

# 2015 Hawaii Catastrophic Hurricane Plan / FEMA RIX Hawaii Catastrophic Annex



FEMA



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Dear Emergency Management Partner:

The Hawaii Emergency Management Agency (HI-EMA) and the U.S. Department of Homeland Security Federal Emergency Management Agency (FEMA) Region IX now share the jointly developed, statewide 2015 Hawaii Catastrophic Hurricane Plan/FEMA Region IX Hawaii Catastrophic Hurricane Annex to be implemented before, during, and following catastrophic hurricane events—a document that many of you labored hard and long to make a reality.

The 2015 Hawaii Catastrophic Hurricane Plan/FEMA Region IX Hawaii Catastrophic Hurricane Annex is an executable, operational response Plan/Annex that addresses the magnitude of physical effects and operational impacts from a Category 4 hurricane, or that of lesser severity, making impact anywhere in Hawaii. The Plan/Annex outlines scalable and coordinated strategies to execute a joint state and federal response to catastrophic damage impacting the state.

This Plan/Annex supersedes the 2009 Hawaii Catastrophic Hurricane Response Plan and is supplemental to the FEMA Region IX All-Hazard Plan, approved January 2013. This document is the result of a focused and collaborative process by county and state governments, the Federal Government, non-governmental organizations, and private sector partners and stakeholders.

In developing deliberate plans in partnership with the “Whole Community” under normal, non-crisis conditions, local and state governments are able to identify threats and hazards specific to their jurisdictions; estimate the risk and potential impacts of these threats and hazards; and take the appropriate steps necessary to protect their citizens, deal with the aftermath in an organized, well thought out manner, and assist the community in recovery and transition back to normal conditions.



[Signature]

David Y. Ige  
Governor  
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## Change Log

Version	Date	Summary of Changes	Name

Changes to this Plan/Annex should be submitted to the HI-EMA Planning Section at [HSCD@scd.hawaii.gov](mailto:HSCD@scd.hawaii.gov) and to the FEMA Region IX Response Division Planning Section Chief at [Dennis.McKeown@fema.dhs.gov](mailto:Dennis.McKeown@fema.dhs.gov).

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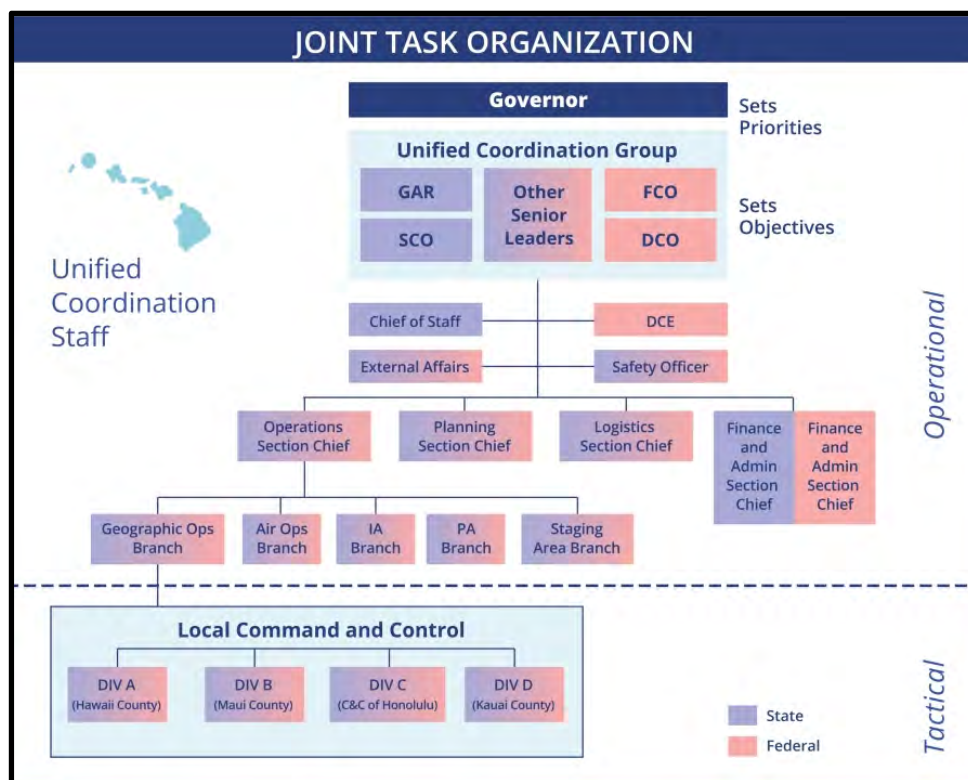
## EXECUTIVE SUMMARY

The 2015 Hawaii Catastrophic Hurricane Plan/FEMA Region IX Hawaii Catastrophic Annex is an update to the 2009 Hawaii Catastrophic Hurricane Response Plan and supersedes that plan. It is supplemental to the FEMA Region IX All-Hazard Plan, approved January 2013. This document is the result of two years of collaborative, whole community planning for a catastrophic hurricane by county and state governments, the Federal Government, non-governmental organizations, and private sector partners and stakeholders.

The 2015 Hawaii Catastrophic Hurricane Plan/FEMA Region IX Hawaii Catastrophic Hurricane Annex is an executable, operational response Plan/Annex that addresses the magnitude of physical effects and operational impacts from a Category 4 hurricane, or one of lesser severity, making impact anywhere in Hawaii. The Plan/Annex outlines scalable and coordinated strategies to execute a joint state and federal response to catastrophic damage before, during, and following the event.

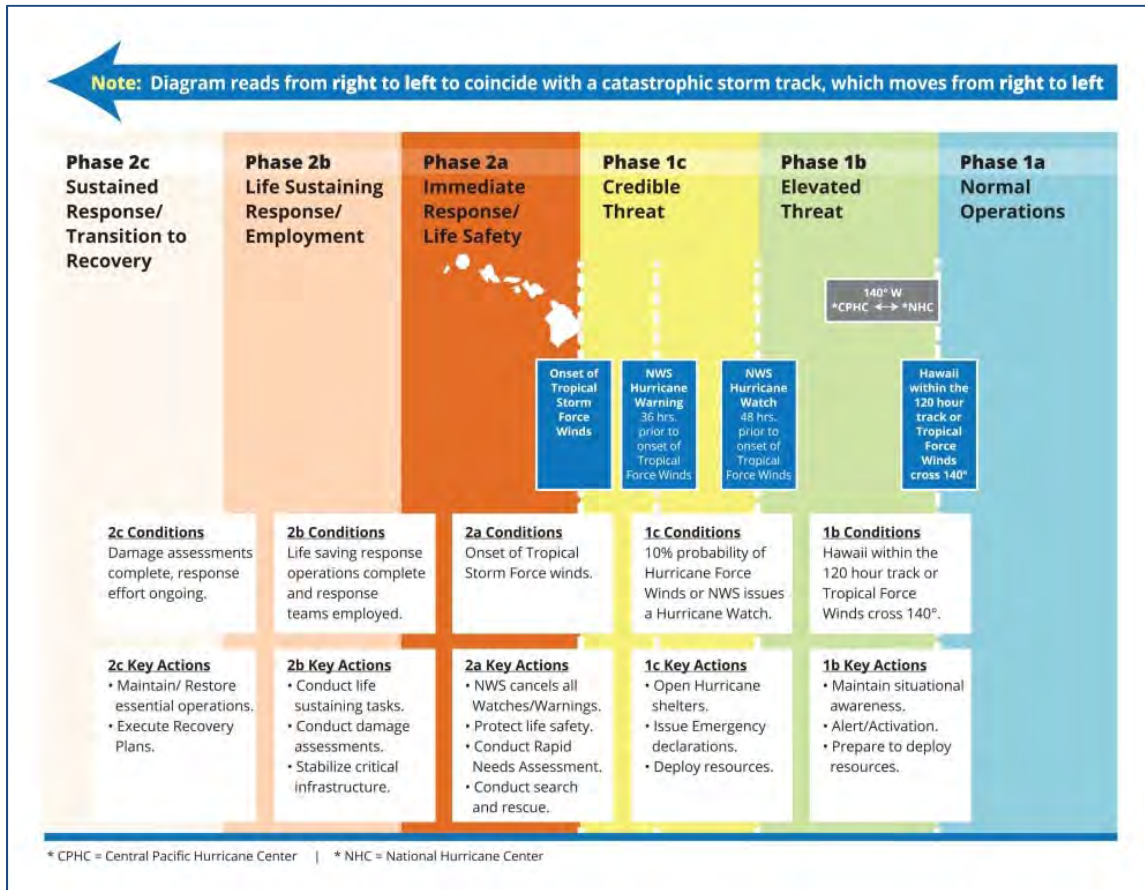
The command, control, and coordinating structure for this joint response to a catastrophic hurricane will be achieved through a joint state/federal Unified Coordination Group (UCG). The State Coordinating Officer (SCO) and the Federal Coordinating Officer (FCO) are the designated officials that will lead the joint operation as primary members of the UCG to assure disaster response activities are consistent with the priorities set by the Governor of Hawaii (see Figure ES-1: Joint Task Organization).

**Figure ES-1: Joint Task Organization**



The preparations and response actions outlined in this Plan/Annex are predicated on a phased, systematic decision making process linked to criteria established with the State of Hawaii under the scenario-specific forecasted impact of a Category 4 hurricane on the islands. Each phase is associated with an increased level of resource commitment (see Figure ES-2: Hawaii Catastrophic Hurricane Scenario Plan/Annex Phases).



**Figure ES-2: Hawaii Catastrophic Hurricane Scenario Plan/Annex Phases<sup>1</sup>**

The Plan/Annex will be jointly executed to support the State of Hawaii using this phased approach that provides for a timely initial response, enables a sustained response through at least the first 60 days, and sets conditions for recovery following a catastrophic incident. The overall concept of operations (CONOPS) for the response effort is organized into three overarching Operational Priorities and eight Operational Objectives (see Figure ES-3).

**Figure ES-3: Operational Priorities and Operational Objectives**

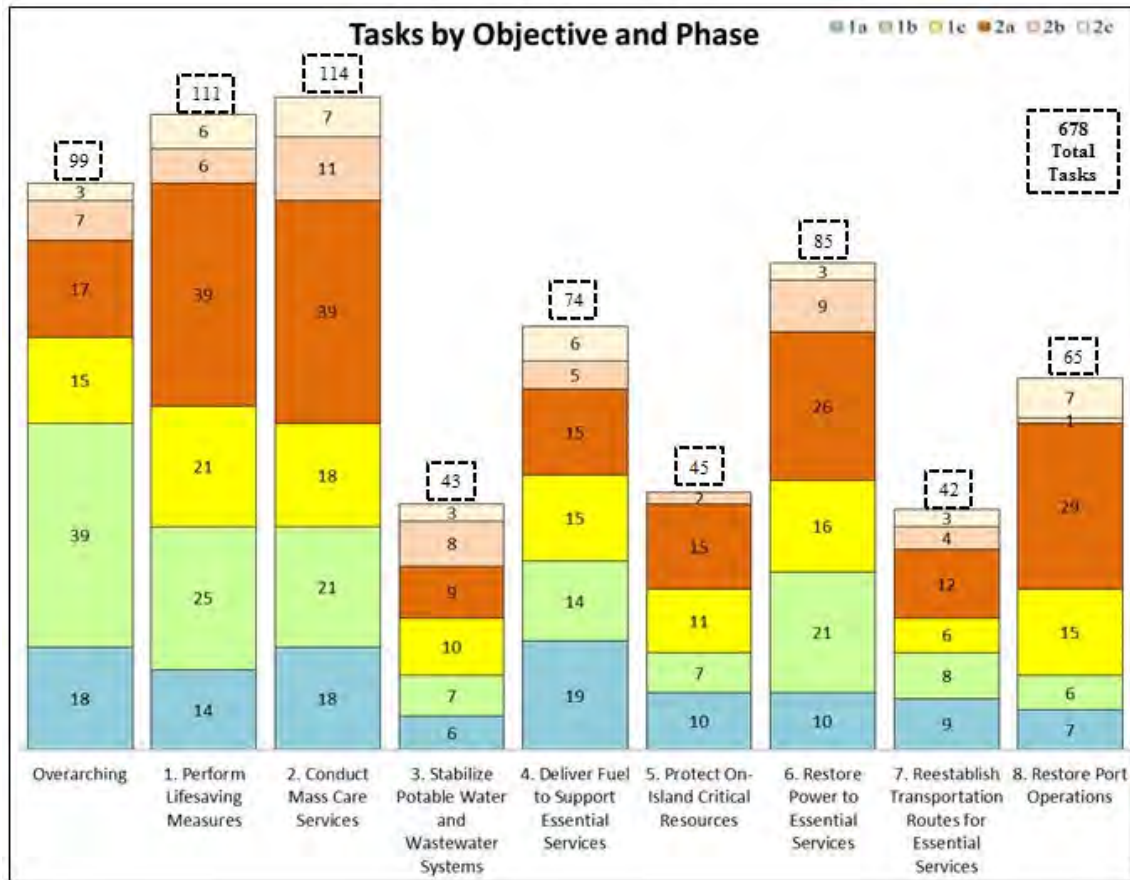
Priorities	Save Lives & Minimize Suffering	Stabilize and Repair Critical Infrastructure	Maintain the Critical Transportation and Distribution Network
Objectives	1. Perform Life Saving Measures	3. Stabilize the Water and Wastewater Systems	7. Reestablish Transportation Routes for Essential Services
	2. Conduct Mass Care Services	4. Deliver Fuel to Support Essential Services	8. Restore Port Operations
		5. Protect On-Island Critical Resources	
		6. Restore Power to Essential Services	

<sup>1</sup> Phases are in accordance with FEMA Operational Planning Manual, February 2014, pp 46-47.



The Execution Checklist in Appendix X is tied to these objectives and phases, and provides specific tasks for each organization (see Figure ES-4).

**Figure ES-4: Tasks by Objective and Phase**



The complete devastation wrought by a catastrophic hurricane is extreme and will have impacts that are difficult to foresee. Logistics will be one of the biggest factors - from prioritizing cargo to reopening the ports and roadways. This Plan/Annex is a starting point - we expect stakeholders to review the plan and find areas to conduct further planning. Workgroups and taskforces need to continue to meet and refine requirements. In particular, each stakeholder will receive an excel version of Appendix X: Execution Checklist, which they should use to identify appropriate tasks for their organization for future revisions to this Plan/Annex.

HI-EMA and FEMA will coordinate annually to review the Plan/Annex and determine if updates are needed. Factors such as new guidance from senior leadership, and/or lessons learned from actual events or exercises; State of Hawaii and FEMA understanding of the hurricane threat; National Weather Service (NWS) predictions and forecasts; and the state of preparedness of relevant county, state, and federal response capabilities may create the need for review and revision. Organizations will exercise this Plan/Annex in accordance with the State of Hawaii's Training and Exercise Plan.

The Plan/Annex includes a number of revisions that will aid organizations in their efforts to prepare for and respond to a catastrophic hurricane. See Table ES-5 for a comprehensive summary of the major changes to each section.

**Table ES-5: Significant Changes/Updates to the Plan/Annex**

Summary of Significant Changes/Updates to the Plan/Annex	
<b>Base Plan</b>	
<ul style="list-style-type: none"> <li>Provides a high level overview of the concept of operations for this Plan/Annex</li> </ul>	
<b>Appendix 1: Task Organization</b>	
<ul style="list-style-type: none"> <li>Updates roles/responsibilities with a focus on the entire state</li> </ul>	
<b>Appendix 2: Intelligence</b>	
<ul style="list-style-type: none"> <li>Updates Baseline Planning Considerations</li> <li>Revises Critical Information Requirements</li> <li>Updates Essential Elements of Information with a detailed Information Collection Plan</li> <li>Consolidated planning assumptions</li> <li>Provides topography and inundation maps with a focus on the entire state</li> </ul>	
<b>Appendix 3: Operations</b>	
<ul style="list-style-type: none"> <li>Revises concept of operations with anticipated resource shortfalls and limitations</li> <li>Provides a summary of tasks by core capability and phase for each objective</li> <li>Provides an overview of triggers and end states for each objective by phase</li> <li>Includes a summary of anticipated requests for initial pre-impact "push-packages" from the Contiguous United States (CONUS) with direct delivery to each of the counties</li> <li>Includes a summary of key coordinating responsibilities by organization for each objective</li> <li>Includes a summary of key considerations for Defense Support of Civilian Authorities (DSCA), as well as a summary of potential mission assignments.</li> </ul>	
<b>Appendix 4: Logistics</b>	
<ul style="list-style-type: none"> <li>Revises the concept of operations focused on specific statewide logistics considerations</li> <li>Provides an overview of logistics vulnerabilities in the areas of fuel, airports/seaports, and land-based operations</li> <li>Provides an overview of air transportation and seaport facilities focused on the entire state</li> <li>Provides an overview of geographic divisions to support operations in each county</li> <li>Provides an overview of triggers and end states by phase</li> <li>Includes a list of anticipated resource shortfalls for push-packages</li> </ul>	
<b>Appendix 5: Communications</b>	
<ul style="list-style-type: none"> <li>Revises the concept of operations focused on support to the entire state</li> <li>Provides an overview of existing communications architecture throughout the state</li> <li>Identifies critical considerations and vulnerabilities</li> <li>Provides an overview of triggers and end states by phase</li> <li>Identifies available communications resources on-island, as well as resources ready for deployment to support the state</li> </ul>	
<b>Appendix 6: Public Messaging</b>	
<ul style="list-style-type: none"> <li>Revises the concept of operations focused on support to the entire state</li> <li>Provides an overview of specific roles, responsibilities and organizational structure</li> <li>Provides an overview of triggers and end states by phase</li> </ul>	
<b>Appendix X: Execution Checklist</b>	
<ul style="list-style-type: none"> <li>Provides an state/federal support roles by Emergency Support Function (ESF)</li> <li>Provides a summary of tasks by objectives, phase, and ESF</li> <li>Provides a summary of planning tasks for state/federal organizations to be completed in Phase 1a (Normal Operations)</li> <li>Includes a detailed listing of anticipated tasks by phase and by agency, to be further developed by stakeholders</li> </ul>	

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## BASE PLAN

### Situation

#### Purpose

The Plan/Annex addresses the physical effects and operational impacts that a Category 4 hurricane would cause throughout the State of Hawaii. The Plan/Annex focuses on three operational priorities and eight operational objectives that support those priorities as described below in the Concept of Operations section. The joint response actions as outlined here:

- Include the actions state agencies and other organizations will take to support county disaster planning and response activities.
- Include the actions the Federal Government will take to support the State of Hawaii under a Stafford Act declaration.
- Include efforts organized in a phased approach to initiate a scalable and appropriate response prior to the catastrophic hurricane's impact and with a focus on the first 72 hours post-impact.
- Set the conditions for recovery and sustained response through the first 60 days.

#### Background

To fulfill the purpose and intent of the National Response Framework (NRF) and support National Incident Management System (NIMS) constructs, county, state, and federal government agencies and emergency management communities conduct operational planning using the Comprehensive Preparedness Guide 101 (CPG 101) six-step planning process to develop regional all-hazard plans, emergency operations plans (EOPs), and associated hazard-specific annexes. County and state governments utilize these strategic to operational-level plans to develop and implement tactical-level plans.

The 2015 Hawaii Catastrophic Hurricane Plan/Federal Emergency Management Agency (FEMA) Region IX Hawaii Catastrophic Annex (Plan/Annex) is the result of a focused and collaborative process. Local, state and federal government, Non-Governmental Organization (NGO), and private sector stakeholders participated in the process to develop an executable, operational plan to respond to a catastrophic hurricane impacting the entire State of Hawaii. By developing deliberate plans in partnership with the "Whole Community" under normal, non-crisis conditions, county and state governments are able to identify threats and hazards specific to their jurisdictions, estimate the risk and potential impacts of these threats and hazards, and take the appropriate steps necessary to protect their citizens. These deliberate planning partnerships assist the community in dealing with the aftermath of an incident in an organized, well-thought-out manner and assist the community in recovery and transition back to pre-incident conditions.

The Central Pacific hurricane season runs annually from June 1 to November 30, with peak activity in late summer when ocean temperatures are warmest. While most tropical cyclones<sup>2</sup> in the Central Pacific do not become hurricanes and remain classified as tropical depressions or tropical storms, these weather systems remain a significant threat with the potential to cause significant damage and economic loss, as demonstrated by Tropical Storm Iselle when it struck Hawaii County in August of 2014.

<sup>2</sup> <http://www.nhc.noaa.gov/climo/>

A hurricane of any size and duration may pose a threat to the local infrastructure, environment, and economy and adversely impact the daily lives of the residents of Hawaii. These impacts are further compounded by the geographic isolation of Hawaii; the vulnerability of Hawaii's critical infrastructure; and the time requirements for transporting and delivering additional resources, assets, and capabilities to affected communities during a response. A response to catastrophic impacts caused by a hurricane in Hawaii will require a coordinated, joint effort involving county and state agencies, the Federal Government, NGOs, and private sector organizations.

### Planning Assumptions

See Tab 2 to Appendix 2: Planning Assumptions of this Plan/Annex.

### Mission

The mission of joint county and state governments, the Federal Government, NGOs, and private sector response organizations is to save and sustain human life, minimize suffering, stabilize and restore critical infrastructure, and set the conditions for recovery following a catastrophic hurricane in Hawaii.

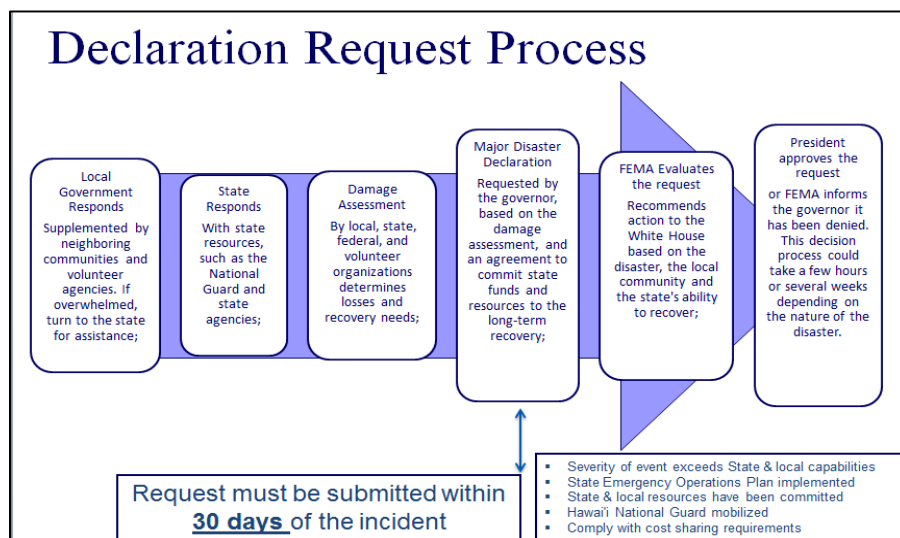
### Execution

#### Senior Leader Intent

The senior leader intent is to provide unity of effort in supporting whole community preparation and response and recovery requirements that are consistent with priorities set by the Governor. Priority will be given to immediately gaining situational awareness, the identification and coordination of requirements, and transitioning from response to long-term community recovery and future mitigation.

The State of Hawaii and the Federal Government will move rapidly to provide lifesaving and life sustaining resources to Hawaii and to restore critical services. Unique resources or critical capabilities may be staged in Hawaii pre-incident. An advance federal element, a FEMA Region IX Incident Management Assistance Team (IMAT), will coordinate with Hawaii Emergency Management Agency's (HI-EMA's) response organization as soon as it arrives in Honolulu. HI-EMA and FEMA operate as a joint state and federal response organization to manage the response once a Presidential Emergency or Major Disaster Declaration has been received. Figure 1 below provides an overview of the Disaster Declaration Process.

**Figure 1: Disaster Declaration Process**



## Concept of Operations

The management of emergency response occurs at the lowest level possible. County mayors will use unique authorities and those granted under Chapter 127A, Emergency Act, of the Hawaii Revised Statutes, as well as their authorities granted by their county councils, to prepare for, mobilize resources, and execute disaster response operations under the direction and coordination of the county emergency management/civil defense organizations. HI-EMA will coordinate state agency, private sector, and NGO support for the counties and will request federal disaster assistance as needed.

Under the Stafford Act, most federal actions are predicated on the Governor's request for and receipt of a Presidential Emergency or Major Disaster Declaration. Some actions (such as pre-staging of resources and deployment of the IMAT as described by this Plan/Annex) may be taken by the Federal Government in anticipation of that declaration. However, once a declaration is requested and received, HI-EMA will be the conduit for requesting all federal assistance. With a Stafford Act declaration, a Federal Coordinating Officer (FCO) is appointed to work with the State Coordinating Officer (SCO) as the principal members of the joint Unified Coordination Group (UCG) formed to oversee the response to a catastrophic hurricane event in Hawaii.

The Plan/Annex is jointly executed to support the State of Hawaii, using a phased approach that provides for a timely initial response, enables a sustained response through at least the first 60 days, and sets conditions for recovery following a catastrophic incident. The overall concept of operations (CONOPS) for the response effort is organized into three overarching Operational Priorities and eight Operational Objectives (see Figure 2 below).

### Operational Priorities

The three overarching operational priorities are as follows:

- Save lives and minimize suffering.
- Stabilize and repair critical infrastructure systems.
- Maintain the critical transportation and distribution network.

**Figure 2: Operational Priorities and Operational Objectives**

Priorities	Save Lives & Minimize Suffering	Stabilize and Repair Critical Infrastructure	Maintain the Critical Transportation and Distribution Network
Objectives	1. Perform Life Saving Measures	3. Stabilize the Water and Wastewater Systems	7. Reestablish Transportation Routes for Essential Services
	2. Conduct Mass Care Services	4. Deliver Fuel to Support Essential Services	8. Restore Port Operations
		5. Protect On-Island Critical Resources 6. Restore Power to Essential Services	

### Operational Objectives

An objective statement describes the focus of each operational objective. These objective statements are depicted in Table 1.

**Table 1: Operational Objectives and Objective Statement**

Operational Objectives	Objective Statement
Perform Life Saving Measures	<ul style="list-style-type: none"> <li>Provide lifesaving and sustaining health and medical services and conduct search and rescue operations</li> </ul>
Conduct Mass Care Services	<ul style="list-style-type: none"> <li>Provide hydration, feeding, sheltering, and emergency assistance as well as support reunification.</li> </ul>
Stabilize Potable Water and Wastewater Systems	<ul style="list-style-type: none"> <li>Maintain emergency water distribution to key facilities including shelters and points of distribution (PODs)), support wastewater services, and minimize spillage following a catastrophic hurricane.</li> </ul>
Deliver Fuel to Support Essential Services	<ul style="list-style-type: none"> <li>Distribute fuel to support prioritized response activities following a catastrophic hurricane as commercial delivery operations are restored.</li> </ul>
Protect On-Island Critical Resources	<ul style="list-style-type: none"> <li>Coordinate and support the protection, security, and preservation of critical government resources statewide.</li> </ul>
Restore Power to Essential Services	<ul style="list-style-type: none"> <li>Provide emergency power to essential services, assist with power infrastructure assessment, and facilitate the restoration of damaged energy systems following a catastrophic hurricane throughout the state of Hawaii.</li> </ul>
Re-establish Transportation Routes for Essential Services	<ul style="list-style-type: none"> <li>Coordinate and provide operational support and resources to ensure surface transportation routes enable access to essential services.</li> </ul>
Restore Port Operations	<ul style="list-style-type: none"> <li>Restore and/or establish statewide air and maritime port operations to provide sustaining supplies and materials supporting life sustaining activities and emergency response measures.</li> </ul>

***Mission Essential Tasks***

A mission essential task is one of such importance that without its completion the mission will fail. The mission essential tasks identified in this Plan/Annex are as follows:

- Establish an effective command, control, and coordination organization structure that provides unity of effort and proper scalability in accordance with the NIMS. This includes activation of Emergency Operations Centers (EOCs), state agency department operations centers (DOCs), the Regional Response Coordination Center (RRCC), the National Response Coordination Center (NRCC), their respective staffs and deployment of the IMAT.
- Implement emergency protective measures.
- Provide resources that will assist response efforts to save and sustain life and stabilize the incident.
- Perform tasks that effectively address each of the operational objectives and enable core capabilities outlined in this Plan/Annex.
- Identify time-sequenced response packages that provide lifesaving and life sustaining commodities and consumables.
- Ensure the health and safety of all response personnel.

***Operational Phases***

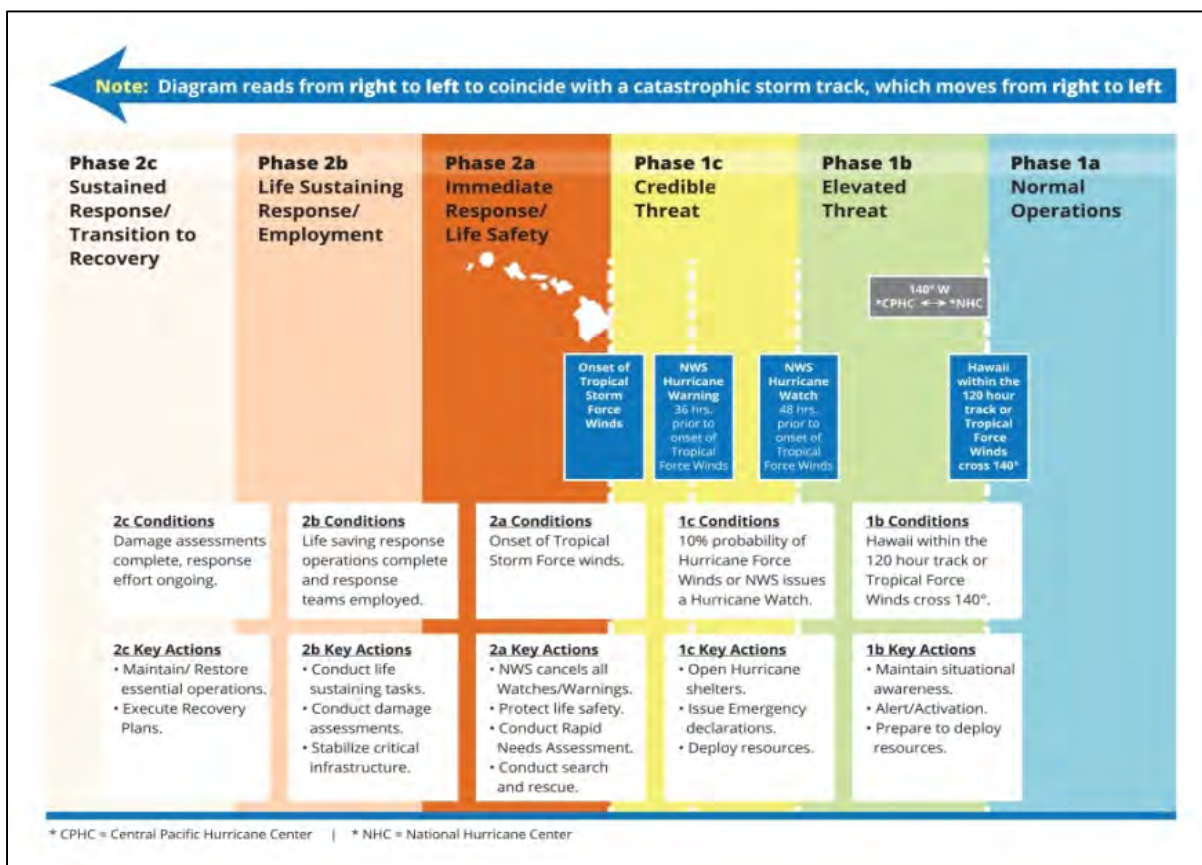
This Plan/Annex will be jointly executed to support the State of Hawaii, using a phased approach that provides for a timely initial response, enables a sustained response through at least the first 60 days, and sets conditions for recovery following a catastrophic incident (See Figure 4 below).

This Plan/Annex uses six operational phases (see Figure 3) to assist all response organizations in planning for the activation, deployment, and employment of resources. The end states described in each phase apply across the CONOPS and are further defined by specific operational objectives in Tabs 1 through 8 to Appendix 3. The end states identify the goals that should be met before the next phase. The actions identified are desired outcomes but may not indicate a



trigger to transition to the next phase. Triggers for transition are dependent upon the progression of the hurricane.

**Figure 3: Hawaii Catastrophic Hurricane Scenario Plan/Annex Phases**



## Roles and Responsibilities

The following tasks are assigned to all departments and agencies:

- Develop and synchronize CONOPS, concept plans, and operational plans with governmental entities at the county, state, and federal levels; NGOs, and the private sector.
- Equip, train, and credential personnel to effectively respond and support the incident.
- Coordinate actions, assets, and resources with departments and agencies, including government entities at the county, state, and federal levels; NGOs; and the private sector.
- Exercise, capture lessons learned, and refine departmental and agency hurricane plans.
- Engage NGOs, Volunteer Organizations Active in Disaster (VOAD), and private sector partners in preparedness and response efforts.

See Appendix X: Execution Schedule of this Plan/Annex for objective specific tasks.

## Key Decisions

Key county, state, and federal decisions required during the response to a catastrophic hurricane event include but are not limited to:

- Declarations of states of emergency by county mayors and the Governor of the State of Hawaii.
- Activation of county and state emergency operations centers and key departmental operations centers.

- Implementation of the state’s EOP.
- Implementation of this Plan/Annex and the alert, deployment, and/or pre-positioning of identified resources and capabilities.
- Notification, activation, and deployment of teams, facilities and resources in anticipation of, or in response to, catastrophic events in coordination and collaboration with county and state governments and private entities.
- Governor’s request for a pre-impact emergency declaration.
- Governor’s request for a Presidential Emergency or Major Disaster Declaration.
- State request for a Joint Preliminary Damage Assessment (JPDA).

### **Critical Information Requirements**

Critical Information Requirements (CIRs) facilitate timely command, control, and coordination decisions during disaster operations. They provide important details that response personnel need to know to effectively manage and execute operations. See Appendix 2: Intelligence for a list of CIRs.

### **Essential Elements of Information**

Essential elements of information (EIs) are comprehensive lists of information requirements that provide context, inform decision-making, contribute to analysis, and populate the information collection schedule. See Appendix 2: Intelligence for a list of EIs, as well as a comprehensive Information Collection Plan.

## **Administration, Resources, and Funding**

### **Administration**

See county hurricane frameworks and EOPs, appropriate county and state laws and administrative rules, the State of Hawaii EOP, and the FEMA Region IX All Hazards Plan.

### ***Personnel Administrative Management Responsibilities***

Departments and agencies shall—

- Follow established agency policies for personnel augmentation in accordance with statutes, regulations and authorities; Memoranda of Understanding (MOUs), Emergency Management Assistance Compact (EMAC), and Mutual Aid Agreements.
- Ensure employees engaged in incident response activities are able to perform in accordance with resource typing guidelines and operational requirements (e.g., FEMA resource typing library: <https://rtlt.ptaccenter.org/public> )
- Ensure employee compliance with parent organization’s travel policies and procedures for travel and travel reimbursement.

### **Resources**

#### ***Concept of Logistics Support***

Situational awareness of the hurricane’s impact to the transportation infrastructure is critical to developing and implementing a supplemental logistical capability for delivering emergency disaster relief supplies and employment of emergency response teams throughout the state. Specific requirements include the following:

- Planners will locate staging areas in each of the impacted counties to receive, process, and facilitate direct delivery of required assets resources.
- Initial pre-impact “push-packages” from the Contiguous United States (CONUS) with direct delivery to each of the counties based on the requirements identified in this

Plan/Annex, will augment commodities and resources currently in county and state warehouses and pre-positioned at FEMA's Distribution Center-Hawaii (DC-HI).

- Additional commodities and resources may be staged in CONUS at an incident support base (ISB) prior to impact. Planners will stage this additional "push-package" for immediate deployment post-impact.
- Post-impact, emphasis will be on the re-establishment of the state's transportation system to facilitate the effective movement of resources into and throughout the counties from county, state, and other sources.
- The UCG will request and deploy follow-on resource requirements based on post-impact situational awareness and damage estimates, potentially transitioning to a "pull-package" concept versus a "push-package."

See Appendix 4: Logistics of this Plan/Annex for additional details.

### **Funding**

County, state, and federal funding to support hurricane response will be consistent with applicable laws and authorities. This Plan/Annex does not provide additional funding mechanisms.

### **Financial Oversight**

- All county, state, and federal 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. Accurate recordkeeping is the primary tool for ensuring appropriate expenditures and reimbursement.
- The financial management support annex to the NRF provides basic financial management guidance for all federal departments and agencies providing assistance for incidents requiring a coordinated federal response (<http://www.fema.gov/pdf/emergency/nrf/nrf-support-fin.pdf>). HI-EMA Public Assistance (PA) and Individual Assistance (IA) administrative plans provide basic financial management requirements for county and state agencies.
- Chapter 127A, Emergency Management, of the Hawaii Revised Statutes provides the legal framework for county and state disaster response activities, including fiduciary and material support and procurement activities.
- Authorized state response and recovery activities will be funded through the major disaster fund and reimbursement from FEMA when eligible and appropriate. State agencies are responsible for paying for their response and recovery activities using their appropriated funds and then seeking reimbursement from FEMA through HI-EMA.
- County governments are responsible for funding their disaster response and recovery activities using their operational funds and seeking reimbursement of eligible costs from FEMA through HI-EMA.

### **State-to-State Support**

- HI-EMA coordinates state-to-state support through EMAC. This includes personnel, equipment, supplies, and National Guard support from other states.

### **Stafford Act**

- The Stafford Act provides the legal framework for program requirements, fiduciary and material support, and material acquisition and disbursement.
- Authorized federal response, recovery, and mitigation operations will be funded by the Disaster Relief Fund (DRF). The DRF is not available for activities not authorized under the Stafford Act or for non-Stafford Act incidents.

- 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.

#### ***Federal-to-Federal Support***

- FEMA coordinates assistance using the multiagency coordination structures in the NRF and in accordance with the NIMS.
- Generally, the requesting agency provides funding for the incident consistent with provisions of the Economy Act, unless other statutory authorities exist.
- The FEMA Disaster Finance Center and National Processing and Service Centers support the Joint Field Office (JFO) finance and administration section as appropriate.

#### ***Agencies with Statutory Authorities***

- Federal departments and agencies with their own response authorities may also have appropriations to fund their response as well as mechanisms to fund other supporting federal agencies. These activities may occur in coordination with Stafford Act activities.

### **Oversight, Coordinating Instructions, and Communications**

#### **Oversight**

The UCG, led by the SCO and the FCO, will exercise oversight of the response operation at the field level during Stafford Act responses in accordance with the priorities set by the Governor of Hawaii. See Region IX All Hazards Plan 2013 and the State of Hawaii EOP for additional details.

#### **Coordinating Instructions**

This Plan/Annex will be executed upon concurrence and coordination with the Director of HI-EMA and the Regional Administrator of FEMA Region IX. The UCG, when established, directs the activities of the Unified Coordination Staff (UCS).

In addition to the information provided below, see Appendix X: Execution Schedule for further objective specific coordination/task requirements.

#### ***Local and State Coordination Requirements***

County and state governments and organizations are encouraged to incorporate the concepts of the NRF into their EOPs and develop appropriate Standard Operating Procedures to support the delivery of assistance provided to the county by the state.

#### ***Non-Governmental Organization Coordination Requirements***

Under the provisions of the NRF, NGOs, and VOAD are partners in any response to a major disaster or emergency. As such, they are encouraged to collaborate with first responders, governments at all levels and other agencies and organizations providing relief services.

- Hawaii State Voluntary Organizations Active in Disaster (HSVOAD) is the lead coordinating body for members providing disaster services. HSVOAD coordinates through HI-EMA and FEMA voluntary agency liaisons with the National VOAD to help integrate the provision of services in Hawaii.
- The American Red Cross provides subject matter expertise on regulations, policy, and relevant issues relating to general mass care planning, preparedness, response, and recovery activities. The American Red Cross is the primary agency for staffing shelters in Hawaii.
- Healthcare Association of Hawaii (HAH) is a non-profit organization representing Hawaii's healthcare providers. HAH provides subject matter expertise on hospital status



(including damages, available casualty carrying space, and staffing needs). ESF #8 is the lead for medical care issues associated with a response. HAH will provide liaison to counties and ESF #8, as requested.

### *Private Sector Coordination Requirements*

- The NRF recognizes that any major disaster or emergency will impact the private sector, including privately owned critical infrastructure such as transportation, telecommunications, private utilities, financial institutions, and hospitals; key resources; and those main private sector organizations that are significant to local, regional, and national economic recovery from an incident.
- Private sector organizations can provide response resources (donated or compensated) during an incident—including specialized teams, equipment, and advanced technologies—through local public-private emergency plans, mutual aid agreements, or incident-specific requests from government and private sector volunteer initiatives. HSWOAD may manage local donations. For international governmental donations, the Department of State (DOS) has the lead for donation management.

### *International Coordination Requirements*

The International Assistance System (IAS) is used to bring in foreign donations following a domestic disaster. The IAS is jointly managed by FEMA, U.S. Agency for International Development (USAID), and DOS. The main responsibilities of each agency as outlined in the IAS CONOPS are as follows:

- DOS will act as the focal point for receiving and responding to foreign governments' offers of assistance and will communicate U.S. Government acceptance/declination of offers.
- FEMA will identify potential requirements and officially accept/reject international donations using its gift acceptance authority.
- The USAID Office of Foreign Disaster Assistance (OFDA) will manage the operations of international assistance, facilitate discussions between DOS and FEMA, and ensure coordination with the regulatory agencies.

### *Federal Coordination Requirements*

The coordination requirements for federal organizations are described in this Plan/Annex, as well plans such as the NRF, and the Response Federal Interagency Operational Plan. In addition, the Response FIOP – Hurricane Incident Annex (draft) expands the concepts within the Response FIOP to better describe the missions, policies, responsibilities, and coordination processes across emergency response operations for a notice hurricane incident and outlines federal capabilities in a phased approach to support county and state area authorities during hurricane phases, including preparedness, response, and the transition to recovery.

### *Plan Maintenance*

- HI-EMA and FEMA shall coordinate annually to review the Plan/Annex and determine if updates are needed.
- Factors such as new guidance from senior leadership, and/or lessons learned from actual events or exercises; State of Hawaii and FEMA understanding of the hurricane threat; National Weather Service (NWS) predictions and forecasts; and the state of preparedness of relevant county, state, and federal response capabilities may create the need for review and revision.
- An effective exercise program is an essential component of our national preparedness as it validates plans, tests operational capabilities, maintains leadership effectiveness, and

examines ways we utilize the whole community. This Plan/Annex will be exercised in accordance with the State of Hawaii's Training and Exercise Plan.

## **Communications**

Effective emergency management and incident response activities rely on flexible communications and information systems that provide a Common Operating Picture (COP) to emergency management personnel and their affiliated organizations.

Establishing and maintaining a COP and ensuring accessibility and interoperability are the principal goals of the Communications and Information Management component of the NIMS and are essential for response and recovery operations. FEMA and HI-EMA, in coordination with supporting county, state, federal, NGOs, and private sector partners, will develop the COP.

The State Planning Section Chief will ensure that all Situation Reports (SITREPs) and Incident Action Plans (IAPs) are posted to the Web-based Emergency Operations Center (WebEOC) for state and county partner agencies. The FEMA Planning Section Chief for the IMAT and the RRCC will ensure that all SITREPs and IAPs are posted on FEMA WebEOC.

### ***WebEOC***

The State of Hawaii uses WebEOC as its primary tool for internal communications and situational awareness during disasters. The Planning Section posts all SitReps and IAPs to WebEOC incorporating input provided by stakeholders. All counties submit Requests for Assistance (RFAs) through the state's WebEOC platform. Within their own operations, Hawaii and Maui Counties utilize WebEOC, the City and County of Honolulu use e-Team, while Kauai County does not use a formal COP tool. FEMA uses a separate WebEOC platform to order and track resources and provide situational awareness. FEMA and HI-EMA will ensure mutual access to these systems to their respective partners.

### ***HI-EMA Telecommunications Branch***

The HI-EMA Telecommunications Branch, in conjunction with the Hawaii National Guard (HING), will provide tactical communications support to county and state organizations, including restoration of the State Shared Blended (SSB) radio system and establishment of satellite communications channels (voice and data).

### ***Mobile Emergency Response System***

The Mobile Emergency Response System (MERS) will provide tactical communications connectivity for FEMA and other responders and will assist in establishing initial communications operations at the initial operating facility (IOF). This capability will transition to the JFO, once it is established, based on the availability of communications resources. This connectivity consists of, but is not limited to the following:

- Satellite
- High frequency and microwave line-of-sight interconnected by fiber optic cables
- Local Area Networks (LAN)
- Desktop devices such as personal computers and telephones

### ***Emergency Support Function #2: Communications***

ESF #2 – Communications supports the restoration of the local area communication infrastructure; facilitating the recovery of systems, services, and applications from the incident; and coordinating federal communication support for response efforts during incidents requiring a coordinated federal response.

See Appendix 5: Communications of this Plan/Annex for additional details.

# APPENDIX 1: TASK ORGANIZATION

## Situation

### Purpose

Appendix 1: Task Organization describes organizational constructs, coordination relationships, and roles and responsibilities that the State of Hawaii will observe and employ to respond to the threat of a catastrophic hurricane.

### Background

The Central Pacific hurricane season runs annually from June 1 to November 30. While most tropical cyclones in the Central Pacific do not become hurricanes and remain classified as tropical depressions or tropical storms, these weather systems remain a significant threat with the potential to cause significant damage and economic loss as demonstrated by Tropical Storm Iselle when it struck Hawaii County in August of 2014. A hurricane of any size and duration may pose a threat to the local infrastructure, environment, and economy and adversely affects the daily lives of residents and visitors in Hawaii. These effects are further compounded by the geographic isolation of Hawaii, the vulnerability of Hawaii's critical infrastructure, and the time requirements for transporting and delivering additional resources, assets, and capabilities to impacted communities during a response.

A response to a catastrophic hurricane in Hawaii will require a coordinated, joint effort involving county and state agencies, the Federal Government, non-governmental organizations (NGOs), and private sector partners.

### Mission

The mission of task organization is to use a National Incident Management System (NIMS)-compliant joint state and federal command and control structure employing task organization in order to save and sustain human lives, minimize suffering, stabilize and restore critical infrastructure and set the conditions for recovery following a catastrophic hurricane in Hawaii.

### Execution

#### Concept of Operations

Appendix 1: Task Organization establishes unity of effort in supporting whole community preparation, response, and recovery requirements that are consistent with priorities set by the Governor. Initial priorities will be to immediately gain situational awareness, identify and coordinate resource, asset, and capability requirements, and set the foundation for transitioning from response to long-term community recovery and future mitigation strategies.

The principles, tasks, and objectives outlined in this Plan/Annex will be used when a catastrophic hurricane is predicted or the Governor is anticipated to request and receive a disaster declaration. The State of Hawaii and the Federal Government will pre-posture a Unified Coordination Staff (UCS) during Phase 1b to support incident management activities (See Figure 1-2 below).

#### Situational Assessment and Emergency Notifications

During normal or steady-state operations, each level of government may develop situational awareness independently through their own watch centers, reports from subject matter experts, or notifications from other organizations, departments, or agencies of a catastrophic hurricane approaching Hawaii. These "notice events" provide the opportunity to position critical resource and federal capabilities to support the state in advance of an impending hurricane, and will require the rapid notification of all stakeholders. The State of Hawaii will implement emergency

notification of the public of an impending catastrophic hurricane through a variety of means such as the Hawaii State Emergency Alert System (EAS). The EAS is part of a national network of broadcast, cable and other communication providers that is used by authorities at all levels of government to rapidly communicate essential information to the public that could significantly reduce loss of life and property during any event.

## Incident Support

### Local Emergency Operations Centers

**Table 1-1: Description of Local Emergency Operations Centers (EOCs)**

County	Description
City and County of Honolulu (Oahu EOC)	The City and County of Honolulu Department of Emergency Management operates and maintains the Oahu EOC. It is located in the basement of the Frank Fasi Municipal Building in Honolulu. The Oahu EOC is the coordination point for the City and its partners including certain NGOs and private utility companies. Some state and federal agencies provide representatives or liaisons to the Oahu EOC to coordinate response specific to the City and County of Honolulu.
County of Maui EOC (MEOC)	The County of Maui EOC is located in the town of Wailuku on the island of Maui. The MEOC is organized in a hybrid structure with Emergency Support Functions (ESFs) integrated into Incident Command System (ICS) Command Staff, Finance, Logistics, Operations, and Planning sections. Maui Civil Defense Agency staff provide leadership during an MEOC activation supplement by other County Department Personnel, State and Federal agency liaisons, and private sector partners. In addition to the EOC, Maui County also establishes incident command posts on the island of Molokai, the island of Lanai, and the town of Hana to provide high level management of incidents throughout the entire county, as well as coordination between field elements and state/federal organizations.
County of Kauai EOC	The County of Kauai EOC is located in Lihue on the island of Kauai. The EOC is organized in a hybrid structure with ESFs integrated into ICS Command Staff, Finance, Logistics, Operations, and Planning sections. The EOC can support 50-plus users on high-speed WiFi and is staffed with a number of county, state, NGO, and federal partners.
County of Hawaii EOC	The County of Hawaii EOC is located in Hilo on the island of Hawaii. The EOC is organized in a hybrid structure that roughly corresponds with ESFs. The EOC can support approximately 30 personnel, and is staffed with a number of County, State, NGO and Federal partners.

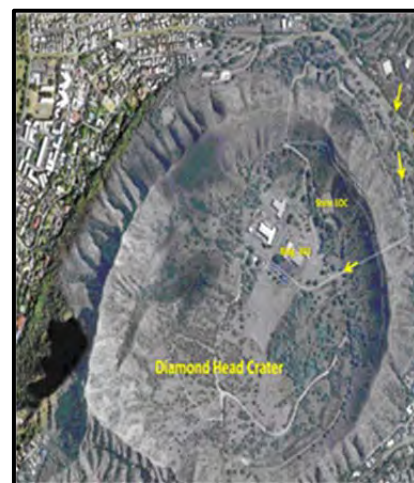
Each county staffs an emergency management or civil defense agency to respond to local events. For ease of use this Plan/Annex will refer to these county level agencies throughout the document as county emergency management agencies. When these local emergency management agencies transition from normal operations to catastrophic disaster response and activate their EOCs, other county agency personnel, as well as state and federal liaisons will supplement their limited number of full-time staff members to operate their EOCs.

### Hawaii State EOC

The state EOC (SEOC) is located in Diamond Head Crater, Honolulu. At the SEOC, the Hawaii Emergency Management Agency (HI-EMA) coordinates information and resources to support incident management activities throughout the state. The core responsibilities of the EOC include:

- Coordination, communication, and resource allocation/tracking.

**Figure 1-1: State Emergency Operations Center**





- Information collection, analysis, and dissemination related to a specific incident.
- Forming a common operating picture, sharing operational information, and providing subject matter expertise to support incident management and response activities.
- Activating the Joint Information Center (see Appendix 6: Public Messaging).

### ***Regional Response Coordination Center***

The Federal Emergency Management Agency (FEMA) Region IX Regional Response Coordination Center (RRCC) is located in Oakland, CA and is a standing multi-agency coordination center. Staffed by a Regional Response Coordination Staff (RRCS), the RRCC is the primary situational awareness and coordination center for support to FEMA's incident management at the field operations level. The RRCS includes FEMA personnel, activated federal ESF representatives, and other personnel, including representatives of NGOs and the private sector. These representatives provide information, resources, and policy guidance. This assembled group supports the state's response to the incident and coordinates with the National Response Coordination Staff (NRCS).

The RRCS performs the following:

- Incident support
- Deployment of regional-level resources
- Coordination to SEOC, statewide fusion centers, and other state and federal operations and coordination centers
- Collects, analyzes, and disseminates incident information
- Conducts regional support planning

### ***National Response Coordination Center***

The National Response Coordination Center (NRCC) is a multi-agency coordination center that coordinates overall federal support for major disasters and emergencies, including catastrophic incidents in support of operations at the regional level. The FEMA Administrator, or his or her delegate, activates the NRCC in anticipation of, or in response to, an incident. The NRCC is staffed by the NRCS, which conducts multi-agency coordination by strategically allocating and prioritizing national resources in cases of multi-incident response operations or for incidents requiring national-level oversight. The national level does not perform functions of incident management unless there is no lower level of control.

The NRCS identifies resources, assets, and capabilities for an incident, and prepositions materials to appropriate strategic locations in coordination with the Region. Through coordination with the Region the NRCS identifies, orders, and deploys initial-response resources based on the specific needs of the incident.

### ***Incident Management***

NIMS provides a systematic, proactive approach to guiding departments and agencies at all levels of government, NGOs, and the private sector to work together seamlessly and manage incidents involving all threats and hazards—regardless of cause, size, location, or complexity—in order to reduce loss of life, property, and harm to the environment. A key component of NIMS is ICS.

### ***Incident Command System***

ICS is a management system designed to enable effective and efficient incident management by integrating a combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure. ICS is normally structured to coordinate response activities through five major functional areas: Command, Operations, Planning, Logistics, and Finance/Administration.

### Incident Management Assistance Teams

Incident Management Assistance Teams (IMATs) are typed resources, usable at all levels of government and in any size disaster that provide field-level incident management during emergencies and disaster response. IMATs include command and general staff that, in a joint response, integrate with the state except for the Finance/Administration section which functions separately. Upon receipt of a federal emergency or major disaster declaration, the IMAT joins the HI-EMA and state ESF staff to form the basis of the UCS and is no longer referred to as an IMAT. For most field-level events, the Region IX IMAT will support a response to the State of Hawaii. For catastrophic or Level I<sup>3</sup> events, FEMA will activate and deploy a National IMAT in support of the State, and the Region IX IMAT will integrate into the National IMAT. The IMAT will deploy to the State of Hawaii's EOC as an advance element in Phase 1b (elevated threat) and may assist with pre-declaration planning, including resource requirements and logistics. The IMAT may also facilitate the establishment and operation of an Initial Operating Facility (IOF).

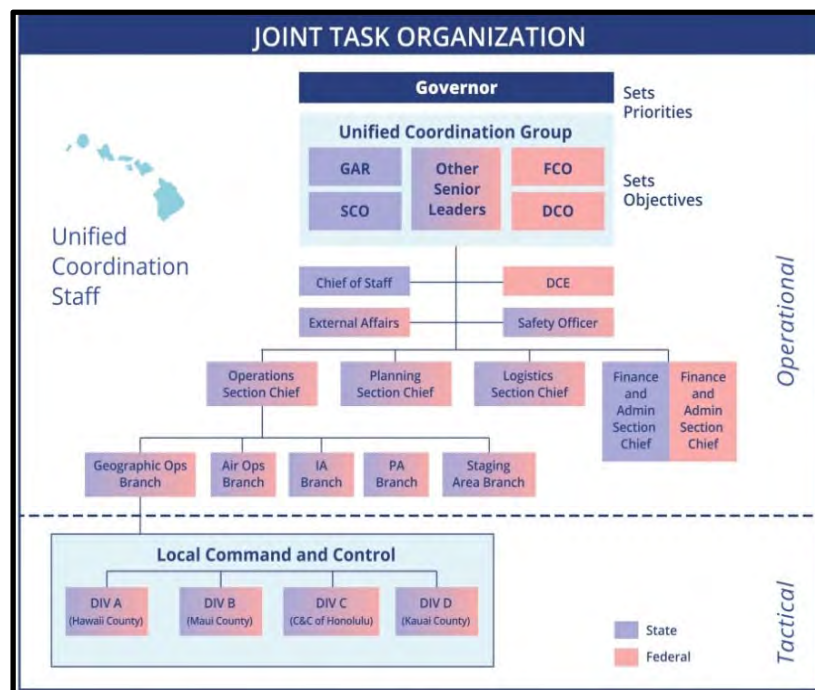
### Unified Coordination Group/Unified Coordination Staff

For a catastrophic event, the leadership of agencies with jurisdictional or functional authorities will join together in a team effort to form a Unified Coordination Group (UCG). The UCG includes federal and state emergency management officials and senior officials from other agencies or organizations that have (1) primary statutory or jurisdictional responsibility and/or (2) significant operational responsibility for one or more functions of an incident response. The State Coordinating Officer (SCO) and Federal Coordinating Officer (FCO) lead the UCG.

The UCS consists of personnel from state and federal agencies, the private sector, and non-governmental organizations. The UCS coordinates joint state and federal support to the counties through incident objectives and strategies established by the UCG.

In the State of Hawaii, further coordination of field-level activities will occur through geographic operations where a FEMA representative will join a HI-EMA counterpart at county levels as Division Supervisors to assure timely coordination and communication in support of each county. Figure 1-2 outlines the joint task organization for a catastrophic hurricane response for the State of Hawaii.

**Figure 1-2: Joint Task Organization**



<sup>3</sup> This level of event will result in a Presidential disaster declaration, with major Federal involvement and full engagement of Federal regional and national resources (*FEMA Region IX Incident Management Handbook*).

## Roles and Responsibilities

### *Governor of the State of Hawaii*

- Declares a state of emergency.
- Requests a Declaration of Disaster by the President for the State of Hawaii and receives federal supplemental assistance in disaster response. The Governor must make the request based on finding the disaster to be of such severity and magnitude that effective response is beyond the capability of the state and local governments and federal assistance is necessary.
- Takes all the appropriate response actions under state law and directs execution of the state's Emergency Operations Plan (EOP) as a prerequisite to making a disaster declaration request.

### *Governor's Authorized Representative*

The Governor's Authorized Representative (GAR) is appointed by the Governor and is further designated in the FEMA/State Agreement once the President declares a Major Disaster under the provisions of the Stafford Act (Public Law 93-288, as amended)<sup>4</sup>. Generally, the Governor appoints the Adjutant General (TAG) as the GAR and the Administrator of HI-EMA as the Assistant GAR.

- The GAR provides executive oversight and direction of the disaster or emergency response and recovery on behalf of the Governor. The GAR executes all the necessary documents on behalf of the state related to the disaster.
- The GAR is responsible for the following activities:
  - Interfacing with the FEMA Regional Administrator's appointed finance coordinator
  - Implementing the state's EOP
  - Activating state departments and agencies
  - Executing the Governor's emergency decisions
  - Directing the activities of the SCO
  - Establishing strategic response and recovery strategies
  - Ensuring that the state maintains control

### *State Coordinating Officer*

The SCO provides operational oversight and direction of the disaster or emergency on behalf of the GAR for Joint Field Office (JFO) operations. The SCO converts the GAR's strategic guidance into tactical plans, executes them on behalf of the state, and responds to the Governor's priorities. Generally the Governor appoints the Administrator of HI-EMA as the SCO and the Executive Officer of HI-EMA as the Deputy SCO.

- The SCO is identified in the Governor's request for an emergency or a major disaster declaration.
- The SCO is responsible for the following activities:
  - Interfacing with the FCO
  - Directing activities for state departments and agencies
  - Integrating local, state, federal, and voluntary agencies' actions
  - Coordinating response and recovery operations

<sup>4</sup> [http://www.fema.gov/media-library-data/1383153669955-21f970b19e8ea67087b7da9f4af706e/stafford\\_act\\_booklet\\_042213\\_508e.pdf](http://www.fema.gov/media-library-data/1383153669955-21f970b19e8ea67087b7da9f4af706e/stafford_act_booklet_042213_508e.pdf)

Note: The GAR and the SCO may be the same person or different people. The designation may be permanent or may occur at the time of the emergency. The State of Hawaii may designate alternate or assistant GARs and SCOs in order to conduct 24-hour operations as needed.

### *Federal Coordinating Officer*

By authority and direction of the Stafford Act, the President appoints the FCO to manage the federal response, recovery, and mitigation operations for each presidentially declared disaster or emergency.

- The FCO is responsible for the following activities:
  - Government and intergovernmental coordination
  - Managing the federal disaster response
  - Assessment of disaster needs
  - Establishment of the JFO and Disaster Recovery Centers (DRC)
  - Program delivery

### *Defense Coordinating Officer/Defense Coordinating Element*

The Defense Coordinating Officer (DCO), or a Defense Coordinating Element (DCE), is an active duty Department of Defense (DOD) representative or unit for the UCG that is designated to plan, validate, coordinate and integrate Defense Support of Civil Authorities (DSCA) with State/Local and Federal agencies.

DCEs evaluate mission assignments and process approved Requests for Assistance (RFAs) for DOD assets in support of domestic emergencies and disasters.

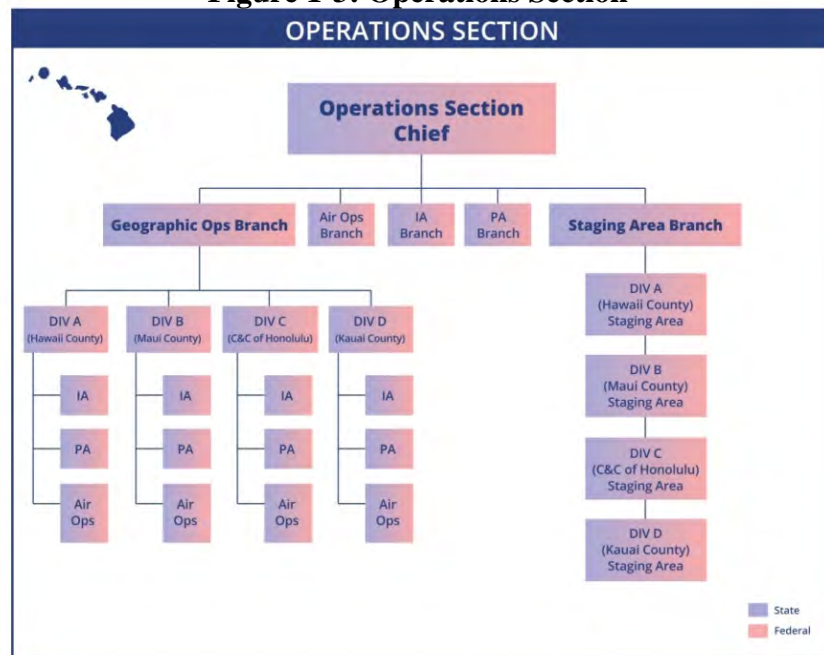
### *General Staff Roles and Responsibilities*

#### *Operations Section*

The joint Operations Section<sup>5</sup> (Figure 1-3) is responsible for:

- All tactical field-level activities of state/federal organizations in response to saving lives and property.
- Facilitating the restoration of critical infrastructure systems.

**Figure 1-3: Operations Section**

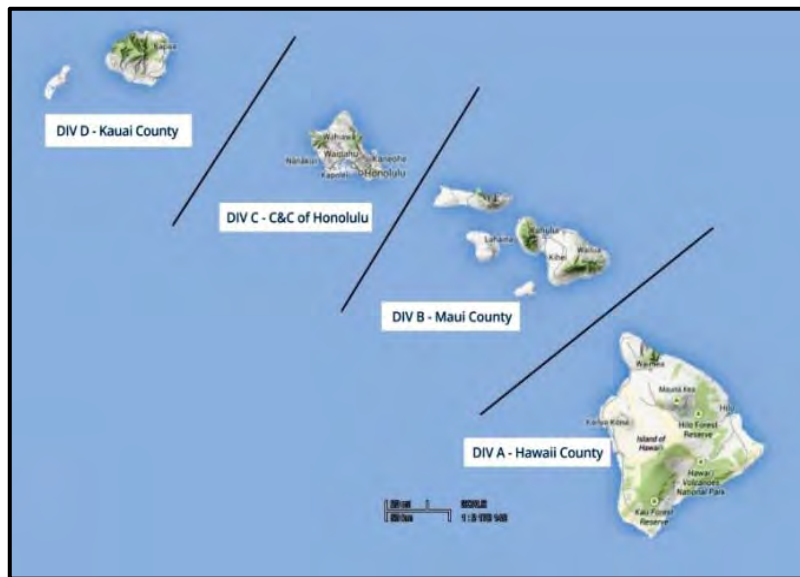


<sup>5</sup> See <http://www.disasterassistance.gov/> for general information on resources for Individual Assistance (IA) programs. IA programs include housing needs, other than housing needs, and additional services (<https://www.fema.gov/disaster-assistance-available-fema>) See <https://www.fema.gov/public-assistance-local-state-tribal-and-non-profit> for general information on Public Assistance (PA) programs which include aid to state or local governments to pay part of the costs of rebuilding a community's damaged infrastructure including emergency and permanent work projects.

- Developing and providing situational awareness
- Command and control of state/federal resources supporting response efforts.

Due to the insular nature and geographic separation of the counties, HI-EMA and FEMA will support operations by using a combination of geographic and functional branches as shown in Figure 1-4. Each of Hawaii's counties has been assigned geographical designators to be used in planning and executing response strategies and resources:

**Figure 1-4: Divisions A-D**



- Hawaii County (DIV A) – Hawaii Island
- Maui County (DIV B) – Maui, Lanai, and Molokai Islands (Note: for emergency management purposes, Maui county includes Kalawao County located on the Kalaupapa Peninsula of Molokai)
- City and County (C&C) of Honolulu (DIV C) – Oahu Island
- Kauai County (DIV D) – Kauai and Niihau Islands

Within each of these divisions, HI-EMA and FEMA will provide Division Supervisors (DIVS) to support the counties, assist in the development of situational awareness, and assist in communicating essential information to/from field-level operations. DIVS are state and/or federal representatives within a division that coordinate and direct all work assignments specified in the Incident Action Plan (IAP) for their respective division. By using the DIVS in this capacity, HI-EMA and FEMA are able to provide focused incident response efforts to support each county. This provides the opportunity for better coordination of resources while enhancing communication and collaboration with local officials to ensure division work efforts support incident objectives.

### ***Planning Section***

The joint Planning Section is responsible for:

- Collecting, evaluating, and disseminating information about the response and its employed resources.
- Developing the joint state/federal IAP, with input from other sections of the UCS with particular emphasis on information provided by the operations section.
- Developing critical situational awareness information and resource status information for dissemination to those at the incident and at other facilities related to the incident.

### ***Logistics Section***

The joint Logistics Section is responsible for:



- Providing support requirements for the incident such as ordering resources and providing facilities; transportation, supplies, equipment maintenance, and fuel; food service; communications; and medical services for incident personnel.
- Coordinating all resource movements (multimodal) into Hawaii during a catastrophic response.

#### *Finance and Administration Section*

The Finance and Administration Section is comprised of independent state and federal sub-sections. Each state or federal entity manages their agency personnel due to the separate systems used, approval processes in place and financial authorities which prevent joint state and federal operation.

Each Finance and Administrative Section is responsible for:

- Responding to the requirements of the SCO (state section) and FCO (federal section) to address all financial matters of the incident in accordance with UCG priorities and applicable policies and regulations.

#### **Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

#### **Oversight, Coordinating Instructions, and Communications**

See the Base Plan of this Plan/Annex.

## APPENDIX 2: INTELLIGENCE

### Situation

#### Purpose

Appendix 2: Intelligence provides Hawaii specific hurricane threat information, and supports the catastrophic hurricane scenario that planners used to develop this Plan/Annex. This appendix outlines a concept of operations for the Unified Coordination Staff (UCS) to gain situational awareness during a hurricane incident and provide decision makers with clear and accurate information.

#### Background

##### *General Hurricane Information<sup>6</sup>*

Hurricanes form over warm ocean waters near the equator when warm, moist air rises upward causing an area of lower air pressure below. Air from surrounding areas with higher air pressure pushes into the low-pressure area creating a cyclone. This system of clouds and wind spins and grows, fed by the ocean's heat and water evaporating from the surface.

When the winds reach 39 miles per hour (mph), it is classified as a tropical storm. When wind speeds reach or exceed 74 mph, the tropical cyclone is classified as a hurricane.

Table 2-1 provides the category classification system for tropical cyclones that qualify as hurricanes. This is based on the Saffir-Simpson Hurricane Wind Scale.

The National Weather Service (NWS) develops and publishes a number of graphic and text products that provide up-to-date information and analyses of tropical weather/systems with the

**Table 2-1: Saffir-Simpson Wind Scale**

Category	Wind Speed (mph)	Damage at Impact
1	74-95	Very dangerous winds will produce some damage: Well-constructed frame homes could have damage to roof, shingles, vinyl siding, and gutters. Large branches of trees will snap and shallowly rooted trees may be toppled. Extensive damage to power lines and poles likely will result in power outages that could last a few to several days.
2	96-110	Extremely dangerous winds will cause extensive damage. Well-constructed frame homes could sustain major roof and siding damage. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks.
3	111-130	Devastating damage will occur. Well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4	131-155	Catastrophic damage will occur. Well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.
5	Over 155	Catastrophic damage will occur. A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

<sup>6</sup> [http://www.nhc.noaa.gov/pdf/NHC\\_Product\\_Description.pdf](http://www.nhc.noaa.gov/pdf/NHC_Product_Description.pdf).

potential to affect the United States and its territories. Several products key to the implementation of this Plan/Annex are briefly discussed below.

The NWS develops a number of tropical cyclone-specific forecast advisories and forecast discussions:

#### *Forecast Advisories*

*Forecast advisories* contain a list of the current latitude and longitude coordinates, intensity, and system motion. The advisory contains position, intensity, and wind field forecasts for 12, 24, 36, 48, and 72 hours from the current synoptic time. The advisory may also include information on any pertinent storm tides associated with the cyclone. All wind speeds in the forecast advisory are given in knots (nautical miles per hour).

The tropical cyclone discussion describes the rationale for the forecaster's analysis and typically provides a brief discussion of the observations justifying the analyzed intensity of the cyclone and a description of the environmental factors expected to influence the cyclone's future activity.

#### *Tropical Cyclone Track Forecast Cone*

A *tropical cyclone track forecast cone*, typically referred to as the "cone of uncertainty," is a graphic product that depicts the most recent track forecast of the center of a tropical cyclone along with an approximate representation of associated coastal areas under a warning or watch. The cone represents the probable 5-day track/projection of the center of a tropical cyclone. The size of each circle is set so that two-thirds of historical official forecast errors over a 5 year sample fall within the circle.

#### *Hurricane Watch and Warnings*

NWS issues a Hurricane Watch when tropical force winds exceeding (39+ mph) are generated by an observed cyclone and are possible within 48 hours. A Hurricane Warning is issued when tropical force winds generated by an observed cyclone are possible within 36 hours. An Extreme Wind Warning is issued when hurricane-strength winds exceeding 115 mph are imminent within an hour.

#### *Hawaii's Hurricane History*

Four hurricanes have significantly impacted Hawaii in the past 60 years: Hurricane Dot in 1959; Hurricane Iwa in 1982; Hurricane Iniki (see Figure 2-1)<sup>7</sup>—the only Category 4 hurricane impacting Hawaii in recent history—in 1992; and Hurricane Iselle in 2014 (made impact on the Island of Hawaii as a tropical storm). Other hurricanes have damaged Hawaii in the past, but the impacts are not well captured in meteorological records so information on these tropical storms is particularly limited.

Note that while the focus of this Plan/Annex is on catastrophic hurricanes of a Category 3 or greater magnitude, lesser cyclones can severely impact the state. For example, Hurricane Iwa was a Category 1 hurricane that caused approximately \$250m in damage.

**Figure 2-1: Hurricane Iniki**

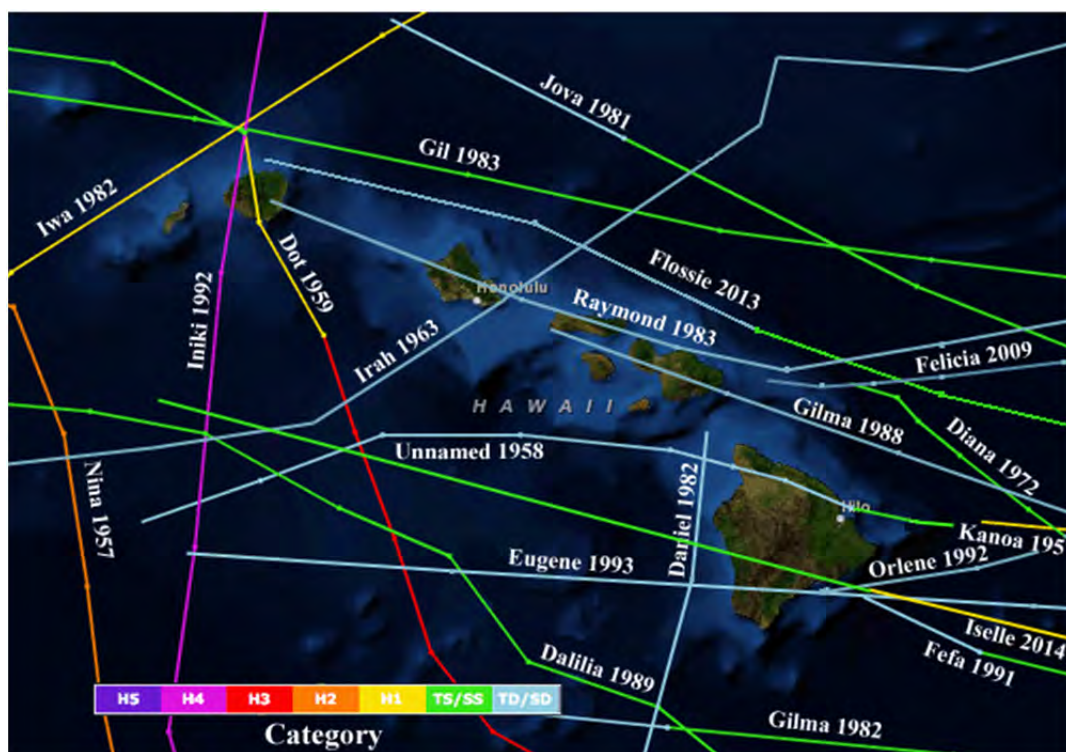
Hurricane Iniki reached hurricane strength in the Central Pacific on September 9, 1992 about 470 miles southeast of the Island of Hawaii. Within two days, Hurricane Iniki made impact on Kauai as a Category 4 hurricane. Sustained winds were in excess of 140 miles per hour, with gusts of up to 175 miles per hour. Even though Iniki was "on station" for less than 2 hours, it destroyed more than 1,400 homes and severely damaged more than 5,000 homes at a cost in excess of \$1.8 billion. Seven deaths and approximately 100 injuries were reported. In all, close to 90% of structures on Kauai were damaged to some extent. Communications were significantly downgraded. Over 35% of the power lines were downed creating a blackout over the entire island.

<sup>7</sup> [https://en.wikipedia.org/wiki/Hurricane\\_Iniki](https://en.wikipedia.org/wiki/Hurricane_Iniki)

Figure 2-12<sup>8</sup> below depicts historic hurricane tracks with supporting NWS statistics immediately below:

- There is an 80 percent chance during any given hurricane season that a hurricane strength system will pass within 360 nautical miles of Hawaii.
- There is a less than one percent probability of hurricane strength cyclones impacting Hawaii in any given year.
- On average, Hawaii is significantly affected by one tropical cyclone per decade.
- Historically, cyclones approaching from due east are weakened before reaching Hawaii by strong wind shear and cooler sea-surface temperatures in the northern Pacific.
- Hurricanes typically weaken when they make impact because they are no longer being “fed” by the energy of the warm ocean waters. In Hawaii, this effect is somewhat diminished because of its small land mass and unique topography.

**Figure 2-2: Hawaii Hurricane History 1949 – 2014**



While the annual probability of occurrence is relatively low, the overall risk in terms of damage to infrastructure and cascading impacts to the populace and essential services could be catastrophic in nature.

### *Hawaii's Hurricane Threat*

Hawaii is one the most isolated archipelagos in the world; it comprises 8 main islands and covers an area of over 6,459 square miles. Hawaii is the 47th largest state, is surrounded by the Pacific Ocean, and is located approximately 2,400 miles southwest of CONUS. The largest island by area is the Island of Hawaii, also known as the Big Island, while the most populous island is Oahu. The other main islands of Hawaii are Maui, Lanai, Molokai, Kauai, and Niihau. Kahoolawe is the eighth island, but it is uninhabited.

<sup>8</sup> Source: <http://www.wunderground.com/blog/JeffMasters/comment.html?entrynum=2832>



The topography and bathymetry of Hawaii vary by island (see Figure 2-3 below), but each island has coastal plains and mountain ranges that channel and amplify winds across ridges and through valleys.

The steep terrain also lends itself to destructive flash floods and landslides. Steep bathymetry surrounding the islands limits storm surge height but can potentially produce much larger storm waves as a hurricane makes impact. Fringing reefs along the coastline have the potential to significantly dissipate larger storm waves. Storm surge from a Category 4 hurricane would normally be 13 to 18 feet along areas with wide, shallow up slopes<sup>9</sup>; however, the NWS estimate for a hurricane of this intensity in Hawaii is 10 to 15 feet due to steep bathymetry and the distance north of the equator.

**Figure 2-3: Hawaii Topography and Bathymetry Contour Map**



<sup>9</sup> Reference: <http://geography.about.com/od/unitedstatesofamerica/a/Hawaii-geography.htm>; [http://www.netstate.com/states/geography/hi\\_geography.htm](http://www.netstate.com/states/geography/hi_geography.htm)



## Threat Scenario

Planners used the following threat scenario to provide a realistic, science based scene setter for the process of developing the plan. The scenario used is one of many scientifically and historically probable/feasible tracks. The damage projections are based on the topography of the islands, the population densities, type of construction and other Hawaii-specific data.

A Category 4 hurricane approaches Hawaii from the southeast and moves northward at approximately 10 mph toward Hawaii County (Big Island), then veers westward significantly impacting all 4 counties over a period of 36 to 48 hours. The hurricane is expected to produce sustained winds of 130 mph and gusts up to 160 mph with a wind radius of 219 miles. A storm surge of 10 to 15 feet is anticipated, while a rainfall rate of 1 to 2 inches per hour will contribute significantly to the inundation and flooding damage. See Tab 2 to Appendix 2: Planning Assumptions for the primary planning factors used to develop this Plan/Annex.

**Table 2-2: Estimated Effects for Scenario**

Estimated Effects from Catastrophic Hurricane Scenario	
Counties Impacted	ALL
Total Population Affected	Up to 710,000
Fatalities	< 500
Injuries (minor/severe)	20,000 / 5,000
Debris (tons)	12.7M
Population Seeking Shelter pre-impact (30%)	420,000
Population Seeking Shelter post-impact (10%)	142,000

### Storm Surge Modeling

In modeling this scenario, storm surge was estimated for Hawaii using HAKOU™ version 4 (HAKOU.4) containing data specific to all four counties of the State of Hawaii. Hakou is built on more than 1,500 pre-run scenarios that are used to interpolate a forecasted storm surge and wave run up using the data points of angle of approach, impact location, central pressure, forward speed, and radius of maximum winds. HAKOU™ estimates wave run-up and the areas where still water with a depth of at least one foot would occur. Wave speed and actual water depth are not calculated by HAKOU™.

### Rain and Flood Modeling

Digital Flood Insurance Rate Maps, a recent flood study for Hawaii County, and an NWS data file with historical, documented, and identified rain-induced flooding event points referencing areas prone to flooding were compiled into a single Geographic Information System (GIS) layer. This GIS layer was then overlaid onto various counties to estimate the amount and type of critical infrastructure within the projected “wet-zone” where storm surge inundation and/or flooding would result in at least one foot of standing or “still” water.

### Wind Field Modeling

Hazards U.S. (HAZUS) is the national standard modeling tool for estimating losses from hurricane winds. State of Hawaii Subject Matter Experts (SMEs) modified the standard in-model package output to address a potential overestimation of damage related to tropical storm force winds to develop planning factors used in this Plan/Annex.<sup>10</sup>

<sup>10</sup> Additional work is recommended to assess what the systemic bias in HAZUS is and how to modify it for an island environment. That data should inform a revision of the “Standard” HAZUS modeling package for use in the State of Hawaii.

## Effects and Operational Impacts

### Infrastructure Impacts

HAZUS Multi-Hazards (HAZUS-MH) loss-estimates are representative of all buildings located within a specific census tract. Since critical infrastructure is built to different construction code requirements than residential buildings, planners estimated damage for impacts specifically to critical infrastructure. The infrastructure damage estimates considered in this plan are limited to structures located within the storm inundation and flood zones identified by modelling efforts. See Tab 3 to Appendix 2: Topography and Inundation for critical infrastructure that could be affected based on these storm surge models.

Objective baseline data is important in analyzing what impacts a catastrophic hurricane may have on the State of Hawaii. Planners developed the data summarized in tables below, using a variety of sources to include the following:

- Existing mass care estimates produced by the State of Hawaii State Mass Care Council
- The Threat and Hazard Identification and Risk Assessment (THIRA) process
- Modeling outputs
- Literature searches
- Subject matter expertise

**Table 2-3: Baseline Planning Considerations**

Impact Classification	Impact by Jurisdiction				
	County of Hawaii	Maui County	City and County of Honolulu	Kauai County	State Total
<b>Total population</b> <i>Source: U.S. Census Bureau, 2014 Population Estimate Data</i>	194,190	163,108	991,788	70,475	1,419,561
<b>Average daily visitor census</b> <i>Source: DBEDT 2014 Visitor Statistics</i>	30,000	55,000	96,000	25,000	206,000
<b>Total population and daily visitor count by Island</b>	224,190	218,108	1,087,788	95,475	1,625,561
<b>Total households</b> <i>Source: U.S. Census Bureau, 2014 Population Estimate Data</i>	85,163	71,580	343,017	30,346	530,106
<b>Estimated resident population of people with disabilities</b> <i>Source: Mass Care Working Group (Note: uses highest estimate provided)</i>	27,000	26,000	130,000	11,000	194,000
<b>Children under 5</b> <i>Source: U.S. Census Bureau, 2014 Population Estimate Data</i>	12,007	10,080	64,904	4,489	91,480
<b>Residents over 85</b> <i>Source: Mass Care Working Group</i>	4,000	3,000	24,000	2,000	33,000
<b>Residents with limited English Proficiency</b> <i>Source: DBEDT The State of Hawaii Data Book 2013</i>	N/A	N/A	N/A	N/A	61,173
<b>Pet Ownership</b> <i>Source: Hawaiian Humane Society</i>	100,000	94,500	377,000	40,000	611,000

The tables below summarize operational impact estimates to populations, infrastructure, and critical services. These estimates should inform post-event operational capacities, define the planning assumptions, and assist in identifying the resource requirements of response partners.

Although infrastructure damage modelling is based on inundation only, there may be severe wind impacts to buildings, power infrastructure and communications infrastructure. In addition to the estimates shown below, planners estimate an insignificant change in the proportion of patients requiring hospitalization, and the potential for a six-fold increase in incidence of injury.

Table 2-4: Population Impacts

Impact Classification		Impact by Jurisdiction				
		County of Hawaii	Maui County	City and County of Honolulu	Kauai County	Statewide Total Impact
Population Impacts	<b>Residents seeking shelter pre-hurricane (emergency shelters)</b> <i>Source: 2013 State Mass Care Council Percentage</i>	58,257	48,932	297,536	21,142	425,867
	<b>Total population displaced</b> <i>Source: Hazus, HAKOU.4, and NWS Flood modeling State Mass Care Council Percentage Estimate</i>	122,350	94,600	515,750	47,900	780,600
	<b>Population seeking shelter post-hurricane</b> <i>Source: Planning Assumption at least 10%</i>	19,419	16,311	99,179	7,048	141,957
	<b>Population requiring Personal Assistance Services</b> <i>Source: 2013 FEMA Region X Mass Care Metrics (Shelter Population*0.082/12)</i>	137	109	615	55	916

Table 2-5: Infrastructure Impacts

Impact Classification		Estimated Impact by Jurisdiction				
		County of Hawaii	Maui County	City and County of Honolulu	Kauai County	Statewide Total Impact
Infrastructure Impacts	<b>Power facilities inundated</b> <i>Source: HAKOU.4 and NWS modeling</i>	4	5	1	1	11
	<b>Fuel facilities inundated</b> <i>Source: HAKOU.4 and NWS modeling</i>	0	2	1	0	3
	<b>Port/airports inundated</b> <i>Source: HAKOU.4 and NWS modeling</i>	2/0	3/1	3/3	2/1	10/5
	<b>Communications infrastructure inundated</b> <i>Source: HAKOU.4 and NWS modeling</i>	10	39	183	21	253
	<b>Waste water facilities inundated</b> <i>Source: HAKOU.4 and NWS modeling</i>	0	0	2	0	2
	<b>Bridges inundated</b> <i>Source: HAKOU.4 and NWS modeling</i>	26	52	238	33	349
	<b>Bridges Scour Critical<sup>11</sup></b> <i>Source: HAKOU.4 and NWS modeling</i>	1	4	32	9	46
	<b>Law enforcement/ fire facilities inundated</b> <i>Source: HAKOU.4 and NWS modeling</i>	1/1	3/2	6/9	1/4	11/16
	<b>Hospitals inundated</b> <i>Source: HAKOU.4 and NWS modeling</i>	0	0	2	0	2
	<b>Debris tonnage generated</b> <i>Source: Hazus</i>	4M	1.9M	5.3M	1.5M	12.7M
	<b>Trucks required for debris removal (25 tons/truck)</b> <i>Source: Mass Care Working Group</i>	160,000	76,000	212,000	60,000	508,000

<sup>11</sup> Scour is the removal of sediment around support structures, compromising the integrity of the bridge. Scour critical bridges are those most likely to be undermined in a flood event.

**Table 2-6: Critical Services Impacts**

	Description	Summary of Impact
Critical Services	<b>Days without power</b> <i>Source: Hawaiian Electric Company</i>	50% of power generation lost for up to 30 days
	<b>Days without water/sewer services</b> <i>Source: 2013 State of Hawaii Mass Care Council</i>	7 days without service post-hurricane
	<b>Days without seaport services</b> <i>Source: 2013 State of Hawaii Mass Care Council</i>	7 days without basic/emergency service post-hurricane
	<b>Days without airport services<sup>12</sup></b> <i>Source: 2013 State of Hawaii Mass Care Council</i>	3-5 days with no airport availability. Initially, only emergency operations via military transport. Estimate for restoration of commercial traffic was not available.
	<b>Days required for debris clearance</b> <i>Mass Care Working Group</i>	7 days for major roadways

## Critical Considerations

### General

- Prioritize resources for lifesaving and then life sustaining activities for all mission response areas.
- The State Emergency Operations Center (SEOC) supports local response efforts and takes actions to meet local resource requirements. Likewise, the federal response effort is in support of the state and executes a joint state/federal concept of support.
- Any tropical storm or hurricane affecting two or more counties, or occurring at the same time as another emergency, will result in competing resource requirements. Competing resources require additional adjudication and prioritization of resource requests.
- County and state governments and the private sector are required to take those actions necessary to mitigate the effects of a hurricane and must develop plans to protect against, respond to, and recover from severe weather events.

### Hawaii-Specific Considerations

- While the annual hurricane probability is low (less than 1 percent).
- The risk of catastrophic impact is high but direct impact is not required to achieve catastrophic effects.
- Hawaii is the most isolated population center on earth with its seven populated islands separated by water, necessitating the delivery of commodities and offshore support via air or sea transport. Transit time by ocean from the Contiguous United States (CONUS) requires at least 5 to 7 days and up to 8 hours by air. This time-distance relationship requires early identification/coordination, deployment and tracking of resources in order to ensure arrival prior to impact.

## Assumptions

See Tab 3 to Appendix 2: Planning Assumptions.

## Mission

The intelligence mission is to identify requirements and sources, collect, analyze, produce the intelligence, and disseminate information regarding an event or impending event to include topics such as geographic footprint, immediate and cascading effects, impact on populations and infrastructure, and to identify information requirements for coordinated response efforts. This will enable joint county, state, federal, non-governmental, and private sector response

<sup>12</sup> Out of service refers to the assumption that commercial service will not be available.

organizations to save and sustain human life, minimize suffering, stabilize and restore critical infrastructure, and set the conditions for recovery following a catastrophic hurricane in Hawaii.

## Execution

### Concept of Operations

#### *Hurricane Response Information Requirements*

The scenario based damage estimates and resulting estimates of operational impacts are based on the best available science and represent a rough order of magnitude for planning, preparation, and capacity building efforts in advance of a catastrophic hurricane impacting the State of Hawaii. Both before and after the impact of a catastrophic hurricane, timely and accurate “real-world” information gathering, analysis, and product dissemination is vital to decision-making and effective response. The following section describes the concept of operations of information collection.

#### *Situational Assessment*

The core capability of situational assessment requires the following actions to provide decision makers with decision-relevant information regarding the nature and extent of the hazard, any cascading effects, and the status of the response<sup>13</sup>:

- Coordinating information collection/analysis processes with identified stakeholders.
- Collecting and analyzing incoming information from available sources.
- Developing, validating, and rapidly disseminating decision-relevant information to facilitate situational understanding.

#### *Common Operating Picture*

A Common Operating Picture (COP) is the shared understanding of a situation based on the ability to see and use identical data. Possible sources of information to develop the COP include NWS field office forecast products<sup>14</sup> for the affected areas, HAZUS and GIS modeling and maps, county and state emergency operations center products, on-scene information, imagery, and news/social media.

The Hawaii Emergency Management Agency (HI-EMA) develops and maintains a COP for Hawaii during Phase 1a (normal operations). This activity includes facilitating information sharing and collaboration, providing incident/threat alerts and notifications, and providing situational awareness to stakeholders. When the UCS forms in Phase 1b (elevated threat), the responsibility for maintaining the COP transitions to the Joint Planning Section.

FEMA Region IX Watch provides information collection, analysis, and dissemination operations and develops and maintains a COP for FEMA during Phase 1a (normal operations). When the Regional Response Coordination Center (RRCC) activates in Phase 1b (elevated threat), responsibility transitions to the Situational Awareness Section of the Regional Response Coordination Staff (RRCS).

Staffs share and disseminate information to build a COP at all levels, including county and state emergency operations centers (EOCs), the Initial Operating Facility (IOF)/Joint Field Office (JFO), RRCC, and National Response Coordination Center (NRCC), activated Emergency Support Functions (ESFs), non-governmental organizations (NGOs), and the private sector. Reporting includes formats established by Region IX RRCC policies and Standard Operating

<sup>13</sup> <https://www.fema.gov/core-capabilities>

<sup>14</sup> Tropical Weather Outlook (TWO), Graphical Tropical Weather Outlook (GTWO), Forecast Advisories/Discussions, Tropical Storm/Hurricane Watches and Warnings, and Extreme Wind Warnings



Procedures (SOPs), county and state level Emergency Operations Plans (EOPs), and county hurricane frameworks. Examples include the following:

- Common Operating Picture (written and digital) policies and procedures
- Incident Command System (ICS) forms (ICS 201-215)
- Situation Reports (SITREPs)
- Single Point Order Tracking reports
- Executive Summaries

### Information Collection Plan

An information collection plan (ICP) provides a good starting point for information collection through the life cycle of a hurricane and consists of predetermined Critical Information Requirements (CIRs) and Essential Elements of Information (EEI) that can be expanded or contracted to meet the information needs of response efforts.

### Critical Information Requirements

CIRs facilitate timely command, control, and coordination decisions during disaster operations by providing important details that response personnel and decision makers need to know to effectively manage and execute operations. HI-EMA has identified CIRs in Table 2-7 below.

**Table 2-7: Critical Information Requirements**

Critical Information Requirements (CIRs)
1. Death, serious injury, hospitalization of any member of HI-EMA, county civil defense administrators, and civil defense coordinators.
2. Any incident involving HI-EMA vehicles, equipment, or facilities that results in the loss or serious damage to that equipment or property.
3. Casualties (deaths, serious injuries, and hospitalization) of all residents/non-residents resulting from a disaster/emergency.
4. Degradation and restoration of critical Information Technology (IT)/communications systems critical to HI-EMA and state wide operations.
5. Activation and deactivation of county and agency EOCs.
6. Opening or closing of airports, harbors, or major highways and other major lines of communication.
7. Degradation and restoration of critical infrastructure capabilities (power, water, transportation, supply chain, cyber, and communications).
8. Opening and closing of shelters.
9. Any major Request for Assistance from counties or other agencies that the staff is unable to support or cannot support in a timely basis.
10. Evacuation orders for hospitals, nursing homes and other critical facilities.
11. Any event, not captured above that could result in the loss of public trust/confidence, degradation of credibility and negative media coverage for the HI-EMA, Hawaii Department of Defense, and the state.

### Essential Elements of Information

EEIs are crucial information requirements related to an event that are needed by the senior decision makers within a specified timeframe. EEIs enable the ability to analyze all available information together to assist decision makers in reaching logical decisions based on the latest details related to the incident. Table 2-8 summarizes the EEIs required to develop a relevant COP in accordance with this Plan/Annex. See Tab 1 to Appendix 2: Information Collection Plan, Table 2-9 Essential Elements of Information for specific details.

**Table 2-8: Overview of Essential Elements of Information (EEI)**

#	Essential Elements of Information	Pre-Impact (Phases 1b – 1c)	Post-Impact (Phases 2a – 2c)
1.0	<b>Hazard Related Information</b>		
1.1	Boundaries of Primary and Secondary disaster areas		✓
1.2	Hazardous, toxic and radiological issues		✓
1.3	Hazard-specific information	✓	✓
1.4	Historical information		✓
1.5	Hurricane Forecasts and Related Information	✓	
1.6	Jurisdictional boundaries		✓
1.7	National Flood Insurance Program (NFIP) Impacts		✓
1.8	Predictive Modeling Impact Projections	✓	
1.9	Pre-Impact Information	✓	
1.10	River Forecast & Flooding Information	✓	✓
1.11	Weather	✓	✓
2.0	<b>Response Related Information</b>		
2.1	Status of declarations	✓	
2.2	Status of ESF Activations	✓	✓
2.3	Priorities for Response	✓	✓
2.4	Major issues/activities/Mission Assignments of ESFs/ Other Federal Agencies (OFAs)	✓	✓
2.5	Resource shortfalls	✓	✓
2.6	Status of key personnel	✓	✓
2.7	Status of reconnaissance operations	✓	✓
2.8	Safety hazards	✓	✓
2.9	Donations/Voluntary agency activities	✓	✓
2.10	Upcoming activities	✓	✓
3.0	<b>Population Impacts</b>		
3.1	Socio-economic impacts (People)	✓	✓
3.2	Demographics	✓	✓
3.3	Socio-economic impacts (Business)	✓	✓
4.0	<b>Infrastructure Impacts</b>		
4.1	<b>S</b> ecurity & Safety - Status of State and local operations	✓	✓
4.2	<b>W</b> ater and Wastewater	✓	✓
4.3	<b>E</b> nergy	✓	✓
4.4	<b>A</b> ccessibility - Status of Transportation	✓	✓
4.5	<b>A</b> ccessibility - Status of facilities (Schools, Shelters, etc.)	✓	✓
4.6	<b>T</b> elecommunications	✓	✓
4.7	<b>M</b> edical	✓	✓
5.0	<b>Critical Services Impacts</b>		
5.1	Political impacts		✓
5.2	Status of Emergency Operations Centers (EOCs)	✓	✓
✓ = Need to gather data for information collection plan (ICP)			

## SWEAT-M Analysis

SWEAT-M analysis is the primary tool used to prioritize issues related to critical infrastructure assessment and restoration throughout the state during response and recovery phases. HI-EMA coordinates and collects information from identified stakeholders to maintain situational awareness and brief decision makers on the status of each topic area as required (See example in Figure 2-4).

Figure 2-4: SWEAT-M Model

15. Threats to Infrastructure, Significance: State of Hawaii Critical Infrastructure Status					
	Counties	Hawaii County	Maui County	City & County of Honolulu	Kauai County
S	Security & Safety (Law Enforcement, Fire)	Y	Y	Y	G
W	Water	G	G	Y	R
	Sewage	G	Y	G	U
E	Petroleum Facilities & Operations (Includes Diesel)	R	R	U	Y
	Electric Utilities & Operations	R	R	G	R
	Gas Facilities & Operations	U	R	U	Y
A	Transportation (Roads/Highways)	Y	Y	Y	Y
	Transportation (Airports)	Y	Y	G	G
	Transportation (Ports)	Y	R	Y	Y
	Debris	R	U	Y	U
	Schools	Y	R	U	G
	Shelters	R	Y	Y	U
T	Telecomm	R	G	Y	Y
M	Medical	R	Y	G	U
S= Security & Safety		G	Full Capacity/Capability (80-100%)		
W= Water		Y	Reduced Capacity/Capability (79-40%)		
E = Energy		R	No Capacity/Capability (0-39%)		
A = Accessibility (Transportation, Roadways and Bridges, Debris, Schools)		U	Unknown		
T = Telecommunications		Add "LF" to status if any limiting factors (i.e. - debris on runways or in port)			
M = Medical					
16. Critical Resource Needs: Needs: Food, water, and generators Actions: See WebEOC, RFAs, and Event Logs.					

## Administration, Resources, and Funding

See the Base Plan of this Plan/Annex.

## Oversight, Coordinating Instructions, and Communications

See the Base Plan of this Plan/Annex.

## Tab 1 to Appendix 2: Information Collection Plan

**Table 2-9: Essential Elements of Information**

EEI #	EElS	Specific Information Required	Proposed Methodology /Sources	Deliverables	Distribution*
1	Hazard Related Information				
1.1	Boundaries of Primary and Secondary Disaster Areas (inland flooding, etc.)	Geographic locations sustaining damage Description of extent of damage sustained Boundaries of areas evacuated Estimated percent of population evacuated Estimated percent of population unable to return	Counties; Predictive modeling; GIS; HAZUS; U.S. Geological Survey (USGS); Remote Sensing; Aerial Reconnaissance Assessment Teams; State Coordinating Officer (SCO)/Federal Coordinating Officer (FCO) Reports; Media/Social Media (VOST); Drones	Situation Reports (SitReps) Status Briefing GIS products	
1.2	Hazardous, toxic and radiological issues	Are there reported or suspected hazardous material/toxic release incidents? What follow up actions are planned or underway? Are there actual or potential radiological incidents?	Counties; SCO/FCO; ESF #10; Remote Sensing; Predictive modeling	Status Briefings SitReps GIS products	
1.3	Hazard-specific Information	Potential/actual coastal erosion Extent of storm surge Potential for (or extent of) flooding Number/estimate of collapsed structures potentially requiring Urban Search and Rescue (USAR) Potential for other hazards	USGS; NWS; ESF #3; ESF #9; ESF #10; U.S. Coast Guard (USCG)	SitReps Status Briefing GIS products	
1.4	Historical information	Have previous hurricanes of similar magnitude affected the area? What were the results? What resources were provided by the state/federal Government? What were the major operational issues? What were other critical issues?	AARs; SitReps; Status Briefings; Incident Action Plans (IAPs); GIS Products; Government Accountability Office (GAO)/Inspector General (IG) Reports; Congressional Testimony; Media Coverage	SitReps Status Briefing GIS products Special Reports/Analysis	

EEI #	EEIs	Specific Information Required	Proposed Methodology /Sources	Deliverables	Distribution*
1	<b>Hazard Related Information</b>				
1.5	<b>Hurricane Forecasts and Related Information</b>	Storm track and intensity Storm surge Pre-impact imagery Forecast wind buffer	Hurricane Liaison Team (HLT)/Central Pacific Hurricane Center (CPHC); GIS; HURREVAC	Text and graphics via: Fax, e-mail, or posted to HLT Web site: <a href="http://event.fema.gov/hlt/r2/">http://event.fema.gov/hlt/r2/</a> Update of storm track/other information Text and graphic hurricane data	
1.6	<b>Jurisdictional Boundaries</b>	Political jurisdictions of affected area	GIS	GIS products Jurisdictional profiles	
1.7	<b>NFIP Impacts</b>	Are Coastal Barrier Resource system units in the affected area?Are National Flood Insurance Program (NFIP) non-participating communities in the affected area?Are repair costs likely to be substantial (exceed 50% of structure value)?	NFIP communities List; Community Information System and model projections; Existing Flood Insurance Rate Maps; Preliminary Damage Assessment (PDA) and/or inspection teams	Model derived boundaries GIS Products	
1.8	<b>Predictive Modeling Impact Projections</b>	Who is coordinating predictive modeling? What data inputs are being used? What programs are being used? Where are predictive modeling outputs available?	Counties; HI-EMA; Mapping and Analysis Center (MAC); National Oceanic and Atmospheric Administration (NOAA)	GIS Products (areas of impacts, concentrations, and damage zones).	
1.9	<b>Pre-Impact Information</b>	Demographics of severe wind/storm surge area Boundaries of area evacuated Estimated percent of evacuated population	Counties; Predictive modeling; Remote Sensing; Existing recent photo imagery	Photographs/maps Interpretive text reports	
1.10	<b>River Forecast &amp; Flooding Information</b>	Forecast flooding information	NWS River Forecast Center; HLT Web pages	Flood forecasts in a non-technical format GIS (Maps of areas in which flooding is anticipated with housing/structure data; inundation areas and projected road closures; areas of inundation areas with critical facilities)	
1.11	<b>Weather</b>	Weather forecasts pre- and post-impact	NWS	SitReps Status Briefing GIS products Weather reports	



EEI #	EElS	Specific Information Required	Proposed Methodology /Sources	Deliverables	Distribution*
2	<b>Response Related Information</b>				
2.1	<b>Status of declarations</b>	Have the mayors declared local states of emergency? Has the Governor declared a state of emergency? Is the Governor's request a normal or expedited one? Status of the Regional Disaster Summary and Analysis and Recommendation? Is there a Presidential Declaration and if so what type? Which jurisdictions are included? Which types of assistance are authorized? Are there special cost-share provisions for Direct Federal Assistance?	Counties; Governor's Request Letter; Regional Disaster Summary; Regional Analysis and Recommendation; National Emergency Management Information System (NEMIS) Entries; Notice of Disaster Declaration	SitReps Status Briefing GIS products (showing declared counties and type of assistance) Disaster Fact Sheet	
2.2	<b>Status of ESF Activations</b>	Which ESFS are activated and where are they located?	Mission Assignment Logs; Operations Section	SitReps Status Briefing MA lists	
2.3	<b>Priorities for Response</b>	What are the state/federal operational priorities?	Governor; Counties; UCG	SitReps Status Briefing Incident Action Plan Regional Support Plan	
2.4	<b>Major issues/activities/ Mission Assignments of ESFs/OFAs</b>	What operations and assessments are agencies conducting under their own authorities? What MAs have been issued? What is the status of MAs?	Mission Assignment Logs; ESF/agency SitReps; Functional plans; RRCC; NRCC; IMAT	SitReps Displays Incident Action Plan	
2.5	<b>Resource shortfalls</b>	What are actual or potential resource shortfalls? What are the anticipated requirements for Federal resources? What are potential or actual Federal shortfalls? What are potential sources for resource shortfalls? What resources are available and where are they located? Information priorities - status of the following: SWEAT-M; water and food supplies	Counties; UCG; IAP; Logistics Reports; Assessment Team reports; ESF reports; SWEAT-M; Media/Social Media (VOST)	SitReps Status Briefing Incident Action Plan Time-Phased Force Deployment Lists Agency/ESF Reports SWEAT-M	

EEI #	EEIs	Specific Information Required	Proposed Methodology /Sources	Deliverables	Distribution*
2	<b>Response Related Information</b>				
2.6	<b>Status of key personnel</b>	Who and where are the following personnel?: Governor; Mayors; Regional Administrator; TAG; GAR; SCO; FCO; Incident Management Assistance Team (IMAT) Team Leader; RRCS Chief; UCS Section Chiefs; Key Support Staff	Initial Operating Reports; IAP; FCO; SCO	SitReps Status Briefing Incident Action Plan Initial Operating Report Disaster Fact Sheet	
2.7	<b>Status of reconnaissance operations</b>	What Remote Sensing Mission have ESFs undertaken under their own authority? What aerial reconnaissance missions are being performed at county and state direction? How is information being shared? What remote sensing missions have been already tasked by RRCS? What are the available assets to provide remote sensing data? What format and when will information be available? Who is providing interpretation of incoming data?	Counties; IAP; Operations Section and ESF Reports; SitReps; Civil Air Patrol (CAP) Reports; Hawaii National Guard (HING) Reports; Mission Assignment Logs	SitReps Status Briefing Incident Action Plan Remote Sensing imagery derived products Text interpretive reports	
2.8	<b>Safety Hazards</b>	Is there a need for personnel protection equipment? What are the safety hazards in conducting operations?	Counties; IAP; Assessment Team reports; Predictive Modeling	IAP Safety Briefings Safety Messages	
2.9	<b>Donations/Voluntary Agency Activities</b>	Has a Donations Hotline been established or is there a need for the Hotline? Which Voluntary Agencies are actively involved in operations?	Counties; Voluntary Organizations Active in Disasters (VOAD); Agency/ESF/Voluntary Agency Liaison (VAL) reports; Media/Social Media (VOST)	SitReps Status Briefing	
2.10	<b>Upcoming activities</b>	What is the schedule of daily meetings and briefings? What other significant events of activities are planned or scheduled?	Counties; FCO/SCO; IMAT Team Leader; RRCS Chief; Planning Section Chief	IAP Daily Meeting Schedule	

EEI #	EEIs	Specific Information Required	Proposed Methodology /Sources	Deliverables	Distribution*
3	<b>Population Impacts</b>				
3.1	<b>Socio-economic Impacts (People)</b>	Number of residences affected Potential/estimated population affected Number of shelters open/shelter population Potential shelter requirements Unmet sheltering needs Unmet community needs	Counties; Predictive modeling; GIS modeling; Remote Sensing/Aerial Reconnaissance; Assessment Teams; SCO/FCO Reports; Media/Social Media (VOST)	Situation Report Status Briefing GIS VOAD Reports	
3.2	<b>Demographics</b>	Population of impacted areas. Demographic breakdown of population including income levels. Number/type of housing units in impacted areas. Level of insurance coverage.	Counties; GIS; Predictive modeling; Federal Insurance Administration; Hazard Mitigation Plans	Jurisdiction Profiles GIS analysis	
3.3	<b>Socio-economic Impacts (Business)</b>	Number and type of businesses affected	Counties; Predictive modeling; GIS; Remote Sensing/Aerial Reconnaissance; Assessment Teams, Media/Social Media (VOST)	Situation Report GIS Small Business Association (SBA) Reports and Text Items	
4	<b>Infrastructure Impacts</b>				
4.1	<b><u>Security &amp; Safety</u> - Status of State and local operations</b>	What is the status of police, fire, and EMS? What are the state and local priorities for security and safety? What is the status of EMAC support?	IAP; SCO; FCO; RRCS; IAP	Situation Report Status Briefing GIS	
4.2	<b><u>Water and Wastewater</u></b>	Status of water supply systems Status of wastewater systems Status of Water Control Systems (Dams, Levee, Drainage Systems, Storm Water Systems)	ESF #8 Reports; ESF #3 Reports; Media/Social Media (VOST)	Situation Report Status Briefing GIS	
4.3	<b><u>Energy</u></b>	Status of electrical power generation and distribution facilities Status of petroleum refining and distribution facilities	DBDET; ESF# 3 Reports; ESF #12 Reports; Media/Social Media (VOST)	Situation Report Status Briefing GIS	
4.4	<b><u>Accessibility</u> - Status of Transportation</b>	Status of all modal systems Status of major/primary roads Status of critical and non-critical bridges Status of evacuation routes Status of public transit systems Debris issues	SCO; FCO; ESF #1 Reports; ESF# 3 Reports; Assessment team reports; Remote sensing/aerial reconnaissance; Predictive modeling; Media/Social Media (VOST)	Situation Report Status Briefing GIS	

EEI #	EElS	Specific Information Required	Proposed Methodology /Sources	Deliverables	Distribution*
4.5	<u>Accessibility - Status of critical infrastructure and facilities</u>	Status of local government facilities and systems Public Buildings; Government Services Schools Shelters	SitReps; PDA; Media/Social Media (VOST)	Situation Report Status Briefing GIS	
4	<b>Infrastructure Impacts</b>				
4.6	<u>Telecommunications</u>	Status of telecommunications service (including Internet) and infrastructure, including towers Reliability of cellular service in areas affected Potential requirement for radio/satellite communications capability Status of emergency broadcast (TV, radio, cable) system and ability to disseminate information	SCO; FCO; ESF #2; Private Sector reports; Radio Amateur Civil Emergency Service (RACES)/Amateur Radio Emergency Services (ARES); Media/Social Media (VOST)	Situation Report Status Briefing GIS	
4.7	<u>Medical</u>	Status of medical facilities Status of Home Health Agencies Status of EMS Systems Status of VA Facilities Unmet needs	ESF #8 Reports; Media/Social Media (VOST)	Situation Report Status Briefing GIS	
5	<b>Critical Services Impacts</b>				
5.1	<b>Political Impacts</b>	Status of state/local government political situation	Governor; Counties; Legislative branch	Situation Report Status Briefing	
5.2	<b>Status of Emergency Operations Centers</b>	Status of EOCs/Department Operating Centers (DOCs)	Counties; IAP; ESFs/Other Federal Agencies (OFA); Regional Offices	Situation Report Status Briefing GIS	

\*Distribution Code: 1 = Governor; 2 = Counties; 3 = State agencies; 4 = UCG; 5 = Ops; 6 = Planning; 7 = Logistics; 8 = Finance/Admin.; 9 = ESFs; 10 = JIC; 11 = RRCC; 12 = NRCC; 13 = Other

## Tab 2 to Appendix 2: Information Collection Plan: Pre- and Post-Impact Assignments/Collection Suspense

**Table 2-10: Pre-Impact Assignments/Collection Suspense**

EEI #	Description	Responsible Elements				Collection Suspense				
	Pre-Impact (Phases 1b – 1c)	Primary	Support	Support	Support	Within 3 hours of activation	Every O-Period	Within 1 hour following disaster declaration	12 hours prior to impact	24 hours prior to impact
1	Hazard Related Information									
1.3	Hazard-specific information	ESF #3	ESF #9	ESF #10	ESF #5		✓			
1.5	Hurricane Forecasts and Related Information	NWS	ESF #5				✓			
1.8	Predictive Modeling Impact Projections	Counties	ESF #5	NOAA	MAC		✓			
1.9	Pre-Impact Information	Counties	ESF #5				✓		✓	✓
1.10	River Forecast & Flooding Information	NWS	ESF #5				✓			
1.11	Weather	NWS	ESF #5				✓			
2	Response Related Information									
2.1	Status of declarations	Counties	HI-EMA	RRCS			✓	✓		
2.2	Status of ESF Activations	ESF #5	RRCS			✓	✓			
2.3	Priorities for Response	Counties	UCG	RRCS			✓			
2.4	Major issues/activities/MAs of ESFs/OFAs	ESF #5	RRCS	NRCC			✓			
2.5	Resource shortfalls	Counties	UCG	ESF #5			✓			
2.6	Status of key personnel	ESF #5	RRCS	Counties		✓	✓	✓		
2.7	Status of reconnaissance operations	ESF #5	RRCS	MAC			✓			
2.8	Safety Hazards	Counties	ESF #5				✓			
2.9	Donations/Voluntary agency activities	Counties	ESF #5	VOAD			✓			
2.10	Upcoming activities	Counties	ESF #5				✓			
3	Population Impacts									
3.1	Socio-economic impacts (People)	Counties	ESF #5	ESF #15			✓			
3.2	Demographics	Counties	ESF #5				✓			
3.3	Socio-economic impacts (Business)	Counties	DBEDT	SBA			✓			
4	Infrastructure Impacts									
4.1	<u>Security &amp; Safety</u> - Status of State and local operations	Counties	ESF #5	ESF #13			✓			
4.2	<u>Water and Wastewater</u>	Counties	ESF #3	ESF #5	ESF #12		✓			
4.3	<u>Energy</u>	Counties	ESF #3	ESF #5	ESF #12		✓			
4.4	<u>Accessibility</u> - Status of Transportation	Counties	ESF #1				✓			
4.5	<u>Accessibility</u> - Status of facilities (Schools, Shelters, etc.)	Counties	ESF #5	ESF #6	ESF #8		✓			
4.6	<u>Telecommunications</u>	Counties	ESF #2	ESF #7	ESF #9		✓			
4.7	<u>Medical</u>	Counties	ESF #8				✓			
✓ = Need to collect data for information collection plan (ICP)										



**Table 2-11: Post-Impact Assignments/Collection Suspense**

EEI #	Description	Responsible Elements				Collection Suspense
	Post-Impact (Phases 2a – 2c)	Primary	Support	Support	Support	Every O-Period
<b>1</b>	<b>Hazard Related Information</b>					
1.1	Boundaries of Primary and Secondary disaster areas	ESF #5	ESF #3	NWS	USGS	✓
1.2	Hazardous, toxic and radiological issues	ESF #10	ESF #8	ESF #5		✓
1.3	Hazard-specific information	ESF #3	ESF #9	ESF #10	ESF #5	✓
1.4	Historical information	Counties	ESF #5	NWS	RRCC	✓
1.6	Jurisdictional boundaries	Counties	ESF #5			✓
1.7	National Flood Insurance Program (NFIP) Impacts	ESF #5	Counties	ESF #3	NWS	✓
1.10	River Forecast & Flooding Information	Counties	NWS	ESF #5		✓
1.11	Weather	NWS	ESF #5			✓
<b>2</b>	<b>Response Related Information</b>					
2.2	Status of ESF Activations	ESF #5	RRCS			✓
2.3	Priorities for Response	Counties	UCG	RRCS		✓
2.4	Major issues/activities/Mission Assignments of ESFs/Other Federal Agencies (OFAs)	ESF #5	RRCS	NRCC		✓
2.5	Resource shortfalls	Counties	UCG	ESF #5		✓
2.6	Status of key personnel	ESF #5	RRCS	Counties		✓
2.7	Status of reconnaissance operations	ESF #5	RRCS	MAC		✓
2.8	Safety hazards	Counties	ESF #5			✓
2.9	Donations/Voluntary agency activities	Counties	ESF #5	VOAD		✓
2.10	Upcoming activities	Counties	ESF #5			✓
<b>3</b>	<b>Population Impacts</b>					
3.1	Socio-economic impacts (People)	Counties	ESF #5	ESF #15		✓
3.2	Demographics	Counties	ESF #5			✓
3.3	Socio-economic impacts (Business)	Counties	DBEDT	SBA		✓
<b>4</b>	<b>Infrastructure Impacts</b>					
4.1	<u>Security &amp; Safety</u> - Status of State and local operations	Counties	ESF #5	ESF #13		✓
4.2	<u>Water and Wastewater</u>	Counties	ESF #3	ESF #5	ESF #12	✓
4.3	<u>Energy</u>	Counties	ESF #3	ESF #5	ESF #12	✓
4.4	<u>Accessibility</u> - Status of Transportation	Counties	ESF #1			✓
4.5	<u>Accessibility</u> - Status of critical infrastructure and facilities	Counties	ESF #5	ESF #6	ESF #8	✓
4.6	<u>Telecommunications</u>	Counties	ESF #2	ESF #7	ESF #9	✓
4.7	<u>Medical</u>	Counties	ESF #8			✓
<b>5</b>	<b>Critical Services Impacts</b>					
5.1	Political impacts - status of local/state legislative branch	Counties	ESF #5			✓
5.2	Status of Emergency Operations Centers (EOCs)	Counties	ESF #5	State Agencies	Federal Agencies	✓
✓ = Need to collect data for information collection plan (ICP); NOTE: Initial report/estimates are due within 1 to 6 hours following announcement of "All Clear"						

## Tab 3 to Appendix 2: Planning Assumptions

### Assumptions

The following assumptions were used to develop this Plan/Annex. The scenario is based on a Category 4 hurricane that impacts the entire State of Hawaii over a period of 36 to 48 hours. Catastrophic damage occurs with homes losing most of their roof structure and/or some exterior walls. Fallen trees, power poles, and debris isolate residential areas. Power, water, and wastewater outages are anticipated throughout the state as described below.

### General Planning Assumptions

- A Category 4 hurricane making impact in Hawaii overwhelms county and state resources used in hurricane response operations and requires support through the Emergency Management Assistance Compact (EMAC), supplemental federal resources and capabilities under the National Response Framework (NRF), and delivery of Stafford Act program services.
- The impending hurricane requires positioning of resources or capabilities as early as 5 days prior to impact with the objective of having the incident “stabilized” within 72 hours (3 days) after the onset of Phase 2a.
- Hawaii response personnel will be personally affected by the disaster and may be unable to perform emergency duties.
- The most vulnerable populations may have difficulty accessing needed services (e.g., communication, transportation, supervision, and medical care) and may need assistance before and after impact.
- Whole community organizations, including private sector, NGOs, as well as disaster survivors, will be involved in response efforts.
- County mayors activate their EOCs, declare local states of emergency, and mobilize and position their resources prior to the onset of tropical storm force winds.
- Prior to the onset of tropical storm force winds, the Governor activates the SEOC, declares a state of emergency, executes the state’s emergency plan and submits a request for a pre-impact emergency declaration.
- The State of Hawaii activates EMAC and related emergency assistance agreements.
- The Governor requests a Presidential Emergency or Major Disaster Declaration upon determining the severity of the hurricane’s impact and initial damage assessments.
- Incidents that occur outside of CONUS may require additional time to “stabilize”. Therefore, three days from the incident should be considered a target to stabilize the situation, and not a requirement.

### Task Organization Assumptions

- The principles, tasks, and objectives outlined in this Plan/Annex will be used when a catastrophic hurricane is predicted or the Governor is anticipated to request and receive a disaster declaration.
- The State of Hawaii and the Federal Government will pre-posture a UCS during Phase 1b to support incident management activities.

### Operations Assumptions

- Departments and agencies coordinate and take action under their own statutory authorities and under the Stafford Act as appropriate.

- FEMA Region IX Incident Management Assistance Team (IMAT) deploys to the SEOC and participates in planning and operations with the State of Hawaii.
- The IMAT include representatives from appropriate federal agencies.
- State agencies that typically contract for engineering and other critical services maintain a listing of on-island vendors and have included these organizations in their ESF planning efforts.
- County and state emergency management agencies receive requests for assistance from the private industry for suitable sites to stage and shelter critical resources and commodities.

### Population Assumptions

- Approximately 30 percent of the resident population will seek shelter pre-impact in hurricane evacuation shelters.
- Visitors will shelter in place or where possible. Messaging will encourage visitors to evacuate to emergency hurricane shelters as appropriate.
- Residents will be provided with “boil water” orders and other relevant medical and health advisories.
- Up to 52 percent of the statewide population may be displaced post-impact.
- Approximately 10 percent of the resident population will need shelter post-hurricane.
- There will be a six-fold increase in the incidence of injury over normal daily rates.

### Medical Capacity Assumptions

- Hawaii has a 7-day supply of prescription drugs and medical supplies within the islands to support the population.
- Deployment of search and rescue and Public Health and Medical Service capabilities will not be impacted by a transportation delay during pre-deployment.
- Up to 40 percent of the inpatient capacity will be out of service; 80 to 90 percent of outpatient capacity will be out of service for several days or weeks.
- Special medical needs, acute care, and other medical needs may require federal support in excess of three months.
- Aeromedical movement of patients from the neighbor islands to Oahu may be impaired due to airport and aircraft non-availability for up to 72 hours after impact. As a result, neighbor island hospitals and other facilities may need to hold patients typically requiring referral to Oahu facilities for long periods of time.
- First responders and healthcare workers may encounter significant transportation difficulties ranging from debris-blocked transportation routes to inadequate fuel supplies for vehicles. Emergency Medical Services transportation and emergency departments may be impaired due to heavy debris on major transportation routes for at least 48 hours.
  - Roads, highways, and bridges may be impassable in the first few days after the hurricane due to damage and debris on these transportation routes. This could delay the emergency response and patient ground transport.
- The American Red Cross will provide mental health and nursing service for screening and minor first aid at general population shelters in coordination with Hawaii Department of Health (HDOH).

### Limited Resource Assumptions

#### Food

- There will be approximately a 4 to 7 day supply of food in state at the pre-impact.

### *Fuel to Support Essential Services*

- Fuel supply will be constrained for at least 30 days.
- Hawaii fuel distribution capabilities may be unable to meet the demand for transportation and for numerous emergency backup generators at critical facilities.
- Oahu refineries and other distributors generally have a 15 to 30 day supply of finished fuel products on hand. This varies by product and over time.

### **Loss of Utilities Systems Assumptions**

#### *Power*

- There are insufficient power repair parts on hand to complete full system repair. Parts are available approximately 1 to 5 days if spare parts are in state, 7 to 9 weeks if acquired from out of state.
- Power generation facilities typically have 15 to 45 days of fuel on hand.
- Post-hurricane power load will be significantly reduced.
- Power plants will be taken off-line just prior to impact.
- Fifty percent of power generation will be lost for up to 30 days.

#### *Wastewater Systems*

- Select water and wastewater systems will be shut down prior to impact to protect critical systems from damage.
- There will be at least 7 days without full water/sewer service post-impact.
- Primary interdependencies for the water/wastewater systems are power, fuel for generators, and access to facilities and pumps for operation/assessment/repair.
- Utility and public service organizations will require at least 3 days for a complete assessment of damage incurred.
- Assessment strategies begin at treatment plants and work outward from nearest to farthest pumping stations. System operators will place priority on the segments of the system that will restore capability to the largest number of customers, taking into account the requirements of critical facilities and essential services.
- Significant debris will limit the access to remote well/pump locations.
- The potable water distribution system should not suffer significant damage but will require power or fuel for backup generators to ensure continued delivery.
- Loss of power to wastewater facilities will result in significant amounts of “bypass” or “spillage” of raw sewage.
- Damage assessments post-impact assume road clearance either will occur concurrently or have already been completed.
- Assessment of physical systems will take up to 10 days.

### **On-Island Critical Infrastructure Assumptions**

#### *Hotels*

- Visitors in larger resorts will shelter in place.
- Guests at bed & breakfasts, hostels, smaller hotels, vacation rentals, and larger hotels not capable of weathering the hurricane will evacuate to emergency hurricane shelters.

#### *Airport and Seaport Operations*

- Inbound and outbound flights will be restricted or cancelled at the discretion of the airlines.
- Federal Aviation Administration (FAA) will close airspace pre-impact.
- Additional FAA inspectors will be required from the mainland if all four counties are impacted.

- Perimeter security will be necessary to resume commercial air operations.
- The majority of the airport infrastructure and equipment lies in or near the inundation zone.
  - The State of Hawaii Department of Transportation Airports Division (HDOT-Airport) DOC is located on the 7th Floor at Honolulu International Airport within the inundation zone.
- Routine commercial airline operations cease during post-impact response operations.
- There will be a minimum 3 to 5 days with no airport availability. Initially, only emergency operations via military transport traffic will resume.
- Restoration of commercial airport traffic is unknown.
- The USCG Captain of the Port (COTP) will restrict incoming/outbound traffic within ports pre-impact.
- Port closures will impact the delivery of commodities from CONUS and to neighbor islands from the Port of Honolulu.
- Port clearance will occur concurrently with debris clearance for roads and other transportation routes.
- Ports will have an adequate supply of fuel for vessels to conduct initial operations.
- The Port of Honolulu is the only port on Oahu with organic container handling capability.
- The majority of port infrastructure and equipment lies in or near the inundation zone and is privately owned.
- Disruption to the fuel and cargo distribution system on Oahu will negatively affect all islands.
- Commodity and fuel storage on neighboring islands is limited and requires frequent resupply.
- The USCG COTP will coordinate restoration priorities with the Marine Transportation System Recovery Unit (MTSRU).
- UCS will establish priorities, but technical requirements may result in restoration priorities that differ from that of the counties and HI-EMA.
- At least 7 days without seaport service post-hurricane.
- Off-load time is approximately 96 hours per deep draft vessel if located at an alternate port.

### *Base Yards*

- State agencies will maximize their respective base yards leaving no room for the accommodation of non-state-owned equipment.
- State agencies and other government organizations will relocate their critical resources from base yards situated in coastal areas to more inland, protected sites.
- County government agencies will maximize the use of their base yards and accommodate the storage and relocation of critical resources in the pre-land fall phase of operations.
- HI-EMA and FEMA can expect requests for assistance from state departments and federal agencies to relocate critical resources to areas under state or federal control.
- Relocation of Department of Defense (DOD) air and naval assets by Pacific Command (PACOM) will be accomplished during Phase 1b and Phase 1c. DOD assets may be postured to provide rapid response to support the state's post-impact priorities.
- Relocation of industrial maritime assets will be coordinated through HDOT and USCG to the extent possible during the pre-impact phase.

### *Transportation*

- The combined effects of debris, flooding, and debris removal operations will compromise transportation routes.



- Statewide disruption to the fuel and cargo distribution system and access to critical facilities will negatively impact the state.
- Road clearing operations on a four-lane road are estimated to progress at a rate of two to three miles per day. The rate at which roads can be cleared increases to four to six miles a day for two lane roads.
- The removal of debris (curbside and road) will be affected by the number of dump trucks available, haul distances to temporary debris storage and reduction sites (TDSR), and landfill or recycling facility access.
- Road and/or bridge clearance in rural parts of the islands are vulnerable to geographic isolation with no alternate routes available.
- Numerous bridges throughout Hawaii requiring structural inspections may overwhelm engineering capacity.
- Low-lying bridges are at significant risk of water and/or debris damage.
- Neighboring islands will require engineers from the Oahu HDOT office to support assessments.
- County and state HDOT road clearance assets will be pre-positioned in base yards or close to potential debris-constricted areas for immediate road clearance operations.
- HDOT will hire contractors through emergency procurement processes to assist with debris clearance.
- Debris may be contaminated with toxic substances, creating a hazard that limits responder access to affected areas, and requiring segregated areas to store hazardous waste/debris.

### Communications

- Landline and cellular telephone systems will not work for at least the first day post-impact, probably longer, due to system overload and damage to cell phone towers.
- Landline-based systems (copper/fiber) may remain functional post event, but functionality may be limited due to physical damage to connections.
- Cellular phone system coverage will be available in certain undetermined geographic areas.
- HI-EMA and FEMA will be prepared to provide satellite voice and data capabilities for connectivity between islands and with CONUS when requested by the state.
- Cellular towers and support buildings will require structural damage assessment/repair.
- Satellite-based communications systems, for the most part, will be operational although system equipment and capacity may be limited.
- Diversity and redundancy of public/private communications systems will enable some form of limited emergency communications.
- ARES/RACES systems will be operational but activation may be delayed due to hazards, roadway/bridge damage, and/or shortage of operators.
- HAM radio operators may be able to fix their own systems, if provided access to antennas, etc.
- Wireless Priority Service may not be a useful tool if cell systems are down.
- Federal resources will be required, such as Mobile Emergency Response System (MERS), satellite phones, and radios. Availability of resources will be determined based on current disaster declarations within FEMA Region IX or nationally.
- There will be high demand/low availability for qualified radio technicians and mechanics to work on backup generators.

- Additional communications equipment may be required to temporarily restore land mobile radio networks for state and local responders in remote areas and where commercial and public safety infrastructure is damaged.
- The temporary restoration of damaged communications infrastructure and fuel delivery will be inhibited by the inability to promptly clear roads.
- Text messages are more effective in communicating directly after an event, in part because messages that cannot be delivered are saved in a queue for resending later, provided servers survive the disaster.

### Public Messaging

- Journalists and media personnel in the state will be personally affected by the disaster and may not be able to perform emergency communications functions.
- Pre-deployment of trained Disaster Survivor Assistance Teams and state Joint Information Center (JIC) field officers will be critical in ensuring that accurate and timely information is distributed to the public and media throughout the event, to minimize the amount of misinformation that reaches the general population.
- Island residents and visitors will be provided with clear, accessible, and concise information that is continual, coordinated, and consistent across all levels of government.
- Public announcements will include information regarding shelters, medical facilities, hazardous materials areas, reunification programs (i.e., the National Emergency Child Locator Center, the National Center for Missing and Exploited Children, and American Red Cross Safe and Well), and the status of response/recovery operations.
- Disseminating compliant information to persons with functional or access needs or medical dependencies will require additional services (e.g., translation services, sign language interpreters and closed-captioned message broadcasting).
- The UCS through ESF #15 will brief Members of Congress (including those affected by the disaster) as soon as possible.
- The FEMA Congressional Affairs Division will be overwhelmed by requests for information from congressional offices in Washington.
- Updates to Congress will be conducted through consistent communication with the field.
- The incident will generate extensive, sustained national media attention that overwhelms state public messaging and communications efforts. National media will request a press conference as soon as possible with available state and federal officials, which may also serve to fill information needs for the White House, Department of Homeland Security, and FEMA Headquarters.
- Power outages and the widespread destruction of homes will severely inhibit reception of emergency transmissions.
- A Category 4 hurricane impacting the state will render most conventional public messaging methods ineffective or significantly degraded.
- The Emergency Alert System (EAS), which is designed to deliver emergency messages via broadcast stations direct from local, state, or federal authorities, may only be partially operable due to damaged towers and facilities.
- Both inter- and intra-island broadcasting capabilities will be significantly damaged.
- Broadcasting to Oahu from neighbor islands may be possible with support from ARES/RACES providing communication links from the SEOC to/from county EOCs.

## Tab 4 to Appendix 2: Topography and Inundation

### Oblique Views Graphics

Figure 2-5: Oblique view of the Island of Hawaii from Hilo looking Southwest

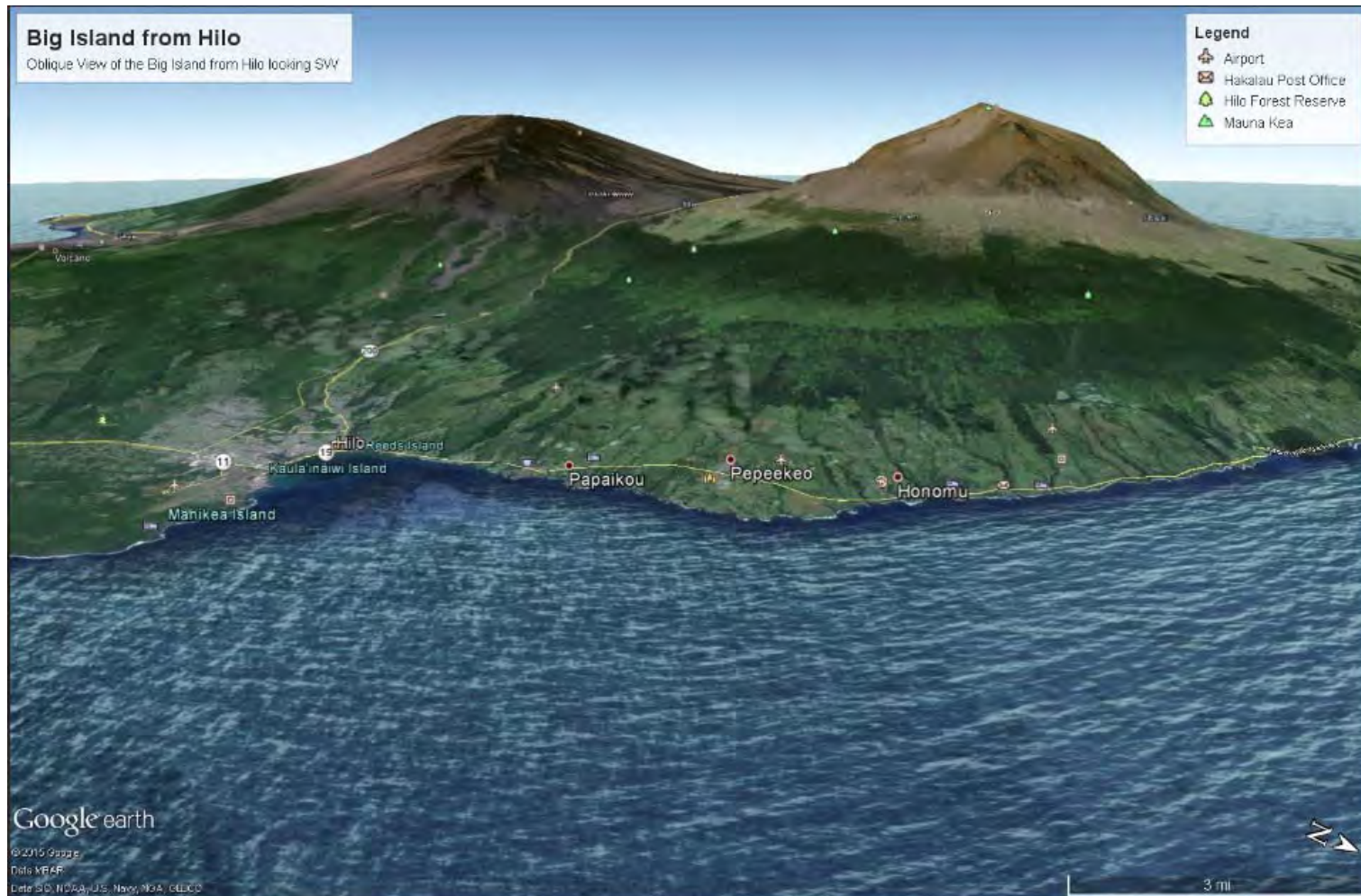




Figure 2-6: Oblique view of the Island of Hawaii from Kailua-Kona looking East



Figure 2-7: Oblique view of the Kauai from Lihue looking Northwest





Figure 2-8: Oblique view of the Maui looking South



Figure 2-9: Oblique view of Lanai, Maui looking Northeast

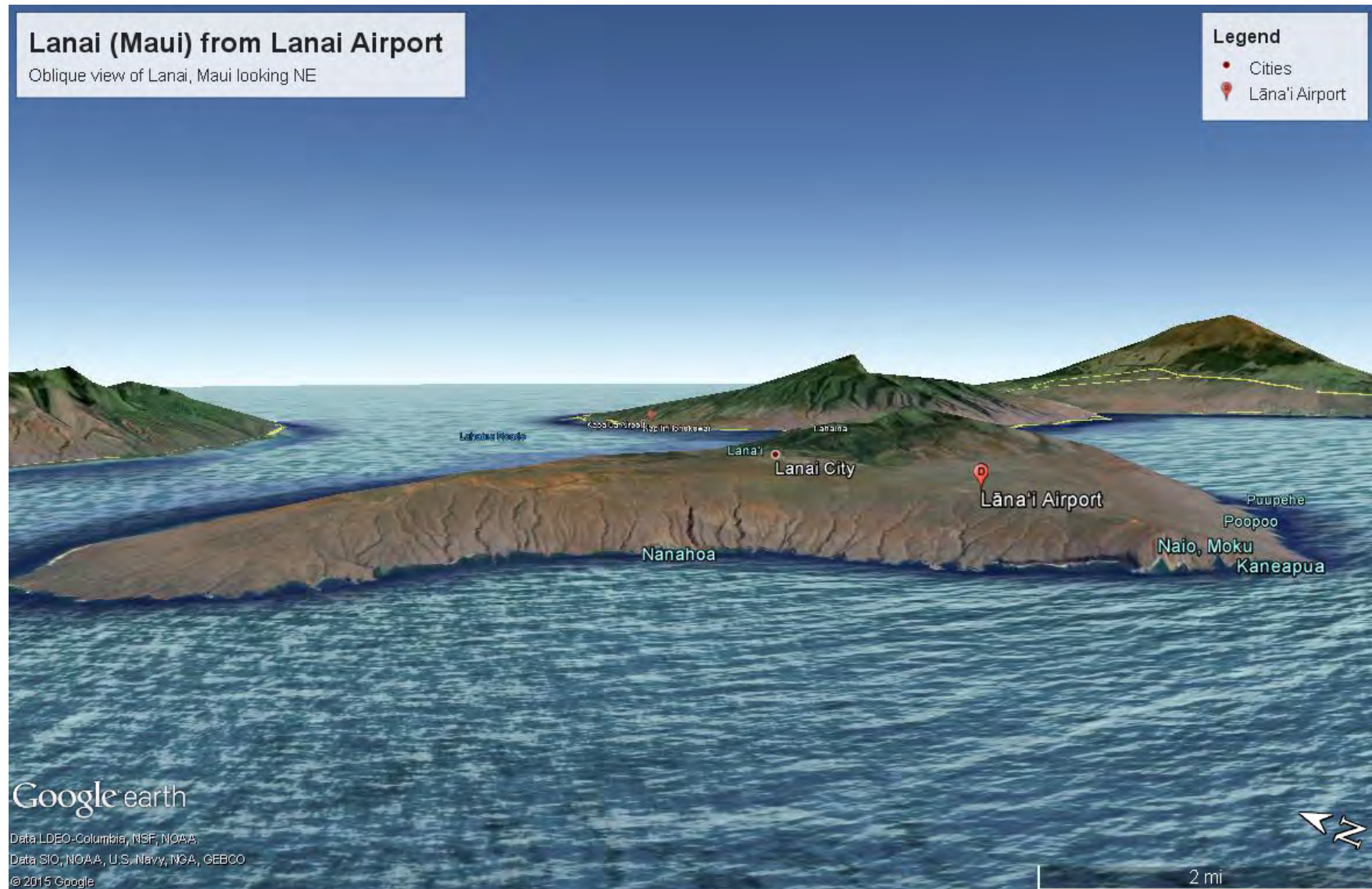




Figure 2-10: Oblique view of Molokai, Maui looking East



Figure 2-11: Oblique view of Kihei from Maui looking Northeast

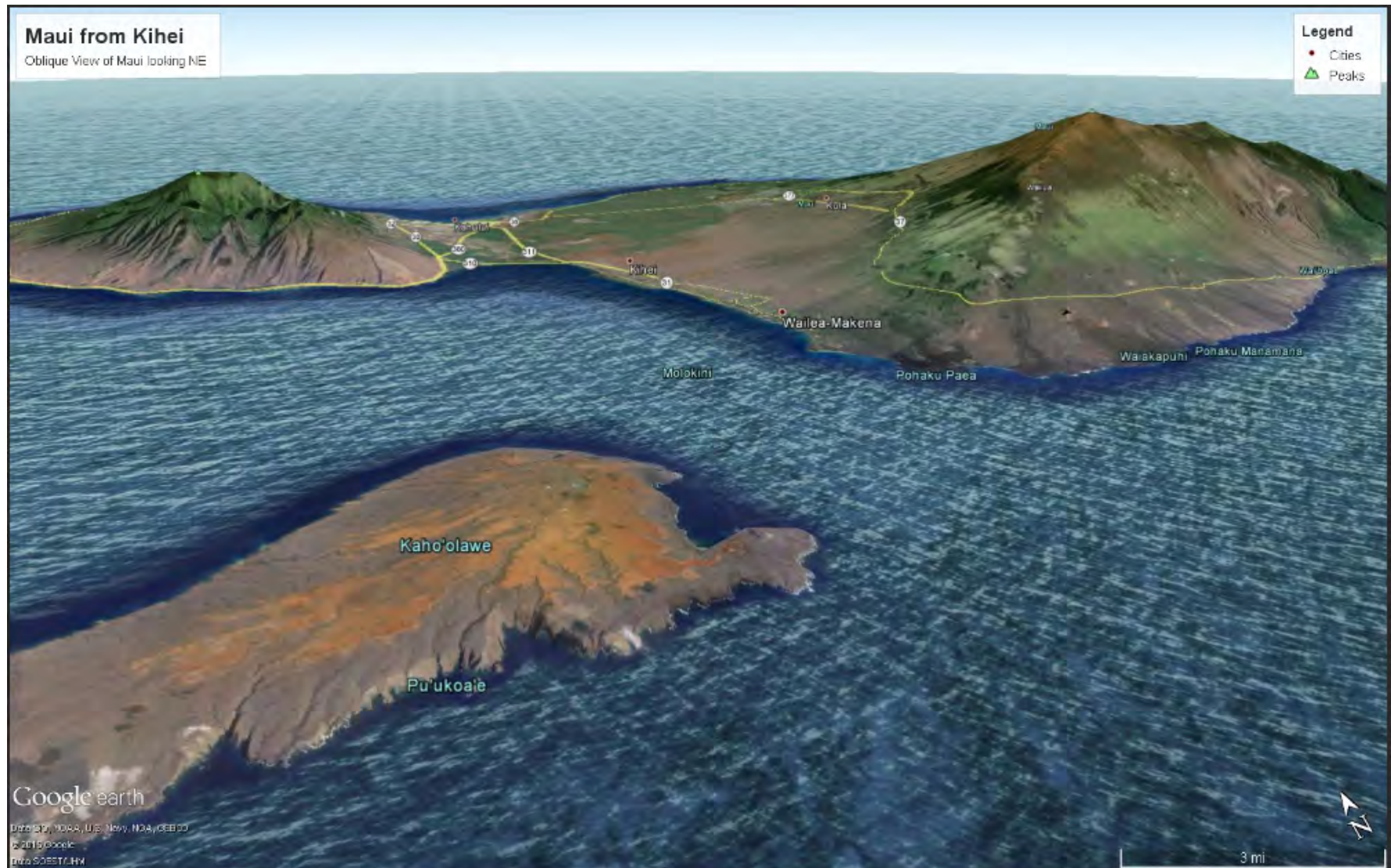
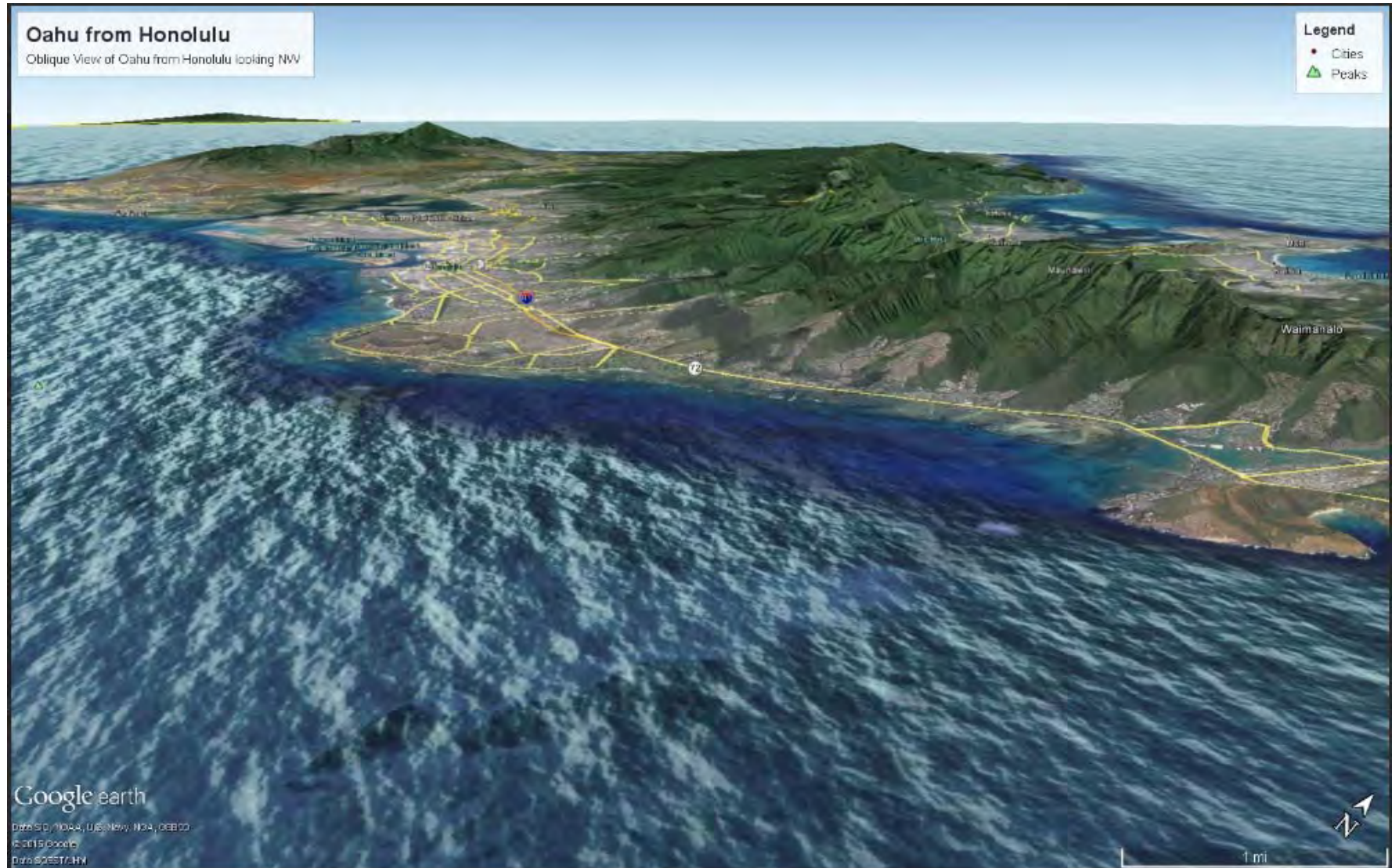




Figure 2-12: Oblique view of Oahu from Honolulu looking Northwest





**Figure 2-13: Oblique view of Oahu from Waimanalo looking West-Northwest**



## Infrastructure Graphics

Figure 2-14: Hilo – Infrastructure in Inundated Areas (Statewide Track)

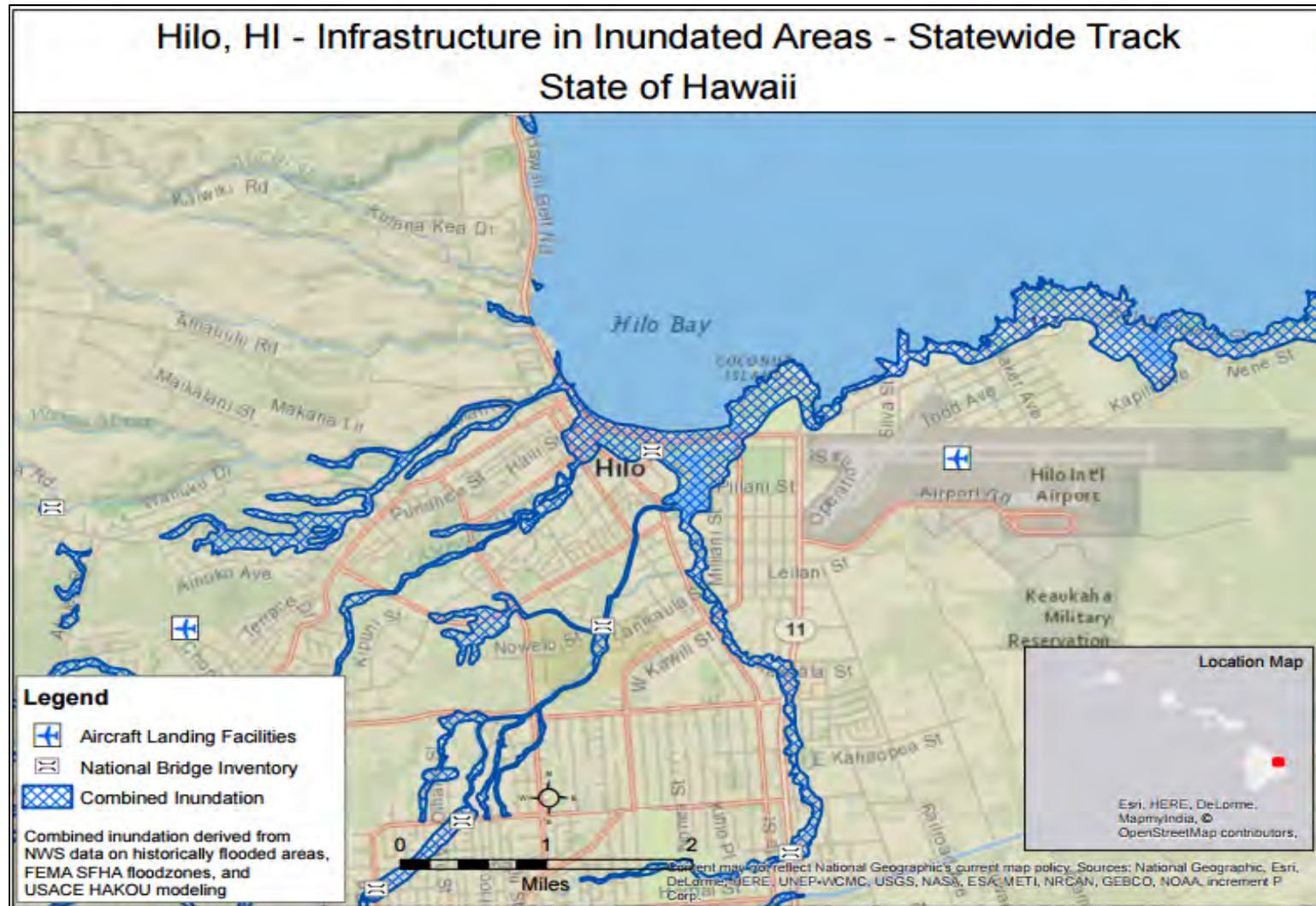




Figure 2-15: Kona – Infrastructure in Inundated Areas (Statewide Track)

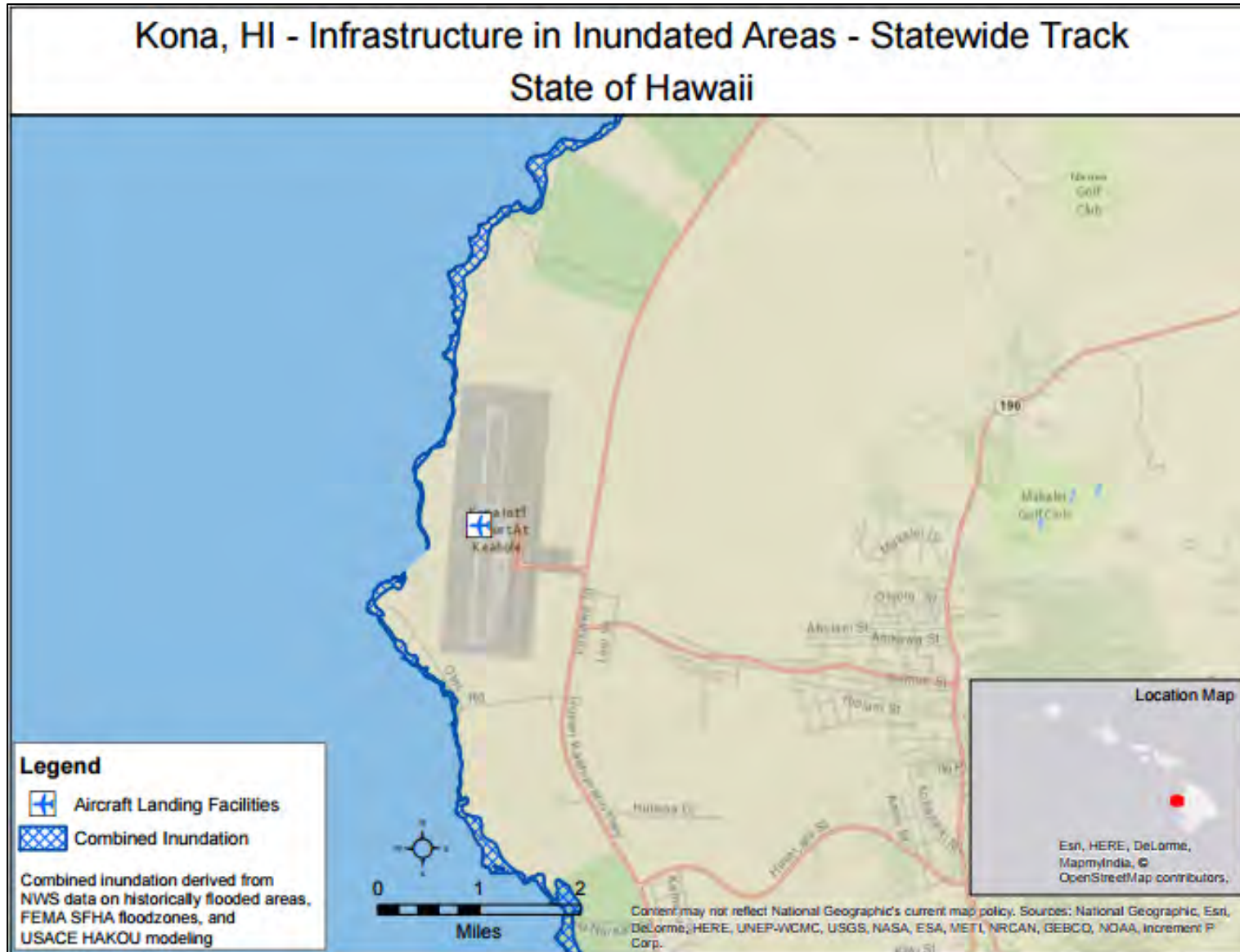


Figure 2-16: Kahului, HI – Infrastructure in Inundated Areas (Statewide Track)

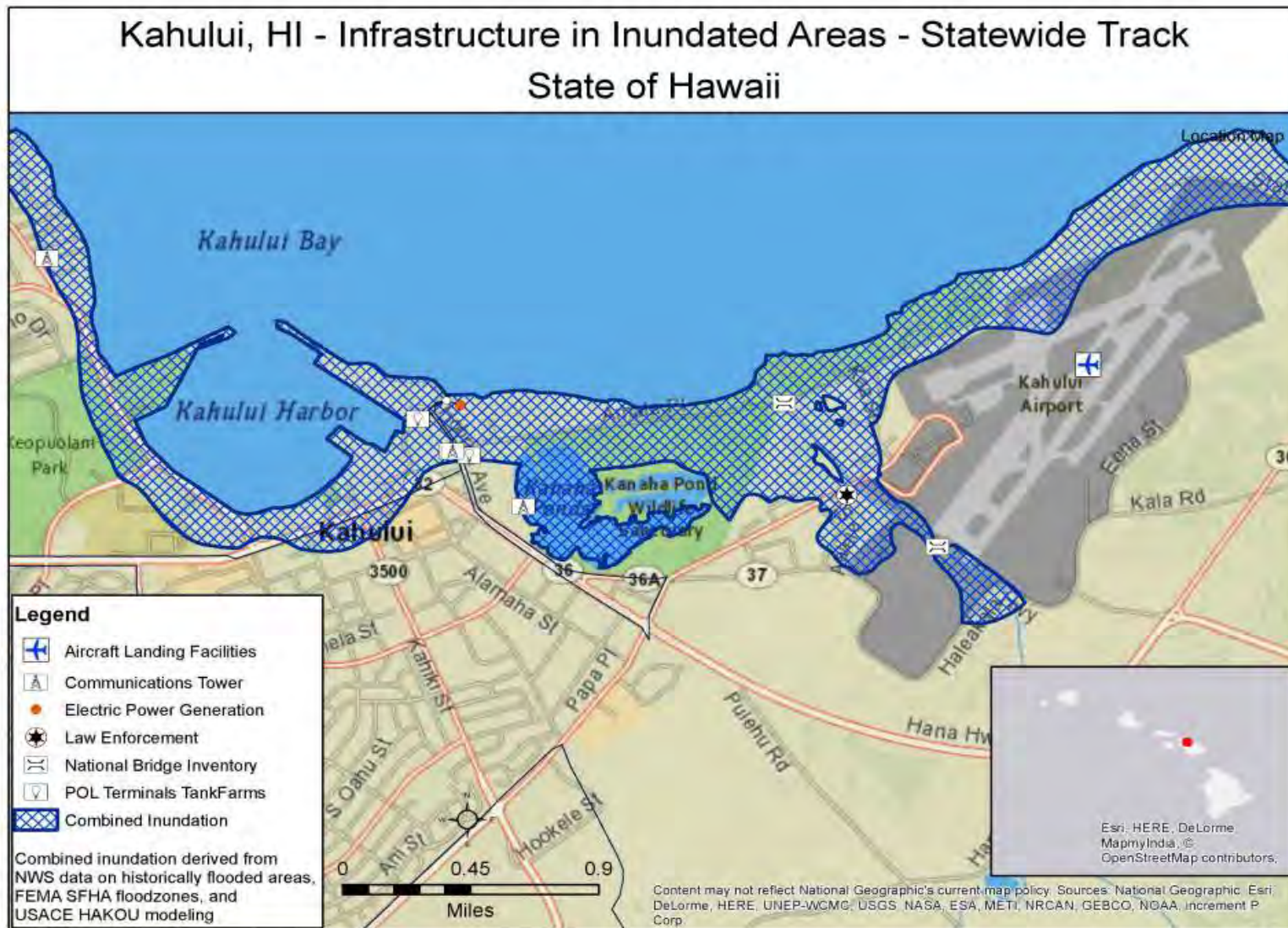




Figure 2-17: Honolulu – Infrastructure in Inundated Areas (Statewide Track)

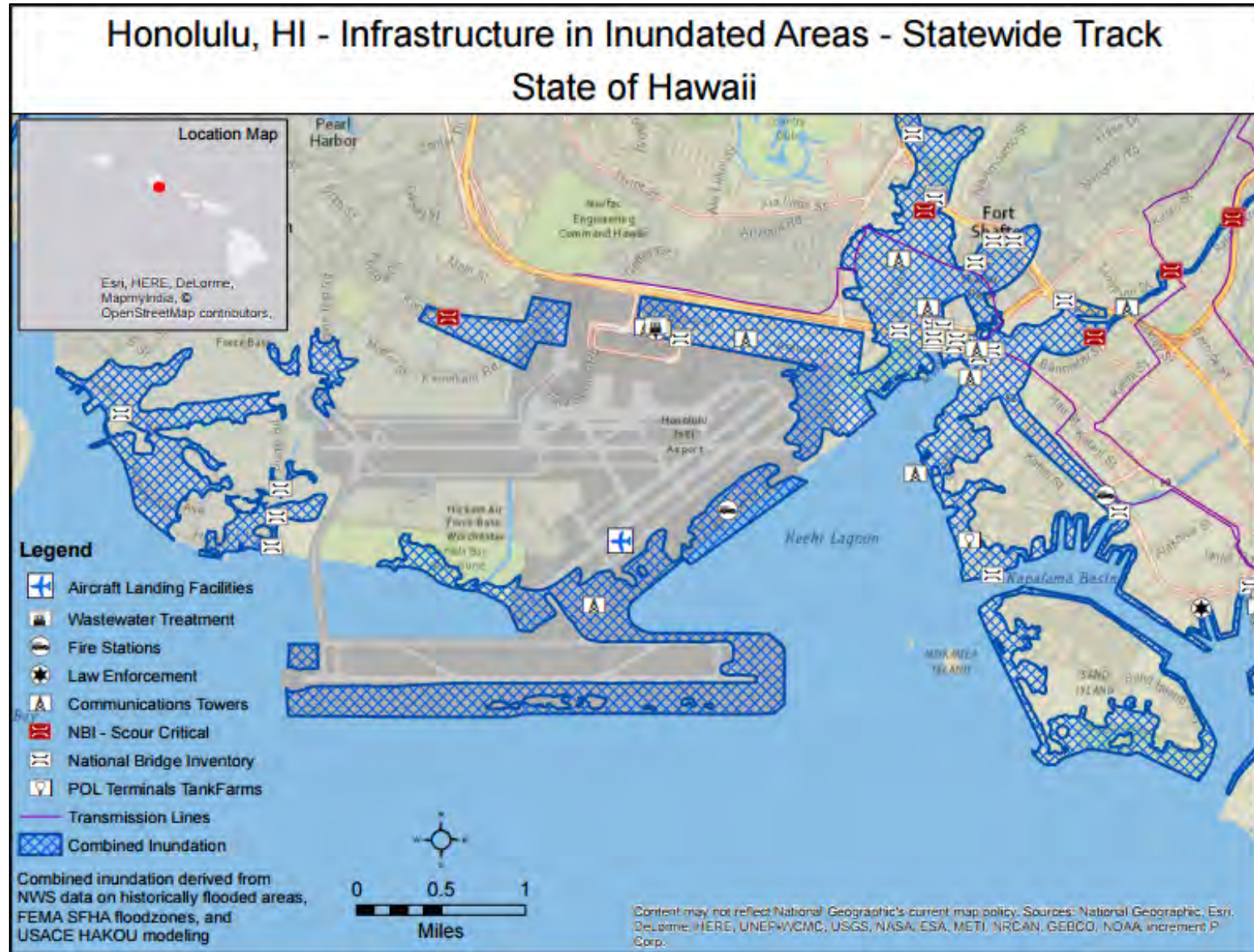
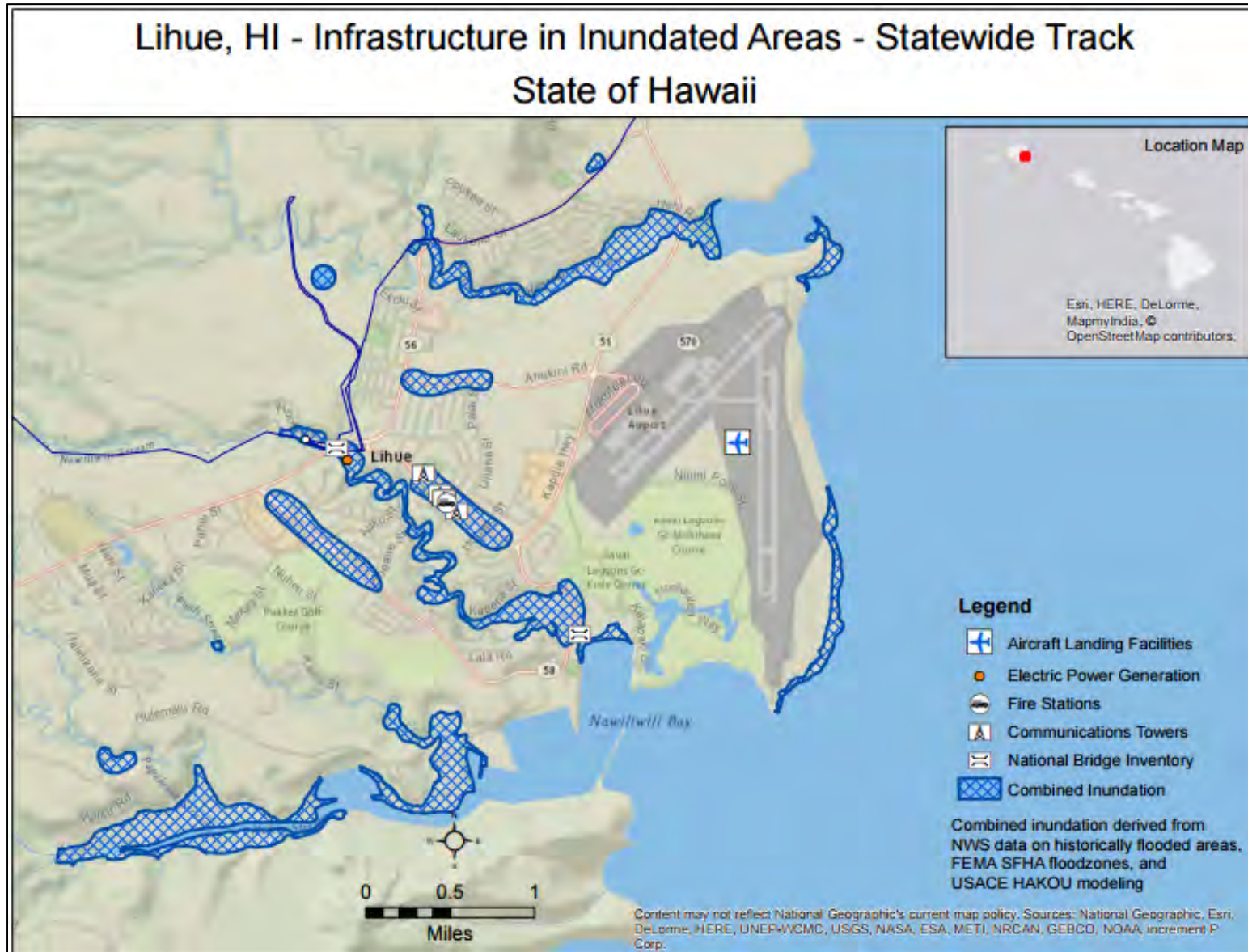




Figure 2-18: Lihue – Infrastructure in Inundated Areas (Statewide Track)



## APPENDIX 3: OPERATIONS

### Situation

#### Purpose

Appendix 3: Operations provides an operational framework for planning, mitigation, response to and recovery from the effects of a catastrophic hurricane in Hawaii. The National Incident Management System (NIMS) and National Response Framework (NRF) provide the underlying principles and framework, based on the Incident Command System (ICS), for operational support to all incidents requiring a coordinated response. These principles are applicable to all departments and agencies that participate in a coordinated response.

The concepts and response requirements described within this appendix are scalable to address hurricanes of lesser severity, impacting any or all counties, and outline the tasks and activities required in support of county, state, and federal partners to enable a coordinated response.

#### Mission

See the Base Plan of this Plan/Annex.

### Execution

#### Concept of Operations

Hawaii Emergency Management Agency (HI-EMA) and Federal Emergency Management Agency (FEMA) Region IX provide operational support to affected counties within the state by deploying resources and capabilities in a timely manner to support a successful response and save and sustain lives and prevent human suffering.

County emergency management agencies request resources by submitting a Request for Assistance (RFA) to HI-EMA who will either fulfill the requirement from state capabilities, including Emergency Management Assistance Compacts (EMAC), or request FEMA capabilities or resources by submitting a Resource Request Form to FEMA. Once approved, FEMA either uses agency inventory, processes procurement actions, or issues a Mission Assignment (MA) to another federal agency with the required capability.

As outlined in the Base Plan of this Plan/Annex, eight Operational Objectives guide the actions of the Unified Coordination Staff (UCS). See the Operational Objectives and the strategies to accomplish these objectives below.

#### Operational Objectives

The Operational Objectives consist of:

- 1) Perform Life Saving Measures
- 2) Conduct Mass Care Services
- 3) Stabilize Potable Water and Wastewater Systems
- 4) Deliver Fuel to Support Essential Services
- 5) Protect On-Island Critical Resources
- 6) Restore Power to Essential Services
- 7) Re-establish Transportation Routes for Essential Services
- 8) Restore Port Operations

The following sections provide an objective statement and brief overview of high level tasks. See tabs 1- 8 for additional details concerning the concept of operations for each objective, and Appendix X: Execution Checklist for a comprehensive list of tasks organized by phase and by

organization. Tab 9 to Appendix 3: Military Support provides an overview of the critical role that military support plays in supporting local, state and federal disaster response efforts.

### ***Objective 1: Perform Life Saving Measures***

See Tab 1 to Appendix 3: Perform Life Saving Measures of this Plan/Annex.

#### ***Objective Statement 1: Provide life saving and sustaining health and medical services and conduct search and rescue operations.***

Search and Rescue (SAR) and medical assets deploy to Hawaii to support Objective 1 by augmenting in-state resources prior to hurricane impact (Phase 1b) in order to provide an immediate post-impact response (Phase 2a). These resources and additional teams will be available pre-impact to augment and decompress the healthcare system. Following hurricane impact, and as the situation becomes clear and required resources are identified, additional SAR, Public Health and Medical Services (PHMS), and Hazardous Materials (HAZMAT) resources deploy to Hawaii to provide assistance as needed.

- Emergency Support Function (ESF) #8 coordinates PHMS.
- ESF #9 coordinates SAR efforts.
- ESF #10 coordinates HAZMAT activities.

### ***Objective 2: Conduct Mass Care Services***

See Tab 2 to Appendix 3: Conduct Mass Care Services of this Plan/Annex.

#### ***Objective Statement 2: Provide hydration, feeding, sheltering, and emergency assistance as well as support reunification.***

- **Evacuation:** Planners assumed that no additional flights would be available to evacuate visitors prior to the onset of tropical storm force winds; therefore the planning assumption used was that nearly 100 percent of the daily visitor population of approximately 206,000 will remain in the state. However, planners noted that some consulates will work with the Department of State (DOS), Federal Aviation Administration (FAA), Hawaii Department of Transportation-Airports Division (HDOT-Airports), and airline industry to coordinate the early return of visitors through their respective tour or airline groups.
  - The Hawaii Tourism Authority (HTA) coordinates with ESF #15 to release timely public messaging on the availability of flights.
  - Airports may remain closed to commercial flight operations for a minimum of 3 to 5 days post-impact, at which time only emergency operations might resume. The timeframe for restoration of commercial flights is unknown.
- **Sheltering:** Sheltering strategies focus on expanding sheltering capacity statewide and improving the capability of existing shelters.
  - The state continues to improve its shelter capacity through retrofits and through more stringent building code requirements. County and state ESF #6 will work together to identify supplemental sheltering locations, especially for congregate care/long-term sheltering.
- **Feeding:** Counties pre-identify and survey potential mass feeding operations and Points of Distribution (POD) locations, considering the use of state-owned facilities/assets to supplement as required. The UCS uses a multiagency mass feeding task force for implementation, resource assessment, and prioritization during response operations. The multiagency mass feed task force will support county mass feeding efforts. Additionally,

the task force will identify specific populations requiring “push” strategies (e.g. mobile feeding).

- **Bulk distribution:** The UCS facilitates the movement of individuals out of shelters by providing resources in the community, thereby decreasing the sheltering population. Each county determines the locations of PODs for commodities, such as tarps, tents, and other items to facilitate the transition to recovery.
  - Additionally, the UCS establishes a shelter-in-place task force to support the affected community post-impact. This task force identifies shelter-in-place needs and tactics for delivering resources to isolated communities. Tactics may include, but are not limited to, securing assets, implementing “push” strategies (food, supplies, etc.), and working to pre-identify commodity PODs and drop sites.
- **Housing:** Individual Assistance (IA) facilitates the transition of survivors out of congregate care shelters into interim housing solutions through the implementation of the individuals and households program—housing assistance. Other programs such as crisis counseling, disaster legal services, disaster unemployment assistance, and Small Business Association (SBA) disaster loans are delivered under the FEMA IA program.

### *Objective 3: Stabilize Potable Water and Wastewater Systems*

See Tab 3 to Appendix 3: Stabilize Potable Water and Wastewater Systems of this Plan/Annex.

***Objective Statement 3: Maintain emergency water distribution to key facilities (including shelters and PODs), support wastewater services, and minimize spillage following a catastrophic hurricane.***

During phases 1b and 1c system operators conduct thorough mitigation actions (e.g., emergency protective measures, filling water/fuel tanks, and pre-positioning backup power to restart systems). System operators provide backup power generation as required for key system components.

To accomplish this objective, ESF #3 and ESF #7 facilitate access to critical resources such as repair parts, specialized tools and equipment, and trained operators and augment water and wastewater systems with temporary water purification and wastewater treatment capabilities.

### *Objective 4: Deliver Fuel to Support Essential Services*

See Tab 4 to Appendix 3: Deliver Fuel to Support Essential Services of this Plan/Annex.

***Objective Statement 4: Distribute fuel to support prioritized response activities following a catastrophic hurricane as commercial delivery operations are restored.***

Delivery of fuel to support essential services requires utilization of four strategies:

1. Coordinate the offloading and storage of fuel, the UCS will supplement existing infrastructure with available tankers and/or Offshore Petroleum Discharge Systems (OPDS).
2. Deliver fuel to critical facilities/generators and push out fuel based on priorities to support response operations.
3. Access existing fuel at commercial stations with government resources when required.
4. Identify, alert and deploy Contiguous United States (CONUS) based assets – ESF #12, vacuum trucks, other specialized equipment, generators, and teams.

### *Objective 5: Protect On-Island Critical Resources*

See Tab 5 to Appendix 3: Protect On-Island Critical Resources of this Plan/Annex.



***Objective Statement 5: Coordinate and support the protection, security, and preservation of on-island critical government resources statewide.***

To accomplish this objective, government provides support for emergency protection of fixed facilities, including moving assets as required and providing security post-impact.

Reconstituting the integrity of critical resources is essential to providing emergency and life sustaining services immediately following a hurricane. The UCS, with support from county emergency management officials, will coordinate for the protection of critical resources in accordance with catastrophic planning requirements.

Support for this objective will entail the use of emergency protective measures, which include but are not limited to facility enhancements, structural protection, storm shutters, relocation of resources, and purchase/installation of back-up electronic equipment.

***Objective 6: Restore Power to Essential Services***

See Tab 6 to Appendix 3: Restore Power to Essential Services of this Plan/Annex.

***Objective Statement 6: Provide emergency power to essential services, assist with power infrastructure assessment, and facilitate the restoration of damaged energy systems following a catastrophic hurricane throughout the State of Hawaii.***

Government agencies will support the actions of local power companies/cooperatives through public-private sector communication to plan damage assessment strategies, identify and obtain resources/repair resources based on needs, and prioritize distribution of supplemental power generation equipment to restore the electrical power grid following a catastrophic hurricane. This objective will be accomplished through government support to the utilities and the provision of temporary emergency power to essential services, including critical facilities.

***Objective 7: Re-establish Transportation Routes for Essential Services***

See Tab 7 to Appendix 3: Re-establish Transportation Routes for Essential Services of this Plan/Annex.

***Objective Statement 7: Coordinate and provide operational support and resources to ensure surface transportation routes enable access to essential services.***

The UCS in coordination with the state and county emergency management officials will coordinate and prioritize limited resources to re-establish transportation routes in accordance with supporting other objectives and tasks. Leveraging private contractor assets will be critical in achieving this objective expeditiously.

Counties will develop and implement road clearance plans to re-establish transportation routes. The state will support counties with additional state capabilities as needed, and will request additional federal/Department of Defense (DOD) support if local and state resources are overwhelmed.

***Objective 8: Restore Port Operations***

See Tab 8 to Appendix 3: Restore Port Operations of this Plan/Annex.

***Objective Statement 8: Restore and/or establish statewide maritime and airport operations to provide sustaining supplies and materials supporting life sustaining activities and emergency response measures.***

The primary method of restoring Hawaii's seaport cargo throughput is by maintaining Oahu as the hub (trans-shipment point) for the neighbor islands while making selective direct shipments



from CONUS to neighbor islands. ESF #1 will identify required operations in Phase 1b, and deploy assets in Phase 1c that provide planning, assessment, and cargo handling capabilities post-impact. Based on preliminary assessment of seaport damage, a team led by HDOT Harbors Division (HDOT-Harbors) and the U.S. Coast Guard (USCG), and including shipping representatives, will review and execute the Marine Transportation System Recovery Plan.

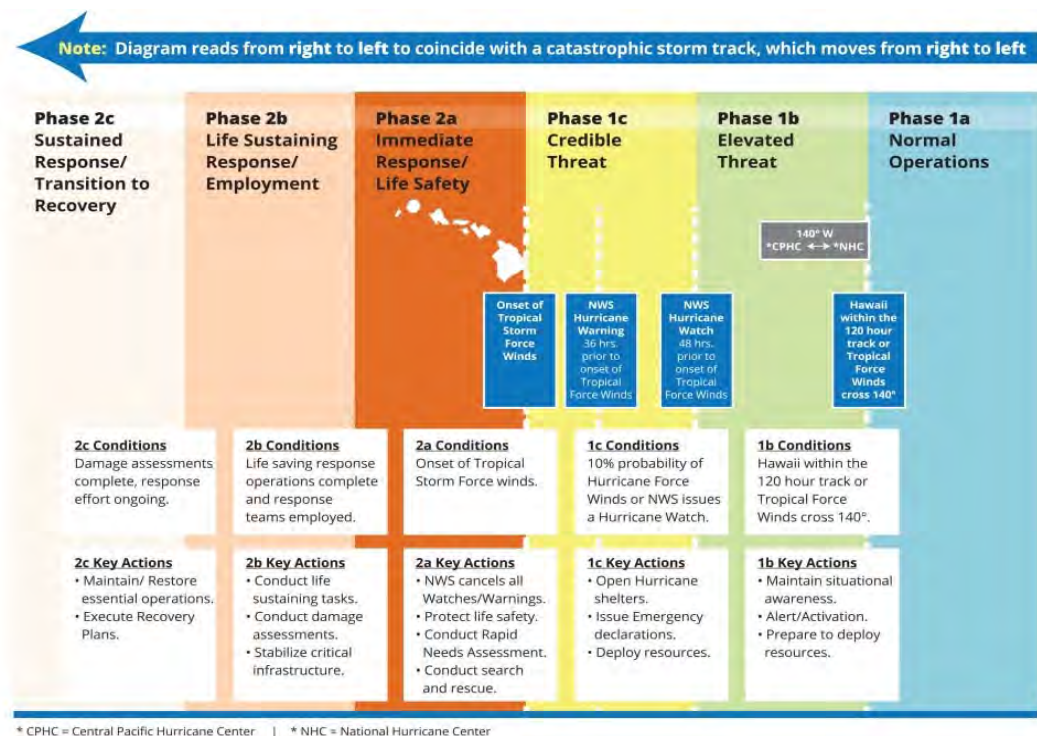
To accomplish this objective, the existing infrastructure must be restored and alternate ports established as needed. ESF #1, through the seaport Unified Command and HDOT-Airport's Department Operations Center (DOC), will conduct airport and seaport operations in a degraded environment using a combination of commercial, Maritime Administration (MARAD), and DOD capabilities to ensure the continued throughput of passengers and cargo following a catastrophic hurricane.

## Operational Phases

Operational phases provide a common structure for organizing tasks and actions over time. The phased approach provides operational structure in executing courses of action developed to address each operational objective by organizing multiple agency tasks to meet incident objectives (See Figure 3-1). Typically, organization of multiagency tasks occurs at the incident, regional, and national levels. This

process is necessary to coordinate a unified response. Once organized into phases, the operation then proceeds in a logical organized manner and is easier to conceptualize as it progresses from phase to phase.

**Figure 3-0: Operational Phases**



Multiagency support of

tasks across operational phases considers incident, regional and national priorities and limitations, including physical limitations presented by an island environment. The physical distance and time necessary to position required resources and capabilities within the state for immediate employment post-impact must be weighed against the risk of placing resources and specialized capabilities (whether teams or equipment) into communities that lack redundant infrastructure and have critical limitations within their building inventories. This is a life safety consideration supported by coordinated logistics actions in coordination with the response organization before, during, and after an event.

## *End States*

Beginning in Tab 1 to Appendix 3, End State statements identify the actions and goals of each phase before moving to the next phase. Phase transition, however, is triggered by the progression of the hurricane, not by whether or not the goals of the phase are achieved.

The following phase descriptions provide a brief overview of activities for each phase. See Appendix X: Execution Checklist for detailed tasks by organization.

### *Phase 1 – Pre-Incident*

#### *Phase 1a – Normal Operations*

- Collect, analyze, and disseminate information management and analysis information to stakeholders focused on developing and refining plans to respond to a catastrophic hurricane threatening Hawaii.
- Anticipate and identify resource and capability requirements.
- Build, sustain, and improve operational capabilities.
- Identify hurricane threats to each county.
- Determine vulnerabilities, identify, and complete preparedness actions.

#### *Phase 1b – Elevated Threat*

- Anticipate requirements.
- HI-EMA and National Weather Service (NWS) conduct the “140” Brief.
- County and state Emergency Operation Centers (EOCs) activate to appropriate levels.
- County and state agencies begin protection of critical infrastructure and resources.
- HI-EMA requests a declaration of state of emergency by the Governor.
- HI-EMA activates EMAC, requesting resources and preparing to receive resources.
- HI-EMA activates the Joint Information Center (JIC) and issues Public Service Announcements (PSAs) as appropriate.
- FEMA enhances the Region IX and National Watch Centers and progressively activates the Regional Response Coordination Center (RRCC) to Level II.
- FEMA prepares to deploy resources, including personnel, teams and commodities.
- FEMA deploys key initial resources, including personnel, teams, and commodities.
- All agencies maintain situational awareness and provide information to key stakeholders.
- FEMA issues mission assignments (MAs) and Pre-Scripted Mission Assignments (PSMAs) on the FEMA surge account.

#### *Phase 1c – Credible Threat*

- State and county EOCs and Agency Department Operation Centers (DOCs) fully activate.
- Mayors declare local states of emergency.
- Counties open emergency hurricane shelters.
- County and state emergency management agencies receive out of state resources.
- HI-EMA requests pre-impact emergency declaration.
- HI-EMA and FEMA deploy liaison officers (LNOs) to county EOCs.
- FEMA activates the RRCC to Level I.
- FEMA activates the National Response Coordination Center (NRCC).
- FEMA establishes an Initial Operating Facility (IOF) as required.

### *Phase 2 – Response*

#### *Phase 2a – Immediate Response/Life Safety*

- County and state EOCs monitor the situation and initiate response actions.

- All agencies maintain communications and build situational awareness as impacts progress.
- Counties will initiate search and rescue operations, aerial reconnaissance, emergency road clearance, and conduct initial damage assessments.
- Governor requests a major disaster declaration.
- ESF #12 coordinates emergency power to critical infrastructure.
- RRCC and NRCC continue to support mission and deployment actions.
- ESF #7 establishes staging areas in each county.

#### ***Phase 2b – Life Sustaining Response/Employment***

- Coordinate emergency actions.
- ESF #6 initiates mass care task forces.
- ESF #6 continues sheltering; transitioning to congregate care shelters.
- ESF #12 facilitates restoration of critical infrastructure and services.
- HI-EMA and FEMA support operations as necessary.
- State and FEMA conduct post-impact damage analysis and needs assessments.
- FEMA makes preliminary arrangements for a Joint Field Office (JFO).
- RRCC and NRCC support the state with activation and mission assignment requirements until the JFO is operational.

#### ***Phase 2c – Sustained Response/Transition to Recovery***

- FEMA establishes a JFO.
- State and FEMA deliver programs and services.

### **Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

### **Oversight, Coordination Instructions, and Communications**

See the Base Plan of this Plan/Annex.

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## Tab 1 to Appendix 3: Perform Life-Saving Measures

### Situation

### Purpose

**Objective 1: Perform Life Saving Measures** establishes a strategy for saving lives and defines the roles and responsibilities of coordinating and cooperating agencies following a catastrophic hurricane.

### Background

Saving and sustaining lives of Hawaii residents and visitors in the immediate aftermath of a catastrophic hurricane represents the highest priority for the response organization. The joint county, state, and federal effort involves SAR, public health, medical service, and HAZMAT response augmentation to local capabilities. Table 3-1 provides a summary of some of the current gaps identified by planners related to Objective 1.

**Table 3-1: Summary of Anticipated Shortfalls**

Capacity/Resource	Shortfalls
Medical Surge Capacity	<ul style="list-style-type: none"> <li>• Surge staffing for hospitals and alternate care facilities</li> <li>• Gap in treatment capacity for up to 4,500 patients with acute injuries</li> <li>• Gap in outpatient treatment capacity for up to 15,000 patients</li> <li>• Gap in capability to support 2,500 long-term care patients</li> <li>• Gap in capability to support 2,000 patients who receive care at home</li> <li>• Gap in capability to support up to 4,500 chronic patients</li> <li>• Treatment of patients that would normally seek care at evacuated or damaged hospitals</li> <li>• Gaps in health and medical command and control surge</li> </ul>
Medical Supplies/Equipment/facilities	<ul style="list-style-type: none"> <li>• Hospital beds (less than 10% availability on a daily basis)</li> <li>• Medical materials for patient care to include supplies, equipment, and sustainment for alternate care capacity</li> <li>• Gap in medical resupply to keep healthcare facilities operational</li> <li>• Water and fuel for facility operations</li> <li>• Alternate care facilities</li> <li>• Support of 29 hospitals that require fuel and water</li> </ul>
HAZMAT Response Teams	<ul style="list-style-type: none"> <li>• Hazardous materials teams</li> <li>• Environmental clean-up capabilities, to include contracts with private clean-up companies</li> </ul>
SAR Teams	<ul style="list-style-type: none"> <li>• Urban Search and Rescue (USAR)</li> <li>• Air Search and Rescue Teams, including hoist and rescue swimmer capability</li> <li>• Swift Water Rescue Teams</li> </ul>
Emergency Medical Services (EMS) Units	<ul style="list-style-type: none"> <li>• Gap in patient transport between islands</li> <li>• EMS transport – access and capacity</li> </ul>
Mortuary Surge Capacity	<ul style="list-style-type: none"> <li>• Medical examiners, personnel authorized to recover, transport and process remains, and administrative support</li> <li>• Transportation capabilities for moving remains</li> </ul>



## Mission

Provide lifesaving health and medical services and conduct search and rescue operations.

## Execution

### Concept of Operations

HI-EMA and the Department of Health (HDOH), in coordination with FEMA, the U.S. Department of Health and Human Services (HHS), and the U.S. Environmental Protection Agency (EPA) provide timed-phased deployment of SAR, PHMS, and HAZMAT-critical resources and services within the impacted area. Position SAR and medical response teams to respond immediately after impact, according to priorities set by the UCS.

***Objective Statement 1: Provide life saving and sustaining health and medical services and conduct search and rescue operations.***

Table 3-2 provides a summary of the number of tasks by core capability that are listed in Appendix X: Execution Checklist for this objective. High level tasks associated with several of these core capabilities are highlighted below.

### Core Capabilities

#### *Environmental Health and Safety*

- Conduct health and safety hazard assessments.
- Disseminate guidance and resources, to include deploying hazardous materials teams.

#### *Fatality Management Services*

- Establish and maintain operations to cover a significant number of fatalities over a geographically dispersed area.

#### *Mass Search and Rescue Operations*

- Conduct search and rescue operations.
- Initiate community-based search and rescue support operations.
- Ensure the synchronized deployment of local, state, national, and international teams to reinforce ongoing efforts.

#### *Public Health and Medical Services*

- Complete triage and initial stabilization of casualties.
- Return medical surge resources to pre-incident levels.

### Operational Phases

The information provided below shows the triggers and end states for each phase, and some of the key actions that will take place in each phase.

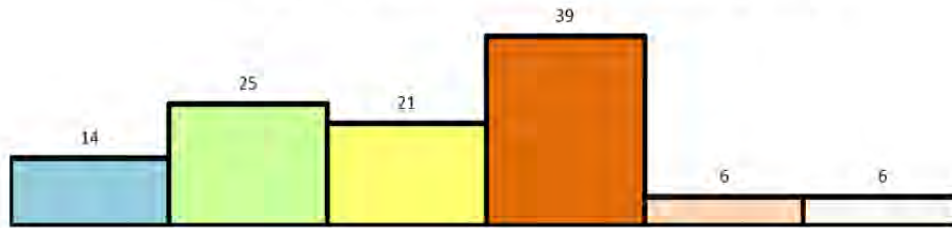
**Table 3-2: Tasks by Core Capability<sup>15</sup>**

Core Capabilities	Tasks
Public Health and Medical Services	61
Planning	11
Mass Search and Rescue Operations	11
Critical Transportation	7
Operational Coordination	6
Environmental Response/Health and Safety	5
Public Information and Warning	4
Infrastructure Systems	2
Situational Assessment	2
On-Scene Security and Protection	1
Operational Communications	1
Total	111

<sup>15</sup> All task counts are current as of August 2015. For updated tasks, refer to revisions of Appendix X: Execution Checklist.

**Figure 3-1: Objective 1 - Tasks by Phase**

Objective 1: Perform Lifesaving Measures (Tasks by Phase)

**Table 3-3: End States by Phase**

Phase	End State
1a	SAR, PHMS, and HAZMAT plans are in place and validated. Healthcare staff and emergency responders are trained and certified as necessary.
1b	ESFs 8 & 9 lifesaving capabilities are deployed. Supplemental resources are placed on alert.
1c	SAR, PHMS, and HAZMAT assets are protected and teams are sheltered-in-place.
2a	Lifesaving measures have been successfully employed and operations shift to life sustaining efforts. SAR operations are completed. Acute medical care is provided. HAZMAT situations are contained.
2b	Supplemental response teams have been employed and the incident has been stabilized.
2c	Public health and the public healthcare system transition to recovery operations.

***Phase 1a – Normal Operations***

During Phase 1a, county, state, and federal response partners will continue to enhance the preparedness and resiliency of health and medical systems; ensure the readiness and deployment posture of SAR, PHMS, and HAZMAT personnel, resources, and logistics support systems; and conduct detailed gap analyses with private and local partners to ascertain expected support resources. Organizations will focus attention on healthcare staffing shortfalls and the survivability and resilience of healthcare facilities.

To successfully meet this objective, there are currently 14 tasks identified for organizations such as HDOH and Healthcare Association of Hawaii (HAH) to complete. This includes tasks such as developing a pharmacy distribution plan and concept of operations (CONOPS) to support individuals with medical dependencies. Individuals requiring critical medications or specialized medical devices will require rapid distribution to prevent decompensation. Planning for community Casualty Collection Points (CCPs), patient movement and the establishment of at least one Federal Medical Station (FMS) are also Phase 1a tasks. The development of these plans will support immediate lifesaving measures by enhancing the medical surge capacity of the on-island healthcare system.

***Phase 1b – Elevated Threat***

In preparation for post-impact deployment, HI-EMA requests activation of the Kalawao Rescue [a Type I Disaster Medical Assistance Team (DMAT)]; Hawaii National Guard (HING) mobilizes its Homeland Response Force SAR capabilities, and HI-EMA requests activation of DOD aircraft and the Civil Air Patrol (CAP). Federal resources will begin phasing into Hawaii during Phase 1b. FEMA will alert, activate, and deploy lifesaving capabilities through ESFs #8, #9, and #10 (see Table 3-4).

**Table 3-4: Federal Resources to Support Objective**

Description	Resource	Quantity	Personnel
Resources that will deploy during this phase include the following (Pre-Impact “Push Package” Lifesaving Capabilities):	*Type I DMAT	1	35
	**Type I DMAT Incident Response Coordination Team (IRCT)	1	35
Resources alerted and deployed to a CONUS ISB for post-impact deployment to Honolulu include the following:	Type II (Medium) USAR Team	1	28
	USAR Incident Support Team (IST)	1	TBP
	USCG National Strike Team	1	TBP
	AMR Aeromedical Aircraft	6	TBP
* Note: Resources will deploy to Honolulu staging			
** Note: Resources will deploy to all 4 counties			

County and state response organizations, health care providers, and hospitals initiate notifications and protective measures. Additional information may be found in the HAH Tropical Cyclone Playbook and HDOH All-Hazards Emergency Response Plan. The USCG will place USCG District 14 Maritime SAR teams on standby for availability to deploy post-impact. Existing on-island resources are shown in Table 3-5: On-Island Resources to Support Objective.

**Table 3-5: On-Island Resources\***

Capacity/Resource	Hawaii	Maui	Honolulu	Kauai	State
Medical Surge Capacity	<ul style="list-style-type: none"> <li>5 Acute Care Modules (up to 150 bed capacity statewide) / HAH</li> <li>1 DMAT (Type I) / HAH</li> <li>1 Hospital Emergency Response Team to support medical surge/HAH</li> </ul>				
Medical Supplies	HAH Area Caches (HACs)s to support coalition members only/HAH				
HAZMAT Response Teams	2 units - HCFD	1 unit – MFD	2 units – HFD	1 unit – KFD	3 OSCs – DOH
SAR Teams	-	-	100 fire personnel/ HFD	1 K-9 SAR Team/KSAR	1 CERF-P/ HING
Mortuary Surge Capacity	1 Human Remains Holding Container (HRHC) (50)/HAH	1 HRHC (50)/HAH	2 HRHCs (100)/ HAH 1 HRHC (120)/ Contractor		1 HRHC (50)/HAH

\* = OSC = On-Scene Coordinators; HCFD = Hawaii Fire Department; MFD = Maui Fire Department; HFD = Honolulu Fire Department

### **Phase 1c – Credible Threat**

Phase 1c includes the final preparations required prior to impact. All emergency protective measures will be completed in Phase 1c, including the protection of statewide aeromedical aircraft, medical and SAR teams.

Deployed DMATs will shelter-in-place within local hospitals during impact as appropriate. CONUS-based resources in alert status to facilitate their deployment to Hawaii immediately post-impact (See Table 3-6). Statewide HAZMAT teams will identify the locations of hazardous materials storage, treatment, and disposal sites and other potential areas of release of oil and hazardous materials prior to impact. The USCG will place its Skimming Oil Recovery System and Aerial Dispersant System on standby ready to respond post-impact. HHS will activate the Emergency Pharmaceutical Assistance Program, and HDOH and HAH will engage vendors to validate their latest pharmacy resupply requirements.

**Table 3-6: CONUS Based Resources**

Team	Qty
Type III DMATs (without equipment)	4
Mobile Acute Care Strike Team (MAC-ST)	1
U.S. Public Health Service (USPHS) Strike Service Access Team (SAT)	1
USPHS Medical Health Team (MHT)	1
Federal Medical Station	4
Rapid Deployment Force Package	2

***Phase 2a – Immediate Response/Life Safety***

Community-based SAR involves neighbors helping neighbors to rapidly locate, identify, and triage trapped survivors across the larger impact area. This includes the use of Community Emergency Response Teams (CERT) in communities throughout the state. ESF #9 will also deploy SAR teams to impacted areas to conduct operations. The USCG will execute their maritime SAR statutory authorities. DOD, through the Defense Coordinating Element (DCE), may provide support to SAR and HHS teams as mission assigned, or through Inter-Agency Agreements (IAAs). This effort may include rotary and fixed-wing support. The Air Operations Branch executes the aerial SAR operation.

Immediately post-impact, patient movement activities will focus on evacuating patients as needed from damaged healthcare facilities and relocating dialysis patients based on the status of the surviving infrastructure. ESF #8 will coordinate the movement of injured to medical facilities with ESF #7. Counties will provide updated casualty reports, and deploy responders as needed to address unmet needs. ESF #8 will retrieve damage assessments from health care providers and alert additional personnel and resources to augment/decompress the health care system.

Through enhanced situational awareness and in coordination with HDOH, HI-EMA will rapidly determine whether there is a requirement for additional lifesaving capabilities and resources placed in alert status in Phase 1c. If the requirement exists for these resources, FEMA will mission assign and provide strategic airlift support to deploy to appropriate staging areas. Four Type III DMATs activate in Phase 1b will be available to deploy directly to counties for support and will coordinate with the respective DMAT IRCT element already in place. HHS will increase casualty carrying space, as needed, through the use of these DMAT for patients requiring acute medical treatment and 24-hour care. ESF #10 will determine actions to prevent, minimize, or mitigate any releases of HAZMAT and oil spills, and develop a plan for environmental cleanup.

***Phase 2b – Life Sustaining Response/Employment***

ESF #8 assesses the need to deploy additional acute care capabilities, disease investigation/surveillance capabilities, food inspectors, water quality inspectors, vector control specialists, and epidemiologists in Phase 2b. Employ additional USAR teams as required. The USCG will continue to employ maritime SAR resources as needed. ESF #10 will assess the need for additional resources to include private sector and non-governmental organization (NGO) support.

***Phase 2c – Sustained Response/Transition to Recovery***

ESF# 8 will deploy Public Health staff to collect and assess public health, mental health, and environmental health needs. ESF #8 will implement pharmaceutical distribution strategies to supply populations with unmet needs for required medications. Mental health teams will provide crisis counseling and disaster behavioral health services. ESF #8 will also assist in facilitating the restoration of essential medical services. ESF #8 will demobilize supplemental patient movement assets and track evacuated patients, if any, and support their re-entry to the State of Hawaii. ESFs #9 and #10 will demobilize SAR and HAZMAT resources upon UCS determination of mission completion.

**Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

## Oversight, Coordinating Instructions and Communications

### Local

County EOCs coordinate directly with the State Emergency Operations Center (SEOC). County EOCs will identify needs requiring support from state/federal ESF #8, #9, and #10 efforts.

### State

The SEOC will respond to requests for assistance, and provide coordinated state/federal support for ESF #8, #9, and #10 efforts. ESF #8 coordinates activities to support PHMS operations from the SEOC or the Hawaii Department of Health (HDOH) DOC.

### *Healthcare Association of Hawaii*

HAH manages a digital voice and data communications system—700/800 megahertz (MHz) interoperable radios, amateur radios, Satellite Telecommunication, and contingency Voice Over Internet Protocol. A multi-layered structure exists that includes primary and backup systems. Web-based Emergency Operations Center (WebEOC) is utilized statewide among all 130 HAH member organizations and partner agencies to provide and report situational information, manage RFAs, monitor healthcare organization status (resources, patient service demand, essential systems and utilities, fuel, etc.). Healthcomm is an HAH-affiliated volunteer organization that supports medical facility contingency communication needs. These individuals are equipped with HAH-supplied telecommunications equipment capable of operating under austere conditions.

### Federal

The Region IX Regional Emergency Coordinators (RECs) lead the Federal SAR, PHMS, and HAZMAT response operations; and staff key positions at the RRCC, JFO, and key LNO positions within the state.

### *U.S. Department of Health and Human Services*

- Deploys ESF #8 personnel appropriate to the response requirements, which may include Region IX RECs, other Regional RECs, subject matter experts (SMEs), senior health officials, contractors, IRCTs and other specialized federal personnel to coordinate ESF #8 RFAs and PSMAAs.
- Requests appropriate ESF #8 partners to activate and deploy health and medical personnel, equipment, and supplies in response to requests for federal PHMS assistance.
- Coordinates with other primary and supporting departments, agencies, and governments throughout the incident including sending LNOs where appropriate.
- Provides staffing and urgent care for people with disabilities or others with access and functional needs, and general population shelters, along with (potentially) hospitals that are sheltering in place with partner agencies.
- Augments state/local evacuation efforts upon request.
- Directs the activation of National Disaster Medical System (NDMS) as necessary to support medical response operations.
- Activates and deploys teams of NDMS health/medical personnel, equipment, and supplies in coordination of HHS.
- Activates the NDMS Medical Interagency Coordination Group (MIACG), composed of NDMS partner representatives [Department of Homeland Security (DHS), DOD, HHS, and the Department of Veterans Affairs (VA)] to support hospital evacuation and placement of patients in NDMS hospitals for care.



- Ensures the return of ESF #8 patients and people with disabilities and others with access and functional needs that require enroute medical care and, therefore, cannot travel via commercial air or without medical assistance.

#### *Federal Emergency Management Agency*

- Develops and distributes ESF #8, ESF #9, and ESF #10 mission assignments.
- Funds NDMS operations supporting emergencies declared under the Stafford Act (42 United States Code (U.S.C), 5121-5206).
- Ensures NDMS operations are coordinated with other ESFs under the NRF.
- Activates regional-level ESF #9 coordinators.
- Designated as ESF #9 Primary Agency for the incidents involving structural collapse and SAR operations.
- Deploys USAR teams to provide urban, maritime/coastal/ waterborne, swift-water rescue and wide-area/land SAR support.
- ISTs to provide technical support and serve as a liaison between FEMA, task forces, and local authorities.
- Coordinates mission assignments of other Federal Government SAR and ESF resources.
- Coordinates and executes PSMAs for FEMA Logistics Management and Resource Support and other federal resources required by SAR to support field operations.
- Coordinates through the FEMA Movement Coordination Center (MCC) for transportation of personnel and equipment.
- In conjunction with Response Division Resource Support personnel, DOD and USCG LNOs, and the MCC, coordinates air transport through the USAR Program Office staff.
- Determines if sufficient material handling equipment capability to meet requirements is in place at reception airport(s) before arrival of USAR resources.
- Determines if sufficient ground movement transport to meet requirements for USAR resources arriving by air is in place at reception airport(s) before arrival of USAR resources.

#### *Environmental Protection Agency*

- Pre-stages federal On-Scene Coordinator for Environmental Response/Health and Safety (ERHS) as well as, logistics and specialized equipment for Occupational Safety and Health Administration, General Services Administration (GSA), U.S. Department of Transportation (DOT), and USCG.
- Coordinates communications with county and state partners, NGOs, and the private sector to begin identification of potential environmental health and safety hazards.
- Coordinates with county, state, and private sector partners to determine the information needed for ERHS guidance.
- Begins development of ERHS plan for responders based on projected hazards.
- Identifies Federal ERHS resources readily available in the affected area.
- Coordinates with county and state jurisdictions through the JFO to establish a network of safety officials to support responders.
- Establishes interagency communications, requesting offices, agencies, and departments to convene the interagency ERHS coordination committee.
- Develops ERHS situational awareness through assessments and predictive modeling data to identify special environmental risks and safety hazards.

#### *Department of Defense*

- Alerts NDMS Federal Coordinating Centers and provides specific reporting/regulating instructions to support incident relief efforts.

- Alerts NDMS Federal Coordinating Centers to activate NDMS patient reception plans in a phased, regional approach and, when appropriate, in a national approach.
- Coordinates with ESF #1 and #8 to provide support for the evacuation of seriously ill or injured patients to locations where hospital care or outpatient services are available and provides general aviation and support to compromised airports including emergency lighting and Air Traffic Control (ATC).
- Utilizes available ESF #1 transportation resources, in coordination with the NDMS MIACG, to evacuate and manage survivors/patients from the patient collection point in or near the incident site to NDMS patient reception areas.
- Provides available medical personnel for casualty clearing/staging and other missions, as needed, including aero-medical evacuation and medical treatment.
- Mobilizes and deploys available Active Duty, Reserve, and Title X medical units, when authorized and necessary to provide support.
- Coordinates patient reception, tracking, and management to nearby NDMS non-federal hospitals, VA hospitals, and DOD military treatment facilities that are available and can provide appropriate care.

#### *Department of Transportation*

- Coordinates for Air Traffic Control support for priority medical missions.

#### *Department of Veterans Affairs*

- Conducts and provides bed availability reporting for NDMS hospitals.
- Identifies and recommends receiving Federal Coordination Centers based on staffing and bed counts.
- Designates and deploys available medical, surgical, and other health support assets, as requested, including FMS augmentation packages (105 personnel).
- Coordinates with participating non-federal NDMS hospitals to provide incident-related medical care to authorized NDMS beneficiaries.
- Provides logistics support and wraparound services as requested.

## Tab 2 to Appendix 3: Conduct Mass Care Services

### Situation

#### Purpose

**Objective 2: Conduct Mass Care Services** establishes a strategy and defines the roles and responsibilities of coordinating and cooperating agencies following a catastrophic hurricane. Mass Care and sheltering is the direct provisioning of food, shelter, and the distribution of emergency relief supplies to Hawaii residents and visitors during a major disaster. Objective 2 represents a core responsibility of the state and federal response team and, in turn, represents one of the core focuses of the logistics response effort. See Appendix 4: Logistics of this Plan/Annex for the logistics concept of operation to support this objective.

#### Background

The NRF ESF Annex includes ESF #6 – Mass Care, Emergency Assistance, Housing, and Human Services which describes the process for coordinating and providing life sustaining resources, essential services, and statutory programs when the needs of disaster survivors exceed county and state government capabilities.

#### Mission

HI-EMA and FEMA will coordinate resources to provide hydration, feeding, sheltering, and emergency assistance, as well as support reunification through county and state government and private sector entities, in order to prevent human suffering and sustain lives of Hawaii's residents and visitors immediately following a catastrophic hurricane.

#### Execution

##### Concept of Operations

HI-EMA and FEMA, in coordination with the joint state/federal ESF #6 components, support county and state government and NGO efforts to address the non-medical mass care, housing, and human services needs of individuals and/or families impacted by a catastrophic hurricane.

- HI-EMA and FEMA are assigned responsibility as the ESF #6 Coordinator.
- The American Red Cross, HI-EMA, and FEMA share the responsibility for coordinating mass care sheltering.
- ESF #6 addresses the immediate emergency human services needs and transitions to the FEMA IA programs under the Stafford Act.

Coordinating these resources as part of a broad program of disaster relief will be the responsibility of ESF #6, with the support of ESF #7, and includes evacuation, sheltering, feeding, bulk distribution, and housing in accordance with the NRF and the Hawaii ESF Annex.

**Objective Statement 2: Provide hydration, feeding, sheltering, power and emergency assistance as well as support reunification.**

Table 3-7 provides a summary of the number of tasks by core capability that is listed in Appendix X: Execution Checklist for this objective. High level tasks associated with several of these core capabilities are highlighted below.

## Core Capabilities

### Evacuation

Since pre-impact evacuation of visitors will be minimal, the highest priority will be to shelter in place. Implement post-impact evacuation plans to reduce the burden on available hotels and shelters. The prioritization and coordination of general population relocation will require continuous public messaging. Hawaii Tourism Authority (HTA) will coordinate with ESF #15 to release timely public messaging on the availability of flights. For more information regarding Visitor Evacuation, please refer to the Hawaii Visitor Evacuation Working Group Plan.

### Sheltering

Sheltering strategies will focus on expanding sheltering capacity on-island and improving the capability of existing shelters. The state continues to improve its Private Shelter Program, which decreases the population seeking shelter in emergency hurricane shelters. The program increases private sheltering capabilities through improved building code requirements and evaluations of other private sector facilities (such as apartments, condominiums, and nursing homes) for shelter-in-place options.

Additionally, the capacities of the emergency and congregate care shelters statewide do not meet the anticipated pre- and post-impact requirements of 30 percent and 10 percent of the population, respectively.

State and county ESF #6–equivalent staff will work together to identify supplemental sheltering locations, especially for congregate care/long-term sheltering. The American Red Cross and local authorities coordinate to conduct shelter surveys to pre-identify shelters that are accessible to meet the needs of people with mobility issues. ESF #6 will identify workarounds for the items that are not accessible (bottled water versus drinking fountains, accessible toilets, showers, etc.).

### Feeding

Upon request of HI-EMA, FEMA will distribute one day of supplemental water and food supplies (enough for 10 percent of the population of each county) to the four county seats prior to impact. Additional water and food supplies will be staged on CONUS.

Counties will continue to pre-identify and survey mass feeding operations and POD locations, with consideration for supplemental locations at state-owned facilities. The UCS will utilize a multiagency Mass Feeding Task Force for implementation, resource assessment, and prioritization during response. County mass feeding task forces will roll into the state/federal task force. The UCS also identifies specific populations requiring “push” strategies (e.g., mobile feeding).

### Bulk Distribution

The UCS will facilitate the movement of individuals out of shelters by providing resources in the community, thereby decreasing the sheltering population. Strategically locate PODs; place commodities such as tarps, tents, and other items in PODs as determined by each county, to facilitate the transition to recovery. The UCS will also support the establishment of interim housing solutions.

**Table 3-7: Tasks by Core Capability**

Core Capabilities	Tasks
Mass Care Services	72
Planning	17
Public Information and Warning	10
Public Health and Medical Services	4
Operational Coordination	3
Operational Communications	2
Health and Social Services	2
Housing	1
Infrastructure Systems	1
Critical Transportation	1
On-Scene Security and Protection	1
<b>Grand Total</b>	<b>114</b>



Additionally, the UCS will establish a Shelter-in-Place Task Force to support the affected community after impact. This task force will identify shelter-in-place needs and tactics for delivering resources to isolated communities. Tactics may include, but are not limited to, securing assets and implementing “push” strategies [food, supplies, medications, durable medical equipment (DME), oxygen, consumable medical supplies, etc.] and working to pre-identify commodity PODs and drop sites.

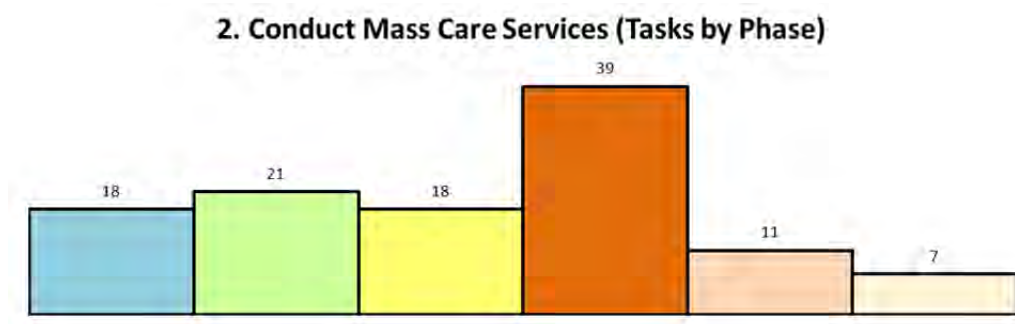
### *Housing*

IA will facilitate the transition of survivors out of congregate care shelters into interim housing solutions through the implementation of the Individuals and Households Program – Housing Assistance. FEMA IA delivers other programs such as crisis counseling, disaster legal services disaster unemployment assistance, and SBA Disaster Loans. Technical SMEs will deploy in advance to provide assistance to HI-EMA and the Incident Management Assistance Team (IMAT).

### *Operational Phases*

The information provided below shows the triggers and end states for each phase, and some of the key actions that will take place in each phase.

**Figure 3-2: Tasks by Phase**



**Table 3-8: End States to Phases**

Phase	End State
1a	Plans are developed and validated. Staff is trained. Sufficient shelter space is identified and back-up power and other considerations have been addressed. MOUs/MOAs are in place for sheltering, feeding and staffing needs.
1b	Appropriate preparedness messaging is pushed to resident and visitor populations. Shelter teams and assets are activated. Feeding site locations and capabilities are verified.
1c	RFAs for congregate care needs are in place and CONUS based supplies are staged. Emergency Hurricane Shelters are open and staffed by shelter staff and nurses.
2a	Shelter damage assessments are complete. Congregate Care Shelter locations are confirmed and basic repair supplies are provided.
2b	Supplemental response assets have been employed to insure sheltering and feeding. IA has begun assessments. Visitor repatriation has commenced. PODs are operational.
2c	Residents have returned home, moved to congregate care shelters or engaged in temporary shelter assistance programs.

### *Phase 1a – Normal Operations*

During Phase 1a, county leads and NGO response partners, with the support of HI-EMA, will identify and survey new shelter locations. Shelter surveys will include Americans with Disabilities Act (ADA) accessibility and may include additional county, state, private partners, and faith-based organization facilities. Organizations will update changes to the list of shelters in the National Shelter System (NSS).

The counties will coordinate their plans and resources to expedite emergency notifications and movement to emergency hurricane shelters in their respective counties.

HDOH will develop a plan for charging medical devices requiring electricity at pre-identified locations. This strategy will support the HDOH concept for supporting individuals with medical dependencies at evacuation and/or congregate care shelters.

State and county ESF #7 staff will continue developing private sector contracts, including off-island resources for mass care. HI-EMA, and the American Red Cross will maintain a list of mass care resources and commodity visibility in emergency plans for the State of Hawaii. HI-EMA will define resource requirements to request through EMAC.

HI-EMA will work with county emergency management agencies, the Hawaii Department of Education (HDOE), Hawaii Department of Accounting and General Services (DAGS) and the Disability and Communications Access Board (DCAB) to develop hardening/accessibility/emergency protection measures for public shelters. State and county ESF #6 staff will lead the development of a Task Force to support individuals who have sheltered in place, or who have returned to their property in lieu of transitioning to congregate care.

County ESF #5 will work to pre-designate mass feeding and POD locations. State ESF #5 will develop Mission Ready Package and EMAC resource requirements. Additionally, ESF #6 will engage with whole community stakeholders (including distributors) to determine food stocks, supplies, space, facilities, and limitations for commodities.

The State of Hawaii will develop a mass feeding strategy to support of county-specific plans.

HI-EMA and FEMA Region IX coordinate to develop strategies to support up to 780,600 displaced individuals. FEMA will pre-stage logistics support packages and augment as needed to support the efforts of the state, and NGOs/private sector/faith-based organizations.

ESF #6 will coordinate the activation of family services partners (e.g., National Emergency Child Locator Center, National Center for Missing and Exploited Children) and alert National Processing Service Center staff of potential activation. HI-EMA will coordinate and update the State of Hawaii Donations Management Plan in support of the Hawaii Catastrophic Plan during Phase 1a.

Training in disability awareness, resources, and programs is available through HI-EMA upon request.

Counties collect information on transportation inventory and identify and develop paratransit resources, ADA-accessible shelter facilities, medical facilities, personnel (including shelter staffing), equipment, and supplies.

### ***Phase 1b – Elevated Threat***

Pre-impact off-island evacuation will be voluntary and limited; however, ESF #15 will issue public information to facilitate visitor evacuation. At 72 hours prior to impact, HTA will establish and staff a DOC to coordinate messaging to consulates and visitors.

The American Red Cross will activate during Phase 1b to prepare to execute its primary missions of sheltering, feeding, fundraising, public affairs, and disaster assessment. The Red Cross will also notify its volunteer cadre statewide of potential deployment. The Red Cross will begin communicating with partner organizations and participating in daily county and state briefings.

American Red Cross National Headquarters will alert and activate shelter teams and support nationwide to supplement the local effort as well as local shelter management assets to

supplement statewide resources and deploy these resources to Honolulu staging for employment post-impact:

- One Disaster Response Management Team for situational awareness
- Shelter management teams

County emergency management will begin planning staffing for shelters and recall shelter managers. The counties will also employ an abbreviated training program for employees during Phase 1b to ensure staffing levels are adequate for the number of shelters required.

During Phase 1b, the counties will determine the status of pre-selected mass feeding sites, verify staffing and equipment site. Counties designate the alternate locations and report openings to HI-EMA of alternate mass feeding and/or PODs.

Accessing commodities stored in the FEMA Distribution Center-Hawaii (DC-HI) and at the request of the State of Hawaii, FEMA will distribute one day of water and one day (two meals) of prepackaged food to county emergency management agencies (See Table 3-9)<sup>16</sup>.

ESF #6 will coordinate with U.S. Department of Agriculture (USDA) – Food and Nutrition Service and DOE Offices of Hawaii Child Nutrition Program and School Facilities and Support Services to inventory USDA statewide commodities, as well as inventory at school cafeterias. The Red Cross will contact private food vendors to verify their state of readiness to produce meals following the hurricane's passing. Toward the end of Phase 1b, the Red Cross will alert and deploy the Disaster Response Management Team leadership team and shelter management teams.

**Table 3-9: Pre-Staged Resource Requirements by Island\***

Counties	Total Population (Pop.)	10% of Pop.	Water required for 10% of Pop. (liters)	Meal required for 10% of Pop.	Blankets required	Tarps required	Cots required	Hygiene & Wash Kits required	Est # of Infants	Est # of Infant Kits required for 2-days	Est # of Generators required
Hawaii	194,190	19,419	55,800	37,200	9,672	3,224	9,672	9,672	1,302	19	44
Maui	163,108	16,311	46,500	31,000	8,060	2,687	8,060	8,060	1,085	16	44
City & County of Honolulu	991,788	99,179	286,200	190,800	49,608	49,608	16,536	49,608	6,678	96	44
Kauai	70,475	7,048	20,100	13,400	3,484	1,161	3,484	3,484	469	7	44
Totals	1,419,561	141,957	408,600	272,400	70,824	23,608	70,824	70,824	9,534	138	176

\*Includes total commodities to purchase and stage at CONUS ISB(s)

### ***Phase 1c – Credible Threat***

Phase 1c includes the final preparations required prior to the onset of tropical storm force winds. All emergency protective measures will be completed in Phase 1c including the protection of American Red Cross and FEMA warehouses and prepositioned (if any) personnel. Counties anticipate standing up evacuation shelters at approximately 6 to 12 hours prior to the onset of tropical storm force winds. Note that shelters may open earlier in order to avoid night evacuations. The counties will provide the official evacuation order and the emergency PSAs to implement sheltering and shelter-in-place activities. Counties submit RFAs to HI-EMA for food,

<sup>16</sup> FEMA planners generated these estimates which reflect the anticipated congregate care shelter population only, and assume that some survivors will bring their own supplies and provisions. These estimates will need further refinement by the State's Mass Care Sheltering and Feeding Groups during Phase 1a.

water, and other supplies for congregate care shelters during Phase 1c. The Mass Feeding Task Force will develop and implement feeding strategies to support the evacuated and displaced population. HDOH will deploy public health nurses to shelters as required to supplement American Red Cross nurses.

Planners will stage CONUS-based supplies for post-impact deployment at the designated federal Incident Support Base (ISB), staging areas, or DC-HI. These items may include but are not limited to accessible cots, large print/pictorial signage, and other items to support populations with access and functional needs. Activate four Disaster Survivor Assistance (DSA) crews and stage them in the ISB while awaiting post-impact deployment.

#### *Phase 2a – Immediate Response*

The counties, with assistance from the American Red Cross, the ADA Coordinator, DOE, and ESF #3 will assess the status of shelters (completed every 12 hours) to determine which locations sustained damage, plan the transition from evacuation shelters to congregate care (evacuation shelters will close as soon as possible), assist with basic repair provisions (tents, tarps) to transition out of evacuation shelters, and assess potential shelter sites to supplement existing capacity.

ESF #6 will coordinate with the American Red Cross, Volunteer Organizations Active in Disaster (VOAD) members, and other shelter providers to ensure life sustaining resources are sufficient. ESF #6 will provide for the immediate needs of individuals and families. These activities include, but are not limited to–

- Support to evacuations (including registration and tracking of evacuees).
- Reunification of families.
- Provisions of services to individuals with access and functional needs.
- Sheltering and other emergency services for service animals and household pets.
- Other federal and state agency disaster benefits.

ESF #6 will assess need for mobile and fixed Disaster Recovery Center sites and Mobile Registry Intake Centers with the RRCC/JFO.

ESF #7 will begin staging supplies to support congregate care locations, PODs, and fixed feeding locations.

The counties and VOAD will report to HI-EMA a rapid needs assessment for mass feeding, including, but not limited to, personnel, facilities, materiel, and food. The Red Cross will activate Memorandums of Agreement (MOAs)/Memorandums of Understanding (MOUs) with food vendors to provide meals at predetermined locations.

ESF #6 will establish a Visitor Evacuation Working Group and coordinate with DOS to establish procedures for communication with the consulates and the public to provide information concerning on-going evacuation operations. The State of Hawaii will execute the Visitor Evacuation Working Group Plan.

Organized communities work with county emergency management and begin local immediate response operations.

ESF#3 would support structural assessments of shelters and requirements to provide temporary power to shelters.



***Phase 2b – Life Sustaining Response/Employment***

HDOH will employ Public Health Assessment and Surveillance Teams to shelters to gather public health assessment information. HI-EMA may request disability/access and functional needs assessment and support services to augment local capabilities.

Commodities will be deploy from staging areas to meet the needs of 10 percent of the population staying in congregate care shelters and those sheltering-in-place who will rely upon wrap-around commodities. Sealift will deliver additional food and water as needed.

FEMA will mobilize Mass Care Response Teams, IA/Technical Assistance Contractors, and Disability Integration Advisors to support ongoing operations.

Based on post-impact damage assessments, the housing task force will coordinate with Logistics on potential temporary housing requirements. ESF #3 will provide U.S. Army Corps of Engineers (USACE) Temporary Housing and Temporary Roofing Power Planning and Response Team (PRT) to support the housing task force.

***Phase 2c – Sustained Response/Transition to Recovery***

ESF #6 will continue to support mass care requirements of hydration, feeding, emergency and short-term housing, and pet sheltering. Support includes identifying the disability/access and functional needs population and their requirements.

HI-EMA and FEMA will support the establishment of county-level PODs to distribute commodities and bulk goods. ESF #7 in collaboration with ESF #1, ESF #6, ESF #8, and ESF #11, will coordinate the delivery of essential supplies (food, water, first aid kits) to isolated populations. The Shelter-In-Place Group will develop and implement the strategies required to deliver supplies to isolated communities.

ESF #6 will assess then activate congregate care shelters statewide based on damage assessments.

VOAD will gather information regarding pop-up shelters, and coordinate with DSA if additional support is required. This mission includes register survivors, sheltering mission, identifying pop-up shelters, and determine requirements at spontaneous shelters.

If requested by HI-EMA, FEMA will activate the Temporary Shelter Assistance program.

**Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

**Oversight, Coordinating Instructions, and Communications**

See the Base Plan of this Plan/Annex.

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## Tab 3 to Appendix 3: Stabilize Potable Water and Wastewater Systems

### Situation

#### Purpose

*Objective 3: Stabilize the Potable Water and Wastewater Systems* establishes a strategy for maintaining water and wastewater services to essential facilities and defines the roles and responsibilities of coordinating and cooperating agencies following a catastrophic hurricane.

#### Background

The State of Hawaii relies on natural water production with supplemental purification to supply its citizens with potable water. The City and County of Honolulu's water authority, the Board of Water Supply (BWS) produces and distributes to over 95 percent of the residents on Oahu. In the other counties, water production and distribution is more decentralized, with multiple production and distribution systems. A complicating factor is that some homes are on water catchment systems – using rainwater for their household needs. When homes on water catchment systems lose power, they no longer have the capability of filtering their water for use. So although water systems may be functioning in a given area, a power outage would result in the loss of water.

The water distribution system is critical to the operation of firefighting, sanitation, and the provision of potable water to shelters and critical facilities. There are no established desalinization plants in Hawaii to provide significant amounts of potable water in the event of a disaster, but reliance upon a bottled water distribution system is logistically unsupportable in Hawaii. Stage limited amounts of bottled water pre-impact to address immediate response needs.

Wastewater treatment and discharge comprise a complex system in which a large portion of the population utilizes systems and processes not under the control or jurisdiction of local government. A significant number of residents rely on septic or cesspool systems that will be particularly vulnerable to storm surge and flooding. With the threat of plant shut down regardless of cause, there is potential for spillage or “bypass” from/through wastewater facilities, septic, and cesspool systems.

#### Mission

Maintain emergency water distribution to key facilities (including shelters and points of distribution), support wastewater services, and minimize spillage following a catastrophic hurricane.

#### Execution

HI-EMA, HDOH, and DAGS, in coordination with FEMA, USACE, and the Environmental Protection Agency (EPA) will support counties in stabilizing the water and wastewater systems within the impacted area. ESF #3 and ESF #7 will provide priority resources and augment water/wastewater services, according to priorities set by the UCS.

*Objective Statement 3: Maintain emergency water distribution to key facilities (including shelters and PODs), support wastewater services, and minimize spillage following a catastrophic hurricane.*

## Concept of Operations

Table 3-10 provides a summary of the number of tasks by core capability that are listed in Appendix X: Execution Checklist for this objective. High level tasks associated with several of these core capabilities are highlighted below.

### Core Capabilities

#### Infrastructure Systems

- Decrease and stabilize immediate infrastructure threats.
- Re-establish potable water and waste water system functionality.
- Coordinate with public and private sector to stabilize and repair critical infrastructure.

**Table 3-10: Tasks by Core Capability**

Core Capabilities	Tasks
Infrastructure Systems	30
Planning	7
Public Information and Warning	2
Environmental Response/Health and Safety	2
Operational Coordination	2
Grand Total	43

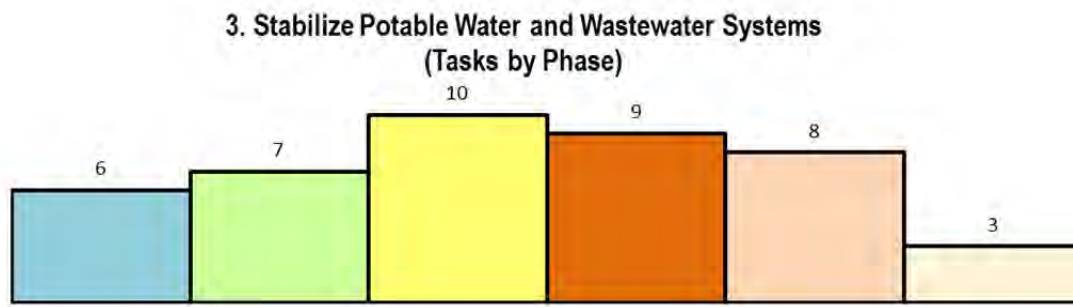
#### Environmental Health and Safety

- Conduct health and safety hazard assessments and disseminate guidance.
- Assess, monitor, perform cleanup actions, and provide resources in order to support requirements.

### Operational Phases

The information provided below shows the triggers and end states for each phase, and some of the key actions that will take place in each phase.

**Figure 3-3: Tasks by Phase**



**Table 3-11: End States to Phases**

Phase	End State
1a	Water and wastewater emergency plans and procedures are developed and exercised. Generator needs are identified and water distribution systems have been prioritized.
1b	Emergency route clearance teams are deployed, emergency protective measures have been taken at critical facilities, and generators have been staged.
1c	Emergency protective measures are complete and DOCs are activated. Starter teams and specialized equipment are prepositioned.
2a	Infrastructure damage assessments are complete and status of water and wastewater systems has been assessed. Emergency power and repair requirements have been identified and implemented.
2b	Additional teams and repair supplies have been deployed.
2c	The water and wastewater systems are operating at normal levels.

#### Phase 1a – Normal Operations

Counties will inventory on-island potable water and wastewater response resources, along with identifying and prioritizing water distribution systems and components.



Potable water and wastewater operators will continue developing backup generator plans statewide. ESF #3, in coordination with USACE, prepares sites to expedite generator operations and validate generator starter teams.

#### ***Phase 1b – Elevated Threat***

Potable water and wastewater service providers will initiate emergency procedures at the beginning of Phase 1b, including but not limited to: topping off fuel at generators, distributing sand bags to some facilities, and ensuring generators are functioning.

HI-EMA will assist with and identify private water distributors to provide potable water to key locations prior to impact. HI-EMA will also pre-identify sources for water purification and wastewater treatment capability. HI-EMA will maintain a potable water/wastewater system situational awareness and coordination utilizing ESF #3. During Phase 1b, notifications and daily briefings with all partner agencies begin. Additionally, develop public messaging for personal preparation for water outages and minimization of wastewater use.

Hawaii Department of Commerce and Consumer Affairs (DCCA) and ESF #7 will begin making contact with commercial water systems to prepare for impact.

During Phase 1b, HI-EMA will request four saw and hand crew teams through EMAC for deployment to Kauai pre-impact to provide emergency route clearance to isolated pump stations.

#### ***Phase 1c – Credible Threat***

Potable water and wastewater system operators will complete all emergency protective measures, including topping off tanks, preparing to take certain generators off-line, and filling up reservoirs to max capacity.

DOCs will be fully activated (staffing plans executed). Notify and preposition teams to restart the potable water/wastewater systems.

FEMA and ESF #3 will support HI-EMA coordination with county water departments to deploy pre-identified FEMA-owned generators from the FEMA DC-HI to prioritized locations. ESF #3 prepositions starter teams for generator installation for immediate employment post-impact.

FEMA, ESF #3 and DOD will ascertain the availability and technical applicability of water purification units needed by HI-EMA designated staging areas post-impact.

ESF #15 will issue an Emergency Public Information statement through the JIC requesting residents turn off their water at the main supply valve for their homes to reduce leaks if pipes are damaged, facilitating post-impact restoration of service.

#### ***Phase 2a – Immediate Response/Life Safety***

During Phase 2a, potable water and wastewater operators will implement assessment and restoration plans, based on reported situational awareness information.

Deploy damage assessment teams to prioritized pump stations and key generators to identify system conditions and operating status, secure pump stations, and inspect reservoir conditions. Operations personnel will report to the EOCs/DOCs to coordinate restart times. Potable water and wastewater facilities will continue to liaise with county emergency management.

HI-EMA will maintain situational awareness to support the counties, analyze damage assessments of impacts, determine requirements for providing water to population, process RFAs from counties, and coordinate with ESF #8 and #10 regarding medical and environmental issues.

ESF #3 Temporary Power PRT supports local government installation of emergency generators at critical pump stations.

***Phase 2b – Life Sustaining Response/Employment***

Potable water and wastewater operators will identify additional generator requirements to re-establish the entire water system and coordinate with ESFs #3, #7, and #12 to supply necessary power generation and fuel capabilities. USACE will implement generator installation crew contracts and FEMA will mission assign to install additional large generators in order to support emergency power generation at water pump sites.

HI-EMA will utilize EMAC to augment water/wastewater staff personnel as requested.

ESF#3 Infrastructure Assessment PRT team provides technical expertise in support of local government water and waste water system restoration.

***Phase 2c – Sustained Response/Transition to Recovery***

ESFs #3, #7, and #12 continue to coordinate actions to clear routes, provide power, and support the repair of potable water and wastewater facilities.

**Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

**Oversight, Coordinating Instructions, and Communications****Local**

ESF #3 and county EOCs coordinate directly with the SEOC. County EOCs will be responsible for providing additional resources to facilitate the stabilization of potable water and wastewater systems.

**State**

ESF #10 and HDOH Clean Water Branch coordinate efforts to support counties on water/wastewater treatment issues.

**Federal**

ESFs #3, #7, and #12 coordinate actions to clear routes, provide power, and support the repair of potable water and wastewater facilities.

## Tab 4 to Appendix 3: Deliver Fuel to Support Essential Services

### Situation

#### Purpose

Objective 4: Deliver Fuel to Support Essential Services outlines a strategy for facilitating the provision of fuel to essential services and defines the roles and responsibilities of coordinating and cooperating agencies following a catastrophic hurricane.

#### Background

- A vast majority of sources of power are dependent on the availability and distribution of fuel, having the greatest interdependency for attaining all response objectives. An effective fuel distribution strategy is paramount to achieving successful operations supporting a response after a catastrophic hurricane. The seaports and highways are a critical component for importing and distributing a supply of the various finished petroleum products while the refineries are out of production.
- While fuel production and distribution are normally a private sector capability, the Unified Coordination Group (UCG) must prioritize fuel usage and distribution in time of crisis. Hawaii fuel distribution capabilities will be unable to meet the demand for transportation and numerous emergency backup generators at critical facilities following a catastrophic hurricane. Therefore, a dedicated effort on the part of the UCS will be required. An executable and supportable fuel distribution strategy for transportation needs and emergency power generation is critical to maintain essential services at medical facilities, certain shelters, water pump stations, essential command and control nodes, emergency response vehicles, and debris clearance equipment.
- Two refineries are located on Oahu. Chevron and Hawaii Independent Energy operate the two existing refineries in Hawaii. They provide more than 90 percent of Hawaii's fuel requirements including gasoline, naphtha, diesel, and jet fuel. The complete shutdown of one or both refineries will have a significant impact on fuel distribution throughout Hawaii. During periods of refinery maintenance, any damage to storage tanks, loading terminals, and pipelines within the system could cause significant supply disruptions and shortages for life line services and consumer demand.
- These refineries and other distributors generally have a 15 to 30 day supply of finished fuel products on hand. This, however, varies by product and over time.
- The distribution of fuel will be a critical capability due to possible storage tank, pipeline damage, and fuel barge availability.
- Harbors may be degraded for 7 to 30 days during damage assessment, debris clearance, and pier restoration; therefore, the planning assumption for fuel should be 30 days to account for any shortages during the month and surge operations during hurricane response to support a worst-case scenario.

The Governor provides direction to the citizens of Hawaii and for all state government agencies during an energy emergency or shortage. The Governor may recommend voluntary energy conservation measures and/or declare an energy shortage, including signing executive orders that implement mandatory conservation programs and other management programs. These programs could include hardship set-aside and retail sales measures as deemed necessary and as recommended by the State of Hawaii Energy Resources Coordinator [Hawaii Department of Business, Economic Development and Tourism (DBEDT) Director].

In addition to responsibilities as the ESF #12 coordinating agency, DBEDT through its Hawaii State Energy Office operates a Shortage Management Center (SMC) which also serves as a DOC. For the management of fuel shortage issues, the SMC establishes and maintains liaison linkages with other working groups such as Energy Task Force member organizations and must be prepared to brief senior leadership and carry out assigned public relations and media relations duties.

## Mission

Coordinate resources to provide for distribution of fuel to support prioritized response activities following a catastrophic hurricane during commercial delivery operations restoration.

## Execution

### Concept of Operations

Fuel delivery and distribution is a private sector operation supported by state and federal technical assistance. After identification and reconstitution of priority fuel distribution points and establishment of site-specific fuel delivery capabilities and channels, fuel distribution will transition back to the private sector and normal delivery operations.

***Objective Statement 4: Distribute fuel to support prioritized response activities following a catastrophic hurricane as commercial delivery operations are restored.***

### Concept of Operations

Table 3-12 provides a summary of the number of tasks by core capability that are listed in Appendix X: Execution Checklist for this objective. High level tasks associated with several of these core capabilities are highlighted below.

#### Core Capabilities

##### Infrastructure Systems

- Decrease and stabilize immediate infrastructure threats.
- Re-establish critical infrastructure to support response operations, fuel production, and delivery operations.
- Complete site surveys and damage assessments on critical transportation infrastructure.
- Establish critical transportation routes to allow for delivery of fuel to prioritized essential services.
- Stabilize seaport fuel infrastructure to support essential services.

**Table 3-12: Tasks by Core Capability**

Core Capabilities	Tasks
Infrastructure Systems	49
Planning	19
Public and Private Services and Resources	4
Public Information and Warning	1
On-Scene Security and Protection	1
Grand Total	74

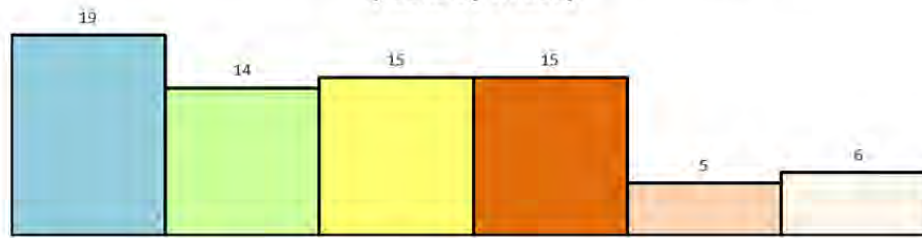
##### Public and Private Services and Resources

- Disseminate guidance and resources, to include deploying hazardous materials teams.
- Provide fuel support for prioritized essential services.

#### Operational Phases

The information provided below shows the triggers and end states for each phase, and some of the key actions that will take place in each phase.



**Figure 3-4: Tasks by Phase****4. Deliver Fuel to Support Essential Services  
(Tasks by Phase)****Table 3-13: End States to Phases**

Phase	End State
1a	Critical facilities and their fuel requirements are identified.
1b	Status of fuel is assessed and potential shortages are identified. Supplemental assets have been alerted.
1c	Emergency protective measures have been completed, fueling assets are staged and generators at critical facilities have been stocked.
2a	Damage assessments have been conducted, fuel requirements are identified and generators have been employed.
2b	Fuel supply and distribution have been augmented by out of state assets.
2c	Fuel operations transition back to the private sector.

***Phase 1a – Normal Operations***

ESF #12 will also coordinate fuel preparedness and continuity of operations with private industry through the Energy Task Force and continue to prepare for potential implementation of fuel demand mitigation and conservation programs and measures. ESF #12 will identify jobbers and coordinate anticipated post-impact requirement for fuel, bladders, containment systems, fuel transportation vehicles, and on-site delivery.

The State Procurement Office and GSA will cross-reference current contracts that are in place to avoid redundancy of resources, and activate pre-approved state contracts first. ESF #5 in coordination with ESF #12 will identify source and availability of fuel containers and identify and prioritize locations for deployment, as required.

ESF #5 will identify and maintain a listing of critical facilities requiring diesel and propane fuel requirements during an event utilizing the following process:

- Counties and non-government facilities develop lists of critical facilities/functions and requirements.
- State agencies/ESFs define their critical state facilities and requirements.
- FEMA develops list of federal critical facilities and requirements.

ESF #12 collects existing critical facilities lists and coordinates prioritization with UCG. ESF #5 will identify and maintain a listing of fuel distribution points that include the locations of emergency generators. ESF #3 will assess commercial stations for generators to pump existing fuel in the event of a power outage.

ESF#3 is responsible for leading a temporary power task force to identify, consolidate local/state requirements, and prioritize generators. ESF#3 USACE will support with Temporary Power PRT, 249th Engineer Battalion and contractors and will convene the Power Interagency Task Force call.

***Phase 1b – Elevated Threat***

During Phase 1b, county EOCs activate and maintain situational awareness for fuel requirements and marshalling resources. ESF #12 will facilitate information exchange with the Energy Task Force to ensure a unity of effort. ESF #12 will provide a status report of the fuel at those facilities as defined in Phase 1a (this activity continues throughout the event). The Defense Coordinating Officer (DCO) will make available DOD on-island fuel assets (fuel, bladders, containment systems, and fuel transportation vehicles).

ESF #7 will identify and coordinate with commercial retail diesel fuel owners and distributors for the refueling needs of emergency responders post impact. ESFs #3, #7, and #12 will identify and alert CONUS-based assets including but not limited to ESF #12, vacuum trucks, other specialized equipment, and generators and teams.

ESF #12 will prepare for the potential implementation of appropriate prioritized petroleum emergency response measures. ESF #7 will identify fuel retailers, distributors and transporters, and coordinate anticipated post-impact requirement for fuel, fuel loading, fuel delivery, fuel storage/containment, and any on-site refueling pumping needs.

***Phase 1c – Credible Threat***

ESF #12 will communicate with private industry for post-impact fuel delivery operations. ESF #3 will communicate emergency power maintenance fuel needs with ESF #12.

ESF #12 will coordinate with refineries and the private industry to project on-island fuel resources.

ESF #7 will implement IAAs with DOD to provide assets in support of fuel distribution, if required.

***Phase 2a – Immediate Response/Life Safety***

ESF #7 will arrange for the delivery of fuel to critical locations.

ESF #12, in coordination with the Energy Task Force, will assure adequate fuel for public safety, the performance of prioritized ESFs as determined by HI-EMA (to include restoration of critical facilities), and critical industries to assist in maintaining Hawaii's economic base. ESF #12, in coordination with ESF #15, will intensify public information and outreach programs reinforcing the need for conservation and curtailment of all nonessential activities requiring petroleum fuel or other forms of energy.

ESF #13 will provide security at fuel distribution sites.

***Phase 2b – Life Sustaining Response/Employment***

ESF #7 will augment fuel delivery assets by contracting with off-island sources.

***Phase 2c – Sustained Response/Transition to Recovery***

ESF #12, in coordination with the Energy Task Force, will implement strategies for the transition of retail fuel operations to the private sector and continue to analyze applicable fuel shortage information sources to ensure sustainment of the restoration of petroleum fuel supplies.

ESF #13 recalls security personnel from fuel distribution sites.

**Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

## Oversight, Coordinating Instructions, and Communications

### Local

For ESF #12, the county EOCs coordinate directly with DBEDT. County and state governments have primary responsibility for prioritizing the restoration of energy facilities.

### State

Pursuant to the State of Hawaii Energy Assurance Plan, DBEDT's SMC supports State ESF #12 to ensure centralized coordination of all State ESF #12 activities. The SMC coordinates incident-related reports to and integrates with the JFO through State ESF #12. The SMC provides incident-related reports to and integrates with the JFO.

The Hawaii State Energy Council member organizations support the SMC's planning, logistics, and operations functions.

### Federal

ESF #12 is coordinated through U.S. Department of Energy (USDOE) Headquarters (HQ). ESF #12 activates when FEMA notifies the 24-hour USDOE HQ EOC.

Federal ESF #12 representatives deploy to the RRCC. The ESF #12 Team Leader at the RRCC coordinates assignments, actions, and other support until the JFO is established and mission-execution responsibilities transfer to the JFO ESF #12 Team Leader.

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## Tab 5 to Appendix 3: Protect On-Island Critical Resources

### Situation

#### Purpose

**Objective 5: Protect On-Island Critical Resources** outlines a strategy for protecting resources and critical facilities during a catastrophic hurricane.

#### Background

The efficient and timely protection of on-island government and private industry infrastructure and resources is necessary for an effective response. Given the topography of Hawaii, expect severe damage to utility facilities, service providers and property, including equipment as winds accelerate upslope and downslope in a Category 4 hurricane in speeds in excess of 200 mph.

Pre-identified Critical Resource Relocation Sites (CRRS) may provide reasonably safe, pre-impact staging areas while reducing the risk of severe damage to equipment and commodities during the impact of hurricane force winds, storm surge, and heavy rains and flooding.

#### Mission

Coordinate and support the protection, security, and preservation of on-island critical resources, as identified by county, state, and federal departments and agencies.

#### Execution

##### Concept of Operations

In order to provide lifesaving and life sustaining supplies and materials to the affected population and infrastructure, HI-EMA and FEMA will coordinate the protection and preservation (pre-impact) and security (post-impact) of on-island critical resources, which includes pre-staged initial response resources, capabilities, and assets.

Reconstituting the integrity of critical resources, including government and private industry owned, and clearing transportation routes are essential to providing emergency and life sustaining services immediately post-impact. The UCS, in coordination with the county and state emergency management officials, will coordinate for the protection of government and privately owned critical resources in accordance with catastrophic planning requirements.

Emergency protective measures include, but are not limited to, facility enhancements, structural protection, Emergency Operations Plans, storm shutters, moving resources, and purchasing/installing back-up electronic equipment.

**Objective Statement 5: Coordinate and support the protection, security, and preservation of on-island critical government resources statewide.**

Table 3-14 provides a summary of the number of tasks by core capability that is listed in Appendix X: Execution Checklist for this objective. High level tasks associated with several of these core capabilities are highlighted below.

## Core Capabilities

### On-scene Security and Protection

- Establish a safe and secure environment in the affected area(s).
- Provide and maintain on-scene security and protection of critical resources.
- Eliminate/mitigate risk of further damage to persons, property, and environment.

### Operational Coordination

- Designate critical resources, capabilities, and assets.
- Identify resource allocation strategies and prioritize critical resources, capabilities, and assets.

**Table 3-14: Tasks by Core Capability**

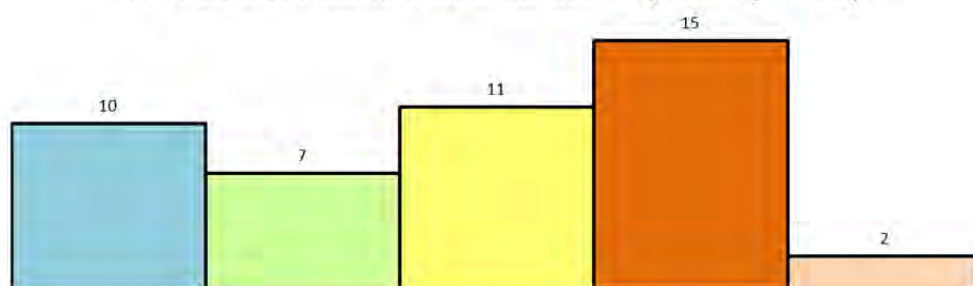
Core Capabilities	Tasks
Infrastructure Systems	12
Planning	10
On-Scene Security and Protection	9
Operational Coordination	6
Operational Communications	3
Situational Assessment	2
Public and Private Services and Resources	1
Mass Care Services	1
Critical Transportation	1
Grand Total	45

## Operational Phases

The information provided below shows the triggers and end states for each phase, and some of the key actions that will take place in each phase.

**Figure 3-5: Tasks by Phase**

### 5. Protect On-Island Critical Resources (Tasks by Phase)



**Table 3-15: End States to Phases**

Phase	End State
1a	Critical resources have been identified. Critical resources relocation and movement plans are developed. Protection and security Standard Operating Procedures are in place.
1b	Critical resource protection plans are implemented.
1c	Emergency protective measures are complete and critical resources are relocated or sheltered-in-place. Security augmentation is deployed.
2a	Damage assessments are complete. Emergency repairs are made to prevent cascading effects.
2b	Additional teams and resources are deployed to assist in repairs.
2c	Critical resources are returned and operations are at normal levels.

### Phase 1a – Normal Operations

During Phase 1a, ESF #5 will create a statewide Critical Infrastructure and Key Resources (CIKR) inventory and develop resources and/or facilities protection plans. This includes coordinating of route planning and traffic concerns; de-conflicting resource relocation and staging plans; determining staffing, timeline, and jurisdiction for CRRS; and identifying and engaging key associations/coalitions to gather resource protection planning information. HI-EMA assists with collecting and updating private partner critical resources information during a response.

Additionally, ESF #5 provides situational awareness and Information Collection Plans (ICPs). The ICP includes resource data collected at county and state agencies, and data requests collated at the state-level for resource tracking mechanisms.

ESF #13 will develop law enforcement protection/security SOPs for providing security services pre and post-impact for government resources and/or facilities on-island.

HI-EMA will coordinate with counties on establishing MOU and Mutual Aid Agreements (MAAs) for use of facilities in support of staging SAR and medical assets in each county. Each county will develop a list of hardened facilities that can be used to shelter emergency personnel being pre-positioned for the response effort arriving from CONUS in coordination with HI-EMA.

### ***Phase 1b – Elevated Threat***

At the beginning of Phase 1b, infrastructure and resource owners will begin executing facility/resource protection plans. HI-EMA may make a request to the Governor to activate the Hawaii National Guard to assist in the movement and protection of critical resources pre-impact. ESF #5 will validate the status of CRRS sites and review existing contracts for use and protection of those sites. As relocation plans are activated ESF #5 will track resources through CRRS sites and initiate information collection on status of critical resources. This status information will inform the joint operations section of the UCS, once established, executing the selected strategy for re-establishing critical transportation routes, among other tasks.

ESF #13 develops an analysis of law enforcement capabilities for on-island critical resources to support response operations and maintain a Quick Response Team to be activated during Phase 1b to ensure the protection of county, state, and federal critical resources.

### ***Phase 1c – Credible Threat***

Anticipating the need for additional security capabilities, ESF #13 will request security augmentation to be deployed post-impact in support of federal critical facilities.

Complete resource relocation; ESF #5 contacts critical resource owners to coordinate relocation at CRRS sites.

Deployed DMAT personnel will prepare to shelter in hospitals and in emergency hurricane shelters.

The Maritime Transportation System Recovery Unit (MTSRU) will coordinate the movement of maritime resources out of inundation zones. The private shipping industry will complete the movement of critical assets and commodities to CRRS (or other safe locations) prior to the Captain of the Port closing the ports.

### ***Phase 2a– Immediate Response/Life Safety***

When conditions permit (preferably within 12 hours of the cancellation of warnings by NWS), owners/operators assess critical resources and report their operational status to associations/coalitions through methods in place during Phase 1b. Consolidate resource data at industry operations centers and provide the status to the UCS.

ESF #3 coordinates structural assessments of critical infrastructure, and identifies emergency repair requirements to prevent cascading effects. DHS will provide a Critical Infrastructure Damage Report, when requested, to assist in the assessment process.

ESF #7 identifies and secures alternate sites if existing CRRS sites are impacted. USACE may provide modular generator units.

ESF #13 will assess availability and/or need for additional law enforcement (county, state, and federal) personnel to protect critical resources and prioritize security requirements.

ESF #5 will continue to track resource movement at CRRS sites.

#### ***Phase 2b – Life Sustaining Response/Employment***

ESF #5 will continue to collect and disseminate CIKR situational information. Employ additional law enforcement resources as required.

#### ***Phase 2c – Sustained Response/Transition to Recovery***

During Phase 2c, ESF #5 will continue to reallocate/prioritize critical resources, and allocate or demobilize teams and support resources. Counties determine release of local law enforcement from assigned tasks for CIKR protection as situation permits and operations return to pre-incident levels.

### **Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

### **Oversight, Coordinating Instructions, and Communications**

#### **Local**

Counties will activate EOCs to coordinate emergency protective measures for CIKR.

#### **State**

ESF #5 activates and convenes state emergency assets and capabilities for state response and recovery activities; coordinates with county EOC on requirements; and prepares and executes EMAC contracts for out-of-state support. Planning Section at the SEOC and the county EOCs coordinate incident action plans (IAPs) for current and future planning functions in coordination with the other ESFs.

#### **Federal**

ESF #5 helps maintain situational awareness of the threat or incident. Planning sections at the SEOC/JFO/IOF and the county EOCs coordinate IAPs for current and future planning functions in coordination with the other ESFs engaged in the operation and with those who are operating under agency statutory authorities.

ESF #5 ensures the establishment of required field facilities and arranges for supplies and equipment to support activities related to the management of an incident.

Each section under the UCG continues to jointly execute its responsibility until federal presence is no longer required by HI-EMA and the Federal component of the operation is terminated.

As the HI-EMA assumes greater responsibility for the recovery operation, ESF #5 coordinates the demobilization of federal assistance.



## Tab 6 to Appendix 3: Restore Power to Essential Services

### Situation

#### Purpose

**Objective 6: Restore Power to Essential Services** outlines a strategy for providing power to sustain essential services following a catastrophic hurricane.

#### Background

A catastrophic hurricane will produce statewide power outages and disrupt all energy systems, resources, and markets. Much of Hawaii's electrical systems are located in inundation zones. Failure of this infrastructure will lead to major disruptions of production, transmission, and distribution of electricity. The power generation and distribution systems in Hawaii are subject to island-wide outages before, during, and after a catastrophic hurricane. Transmission lines are subject to damage from wind and flying debris. Substations and transformer stations are subject to inundation and flying debris. Older transmission lines are not designed for winds associated with a Category 4 hurricane. While efforts have been made to strengthen the 138-kilovolt system, the sub-transmission system remains the most vulnerable part of the system.

#### Mission

Provide emergency power to essential services, assist with power infrastructure assessment, and facilitate the restoration of damaged energy systems following a catastrophic hurricane throughout the State of Hawaii.

#### Execution

##### Concept of Operations

In order to provide emergency power to emergency services, HI-EMA and FEMA will coordinate with the whole community including the private sector to rapidly restore energy systems in the state.

**Objective Statement 6: Provide emergency power to essential services, assist with power infrastructure assessment, and facilitate the restoration of damaged energy systems following a catastrophic hurricane throughout the State of Hawaii.**

Table 3-16 provides a summary of the number of tasks by core capability that are listed in Appendix X: Execution Checklist for this objective. High level tasks associated with several of these core capabilities are highlighted below.

##### Core Capabilities

###### Infrastructure Systems

- Assess power infrastructure for facilities providing essential services.

###### Public and Private Services and Resources

- Provide emergency generator power for essential services.

HI-EMA and DBEDT, in coordination with USDOE and FEMA, will support the actions of local power companies and cooperatives through public-private sector communication to strategize damage assessment collections and identify, prioritize, and obtain resources to restore the electrical power grid and electric distribution following a catastrophic hurricane.

**Table 3-16: Tasks by Core Capability**

Core Capabilities	Tasks
Infrastructure Systems	70
Planning	9
Operational Coordination	3
Public and Private Services and Resources	2
Public Information and Warning	1
Grand Total	85

This objective is accomplished through the provision of temporary emergency power to essential services, including critical facilities.

### Operational Phases

The information provided below shows the triggers and end states for each phase, and some of the key actions that will take place in each phase.

**Figure 3-6: Tasks by Phase**

**6. Restore Power to Essential Services  
(Tasks by Phase)**



**Table 3-17: End States to Phases**

Phase	End State
1a	Emergency power needs for critical facilities are identified, generator requirements are defined and proper hook-ups are in place.
1b	Critical resources relocation and protection plans are activated and power resources have been deployed.
1c	Additional resources are staged in CONUS. Protection measures are in place and teams are sheltered-in-place.
2a	Damage assessments are complete. Grid components are stabilized and emergency repairs have mitigated cascading effects. Generators have been deployed to critical facilities.
2b	Supplemental resources have been employed to repair the power grid. Continuous power is supplied at critical facilities.
2c	Power grids are operational and generators are no longer required.

### Phase 1a – Normal Operations

During Phase 1a, ESF #5 will formalize a communication and organization structure between county, state, and private sector entities. This includes ESF #3 and ESF #12 reporting mechanisms for situational awareness and RFAs.

ESF #3 will assess the status of generators at priority facilities and analyze facility resiliency to install additional generators statewide. USACE, with support from the 249th Engineer Battalion, will conduct generator Pre-Installation Inspections for critical facilities in support of local and state government.

State ESF #12 will provide subject matter support to primary State/County agencies responsible for development of prioritized list of critical facilities and essential services.

HI-EMA and county emergency managers will identify supporting resources needed to protect, stabilize, and re-establish power at government-owned facilities and coordinate support for restoration of power at local or privately owned power companies and cooperatives.

HI-EMA and county emergency managers will develop and maintain a list of—

- County and state critical facilities and essential services that will require emergency power during the response operations following a catastrophic hurricane.
- Required fuel by type before during, and/or after a catastrophic hurricane event for critical facilities and services.
- Essential emergency generators that will require fuel support.

FEMA will develop and maintain corresponding lists for federal facilities and critical resources.

### ***Phase 1b – Elevated Threat***

ESF#3 Temporary Power PRT Team advanced element, 249th Engineer Battalion, and Temporary Power SMEs deploy pre-landfall and begin coordination with state and local. USACE activates contracts under the Advanced Contracting Initiative (emergency contracting) (see Appendix X for specific tasks).

ESF #12 will initiate communications with utilities for situational awareness, assess the degree of expected impact, and identify and validate possible requests for assistance/requests for information.

ESF #12 coordinates with electric utilities to collect information on operational issues, including resource/logistics planning, and availability of out-of-state resources.

ESF #12 coordinates the issuance of PSAs with ESF #15 and utility stakeholders to deliver public messaging regarding utility status and energy conservation. ESF #5 collects information on the status of priority facilities, including the need for backup generation capacity, and coordinates required assistance with SEOC for activation of additional ESFs (ESF #3 and ESF #12).

ESF #3 coordinates the power interagency conference call with FEMA, USACE, USACE Contractors, and the USDOE. ESF #3 alerts the PRT, 249th, and Contractor.

ESF #3 sources generators not in FEMA inventory via pre-existing contract and deploys the Hawaii-specific supplemental generator package.

ESF #7 coordinates the air delivery of generator packs from CONUS ISB to staging areas at the counties.

USACE gathers and validates the list of pre-assessed facilities and identifies staging areas for emergency power generation assets in coordination with FEMA Logistics.

Counties coordinate with privately owned power companies and cooperatives to complete pre-incident preparedness actions (e.g., assessments, status of generators).

USACE will deploy the PRT management cell to Honolulu and stage the remainder of the PRT team, contractor, and contractor equipment at CONUS-based locations.

### ***Phase 1c – Credible Threat***

Alert and stage the following resources at the CONUS ISB:

- ESF #3 SAR structure specialist
- ESF #3 Type III Power PRT

In addition, the counties and HI-EMA through FEMA may alert the following ESF #3 SMEs based on requirements established by the counties and HI-EMA through FEMA:

- ESF #3 Type 1 Commodities PRT
- ESF #3 Commodities PRT – Advanced Element
- ESF #3 Logistics Power PRT

ESF #12 provides coordination support to counties and utilities to identify potential requests for assistance, and resource capabilities, gaps and shortfalls related to delivery of commercial power.

ESF #12 (DBEDT) will coordinate with utilities to share critical information on status of electricity infrastructure, generation, transmission & distribution, and critical loads with HI-EMA.

ESF #5 continues to gather situational awareness information from ESF #3 and ESF #12 sources, coordinates RFAs from state agencies, and executes resource allocation, as requested and available.

All deployed teams and resources shelter-in-place.

ESF #3 Temporary Power PRT will provide technical advice to local/state government and conduct Pre-Installation Inspections.

Additional PRT and contract resources begin staging at CONUS ISB.

ESF #3 coordinates the power interagency conference call with FEMA, USACE, USACE Contractors, and the USDOE. ESF #3 alerts the PRT, 249th, and Contractor.

#### ***Phase 2a – Immediate Response/Life Safety***

ESF #12 coordinates with counties, HI-EMA, and electric utilities to develop system situational awareness through damage assessments, status reports, outage reports, and restoration priorities & schedules.

ESF #12 requests establishment of the Energy Task Force to continue information management and provide critical impacts to senior leadership, including recommended priorities for power restoration response action, facilitation of supplemental assistance through West Coast Mutual Aid.

ESF #12 may stand up an SMC, if not already activated in Phase 1c. The SMC recommends priorities for response action and supports power restoration through the facilitation of supplemental repair parts and crews through West Coast Mutual Aid.

Additional Temporary Power PRT, and contract resources deploy to Hawaii.

ESF #3 installs, operates, and maintains generators at critical facilities.

ESF#3 consolidates and prioritizes all local and state generator requirements.

ESF #7 coordinates with ESF #3 and ESF #12 to provide required air and ground transportation assets in support of the power mission. Phase 2b – Life Sustaining Response/Employment

ESF #3 and ESF #12 will continue to employ additional generators and repair teams.

ESF #12 will support efforts of counties, and state and federal agencies involved in prioritizing distribution of supplemental power generation equipment through coordination with utilities.

Continue public information coordination for conservation and curtailment of non-essential activities requiring power.

ESF #12, as determined by the UCS, support logistics function with coordination of supplemental government technical assistance to utilities for responder's support camp housing and feeding, coordination of transportation resources and priority handling of power restoration assets from CONUS/neighbor islands, debris clearance; operation of staging areas; and fuel prioritization for utility restoration equipment.

#### ***Phase 2b – Life Sustaining Response/Employment***

During Phase 2b, response organizations will execute the priorities established by the UCG to restore power to essential services. This will require close coordination between all ESF, as well as the private sector.

#### ***Phase 2c – Sustained Response/Transition to Recovery***

Phase 2c is characterized by bringing critical facilities off of emergency power and power generation returns to pre-incident operation.

ESF #12 coordinates the transition of electrical power operations to the private sector and continues to analyze requirements to ensure sustain the restoration of the electrical grid.

### **Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

### **Oversight, Coordinating Instructions, and Communications**

#### **Local**

Maui Electric Company, Hawaiian Electric Company, and Hawaii Electric and Light Company are all subsidiaries of Hawaiian Electric Industries, a private for-profit business.

Kauai Island Electric Cooperative is a cooperative representing 32,000 customers and is a non-profit organization that qualifies as a Public Assistance program direct applicant.

All utilities have representatives in the county EOCs during emergency response.

All utilities exercise in accordance with ICS principles.

#### **State**

County and state governments have primary responsibility for prioritizing the restoration of energy facilities.

#### **Federal**

Federal ESF #12 deploys as members of the IMAT and/or Rapid Needs Assessment (RNA) Team and integrates into the JFO Operations Section.



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## Tab 7 to Appendix 3: Re-establish Transportation Routes for Essential Services

### Situation

#### Purpose

**Objective 7: Re-establish Transportation Routes for Essential Services** outlines a strategy for providing access to essential services following a catastrophic hurricane.

#### Background

Re-establishing transportation routes will be a priority for response efforts in order to provide emergency and life sustaining services immediately following a catastrophic hurricane.

#### Mission

Coordinate and provide operational support and resources to ensure surface transportation routes enable access to essential services.

### Execution

#### Concept of Operations

The UCS in coordination with the state and county emergency management officials will coordinate and prioritize limited resources to re-establish transportation routes in accordance with supporting other objectives and tasks. Leveraging private contractor assets will be critical in achieving this objective in a timely manner.

This objective is accomplished through the counties developing and implementing road clearance plans to re-establish transportation routes. The state will support counties with additional state capabilities as needed, and will request additional federal/DOD support if local and state resources are overwhelmed.

**Objective Statement 7: Coordinate and provide operational support and resources to ensure surface transportation routes enable access to essential services.**

Table 3-18 provides a summary of the number of tasks by core capability that are listed in Appendix X: Execution Checklist for this objective. High level tasks associated with several of these core capabilities are highlighted below.

#### Core Capabilities

##### Critical Transportation

- Re-establish critical transportation routes to provide resources to essential services.
- Establish access through transportation corridors in order to deliver required resources.

##### Infrastructure Systems

- Decrease and stabilize immediate infrastructure threats.
- Re-establish critical infrastructure to support response operations, life sustainment, and community functionality.

**Table 3-18: Tasks by Core Capability**

Core Capabilities	Tasks
Critical Transportation	24
Planning	7
Infrastructure Systems	6
Public Information and Warning	2
Environmental Response/Health and Safety	1
Situational Assessment	1
Operational Coordination	1
Grand Total	42

- Conduct site surveys and damage assessments on critical transportation infrastructure.

### *Environmental Health and Safety*

- Perform hazard and risk assessments; collect sampling and monitoring data.
- Conduct health and safety hazard assessments and disseminate guidance.
- Assess, monitor, perform cleanup actions, and provide resources in order to support requirements.

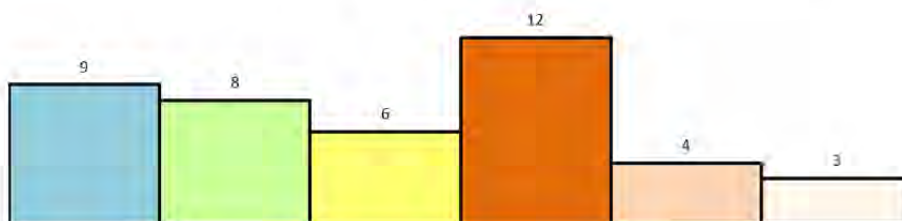
### *Operational Phases*

Counties develop and implement road clearance plans to re-establish transportation routes. The state supports the counties with additional state capabilities as needed, and requests additional federal/DOD support if local and state resources are overwhelmed. Leveraging private contractor assets is critical in achieving this objective in a timely manner. #7 and ESF #3 coordinate to ensure the smooth movement of needed resources over cleared routes.

The information provided below shows the triggers and end states for each phase, and some of the key actions that will take place in each phase.

**Figure 3-7: Tasks by Phase**

**7. Reestablish Transportation Routes for Essential Services  
(Tasks by Phase)**



**Table 3-19: End Stats to Phases**

Phase	End State
1a	Debris clearance plans are finalized and validated by the counties. Contracts for debris clearance are in place. Plans and resources have been coordinated statewide.
1b	Debris tasks forces have convened and initial resources have been deployed.
1c	Deployed teams and resources are sheltered-in-place.
2a	Damage assessments, including aerial surveillance, are conducted. Operational clearance priorities are established and emergency route clearance to critical facilities is complete.
2b	Additional teams and resources have been deployed.
2c	Transportation routes are at pre-incident accessibility and essential services are accessible. Supplemental teams and resources have been demobilized.

### *Phase 1a – Normal Operations*

ESF #5 and county EOCs will identify and locate critical facilities. These include ports; hospitals, dialysis centers and other health care facilities; fire, police and EMS facilities; shelters; water and wastewater facilities; and power plants.

This information assists counties and the HDOT in identifying key routes and vulnerable transportation infrastructure.

Counties, in coordination with HDOT, develop emergency debris clearance plans. Plans should include developing priority routes, deconflicting clearance responsibilities with HDOT and (when applicable) DOD, and establishing timelines for having priority routes cleared.

HDOT develops an overarching action plan with requirements and resources that bridge concepts from county debris clearance plans. County and state organizations will deconflict existing pre-disaster contracts. The state and counties will develop MOUs/MAAs to identify the use of critical repair and debris clearance resources.

#### ***Phase 1b – Elevated Threat***

During Phase 1b, counties assess roadway repair operations and initiate emergency protective measures, and vehicle/equipment repairs.

ESF#3 Debris PRT and SMEs begin assessing local and state debris plans and capabilities and planning for debris management.

Counties and state convene debris management task forces.

Initial resource movements occur no later than 72 hours prior to onset of tropical storm force winds. USACE ESF#3 deploys debris SMEs and a USACE Debris PRT Management Cell and stages contract management teams. HI-EMA validates and broadcasts EMAC resources.

#### ***Phase 1c – Credible Threat***

All deployed teams and resources shelter-in-place.

#### ***Phase 2a – Immediate Response/Life Safety***

Counties and HDOT implement emergency route clearance plans and employ assessment teams, including aerial damage assessments.

ESF #5 receives and employs additional capabilities, activates EMAC and coordinates status reports (road and bridge assessments, vehicle and equipment status) to establish operational clearance priorities.

ESF #15 coordinates public messaging for road and bridge conditions.

ESF#3 Additional Debris PRT and contractor resources deploy to Hawaii. As mission assigned by FEMA, Debris PRT and contractor provide technical advice and execute debris clearance missions in support of local/state and support FEMA debris monitoring.

#### ***Phase 2b – Life Sustaining Response/Employment***

ESF #5 coordinates additional ESF support for capabilities, resources, and assets through the UCG, as required.

USACE prepares to deploy a debris management PRT if requested to manage debris by the counties.

#### ***Phase 2c – Sustained Response/Transition to Recovery***

ESF #5 coordinates additional ESF support for capabilities, resources, and assets through the UCG, as required, to re-establish transportation routes to essential service providers.

### **Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

### **Oversight, Coordinating Instructions, and Communications**

#### **Local**

The principal responsibilities for conducting debris clearance and disposal activities following a disaster fall to county public works departments and emergency management agencies. County environmental management departments have the responsibility of disposing of debris and ensuring that any hazardous materials will not pose a threat to the population and environment.

**State**

HDOT-Highways is primarily responsible for clearing debris from state roads and highways.

**Federal**

ESF #1 representatives deploy as members of the RNA Team and/or IMAT. Through the Operations Section of the UCS, they have the responsibility to collect, evaluate, and disseminate information regarding the status of the transportation system.



## Tab 8 to Appendix 3: Restore Port Operations

### Situation

### Purpose

**Objective 8: Restore Port Operations** outlines a strategy for facilitating the restoration of seaports following a catastrophic hurricane.

### Background

Airports and seaports are the lifeblood for Hawaii. Due to its remote location, port operations are a critical necessity for conducting response and recovery efforts. Returning port facilities to functional operating status is a primary response effort, pending debris clearance, in order to support additional critical response and recovery objectives.

### Mission

Restore and/or establish statewide maritime and airport operations to provide sustaining supplies and materials to support life sustaining activities and emergency response measures.

### Execution

#### Concept of Operations

The primary method of restoring Hawaii's seaport cargo throughput is by maintaining Oahu as the primary hub (trans-shipment point) for neighboring islands, while making selective direct shipments from CONUS-based supply caches to neighbor islands where feasible. ESF #1 will identify in Phase 1b and deploy in Phase 1c assets that will provide planning, assessment, and cargo handling capabilities post-impact. Based on preliminary assessment of seaport damage, a team led by HDOT-Harbors and the USCG, and including shipping representatives, will review and execute the Maritime Transportation System Recovery Plan. MTSRU coordinates port restoration and includes the USCG, HDOT-Harbors, private sector, and USACE.

This objective is accomplished through restoring existing infrastructure and establishing alternate ports as needed. ESF #1, the Seaport Unified Command, and the Airport DOC will conduct air and seaport response operations in a degraded environment using a combination of commercial, MARAD, and DOD capabilities to ensure the continued throughput of passengers and cargo following a catastrophic hurricane.

**Objective Statement 8: Restore and/or establish statewide maritime and airport operations to provide sustaining supplies and materials supporting life sustaining activities and emergency response measures.**

**Table 3-20: Tasks by Core Capability**

Table 3-20 provides a summary of the number of tasks by core capability that are listed in Appendix X: Execution Checklist for this objective. High level tasks associated with several of these core capabilities are highlighted below.

#### Core Capabilities

##### Critical Transportation

- Stabilize seaport/airport infrastructure to support essential services.
- Establish access through transportation corridors in order to deliver required resources.

Core Capabilities	Tasks
Critical Transportation	39
Infrastructure Systems	14
Planning	7
Environmental Response/Health and Safety	3
Public Information and Warning	1
On-Scene Security and Protection	1
Grand Total	65

### Public and Private Services and Resources

- Mobilize resources to sustain lives and meet basic human needs.
- Enhance public and private resource and services support for an affected area.
- Incorporate federal assistance, including coordination with nongovernmental, private sector, and international entities into response operations.

### Infrastructure Systems

- Decrease and stabilize immediate infrastructure threats.
- Re-establish critical infrastructure to support response operations, life sustainment, and community functionality.
- Complete site surveys and damage assessments to repair port infrastructure.

### Operational Phases

The information provided below shows the triggers and end states for each phase, and some of the key actions that will take place in each phase.

**Figure 3-8: Tasks by Core Capability**

**8. Restore Port Operations (Tasks by Phase)**



**Table 3-21: End States to Phases**

Phase	End State
1a	Critical resources identified and inventoried. Alternate port sites identified. Port restoration plans are complete.
1b	Seaport Unified Command initiates protection measures. Augmentation staff has been identified and deployed.
1c	Emergency protective measures are complete, including evacuation/sheltering of ships, coordination of airspace closure, and dissemination of warnings and alerts.
2a	Damage assessments of ports, runways and respective resources have been completed. Air and maritime assets have been prioritized. Emergency lifesaving flights have resumed. Honolulu Harbor can receive shipments or the alternate port plan has been activated.
2b	Air and sea ports are capable of receiving life sustaining teams and supplies. Additional teams and resources have been deployed to assist in port restoration.
2c	Air and sea port services capabilities have returned to pre-incident operational levels (at primary or alternate locations).

### Phase 1a – Normal Operations

During Phase 1a, the MTSRU will identify and list critical resources, capabilities, salvage equipment, and assets required for port operation, including but not limited to the following:

- Side-scan sonar devices
- Dive and Salvage teams
- Afloat docking platforms, rubber fender pontoons (Yokohama-type)
- Cargo handling equipment
- Forklifts, tow tractors, auxiliary power units, and heavy-move equipment
- Crane equipment

- Dredging equipment
- HAZMAT or oil spill containment equipment
- Supervisor of Salvage Contracts
- Boat-mounted crane and side-scanning equipment

ESF #1 develops preexisting emergency contracts

County, state, and ESF #5 entities develop COP policy and procedures for seaport and airport response and recovery operations.

ESF #13 pre-determines security requirements at ports and HDOT harbors.

The MTSRU continues to identify alternate port sites and establishes regulatory requirements and interdependencies related to the continuity of remote locations.

USCG's Captain of the Port (COTP) reviews response and recovery plans, obtains current vessels in-port status, and status of embarking vessels to develop a disbursement plan.

ESF #10's USCG and EPA SMEs provide HAZMAT threat assessments and issue precautionary mitigation measures.

#### ***Phase 1b – Elevated Threat***

USCG issues Notice to Mariners (NTMs), in coordination with HDOT-Harbors and Department of Land and Natural Resources, of the approaching hurricane.

USCG issues alert notice to special teams and activates the Seaport Unified Command with HDOT-Harbors, DOT, DOD, and privately owned shipping companies. The Seaport Unified Command initiates preparations to protect critical transportation and cargo equipment (cranes, trucks, chassis, top-picks, tugs). The Seaport Unified Command and DOT-Airports DOC determine the availability of Continuity of Operations sites.

ESF #7, DOD, and HDOT-Harbors determine the availability of commercial crane barges, commercial crane ships, crane-capable MARAD ships, and Joint Logistics Over the Shore (JLOTS) capabilities (e.g., staff, assessment capabilities, salvages, and crane ships). ESF #1 coordinates with MARAD to determine potential need for assets.

HDOT-Harbors determines the availability of commercial seaport operations personnel to augment shortfalls in seaport operations personnel (e.g., crane operators, craft operators, pilots, tug crews, and stevedores); verifies port lock-down procedures and timelines and the status of contracts/agreements.

ESF #5 FEMA activates the Transportation Support Unit and activates federal resources for port operations, including ESF #1 assets.

DCE determines availability of MARAD assets to potentially deploy post-impact.

USACE augments staff in state.

#### ***Phase 1c – Credible Threat***

USCG's COTP orders ships in/out of ports. Pending an imminent hurricane threat, the USCG's COTP closes seaports and directs privately owned shipping vessels out to sea. Vessels that cannot evacuate to sea are required to submit mooring plans to COTP for approval.

USCG activates safe anchorage MOUs and coordinates with Maritime Safety and Security Team for port security.

FAA coordinates airspace closure notifications. Airport EOCs manage operations and identify critical stay-behind personnel.

Seaport Unified Command protects critical transportation and cargo movement resources (e.g., cranes, trucks, chassis, top-picks, and tug), and collects cargo manifests for the purposes of protecting critical resources.

ESF #1 entities assess the need and availability of commercial port operations personnel to augment anticipated shortfalls in port operations personnel (e.g., crane operators, craft operators, pilots, tug crews, stevedores, and structural engineers) and make plans for post impact deployment.

ESF #15 and ESF #1 coordinate and release Safe Refuge PSAs.

USCG issues and broadcasts NTMs.

FAA conducts a conference call with commercial air carriers for situational awareness and issue Notices to Airmen (NOTAMs) as necessary.

USACE Honolulu District coordinates with MTSRU and pre-positions Navigation SMEs on neighbor islands as required to begin preparation for post landfall channel surveys.

#### *Phase 2a – Immediate Response/Life Safety*

Post impact, USACE, USCG, and the FAA will employ specialized teams and assets to assess damage. HDOT will assess damage to:

- Navigation aids
- Cargo handling equipment
- Fuel storage
- Generators
- Jetways
- Terminals
- Piers
- Control Towers
- Communication antennas

USACE Honolulu District will execute the USACE Civil Works program, commencing Federal Navigation Channel survey and obstruction clearance responsibilities in coordination with USCG/MTSRU—statewide USACE Honolulu District conducts obstruction clearance and dredging from Federal waterways/channels to support port restoration as required and if mission assigned by FEMA supports clearance of nonfederal waterways/channels.

USCG will restore aids to navigation at seaports, implements a maritime safety zone to prevent entry into unsafe areas by any vessel, vehicles, or persons; and reviews underwater surveys of harbors and approaches in order to identify hazards to navigation and determine port accessibility.

FAA will employ additional ground air traffic controllers.

The Transportation Support Unit will prioritize air and maritime assets.

The MTSRU will manage information flow for prioritization to determine throughput and Maximum-on-ground capability.

HDOT-Harbors will conduct an assessment of port facilities in order to determine shore-side damage and capabilities.

USCG, EPA, DOH – Office of Hazard Evaluation and Emergency Response, and Honolulu Fire Department (HFD) conduct HAZMAT surveys of ports to determine the ability to operate in the port environment.

Resume airport operations enough to allow for emergency lifesaving flights (medical teams, etc.)

### ***Phase 2b – Life Sustaining Response/Employment***

MARAD activates for operational response coordination.

UCS Operations Section allocates and directs capabilities, assets, resources, and teams.

UCS implements alternate port plan in coordination with MTSRU and Pacific Command (PACOM) if the Honolulu harbor is projected to be closed for more than 72 hours,

### ***Phase 2c – Sustained Response/Transition to Recovery***

USCG modifies NTM status commensurate to weather and sea conditions.

FAA modifies NOTAM status commensurate to weather and flight conditions.

HDOT-Harbors will prioritize piers, reopen ports, or provide alternate port/anchorage information according to capability and operability.

HDOT-Harbors will determine the availability and capability of port workers (pilots, tug crews, stevedores, crane operators, harbor agents, and structural engineers), identify shortfalls, and coordinate with ESF #7 for support.

USCG develops a Maritime Infrastructure Recovery Plan in coordination with the Seaport Unified Command.

Seaport Unified Command will coordinate with the UCS to prioritize cargo in order to minimize the movement of low priority cargo.

ESF #1 will coordinate selective direct shipment of cargo from CONUS-based supply points to neighboring islands to reduce trans-shipment burden on Oahu ports and to expedite delivery of supplies.

ESF #13 provides security support to the seaports and airports.

## **Administration, Resources, and Funding**

See the Base Plan of this Plan/Annex.

## **Oversight, Coordinating Instructions, and Communications**

### **Local**

Seaports and airports are primarily coordinated at the state and federal levels.

### **State**

HDOT-Harbors, in coordination with privately owned shipping companies, operates and maintains the statewide harbors system consisting of 10 commercial harbors, located in the following locations (Figure 3-9):

1. Hilo (Hawaii)
2. Kawaihae (Hawaii)
3. Kahului (Maui)
4. Kaunakakai (Molokai)
5. Kaunapau (Lanai)
6. Honolulu (Oahu)

**Figure 3-9: Commercial Harbor System**





7. Kalaeloa Barbers Point (Oahu)
8. Kewalo (Oahu)
9. Nawiliwili (Kauai)
10. Port Allen (Kauai)

Private sector entities provide shipping services, stevedoring, warehousing, tug services, maintenance, ship chandlery and repair, distribution, and other functions. HDOT-Harbors is headquartered at Pier 11 in the Aloha Tower Complex.

HDOT-Airports in coordination with FAA, airlines, and other stakeholders operates and maintains civil airfields throughout the state consisting of 9 main airports located in the following locations:

1. Hilo International (Hawaii).
2. Kona International (Hawaii)
3. Kahului Airport (Maui)
4. Kapalua (Maui)
5. Hoolehua Airport (Molokai)
6. Lanai City Airport (Lanai)
7. Honolulu International (Oahu)<sup>17</sup>
8. Kalaeloa (Barber's Point) Airport (Oahu).<sup>18</sup>
9. Lihue Airport (Kauai)

In general, use of smaller airports will be limited to general aviation and rotary-wing aircraft. Larger aircraft will be unable to use these airports due to runway, taxiway, and parking restrictions. However, these airports may provide additional locations for relocation/evacuation operations, landings by fixed-wing and rotary-wing aircraft, and the staging of resources.

### **Federal**

ESF #1 representatives will deploy as members of the Rapid Need Assessments (RNA) Team and/or IMAT. ESF #1 collects, evaluates, and disseminates information on the status of seaports and airports.

DOD operates Naval Station Pearl Harbor at JBPHH. All DOD operated airfields are located on Oahu and include the following:

- Joint Base Pearl Harbor Hickam (JBPHH)
- Marine Corps Air Station (MCAS) at Kaneohe Bay.
- Wheeler Army Airfield.

<sup>17</sup> NOTE: This is a joint civil/military use airfield

<sup>18</sup> NOTE: This is a joint civil/military use airfield

## Tab 9 to Appendix 3: Military Support

### Situation

#### Purpose

Military Support plays a critical role in supporting local, state and federal disaster response efforts. DOD interests are served through consistent and comprehensive involvement in planning, coordination and execution with state and federal agencies, departments and interagency partners.

#### Background

##### Constraints

Defense Support of Civilian Authorities (DSCA) is provided by federal DOD resources when requested by appropriate civil authorities; either local authorities in the case of Immediate Response or a Lead Federal Agency under Stafford and/or Economy Act authorizations. However DSCA response must not impede or obstruct DOD's primary mission, as determined by the Secretary of Defense (SecDef) or delegated military authorities.

#### Legal Considerations

Both U.S. Code (Posse Comitatus Act, Title 18) and DOD policy prohibits active, direct or the appearance of Title 10 military forces engaging in civilian law enforcement, unless specifically authorized under the Constitution or statute. This prohibition does not apply to National Guard personnel in State Active Duty or Title 32 status operating under the authority and orders of the Governor.

Use of DOD Intelligence Community assets for DSCA when involving analysis and production of data from airborne platforms in support of incident awareness and intelligence or search and rescue is authorized. However, both U.S. Code and DOD policy place substantial limitations on the use of military intelligence assets for any other purpose, particularly Unmanned Aerial Vehicles (UAVs). Use of UAVs in any capacity for DSCA is not delegated, and requires prior coordination and approval by SecDef. Consult appropriate military Judge Advocates General whenever considering the use of military intelligence assets for DSCA missions.

### MISSION

The objective of Military Support is to provide coordinated state and federal DSCA within the designated area of operations in response to requests for support in order to protect life, property, critical infrastructure and provide humanitarian assistance. Military Support will continue as requested until directed to transition functions to civil authorities.

### Execution

#### Concept of Operations

HI-EMA will coordinate with the Hawaii National Guard for National Guard assets in support of requests for assistance. FEMA will coordinate with the DCO for T10 assets in support of state requests for assistance that require federal DOD resources.

A Dual Status Commander (DSC) who is authorized and appointed to simultaneously command state resources in the name of the Governor of Hawaii and federal resources performing DSCA missions in the name of the President, will de-conflict and synchronize approved state and federal military resources in support of requests for assistance. The DSC structure ensures unity of command by placing one person in charge of both state and federal military forces. Under this

construct, National Guard commanders are ordered to federal active duty (Title 10 status), retaining their state commission when activated. This dual-status provides the statutory authority for one person to command both state and federal military forces simultaneously, permitting the DSC to control a unified military response at the operational level in support of the State of Hawaii. The Governor of Hawaii nominates the DSC to command under Title 32, and the SECDEF designates and/or approves the nomination to command under Title 10. This DSC is limited to the duration of the event.

#### ***Defense Coordinating Officer/Defense Coordinating Element – DCO/E***

The DCO is a military officer, representing the PACOM Commander and SecDef, who is responsible for pre-contingency planning, coordinating, and integrating DOD resources in support of state requests for assistance to FEMA. The DCE supports the DCO.

Once activated, the DCO is the DOD single point of contact in the IOF/JFO, coordinating DOD's T10 DSCA operations with the FEMA and other county, state, and federal agencies and processing requests for DSCA resources from FEMA. The DCO, in direct coordination with the DSC, will report mission status of tasked T10 forces to FEMA for re-missioning or release if mission complete.

#### ***Immediate Response Authority***

Immediate response (IR) authority is defined as any form of immediate action taken by a DOD military commander in response to a request for assistance by competent civil authority, to save lives, prevent human suffering, or mitigate great property damage under imminently serious conditions. When such conditions exist and a request for assistance is made, local military commanders are authorized to take necessary action to respond consistent with existing law, regulations and policy.

All such action is referred to as immediate response. Military assets and resources remain under military control, and the military commander is responsible to report through the chain of command to the National Military Command Center within two hours of the decision to provide immediate response. Immediate response should be offered on a cost-reimbursable basis but will not be delayed or denied because of the inability or unwillingness of the requester to reimburse DOD. Consider IR only in such circumstances as would preclude or prohibit usual or timely response by appropriate civil authorities. DOD will conduct an IR reassessment NLT 72 hours to determine if assistance is still needed.

**Table 3-22: Possible Title 10 and Title 32 Mission Assignments**

Category	Title 10	Title 32
Transportation	<ul style="list-style-type: none"> <li>• Rotary Wing Lift (medium)</li> <li>• Rotary Wing Lift (heavy)</li> <li>• Tactical Transportation Support</li> <li>• Strategic Transportation Support</li> <li>• Air Component Coordination Element</li> <li>• Airborne C2 Emergency Management Support</li> <li>• Airspace Control (ground)</li> </ul>	<ul style="list-style-type: none"> <li>• Rotary Wing Lift (medium)</li> <li>• Rotary Wing Lift (heavy)</li> <li>• Tactical Transportation Support</li> <li>• Air Traffic Control</li> </ul>
Communications	<ul style="list-style-type: none"> <li>• Communications Support to First Responders</li> <li>• Mobile or Fixed Site Communications Packages (25 to 75 Users)</li> </ul>	<ul style="list-style-type: none"> <li>• Communications Support to State and County EOCs/Agencies</li> </ul>
Public Works and Engineering	<ul style="list-style-type: none"> <li>• Emergency Route Clearance (USACE lead)</li> </ul>	<ul style="list-style-type: none"> <li>• Emergency Debris Clearance</li> </ul>

Category	Title 10	Title 32
Emergency Management	<ul style="list-style-type: none"> <li>• Defense Coordinating Officer / Defense Coordinating Element (DCO/DCO)</li> <li>• Aerial Imagery</li> <li>• Full Motion Video Capability for Incident Awareness and Assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Aerial Damage Assessment</li> <li>• Ground Damage Assessment Teams</li> <li>• Full Motion Video Capability for Incident Awareness and Assessment</li> <li>• Limited Cyber protection assistance and response</li> </ul>
Mass Care	<ul style="list-style-type: none"> <li>• Prepare Temporary Housing Sites</li> </ul>	
Resource Support	<ul style="list-style-type: none"> <li>• Incident Support Bases (ISBs)/ Staging Areas</li> <li>• Federal Team Staging Facilities</li> <li>• Fuel Distribution Points – Ground Vehicle</li> <li>• Fuel Distribution Points - Military Rotary Wing Aircraft</li> </ul>	<ul style="list-style-type: none"> <li>• Staging Areas</li> <li>• Points of Distribution</li> </ul>
Public Health and Medical Service	<ul style="list-style-type: none"> <li>• Rotary Wing Medical Patient Evacuation</li> <li>• Temporary Medical Treatment Facilities</li> <li>• Aeromedical Evacuation</li> <li>• National Disaster Medical System Activation (Patient Movement Enablers and Federal Coordinating Centers)</li> <li>• Mortuary Affairs Assistance for Remains Recovery and Identification</li> </ul>	<ul style="list-style-type: none"> <li>• Rotary Wing Medical Patient Evacuation</li> <li>• Fatality Search and Rescue Teams</li> <li>• Mass Decontamination</li> <li>• Limited medical support</li> <li>• Limited Potable water storage</li> </ul>
Search and Rescue	<ul style="list-style-type: none"> <li>• Rotary Wing Lift (medium) for Search and Rescue</li> </ul>	<ul style="list-style-type: none"> <li>• Urban Search and Rescue Teams</li> <li>• Aerial Search and Rescue</li> <li>• Wide Area Search and Rescue</li> </ul>
Oil and Hazardous Materials Response		<ul style="list-style-type: none"> <li>• Civil Support Team (Weapons of Mass Destruction) Chemical Biological Radiological and high yield Nuclear Explosion (CBRNE) Survey Teams</li> <li>• CBRNE Enhanced Response Force Package (C-ERFP) Mass Decontamination Teams</li> </ul>
Public Safety and Security		<ul style="list-style-type: none"> <li>• Traffic Control Points</li> <li>• Security Patrols</li> <li>• Civil Disturbance Crowd Control</li> </ul>
External Affairs	<ul style="list-style-type: none"> <li>• Public Affairs Broadcast Transmission Support</li> </ul>	

### ***Tropical Cyclone Conditions of Readiness Program (TCCOR)***

Tropical Cyclone Conditions of Readiness Program (TCCOR) are preparedness postures assumed by shore side military activities threatened by tropical cyclones. TCCOR setting authorities are responsible for the timely setting of appropriate TCCORs for their assigned areas based on Joint Typhoon Warning Center (JTWC) warnings, recommendations from supporting Tropical Cyclone Conditions of Readiness Program Meteorological Tactical Operations Center (METOC) activities or assigned METOC personnel, and local requirements. TCCOR setting authorities declare TCCOR to account for the estimated arrival of destructive winds and allow for the implementation of protective actions. The JTWC issues tropical cyclone warnings but does not declare TCCOR.

PACOM has designated U.S. Army Pacific as the TCCOR setting authority for the State of Hawaii. TCCORs are for DOD use only and are not intended for the general public. National Oceanic and Atmospheric Administration (NOAA)/NWS has the responsibility for advising the general public and local civil defense authorities for cyclones that threaten Hawaii and Guam.

TCCOR is based on the forecasted time of the onset of destructive winds from a tropical cyclone. Destructive wind criteria may be determined by the TCCOR authority, but is normally defined as 50 knots sustained winds.

- TCCOR 5 – Destructive winds are possible within 96 hours
- TCCOR 4 – Destructive winds are possible within 72 hours
- TCCOR 3 – Destructive winds are possible within 48 hours
- TCCOR 2 – Destructive winds are anticipated within 24 hours
- TCCOR 1 – Destructive winds are occurring or anticipated within 12 hours

TCCORs 5, 4, and 3 are purposely defined as destructive winds that are “possible” versus “anticipated.” This language for TCCORs 5, 4, and 3 is intended to account for statistically larger track and intensity errors at 96, 72, and 48 hours, respectively, and to encourage early situational awareness and precautionary measures by decision-makers.

### Administration, Resources, and Funding

See the Base Plan of this Plan/Annex.

### Oversight, Coordinating Instructions, and Communications

#### Local

The principal responsibilities for requesting military support is when all other available means are exhausted and a military response is needed to assist local communities in restoring essential government functions. County emergency management agencies must officially request support for military assets through HI-EMA, and not directly with the DCO or HING. HING Liaison officers may be assigned to county agencies as needed to facilitate official requests for National Guard Support through HI-EMA.

#### State

The State Coordinating Officer (SCO) coordinates requests from Counties and the State for military support. This includes support from the HING for Title 32 or State Active Duty support. The HING will primarily place service members on State Active Duty to support an emergency or disaster event. The 93<sup>rd</sup> Weapons of Mass Destruction-Civil Support Team (WMD-CST) based in Hawaii, and some individuals in Hawaii’s 154<sup>th</sup>

Chemical, Biological, Radiological, Nuclear, and Explosive Enhanced Response Force–Package (CERFP)<sup>19</sup> may remain on Title 32 orders. The SCO coordinates for federal military support through the Federal Coordinating Officer (FCO).

#### Federal

Federal support is provided in response to requests from state or local officials through the SCO to the FCO. The FCO coordinates for federal DOD support through the DCO in the IOF/JFO.

**Table 3-23: CERFP Team Composition**

CERFP Teams	Unit Size
Medical Team	45
Search & Extraction Team	50
Decontamination Team	75
Total Personnel	170

<sup>19</sup> <http://www.defense.gov/news/d20100603CERFPs.pdf>



## APPENDIX 4: LOGISTICS

### Situation

#### Purpose

Appendix 4 describes the operational and tactical level logistics requirements to support response activities that include facilities, transportation routes, staging areas, shelters, and points of distribution (PODs) necessary to support deployment and distribution of resources to disaster survivors following a catastrophic hurricane.

This appendix also provides information on planning, coordination, and execution necessary to supplement the existing logistics supply chain in Hawaii with appropriate resources and support to meet the needs of its residents and visitors.

#### Hawaii-Specific Logistical Considerations

The state is dependent on its airports and seaports to sustain the population. Hawaii's physical infrastructure lacks redundancy and damage sustained by hurricane force winds, flooding, or storm surge will cause a significant delay in receiving lifesaving or life sustaining resources. Hawaii's logistics supply chain is characterized as "just-in-time." Due to limited warehousing space throughout the state, the supply chain is optimized to transfer resources directly from the port to retail outlets for distribution to the public. This optimized supply chain model limits stockpiling and reduces the ability to support disaster survivors during a sustained disruption in the "just-in-time" system.

- Due to lack of alternate routes in many areas and the geographic isolation of the islands, transportation of resources into and around counties will be significantly affected by damage of the infrastructure (ports, airports, highways, and roads), debris removal, safety inspections, and road closures. Transportation will be further limited by possible shortages of fuel, damaged fuel infrastructure, and power outages.
- Survivors may have only 1 to 3 days' supply of essential/life sustaining resources on hand, which increases the need to deploy off-island resources.
- Due to limited road networks, roads will require debris clearance prior to the ground movement of resources. The counties will identify priority routes to be the immediate focus of debris clearance and traffic management. These include major arteries to/from hospitals, routes for fire and police response, routes to/from designated shelter areas, and routes to/from designated staging areas. Emergency Support Function (ESF) #7 must coordinate movement of resources with county emergency management agencies.
- Hawaii's visitor population of approximately 206,000 state-wide may require additional "wrap-around" services following a catastrophic hurricane.
- Contiguous United States (CONUS) Incident Support Bases (ISBs) will support the movement of people, equipment, and commodities to and from the islands.
- Logistics planners will need to complete detailed forecasting and planning due to the time and distance required for transport. For example, Hawaii is located approximately 2,500 miles from CONUS. Air travel time to the state is approximately 5 to 6 hours from San Francisco. With approximately 6 to 8 hours to on-load and off-load resources, total execution time can be 14 hours or more, depending on the resources carried. Commercial shipping from San Francisco on calm seas requires an average of 5 days to arrive in Honolulu, with several additional days to on-load and off-load resources. This results in a typical vessel total execution time of approximately 10 days. These time factors do not include contracting time and transportation preparation.

## *Logistics Vulnerabilities*

### *Fuel Production*

Hawaii imports 100 percent of its fuel requirements and 90 percent of those requirements must be refined at the two petroleum refineries located on the island of Oahu. The other 10 percent is imported as refined product during refinery maintenance periods. These maintenance periods range from one to three weeks, during which the refinery will suspend production and import refined products to meet requirements. Barges carry all fuel products from Oahu to the neighboring islands.

### *Airports and Seaports*

Hawaii's airports are primarily used to process passenger traffic. Air transport is limited for inter-island commodity distribution.

Runways are susceptible to flood inundation and debris blockage (foreign object damage). Their low-lying coastal locations will restrict the use of ramp space, taxiways, and runways during initial response operations. However, Lihue Airport in Kauai is at a higher elevation than most other runways in the state.

Flooding and hurricane force wind damage to navigational aids, runway lighting, and taxiway lighting will require repair in order to support full airport operations. Planners identified the need to source additional FAA inspectors and repair crews in order to make required repairs to the aviation infrastructure.

Maritime ports are the primary entry points for commerce into and within the state. There are 10 commercial harbors on 6 major Hawaiian Islands, accounting for 16.9 million short tons of cargo annually. Hawaii seaports limit container vessels by draft due to harbor depths. Therefore, larger container vessels are limited to the Port of Honolulu. Eighty percent of the state's resource requirements are received through the Port of Honolulu and then transshipped to the neighboring islands. Current seaport infrastructure (harbors, gantry cranes, and cargo handling equipment) are critical points of failure relative to post-disaster response capability.

- Harbor channels are susceptible to blockage due to debris such as commercial containers, as well as other debris.
- Damage to navigational aids may require replacement and/or repair to support full port operations.
- Cargo offloading capability is critical for providing the required resources for response operations. Stationary gantry cranes are required for container off-load operation. Damage to these capabilities will impair operations and delay distribution of response resources.

### *Land-based operations*

Land-based transportation options will be affected due to limited road networks and the topography of the islands. This will be exacerbated by downed power lines, downed or damaged power poles, and building and vegetation debris. Blocked and damaged roads and bridges will affect transportation routes and may cause communities to be isolated. This will require planning for alternative means of re-supply and emergency evacuation.

## **Mission**

The mission of the joint logistics organization is to effectively organize, plan, manage and coordinate resource support to the overall response operation in order to save and sustain human life, minimize suffering, stabilize and restore critical infrastructure, and set the conditions for recovery following a catastrophic hurricane in Hawaii.

## Execution

### Concept of Operations

The courses of action presented in this Plan/Annex identify requirements that necessitate a robust concept of support to deliver critical resources and capabilities to Hawaii. Resource requirements by phase are necessary to support effective delivery and capabilities to such a geographically isolated location. This geographic isolation is compounded by the physical limitations of required resources identified in this Plan/Annex. This appendix discusses the required support from point of ordering, mobilizing, and delivering from government, non-governmental organizations (NGOs), and private sector sources within the affected counties.

A catastrophic hurricane impacting Hawaii will require extensive CONUS-based resource support. Hawaii Emergency Management Agency (HI-EMA) and FEMA Region IX will provide logistics coordination to affected areas within the region by deploying resources in a timely manner to support a successful response. Resources and capabilities will be coordinated and pushed from CONUS beginning pre-impact in order to facilitate an effective response. The UCS will coordinate post-impact resources based on assessments and requirements. The FEMA Distribution Center-Hawaii (DC-HI), located on Oahu, will provide immediate response resources from its warehouse in support of Unified Coordination Group (UCG) priorities.

The operational area extends from CONUS to the four counties of the State of Hawaii. As stated previously, the primary federal ISB used by FEMA in support of Hawaii is located at Travis AFB, California. Resources and capabilities may be sourced throughout the United States and staged at the ISB awaiting deployment to the state of Hawaii.

FEMA will employ a “push/pull” concept for resources based on UCG priorities. Initially, critical response assets will be “pushed” to CONUS-based ISBs in order to establish an approximate 72-hour supply. During the first 72 hours of response operations, planners anticipate pushing resources to Hawaii. Once operational control in the field is established, the “push” concept will transition to a “pull” concept.

HI-EMA will initiate Emergency Management Assistance Compact (EMAC) requests during Phase 1b based on a push concept. HI-EMA plans to deploy known resource shortfalls as early as possible into the geographic divisions. HI-EMA will forward deploy Staging Area management teams during Phases 1b and 1c to ensure logistics management efforts begin as soon as it is safe to do so in each county. During Phase 2a, ESF #7 will push items into the divisions based on UCG priorities. As counties gain situational awareness and identify requirements, the logistics effort will shift to the previously noted pull system.

### Logistics Overview

#### *Strategic Level*

The strategic level of logistics is managed at the national level and involves the sourcing and strategic placement of resources for further movement and employment during a response operation. This involves the management of ground, airlift, and sealift assets for mobility and sustainment of capabilities, assets, and resources. The sourcing, procurement, and pre-staging of resources occurs at this level.

#### *Operational-Level*

The operational level connects the efforts of the strategic level and transitions these efforts to the tactical level. Operational level logistical activities include the employment of staging areas, the maintenance and employment of an effective intermodal transportation management system, and

support of the arrival and coordination of personnel and equipment as they arrive to the area of operations.

The successful management of resources at the operational level requires a thorough understanding of the Senior Leaders' Intent, the development of detailed and flexible plans, and the effective use of the National Incident Management System (NIMS)/Incident Command System (ICS) process to coordinate county, state, and federal requirements.

### ***Tactical-Level***

The tactical level of logistics occurs within the impacted sites at the county level and addresses response and recovery sustainment operations. Tactical-level logistics supports feeding, sheltering, medical care, survivor services, and support of the repair of critical infrastructure.

### **Air Transportation Overview**

Typically, Hawaii has significant air transportation capabilities, including fueling and refueling at civilian and military airfields. These capabilities will be limited in the aftermath of a catastrophic hurricane. Civil airfields include—

- Hawaii County:
  - **Hilo International**. This is one of two primary commercial airfields for Hawaii County. The primary runway has a length of 9,800 feet and is suitable for U.S. Air Force (USAF) C-5<sup>20</sup>, Boeing 747<sup>21</sup>, and smaller aircraft. On average, 100,000 gallons (650,000 pounds) of aviation fuel is available at the airport. The airport has full air carrier facilities for international/domestic overseas and inter-island commercial service.
  - **Kona International at Keohole**. This is one of two primary commercial airfields for Hawaii County. The primary runway has a length of 11,000 feet and is suitable for C-5, Boeing 747, and smaller aircraft. On average, 80,000 gallons (520,000 pounds) of aviation fuel is available at the airport. The airport has full air carrier facilities for international/domestic overseas and inter-island commercial service.
- Maui County:
  - **Kahului Airport (Maui)**. This is the primary commercial airfield for the island and county. The primary runway has a length of 6,695 feet and is suitable for C-5, Boeing 747 aircraft, and smaller. On average, 50,000 gallons (325,000 pounds) of aviation fuel is available at the airport. Additional aviation fuel is available in tanks at the harbor. The airport has full air carrier facilities for domestic overseas and inter-island commercial service.
  - **Kapalua (Maui)**. This is a general aviation airfield suitable for commuter propeller aircraft or smaller, with a single runway length of 3,000 feet. This airfield has an extremely limited availability of aviation fuel and aircraft parking. It has a small passenger terminal and no air cargo facilities. Operations are limited to daytime hours only, due to a lack of airfield lighting.
  - **Hoolehua Airport (Molokai)**. This is the primary airfield on Molokai, with a primary runway length of 4,500 feet and is suitable for C-130<sup>22</sup> aircraft or smaller. This airfield has limited availability of aviation fuel and aircraft parking. It also has a small passenger terminal.

<sup>20</sup> The Lockheed Martin C-5 Galaxy is a large military transport aircraft that provides the USAF with a heavy intercontinental-range strategic airlift capability.

<sup>21</sup> The Boeing 747 is a wide-body commercial airliner and cargo transport aircraft.

<sup>22</sup> The Lockheed C-130 Hercules is a four-engine turboprop military transport aircraft utilized by the USAF.

- **Lanai City Airport (Lanai)**. This is the primary airfield on Lanai, with a primary runway length of 5,001 feet and is suitable for C-130 or smaller aircraft. This airfield has limited availability of aviation fuel and aircraft parking. It also has a small passenger terminal.
- City and County of Honolulu (Oahu):
  - **Honolulu International**. This is the primary commercial airfield for the State of Hawaii and has a joint U.S. military use runway with Hickam Air Force Base (AFB). The runway consists of 2 parallel runways with a length of 12,000 feet. An intersecting runway has a length of 9,000 feet. On average, 6 million gallons (39 million pounds) of aviation fuel is available at the airport. Additional fuel, 38 million gallons (247 million pounds) is located in tanks on Sand Island. The runways are suitable for C-5 aircraft and smaller. The airport has full air carrier facilities for international/domestic overseas and inter-island commercial service.
  - **Kalaeloa (Barber's Point) Airport**. This is a joint civil/military use airfield. The primary runway has a length of 8,000 feet and is suitable for C-5 aircraft and smaller. On average, 35,000 gallons (227,500 pounds) of fuel are located on the south side of the airfield. Aircraft parking/ramp space is available for two C-5 aircraft or five C-17<sup>23</sup> aircraft.
- Kauai County:
  - **Lihue Airport**. This is the primary commercial airfield for the island and county. The primary runway has a length of 6,500 feet. On average, 25,000 gallons (160,000 pounds) of aviation fuel is available at the airport. Additional aviation fuel is available in tanks at nearby Nawiliwili harbor. The airport has full air carrier facilities for international/domestic overseas and inter-island commercial service.

All military airfields are located on Oahu and include the following:

- **Joint Base Pearl Harbor Hickam (JBPHH)**. JBPHH shares runways with Honolulu International. See runway information above. On average, 1.8 million gallons (11.7 million pounds) of aviation fuel is available. Maintenance and handling equipment is available for offload of military airlift and commercial cargo aircraft. The base has a passenger terminal. The airfield has ramp space for 19 C-5 aircraft and 49 C-17 aircraft.
- **Marine Corps Air Station (MCAS) at Kaneohe Bay**. This airfield is located within the Marine Corps Base Hawaii complex. The single runway has a length of 7,800 feet and is suitable for C-5 and smaller aircraft. On average, 2.0 million gallons (13.0 million pounds) of aviation fuel is available. The airfield has ramp space available for 15 to 20 C-5 or C-17 aircraft. There is a 20-acre tarmac area available for staging of assets. The airfield does not have sufficient maintenance and handling equipment for off-load of palletized items. These assets can, however, be flown in to the airfield.
- **Wheeler Army Airfield**. This airfield is on a U.S. Army base. The single runway has a length of 5,604 feet and is designed to accommodate support missions ranging from rotary to fixed-wing airlift for Medical Evacuation (MEDEVAC) flights. The runway can support C-130 aircraft and very limited arrivals/departures of C-17 aircraft due to weight restrictions. The airfield ramp space is capable of supporting C-130 aircraft weighing less than 136,000 pounds. Sufficient aviation fuel is available to support initial response operations. Due to ramp weight limitations, most aircraft will need to be off-loaded/on-

<sup>23</sup> The Boeing C-17 Globemaster III is a large USAF military transport aircraft.



loaded/fueled at the end of the runway. This will limit the use of this airfield by fixed-wing aircraft.

In general, use of smaller airports will be limited to general aviation and rotary-wing aircraft. Larger aircraft will be unable to use these airports due to runway, taxiway, and parking restrictions. However, these airports may provide additional locations for relocation/evacuation operations, landings by fixed-wing and rotary-wing aircraft, and the staging of resources.

### Seaport Facilities Overview

Major port facilities for Hawaii include the following<sup>24</sup>:

- Hawaii County:
  - **Hilo Harbor.** Typically, this harbor supports tug/barge cargo operations. It has a controlling depth of 35 feet with a maximum ship draft of 33 feet. The maximum allowable cargo vessel length is approximately 750 feet, depending on number of assist tugs used/available and vessel's drive and thruster system. Adjacent to the harbor is a 15-acre container yard for cargo handling operations. The harbor has no stationary or mobile cranes. Therefore, a ship with self-contained crane equipment or roll-on/roll-off (Ro-Ro) capabilities is best suited for container off-loads at this port.
- Maui County:
  - **Kahului Harbor (Maui).** This harbor is the primary port for the island and county of Maui. Typically, this harbor supports tug/barge cargo operations. Smaller container vessels can be ported. The controlling depth of the harbor is 35 feet with a maximum ship draft of 33 feet. The maximum allowable cargo vessel length is approximately 750 feet, depending on number of assist tugs used/available and vessel's drive and thruster system. Adjacent to the harbor is a 15-acre container yard for cargo handling operations.
- City and County of Honolulu (Oahu):
  - Available Oahu ports may offer the following logistics support for emergency response:
    - Facilities/locations to berth ships and off-load relief supplies
    - Possible staging area(s) for relief materials and cargo (bulk and break bulk)
    - Population relocation/visitor evacuation facilities and locations
  - **Honolulu Harbor.** This is the primary harbor and the hub of the commercial harbor system in the state. It is the focal point for inter-island cargo transportation. The harbor entry/exit channel is 45 feet deep. The remainder of the harbor is approximately 40 feet deep. The vessel draft along deep-water berths is 39 feet. The container yard consists of 200 acres for off-load/on-load operations. The port consists of more than 30 major berth facilities for vessels. The harbor has 11 cranes, 9 of which can be used for deep draft vessels. Five of the cranes are electric and have backup generator power. Two diesel cranes are located at Matson Lines on Sand Island, 3 diesel cranes are located at Horizon Lines on Sand Island, and 1 large mobile crane is located at Nippon Yusen Kaisha (NYK) Lines on Pier 1.
  - **Kalaheo (Barbers Point) Harbor.** This secondary harbor on Oahu has the primary role of petroleum product transshipping. The harbor has a controlling depth of 38 feet, with the maximum vessel draft of 36 feet. However, the draft along the docks can be utilized for vessels drawing a draft of less than 32 feet. The adjacent area to

<sup>24</sup> For detailed planning information on the 10 commercial ports in Hawaii to include site maps of each pier, see <http://hidot.hawaii.gov/harbors/library/port-hawaii-handbook/>

- the docks consists of 25 acres on a concrete surface for cargo handling. The harbor location provides direct access to H-1 and H-2 from the waterways. The harbor has no stationary or mobile cranes. Therefore, a ship with self-contained crane equipment or Ro-Ro capabilities is best suited for container off-loads at this port.
- **Joint Base Pearl Harbor Hickam (JBPHH).** The port is operated by the U.S. Navy. The harbor entry/exit channel is 45 feet deep, with the limiting draft for ships at 38 feet. The pier/wharf depth varies from 35 to 40 feet and the maximum draft of ships operating from piers/wharfs is 33 to 38 feet. The crane capability includes portable cranes (120,000 to 343,000 pounds capacity), floating cranes (224,000 pounds capacity), truck cranes (10,000 pounds capacity), and bridge cranes (120,000 pounds capacity). In general, the piers can support ships up to 1,100 feet in length. Some piers have deck load limits, which will limit/prevent the utilization of large cranes.
  - **Kauai County:**
    - **Lihue (Nawiliwili) Harbor.** Typically, this harbor supports tug/barge cargo operations. This harbor has a controlling depth of 35 feet, with a maximum ship draft of 33 feet. The maximum allowable cargo vessel length is approximately 750 feet, depending on number of assist tugs used/available and vessel's drive and thruster system. Adjacent to the harbor is a 15-acre container yard for cargo handling operations. The harbor has no stationary or mobile cranes. Therefore, a ship with self-contained crane equipment or Ro-Ro capabilities is best suited for container off-loads at this port.

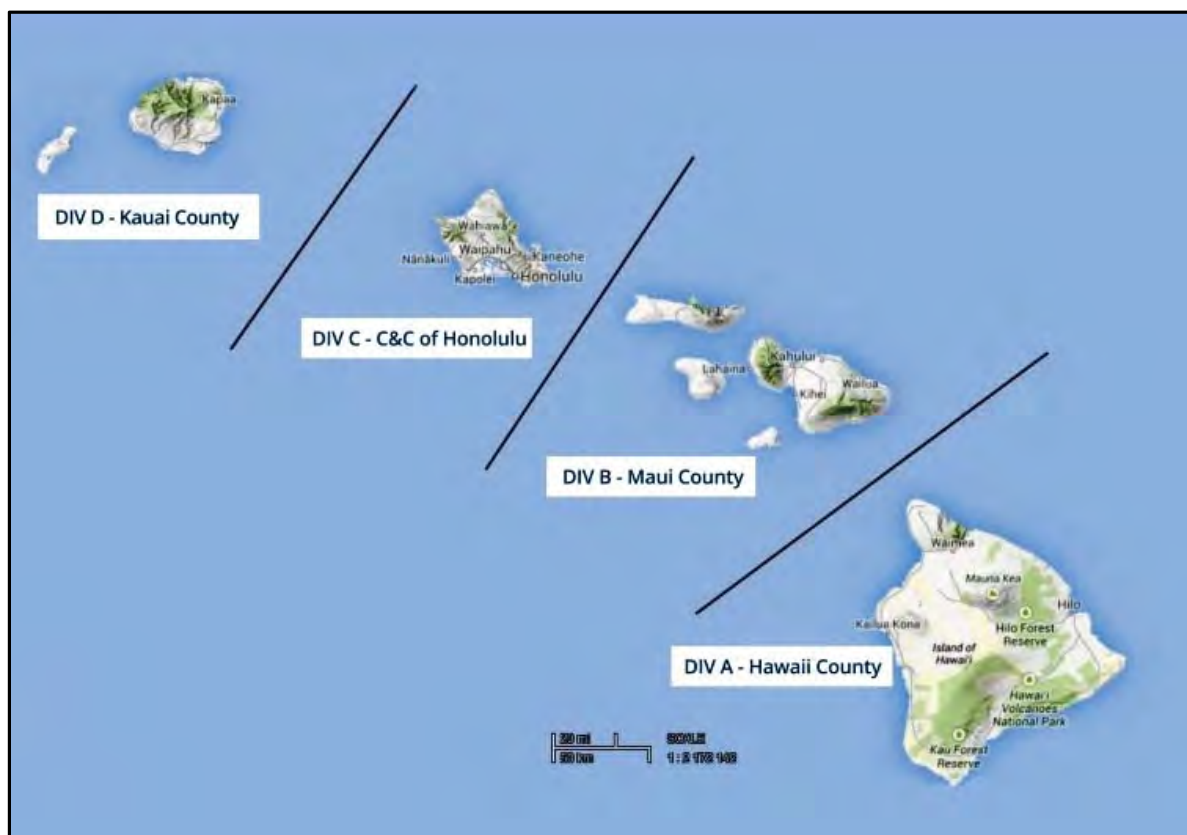
### Commodity Points of Distribution

Counties have the responsibility to staff, equip, and operate PODs. Counties and the state will coordinate a network of PODs to distribute food, water, and personal care items in order to support the distribution of basic commodities to all affected populations. Counties will pre-identify a list of potential POD locations (See Appendix X: Execution Checklist for specific tasks). County emergency management agencies will assess the specific effects and conditions following the hurricane (area damage, debris clearance capabilities, road structure viability, security, etc.), when identifying locations to activate.

### Staging Areas

ESF #7 will establish staging areas for the forward movement of life-saving and life-sustaining resources to PODs and other locations in the counties (geographic divisions A, B, C and D) (Figure 4-1). The state will provide staffing and equipment for the staging areas. Counties will be responsible for moving commodities from the staging areas to the PODs. Generally, the intent is to establish these staging areas near airports and seaports.

Figure 4-1: Geographic Divisions



The Unified Coordination Staff (UCS) may establish a staging area at JBPHH to receive initial shipments of personnel and response assets during pre-incident preparations. Neighboring island locations will follow the same pre-incident protocols and establish staging areas as airfields or alternate sites are cleared for use. ESF #7 will coordinate the use of tractor-trailers to move resources to/from sea and airports to staging areas and subsequently to shelters, shelter-in-place populaces, and PODs. ESF #7 will also coordinate the use of barges for inter-island transportation, as well as available air capabilities.

#### ***Basic Considerations for Establishment of a Staging Area***

- Outdoor hardstand for staging/parking
- 40,000-50,000 square-foot covered/inside storage
- Loading dock access and capability
- Maintenance and handling equipment access and availability
- Office space, computer/information technology support, communications, and fuel support

Federal Emergency Management Agency (FEMA) National Caches and ISB teams may provide basic requirements for staging areas if the host facility cannot provide them. ESF #7 will also consider the use of private sector options.

#### ***Potential Staging Areas within the State of Hawaii:***

- Hawaii: Hilo (primary); Kona (secondary)
- Maui: Kahului (primary)
- Oahu: Honolulu International/JBPHH (primary); Kalaeloa (secondary)
- Kauai: Lihue (primary)

## Federal Incident Support Bases

ISBs are designed as temporary federal site locations for reception, staging, positioning, and deployment areas for resources designated in support of disaster relief operations. FEMA logistics personnel operate these disaster facilities.

FEMA may establish ISBs on the west coast of the U.S. mainland. These ISBs will be temporary in nature. They will require transportation and maintenance and handling equipment capabilities in order to receive, pre-position, and deploy commodities, equipment, and personnel as requested by the UCS. The movement of resources within mutually supporting CONUS ISBs will be coordinated through the National Response Coordination Center (NRCC) and be supported through the contracted use of tractor-trailer, rail, and airlift capabilities. ESF #7 will pre-position all non-airlifted requirements at CONUS ISBs for cross docking and trans loading and will move resources to Hawaii by sealift assets based on priority.

### *Proposed CONUS ISB locations:*

- Travis AFB (primary)
- March AFB (primary)
- McClellan Business Park in North Highlands, CA (secondary)
- Moffett Field (secondary)

## Transportation and Logistics Coordination

The focus of the logistics effort is to reestablish the commercial supply chain and transportation system to facilitate the effective movement of resources into and throughout the State of Hawaii. Integration through the UCS will ensure a unity of effort and efficient use of transportation assets to deliver required resources.

## Transportation Operations

Movement of resources into and within the state will be significantly affected by the damage to the transportation infrastructure (sea and airports). The transportation strategy uses a multimodal approach, including maritime transport from CONUS and neighboring islands and/or air transport utilizing operable runways throughout the state. Although resource priorities may change during the course of the response operation due to evolving requirements, initial transportation priorities include:

- Response teams/assets to support lifesaving actions, including search and rescue, medical treatment, and firefighting.
- Response teams/assets for public safety and security.
- Response teams/equipment required to restore port operations.
- Response teams/equipment required for re-establishing transportation routes.
- Response supplies for sheltering and commodity distribution.
- Response teams to assess damage to structures.

## Operational Phases

The information provided below shows the triggers and end states for each phase, and some of the key actions that will take place in each phase.

**Table 4-1: Triggers and Conditions**

Phase	Trigger	End State
1a	Steady State	Counties identify POD locations and develop distribution plans. HI-EMA identifies hardened facilities for deployed teams and resources. Agreements with private sector for resource requisition are in place.
1b	Hawaii is within the NWS 120 hour forecast track or tropical storm force winds reach the 140° line.	ESF #7 is activated. EMAC resources are requested and FEMA ESF #7 support is deployed.
1c	There is a 10% probability of hurricane force winds impacting Hawaii or NWS issues a hurricane warning	Initial resources are pushed from ISBs to HI.
2a	Onset of tropical storm force winds.	Resources have been pushed to HI via airlift. Transition to sea cargo.
2b	Immediate emergency response operations are complete.	Logistics has transitioned to a pull system based on UCG priorities.
2c	Incident is stabilized.	Market supply system returns to normal operations.

***Phase 1a - Normal Operations***

Counties will provide the locations for their PODs and develop POD plans no later than June 2016 as noted in Appendix X: Execution Checklist.

HI-EMA will identify state staging areas and hardened areas for counties, state, and private sector to deploy response teams. HI-EMA will establish capabilities to utilize private sector and NGO sources to fulfill resource requirements.

During this phase planners will prepare and prioritize resources within the FEMA DC-HI for distribution and deployment. FEMA will pre-stage resources at CONUS ISBs for further deployment to Hawaii. FEMA Region IX Regional Response Coordination Center (RRCC) will coordinate the resources to be staged based on the anticipated requirements. The RRCC relays requirements to the NRCC for the timely, coordinated movement of resources.

***Phase 1b – Elevated Threat***

Planners will review, resource (as required), and prepare logistics assets for deployment. FEMA identifies and prepares to activate primary ISBs. HI-EMA activates EMAC, deploys four logistics management teams to staff Staging Areas, and deploys one Incident Management Team (IMT) to support the logistics section in the state emergency operations center (SEOC).

***Phase 1c – Credible Threat***

FEMA begins deployment of resources to the ISB and push packages to Hawaii. HI-EMA focuses on receiving teams and establishing Staging Areas in each division. HI-EMA coordinates with FEMA and PACOM to have cargo-capable aircraft sortied from JBPHH to the ISB (tentatively Travis AFB).

***Phase 2a – Immediate Response/Life Safety***

The logistics effort for Phase 2a is to support lifesaving operations, then life-sustaining efforts. In this phase logistics utilizes a push strategy and will rely heavily on moving resources by aircraft. The UCG sets movement priorities and these must be closely coordinated with the logistics teams at the ISBs and Staging Areas.

***Phase 2b – Life Sustaining Response/Employment***

Phase 2b focuses on moving resources in accordance with UCG priorities to support life sustainment and infrastructure repair. Logistics begins transitioning to a pull system, requiring counties to clearly define needs and priorities.



***Phase 2c – Sustained Response/Transition to Recovery***

Logistics needs decrease as the market-supported supply systems return to normal operations. PODs will begin closing, and determining the disposition of any excess resources, placing them into warehouses or returning them to the mainland as appropriate.

**Administration, Resources, and Funding****Adjudication of Resources**

County emergency management agencies will submit resource requirements to HI-EMA through Requests for Assistance (RFAs). If the State of Hawaii cannot support the requirement, HI-EMA will submit the request to FEMA for sourcing, using the Request for Resource Form (RRF). In the event that multiple requests are submitted for a finite resource, the Operations Section Chief will obtain adjudication through the UCG based on their priorities.

**Oversight, Coordinating Instructions, and Communications**

See Base Plan of this Plan/Annex.

## Tab 1 to Appendix 4: Pull Resources

Planners identified the resources listed below for Phase 2b operations. FEMA will begin sourcing these resources and moving them to the ISB as necessary.

- Soft-sided shelters and support requirements
- Pre-packaged meals
- Tarps
- Durable medical equipment (as needed)
- Accessible cots/sleeping beds
- Sheets
- Hygiene kits
- Camp kits
- Baby formula/food
- Diapers
- Adult diapers
- Feminine hygiene products
- Bottles of waterless hand cleaner
- Waterless washcloth kits
- Rolls of bathroom tissue
- Home improvement items (as needed)
- AA, C, D, and 9-volt batteries
- Flashlights
- Ice chests
- Personal toilet kits with tent
- Sanitation bags for personal toilet kits
- Pet food
- Pet crates: Small (pet 25 lbs. or less); medium (pet 25-50 lbs.); large (pet 50-75 lbs.); and extra-large (pet 75+ lbs.)
- Additional water resources
- Two gallon, collapsible water containers
- Disposable dinner packets (utensils, napkins, wet wipes, etc.)
- Insect repellent
- Portable AM/FM radios
- Trash bags
- Portable refrigeration vans (self-powered)
- Portable shower trailers

## APPENDIX 5: COMMUNICATIONS

### Situation

#### *Purpose*

The purpose of this Appendix is to provide an integrated local, state, and federal approach to ensuring effective communications coordination for a hurricane impacting Hawaii by:

- Supplementing existing local and state communications assets.
- Identifying Command and Control (C2) entities and points of contact (POCs).

#### *Background*

A catastrophic hurricane will cause extensive and immediate damage to existing communications infrastructure that could take several weeks to months to repair. Power outages can be expected to occur for extended periods of time in some areas. Most state and local emergency responder communications systems have auto start emergency generators, Landline and cellular telephone systems will be degraded due to power outage, system overload, and/or debris damage to infrastructure components (i.e. telephone lines, poles, and cell phone towers). Restoration of air traffic control systems will be a priority, as airlift will be the primary response mechanism in initial response phases.

Operational communications requirements are coordinated among and supported by Emergency Support Function (ESF) #2. ESF #2 is the lead coordinator responsible for addressing operational communications needs, and is comprised of the following agencies:

- Hawaii Emergency Management Agency (HI-EMA), Telecommunications Branch
- State of Hawaii Department of Accounting and General Services (DAGS), Information and Communications Services Division (ICSD)
- Federal Emergency Management Agency (FEMA) Headquarters (HQ) Disaster Emergency Communications (DEC), including the Regional Emergency Communications Coordinator (RECC) and Mobile Emergency Response System (MERS)
- Department of Homeland Security (DHS) Office of Emergency Communications (OEC)
- National Coordinating Center for Communications (NCC)

ESF #2 is responsible for the following:

- Ensuring the capacity to communicate with both the emergency response community and the affected populations.
- Establishing interoperable voice and data communications between local, state, and federal first responders.
- Re-establishing sufficient communications infrastructure within the affected areas to support ongoing life sustaining activities, provide basic human needs, and transition to recovery.

DEC, which supports ESF #2, includes the following:

- All technical means and modes for public safety agencies at all levels of government (e.g., law enforcement, fire services, emergency medical services) to perform their routine, daily communications.
- Technical means and modes required to provide and maintain operable and interoperable communication before, during, and after Presidentially declared emergencies, disasters, or planned National Special Security Events (NSSEs).

Communication areas currently addressed and reported by ESF #2 include:

- 911 Telephone Systems – Standard, Enhanced, Reverse
- First Responder Radio Systems – Fire, Police, Medical, etc.
- Ad hoc response radio assets
- Cellular Phone Systems – Coverage, Voice, Text
- Public Alert and Warning Systems – Sirens, AM, FM, TV, National Oceanic and Atmospheric Administration (NOAA) Weather Radio
- Internet Connectivity – Social Media, Email
- Satellite Systems – Handheld (Iridium), Fixed (Terminals), and Mobile (Terminals)
- Amateur Radio Capabilities – Radio Amateur Civil Emergency Services (RACES), Amateur Radio Emergency Services (ARES); Very High Frequency (VHF), Ultra High Frequency (UHF), High Frequency (HF), Citizen Band, Family Radio Service, and Repeaters
- National Warning and Alert System (NAWAS) Regional Circuit and Hawaii Warning and Alert System (HAWAS) State Circuit<sup>25</sup>
- Emergency Alert System (EAS), employing Common Alerting Protocol via Integrated Public Alert and Warning System (IPAWS)<sup>26</sup> – AM, FM, TV, Cellular
- FEMA National Radio System (FNRS) – High Frequency and Satellite Communications

### *Critical Considerations*

- Agencies involved in Hawaii disaster response use a variety of radio systems, including 800 Megahertz (MHz) conventional and trunked, VHF conventional, UHF conventional and trunked, and HF Land Mobile Radio (LMR) networks.
  - The disparate systems employed across the state's four counties make LMR interoperability among local agencies and jurisdictions challenging, while also presenting real obstacles to coordination between incoming responders and Hawaii-based counterparts.
- Sufficient spare radio handsets are not available in the state to equip incoming responders and enable them to operate on local systems. FEMA should be prepared to provide:
  - 700/800 MHz handsets (up to 100 units) to ensure effective communication between incoming emergency responders and their local counterparts in support of command and control, search and rescue (SAR), evacuation, sheltering, and other emergency response missions.
  - Handsets on federal networks and bridging equipment to link radio systems in the incident area.
- Where additional network loading is feasible, state and county LMR network operators will provide radio programming support and access via pre-positioned Transportable Radio Interoperability Communications (TRIC) packages.
  - Where LMR network resources are not available, ESF #2 will source temporary LMR repeaters and logistics.
- Landline telephones, cellular telephones, and commercial internet will be damaged or overloaded during a major incident.

<sup>25</sup> NAWAS is used to disseminate warning information concerning natural and technological disasters to approximately 2200 warning points throughout the continental United States, Alaska, Hawaii and the Virgin Islands

<sup>26</sup> <http://www.fema.gov/integrated-public-alert-warning-system>

- ESF #2 must be prepared to provide satellite voice and data capabilities for connectivity between islands and with the contiguous United States (CONUS), as needed.
- Employment of state emergency backup satellite networks including Joint Incident Site Communications Capability (JISSC) and county / state emergency operations center (EOC) push to talk and broadband satellite systems will provide immediate support.
- The state EOC (SEOC) lacks a backup location with the seating capacity, communications capabilities, and power supplies required to sustain command and control operations during a catastrophic event. If the SEOC becomes unusable, HI-EMA will deploy mobile communications to support a limited number of personnel to an alternate location.
  - In a major incident, ESF #2 must be prepared to supplement capabilities by providing voice and data communication connectivity for up to 50 EOC watch standers at the location designated by the state.
- Hawaii’s microwave systems are essential to data communications and LMR trunking across the state. There are currently many critical microwave systems and system segments that lack redundant routes. The loss of microwave links on these systems or segments may disrupt critical data and LMR networks. Resources in the state to support microwave link restoration, such as repair technicians and spare parts, are limited.
  - ESF #2 must be prepared to provide temporary backhaul and data connectivity and support restoration efforts to ensure effective communications in support of disaster response operations.

## Mission

ESF #2 supports state efforts to immediately assess and restore functional and interoperable communications systems by any means available, prioritized for first responders, command and control, and the general public while providing support for restoration of all communications systems.

## Execution

### Concept of Operations

After a catastrophic hurricane, planners anticipate a significant loss of fixed commercial and public safety communications infrastructure. ESF #2 will augment the existing county and state communications infrastructure. The overall strategy is for HI-EMA to deploy state communications assets pre-impact to support each county’s EOC. Concurrently, FEMA will deploy CONUS-based communications assets IAW the pre-impact push package as described in Appendix 4: Logistics.

Federal assets will deploy to designated staging areas based on priorities established by the UCG. Priorities could include the following:

- Incident Management Assistance Team (IMAT) support, including establishment of the Interim Operating Facility and Joint Field Office (JFO).
- Re-establishing communications between the county and state EOCs.
- Re-establishing county public safety radio nets.
- Support to public health and medical services
- Support to responders including urban search and rescue (USAR) efforts.



In alignment with objectives set by the Unified Coordination Group (UCG), ESF #2 will support communications needs to ensure that basic communications capabilities are available among impacted communities, organizations, and people by assisting in efforts to accomplish the following:

- Ensure that adequate capacity is available to allow for communications among the emergency response community and affected populations.
- Establish interoperability among voice and data communications systems of county, state, and federal first responders.
- Re-establish sufficient communications infrastructure within affected areas to support ongoing life sustaining activities, the provision of basic human needs, and a transition to recovery.
- Assess and report on telecommunications system status and capabilities. Identify the magnitude of communications disruptions for voice and data communications that support county and state first responder and critical infrastructure (e.g., phone, wireless, and utilities).
- Coordinate restoration resource requirements (i.e. logistics, materials, and staffing) with private agencies.

### *Operational Phases*

The following table describes the triggers and desired communications related end states for each phase.

**Table 5-1: Triggers and End States**

	Trigger	End State
1a	Steady State	Plans completed, communications gaps identified and resourced, and response teams trained.
1b	Hawaii is within the NWS 120 hour forecast track or tropical storm force winds reach the 140° line.	Plans have been reviewed and updated. Teams deployed to support county and state EOCs. Communications systems checked.
1c	There is a 10% probability of hurricane force winds impacting Hawaii or NWS issues a hurricane warning	Communications teams and assets have been deployed, operations established (if appropriate), and sheltered in place. All communications systems tested. County and state EOCs are fully activated and staffed with key leaders present to direct and coordinate operations.
2a	Onset of tropical storm force winds.	Field communications systems established and critical resources deployed to local jurisdictions.
2b	Immediate emergency response operations are complete.	Resources employed to supplement damage assessments and support the repair of communications systems based on UCG priorities
2c	Incident is stabilized.	Emergency communications systems are operational and agencies have staged resources and materiel for long-term communications system repairs.

### *Phase 1a – Normal Operations*

Coordinate with county, state, federal and private industry partners to complete planning, training, and exercise efforts.

### *Phase 1b – Elevated Threat*

Coordinate with county, state, federal and private industry partners to verify available resources on hand, prepare teams for deployment, and deploy selected teams to EOCs and staging areas.

### *Phase 1c – Credible Threat*

Coordinate with county, state, federal, and private industry partners for continued deployment of required resources and personnel and finalize communication system checks.

**Phase 2 – Response**

Conduct initial system assessments, activate maintenance teams, and potentially integrate commercial partners to assess regional impacts and to commit resources for foundational network repair.

**Phase 2a – Immediate Response/Life Safety**

Re-establish communications connectivity between the local and state jurisdictions through the employment of prepositioned state and local teams within impacted areas. Assess key communications hubs and ensure first responders and support activities use hardened emergency communications systems to facilitate life saving activities.

**Phase 2b – Life Sustaining Response/Employment**

Deploy and employ state and federal teams within impacted areas to rapidly repair key communications hubs that will facilitate overall communications network repairs and support the reconstitution of other critical infrastructure systems.

**Phase 2c – Sustained Response/Transition to Recovery**

Continue to focus on the restoration of communications systems to provide stable and reliable operations and support.

**Administration, Resources, and Funding****Federal Support for Local Resource Requirements**

The following table describes prepositioned and deployable communications resources.

**Table 5-2: Available Communications Resources**

Entity	Resources Available			
Local	<ul style="list-style-type: none"> <li>First responder tactical communications systems</li> <li>HAM radio networks</li> </ul>			
State	<ul style="list-style-type: none"> <li>Refer to the current copy of the Emergency Communications Plan State of Hawaii.</li> </ul>			
Federal	Prepositioned Resources		Deployment Resources	
	Item	Quantity	Item	Quantity
	Broadband Global Area Network (BGAN) satellite terminal	12	BGAN satellite terminal	12
	C/Ku band terminal	1	Iridium satellite phones	6
	Iridium satellite phones	8	Command and control communications vehicles	2
	UHF LMR radios	25	LMR cache (100 UHF, 100 700/800, spare batteries, chargers)	1
	Portable Digital Repeater (PDF) 3500 UHF repeaters	3	LMR support generators	4
	Quantar UHF (NRN) repeater	1	Portable satellite terminals	2
	LMR radios (700/800 MHz)	20		
	LMR radio batteries	50	Tactical video teleconference (VTC) kit	1
			Transportable Interconnect System (TRP) 1000 radio interoperability kit [Note: each of the command and control vehicles has this capability]	1
	Merlin phone switch	2	UHF repeater	1
	Standard desk phones	100	VHF repeaters	2

**Table 5-2: Available Communications Resources (Cont.)**

Requirement	Position	Quantity
RRCC	ESF #2	1
	OEC	1
	Additional personnel as required for 24-hour operations	TBD
Field	DEC Group Leads	3
	MERS Coordinator	1
	RF/IT Specialists	2
MERS	MERS Coordinator	1
	MERS RF Manager	1
	MERS RF/IT Specialists	2
<b>MERS Equipment</b>		
• Communications support vehicles		
• Satellite communications		
• UHF and VHF LMR communications		
• Radio interoperability systems		
• Telephones and associated switches		
• Video Teleconferencing (VTC)		
• Generators		

For additional information on Administration, Resources, and Funding see the Base Plan of this Plan/Annex.

## **Oversight, Coordinating Instructions, and Communications**

### **Oversight**

#### **Local**

Counties will identify communications shortfalls to HI-EMA for resolution.

#### **State**

HI-EMA, in coordination with the Statewide Communications Coordinator, coordinates the deployment and employment of state communications assets.

#### **Federal**

FEMA Region IX coordinates with FEMA HQ and the NRCC to request MERS and other federal communications assets.

ESF #2 performs radio frequency spectrum management. The Federal Communications Commission (FCC) and National Telecommunications and Information Administrations (NTIA), in conjunction with FEMA, appoint a permanent Joint Spectrum Manager, who moves to the Wireless Communications Task Force in ESF #2.

### **Coordinating Instructions**

Coordinating instructions for communications can be found in the current copy of the *Emergency Communications Plan State of Hawaii (Draft)*.

### **Communications**

Detailed information on communications systems, operating frequencies, and contacts are contained in the current copy of the *Emergency Communications Plan State of Hawaii (Draft)*.

## APPENDIX 6: PUBLIC MESSAGING

### Situation

#### Purpose

Public Messaging outlines the External Affairs (EA) joint state/federal response during a catastrophic hurricane impacting Hawaii and will:

- Define the organization and operational structure
- Describe procedures to disseminate information
- Define EA and public information responsibilities before, during, and after a catastrophic hurricane

#### Background

A Category 4 hurricane will render most conventional public messaging methods ineffective or significantly degraded. This will require the use of various unconventional methods to convey public safety messages, evacuation instructions, and sheltering information. No methodology should be ruled out, particularly during the first 48 to 72 hours post-impact.

The incident will generate extensive and sustained national media attention, which will overwhelm state public messaging efforts. Emergency Support Function (ESF) #15 (External Affairs) will be activated to its full capacity and will include all components as outlined in the most current federal ESF #15 Standard Operating Procedures (SOPs) document. Federal ESF #15 components will supplement and support state and local emergency public information efforts.

Maintaining communication with the affected public is essential to effective preparedness, as well as response and recovery. ESF #15 ensures that during an incident, coordinated, accurate, and timely information is provided to governments, private sector, news media, residents, and visitors to the state. This information includes important warnings and instructions for protecting lives and property.

#### Mission

ESF #15 provides EA support for incident management and serves as the support ESF for all state and federal departments and agencies across all functional areas of incident management (i.e., prevention, mitigation, response, and recovery) for the purpose of coordinating and disseminating external information.

#### Execution

##### Concept of Operations

During a disaster, Hawaii Emergency Management Agency (HI-EMA) serves as the central coordination point for ESF #15 through the Joint Information Center (JIC) at the state emergency operations center (SEOC). ESF #15 primary and supporting agencies provide staff to fill JIC positions in accordance with the State of Hawaii ESF Annex (February 2009), and the Public Affairs Plan/Annex to the State Plan for Emergency Preparedness, Disaster Response and Assistance.

##### ESF #15 External Affairs

ESF #15 is part of the Command Staff as designated in the National Incident Management System (NIMS) and provides appropriate representatives available to deploy rapidly to the incident location and other information-critical venues within the affected area, such as

congressional and private sector personnel. The Federal Emergency Management Agency (FEMA) and other federal agencies (OFAs) will provide the necessary operational, strategic, logistical, and administrative support to carry out an effective public and governmental information campaign throughout all phases of the disaster. Federal agency communications and EA personnel will be assigned to the Joint Field Office (JFO) ESF #15 to coordinate state and federal messaging.

ESF #15, working in conjunction with the SEOC, responds to media inquiries for damage assessment statistics and estimates. In coordination with FEMA, ESF #15 publicizes the status of any emergency or disaster declarations, the types of assistance available to emergency-disaster survivors, and the recovery center locations. Federal ESF #15 can provide broadcast operations teams to capture images of response operations for the production of social media stories for posting on websites to provide information to a national audience on relief efforts. The use of social media outlets makes it possible to provide information to a large audience.

EA staff will deploy pre-impact to support and provide manpower in getting communications and emergency information to the affected areas as soon as possible after impact. All agencies involved in the disaster response will be represented in the Joint Information Systems (JIS). Implementation of the JIS ensures a “one message, many voices” approach, incorporating representatives across multiple jurisdictions and entities.

Post-impact, FEMA Disaster Survivor Assistance (DSA) Crews will operate through the JFO’s Operations Section to assess, inform, and report critical needs of disaster survivors and the community.

If commercial broadcasting operations remain functional after the event, normal procedures for media relations and media operations remain in effect. They include the following:

- News conferences/briefings
- News releases
- Providing state/federal officials on live programming
- Social media postings, including amplification of official messaging through volunteer groups such as the Virtual Operations Support Team (VOST)

### **Hawaii Emergency Management Agency**

HI-EMA is the lead agency for providing disaster information to state and locally elected officials. HI-EMA will coordinate with FEMA on information exchange between state and local legislative members. FEMA ESF #15 Intergovernmental Affairs, in coordination with HI-EMA ESF #15, will coordinate outreach to local governments on federal issues. The FEMA Congressional Affairs Unit will coordinate with HI-EMA on the exchange of information to members of the congressional delegation from Hawaii, as well as other members of Congress. FEMA and other stakeholders will coordinate the release of joint information to the news media, news conferences and interviews with state and federal officials with HI-EMA. The Planning and Products Unit will develop all written materials, fact sheets, talking points, and briefings in coordination with HI-EMA.

The Governor of the State of Hawaii, or the Director of Emergency Management, has authority to activate ESF #15. The Assistant Secretary for Public Affairs (ASPA), Department of Homeland Security (DHS) activates federal ESF #15 and appoints the External Affairs Officer (EAO). Prior to activation of ESF #15, the EA activities of state departments and agencies will be the responsibility of those respective departments and agencies and do not require coordination with ESF #15. After a Presidential Disaster Declaration, ESF #15 operations will



transfer from the EOC to the JFO. When the JFO closes, state ESF #15 operations will transfer back to the SEOC.

The SEOC will establish a JIC that functions as the principal source for public information; FEMA will provide an ESF #15 representative to the JIC to provide information on FEMA response efforts and to support the state in joint messaging. Messages produced by ESF #15 personnel will follow the JIS model as outlined in the National Response Framework (NRF). In the event that any county is unable to fulfill its responsibility in providing the public with health and safety information, the state may provide relevant messages to the people of Hawaii. The Unified Coordination Group (UCG) will ensure that county, state, and federal EA efforts are coordinated, and the state and federal EA leads will attend UCG meetings.

### *Operational Phases*

The following table describes the triggers and desired public messaging related end states for each phase.

**Table 6-1: Triggers and End States**

	Trigger	End State
1a	Steady State	Communication protocols with public, legislators and foreign consulates established. Template language for standard releases standardized. General preparedness messages posted/distributed.
1b	Hawaii is within the NWS 120 hour forecast track or tropical storm force winds reach the 140° line.	JIC activated. EA personnel deployed. Messaging/Public Service Announcement(PSAs) include: <ul style="list-style-type: none"> <li>• Legislative inquiries</li> <li>• Tourist safety: evacuation, shelter-in-place, airline/airport guidance</li> <li>• Power: status, power conservation, emergency lighting, cooking fuel, topping off fuel tanks</li> <li>• Water: storage, boil water orders</li> </ul>
1c	There is a 10% probability of hurricane force winds impacting Hawaii or NWS issues a hurricane warning	EAO is appointed. Messaging/PSAs include: <ul style="list-style-type: none"> <li>• Water: shut off home's main supply valve</li> <li>• Evacuation advisory/order: shelters, shelter-in-place</li> <li>• Safe Refuge: critical resources</li> <li>• General preparedness: residents, visitors</li> </ul>
2a	Onset of tropical storm force winds.	Deployed to shelters/damage sites for preliminary photographic documentation. Messaging/PSAs include: <ul style="list-style-type: none"> <li>• Immediate actions to take after the storm</li> <li>• Off-island evacuation</li> <li>• Road/bridge conditions</li> </ul>
2b	Immediate emergency response operations are complete.	Messaging/PSAs include: <ul style="list-style-type: none"> <li>• Disaster Recovery Centers: locations, hours, capabilities</li> <li>• Post Storm Assessments and Inspections</li> <li>• Off-island evacuation</li> <li>• Expectation management</li> <li>• Power: conservation, curtailment of non-essential activities</li> </ul>
2c	Incident is stabilized.	Messaging/PSAs include: <ul style="list-style-type: none"> <li>• Disaster Recovery Centers: locations, hours, capabilities</li> <li>• Post Storm Assessments and Inspections</li> <li>• Expectation management</li> <li>• Updates on long term recovery activities</li> <li>• Resumption of normal activities</li> </ul>

### *Roles and Responsibilities*

State ESF #15 provides support for four essential functions:

- Emergency Public Information
- Community Outreach
- Legislative Affairs
- Local and State Coordination

Federal ESF #15 supports the state with the following functions and resources:

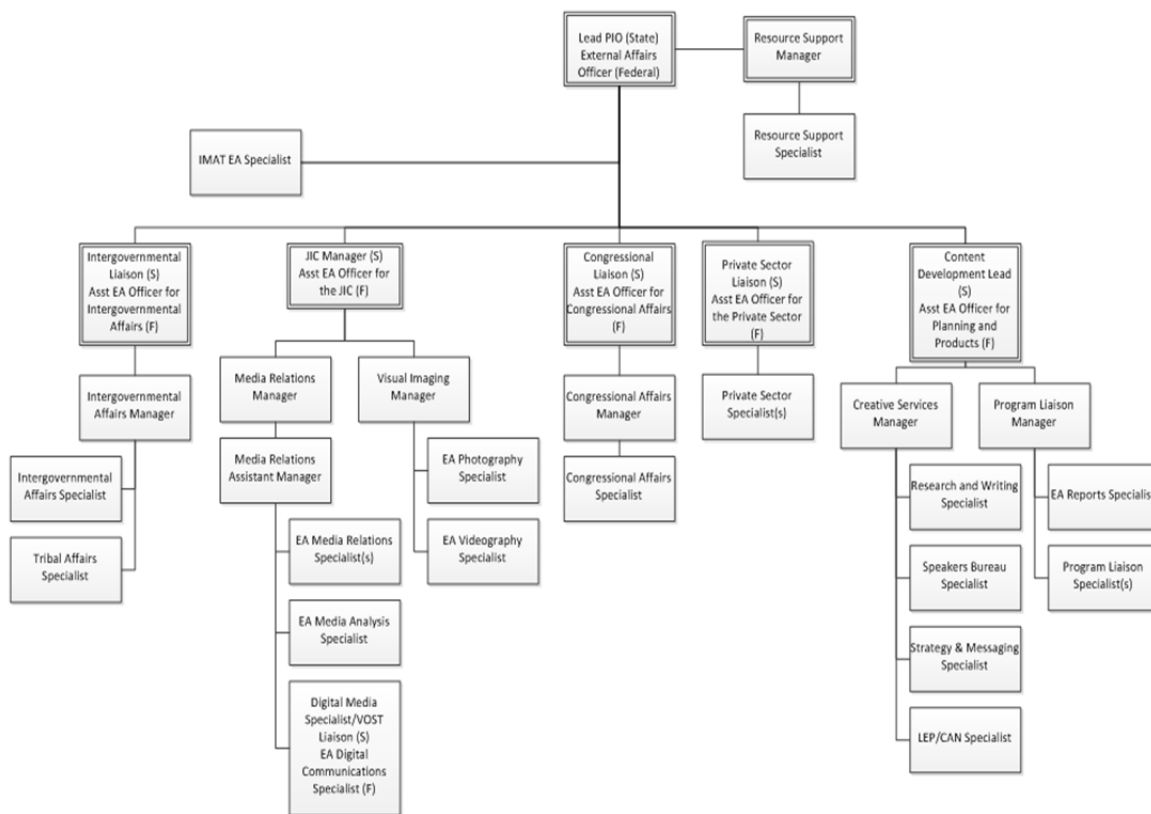
- JIC Operation
- Planning and Products
- Congressional Affairs
- Intergovernmental Affairs
- Private Sector Coordination

The emergency public information function is a HI-EMA responsibility. It is responsible for developing and releasing information about emergency operations to the news media, to personnel involved in the operation, and other appropriate agencies and organizations. Additional support may be drawn from other state agencies or volunteers. The HI-EMA Public Information Officer (PIO) activates and directs public information procedures. Coordination with other state and local entities (Governor's communications office, county mayors' press offices) will be necessary to ensure accuracy and consistency in the delivery of emergency public information messages.

Private Sector Coordination will involve outreach to local businesses for their support in delivering important joint messages to private sector employees through their communications channels. Outreach will include coordination with appropriate private, public, and quasi-public enterprises for collaboration with the hospitality industry.

During activations for emergencies and disasters, emergency public information functions are carried out through the SEOC. FEMA will provide ESF #15 personnel to coordinate messaging with the state. Once the JFO is operational, emergency public information functions will transfer from the EOC to the JFO. See Figure 6-1: *ESF 15 (Joint Operations) Organizational Chart* below:

Figure 6-1: ESF #15 Organization Chart



## Administration, Resources, and Funding

The overall strategy is to deploy federal contiguous United States (CONUS)-based communication assets for ESF #15 prior to impact, when the confidence and clarity of storm track is high. This includes equipment and personnel. For example, communications assets will be part of the pre-impact push package. ESF #15 will work with FEMA Logistics Management Directorate (LMD) on defining and updating communications push package requirements.

Broadcast production cameras, still cameras, laptops, and software are part of a push package that FEMA Headquarters (HQ) EA will provide to FEMA Region IX for social networking and public information. FEMA HQs EA will supplement broadcast operations teams to begin capturing images pre and post impact for state and FEMA use.

There will be a need for Disaster Survivor Assistance Teams (DSATs) to print and distribute large quantities of tele-registration flyers in the first 72 hours after a catastrophic hurricane. Disaster Survivor Assistance (DSA) Crews will communicate requirements to the Operations Section Chief.

Based on communications assets in Hawaii, push packages, the anticipated extent of damage to the commercial communications infrastructure, and the communications requirements to provide lifesaving emergency public information and minimize suffering during the initial response, ESF #15 will need to identify additional communications assets to supplement existing state and local communications resources.

## Oversight, Coordinating Instructions, and Communications

### Coordinating Instructions

#### *ESF Coordinator/Primary Agency: HI-EMA*

- Oversees media relations (to include media monitoring, including social media).
- Coordinates emergency public information activities to ensure consistency and accuracy of information released to the general public through the state JIC.
- Coordinates information sharing amongst all agencies involved in incident management.
- Notifies support agencies to staff ESF #15 during an incident.
- Establishes and maintains the state JIC and media center.

#### *Primary Agency: Hawaii National Guard Public Affairs*

- Establish contact with state legislators representing affected areas to provide information on the incident.
- Respond to state legislative and congressional inquiries.
- Provide escort and itinerary support for legislative and congressional visits.
- Provide additional public affairs support, as needed.

#### *Primary Agency: Governor's Communications Office*

- Establishes priorities for external communications.
- Approves and schedules state press conferences.

#### *Supporting Agency: FEMA*

- Establish contact with congressional delegations representing affected areas to provide information on the incident
- Supports the state in providing critical information to the public.
- Implements the federal ESF #15 mission as outlined in ESF #15 SOP.

**Table 6-2: Agency Oversight and Locations**

Position	Role	Agency Location/Point of Contact
HI-EMA Lead PIO	Co-manage operation, attends all meetings and briefings for the HI-EMA director, next to HI-EMA Administrator is chief spokesperson along with Governor's Press Secretary	Diamond Head Crater 3949 Diamond Head Road Honolulu, HI 96816-4495
Media Monitoring	Manages the operation to monitor all local and national news, compiles clips, identifies bad information and refers to HI-EMA lead and rapid response team	Diamond Head Crater 3949 Diamond Head Road Honolulu, HI 96816-4495
Federal ESF #15	Functions will be carried out in accordance with the most current ESF #15 SOP.	To be determined

## APPENDIX 7: ACRONYMS

ADA	Americans with Disabilities Act
AFB	Air Force Base
AMR	American Medical Response
ANSI	American National Standards Institute
AO	Area of Operations
ARES	Amateur Radio Emergency Service
ASPA	Assistant Secretary for Public Affairs
ATC	Air Traffic Control
B&F	State Department of Budget and Finance
BGAN	Broadband Global Area Network
BWS	Board of Water Supply
C&C	City and County of Honolulu
C2	Command and Control
CAP	Civil Air Patrol
CERFP	Chemical, Biological, Radiological, Nuclear, and Explosive Enhanced Response Force–Package
CFR	Code of Federal Regulations
CIKR	Critical Infrastructure Key Resource
CIR	Critical Information Requirement
CONOPS	Concept of Operations
CONUS	Contiguous United States
COP	Common Operating Picture
COTP	Captain of the Port
CPG 101	Comprehensive Preparedness Guide 101
CPHC	Central Pacific Hurricane Center
CRRS	Critical Resource Relocation Site
CST	Civil Support Team
CTOC	Containerized Tactical Operations Center
DAGS	Department of Accounting and General Services
DBEDT	Department of Business, Economic Development, and Tourism
DCAB	Disability and Communication Access Board
DCCA	Department of Commerce and Consumer Affairs
DCE	Defense Coordinating Element
DC-HI	Distribution Center-Hawaii
DCO	Defense Coordinating Officer
DEC	Disaster Emergency Communications
DEM	City and County of Honolulu Department of Emergency Management
DHHL	Department of Hawaiian Homelands
DHRD	Department of Human Resources Development
DHS	Department of Homeland Security
DIVS	Division Supervisor
DLA	Defense Logistics Agency
DLIR	Department of Labor and Industrial Relations
DLNR	Department of Land and Natural Resources
DMAT	Disaster Medical Assistance Team
DME	Durable Medical Equipment



DOC	Department Operation Center
DOD	Department of Defense
DOE	U.S. Department of Energy
DOS	Department of State
DOT	U.S. Department of Transportation
DOTAX	Department of Taxation
DPW	Department of Public Works
DRC	Disaster Recovery Center
DRF	Disaster Relief Fund
DSA	Disaster Survivor Assistance
DSAT	Disaster Survivor Assistance Team
DSC	Dual Status Commander
DSCA	Defense Support of Civil Authorities
EA	External Affairs
EO	External Affairs Office or Officer
EAS	Emergency Alert System
EEI	Essential Elements of Information
EMAC	Emergency Management Assistance Compact
EMCOMM	Emergency Communications
EMS	Emergency Medical Services
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPA	Environmental Protection Agency Changed
EPLO	Emergency Preparedness Liaison Officer
ERHS	Environmental Response/Health and Safety
ESF	Emergency Support Function
FAA	Federal Aviation Administration
FCC	Federal Communications Commission
FCO	Federal Coordinating Officer
FIOP	Federal Interagency Operations Plan
FMS	Federal Medical Station
FNRS	FEMA National Radio System
FSA	Federal Staging Area
FWPCA	Federal Water Pollution Control Act
GAR	Governor's Authorized Representative
GETS	Government Emergency Telecommunication Service
GIS	Geographic Information System
GSA	General Services Administration
GTWO	Graphical Tropical Weather Outlook
HAC	HAH Area Cache
HAH	Healthcare Association of Hawaii
HAKOU.4	Hakou version 4
HAM	Amateur Radio
HAZMAT	Hazardous Materials
HAZUS	Hazards U.S.
HAZUS-MH	Hazards U.S. – Multi Hazard
HCCDA	Hawaii County Civil Defense Agency
HCFD	Hawaii County Fire Department
HDHS	Hawaii Department of Human Services

HDOA	Hawaii Department of Agriculture
HDOE	Hawaii Department of Education
HDOH	Hawaii Department of Health
HDOT	Hawaii Department of Transportation
HDOT-Airports	Hawaii Department of Transportation – Airports Division
HDOT-Harbors	Hawaii Department of Transportation – Harbor Division
HECO	Hawaiian Electric Company
HELCO	Hawaii Electric and Light Company
HF	High Frequency
HFD	Honolulu Fire Department
HHS	Department of Health and Human Services
HHVISA	Hawaii Hotel and Visitor Security Association
HI-EMA	Hawaii Emergency Management Agency
HING	Hawaii National Guard
HLT	Hurricane Liaison Team
HNL	Honolulu International Airport
HQ	Headquarters
HRHC	Human Remains Holding Container
HSVOAD	Hawaii State Voluntary Organizations Active in Disaster
HURREVAC	Hurricane Evacuation
HTA	Hawaii Tourism Authority
IA	Individual Assistance
IAA	Inter-Agency Agreement
IAP	Incident Action Plan
IAS	International Assistance System
ICP	Information Collection Plan
ICS	Incident Command System
ICSD	Information and Communications Services Division (DAGS)
IMAT	Incident Management Assistance Team
IMH	Incident Management Handbook
IMT	Incident Management Team
IOF	Initial Operating Facility
IPAWS	Integrated Public Alert and Warning System
IR	Immediate Response
IRCT	Incident Response Coordination Team
IRV	Incident Response Vehicle
IS RSF	Infrastructure Systems Recovery Support Function
ISB	Incident Support Base
IST	Incident Support Team
IT	Information Technology
JBPHH	Joint Base Pearl Harbor Hickam
JDOMS	Joint Director of Military Support
JFO	Joint Field Office
JIC	Joint Information Center
JIS	Joint Information Systems
JISCC	Joint Incident Site Communications Capability
JLOTS	Joint Logistics Over the Shore
JTWC	Joint Typhoon Warning Center
KCDA	Kauai Civil Defense Agency

KFD	Kauai Fire Department
KIUC	Kauai Island Utilities Cooperative
KSAR	Kauai Search and Rescue
LAN	Local Area Network
LMD	Logistics Management Directorate
LMR	Land Mobile Radio
LNO	Liaison Officer
MA	Mission Assignment
MAA	Mutual Aid Agreement
MAC	Mapping and Analysis Center
MAC-ST	Mobile Acute Care Strike Team
MARAD	Maritime Administration
MARFORPAC	U.S. Marine Forces Pacific Fleet
MCAS	Marine Corps Air Station
MCDA	Maui Civil Defense Agency
MCC	Movement Coordination Center
MCE	Maritime Command Elements
MECO	Maui Electric Company
MEDEVAC	Medical Evacuation
MERS	Mobile Emergency Response System
METOC	Meteorological Tactical Operations Center
MFD	Maui Fire Department
MHCOA	Medical Health Operational Area Coordinator
MHE	Material Handling Equipment
MHT	Medical Health Team
MHz	Megahertz
MIACG	Medical Interagency Coordination Group
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MRC	Medical Reserve Corps
MTSRU	Marine Transportation System Recovery Unit
NAWAS	National Warning and Alert System
NCC	National Coordinating Center for Communications
NCMEC	National Center for Missing and Exploited Children
NCS	National Communications System
NDMS	National Disaster Medical System
NDRF	National Disaster Recovery Framework
NECLC	National Emergency Child Locator Center
NEMIS	National Emergency Management Information System
NFIP	National Flood Insurance Program
NGO	Non-Governmental Organizations
NHC	National Hurricane Center
NICCL	National Incident Communications Coordination Line
NIFOG	National Interoperability Field Operations Guide
N-IMAT	National Incident Management Assistance Team
NIMS	National Incident Management System
NLT	No Later Than
NMCC	National Military Command Center
NOAA	National Oceanic and Atmospheric Administration

NOTAM	Notice to Airmen
NPS	National Public Safety
NPSPAC	National Public Safety Planning Advisory Committee
NSS	National Shelter System
NRCC	National Response Coordination Center
NRCS	National Response Coordination Staff
NRF	National Response Framework
NRN	National Response Network
NSS	National Shelter System
NSSE	National Special Security Events
NTM	Notice to Mariners
NWS	National Weather Service
NYK	Nippon Yusen Kaisha
OEC	Office of Emergency Communications
OFA	Other Federal Agencies
OFDA	Office of Foreign Disaster Assistance
OPA	Oil Pollution Act
OPCON	Operations Control
OPDS	Offshore Petroleum Discharge System
OSC	On-Scene Coordinator
PA	Public Affairs
PA	Public Assistance
PACAF	Pacific Air Forces
PACOM	Pacific Command
PDA	Preliminary Damage Assessments
PHMS	Public Health and Medical Service
PIO	Public Information Officer
PLMR	Pacific Land Mobile Radio
POC	Point of Contact
POD	Point of Distribution
PPE	Personal Protective Equipment
PRT	Planning and Response Team
PSA	Public Service Announcement
PSAP	Public Safety Answering Point
PSMA	Pre-Scripted Mission Assignments
RACES	Radio Amateur Civil Emergency Service
REC	Regional Emergency Coordinator
RECC	Regional Emergency Communications Coordinator
RF	Radio Frequency
RFA	Request for Assistance
RFI	Request for Information
RFF	Request for Forces
RISM	Regional Incident Support Manual
RNA	Rapid Need Assessments
ROE	Rules of Engagement
Ro-Ro	Roll-on/Roll-off
RRCC	Regional Response Coordination Center
RRCS	Regional Response Coordination Staff
RRF	Request for Resource Form

RSF	Recovery Support Function
RSO&I	Reception, Staging Onward-movement & Integration
RSP	Regional Support Plan
SAR	Search and Rescue
SAT	Service Access Team
SATCOM	Satellite Telecommunication
SBA	Small Business Administration
SCO	State Coordinating Officer
SecDef	Secretary of Defense
SEO	State Energy Office
SEOC	State Emergency Operations Center
SERT	State Emergency Response Team
SITREP	Situation Report
SLJHTF	State-Led Joint Housing Task Force
SLOSH	Sea, Lake, and Overland Surges from Hurricanes
SLSC	Senior Leadership Steering Committee
SMC	Shortage Management Center
SME	Subject Matter Experts
SOP	Standard Operating Procedure
SSB	State Shared Blended
SWEAT-M	Security & Safety, Water, Energy, Accessibility, Telecommunications-Medical
SWIMS	Surge and Wave Island Modeling Studies
TAG	The Adjutant General
TCCOR	Tropical Cyclone Conditions of Readiness Program
TDSR	Temporary Debris Storage and Reduction
THIRA	Threat and Hazard Identification and Risk Assessment
TRIC	Transportable Radio Interoperability Communications
TSP	Telecommunications Service Priority
TSU	Transportation Support Unit
TWO	Tropical Weather Outlook
UAVs	Unmanned Aerial Vehicles
UCG	Unified Coordination Group
UCS	Unified Coordination Staff
UH	University of Hawaii
UHF	Ultra High Frequency
USACE	U.S. Army Corps of Engineers
USAF	U.S. Air Force
USAID	U.S. Agency for International Development
US&R	Urban Search & Rescue
USAR	Urban Search And Rescue
USARPAC	U.S. Army Pacific
U.S.C.	United States Code
USCG	U.S. Coast Guard
USDA	U.S. Department of Agriculture
USDOE	U.S. Department of Energy
USDOT	U.S. Department of Transportation
USGS	U.S. Geological Survey
USPHS	U.S. Public Health Service



VA	Department of Veterans Affairs
VASH	Visitor Aloha Society of Hawaii
VHF	Very High Frequency
VOAD	Volunteer Organizations Active in Disaster
VOST	Virtual Operations Support Team
VTC	Video Teleconference
WAAF	Wheeler Army Airfield
WebEOC	Web-based Emergency Operations Center
WMD-CST	Weapons of Mass Destruction-Civil Support Team

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## APPENDIX 8: AUTHORITIES AND REFERENCES

This appendix is consistent with U.S. and Hawaii State laws, policies, and other related requirements. This appendix does not alter existing authorities and does not create new authorities. Nor does it alter or impede the ability of state and federal departments and agencies to carry out their specific authorities and statutory responsibilities. Primary authorities include but are not limited to the following:

### Federal

**Americans with Disabilities Act (ADA)** (P.L. 101-336), 1990.

**American National Standards Institute (ANSI)** TIA/EIA-102, Phase 1.

**Developing and Maintaining Emergency Operations Plans: Comprehensive Preparedness Guide 101 (CPG 101)**, November 2010.

**Economy Act** (31, U.S.C. 1535), 1933.

**Federal Water Pollution Control Act (FWPCA)** as amended by section 311 of the Clean Water Act and the Oil Pollution Act of 1990 (OPA 90).

**FEMA National Incident Support Manual**, 2013.

**FEMA Operational Planning Manual (FOPM)**, June 2014 – Describes the national standard for operational planning activities. To maximize interoperability within FEMA, it is important to standardize the approach to operational planning. This manual identifies and describes (1) common types of planning, (2) the operational planning method, (3) the use of the operational planning method for deliberate planning, (4) how to operationalize deliberate plans through crisis action planning, and (5) how to transition plans from the planners to those who execute plans.

**FEMA Regional Incident Support Manual (RISM)**, 2013.

**FEMA Region IX All Hazards Plan**, January 2013 – Describes specific strategies to execute a unified response to a severe incident anywhere in Region IX. This plan focuses on the coordinated deployment of federal incident management and response capabilities, equipment, and resources in support of county and state response to any severe incident.

**Homeland Security Act of 2002** (P.L. 107-296).

**Homeland Security Presidential Directive – 5: Management of Domestic Incidents**, February 28, 2003 – Enhances the ability of the United States to manage domestic incidents by establishing a single, comprehensive NIMS. It also assigns specific responsibilities to the Secretary of the Department of Homeland Security, U.S. Attorney General, Secretary of Defense, Secretary of State, and the Assistants to the President for Homeland Security and National Security Affairs and directs the heads of all federal departments and agencies to provide their full and prompt cooperation, resources, and support, as appropriate and consistent with their own responsibilities for protecting national security.

**Homeland Security Presidential Directive – 10: Biodefense for the 21st Century**, April 28, 2004.

**Homeland Security Presidential Directive – 18: Medical Countermeasures against Weapons of Mass Destruction**, January 31, 2007.

**Homeland Security Presidential Directive – 21: Public Health and Medical Preparedness**, October 18, 2007.

**Incident Management and Support Keystone**, January 2011.

**National Incident Management System (NIMS)**, December 2008.

**National Oil and Hazardous Substances Pollution Contingency Plan** (40 CFR, Part 300), 1994.

**National Preparedness Goal (NPG)**, September 2011.

**National Preparedness System (NPS)**, November 2011.

**National Public Safety Planning Advisory Committee (NPSPAC)** – Public Safety Channels (806-824 MHz band).

**National Response Framework (NRF) and Annexes, 2013** – Describes specific authorities and best practices for managing incidents that range from the serious but purely local to large-scale terrorist attacks or catastrophic natural disasters.

**Office of Emergency Communications (OEC) National Interoperability Field Operations Guide (NIFOG)**, 2014.

**Ports and Waterways Safety Act** (33 U.S.C. 1221 et seq), 1972.

**Posse Comitatus Act** (18 U.S.C. 1385), 1878.

**Post-Katrina Emergency Management Reform Act (PKEMRA) of 2006** (P.L. 109-295) – Clarifies and modifies the Homeland Security Act with respect to the organizational structure, authorities, and responsibilities of FEMA and the FEMA Administrator.

**Presidential Policy Directive (PPD) – 8: National Preparedness**, March 2011 – Establishes policies to strengthen the preparedness of the nation to prevent and respond to threatened or actual domestic terrorist attacks, major disasters, and other emergencies by requiring a national domestic all-hazards preparedness goal, establishing mechanisms for improved delivery of federal preparedness assistance to county and state governments and outlining actions to strengthen preparedness capabilities of county, state, and federal entities.

**Public Health Security and Bioterrorism Preparedness and Response Act of 2002** (P.L. 107-188).

**Public Health Service Act** (42 U.S.C. 201 et seq), 1999.

**Response Federal Interagency Operations Plan (Response FIOP)**, July 2014 – An all-hazards plan that describes how the Federal Government, pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) or other appropriate non-Stafford Act legal authority, supports county, state, and insular area efforts to save lives, protect property and the environment, and meet basic human needs following an emergency or disaster.

**Response Federal Interagency Operational Plan – Hurricane Incident Annex (draft)** – Expands the concepts within the Response FIOP to better describe the missions, policies, responsibilities, and coordination processes across emergency response operations for a notice hurricane incident and outlines federal capabilities in a phased approach to support county and state area authorities during hurricane phases, including preparedness, response, and the transition to recovery.

**River and Harbor Act of 1899** (33 U.S.C., Sec 20, 409, 411-415).

**Robert T. Stafford Disaster Relief and Emergency Assistance Act, as amended April 2013** (P.L. 93-288) – Describes the programs and processes by which the Federal Government provides disaster and emergency assistance to state/country governments, eligible private

nonprofit organizations, and individuals affected by a declared major disaster or emergency. The Stafford Act covers all hazards, including natural disasters and terrorist events.

**Sandy Recovery Improvement Act of 2013**, (P.L. 113-2) – Authorizes several changes to the way FEMA may deliver federal disaster assistance to survivors including public assistance, debris removal program alternative procedures, analysis of public assistance small project threshold, individual assistance declaration factors, and other significant programs.

## **Department of Defense**

**DOD Directive 3025.18**, Defense Support of Civil Authorities (DSCA), September 21, 2012.

**Joint Publication 3-28**, Defense Support to Civil Authorities, 31 July 2013.

**NGR 500-1/ANGI 10-8101**, National Guard Domestic Operations, 13 June 2008.

**NGR 500-4**, National Guard CBRNE Enhanced Response Force Package Management, October 2009.

**NGR 500-5/ ANGI 10-208**, National Guard Domestic Law Enforcement Support and Mission Assurance Operations, August 2010.

## **State**

**Hawaii Administrative Rules**, Title 15, Chapter 10 – Procurement, Control, Distribution and Sale of Petroleum Products During Fuel Shortage.

**Hawaii Administrative Rules**, Title 15, Chapter 11-451 – State Contingency Plan, August 17, 1995.

**Hawaiian Electric Companies Integrated Resource Planning Report**, 2013.

**Hawaii Electric Light Transmission Lines Map**, 2014.

**Hawaii Energy Assurance Plan**, March 2013.

**Hawaii Public Assistance and Individual Assistance administrative plans.**

**Hawaii Revised Statutes**, Chapter 125C, Procurement, Control, Distribution and Sale of Petroleum Products.

**Hawaii Revised Statutes**, Chapter 127A, Emergency Management.

**Hawaii Revised Statutes**, Chapter 128D, Environment Response Law.

**Hawaii Revised Statutes**, Chapter 128E, Hawaii Emergency Planning and Community Right-To-Know Act).

**Hawaii Statewide Communications Interoperability Plan, 2007 with updates.**

**Healthcare Association of Hawaii, Emergency Services Coalition Emergency Operations Playbook for Tropical Cyclones**, August 1, 2014.

**Port Hawaii Commercial Harbors System Handbook.**

**State of Hawaii, Commodity Distribution Plan**, 2012.

**State of Hawaii, DBEDT Energy Trend Analysis**, 2014.

**State of Hawaii, Emergency Alert System Plan**, 2003.

**State of Hawaii, Hazard Mitigation Plan**, 2013.



**State of Hawaii, Emergency Communications Plan (Draft), 2015.**

**State of Hawaii, Oil and Hazardous Substances Emergency Response Plan, 2001.**

**State of Hawaii, Plan for Emergency Preparedness, Volume III, Disaster Response and Assistance, 1994.**

**State of Hawaii, Threat and Hazard Identification and Risk Assessment, 2014.**

## **Local**

**City and County of Honolulu Emergency Operations Plan and Annex, 2014.**

**City & County of Honolulu Hurricane Response Framework, September 2013.**

**City & County of Honolulu Hurricane Response Logistics Concept of Operations Annex & Appendices, September 2013.**

**City & County of Honolulu Mass Fatality Management Field Operations Guide, January 2013.**

**Hawaii County Emergency Operations Plan and Annexes, 2012.**

**Hawaii County Hurricane Response Framework, September 2013.**

**Hawaii County Hurricane Response Logistics Concept of Operations Annex & Appendices, September 2013.**

**Hawaii County's Wastewater Collection System PowerPoint presentation, Dora Beck, P.E., Wastewater Division Chief, accessed on the Internet, April 16, 2014.**

**Hawaii County Water Use and Development Plan Update (Fukunaga & Assoc.), Department of Water Supply, Final, August 2010.**

**Honolulu Board of Water Supply SOP.**

**Honolulu Tactical Interoperable Communications Plan.**

**Honolulu Waste Water Treatment, accessed April 30, 2014.**

**Kauai County Emergency Operations Plan and Annexes, 2008.**

**Kauai County Hurricane Response Framework, September 2013.**

**Kauai County Hurricane Response Logistics Concept of Operations Annex & Appendices, September 2013.**

**Kauai Island Utility Cooperative Annual Report, 2013.**

**Maui County Emergency Operations Plan and Annexes, 2012.**

**Maui County Hurricane Response Framework, September 2013.**

**Maui County Hurricane Response Logistics Concept of Operations Annex & Appendices, September 2013.**

**Maui County Water Use and Development Plan Water Use and Demand (draft), Department of Water Supply Systems, May 1, 2007.**

**Maui Electric Company Emergency Operations Procedures.**

## APPENDIX 9: DISTRIBUTION

Distribution of the plan will be in accordance with Table 19. A complete copy of the plan consists of the Base plan, Appendices 1, 2, 3, 4, 5, 6, 7, 8, 9, and X.

**Table 9-1: Distribution Table**

Distribution
Senior Leader Steering Committee
City and County of Honolulu
Emergency Support Function (ESF) Region IX Coordinators
FEMA Headquarters
FEMA Region IX
FEMA Region IX PAO
Hawaii County
Hawaii DCO/DCE
HI-EMA
Kauai County
Maui County
NGOs and Private Sector Partners
State Emergency Response Team (SERT) Coordinators