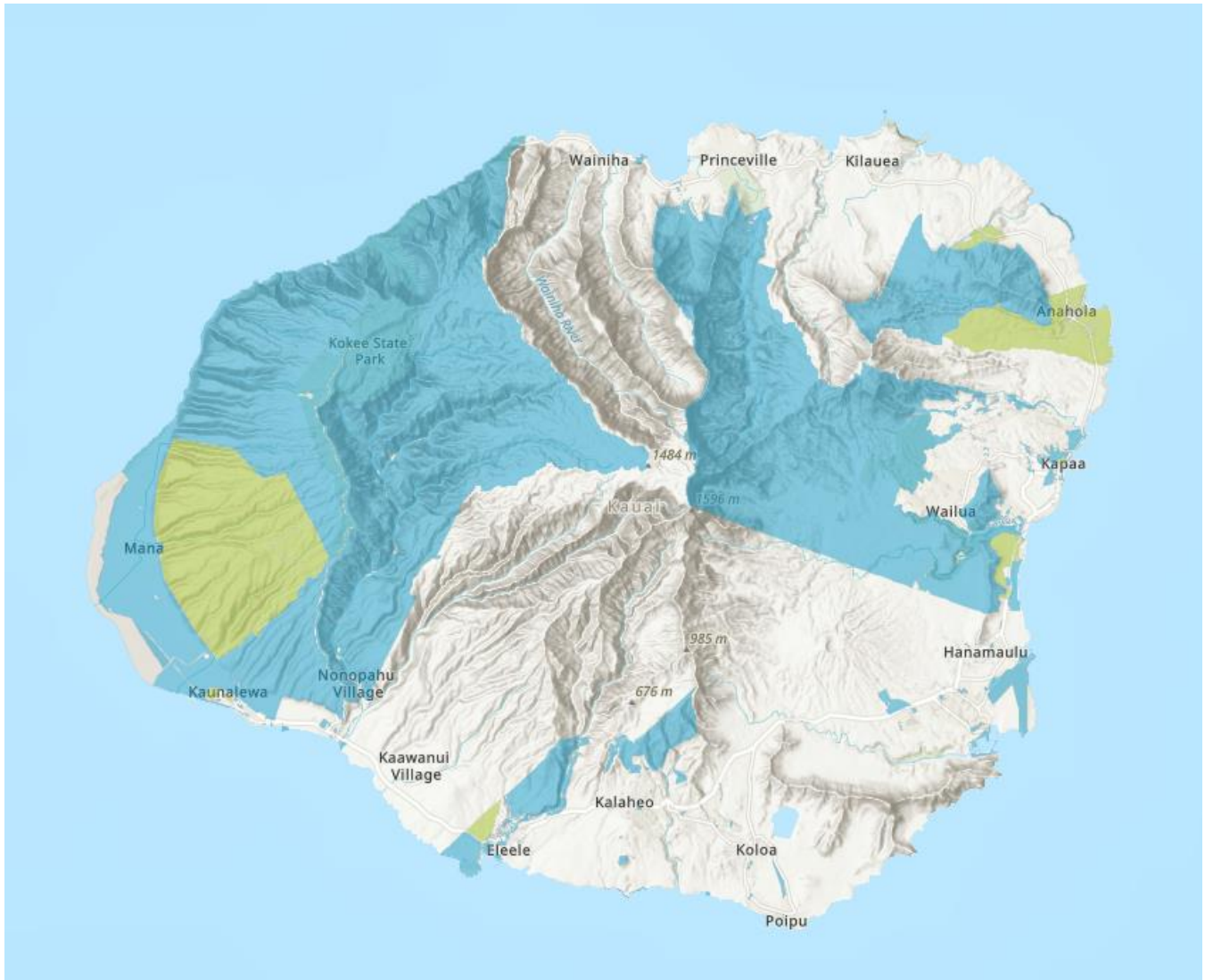
DOE facilities on Kauaʻi include the Kauaʻi, Kapaʻa, and Waimea complexes, each with one high school and several middle and elementary schools that feed into them. Niihau features one DOE school that serves the entire island. KEMA may decide to use some DOE facilities as shelters pre- or post-incident. Debris planners should make sure they are aware of shelter locations to better inform clearance priorities.

### 5.4.1.3 DEPARTMENT OF LAND AND NATURAL RESOURCES (DLNR) AND DEPARTMENT OF HAWAIIAN HOMELANDS (DHHL)

DLNR manages a large part of Kauaʻi island, including the entire Nā Pali and Waimea Canyon regions. Most of these areas are inaccessible or extremely limited in usable land. Debris planners should consult DLNR before deciding on a TDSR or other debris management or disposal site. Major DHHL lands include most of Anahola and parts of Wailua and Hanapēpē.

### 5.4.1.4 OTHER STATE INFRASTRUCTURE

DOH, DAGS, and several other state agencies maintain offices in Līhuʻe. While not essential during early stages of debris clearance, routes to these areas should be prioritized to quickly restore general government services.



Hawai'i State Owned Land



Dept. of Hawaiian Homelands (DHHL) Land

### 5.4.2 COUNTY AGENCY SUMMARY

Below is a summary of County agency roles in the different phases of debris management. This is not a complete nor comprehensive list and is subject to change without notice by KEMA. Please note that acronyms used in section 5.4.2 may not be consistent with the rest of this document.

Function	Agency
Coordinating Agency	Kaua'i Emergency Management Agency (KEMA)

<b>Debris Clearance</b>	Department of Public Works-Roads/Highways
<b>Debris Removal</b>	Department of Public Works-Solid Waste Division (SWD)
<b>TDSR</b>	Department of Public Works-Solid Waste Division (SWD)
<b>Disposal</b>	Department of Public Works-Solid Waste Division (SWD)

### 5.4.3 LANDFILL AND CONVENIENCE CENTERS

Kaua’i County features four Refuse Transfer Stations (RTS) managed by the county Solid Waste Division (SWD). Kekaha Phase II Landfill is the final disposal site for residential and commercial solid waste in the county. The landfill is managed by SWD and Waste Management, Inc.

### 5.4.4 KAUA’I COUNTY REGION SUMMARY

The Kaua’i Department of Public Works, Roads and Highways Division divides the island into 5 regions for organizational purposes. This document loosely bases section 5.4.3 from those regions, adding Nā Pali and Ni’ihau to cover the entire county. These regions could be possible debris sheds or collection areas, or could be completely different based on the discretion of KEMA and Kaua’i Public Works agencies.

1. **Hanalei**, which includes the northern communities of Hā’ena, Wainiha, and Hanalei. This area consists of several narrow river valleys and landslide-prone areas. Because of this, Hanalei is often the first to be cut off during an incident. State Route 560 provides the only access to this region by land.
2. **Kawaihau**, which includes the northeastern section of Kaua’i Island from Princeville and Kīlauea to the island’s population center in Kapa’a and Wailua. State road 56 connects these communities to each other and to Līhu’e in the south.
3. **Līhu’e**, which includes the southeastern section of the island, mostly made up of the Līhu’e, Nāwiliwili, and Puhi communities. This region is the location of the county seat and main commercial harbor.
4. **Kōloa**, which includes the south-central portion of the island from Kōloa to ‘Ele’ele.
5. **Waimea**, which includes the communities of Waimea, Kekaha, and the Mana plain to the west of the island. This also includes the DLNR-owned Kōke’e and Waimea Canyon State Parks.
6. **Nā Pali**, which consists of the unimproved coastline on the West-Northwest portion of Kaua’i. This region is only accessible via small boat or unpaved trail. Much like Waimea, DLNR owns and manages most of the land in this region. This area should be evacuated before incident landfall, and debris clearance and removal from this region will be the sole responsibility of DLNR State Parks Division.
7. **Ni’ihau**, which includes the entire island of Niuhau. While part of Kaua’i County, this island is almost exclusively privately owned. No State-maintained roads exist on the island.

# 6. ADMINISTRATION AND LOGISTICS

## 6.1 ADMINISTRATION

### 6.1.1 LEGAL

Chapter 127A, Emergency Management, of the Hawai'i Revised Statutes provides the legal framework for county and state disaster response activities, including fiduciary and material support and procurement activities.

### 6.1.2 RECORD KEEPING

During an incident, it is imperative to keep specific records related to staff assignments and costs, related to the response to and recovery from the incident. Each individual State Agency and Counties have their own internal processes for ensuring proper documentation and record retention of incident specific cost tracking, personnel time keeping, and record retention of these documents. In accordance with standard cost accountability practices for unique events, man-made and/or natural disasters, all state departments and counties are required to document their financial costs of labor, materials, and equipment in addressing the event. Each state department or agency operates their respective accounting practices within the guidelines of the Governor's Executive Directives, Chapter 127A, Emergency Management, of the Hawai'i Revised Statutes, and the Federal Code of Regulations Title 44 of the Stafford Act to maximize potential reimbursement eligible costs and minimize ineligible costs.

### 6.1.3 DOCUMENTATION

Documentation of debris management activities is extremely important for potential reimbursement of costs. It is important to record all debris activities performed, costs and authorizations granted. Copies need to be maintained for a historical record and for reference in updating plans. Documentation of activities and costs associated with debris is the responsibility of those performing work at all levels of government as well as those who provide oversight and direction.

## 6.2 LOGISTICS

### 6.2.1 ACCOUNTABILITY & PROCUREMENT

Procurement will be in accordance with FEMA Public Assistance (PA) procedures (PAPPG) and state procurement standard procedures.

All emergency procurements executed by State of Hawai'i Departments and Agencies will follow conditions outlined in HRS §103D-307 and will be monitored by the Hawai'i State Procurement Office (SPO). An Emergency

Procurement defined as is a good, service, or construction item essential to meet an emergency when all the following conditions exist:

1. A situation of an unusual or compelling urgency creates a threat to life, public health, welfare, or safety by reason of a major natural disaster, epidemic, riot, fire, or such other reason as may be determined by the head of the purchasing agency.
2. The emergency condition generates an immediate and serious need for goods, services, or construction that cannot be met through normal procurement methods; and the government would be seriously hindered if the purchasing agency were not permitted to employ the means it proposes to obtain goods, services, or construction.
3. Without the needed goods, services, or construction, the continued functioning of government, the preservation or protection of irreplaceable property, or the health and safety of any person will be threatened.

## 6.2.2 PROCUREMENT PROCEDURES

The requesting agency determines in writing on form SPO-002, that the required goods, services, or construction meets the requirements in HRS §103D-307. Competition shall be obtained as practicable to assure that the good, service, or construction is procured in time to meet the emergency. As soon as practicable, a confirming purchase order/purchasing Card must be prepared. The payment document shall include, in detail, any agreements, including price, made orally with the contractor. Finally, Hawai'i Compliance Express (HCE) compliance documentation is not required at the time services are rendered. However, SPO may check at when the form SPO-002 is submitted.

For more detailed description of logistics during an incident, see the **SESF #7** annex to the **HI-EOP**.

## 6.3 FINANCE AND ADMINISTRATION

All federal, state, and county departments and agencies are responsible for managing their own financial activities during all operational phases and across all mission areas within their established processes and resources. Chapter 127A, Emergency Management, of the Hawai'i Revised Statutes provides the legal framework for county and state disaster response activities, including fiduciary and material support and procurement activities. Accurate record keeping and documentation critical for ensuring appropriate expenditures and reimbursement.

### 6.3.1 FEDERAL AGENCY SUPPORT

The Stafford Act provides the legal framework for program requirements, fiduciary and material support, and material acquisition and disbursement. FEMA is authorized to obligate surge funds to mobilize and deploy resources to improve the timeliness of the response as needed and approved. Employment of most resources is predicated on a presidential declaration and is subject to a cost-share arrangement. The FEMA Disaster Finance

Center and National Processing and Service Centers, support operations conducted by the Joint Field Office (JFO) finance and administration section as appropriate.

Additional federal agencies, such as the Federal Highway Administration (FHWA) and the Environmental Protection Agency (EPA) have specific requirements, limitations, and opportunities which support debris management.

### 6.3.2 STATE SUPPORT

During disaster operations, SESF-16 is responsible for overseeing all financial and administrative support activities for the state and SEOC operations, which includes the following:

1. Ensure all disaster related emergency expenditures comply with applicable statutes, rules, and best practices.
2. Track and document all response-related expenses, to include personnel hours, for potential disaster declaration or reimbursement requests.
3. Coordinate the completion and submission of reimbursement requests from the state's Major Disaster Fund or FEMA, as appropriate.
4. Arrange and track disaster related travel of SERT personnel to the affected areas.
5. Issue guidance and collaborate with other state agency finance and administration offices on tracking the estimated cost of the disaster for the management of state financial resources and for future federal reimbursement.
6. Ensure there is sufficient budget authority and federal funds to compensate for response costs. This will include any required state matching fund commitments to ensure proper reimbursement of funds to eligible county, state, and non-profit entities for reimbursable activities.
7. Support the HI-EMA Logistics Section with the preparation of emergency contracts and funds for purchases.
8. Maintaining and documenting other administrative support required for SEOC Operations.

# 7. AUTHORITIES AND REFERENCES

## 7.1 STATE LAWS, REGULATIONS, AND DIRECTIVES

### 7.1.1 HAWAII REVISED STATUTES (HRS)

1. §4-1: Divides the islands into political districts for election and taxation purposes. These districts may be used as a base for debris sheds and collection points.
2. §27-31: Authorizes the Governor to enter into contract with the counties for the maintenance of State roads.
3. §46-11-51: Directs counties to maintain clear roads and streams unless owned by the State.
4. §103D-307: Details requirements for emergency procurement for State agencies.
5. §127A: Establishes primary roles of HI-EMA and other state emergency management operations.
6. §127D: Outlines Intrastate mutual aid system, where counties can opt to help other in-state counties during an incident.
7. §127F: Allows the State of Hawai'i to take part in the Emergency Management Assistance Compact, which allows for State resources to be shared between State boundaries during an incident.
8. §128A-11: Requires First Responders and Emergency Management agencies to have interoperable communications.
9. §130-1, 3: Authorizes the Governor or Mayor to temporarily relocate the State or County seat, respectively.
10. §135: Allows police to divert traffic through private property in case of emergency.
11. §179-4: Allows DLNR to coordinate the maintenance of streambeds and drainage areas.
12. §179D: Allows DLNR to inspect and regulate dams and reservoirs in the State and to employ emergency protective measures in case of an emergency.
13. §205-2(d)(17): Allows composting and green waste operations on designated agricultural lands.
14. §205-4.5(a): Allows for solid waste transfer stations and storage and processing facilities on designated agricultural lands.
15. §205A-44: Details when the removal of sand from shorelines is permitted.
16. §264: Places State highways under DOT jurisdiction. Allows the Governor or DOT director to declare a traffic emergency zone on a state road, allowing for improvements without regard to other traffic laws. When doing this, the DOT may temporarily acquire country roads. All maintenance of State-owned roads may be performed by DOT directly or through contract. See also §HAR 19-104.
17. §286-8: Designates the DOT Director to establish rules for traffic control and debris hazard control and cleanup on State highways. See also HAR §19-130

18. §286-221 to §286-225: Requires the DOT to inspect any motor vehicle carriers of hazardous waste. Details the reporting of hazardous waste incidents that involved a motor vehicle. Additionally ensures compliance with all US-DOT regulations regarding hazardous waste. See also §HAR 19-145.
19. §342G-14: Establishes the Office of Solid Waste Management under the DOH. Details its roles with DLNR in determining land use guidelines.
20. §342H: Details the authorities and roles of the DOH in permitting solid waste disposal at landfills and other areas.

### 7.1.2 HAWAI‘I ADMINISTRATIVE RULES (HAR)

1. §13-221: Establishes jurisdiction of DLNR Land Management (DLNR-LAND) in unencumbered public lands, which includes all beaches, submerged land, and mountainous areas not previously set aside as State parks or nature reserves. Allows LAND to remove abandoned vehicles and properties in said areas.
2. §13-5: Establishes rules surrounding DLNR-designated conservation districts and divides land into subzones for specific uses. Agencies may request a temporary variance in land use under (13-5-22). Not-for-profit land uses for public services are generally allowed but require a board permit and a management plan. Non-commercial tree removal is allowed with documentation that the trees pose a hazard to public safety.
3. §19-145: Brings DOT HAZMAT rules into compliance with Federal regulations, lists penalties for the DOT Motor Vehicle Safety Office (MVS0) to enforce.
4. §19-104: Details permitting for overweight and oversize vehicles on State roads. Allows the DOT-HWY Director or district engineer to make exceptions in an emergency.
5. §19-133.2: Sets inspection standards for motor vehicles and allows private inspection stations to perform safety inspections. DOT is identified as the lead agency.
6. §19-130: Requires DOT to coordinate with State, County, and private agencies involved in debris clearance and removal. Additionally requires County governments to maintain a list of and coordinate with all involved debris cleanup agencies within their jurisdictions.
7. §11-504: Asbestos abatement regulations as enforced by the DOH Clean Air Branch (CAB). CAB has the right to certify inspectors. Additionally allows for emergency abatement activities in the case of a threat to public safety.
8. §11-501: Demolition standards for buildings, requires asbestos abatement.

## 7.2 FEDERAL LAWS, REGULATIONS, AND DIRECTIVES

1. P.L. 93-288, as amended, 42 U.S.C. 5121 et seq. (Stafford Act)
2. DoD Joint Publication 3-28: Defense Support of Civil Authorities (DSCA)
3. 42 U.S.C. 6901 et seq. (1976) Resource Conservation and Recovery Act (RCRA) Allows the EPA to control hazardous waste generation, transportation, storage, and disposal.
4. 2 CFR §200.318-200.327: Sets Federal procurement regulations for general contracted services. FEMA requires that applicants for PA adhere to these rules.

## 7.3 FEDERAL PLANS

Federal Emergency Management Agency. 2020. *Public Assistance Program and Policy Guide*. Ver. 4. US Department of Homeland Security.

## 7.4 OTHER STATE PLANS

*Note that any State plans published prior to 2018 are obsolete and may not be entirely accurate.*

Hawai'i Emergency Management Agency. 2022. *State of Hawai'i Emergency Operations Plan*. State of Hawai'i Department of Defense.

Hawai'i Emergency Management Agency. 2022. *State Emergency Support Function Annex #3: Public Works and Engineering*. State of Hawai'i Department of Defense, Department of Accounting and General Services-Public Works Division.

Hawai'i Emergency Management Agency. 2022. *State Emergency Support Function Annex #7: Logistics Management and Resource Support*. State of Hawai'i Department of Defense.

IT Corporation and Rifer Environmental. 2000. *State of Hawai'i Disaster Debris Management Plan*. Prepared for Hawai'i Department of Health-Office of Solid Waste Management, Department of Defense-Civil Defense Agency.

Highways Division. 2020. *O'ahu District Debris Plan*. State of Hawai'i Department of Transportation. Available upon request from DOT-HWY.

Highways Division. 2021. *Climate Adaptation Action Plan: Strategies for a More Resilient Future*. State of Hawai'i Department of Transportation.

## 7.5 COUNTY PLANS

*Please note that these plans are subject to change without immediate notice to HI-EMA or other State agencies. County and State planners should regularly meet to discuss updates to the DMOSP.*

Department of Emergency Management. 2001. *Honolulu Disaster Debris Management Operations Plan*. City and County of Honolulu.

Department of Environmental Management-Solid Waste Division. 2009. *County of Maui Disaster Debris Action Plan*. County of Maui.

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- Kaua'i Island Utility Cooperative. 2023. "Generation Portfolio." Touchstone Energy Cooperatives. <https://kiuc.coop/generation-portfolio>.

# 8. ENCLOSURES

## E.1 ENCLOSURE 1: ACRONYMS

CAP	Civil Air Patrol
CIKR	Critical Infrastructure Key Resources
CONUS	Continental United States
DAGS	Hawai'i Department of Accounting and General Services
DAGS-PWD	DAGS Public Works Division
DLNR	Hawai'i Department of Land and Natural Resources
DMS	Debris Management Site
DOD	Hawai'i State Department of Defense
DOE	Hawai'i Department of Education
DOH	Hawai'i Department of Health
DOH-SHWB	DOH Solid and Hazardous Waste Branch
DOT-AIR	Hawai'i Department of Transportation, Airports Division
DOT-HAR	Hawai'i Department of Transportation, Harbors Division
DOT-HWY	Hawai'i Department of Transportation, Highways Division
DSCA	Defense Support of Civil Authorities
EMO	Emergency Management Officer
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
FAA	Federal Aviation Administration
FC	Functional Classification
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
HAZMAT	Hazardous Materials
HCE	Hawai'i Compliance Express
HDH	Dillingham Airport
HECO	Hawaiian Electric Company
HELCO	Hawai'i Electric Light Company
HIAIRNG	Hawai'i Air National Guard
HIARNG	Hawai'i Army National Guard
HI-EMA	Hawai'i Emergency Management Agency
HI-EOP	Hawai'i Emergency Operations Plan

HING	Hawai'i National Guard
HIOSH	Hawai'i Occupational Safety and Health
HNL	Daniel K. Inouye (Honolulu) International Airport
HNM	Hana Airport
HRS	Hawai'i Revised Statutes
ITO	Hilo International Airport
JFO	Joint Field Office
JHM	Kapalua-West Maui Airport
JRF	Kalaeloa Airport
KIUC	Kaua'i Island Utility Cooperative
KOA	Ellison Onizuka International Airport at Keāhole
LIH	Līhu'e Airport
LNY	Lāna'i Airport
LUP	Kalaupapa Airport
MECO	Maui Electric Company
MKK	Moloka'i Airport
MOU/MOA	Memorandum of Understanding/Memorandum of Agreement
MUE	Waimea-Kohala Airport
NHS	National Highway System
OGG	Kahului Airport
OSHA	Occupational Safety and Health Administration
PA	FEMA Public Assistance
PAK	Port Allen Airport ('Ele'ele)
PDA	Preliminary Damage Assessment
POTUS	President of the United States
ROW	Public Right-of-Way
SEOC	State Emergency Operations Center
SERT	State Emergency Response Team
SESF	State Emergency Support Function
SPO	Hawai'i State Procurement Office
STRAHNET	Strategic Highway System
TDSR	Temporary Debris Storage and Reduction
TEZ	Tsunami Evacuation Zone
UPP	'Upolu Airport
USACE	US Army Corps of Engineers
USCG	US Coast Guard

USINDOPACOM	United States Indo-Pacific Command
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## E.1.1 COUNTY AGENCY ABBREVIATIONS

### E.1.1.1 *Hawai'i County*

HCCDA	Hawai'i County Civil Defense Agency
DPW-HWY	Department of Public Works, Highways Division
DPW-ENG	Department of Public Works, Engineering Division
DEM-SWD	Department of Environmental Management, Solid Waste Division

### E.1.1.2 *City and County of Honolulu*

DEM	Department of Emergency Management
DFM	Department of Facility Maintenance
DTS	Department of Transportation Services
DPR	Department of Parks and Recreation
ENV	Department of Environmental Services

### E.1.1.3 *Kaua'i County*

KEMA	Kaua'i Emergency Management Agency
SWD	Department of Public Works Solid Waste Division

### E.1.1.4 *Maui County*

MEMA	Maui Emergency Management Agency
DPW-HWY	Department of Public Works-Highways
DEM	Department of Environmental Management