COUNTY OF HAWAI‘I

Community Development Block Grant Mitigation (CDBG-MIT) Program

Action Plan

PUBLIC COMMENT PERIOD:
OCTOBER 25, 2021 – December 8, 2021

RELEASED BY THE COUNTY: MARCH 4, 2022

APPROVED BY U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT: MAY 3, 2022

PURPOSE

The County of Hawai'i qualified for receipt of Community Development Block Grant – Mitigation (CDBG-MIT) funds through the U.S. Department of Housing and Urban Development (HUD) and has prepared this CDBG-MIT Action Plan to fulfill the requirements of Federal Register Notice 86 FR 561 to receive these funds.

This Action Plan is proposed as an implementation mechanism for the County Civil Defense Agency's Multi-Hazard Mitigation Plan (MHMP), which was adopted in 2020, and is the most recent FEMA approved Hazard Mitigation Plan. Various references within this Action Plan, such as those concerning the County profile, risk assessment/ranking, needs assessment, and mitigation actions originate from the MHMP.

Information concerning the CDBG-MIT Program and Action Plan can be found at:

https://www.planning.hawaiicounty.gov/general-plan-community-planning/cdbg-mit

PUBLIC MEETINGS

CDBG-MIT Initial Action Plan Pre-Release Public Meeting (Virtual)
October 19, 2021
5:00-6:30 PM

CDBG-MIT Initial Action Plan Post-Release Public Meeting (Virtual)
November 16, 2021
5:00-6:30 PM

CONTACT INFORMATION

The County of Hawai'i Planning Department is the responsible entity for the CDBG-MIT program. This CDBG-MIT Action Plan is jointly sponsored by the Planning Department and the County's Civil Defense Agency. Contact information for these County offices are as follows:

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VERSION HISTORY

Version history is to be tracked in the following table, with notes regarding version changes. The dates of each publication are also tracked in this table. The first version of this document is 1.0.

- *Substantial Amendments* – The following constitute a substantial amendment to this Action Plan:

  - A change in program benefit or eligibility criteria
  - The allocation or re-allocation of 10% or more of the CDBG-MIT grant
  - The addition or deletion of an activity

  Substantial Amendments will result in the issuance of a new version number.

- *Non-Substantial Amendments* – Lesser modifications than those identified above, including minor wording/editing/clarification, constitute non-substantial amendments.

  Non-Substantial Amendments will be denoted by a sequential number increase after the primary version number.

The above-described numbering convention would result in new version numbers such as 1.1 (Non-substantial Amendment), 2.0 (Substantial Amendment), 2.1 (Non-Substantial Amendment), etc.

Version	Published by County	Approved by HUD
Action Plan – V 1.0	3/4/2022	5/3/2022

Substantial Amendment Process

A Substantial Amendment to the Action Plan will follow the same procedures for publication as the original Action Plan in accordance with the County's Citizen Participation Plan (CPP). All Amendments (both Substantial and Non-Substantial) will be numbered sequentially and posted on the County's Mitigation website. The beginning of every amendment will include a section that identifies the content that is being added, deleted, or changed. The County's most recent version of the entire Action Plan will be accessible for viewing as a single document at any given time.

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SECTION 1. INTRODUCTION

1.1 Appropriations Act and Funding Authority

In recognition of the significant damage and resulting unmet financial need caused by the 2018 Kīlauea eruption, the United States Congress appropriated through the U.S. Department of Housing and Urban Development (HUD) Community Development Block Grant – Disaster Recovery (CDBG-DR) funding to the County of Hawai‘i. The Congress has identified the significant importance of community-level disaster preparedness and hazard mitigation. The Community Development Block Grant – Mitigation (CDBG-MIT) program was created through HUD and made available to communities administering CDBG-DR funding to help them prepare for future disasters.

1.1.1 CDBG-DR Funding

HUD, through CDBG-DR funding, allocated financial assistance to grantees recovering from qualifying 2018 disasters. The CDBG-DR funding is to address unmet disaster recovery needs concerning restoration of housing, infrastructure, and economic revitalization in the “most impacted and distressed” (MID) areas. The County must address its unmet housing recovery needs primarily with these funds. The entire County of Hawai‘i has been determined to be the most impacted and distressed area for use of CDBG funding. The County is investing its CDBG-DR funding in the area physically impacted by the qualifying disaster event of the Kīlauea eruption in 2018.

1.1.2 CDBG-MIT Funding

HUD published its Federal Register Notice 86 FR 561 on January 6, 2021, with effective date of January 11, 2021, for the allocation of over $186 million in Community Development Block Grant – Mitigation (CDBG-MIT) funds to grantees recovering from qualifying 2018 disasters. Funds allocated by this notice were made available by the Additional Supplemental Appropriations for Disaster Relief Act of 2019. The 2018 eruption of the Kīlauea volcano was the qualifying event (DR-4366) for the County of Hawai‘i, with $6,862,000 in CDBG-MIT funds being allocated through 86 FR 561. Prior and associated Federal Register Notices associated with the CDBG-MIT funding include 84 FR 45838, published August 30,2019 (the ‘‘Main CDBG–MIT Notice’’) and 85 FR 60821, published September 28, 2020 (the ‘‘2020 Omni Notice’’).

Per 84 FR 45838, HUD differentiates between the purpose of CDBG-MIT funds and CDBG-DR funds, in that CDBG-MIT funds are to be used for mitigation activities that “increase resilience to disasters and reduce or eliminate the long-term risk of loss of life, injury, damage to and loss of property, and suffering and hardship, by lessening the impact of future disasters.”

1.1.3 HUD Eligible Activities

HUD has identified that the eligible activities, with which CDBG-MIT funds may be used, are the same as the eligible activities under the CDBG-DR including: 1) using CDBG-MIT funds as a match and 2) allowing up to 5% as the administrative cap and 15% as the cap for planning activities. MIT funds may be used to:

- Support infrastructure projects, housing activities, public services, economic development, disaster preparedness, and planning efforts that relate to eligible hazard mitigation activities.
- Increase resilience and reduce or eliminate risks, per HUD’s definition of mitigation.
- Used as a flexible funding match

Funding cannot be used for direct beneficiary reimbursement or assistance to private utilities unless HUD grants a waiver.

1.2 Hazard Mitigation

Hazard Mitigation is defined as any action taken to increase resilience to disasters and reduce or eliminate risk to human life and property from man-made or natural hazards. Hazard mitigation comes in varied forms, such as short-term and long-term policies, programs, projects, and other activities to alleviate impacts from a hazard or disaster. A hazard is any event or condition with the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, environmental damage, business interruption, or other structural or financial loss.

1.3 CDBG-MIT Action Plan Development and Purpose

The County of Hawai'i has prepared this Action Plan, as required by HUD, in order to access the CDBG-MIT funds for use on strategic hazard mitigation activities. In 2020 the County adopted a Multi-Hazard Mitigation Plan (MHMP) that incorporated local and regional long-term planning and hazard risk reduction efforts. This MHMP, which is the most recent FEMA approved Hazard Mitigation Plan, included a risk-based hazard assessment that identified significant current and future disaster risks. Within the MHMP, a plan was developed that highlighted 31 primary projects that should be prioritized for implementation. This CDBG-MIT Action Plan further refines the list of 31 projects, proposing an abbreviated list of projects that may be achieved with the approximate $6.8 million made available through 86 FR 561.

1.3.1 Action Plan Elements

Federal guidance on MIT Action Plan development, identifies the following elements should be contemplated:

1. Mitigation Needs Assessment
2. Long-Term Planning and Risk Mitigation Considerations
3. Connection of Mitigation Programs and Projects to Risks
4. Low-Moderate Income (LMI) Priority
5. Coordination of Projects and Leverage
6. Maximum Award Amounts
7. Plans to Minimize Displacement and Ensure Accessibility
8. Natural Infrastructure
9. Construction Standards
10. Operation and Maintenance
11. Cost Verification
12. Building Code and Hazard Mitigation Planning

1.3.2 HUD CDBG-MIT Goals

HUD's CDBG-MIT program goals, which will provide guidance to the County in its program delivery, include:

1. Support data-informed investments, focusing on repetitive loss of property and critical infrastructure
2. Build capacity to comprehensively analyze disaster risks and update hazard mitigation plans

3. Support the adoption of policies that reflect local and regional priorities that will have long-lasting effects on community risk reduction, including risk reduction to community lifelines and decreasing future disaster costs
4. Maximize the impact of funds by encouraging leverage, private/public partnerships, and coordination with other federal dollars.

1.3.3 Most impacted and Distressed (MID) Area

The entire County of Hawai‘i has been determined as the “most impacted and distressed” (MID) area. CDBG-MIT funding will be used to pursue the implementation of actions outlined in the County’s adopted 2020 Multi-Hazard Mitigation Plan (MHMP).

SECTION 2. RISK-BASED MITIGATION NEEDS ASSESSMENT

Risk assessment is the process of measuring the potential loss of life, personal injury, economic injury, and property damage resulting from natural hazards. It allows emergency management personnel to establish early response priorities by identifying potential hazards and vulnerable assets. The process focuses on the following elements:

- Hazard identification – Use all available information to determine what types of disasters may affect a jurisdiction, how often they can occur, and their potential severity.
- Vulnerability identification – Determine the impact of natural hazard events on the people, property, environment, economy, and lands of the region.
- Cost evaluation – Estimate the cost of potential damage or cost that can be avoided by mitigation.

In the development of the County's 2020 Multi-Hazard Mitigation Plan (MHMP), which has informed this CDBG-MIT Action Plan, a thorough hazard risk and needs assessment was conducted. The County has used the most recent risk assessment completed through the FEMA HMP process to inform the hazards analyzed here and subsequent use of CDBG-MIT funds (84 FR 45840 and 86 FR 561). The County also acknowledges the availability of the following resources and certifies such were considered, as appropriate, in the assessment:

- FEMA (Federal Emergency Management Agency) Local Mitigation Planning Handbook
- DHS (Department of Homeland Security) Office of Infrastructure Protection
- National Association of Counties, Improving Lifelines
- The U.S. Forest Service's Resources Around Wildland Fire
- National Interagency Coordination Center (NICC) for Coordinating the Mobilization of Resources for Wildland Fire
- HUD's CPD Mapping Tool

An overview of the County profile, risk assessment methodology, significant hazards facing the county, and results of the risk assessment are provided below.

2.1 County of Hawai‘i Profile

2.1.1 Geographic Overview

The State of Hawai‘i consists of eight major islands (Kaua‘i, Ni‘ihau, O‘ahu, Maui, Moloka‘i, Lāna‘i, Kaho‘olawe, and Hawai‘i) and 124 small islands, reef, and shoals (referred to as the Northwest Hawaiian Islands). The islands are divided into five counties – Kaua‘i, City & County of Honolulu (O‘ahu), Maui, Kalawao, and Hawai‘i. Hawai‘i County encompasses the entire island of Hawai‘i, the southeasternmost island in the Hawaiian archipelago. At approximately 4,028 square miles, the island of Hawai‘i (also known as the Big Island) is larger than all the other islands combined.

The Hawai‘i County seat is Hilo. Other population centers are Hawaiian Paradise Park, Waimea, Waikoloa Village, Kailua, Kealakekua, Pāhoa, and Honoka‘a. For planning purposes, the County's nine judicial districts are used for analyses throughout the hazard mitigation analysis conducted in the MHMP. The planning area and the districts are shown in Figure 2-1.

Figure 2-1. Planning Area Communities and Districts

Source: Figure 4-1 from Page 4-2 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

2.1.2 Major Past Hazard Events

Presidential disaster declarations are typically issued for hazard events that cause more damage than state and local governments can handle without federal government assistance, although no dollar loss threshold has been established for the declarations. These declarations initiate federal recovery programs to help disaster victims, businesses, and public entities. Hawai'i County has experienced over 30 events since 1955 (listed in Table 2-1), for which presidential disaster declarations were issued. Review of these events helps identify targets for risk reduction and ways to increase a community's capability to avoid large-scale events in the future. Still, many natural hazard events do not trigger federal disaster declarations but still have significant local impacts. These events are also important to consider in establishing recurrence intervals for hazards of concern.

Table 2-1. Presidential Disaster Declarations for Hazard Events in Hawai'i County

Type of Event	Disaster Declaration #	Date
Volcano	DR-32	4/1/1955
Tidal Wave	DR-71	3/16/1957
Hurricane Dot	DR-94	8/16/1959
Earthquakes and Volcanic Disturbances	DR-96	1/21/1960
Tidal Waves	DR-101	5/25/1960
Heavy Rains and Flooding	DR-152	4/24/1963
Earthquake	DR-383	5/16/1973
Earthquake, Seismic Waves, Volcanic Eruption	DR-490	12/719/75
Severe Storms and Flooding	DR-573	3/7/1979
Kīlauea	FSA-2044	3/4/1983
Lava Flow, Kīlauea Volcano	DR-864	5/18/1990
Hurricane Iniki	DR-961	9/12/1992
Puna District Wildfire	FSA-2196	3/16/1998
Puuaakapu Ranch Lot Fire	FSA-2293	3/20/2000
Severe Storms and Flooding	DR-1348	11/9/2000
Waikoloa Village Fire	FM-2468	5/8/2003
Kawaihae Road Fire	FM-2556	9/14/2004
Lālāmilo Fire	FM-2573	8/02/2005
Akoni Pule Highway Fire	FR-2574	8/04/2005
Earthquake	DR-1664	10/17/2006
Kohala Mountain Road Fire	FM-2722	8/17/2007
Puakō Fire	FM-2740	10/28/2007
Severe Storms, High Surf, Flooding, and Mudslides	DR-1743	02/6/2008
Tsunami Waves	DR-1967	4/08/2011
Tropical Storm Iselle	DR-4194	9/12/2014
Pu'u 'Ō'ō Volcanic Eruption and Lava Flow	DR-4201	11/03/2014
Kīlauea Volcanic Eruption and Earthquakes	DR-4366	5/11/2018
Hurricane Lane	EM-3399	8/22/2018
Tropical Storm Olivia	EM-3404	9/12/2018
Hurricane Lane	DR-4395	9/27/2019

Type of Event	Disaster Declaration #	Date
Hurricane Douglas*	EM-3529	7/25/2020
COVID-19 *	EM-3431	3/13/2020
COVID19 Pandemic*	DR-4510	4/1/2020
Mana Road Fire*	FM-5404	8/1/2021

Note: Pre-1964 declarations were not issued to counties. Those listed in the table are for the entire state of Hawai'i.
Source: Table 4-1 from Page 4-4 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020
* Amended per https://www.fema.gov/disaster/declarations since release of MHMP

2.1.3 Demographics

Disasters can impact people of all socioeconomic and demographic types and characters. Because of this, it is important to understand the underlying characteristics of the population in areas impacted by disaster, ensuring that hazard mitigation and recovery programs respond to the unique conditions of the community and any residents in need of assistance. This portion of the Action Plan will assist in identifying whether populations that may typically be underserved, require special services, or have special needs are disproportionately impacted.

Presented below is a demographic profile of the County that summarizes key characteristics of the population, including potential risk factors and vulnerabilities. HUD has identified the entire County of Hawai'i as the Most Impacted and Distressed (MID) Area. Therefore, an analysis was conducted on the County level because the County and MID are synonymous.

Population Characteristics

Knowledge of the composition of the population, including how it has changed in the past and how it may change in the future, is needed for making informed decisions. Information about population is a critical part of planning because it directly relates to land needs such as housing, industry, stores, public facilities and services, and transportation. The State of Hawai'i Department of Business, Economic Development and Tourism estimates the County's total resident population at 201,513 as of July 2019. Table 2-2 presents population estimates for the subdivision units within Hawai'i County defined by the Census (the most recent data for these estimates is 2018).

Table 2-2. 2018 Population of Hawai'i County by Census-Defined County Subdivision

Subdivision	Population	Subdivision	Population
Hilo	48,774	**North Kona**	43,631
Honoka'a-Kukuihaele	4,152	**Pā'auhau-Pa'auilo**	2,520
Ka'ū	9,473	**Pāhoa-Kalapana**	11,215
Kea'au-Mountain View	35,553	**Pāpa'ikou-Wailea**	4,162
North Hilo	1,510	**South Kohala**	19,855
North Kohala	6,045	**South Kona**	10,768
County Total			**197,658*a***

Note ***a***: Total Hawai'i County population for 2018 differs between this table and Table 2-4 due to different data sources.
Source: U.S. Census Bureau
Table 4-6 from Page 4-13 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

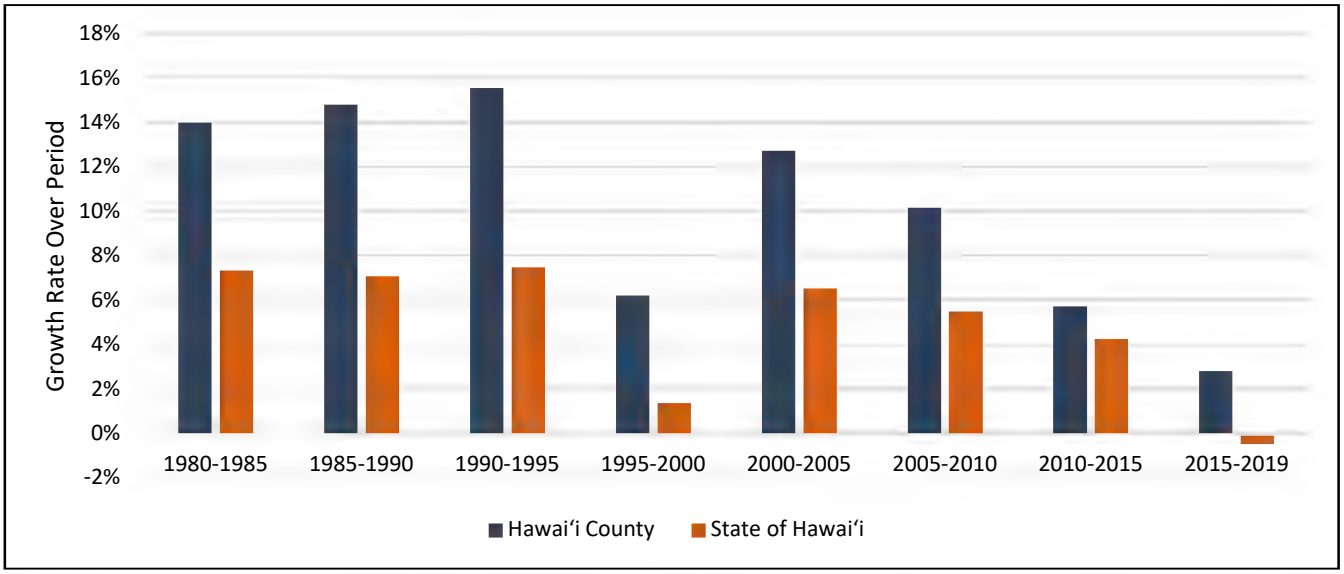
Population changes are useful socio-economic indicators. A growing population generally indicates a growing economy, while a decreasing population signifies economic decline. Table 2-3 shows the population in the County and State of Hawai‘i from 1980 through 2019. The average growth rate over that period, for Hawai‘i County and for the state, is shown on Figure 2-2. The County's average 5-year population growth of over 14 to 15 percent in the 1980s and early 1990s dropped significantly in the late 1990s and rose again in the first five years of the 2000s. Since then, the rate has declined steadily. The state growth followed a similar trend, with a consistently lower growth rate than the County over the period shown.

Table 2-3. Annual Population Data

Year	Hawai‘i County Population	State of Hawai i Population	Year	Hawai‘i County Population	State of Hawai i Population
1980	92,900	968,500	**2012**	189,161	1,394,804
1985	105,900	1,039,698	**2013**	191,459	1,408,243
1990	121,572	1,113,491	**2014**	193,711	1,414,538
1995	140,492	1,196,854	**2015**	195,975	1,422,052
2000	149,244	1,213,519	**2016**	198,316	1,427,559
2005	168,237	1,292,729	**2017**	199,981	1,424,393
2010	185,363	1,363,963	**2018**	201,509*a*	1,420,593
2011	187,079	1,379,329	**2019**	201,513	1,415,872

Note ***a***: Total Hawai'i County population for 2018 different between this table and Table 2-3 due to different data sources.
Source: Hawai‘i Dept. of Business, Economic Development & Tourism.
Table 4-7 from Page 4-13 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Figure 2-2. State of Hawai‘i and Hawai‘i County Population Growth



Source: Hawai‘i Dept. of Business, Economic Development & Tourism.
Figure 4-5 from Page 4-14 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Age Distribution

According to the 2013–2017 American Community Survey (ACS) 2018 release, the County had an estimated total population of 196,325 people, comprising 67,054 households. This equates to approximately 14% of the total population (1,421,658) and 15% of the total number of households (455,502) in the State of Hawai‘i. The average household size for owner-occupied housing units in the County was 2.84 people, while the average household size for renter-occupied units was 2.95 people. The median age of County residents was 42.1, with 22% of the population under the age of 18 and 18.5% over the age of 65. These figures indicate that the County has a slightly older resident population than the State, which as of the 2013–2017 ACS release, had a median age of 38.8 and 16.7% of residents over 65 years of age (Table 2-4).

Table 2-4. County and State Populations and Age Statistics
2013 -2017 American Community Survey (ACS)

AREA	Total Pop.	Pop. 65+	% Pop. 65+	Pop. <18	% Pop. <18	Median Age
County of Hawai‘i	196,325	36,232	18.5%	43,114	22%	42.1
State of Hawai‘i	1,421,658	238,126	16.7%	307,583	21.6%	38.8

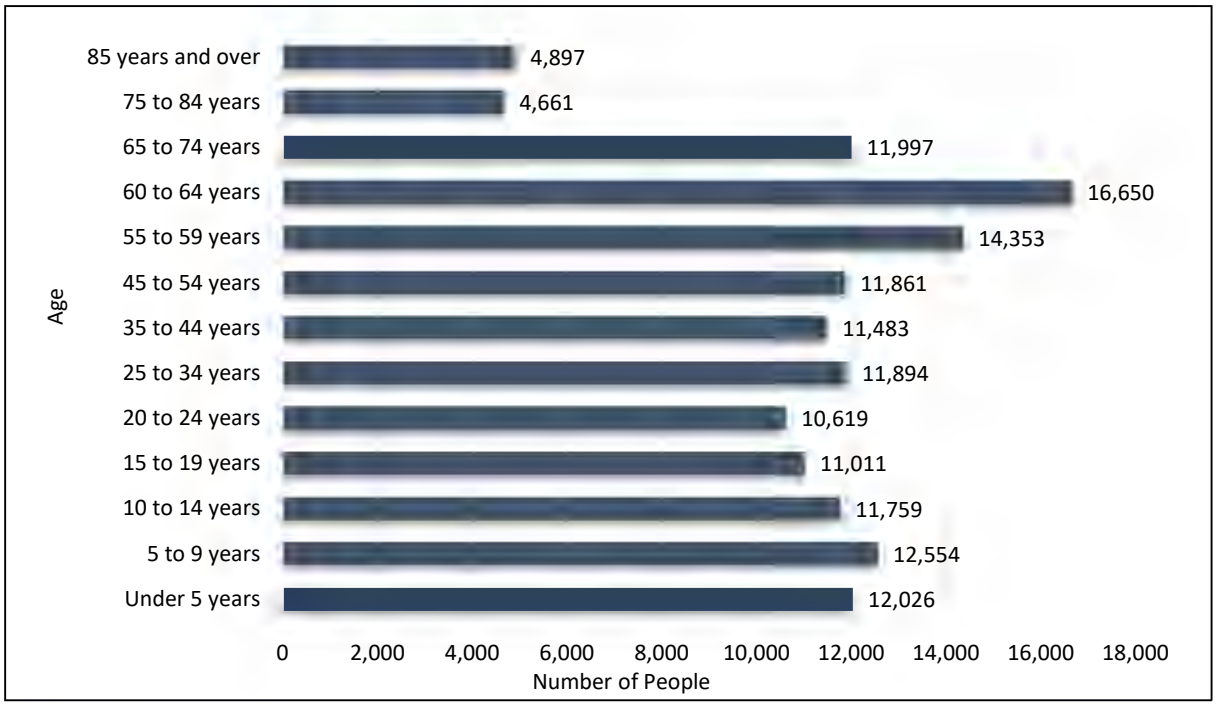
Source: 2013–2017 ACS Survey
Note: Pop. = population

As a group, the elderly are more apt to lack the physical and economic resources necessary for response to hazard events and are more likely to suffer health-related consequences making recovery slower following a disaster. They are more likely to be vision, hearing, and/or mobility impaired, and more likely to experience mental impairment or dementia. Additionally, the elderly are more likely to live in assisted-living facilities where emergency preparedness occurs at the discretion of facility operators. Emergency managers typically identify these facilities as “critical facilities” because they require extra notice to implement evacuation. Elderly residents living in their own homes may have more difficulty evacuating their homes and could be stranded in dangerous situations. This population group is more likely to need special medical attention, which may not be readily available during natural disasters due to isolation caused by the event. Specific planning attention for the elderly is an important consideration given the current aging of the American population.

Children under 14 are particularly vulnerable to disaster events because of their young age and dependence on others for basic necessities. Very young children may additionally be vulnerable to injury or sickness; this vulnerability can be worsened during a natural disaster because they may not understand the measures that need to be taken to protect themselves from hazards.

A more specific age distribution breakdown for the County is illustrated in Figure 2-3. Based on U.S. Census 2018 data estimates, 21.2 percent of the County’s population is 65 or older, higher than the state average of 18.4 percent. According to U.S. Census data, 38.8 percent of the over-65 population has disabilities of some kind and 9.9 percent have incomes below the poverty line. Children under the age of 18 account for 25.6 percent of individuals who are below the poverty line. It is also estimated that 18.3 percent of the population is 14 or younger, about the same as the state average of 18.1 percent.

Figure 2-3. Hawai‘i County Age Distribution



Source: Figure 4-6 from Page 4-15 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Race, Ethnicity, and Language

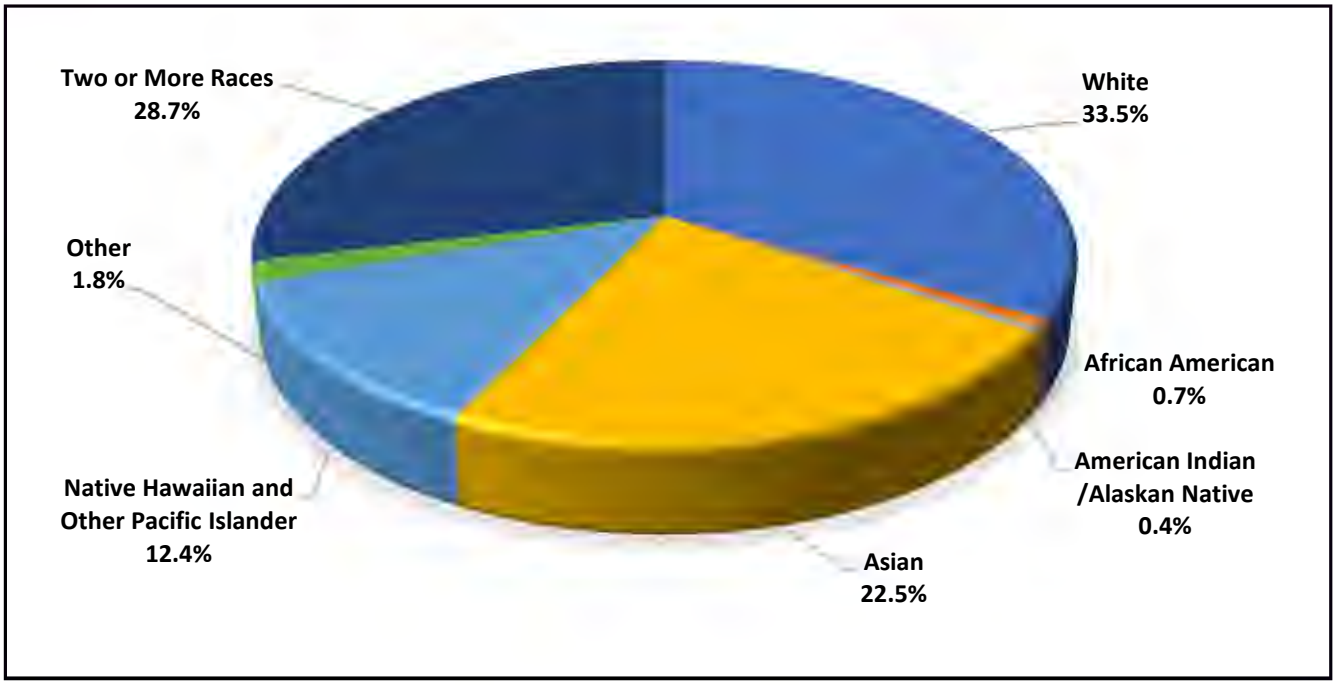
Hawai‘i Island has a diverse population, with the most predominant races and ethnicities in the County as follows: White (33.9%), Two or More Races (28.6%), Asian (22.2%), Native Hawaiian and Other Pacific Islander (13.1%), and Hispanic or Latino (12.5%). Other races include Some Other Race (1.2%), Black or African American (.6%), and American Indian and Alaska Native (.4%). As demonstrated in Table 2-5, the racial composition of the County differs from the racial composition of the State, with the most significant differences being the larger percentage of White residents in the County compared to the State and a smaller percentage of Asian residents in the County compared to the State.

Table 2-5. County of Hawai‘i Race and Ethnicity
2013-2017 American Community Survey (ACS)

	Hispanic or Latino	White	Black or African American	America Indian and Alaska Native	Asian	Native Hawaiian and Other Pacific Islander	Some Other Race	Two Or More
County of Hawai‘i	24,523 (12.5%)	66,492 (33.9%)	1,212 (.6%)	719 (.4%)	43,642 (22.2%)	25,664 (13.1%)	2,355 (1.2%)	56,241 (28.6%)
State of Hawai‘i	145,381 (10.2%)	357,308 (25.1%)	25,884 (1.8%)	2,756 (0.2%)	54,055 (38%)	142,600 (10%)	14,056 (1%)	338,498 (23.8%)

Source: 2013–2017 ACS

Figure 2-4. Hawai‘i County Race Distribution



Source: Figure 4-7 from Page 4-16 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

According to the 2013–2017 ACS, 74.2% of the population in the State of Hawai‘i speaks only English, and 25.8% speaks a primary language other than English. The County contains a slightly higher concentration of people who primarily speak English, with 80.5% of the County's population speaking only English and 19.5% speaking a primary language other than English. The planning area has an 11.7% foreign-born population. Other than English, the most commonly spoken languages in the planning area are Asian and Pacific Island languages, which are spoken by 15.2% of the population (28,019 residents). An estimated 6.3% of residents speak English "less than very well" on Hawai‘i Island. Table 2-6 provides an analysis of primary languages spoken in the County of Hawai‘i as a count of individuals and provides disaggregated data for LEP individuals within each language group.

The specific languages identified are available for tabulation from 2013-2017 ACS however they do not fully represent the primary languages spoken in the community. Analysis of 2013-2017 ACS Public Use Microdata Area (PUMA) data for the County of Hawai‘i provides further context for the linguistic diversity and potential language access needs within the Other Asian and Pacific Island Languages category. Hawaiian is the indigenous language of the Hawaiian Islands and the rate of LEP among speakers of Hawaiian in the County of Hawai‘i is 9.7%. Across the County, Asian languages not disaggregated in Table 2-6 with high rates of LEP include, but are not limited to, Japanese (39.7% of 1,714 speakers) and Ilocano (54.3% of 2,841 speakers). Pacific Island languages with high rates of LEP include, but are not limited to, Chuukese (46.1% of 171 speakers) and Marshallese (35.6% of 505 speakers).

Table 2-6. Languages Spoken at Home by Limited English Proficiency
2013 -2017 American Community Survey (ACS)

County of Hawaii

	Number of Language Speakers	Number of LEP within Language Group	Percent LEP within Language Group	Percent Language Group among All LEP
English	148,210	-	-	-
Spanish	3,588	1,018	24.8%	8.8%
French, Haitian, Cajun	647	115	17.8%	1.0%
German or Related Lang.	318	76	23.9%	0.7%
Russian, Polish, Slavic Languages.	591	185	31.3%	1.6%
Other Indo-European Languages.	711	120	16.9%	1.0%
Korean	1,236	554	44.8%	4.8%
Mandarin and Cantonese	831	358	43.1%	3.1%
Vietnamese	219	148	67.6%	1.3%
Tagalog	4,182	1,752	41.9%	15.2%
Other Asian Pacific Island Languages	21,551	7,095	32.9%	61.5%
Arabic	136	0	0.0%	0.0%
Other Lang.	1,995	111	5.6%	1.0%

Source: 2013–2017 ACS
Note: LEP = individual with limited English proficiency who speaks English less than "very well"

Education

At the time of the 2013–2017 ACS, an estimated 92.3% of the residents of the County of Hawai'i had graduated from high school or had a higher level of education and training, while 28.6% had completed a bachelor's degree or higher level of education and training. Examining educational attainment levels through a race and ethnicity lens reveals that the percentage of Whites only with a bachelor's degree or higher was 40.2%, while the percentage of non-Whites with a bachelor's degree or higher was only 23%. Median earnings data for each level of educational attainment is an essential dataset for understanding the County, where the cost of living is so comparatively high. Median annual earnings for those without a high school diploma are $22,684, while median annual earnings for those with a high school diploma are $30,072. Median annual earnings for those with some college are $32,316, and median annual earnings for those with a bachelor's degree are $40,909. Finally, median annual earnings for those with a graduate or professional degree are $51,895.

Social Vulnerability

Some populations are at greater risk from hazard events because of decreased resources or physical abilities. People living near or below the poverty line, the elderly, individuals with disabilities, women, children, ethnic minorities, and renters all experience, to some degree, more severe effects from disasters than the general population. These vulnerable populations may vary from the general population in risk perception, living conditions, access to information before, during and after a hazard event, capabilities during an event, and access

to resources for post-disaster recovery. Indicators of vulnerability – such as disability, age, poverty, and minority race and ethnicity – often overlap spatially and often in the geographically most vulnerable locations.

Additionally, the Federal Register requires grantees to assess how the use of CDBG-MIT funds may affect members of protected classes under fair housing and civil rights laws, racially and ethnically concentrated areas, as well as concentrated areas of poverty. The County of Hawai‘i, in its implementation of CDBG-MIT projects and activities, will strive to ensure all protected and at-risk populations are not negatively impacted.

Persons with Disabilities or with Access and Functional Needs

The 2018 U.S. Census estimates that nearly 41 million non-institutionalized Americans with disabilities or with access and functional needs live in the U.S. This equates to about one in eight persons. This population is more likely to have difficulty responding to a hazard event than the general population. Local government is the first level of response to assist these individuals, and coordination of efforts to meet their access and functional needs is paramount to life safety efforts. It is important for emergency managers to distinguish between functional and medical needs in order to plan for incidents that require evacuation and sheltering. Knowing the percentage of population with a disability will allow emergency management personnel and first responders to have personnel available who can provide services needed by those with access and functional needs. According to the U.S. Census 2018 estimates, persons with disabilities or with access and functional needs make up 16.4 percent of the total civilian non-institutionalized population of Hawai‘i County.

More specific information can be found through the U.S. Census’s American Community Survey information. According to the 2013–2017 ACS data, 25,849 individuals (13.3% of the population) within the County have a disability. Of these individuals, 1,127 are children and 13,629 are over the age of 65. Children and elderly persons with disabilities are more vulnerable than the general population and must be considered during the planning and implementation of disaster recovery and resiliency initiatives.

Homeless Population

The County faces significant problems associated with homelessness and the prevention of homelessness. The homeless population in the area continues to face obstacles, due in part to ongoing high unemployment, the nature of the isolated economy of an island state, and the exacerbating impacts of the recent disaster. The homeless population encompasses a broad range of individuals and families with special needs.

According to the 2019 Bridging the Gap Hawai‘i Neighbor Islands (Hawai‘i Island, Maui, and Kaua‘i) Point-in-Time Count Topline Report, 1,995 persons in the Hawai‘i Neighbor Islands were identified as homeless under the HUD definition. In 2018, the count was 2,035, representing a 2% decrease from 2018 to 2019. The 2019 overall decrease of homelessness was fueled by a 7% decrease in unsheltered homelessness. The count of individuals experiencing homelessness living in emergency or transitional shelters increased 8% from 705 to 758 persons. The 2019 count of 1,995 individuals experiencing homelessness included 690 people in Hawai‘i County alone, which made up about 35% of the total homeless population. Well over half of the 2019 count of individuals experiencing homelessness (62%) lived unsheltered. In 2019, the unsheltered population totaled 1,237. The County of Hawai‘i Point in Time (PIT) unsheltered count totaled 447 individuals, making up 36% of the unsheltered count. The County’s unsheltered count for 2019 represents an overall 33% decrease from 2018 (669), marking the lowest unsheltered count level in six years. Of the 690 people identified as homeless, 459 were individuals, 231 were family individuals (95 adults and 136 children), and 55 were family households. Family homelessness decreased

by 37%, falling from 87 families in 2018 to 55 families in 2019. Several regions in the County had significant concentrations of unsheltered homeless persons, as shown in the table below:

Table 2-7. Top Five Regions with Highest Unsheltered Homeless Populations
2019 Bridging the Gap Hawai'i Neighbor Islands Point-in-Time Count Topline Report

Area	Unsheltered Homeless Persons
South Hilo	155
North Hilo	150
South Kohala	42
Ka'ū	41
Puna	35

It was reported in the PIT survey that 12% of homelessness was due to disaster-related impacts on Kaua'i and Hawai'i islands during 2018. Continuum of Care (CoC) discovered that 4% of people experiencing homelessness responded that their homelessness was directly caused by flooding that occurred on Kaua'i's North Shore during April 2018. On Hawai'i Island, 2% indicated that their homelessness was because of Hurricane Lane during August 2018. The majority of disaster-related homelessness, at 6% of people, was due to volcanic eruptions. In 2019, two new disaster emergency shelters in Pāhoa accounted for 30 of the total sheltered homeless. These shelters opened in response to the volcanic eruptions.

Housing Market/Stock Profile

Understanding a community's housing market and dwelling unit stock helps inform how susceptible area structures are to damage from hazard events, what portions of the community may reside in such structures, and measures that might be taken to ensure more resilience following a disaster.

According to 2013–2017 ACS data, the County has a total of 86,348 housing units, with 67,054 being occupied (77.7%), leaving over 20% of housing units vacant. The fact that there are many vacation homes on the island may contribute to many of these homes being considered vacant. Information provided in the County's 2020-2024 Consolidated Plan (which can be found at: https://www.hawaiicounty.gov/departments/office-of-housing) provides more detailed information and indicates that the County's occupancy rate is as high as 98% with a Section 8 waiting list so large for housing that it has been closed. One of the most notable characteristics of housing on the island is the median value, which is $316,000. This is critical to note when accounting for the fact that median household income on the island is only $56,395. A significant percentage of the County's housing stock—more than 80%—was built in the last 50 years; as such, a very small percentage of existing housing stock lacks critical systems like plumbing or kitchens. The County's housing stock is newer and of better-quality standards than the State's housing stock, but the sizeable stock of vacant units could impact the County's ability to holistically recover from the recent disaster. This will need to be considered when allocating funds to repair damaged homes.

Most of the County housing stock consists of low density, single-family detached units (78%; 67,707). Multifamily units of 5 units or more make up 13% (11,270), and multifamily units of 4 units or less make up 5% (4,464). There is a small population of single-family attached units (3%; 2,568). Most housing—64%, or 44,942 units—is owner-occupied, with only 33% renter-occupied (22,112). The County's most recent Consolidated Plan indicated that 9% of households in the County suffer at least one of four HUD defined Severe Housing Problems which include:

- Lacking complete kitchen
- Lacking complete plumbing
- Severe overcrowding (>1.51 people per room)
- Severe cost burdening (housing cost > 50% household income)

Table 2-8. Housing Conditions
2013 -2017 American Community Survey (ACS)

	Total Housing Units	Occupied Housing Units	Vacant Housing Units	>50 Years Old	Lacking Complete Plumbing	Lacking Complete Kitchen	No Phone Service	When Householder Moved In prior to 1980
County of Hawai'i	86,348	67,054 (77.7%)	19,294 (22.3%)	15,191 (17.6%)	989 (.1%)	1,547 (.2%)	1,317 (.2%)	5,750 (8.6%)
State of Hawai'i	535,543	455,502 (85.1%)	80,041 (14.9%)	164,787 (30.8%)	2,849 (.6%)	7,387 (1.6%)	10,464 (2.3%)	52,447 (12%)

Source: 2013–2017 ACS

The County defines "Affordable Rent" as monthly rent payments for housing units that would require no more than 30 percent of monthly household income for a household earning a specified percent of the HUD Area Median Income (AMI). In the 2019 Hawai'i Housing Planning Study 71.5% of the housing stock within the County of Hawai'i was identified as affordable to low- to moderate-income households based on this definition of affordable rent.

According to the 2019 Hawai'i Housing Planning Study the County of Hawai'i added 2,783 new government-assisted housing units between 2000 and 2018 and is projected to add an additional 858 new government-assisted housing units in its pipeline. This projected figure includes several housing projects within the next two years totaling over 500 new units to be developed in Hilo, Kailua-Kona, and Waikoloa. These developments will include multi-family units, senior and veteran housing, and single-family homes. Other projects include an additional 250 assisted living and skilled nursing beds.

Based on the 2019 Hawai'i Housing Planning Study, Table 2-9 presents the projected needed housing units for the County during the 2020-2025 period across a range of household incomes relative to HUD-defined AMI. In addition to conventional, private financing for affordable housing, HUD assistance is key to developing affordable housing opportunities to meet this need. One important source to prevent homelessness for families with children and families who are extremely low-income or earning below 30% AMI, is the National Housing Trust Fund (HTF). The County is a sub-grantee of the State of Hawaii and expects to receive approximately $1,450,000 in 2020 as part of an annual three-year cycle with other counties in Hawai'i. To assist with the prevention of homelessness, HTF funds can be used for the production or preservation of affordable housing through the acquisition, new construction, rehabilitation, reconstruction of non-luxury housing with suitable amenities.

Table 2-9. Needed Housing Units by HUD Income Classification 2020-2025 for County of Hawai'i 2019 Hawai'I Housing Planning Study

HOUSING TYPE	<30% AMI	30 50% AMI	50 60% AMI	60 80% AMI	80 120% AMI	120 140% AMI	140 180% AMI	>180% AMI	Total
Total Housing Units	3,475	1,356	373	2,285	2,143	1,163	1,198	1,309	13,303
Ownership Units	756	285	196	1,413	1,556	561	924	1,1012	6,703
Single-Family	687	264	196	1,249	1,081	398	635	911	5,420
Multi-Family	69	21	0	164	474	164	289	102	1,283
Rental Units	2,719	1,071	178	872	587	601	274	297	6,600
Single-Family	1,225	443	49	514	307	384	251	215	3,389
Multi-Family	1,494	628	129	358	280	217	24	82	3,211

Source: 2019 Hawai'i Housing Planning Study

Economic Hardship

Financial hardships can have far-reaching implications for residents, particularly for the elderly, special needs populations, and families with children. A household that experiences financial difficulties may find it challenging or impossible to recover their home, farm, belongings, or employment following a natural disaster. Assisting households with limited economic means following a disaster is a priority for local, state, and federal government, as well as community- and faith-based organizations providing mutual aid.

According to the 2013–2017 ACS survey, the median household income in the County was $56,395 (the lowest in the State), with a 17.4% poverty rate (higher than the State level of 10.3%). Additionally, 2013–2017 ACS data reveals that 5.7% of residents in the County received Supplemental Security Income, 4.4% received cash public assistance, and 19.5% received Food Stamps and Supplemental Nutrition Assistance Program (SNAP) benefits.

In addition to poverty, there are other economic statuses used by HUD for identifying households that may be experiencing economic difficulties. Households that earn 80% or less of the area median income are considered low- and moderate-income (LMI) households, depending on exactly what percent of area median income the household makes. They are typically classified as:

- 0–30% area median income – Very low
- 31%–50% area median income – Low
- 51%–80% area median income – Moderate

This information is significant not only to identify areas of concentration of persons or households who may be economically burdened but also because one of the main objectives of HUD is to assist LMI populations. In the case of these CDBG-MIT funds, at least 50% of the funds must benefit LMI persons. Therefore, identifying these populations can be critical in assisting in identifying and defining projects, particularly those which HUD defines as having an area benefit. A project which benefits a group of people in a defined area, such as a Census block group or a defined service area, can be considered to have a LMI area benefit if 51% or more of the people in that area are identified by HUD as qualifying as LMI.

Table 2-10. Cost-Burdened Households
2013 – 2017 American Community Survey (ACS)

AREA	Total Households	Median Household Income	% Households Cost Burdened
County of Hawai‘i	67,054	$56,395	33.1%
State of Hawai‘i	455,5028	$77,765	39.2%

Source: 2013-2017 ACS

HUD classifies families that pay more than 30% of their income for housing as cost-burdened, and these families are more likely to experience significant economic hardship. These individuals are likely to have amplified recovery needs due to a lack of resources that can be invested in improvements that will increase preparedness, property protection, and recovery. The 2013–2017 ACS data indicates that approximately 33% of all households in the County suffer cost-burdening. This data was reinforced with the most recent HUD Comprehensive Housing Affordability Strategy (CHAS) data, which also indicated that 33% of households in the County are cost-burdened. Among current homeowners in the County with a mortgage, the 2013–2017 ACS reports that 39% spend more than 30% of their income on monthly housing costs. Census data indicates that among renters, 54% spend more than 30% of their income on monthly housing costs, which indicates a significant group of people with serious economic hardship. According to the Hawai’i Housing Planning Study, 2019 the state of Hawai’i had the third highest percentage of cost burdened renters in the nation.

Information provided in the County’s Consolidated Plan helped provide additional insight regarding the financial burden housing can have on a household. Information included in the Consolidated Plan indicates that, “Hawai‘i rents exceed the national average by 50%, with about 75% of households in poverty spending more than half of their income on rent.” These excessive costs significantly contribute to residents’ lack of ability and to pay rent and ensuing evictions, which were found to be one of the frequently cited events leading to homelessness.

Another measurement that can indicate the impact of limited financial resources and the make-up of households is overcrowding or doubling-up. These are defined in the Hawai’i Housing Planning Study, 2019 as:

- Overcrowding – when the number of people in a household exceed 1.5 persons per bedroom.
- Doubling-up – having more than two generations in the household, having unrelated individuals in the household, or having same generation relatives in the household.

While there are a variety of reasons this may occur ranging from cultural to financial reasons, the Housing Demand Survey conducted as part of the Housing Planning Study indicated that in all cases “doubled-up persons are in the household because they cannot afford to live elsewhere.” For the County of Hawai‘i in 2019 the rates for overcrowding was 11.5% and for doubling-up it was 10.3% of households.

2.2 Identified Hazards of Concern

The risk assessment used for the MHMP, and incorporated into this MIT Action Plan, evaluated the risk of natural hazards. A full range of natural hazards was considered and those presenting the greatest concern were identified. The process incorporated review of state and local hazard planning documents, as well as information on the frequency, magnitude and costs associated with hazards that have impacted or could impact the planning area. Anecdotal information regarding natural hazards and the perceived vulnerability of the planning area’s assets to them was also used. The following natural hazards were identified as the most significant:

- Climate Change
- Dam Failure
- Drought
- Earthquake
- Flood
- High Surf/Storm Surge/Coastal Flood
- High Windstorms
- Landslide
- Tropical Cyclone
- Tsunami
- Volcanic Eruption
- Wildfire

(Definitions and additional discussion on the above identified natural hazards can be found in Appendix B.)

It should further be noted that the MHMP included a chapter on non-natural hazards. While hazard mitigation plans are required to assess natural hazards there is no requirement to assess non-natural hazards. The non-natural hazards identified within the MHMP included Invasive Species, Food Supply, Mass Events, Cyber, and Pandemic Outbreaks. Such hazards were not included in the final risk ranking. Any mention of these non-natural hazards is solely being provided as background information.

2.3 Community Lifelines

Community Lifelines (also identified as *Critical Facilities* within the County's Multi-Hazard Mitigation Plan) are defined by FEMA's National Response Framework as services that enable a continuous operation of critical government and business functions that are essential to ensuring human health, safety, and economic security. They serve as the integrated and linked network of services, assets, infrastructure, and capabilities that sustain the needs of a community. The seven community lifelines are identified as the following:

- Safety and Security – Law Enforcement/Security, Search and Rescue, Fire Services, Government Service, Responder Safety, and Imminent Hazard Mitigation
- Food, Water, and Sheltering – Evacuations, Schools, Food/Potable Water, Shelter, Durable Goods, Water Infrastructure, and Agriculture
- Health and Medical – Medical Care/Hospitals: Patient Movement, Public Health, Fatality Management, Health Care, and Supply Chain
- Energy – Power (Grid), Temporary Power and Fuel
- Communications – Infrastructure, Alerts, Warnings, Messages, 911 and Dispatch, Responder Communications and Financial Services
- Transportation – Highway/Roadway, Mass Transit, Railway, Aviation, Maritime, and Pipeline
- Hazardous Materials – Facilities, Hazardous Debris, Pollutants and Contaminants

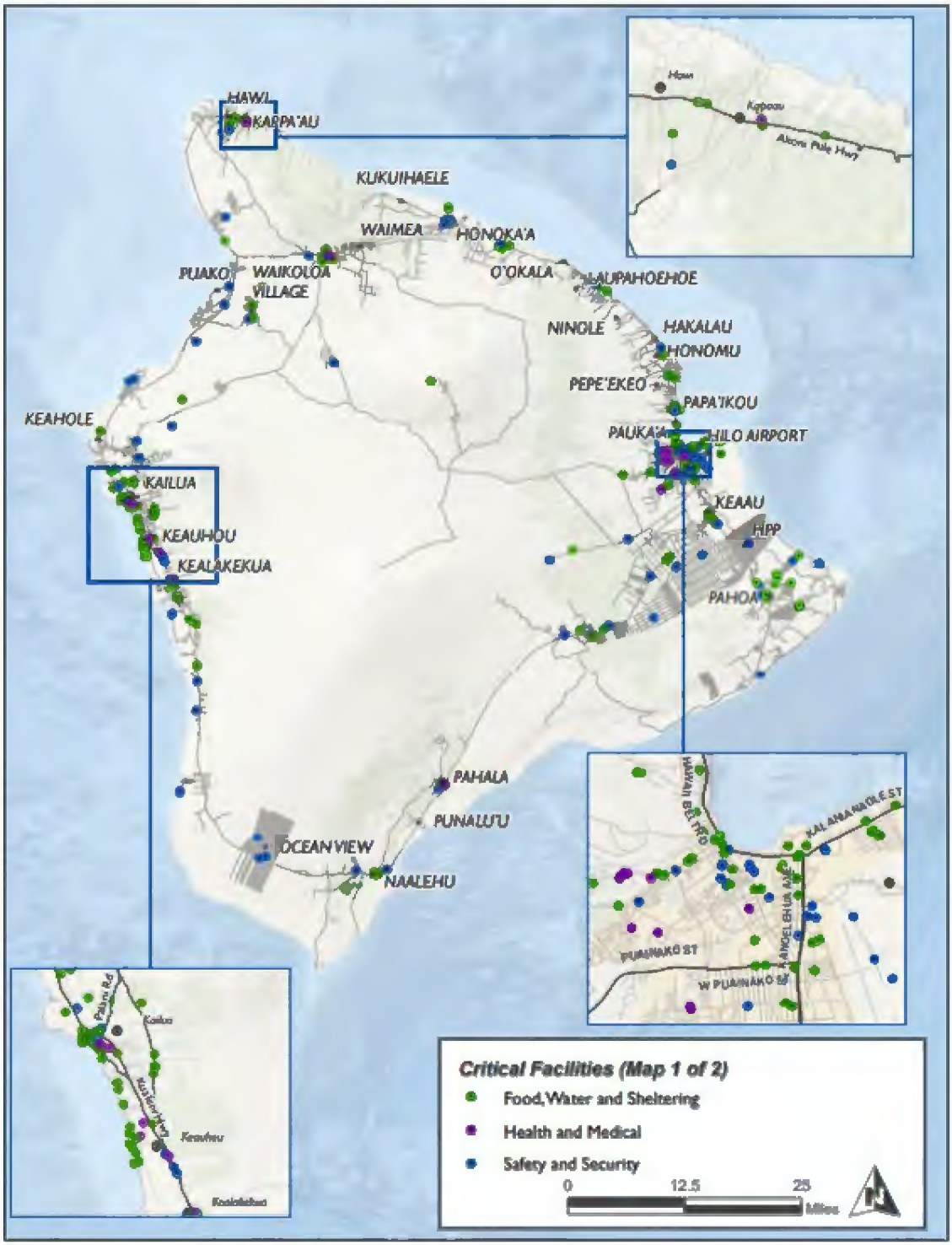
Table 2-11 below summarizes the number of community lifeline facilities identified within the MHMP. Due to the sensitivity of this information, a detailed list of facilities is not provided. General locations of these community lifeline facilities in the Planning Area are shown in Figure 2-5a and Figure 2-5b.

Table 2-11. Community Lifeline Facilities in the MHMP Planning Area
Number of Facilities

	Safety & Security	Food, Water, & Sheltering	Health and Medical	Energy	Communications	Transportation	Hazardous Materials	Total
Hāmākua	7	11	2	2	5	62	2	**91**
Ka'ū	13	12	2	4	10	18	2	**61**
North Hilo	4	3	0	0	3	26	0	**36**
North Kohala	4	8	1	2	4	11	0	**30**
North Kona	17	44	6	14	19	22	1	**123**
Puna	20	28	0	6	17	12	0	**83**
South Hilo	32	70	14	20	36	69	5	**246**
South Kohala	10	17	2	13	13	25	0	**80**
South Kona	8	13	0	4	9	0	0	**34**
Total	**115**	**206**	**27**	**65**	**116**	**245**	**10**	**784**

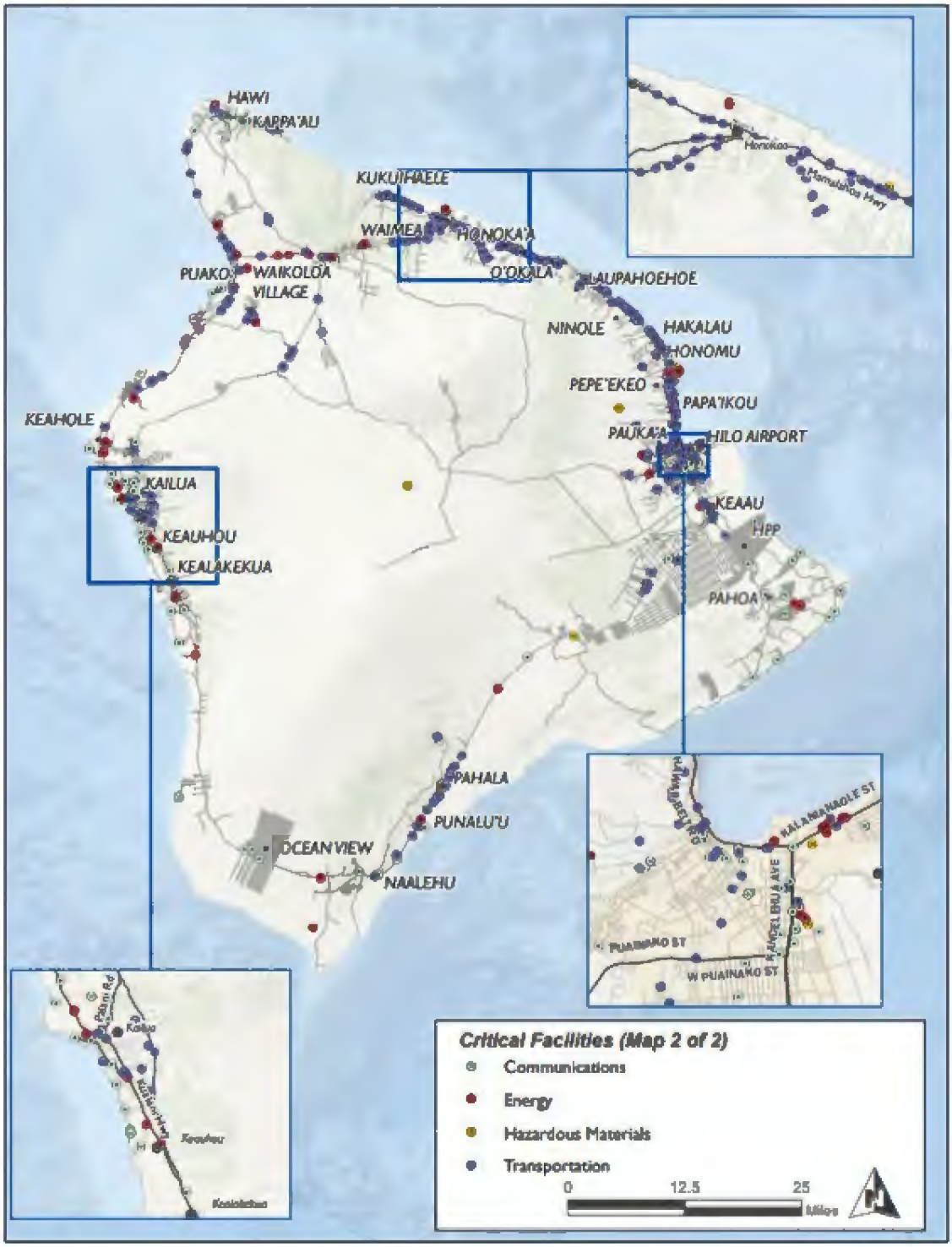
Source: Table 4-5 from Page 4-9 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Figure 2-5a. Community Lifeline Facilities



Source: Figure 4-3 from Page 4-10 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Figure 2-5b. Community Lifeline Facilities



Source: Figure 4-4 from Page 4-11 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Hazard preparedness is a paramount concern for Hawai'i given its significant remoteness from mainland resources and assistance. In just the last 10-year period, the County of Hawai'i has encountered a handful of disasters that resulted in over ten separate presidential disaster declarations. These disasters range from tsunami waves to hurricanes/tropic storms, to volcanic eruptions/earthquakes/lava flows, to wildfires, to a global pandemic.

Given such varied hazards facing the County, the activities being pursued with CDBG-MIT assistance aim to ensure its community lifelines are more resilient during future disasters, reducing the risk of loss of life, injury, and property damage. The following outlines various community lifeline considerations and examples:

2.3.1 Safety and Security

Considerations for the Safety and Security lifeline may include:

- Evacuation routes
- Security assessments at external facilities
- Location of correctional facilities
- Continuity of services
- Communications
- Capacity of First Responder staff
- Placement of critical infrastructure

Lifeline Example: Mana Road Fire (FM-5404)

In late July and early August of 2021, a wildland fire burned along Old Saddle Road on the slopes of Mauna Kea. This event scorched more than 42,000 acres of land and is identified as one of the largest wildfires in recorded Hawai'i history. Existing mutual aid agreements allowed a joint response by the Hawai'i Fire Department (HFD), the DLNR Division of Forestry and Wildlife (DOFAW), the National Park Service, and the U.S. Army Garrison – Pōhakuloa Training Area (PTA). These first responders were also assisted by countless property owners, volunteers, and heavy equipment companies.

Fire agencies credit the water drops by military helicopters (250 bucket drops totaling 170,000 gallons) as one of the keys to stopping the fire from spreading further. Over 20 bulldozers were used to cut fire lines and water tenders to replenish supplies. Community assistance, in the form of volunteer time and donated food, allowed a continuity in fire-fighting service. The HFD also identified this disaster event as raising various logistic difficulties, such as radio communication with bulldozer operators and directing traffic away from the Daniel K. Inouye which was closed.

2.3.2 Food, Water, and Shelter

Considerations for the Food, Water, and Shelter lifeline may include:

- Number of people to evacuate, evacuation routes, and evacuation time frame
- Food, water, and shelter availability and points of distribution
- Impacts to the food supply chain and the status of area agriculture
- Location of water control systems (e.g., dams, levees, storm drains)
- Number and location of open shelters
- Transitional sheltering assistance options

Lifeline Example: Tropical Storm Iselle (DR-4194)

During August 2014 Hawai'i was hit by Tropical Storm Iselle . Upon making landfall, Iselle brought torrential rainfall and caused strong winds, which resulted in widespread power outages and downed trees. The storm also caused heavy crop damage, estimated at $79.2 million. Additional cost estimates for damage, primarily for debris removal, was initially identified in excess of $8 million.

Such storm events trigger numerous considerations for mitigating impacts to the community and property. Downed trees restrict movement of people and supplies, often blocking necessary evacuation routes. Power outages disrupt infrastructure needed to ensure water availability, food from perishing, and safe sheltering environments. As in the case with Iselle, significant agricultural damage may result from a natural hazard and could compound a recovery effort through food scarcity.

2.3.3 Health and Medical

Considerations for the Health and Medical lifeline may include:

- Status of acute medical care facilities (e.g., level 1 trauma center), chronic medical care facilities (e.g., long term care centers), primary care and behavioral health facilities
- Ability to evacuate active patients
- Status of state and local health departments
- Public health advisories
- Availability of mortuary and post-mortuary services

Lifeline Example: COVID-19 (EM-3431 and DR-4510)

Starting in early 2020, the global population was faced with a growing health crisis identified as the COVID-19 Pandemic. While the impacts to human life and economies around the world are still unfolding, this disaster has definitively shown how our health and medical infrastructure can be strained. Governments, industries, businesses, and communities have attempted to ensure their employees, families, and customers are safe from infection. While the period of time it took to bring vaccinations to market was relatively quick, the intervening months led to significant spread of the virus. The results have been felt in ongoing changes in health screening, significant deaths and long-term health impacts, hospitals being over capacity, non-COVID related medical visits limited to free up physical space in health care facilities, medical worker burnout, and flying in off-island medical providers to assist with the strain.

2.3.4 Energy (Power & Fuel)

Considerations for the Energy lifeline may include:

- Inventory of electrical power generation and distribution facilities
- Number of people and locations without power
- Availability of temporary power resources
- Status of commercial fuel stations
- Responder fuel availability and status of critical fuel facilities

Lifeline Example: Kīlauea Volcanic Eruption and Earthquakes (DR-4366)

Within a few months of the start of the 2018 Kīlauea eruption, the USGS HVO reported a total of 24 known fissures, 60,000 earthquakes, and an eruption event equivalent to eight years of Kīlauea's magma supply. Approximately 8,448 acres of land were inundated by lava, 3,983 acres were isolated, and 3,000 residents displaced. Nearly 12.5 miles of public roads, 20 miles of private roads, and 14.5 miles of waterline were impacted. Beyond that, the economic impact was significant as well, with 2,950 jobs lost island-wide between May 2018 and June 2019. The tourism industry alone suffered approximately $415 million in economic losses. Agricultural producers were estimated to encounter approximately $28 million in inundated and isolated farmland.

The volcanic eruption also impacted the community's energy system, causing geothermal operations to be shut down for a two-year period and subsequently required repair. The utility suffered lava inundation losses, including a high voltage switching station and 900 electric poles and related distribution lines serving residents, vacation accommodations, farms, and recreational sites. While some residents and farms had power cut off, and the load distribution was altered, electrical service to most of the island's grid went on without disruption.

2.3.5 Communications

Considerations for the Communications lifeline may include:

- Infrastructure
- Coordination and protocols
- Status of telecommunications service
- Reliability of internet service and cellular service
- Requirements for radio/satellite communication capability
- Status of public safety radio communications and emergency alert
- Status of phone infrastructure and emergency line servicing

Lifeline Example: Hurricane Lane (EM-3399)

In late August 2018, Hurricane Lane brought torrential rainfall and strong winds to Hawai‘i . The storm was the wettest on record in Hawai‘i, with peak rainfall accumulations of 58 inches along the eastern slopes of Mauna Loa. Lane prompted hurricane watches and warnings to be issued for every island in Hawai‘i. Most of the heavy rain to hit the islands occurred on the windward sides, which caused flash flooding, mudslides, and damaged roadways. Strong winds also downed trees and powerlines, and ignited brushfires. Effects were significant in and around Hilo where multiple neighborhoods were flooded. Across the Big Island there were an estimated 159 structures damaged or destroyed.

A community's communication infrastructure is invaluable in reducing a hazard's impacts on lives and property. The ability to provide community-wide advance notice, updates during the unfolding of a disaster event, and continuous information during through the recovery period all need to be incorporated within the Communication lifeline. Communication redundancies should also be developed, considering that the hazard event may damage telecommunication and emergency alert systems that are being relied upon.

2.3.6 Transportation

Considerations for the Transportation lifeline may include:

- Inventory of major roads and highways, critical and noncritical bridges
- Status of maintenance and emergency repairs
- Availability of public transit systems including buses, airports, ports

Lifeline Example: Tropical Storm Olivia (EM-3404)

During mid-September 2018, Tropical Storm Olivia impacted Hawai'i, causing severe flooding and wind damage. While the impacts of the storm were not tremendous on the Island of Hawai'i, its effects were significantly felt on Maui County and Oahu with torrential rainfall and felled trees that caused thousands of power outages. Floodwaters deposited debris on roads and caused severe damage to portions of highways. In Honokōhau Valley, the Honokōhau Stream rose over 15 feet, submerging a bridge and inundating over a dozen homes. Multiple homes and vehicles were swept away by floodwaters.

Transportation systems and infrastructure can be significantly disrupted by natural hazards. As in the case with Tropical Storm Olivia, debris on roads, submerged bridges, and damaged transportation networks not only restrict individuals from necessary evacuations but also limit movement of first responders. Transportation plans, capital improvement plans, emergency response plans, and hazard mitigation plans all need to consider how transportation systems can be maintained during a hazard event.

2.3.7 Hazardous Material

Considerations for the Hazardous Materials lifeline may include:

- Amount, type, and containment procedures of hazardous materials
- Status of hazardous material supply chain

Lifeline Example: Tsunami Waves (DR-1967)

Following a 9.0 earthquake that rocked Japan, tsunami waves traveled eastward and eventually impacted Hawai'i in early March 2011. While the destructive tsunami was felt across the State, the west side of the Big Island from Kapulehu to Napo'opo'o suffered the most damage. Tsunamis and other storm-surge events not only effect coast lines but potentially low-lying lands located significantly inland.

While this event impacted many private properties and other infrastructure, including damage to coastal park and recreational facilities, other critical infrastructure was located in harm's way. Frequently the location of facilities and infrastructure that deal with hazardous materials are located in close proximity of coastal areas. Ports, wastewater treatment plants, fuel refineries, and similar depots may not be able to withstand the surge of water and debris created by tsunamis. If the structures/systems containing hazardous materials are breached, the negative impacts could be widespread including area ground and drinking water contamination, soil contamination, and devastating harm to the ecosystem of the area.

2.4 Risk Assessment Tools

Various tools and approaches may be used in the evaluation and assessment of risks created by natural hazards. In the development of the 2020 Multi-Hazard Mitigation Plan, the primary risk assessment tools used were *mapping* and *modeling*. The following in an overview of the risk assessment approach using these tools:

- Mapping: A review of national, state, and county databases was performed to locate available spatially based data. Where available, data sets that define areas at greatest risk of experiencing harmful effects from a specific hazard, based on historical experience and vulnerability analyses, were used in the risk assessment. These areas, which include mapped flood zones, wildfire hazard areas, and other locations susceptible to hazards, are generically referred to as "high-risk zones" or "high-risk areas." Maps were produced using GIS software to show the spatial extent and location of identified hazards when such data were available.

- Modeling: The County relied on a FEMA-developed GIS-based software program (identified as "Hazus") used to model hazards and estimate losses. Hazus supports risk assessments, mitigation planning, and emergency planning and response. It provides a wide range of inventory data, such as demographics, building stock, critical facility, transportation and utility lifeline, and multiple models to estimate potential losses from natural disasters. The program maps and displays hazard data and the results of damage and economic loss estimates for buildings and infrastructure. (Sources of data use in the Hazus Modeling can be found in this document's Appendix.)

  The model can carry out three levels of analysis depending on the format and level of detail of information:

  - Level 1: All of the information needed to produce an estimate of losses is included in the software's default data. This data is derived from national databases and describes in general terms the characteristic parameters of the planning area.

  - Level 2: More accurate estimates of losses require more detailed information about the planning area. To produce Level 2 estimates of losses, detailed information is required about local geology, hydrology, hydraulics and building inventory, as well as data about utilities and critical facilities. This information is needed in a GIS format.

  - Level 3: This level of analysis generates the most accurate estimate of losses. It requires detailed engineering and geotechnical information to customize it for the planning area.

2.5 Risk Assessment Approach

The risk assessments in the MHMP plan describe the risks associated with each identified hazard of concern. The MHMP describes the hazard, the planning area's vulnerabilities, and probable event scenarios. The following steps were used to define the risk of each hazard:

- Identify and profile each hazard: The following information is given for each hazard:
  - A summary of past events that have impacted the planning area
  - Geographic areas most affected by the hazard
  - Event frequency estimates

- Severity descriptions
- Warning time likely to be available for response.

- Determine exposure to each hazard: Exposure was determined by overlaying hazard maps with an inventory of structures, facilities, and systems to determine which of them would be exposed to each hazard.

- Assess the vulnerability of exposed facilities: Vulnerability of exposed structures/infrastructure was determined by interpreting the probability of occurrence and assessing structures, facilities, and systems exposed to each hazard.

2.6 Limitations

Loss estimates, exposure assessments, and hazard-specific vulnerability evaluations rely on the best available data and methodologies. Uncertainties are inherent in any loss estimation methodology and arise in part from incomplete scientific knowledge concerning natural hazards and their effects on the built environment. Uncertainties also result from the following:

- Approximations and simplifications necessary to conduct a study
- Incomplete or outdated inventory, demographic, or economic parameter data
- The unique nature, geographic extent, and severity of each hazard
- Mitigation measures already employed
- The amount of advance notice residents have to prepare for a specific hazard event

These factors can affect loss estimates by a factor of two or more. Therefore, potential exposure and loss estimates are approximate and should be used only to understand relative risk. Over the long term, Hawai'i County will collect additional data to assist in estimating potential losses associated with other hazards.

SECTION 3. RISK RANKING AND MITIGATION ACTIONS

The Multi-Hazard Mitigation Plan, which is providing guidance on what actions might be pursued with HUD mitigation funding, included a risk analysis of all identified hazards. The analysis considered the probability of occurrence as well as potential impacts to people, property, and the economy. Based upon this assessment, the hazards were then ranked and provided differing levels of priorities for (1) implementing the action; and (2) pursuing grant funding. A list of 31 potential hazard mitigation actions were then identified for county implementation. The following section provides a more thorough explanation of this risk ranking analysis.

3.1 Probability of Occurrence

The probability of a hazard's occurrence was assigned one of the following probability factors:

- High: Hazard event is likely to occur within 25 years (Probability Factor = 3)
- Medium: Hazard event is likely to occur within 100 years (Probability Factor =2)
- Low: Hazard event is not likely to occur within 100 years (Probability Factor =1)
- No Exposure: There is no probability of occurrence (Probability Factor = 0).

The assessment of hazard frequency is generally based on past hazard events in the area. Table 3-1 summarizes the probability assessment for each hazard of concern. For this risk ranking exercise, the two volcanic hazards of lava flow and vog were ranked separately. This method was determined because of the significant difference in probability of occurrence for each type of volcanic hazard.

Table 3-1. Probability of Hazards

Hazard Event	Probability (high, medium, low)	Probability Factor
Climate Change/Sea Level Rise	High	3
Dam Failure	Low	1
Drought	High	3
Earthquake	High	3
Flood	High	3
High Surf/Storm Surge/Coastal Flood	High	3
High Windstorms	High	3
Landslide	High	3
Tropical Cyclone	Medium	2
Tsunami	Medium	2
Volcanic Eruption	High	3
Wildfire	High	3

Source: Table 20-1 from Page 20-2 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

3.2 Impact

Hazard impacts were assessed in three categories: impacts to people, impacts to property, and impacts to the local economy. Numerical impact factors were assigned as follows:

- People – Values were assigned based on the percentage of the total ***population exposed*** to the hazard event. The degree of impact on individuals varies and is not measurable, so the calculation assumes for simplicity and consistency that all people exposed to a hazard because they live in a hazard zone will be equally impacted when a hazard event occurs. Impact factors were assigned as follows:

  - High: 30 percent or more of the population is exposed to a hazard (Impact Factor = 3)
  - Medium: 15 percent to 29 percent of the population is exposed to a hazard (Impact Factor = 2)
  - Low: 14 percent or less of the population is exposed to the hazard (Impact Factor = 1)
  - No Impact: None of the population is exposed to a hazard (Impact Factor = 0)

- Property – Values were assigned based on the percentage of the total assessed ***property value exposed*** to the hazard event:

  - High: 25 percent or more of the total property value is exposed to a hazard (Impact Factor = 3)
  - Medium: 10 to 24 percent of the total property value is exposed to a hazard (Impact Factor = 2)
  - Low: 9 percent or less of the total property value is exposed to the hazard (Impact Factor = 1)
  - No Impact: None of the total property value is exposed to a hazard (Impact Factor = 0)

- Economy – Values were assigned based on the percentage of the total exposed ***property value vulnerable*** to the hazard event. Values represented estimates of the loss from a major event of each hazard in comparison to the total assessed value of the property exposed to the hazard.

  - High: Estimated loss from the hazard is 15 percent or more of the total exposed property value (Impact Factor = 3)
  - Medium: Estimated loss from the hazard is 5 to 14 percent of the total exposed property value (Impact Factor = 2)
  - Low: Estimated loss from the hazard is 4 percent or less of the total exposed property value (Impact Factor = 1)
  - No Impact: No loss is estimated from the hazard (Impact Factor = 0)

The impacts of each category were assigned a weighting factor to reflect its significance: impact on people given a weighting factor of 3; impact on property given a weighting factor of 2; and impact on the economy given a weighting factor of 1. Table 3-2, Table 3-3, and Table 3-4 summarize the impacts for each hazard.

Table 3-2. Impact on People from Hazards

Hazard Event	Impact (high, medium, low)	Impact Factor	Multiplied by Weighting Factor (3)
Climate Change/Sea Level Rise	Low	1	1x3=3
Dam Failure	Low	1	1x3=3
Drought	None	0	0x3=0
Earthquake	*High*	3	3x3=9
Flood	*Medium*	2	2x3=6
High Surf/Storm Surge/Coastal Flood	*Low*	1	1x3=3
High Windstorms	High	3	3x3=9
Landslide	Medium	2	2x3=6
Tropical Cyclone	High	3	3x3=9
Tsunami	Low	1	1x2=2
Volcanic Eruption	Medium	2	2x3=6
Wildfire	High	3	3x3=9

Source: Table 20-2 from Page 20-3 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Table 3-3. Impact on Property from Hazards

Hazard Event	Impact (high, medium, low)	Impact Factor	Multiplied by Weighting Factor (2)
Climate Change/Sea Level Rise	Medium	2	2x2=4
Dam Failure	Low	1	1x2=2
Drought	None	0	0x2=0
Earthquake	*High*	3	3x2=6
Flood	*Medium*	2	2x2=4
High Surf/Storm Surge/Coastal Flood	*Medium*	2	2x2=4
High Windstorms	Medium	2	2x2=4
Landslide	Medium	2	2x2=4
Tropical Cyclone	High	3	3x2=6
Tsunami	Low	1	1x2=2
Volcanic Eruption	Low	1	1x2=2
Wildfire	High	3	3x2=6

Source: Table 20-3 from Page 20-3 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Table 3-4. Impact on Economy from Hazards

Hazard Event	Impact (high, medium, low)	Impact Factor	Multiplied by Weighting Factor (1)
Climate Change/Sea Level Rise	Medium	2	2x1=2
Dam Failure	Low	1	1x1=1
Drought	Medium	2	2x1=2
Earthquake	Medium	2	2x1=2
Flood	Low	1	1x1=1
High Surf/Storm Surge/Coastal Flood	*Low*	1	1x1=1
High Windstorms	Medium	2	2x1=2
Landslide	Low	1	1x1=1
Tropical Cyclone	High	3	3x1=3
Tsunami	Low	1	1x1=1
Volcanic Eruption	Medium	2	2x1=2
Wildfire	Medium	2	2x1=2

Source: Table 20-4 from Page 20-4 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

3.3 Risk Rating and Ranking

The risk rating for each hazard was determined by multiplying the probability factor by the sum of the weighted impact factors for people, property, and operations, as summarized in Table 3-5.

Table 3-5. Hazard Risk Rating Calculations

Hazard Event	Probability Factor	Sum of Weighted Impact Factors	Total (Probability x Impact)
Climate Change/Sea Level Rise	**3**	**3+4+2=9**	**3x9=27**
Dam Failure	**1**	**3+2+1=6**	**1x6=6**
Drought	**3**	**0+0+2=2**	**3x2=6**
Earthquake	**3**	**9+6+2=17**	**3x17=51**
Flood	**3**	**6+4+1=11**	**3x11=33**
High Surf/Storm Surge/Coastal Flood	**3**	**3+4+1=8**	**3x8=24**
High Windstorms	**3**	**9+4+2=15**	**3x15=45**
Landslide	**3**	**6+4+1=11**	**3x11=33**
Tropical Cyclone	**2**	**9+6+3=18**	**2x18=36**
Tsunami	**2**	**2+2+1=5**	**2x5=10**
Volcanic Eruption	**3**	**6+2+2=10**	**3x10=30**
Wildfire	**3**	**9+6+2=17**	**3x17=51**

Source: Table 20-5 from Page 20-4 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Based on these ratings, a priority of high, medium, or low was assigned to each hazard. Table 3-6 shows the hazard risk ranking.

Table 3-6. Hazard Risk Ranking

Hazard Ranking	Hazard Event	Score
High	**Wildfire**	**51**
High	**Earthquake**	**51**
High	**High Windstorms**	**45**
High	**Tropical Cyclone**	**36**
High	**Flood**	**33**
High	**Landslide**	**33**
High	**Volcanic Eruption**	**30**
Medium	**Climate Change/Sea Level Rise**	**27**
Medium	**High Surf/Storm Surge/Coastal Flood**	**24**
Low	**Tsunami**	**10**
Low	**Dam Failure**	**6**
Low	**Drought**	**6**

Note: Scores: 30 or more = "high" / 15-29 = "medium" / scores less than 15 = "low"
Source: Table 20-6 from Page 20-5 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

Based upon the above hazard analysis within the MHMP, the County identified 31 hazard mitigation actions for implementation. These actions, identified in Table 3-7, identify two priorities for each (priority for implementing the action and priority for pursuing grant funding) that will need to be considered by the County as projects are pursued. A number of these actions already have funding stream identified and/or are underway, which are shown in the table as well. It is from the list below that this MIT Action Plan further distills for identification of hazard mitigation actions to be achieved through the CBDG-MIT funding. Additional consideration shall also be given to more recent information or events, since the MHMP's adoption, such as the Mana Road fire of 2021 that prompted the identification of additional need for fire apparatus, water sources, and fire breaks.

Table 3-7. Hazard Mitigation Actions

Recommended Action	Implementation Priority	Grant Pursuit Priority	Funding Secured
Action HC1—Microwave Network Upgrade. This project involves the hardening of the County's radio communications system through replacement of the following systems: microwave system, direct current (DC) power system, photovoltaic energy systems, and tower refurbishment.	Medium	High	County (Partial); FEMA PA
Action HC2—Public Safety Building Flood Mitigation and Electrical Upgrade. This project will eliminate flooding that endangers the entire electrical system at the Public Safety complex and causes damage in other areas. The electrical system will be upgraded to prevent failure.	Medium	High	FEMA HMGP
Action HC3—IT Data Center. Install a SmartMod 12x45 with a 11x34 utility skit to support the data center that supports critical services for the County	Medium	High	County (Partial)

Recommended Action	Implementation Priority	Grant Pursuit Priority	Funding Secured
currently housed at the Civil Defense building (920 Ululani St., Hilo) and the IT Department building (25 Aupuni St., Hilo).			
Action HC4—Wailuku Bridge #1 and Waiānuenue Avenue Bridge Hardening. Wailuku Bridge #1 over Wailuku River on Wainaku Street is an essential part of the traffic network in the area as it serves as a detour or important alternate route for Highway 19. The existing 129-foot, 2 span concrete bridge was built in 1919 and is not in compliance with today's engineering design standards, specifically in regard to resisting seismic forces.	Medium	High	FEMA HMGP
Action HC5—Generators for Wastewater Treatment Facilities. Install eight stationary generators to service the Hilo Wastewater Treatment Plant (WWTP); Kula‘imano WWTP; Pāpa’ikou WWTP; Wailuku Sewer Pump Station (SPS); Pauka‘a SPS; Wailoa SPS; Onekaakaha SPS; and Kōlea SPS during severe weather events. These facilities experience significant power outages. The installation of generators will mitigate outages during these events.	Medium	High	FEMA HMGP
Action HC6—Emergency Power Transfer Switching Capability for Critical Water Infrastructure. The hardening of the Parker #1, Parker #2, Lālāmilo B, Lālāmilo C, Honoka‘a, Makapala, Wai‘aha, Kahaluu, Queen Lili‘uokalani Trust, Pi‘ihonua #1, Pi‘ihonua #3A and ‘Ōla‘a #3 potable water producing facilities through the purchase and installation of transfer switches and supporting infrastructure (generator tap boxes, junction boxes, conduit, wire, supports, etc.) will allow the County of Hawai‘i Department of Water Supply to better protect the health and welfare of the public.	Medium	High	
Action HC7—Waikoloa Reservoir No. 1—Dam Failure Retrofit. The project requires the improvements to address the stability of the embankments as well as the waterproofing of the reservoir itself. The embankments are being improved by widening the base of the embankment and increasing the overall strength supporting the reservoir walls. An underdrain at the toe of the embankment is also being installed to direct groundwater away from the embankment to minimize the chances of liquefaction. Also, waterproofing the reservoir will be accomplished by installing a synthetic liner, which eliminates the possibility of leaks through the numerous cracks in the concrete panels lining the interior of the reservoir.	Medium	High	FEMA PA
Action HC8—ArcGIS Data Management, Collection and Tracking. Create an information/data management system to provide actionable information to the planning process during an incident and to capture data for impact statistics and hazard analysis post-incident.	Medium	High	
Action HC9—Volcanic Risk Home Buyout Program. Develop and institute a home buyout program that targets eligible properties impacted by lava flows from volcanic eruptions.	Medium	High	HUD CDBG-DR
Action HC10—Maintain NFIP (National Flood Insurance Program) Compliance. Continue to maintain good standing and compliance under the NFIP through implementation of floodplain management programs that, at a minimum, meet the NFIP requirements: • Enforce the flood damage prevention ordinance. • Participate in floodplain identification and mapping updates.	High	Medium	

Recommended Action	Implementation Priority	Grant Pursuit Priority	Funding Secured
• Provide public assistance/information on floodplain requirements and impacts.			
Action HC11—Maintain CRS (Community Rating System) Participation. Continue to maintain and enhance (where feasible) the County's classification under the CRS program.	High	Low	
Action HC12—Flood Hazard Needs Assessments. Perform needs assessment and riverine flood studies for Puna, North Kona, and South Kohala to identify flood control projects and for Hāmākua (to figure out what is the real risk associated with landsides).	Medium	High	
Action HC13—Wailoa River Bridge Retrofit. Coordinate with the state to upgrade/retrofit Singing Bridge to address chronic coastal flooding and impacts from tsunami. Tsunami project—criticality of the DPW bridge to get retrofitted to prevent isolated populations.	High	Low	
Action HC14—Training and Exercise. Augment the County's annual emergency operations training and exercise program with relevant hazard scenario data and models (Hazus) that were developed in support of the risk assessment for this hazard mitigation planning effort.	High	Low	
Action HC15—Critical Infrastructure (Roads and Bridges) Needs Assessment. Conduct a vulnerability/needs assessment of identified critical roads and bridges that results in the identification of retrofitting projects and identifies critical routes in support of evacuation planning.	Medium	High	
Action HC16—Audible Notification Needs Assessment. Conduct a needs assessment that identifies gaps in coverage in the County's audible warning (sirens) system as well as existing systems that need to be replaced and/or updated.	Medium	Low	
Action HC17—Rain Gauge Network. Purchase and install rain gauges in the Hāmākua Coast to support landslide and flood risk identification and notification.	Medium	High	
Action HC18—Earthquake/Tropical Cyclone Retrofit Incentive Program. Conduct a study to determine the feasibility for the County to deploy an incentive-based program that would encourage private property owners to retrofit their properties against the impacts of earthquakes and tropical cyclones. Key to this study will be a vulnerability analysis that attempts to identify the general building stock within the County that is most vulnerable to these hazards.	High	High	
Action HC19—Vulnerable Property Protection. Where appropriate, support retrofitting, purchase or relocation of structures located in hazard areas, prioritizing those that have experienced repetitive losses and/or are located in high- or medium-risk hazard areas.	Medium	Medium	
Action HC20—Plan Integration. Integrate the hazard mitigation plan into other plans, ordinances and programs that dictate land use decisions in the community, including capital improvement programs, the general plan, recovery plans and strategic plans.	High	Low	
Action HC21—Risk Communication. Leveraging existing County public outreach programs, utilize the best available data and science to communicate the risk from all hazards assessed by this plan to the public	High	Low	

Recommended Action	Implementation Priority	Grant Pursuit Priority	Funding Secured
to promote prevention, preparedness, response, recovery, and mitigation actions at the local scale.			
Action HC22—Damage Assessment Protocol and Capacity Building. Develop protocol for collecting and storing data necessary to develop damage assessments. Research use of drone technology and IT solutions to take footage and convert into assessments.	High	Low	
Action HC23—Codes and Policies for Sea Level Rise. Update county codes and policies to require that all coastal development consider and incorporate measures to address sea level rise.	High	Low	
Action HC24—Fire Protection. Establish fire breaks around communities and along roadways.	High	High	
Action HC25—Shoreline setback for Coastal Erosion. Update county shoreline setback policies to include coastal erosion in order to better regulate development in the high-risk areas	High	Low	State CZM FEMA HMGP
Action HC26—Reduce Development in High-Risk Hazard Areas. Update and overlay hazard zones and develop conditions for land use and design within high-risk zones and within or adjacent to urban growth areas outside of high-risk areas.	High	Low	
Action HC27—Evacuation and Sheltering Assessment and Protocol. Perform an assessment of facilities utilized as shelters and identify mitigation needs as well as develop evacuation and sheltering protocol, policies, and procedures.	High	Low	
Action HC28—Volcanic Gas Monitoring. Provide training and develop monitoring plan to support gas/particulate monitoring system	High	Low	
Action HC29—Emerging Hazards. This plan update was being completed during the COVID-19 pandemic, illustrating the need for the plan to be dynamic and have the flexibility to adapt to emerging hazards that fall outside of the traditional natural hazards targeted in the Disaster Mitigation Act. This action is an open-ended call for the County to adapt this plan as needed through the plan maintenance period to address new and emerging hazards of concern as they affect the Hawai'i County planning area.	Medium	High	
Action HC30—Disaster Distribution System. Develop internal protocol, policies and procedure for logistics, management, and resource support during disasters, and develop agreement with state, federal and private partners to implement the plan.	Medium	Low	
Action HC31—Mass Gathering Plan. Develop a plan that includes policies, procedures, and protocols for conducting mass gathering events with an emphasis on terrorism.	Medium	Low	

Source: Base Information from Table 23-2 Hazard Mitigation Action Plan Matrix and Table 23-3 Prioritization of Mitigation Actions, respectively from Pages 23-23-8 and 23-10, of 2020 MHMP, online version 10/21/2021 https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

SECTION 4. PROGRAM DESIGN

In the development of the CDBG-MIT Action Plan and program activities, various objectives and requirements were considered. The following provides an explanation of these considerations.

4.1 National Objectives

Federal legislation authorizing CDBG funding requires that one of the following three National Objectives is addressed for a CDBG program or activity to be eligible for funding. Additional clarification is provided below for the CDBG-MIT program:

- Low- to Moderate-Income (LMI) Benefit
  - At least 50% of program expenditures must benefit LMI persons in the area
  - Efforts meeting Low- to Moderate-Income Area (LMA) objective are to provide a benefit to all area residents (geographic area must be primarily residential and be at least 51% LMI persons)
  - Efforts meeting Low- to Moderate-Income Clientele (LMC) objective, at least 51% of beneficiaries of an activity must be LMI persons
- Preventing or Eliminating Slum or Blight
  - Efforts meeting this objective are to addresses slum/blight on an area basis, spot basis, and focusing on urban renewal
  - This national objective criteria has been removed, unless HUD grants a waiver
- Urgent Need Mitigation (UNM)
  - Efforts meeting this objective are to be justified by an assessment or explanation of how the activity results in measurable and verifiable reductions in the risk of loss of life and property from future disasters and yields community development benefits

The County intends to meet the National Objectives of Low- to Moderate-Income Area (LMA) Benefit, Low- to Moderate-Income Clientele (LMC), and Urgent Need Mitigation (UNM) in its implementation of the MIT Action Plan and programs. The program also allows up to 5% of the funding allocation for Administration and up to 15% to be used for planning-related activities. These percentages of the funds are not required to address a National Objective. However, the remaining 80% of the MIT funding will be used to address a National Objective.

4.2 Leverage of Funds

The County of Hawai‘i fully understands the importance of maximizing the value of limited financial resources. As such, the County has made it a priority to leverage multiple sources of funding, wherever possible, to support the greatest potential hazard mitigation benefits. This includes prioritizing projects in which other Federal, State, and local funding sources can be leveraged to allow CDBG-MIT funding to pay only a portion of project costs. This strategy will allow the County to utilize limited CDBG-MIT funding to support a maximum number of programs and projects. As identified within the County’s Multi-Hazard Mitigation Plan, the County pursues and utilizes numerous resources to advance critically important hazard mitigation projects.

4.3 Necessary and Reasonable Costs

The County shall review all program costs to ensure they are necessary and reasonable costs. This helps ensure that funds are efficiently and effectively utilized. The determination of necessary and reasonable costs will apply to any project or program receiving funding, including grant awards to individual property owners or businesses, as well as administrative and planning funds. The County will utilize the cost principles described in 2 CFR Part 225 (Office of Management and Budget (OMB) Circular A-87) to determine necessity and reasonableness. According to 2 CFR Part 225, "A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made." The County will follow these principles and fund only project costs that are deemed necessary and reasonable.

4.4 Program Exceptions

At current time, all CDBG-MIT funding is anticipated to be utilized by County departments in various government-based mitigation efforts and that no funding is anticipated to be distributed to other subrecipients, households, or individual beneficiaries. However, should the County eventually implement a program or effort to extend funds to non-governmental entities it anticipates instituting an "Exceptions" policy.

The County proposes that an Exception may be initiated by County staff or at the request of a program applicant. An Exception is applicable to a situation where the strict implementation of the program requirements may not be appropriate, due to unique or extenuating circumstances. An Exception should be considered during the application submittal or during the processing of an application by County staff. Sufficient supportive documentation concerning the requested Exception will need to be identified and submitted for staff consideration. While the County's intent is to offer potential relief through this Exception approach, there is no guarantee that an applicant will secure a different determination from the standard program requirements by submitting an Exception request.

4.5 Construction Standards

The County's CDBG-MIT project activities include both non-construction and construction efforts. Federal regulations related to the CDBG-MIT grant award require the County to affirmatively follow modern, safe construction standards. The County, or authorized representatives and contractors, will abide by this Federal requirement.

The County is committed to enforcing modern building codes and all other applicable codes, standards, and ordinances for all CDBG-MIT programs or activities. For any construction activities the County will undertake utilizing CDBG-MIT funding, it will verify that quality materials and standards are being utilized, all necessary permits/approvals/inspections are in place, national flood insurance/elevation standards are followed, resilience features are incorporated into projects such as natural or green infrastructure, and green building standards are being incorporated when possible and cost effective.

4.6 Elevation Standards

The County does not intend to conduct or allow any new construction, repair of substantially damaged structures, or substantial improvements to any residential structures, which may be located in flood hazard areas, with CDBG-MIT funds. Should any future actions be considered in flood hazard areas, the County shall ensure such structures

are elevated to at least 2 feet above the 1% annual floodplain elevation or more conservative benchmark which may be in place at such future time.

4.7 Green Building

The County currently does not anticipate any projects being supported with CDBG-MIT funds that concern housing-related proposals. However, the County acknowledges the following should it ultimately determine it will pursue such residential efforts.

In conformance with FR 81, No. 117 (June 17, 2016), substantial rehabilitation, the construction of new housing or replacement housing must include Green Building Standards. Acceptable Green Building Standards include, “an industry-recognized standard that has achieved certification under at least one of the following programs: (i) ENERGY STAR (Certified Homes or Multifamily High Rise); (ii) Enterprise Green Communities; (iii) LEED (NC, Homes, Midrise, Existing Buildings O&M, or Neighborhood Development); (iv) ICC–700 National Green Building Standard; (v) EPA Indoor AirPlus (ENERGY STAR a prerequisite); or (vi) any other equivalent comprehensive green building program, including regional programs such as those operated by the New York State Energy Research and Development Authority or the New Jersey Clean Energy Program,” as described in FR 78.

Where funds will be used for the rehabilitation of structures, contractors and sub-grantees will be provided the HUD CPD Green Building Retrofit Checklist, and these standards will be incorporated where feasible. The County will promote the use of green infrastructure policies, as identified on EPA’s website www.epa.gov/greenbuilding, for any infrastructure project undertaken utilizing CDBG-MIT funds.

4.8 Broadband Infrastructure

No housing-related projects are currently contemplated via use of CDBG-MIT funds. However, if the County pursues such, it will ensure that any new construction or substantial rehabilitation of buildings with more than four rental units will include installation of broadband infrastructure where feasible, as defined by 24 CFR 5.100. The County will document conditions that impact the feasibility of broadband infrastructure installation, including but not limited to financial burden, program alteration, or structural limitations.

4.9 Protection of People

4.9.1 Protected Classes and Vulnerable Populations

The County of Hawai‘i is committed to protecting vulnerable populations and prohibiting discrimination based on race, color, national origin, religion, sex, sexual orientation, familial status, and disability. In the delivery of the CDBG-MIT grant, the County shall strive to ensure that MIT activities benefit all island residents and do not negatively impact vulnerable or protected classes of people. Additional information has been provided at the Program level in Section 6.

4.9.2 Accessibility Requirements

The County will comply with all accessibility standards, as required by the Americans with Disabilities Act, in the delivery of CDBG-MIT projects and activities.

4.9.3 Minimizing and Addressing Displacement

The County currently anticipates that CDBG-MIT projects and actions will result in no displacement of persons or entities. However, if future actions are pursued with CDBG-MIT funds which may have such an impact, the County will strive to minimize or mitigate the displacement of persons or entities. The County will comply with the acquisition and relocation requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (URA), as amended, as well as implementing regulations at 49 CFR Part 24, except where waivers or alternative requirements are provided for this grant. To this end, the County of Hawai‘i has in effect a residential anti-displacement and relocation assistance plan for the administration of CDBG entitlement program funding and will follow its provisions and requirements in connection with any activity assisted with funding under the CDBG-MIT program.

4.9.4 Disaster and Hazard Resistant Housing for All Income Groups

The County currently does not intend to pursue any housing-related projects or activities with CDBG-MIT funds. However, the County acknowledges that many populations may encounter heightened difficulty in securing housing that is resistant to disaster events or natural hazards. Often LMI households, particularly those that include children, people who are elderly, or people with disabilities, may experience increased challenges. Should the County pursue future housing-related programs with CDBG-MIT funds, it will strive to aid these targeted populations and neighborhoods. While not directly creating disaster and hazard resistant affordable housing, selected projects will protect and/or improve lifeline infrastructure associated with service area housing for all income groups. For details on indirect impacts of selected CDBG-MIT projects on resilient, affordable housing, see “Impacts on Promotion of Resilient, Affordable Housing” within each Program detailed in Section 6.

4.9.5 Assistance for the Homeless, Low-Income, and Other Vulnerable Populations

The County’s CDBG-MIT programs do not include housing or other social services related projects or activities specifically aimed towards assisting the homeless, low-income individuals, or other vulnerable populations directly. The efforts to be implemented with MIT funding include infrastructure and planning projects that tie to the MHMP and provide area-wide benefits. While not directly serving individuals, the selected projects will increase protection of life and property island-wide and in Low- to Moderate Income Areas. For details tying specific projects to this subject matter, see “Impacts on Protected Classes and Vulnerable Populations” within each Program detailed in Section 6.

In addition, the County remains committed to being part of the collective effort in partnership with the community, and private sector to provide needed resources and public services to assist residents experiencing homelessness, low-income populations, and other vulnerable populations. The County of Hawai‘i will continue to work closely with organizations that serve the needs of these populations. The County is leading efforts to provide solutions to housing insecurity in coordination with the State of Hawai‘i homeless services providers, and faith-based organization to expand shelter opportunities and assistance to the homeless and at-risk populations. There are several programs and projects underway, through the County and its partners, to provide additional supportive housing, prevent homelessness, address emergency shelter needs, and develop transitional housing and supportive programs for transitional housing.

SECTION 5. COORDINATION AND CONSULTATION

5.1 Stakeholders

In the development of a CDBG-MIT Action Plan, HUD requires grantees to conduct consultation with various governmental and non-governmental stakeholders. Involving a broad array of parties will ensure a more comprehensive approach is taken to hazard mitigation and planning. HUD identifies stakeholders could include the following:

- Federal and State Agencies
- Local Governments
- Affected Parties in Geographic Area
- Indian Tribes
- Private Sector
- Non-Governmental Organizations

The County of Hawai‘i conducted significant public outreach and included public input in the development of the MHMP, which is the guiding document on which the CDBG-MIT Action Plan programs are based. Additional participation and input by other stakeholders, State and Federal entities, and County departments, have been incorporated into the development of this Action Plan. The County’s Planning Department, along with other relevant County departments, have conducted regular coordination meetings with staff at FEMA, the Hawai‘i Emergency Management Agency (HI-EMA), and HUD through the development of this CDBG-MIT Action Plan. Additional consultation has also been held with other parties of interest, such as between the County’s Department of Public Works and the U.S. Army Corps of Engineers (USACE) concerning potential flood studies in high hazard areas.

A County leadership team, represented by the Civil Defense Agency, Corporation Counsel, Department of Finance, Fire Department, Planning Department, Department of Public Works, Department of Parks and Recreation, and Department of Water Supply, has been instrumental in identifying mitigation needs with other available funding sources to ensure the CDBG-MIT grant is used effectively. This group provides interagency coordination and integrated resource management within the County to ensure effective delivery of mitigation activities, including the implementation of the CDBG-MIT grant award.

5.2 Mitigation Action Coordination

The County of Hawai‘i Planning Department will fulfill a coordination and control function for the CDBG-MIT program with the County departments and agencies implementing funded projects. It will ensure project implementation and MIT reporting requirements are fulfilled, while the actual mitigation actions are carried out within and by the various County departments. Additional support on financial management and grant compliance will be provided by the Department of Finance.

SECTION 6. CDBG-MIT BUDGET AND PROGRAMS

The County is fortunate to receive CDBG-MIT funding to conduct strategic investments in hazard mitigation efforts. The $6.8 million in CDBG-MIT grant funds allocated to the County by HUD is limited in terms of its ability to cover the major capital investments identified in the 2020 Multi-Hazard Mitigation Plan such as bridges and seismic retrofits. With this cost consideration in mind, the County is prioritizing specific programs that can drive strategic investments to build capability incident response, protect community lifelines, and ensure resilience in the County's infrastructure systems for these CDBG-MIT grant funds. All programs are tied to the hazard mitigation actions identified in the 2020 Multi-Hazard Mitigation Plan.

Specific criteria were developed to review and prioritize hazard mitigation actions for funding in this CDBG-MIT program:

- Priority for Grant Funding and Available Sources: The hazard mitigation actions identified in the County's 2020 Multi-Hazard Mitigation Plan are ranked in priority for grant funding to be implemented. Since the adoption of the 2020 Multi-Hazard Mitigation Plan several hazard mitigation actions have secured funding for implementation by the County through FEMA's Hazard Mitigation Grant Program (HMGP) or CARES Act funding in response to the COVID-19 pandemic. Actions that were identified to have a high priority for grant funding but with no grant sources secured were reviewed.

- Availability of CDBG-MIT Grant Funds: The County worked to identify hazard mitigation actions that could receive investment and be fully implemented with the scale of CDBG-MIT grant funds available for allocation.

- Opportunity for Leverage: The County prioritized hazard mitigation actions that could leverage County capital or other state and federal grant sources. Certain projects with clear hazard mitigation benefit that could receive investment for design, permitting, and environmental review could be made "shovel-ready" or "shovel-worthy" once capital for construction and project implementation is identified.

- Meeting a National Objective: The CDBG-MIT program requires that a minimum of 50% of program funding benefit Low- to Moderate-Income (LMI) persons, on a geographic basis, to meet the Low- to Moderate-Income Area Benefit National Objective. The County prioritized and scaled projects with clear hazard mitigation benefits in areas that would serve LMI residents. Other programs will meet the Urgent Need Mitigation National Objective. Administration costs and planning activities, which are capped at 5% and 15% of the grant funds respectively, are exempt from meeting a National Objective.

- Planning and Studies: HUD allows up to 15% of the total grant allocation to be designated for planning activities. Several hazard mitigation actions in the County's 2020 Multi-Hazard Mitigation Plan are eligible planning activities. Plans and studies also represent significant opportunities to scale hazard mitigation across Hawai'i Island and to leverage state, federal and private sources of funding for project implementation.

- Protected Classes, Vulnerable Populations and Fair Housing: HUD requires that the grantee identify how activities will affect members of protected classes under fair housing and civil rights laws, racially and ethnically concentrated areas, as well as concentrated areas of poverty, and will promote more resilient affordable housing and fair housing choice and respond to natural hazard related impacts. The County has selected projects tied to its MHMP that will concentrate primarily on LMI areas and that will benefit all residents in service areas. Projects incorporate improved infrastructure and planning efforts that increase protection from

the effects of natural hazards for all residents in service areas, and neither exclude nor negatively impact any persons or neighborhoods within or outside of the service area.

The County conducted an analysis of service area demographics, both County-wide and within targeted project service areas, to provide the characteristics of areas served by CDBG-MIT programs and the impacts of selected projects on people relative to fair housing and equal opportunity considerations. Per the 1968 Fair Housing Act, the seven protected classes are race, color, national origin, sex, religion, disability and familial status. Within the following program description sections, the County provides service area statistics on the protected classes for which U.S. Census data is available: race, sex, familial status, national origin, and disability. Data products from the U.S. Census Bureau, such as the Decennial Census or American Community Survey (ACS), to not provide statistics to indicate color or religion at the population level. Available population data on sex is limited to binary, biological sex, while data on gender identity and sexual orientation is not available through ACS at the County or census tract levels. Familial status includes the percentage of households with children under age 18; data for pregnant women and for people securing custody of children under the age of 18 is not available at the County or census tract levels. National origin is represented by percent foreign born. This data, along with data on vulnerable populations such as those below poverty, minorities, individuals over 65 or under 18, LEP populations, and LMI individuals is provided for each program’s service area.

Per the 2018 Center for Disease Control Social Vulnerability Index (SVI), which compiles data on segments of the population considered to be particularly vulnerable to the impacts of disasters, Ka‘ū, portions of Hilo, and parts of Puna such as Pāhoa, all areas that will benefit from four to five CDBG-MIT programs, represent the highest concentrations of poverty island-wide. For each of these census tracts, 28-44% of the population is below poverty, compared to an average of 17% below poverty among census tracts island-wide and an average of 19.3% below poverty among primary census tracts served by CDBG-MIT projects. Portions of Hilo and North Kona, census tracts included in service areas that will each benefit from four CDBG-MIT projects, represent the highest concentrations of minority populations (between 83% and 89%, compared to an average of 71% among census tracts island wide and an average of 72% among primary census tracts served by CDBG-MIT projects).

While no program will create additional affordable housing on the island, projects will protect and/or improve lifeline infrastructure associated with all housing located within service areas. For details on indirect impacts of selected CDBG-MIT projects on resilient, affordable housing, see “Impacts on Promotion of Resilient, Affordable Housing” within each Program below.

6.1 CDBG-MIT Budget Summary

The County intends to utilize CDBG-MIT funding to implement multiple hazard mitigation programs that complement one another and lead to greater community-wide resilience. The County will utilize MIT funding on initial planning, acquisitions, construction, and implementation. Table 6-1 summarizes the CDBG-MIT budget. HUD requires that 50% of the funds be expended within a six-year period and the entire 100% of the funds to be expended within a twelve-year period. The County anticipates that it will be able to implement all CDBG-MIT programs within six years based on their design. The budget summary in Table 6-1 reflects this. However, the County acknowledges that it has up to twelve years to expend all CDBG-MIT funds and may request amendments to the proposed budget as needed. Out of $5,685,750 (the total grant amount of 6.682 million less planning and grant administrative costs), $3,921,750 (69%) will be spent on projects that meet the LMI National Objective.

Table 6-1. CDBG-MIT Program Budget Summary
Expenditure Schedules

Use of Funds	Budget	2022	2023	2024	2025	2026	2027
Infrastructure	**$5,685,300**	**$1,334,993**	**$1,365,156**	**$1,864,905**	**$647,745**	**$472,500**	**$0**
ArcGIS System Purchase and Installation (UNM)	$388,050	$388,050	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure (LMI)	$876,750	$96,444	$78,906	$578,655	$122,745	$0	$0
Wildfire Mitigation and Incident Response: LMA Wildfire Equipment Purchase – (LMI)	$525,000	$17,403	$50,760	$195,787	$130,525	$130,525	$0
Wildfire Mitigation and Incident Response: UNM Wildfire Equipment Purchase (UNM)	$1,375,500	$45,597	$132,990	$512,963	$341,975	$341,975	$0
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks (LMI)	$210,000	$52,500	$52,500	$52,500	$52,500	$0	$0
Shelter Capacity: Kea'au Armory Improvements (LMI)	$1,470,000	$735,000	$735,000	$0	$0	$0	$0
Shelter Capacity: Hisaoka Gym Improvements (LMI)	$840,000	$0	$315,000	$525,000	$0	$0	$0
Planning	**$833,700**	**$157,500**	**$315,000**	**$210,000**	**$75,600**	**$75,600**	**$0**
Revisions to Zoning and Subdivision Codes	$420,000	$105,000	$210,000	$105,000	$0	$0	$0
Flood Studies and Assessments	$413,700	$52,500	$105,000	$105,000	$75,600	$75,600	$0
Administration	**$343,000**	**$64,239**	**$37,096**	**$33,316**	**$87,316**	**$94,471**	**$26,562**
TOTAL	$6,862,000	$1,556,732	$1,717,252	$2,108,221	$810,661	$642,571	$26,562

6.2 Infrastructure

6.2.1 ArcGIS System Purchase and Installation

Implementing Department: Civil Defense Agency

Program Description: Under this program, the County will acquire, install, and configure hardware, software, and licensing for an Emergency Operations Center (EOC) ArcGIS system. The system will be housed within the Hilo EOC and used island-wide for disaster preparedness, response, and recovery. This program is one component of several planned improvements to Hilo EOC infrastructure. Homeland Security Grant Program (HSGP) funds have been secured to purchase new end of life equipment (such as ductwork for the air conditioning system), add a conference room, office space and staff sleeping quarters, install LED lighting in the multi-agency coordination center, install conduit to route and protect Class 6 lines, and renovate the kitchen to meet ADA compliance. CDBG-MIT funds will be used solely for the purchase of an ArcGIS system (which was not included in the Scope of Work for HSGP funds) and includes hardware, software, and initial licensing. The system is critical for improving the Island's ability to effectively communicate and collaborate across departments before, during, and after disasters.

Program Type: Equipment, Software and Licensing

Total Budget: $388,500

O&M: County Funded

Program Start Date: July 2022

Program Completion Date: October 2022

Service Area: Island-wide

Figure 6.1. ArcGIS System Service Area Map

National Objective: With a total population of 188,405 and an LMI population of 88,145, the service area for this program (island-wide) is 47% LMI per HUD FY 2021 LMISD; thus it does not meet LMA requirements. It will address the Urgent Need Mitigation National Objective.

Currently in the case of an emergency event, field staff and Departmental Operations Centers (DOCs) feed on-site information to the departmental liaison in the EOC via the Land Mobile Radio (LMR) system, cell or landline phones, and email. This information is then recorded on paper and hand-mapped by the liaison or call center staff, processed, and routed to the Situation Unit for integration into the Common Operating Picture (COP) and Policy Group decision briefings. Any calls received from the public, which serve (once verified) to help define the extent of event impacts on a geographic area and focus response and damage information collection efforts, are also recorded on paper. This is a slow process with a lot of opportunity for misinterpreting data, which can affect the validity of the informational products produced and the decisions made based on these products.

With the current set-up, due to the demands of emergency response, decisions better suited to leadership in the EOC must often be made on site by field staff who cannot see or interpret the whole picture from their location. These information challenges between the EOC and crews on-the-ground were experienced during the emergency response to recent natural disasters.

To address current issues, in addition to centralizing and upgrading its ArcGIS capabilities through CDBG-MIT, the County is in the process of increasing its Computer Aided Dispatch (CAD) system capacity and has invested other federal grant money in i-Pads and data collection applications, all of which will tie into the ArcGIS server and software. Use of GIS applications on field cell phones will allow for data collection via GIS mobile applications and provide an easier way for the public to submit information. The centralized collection system will allow staff to turn real-time raw data into field reports that do not require significant processing in the EOC. And, with GIS servers on the premises as opposed to in the Cloud, the server will be viable as long as the EOC is viable. Data that is collected via the cellular platform will not be lost if connectivity is lost as it is with cloud storage; instead the data will remain on the collection device and be transmitted once internet connectivity to the server is re-established.

Installing a centralized ArcGIS platform to collect and process information will accelerate the data collection process, reduce misinterpretation of data during information processing, and help quickly generate a more reliable packaged product for the COP and decision briefs. This will facilitate improved decision-making among well-informed leaders, resulting in improved ability to accurately concentrate resources on threatened areas during an event, reduced likelihood of dedicating resources to unnecessary efforts, improved evacuation coordination, and improvements in Public Information and Warning releases, meeting Urgent Need Mitigation National Objective requirements.

Related Hazard Mitigation Action(s):

- HC8: ArcGIS Data Management, Collection and Tracking

Hazards Addressed: Climate Change/Sea Level Rise, Dam Failure, Drought, Earthquake, Flood, High Windstorms, High Surf/Storm Surge/Coastal Flood, Landslide, Tropical Cyclone, Tsunami, Wildfire, Volcanic Eruption

FEMA Community Lifelines: Communications, Energy (Power and Fuel), Food/Water/Shelter, Hazardous Materials, Health and Medical, Safety and Security, Transportation

Benefit to Hazard Risk Reduction, Incident Response, and/or Post-Disaster Recovery: Current County disaster response capabilities are based on a commercially licensed cloud infrastructure. The existing system has no back-ups and no ability to centralize and communicate critical data across departments in the event of a disaster. Per DHS data for Hawai'i Island, this set-up is particularly vulnerable. Any interruption of the current system would result in a loss of real-time notification to the public in advance of and during an event, putting life and property at increased risk.

The proposed system is a key tool that will allow the County to centralize all necessary disaster-related information on prime servers and eliminate reliance on the cloud during response and recovery. It will serve as a single repository for data from Civil Defense, Public Works, Real Property Tax Office, Planning, and Environmental Management. With centralized data collection and management capability, departments will be better able to prepare for, respond to, and recover from disasters, reducing loss of life and property on the Island.

Response: During a disaster, ArcGIS provides for direct, real-time input from incident sites to EOC. Data can be categorized, filtered, and configured to present a comprehensive common operating picture to responding agencies and the public. With installation of this system, real-time information on road closures, incident impacts, and response actions will be available to responders, decision-makers, and the public, and the Incident Commander will be able to direct operational resources and actions such that issues threatening life and safety can be more quickly addressed. With its ability to present information on the overall situation, resources, and mission assignment status, the system will also improve communication of relevant information during emergency personnel shift changes, reducing response delays.

Recovery: Infrastructure databases from Real Property, Public Works, Water Supply, Waste Management, Planning, and Private Utilities can exist as layers in the ArcGIS system. During the Damage Assessment process, damages can be linked directly to their location, and accurate damage estimates can be determined based on the most recent property tax assessments. During recovery efforts, this feature will facilitate quicker delivery of a more accurate damage assessment report to the State. In addition, impacted locations can be tracked through the recovery process to help ensure that affected properties receive the assistance needed to recover.

Planning: ArcGIS supports long-term storage and analysis of a repository of data on incident response actions and damage assessments. This added software capability will allow County staff and leadership to analyze impacts of previous disasters and develop mitigation strategies for reconstruction and future response efforts.

Impacts on Protected Classes and Vulnerable Populations: The program will benefit all residents in its service area. The table below provides demographics on key vulnerable populations and protected classes living in the service area.

Table 6-2. Protected Classes and Vulnerable Populations in ArcGIS Service Area

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Below Poverty	16.7%
Low- to Moderate Income	46.8%
65+	19.7%
Under 18	22.3%
Minority	71.1%
Limited English Proficiency	6.3%

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Disabled	13.9%
Race	
- White	33.5%
- African American	0.7%
- American Indian and Alaska Native	0.4%
- Asian	22.5%
- Native Hawaiian and Other Pacific Islander	12.4%
- Other	1.8%
- Two or More Races	28.7%
Gender	
- Male	49.7%
- Female	50.3%
National Origin (% Foreign Born)	11.9%
Familial Status (Households with Children under 18)	28.7%

Sources: 2018 ACS 5-Year Data: Table B02001 (Race), DP05 (Gender), DP02 (National Origin & Familial Status); 2018 SVI (Poverty, 65+, Under 18, Minority, Disabled); 2017 ACS 5-Year Data (LEP)

Within the service area, the percentage of individuals below poverty is 16.7%. The highest concentrations of poverty are in Hilo/University-Houselots (44.7% below poverty), Hilo/Villa Franca-Kaikoʻo (39.1% below poverty), Hilo/Puʻuʻeo-Downtown (35.7% below poverty), Kaʻū (34.7%), Puna/Kalapana-Kapoho (28.4%), Puna/Orchidland-Ainaloa (25.6%), Puna/Mountain View-Volcano (23.4%), Puna/ Pāhoa (22.6%), Paukaʻa-Wailea (21.7%), and Upper Puna (21.4%).

The percentage of minority individuals in the service area population is 71.1%. The highest concentrations of minority populations are in Hilo/Keaukaha-Panaʻewa (89.5%), Hilo/University-Houselots (88.2%), Hilo/Kahuku-Kaumana (88.1%), North Kona/Kealakehe (83.4%) Keaʻau (79.3%), Hilo/Villa Franca-Kaikoʻo (78.4%), Hilo/Piʻihoonua-Kaumana (75.4%), Puna/Orchidland-Ainaloa (74.4%), South Kohala/ Waimea-Puʻu Anahulu (74.4%), Hilo/Puʻuʻeo-Downtown (74.1%), Puna/Volcano-Mountain View (71.7%).

Due to the nature of this program, no individuals or group of individuals in the service area stands to benefit more, shall be excluded from, or shall be negatively impacted by this program.

Impacts on Promotion of Resilient, Affordable Housing: Centralizing data sources and preventing disruption of the ArcGIS system helps to ensure more reliable and faster public notifications and response, thus increasing protection of persons and property island-wide. As with persons, no property shall benefit more or be excluded from the benefits of this program. All housing, including affordable units, are among properties benefitting from increased protection resulting from the Civil Defense infrastructure improvements.

6.2.2 Emergency Power for Water Infrastructure

Implementing Department: Department of Water Supply (DWS)

Program Description: This program encompasses the hardening of potable water distribution facilities at Pi'ihonua #1, Pi'ihonua #3A, 'Ōla'a #3, and 'Ōla'a #6 through the purchase and installation of transfer switches and supporting infrastructure (generator tap boxes, junction boxes, conduit, wire, supports, etc.). It also includes the purchase and installation of a generator for 'Ōla'a #6 . This new infrastructure will allow DWS to better protect public health and welfare during prolonged power outages.

Program Type: Design/Engineering, Construction

Total Budget: $876,750

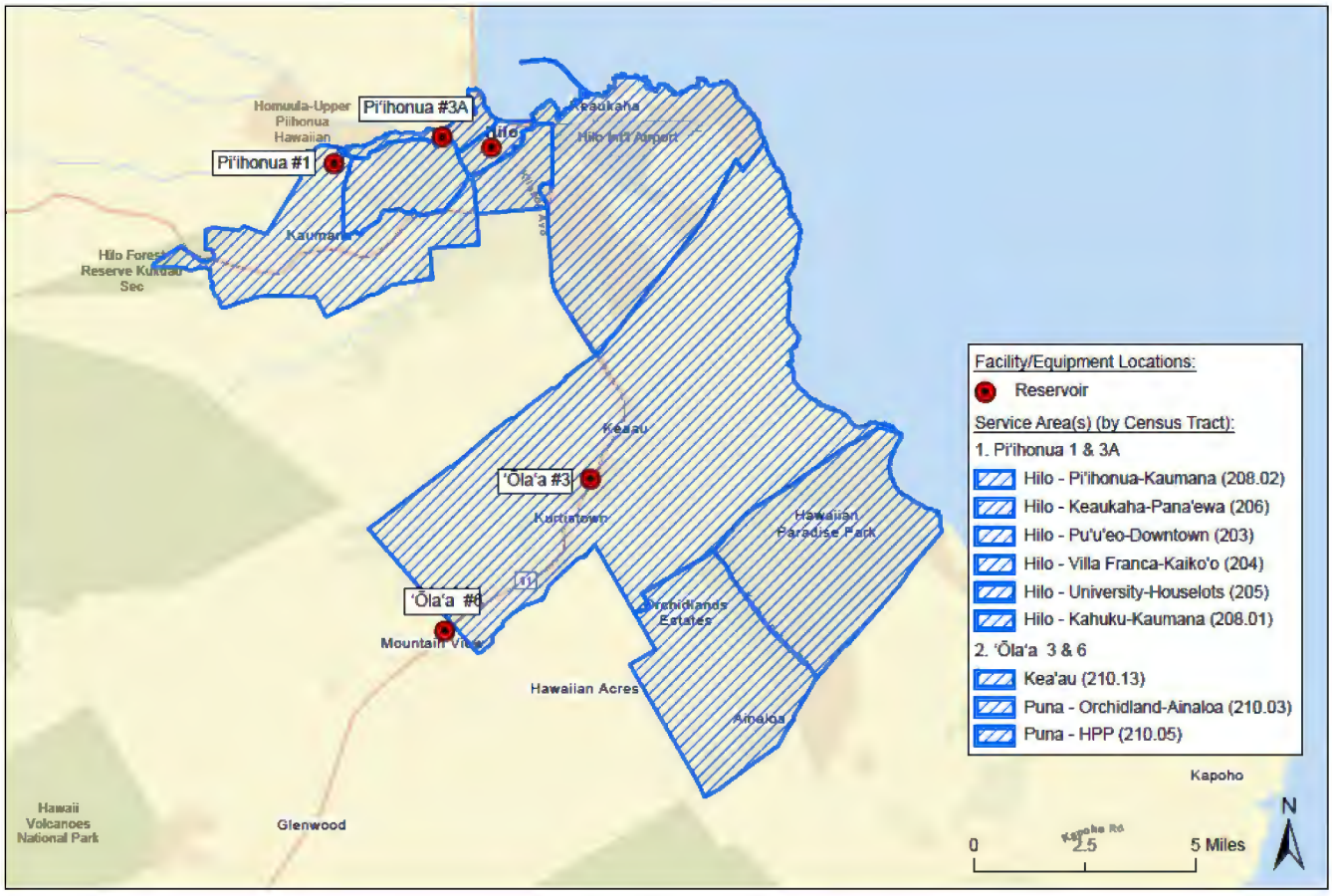
O&M: County Funded

Program Start Date: July 2022

Program Completion Date: November 2025

Service Area: Puna ('Ōla'a #3 and #6) and Hilo (Pi'ihonua #1 and #3A) neighborhoods.

Figure 6-2. Emergency Power for Water Service Area Map



National Objective: LMA Benefit. Pi'ihonua 1 and 3A serve the six Hilo census tracts outlined above, and 'Ōla'a 3 and 6 serve Kea'au, Orchidland and HPP. Population of the service area is approximately 41,255 persons, 21,270 (or 51.6%) of which are LMI per HUD FY 2021 LMISD, meeting HUD's LMA Benefit requirement of more than 50% LMI in the service area.

Related Hazard Mitigation Action(s):

- Action HC6—Emergency Power Transfer Switching Capability for Critical Water Infrastructure

Hazards Addressed: Earthquake, Flood, High Windstorms, Tropical Cyclone, Tsunami, Wildfire, Volcanic Eruption

FEMA Community Lifelines: Energy (Power and Fuel), Food/Water/Shelter, Health and Medical, Safety/Security

Benefit to Hazard Risk Reduction, Incident Response, and/or Post-Disaster Recovery: Transfer switches and supporting infrastructure will make it easy and safe to connect portable emergency generators to power potable water facilities during a prolonged power outage. With this addition, these facilities will be able to maintain service to population centers, health care facilities, shelters, and fire protection systems such as hydrants and sprinklers under emergency circumstances.

Impacts on Protected Classes and Vulnerable Populations: The program will benefit all residents in its service area. The table below provides demographics on key vulnerable populations and protected classes living in the service area.

Table 6-3. Protected Classes and Vulnerable Populations in Emergency Power Service Area

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Below Poverty	20.9%
Low- to Moderate Income	51.6%
65+	17.4%
Under 18	22.3%
Minority	68.9%
Limited English Proficiency	5.1%
Disabled	14.8%
Race	
- White	21.8%
- African American	0.8%
- American Indian and Alaska Native	0.7%
- Asian	26.0%
- Native Hawaiian and Other Pacific Islander	13.4%
- Other	1.0%
- Two or More Races	36.4%
Gender	
- Male	48.7%
- Female	51.3%
National Origin (% Foreign Born)	9.6%
Familial Status (Households with Children under 18)	12.9%

Sources: 2018 ACS 5-Year Data: Table B02001 (Race), DP05 (Gender), DP02 (National Origin & Familial Status); 2018 SVI (Poverty, 65+, Under 18, Minority, Disabled); 2017 ACS 5-Year Data (LEP)

Overall in the service area, 20.9% of the population is below poverty. Concentrations of poverty are in Hilo/University-Houselots (44.7% below poverty), Hilo/Villa Franca-Kaiko‘o (39.1% below poverty), Hilo/Pu‘u‘eo-Downtown (35.7% below poverty), and Puna/Orchidland-Ainaloa (25.6%).

The percentage of minority individuals in the service area population is 68.9%, not far below the island-wide 71.1%. The highest concentrations of minority populations are in Hilo/Keaukaha-Pana‘ewa (89.5%), Hilo/University-Houselots (88.2%), and Hilo/Kahuku-Kaumana (88.1%).

Due to the nature of this program, no individuals or group of individuals in the service area stands to benefit more, shall be excluded from, or shall be negatively impacted by this program.

Impacts on Promotion of Resilient, Affordable Housing: The Emergency Power for Water Infrastructure Program helps to ensure continued access to potable water in Low- to Moderate-Income Areas during power outages, establishing a greater level of housing resilience, which allows residents to remain in place safely after a disaster.

6.2.3 Wildfire Mitigation and Incident Response

Implementing Department: Hawai‘i Fire Department

Program Description: This program consists of three key projects. The first two include procurement of vehicles and equipment (wildland fire apparatus or brush trucks, mobile service trailer, mobile command post or MCP) to enhance incident response and protect community lifelines from wildfire events in LMI and non-LMI areas. The second involves identifying high-hazard low-to-moderate income communities, such as Ka‘ū, and installing mitigation measures such as water storage tanks to improve response capabilities.

6.2.3a LMA Wildfire Equipment Purchase

Project Description: Procure two brush trucks to enhance incident response and protect community lifelines from wildfire events.

Project Type: Equipment

Total Budget: $525,000

O&M: County Funded

Project Start Date: July 2022

Project Completion Date: July 2024

Service Area: Ka‘ū, Kea‘au and parts of Puna (Orchidland-Ainaloa and Upper Puna)

Figure 6-3. LMA Wildfire Equipment Purchase Service Area Map

National Objective: LMA Benefit. The service area, highlighted in the map above, consists of approximately 26,905 persons, 16,270 (or 60.5%) of which are LMI per HUD FY 2021 LMISD, meeting HUD's LMA Benefit requirements.

Related Hazard Mitigation Action(s):

- HC24: Fire Protection

Hazards Addressed: Dam Failure, Earthquake, Flood, High Surf/Storm Surge/Coastal Flood, High Windstorms, Landslide, Tsunami, Tropical Cyclone, Wildfire, Volcanic Eruption

FEMA Community Lifelines: Communications, Health and Medical, Safety and Security

Benefit to Hazard Risk Reduction, Incident Response, and/or Post-Disaster Recovery: Specially designed brush trucks will enhance fire incident response capabilities with their ability to access rough terrain areas that normal apparatus cannot. A mobile service trailer will provide much-needed in-service routine maintenance for responding apparatus at emergency incident scenes. This will help minimize breakdowns and alleviate the need to take the equipment out of service to conduct required maintenance, instead keeping response vehicles available at the incident. An MCP will enhance on-scene incident management capabilities for Hawai'i Fire Department and partnering response agencies, providing capacity and support for on-site multi-agency incident communications and a unified command structure, logistical support functions utilizing current technological equipment, internet access, remote dispatching capabilities, and mobile office space. In addition to response use, an MCP can be utilized for remote incident management support in damage assessments and recovery efforts. All equipment will be housed in fire stations located in majority low- to moderate-income areas on the island

except one brush truck which will replace the aged equipment in Laupāhoehoe, providing the only full-time fire suppression resources between Hilo and Honoka'a on the Hāmākua Coast. Many residential properties and at-risk areas are only accessed by lower weight limit bridges in this area and so are inaccessible by larger fire apparatus.

Impacts on Protected Classes and Vulnerable Populations: The program will benefit all residents in its service area. The table below provides demographics on key vulnerable populations and protected classes living in the service area.

Table 6-4. Protected Classes and Vulnerable Populations in LMA Wildfire Equipment Service Area

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Below Poverty	24.9%
Low- to Moderate Income	60.5%
65+	16.4%
Under 18	25.3%
Minority	69.7%
Limited English Proficiency	7.3%
Disabled	15.9%
Race	
- White	33.5%
- African American	0.5%
- American Indian and Alaska Native	0.9%
- Asian	17.1%
- Native Hawaiian and Other Pacific Islander	16.3%
- Other	1.0%
- Two or More Races	30.6%
Gender	
- Male	50.5%
- Female	49.5%
National Origin (% Foreign Born)	11.0%
Familial Status (Households with Children under 18)	29.1%

Sources: 2018 ACS 5-Year Data: Table B02001 (Race), DP05 (Gender), DP02 (National Origin & Familial Status); 2018 SVI (Poverty, 65+, Under 18, Minority, Disabled); 2017 ACS 5-Year Data (LEP)

Concentrations of poverty in the service area exist within Ka'ū (34.7%) and Puna/Orchidland-Ainaloa (25.6%). In the service area overall, the percentage of individuals below poverty is 24.9%.

The highest concentrations of minority populations in the service area falls within Kea'au (79.3%). Service-area-wide, the percentage of minority individuals in the population is 69.7%.

Due to the nature of this program, no individuals or group of individuals in the service area stands to benefit more, shall be excluded from, or shall be negatively impacted by this program.

Impacts on Promotion of Resilient, Affordable Housing: This project provides equipment to improve response capabilities, and thus better protect property, in Low-to Moderate Income Areas. As with persons, no property in the service area shall benefit more or be excluded from the benefits of this program. Affordable housing will be among property protected.

6.2.3b UNM Wildfire Equipment Purchase

Project Description: Procure one brush truck, one mobile service trailer, and one MCP to enhance incident response and protect community lifelines from wildfire events.

Project Type: Equipment

Total Budget: $1,375,500

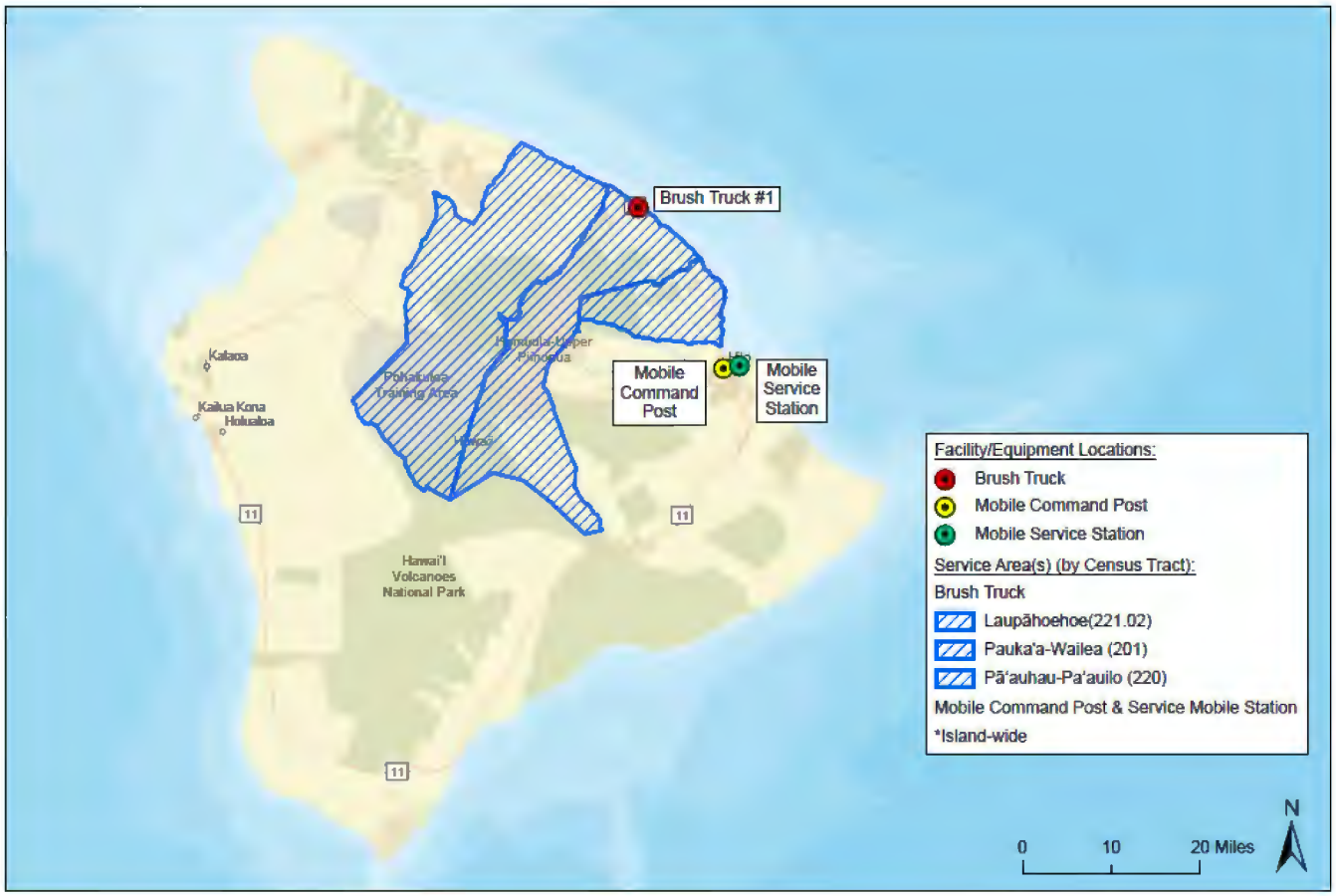
O&M: County Funded

Project Start Date: July 2022

Project Completion Date: July 2024

Service Area: Laupāhoehoe and surrounding area (brush truck); Island-wide (MCP, mobile service trailer)

Figure 6-4. UNM Wildfire Equipment Service Area Map



National Objective: Urgent Need Mitigation. The Laupāhoehoe brush truck will replace an old brush truck that is past its service life and no longer safe and reliable for department use. Having a brush truck in good working order in this area is critical because of the need for a lighter apparatus to traverse weight-limited bridges that a fire engine is not able to cross. The next brush truck is 15-20 miles away on the highway in Honoka'a, then may have to travel an additional 5-10 miles off the highway on rural roads to access these remote properties. Without a brush truck in the area, response times may increase by as much as 30 minutes or more, which in the case of a fire can result in catastrophic loss to life and property.

Currently, when a fire truck is taken out of commission to undergo routine maintenance or be repaired, the unit must be removed from the incident site and brought back to the service facility in Hilo, which is 50-80 miles from most large fires in Waimea, South Kohala, Ka‘ū and West Hawai‘i. With two hours’ drive time each way, this can take a critical piece of equipment offline for a minimum of five to six hours. Refueling can also take upwards of an hour round trip to more remote sites. In large events or in fire season, when the equipment is in high demand and multiple units are needed for response, this can increase response times and capacity significantly. The mobile service trailer will significantly decrease the amount of time that any specific resource or apparatus is taken out of commission to be serviced by having this unit out at the incident scenes. The department will be able to refuel, clean and replace filters and other servicing needs right at the incident instead of bringing the apparatus back to the shop or other facility to be serviced. This will save time, money, homes and possibly lives as the vehicles will have a much quicker turnaround to continue to fight fires and respond to other incidents.

A MCP unit will allow the Department to manage incidents from almost any remote location. Now, when a large incident occurs, it can take hours to find, secure, and set up a facility in the area to manage the incident. If conditions are right, the Department can secure a space within a few hours, depending upon the location of the incident. Often multiple units take up space at the closest fire department, which is not always feasible, nor do most stations have the necessary equipment for larger events such as plotters and high-volume printers. For small scale incidents, management staff works out of the Battalion Chief vehicles with no supplies or workstations. The MCP will remove the time necessary to secure and set up an incident management facility and allow the department to instead immediately focus its efforts on incident management. It will provide mobile office space with computers, dispatch counsels, fire radios, high volume printers, plotters for printing large scale maps, exterior monitors for operations briefings, internal monitors with telescopic cameras for situational awareness, Wi-Fi and internet capabilities to support technology needs and access reference material. Pre-equipped with these essentials, an MCP will allow for organized, immediate centralized management capability on site, even in remote areas where most of the island’s large fires occur.

Related Hazard Mitigation Action(s):

- HC24: Fire Protection

Hazards Addressed: Dam Failure, Earthquake, Flood, High Surf/Storm Surge/Coastal Flood, High Windstorms, Landslide, Tsunami, Tropical Cyclone, Wildfire, Volcanic Eruption

FEMA Community Lifelines: Communications, Health and Medical, Safety and Security

Benefit to Hazard Risk Reduction, Incident Response, and/or Post-Disaster Recovery: Specially designed brush trucks will enhance fire incident response capabilities with their ability to access rough terrain that normal apparatus cannot. A mobile service trailer will provide much-needed in-service routine maintenance for responding apparatus at emergency incident scenes. This will help minimize breakdowns and alleviate the need to take the equipment out of service to conduct required maintenance, keeping response vehicles available at the incident. An MCP will enhance on-scene incident management capabilities for Hawai‘i Fire Department and partnering response agencies, providing capacity and support for on-site multi-agency incident communications and a unified command structure, logistical support functions utilizing current technological equipment, internet access, remote dispatching capabilities, and mobile office space. In addition to response use, an MCP can be utilized for remote incident management support in damage assessments and recovery efforts. All equipment will be housed in fire stations located in majority low- to moderate-income areas on the island except one brush truck which will replace the aged equipment in Laupāhoehoe, providing the only full-time fire suppression

resources between Hilo and Honoka'a on the Hāmākua Coast. Many residential properties and at-risk areas are only accessed by lower weight limit bridges in this area and so are inaccessible by larger fire apparatus.

Impacts on Protected Classes and Vulnerable Populations: The program will benefit all residents in its service area. The table below provides demographics on key vulnerable populations and protected classes living in the service area.

Table 6-5. Protected Classes and Vulnerable Populations in UNM Wildfire Equipment Service Area

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Below Poverty	16.7%
Low- to Moderate Income	46.6%
65+	20.0%
Under 18	22.2%
Minority	71.2%
Limited English Proficiency	6.3%
Disabled	14.1%
Race	
- White	33.3%
- African American	0.7%
- American Indian and Alaska Native	0.4%
- Asian	23.0%
- Native Hawaiian and Other Pacific Islander	12.2%
- Other	1.7%
- Two or More Races	28.7%
Gender	
- Male	49.7%
- Female	50.3%
National Origin (% Foreign Born)	12.1%
Familial Status (Households with Children under 18)	28.5%

Sources: 2018 ACS 5-Year Data: Table B02001 (Race), DP05 (Gender), DP02 (National Origin & Familial Status); 2018 SVI (Poverty, 65+, Under 18, Minority, Disabled); 2017 ACS 5-Year Data (LEP)

The highest concentration of poverty in the service area exists in Pauka'a-Wailea (21.7%). Service-area-wide, the percentage of individuals below poverty is 16.7%. The highest concentration of minority populations in the service area falls within Pauka'a-Wailea (76%). Service-area-wide, the percentage of minority individuals in the population is 71.2%.

Due to the nature of this program, no individuals or group of individuals in the service area stands to benefit more, shall be excluded from, or shall be negatively impacted by this program.

Impacts on Promotion of Resilient, Affordable Housing: This project provides equipment to improve response capabilities and thus better protect property in service areas. As with persons, no property in the service area shall benefit more or be excluded from the benefits of this program. Affordable housing will be among property protected.

6.2.3c Installation of Water Storage Tanks

Project Description: Install water storage tanks and associated piping to improve response capabilities. Such tanks will be strategically located in high risk / water-limited areas of Ka'ū to serve as firetruck refill stations during incident response. CDBG-MIT funding will likely be used primarily to purchase and install tanks. Should additional funds be needed to connect tanks to local water sources, etc. such funds will be provided by the County or a possible partnering entity within the twelve-year CDBG-MIT Period of Performance.

Project Type: Design/Construction

Total Budget: $210,000

O&M: County Funded

Project Start Date: July 2022

Project Completion Date: April 2025

Service Area: Ka'ū

Figure 6-5. Water Storage Tank Service Area Map

National Objective: LMA Benefit. The service area, highlighted in the map above, consists of approximately 7,910 persons, 4,675 (or 59.1%) of which are LMI per HUD FY 2021 LMISD, meeting HUD's LMA Benefit requirements.

Related Hazard Mitigation Action(s):

- HC24: Fire Protection

Hazards Addressed: Dam Failure, Earthquake, Flood, High Surf/Storm Surge/Coastal Flood, High Windstorms, Landslide, Tsunami, Tropical Cyclone, Wildfire, Volcanic Eruption

FEMA Community Lifelines: Communications, Health and Medical, Safety and Security

Benefit to Hazard Risk Reduction, Incident Response, and/or Post-Disaster Recovery: The reliability of water sources is critical for fire protection. Water sources, whether constructed or naturally occurring, are not always in the immediate proximity to a fire's location and often prompt the need for equipment to transport the water from the source to the fire itself. Strategic placement of water storage tanks in Ka'ū will provide water for extinguishing wildfires, increasing protection in the area.

Impacts on Protected Classes and Vulnerable Populations: The program will benefit all residents in its service area. The table below provides demographics on key vulnerable populations and protected classes living in the service area.

Table 6-6. Protected Classes and Vulnerable Populations in Water Storage Tank Service Area

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Below Poverty	34.4%
Low- to Moderate Income	59.1%
65+	16.5%
Under 18	32.5%
Minority	68.8%
Limited English Proficiency	11.1%
Disabled	14.6%
Race	
- White	34.6%
- African American	0.8%
- American Indian and Alaska Native	0.3%
- Asian	15.8%
- Native Hawaiian and Other Pacific Islander	12.6%
- Other	0.5%
- Two or More Races	35.4%
Gender	
- Male	49.9%
- Female	50.1%
National Origin (% Foreign Born)	13.5%
Familial Status (Households with Children under 18)	32.2%

Sources: 2018 ACS 5-Year Data: Table B02001 (Race), DP05 (Gender), DP02 (National Origin & Familial Status); 2018 SVI (Poverty, 65+, Under 18, Minority, Disabled); 2017 ACS 5-Year Data (LEP)

The project serves one area, Ka‘ū. Here, 34.7% of the population is below poverty compared to 16.7% island-wide, and 68.8% of the population is a minority compared to 71.1% island-wide.

Due to the nature of this program, no individuals or group of individuals in the service area stands to benefit more, shall be excluded from, or shall be negatively impacted by this program.

Impacts on Promotion of Resilient, Affordable Housing: This project provides equipment to improve response capabilities, and thus better protect property, in service areas. As with persons, no property in the service area shall benefit more or be excluded from the benefits of this program. Affordable housing will be among property protected.

6.2.4 Shelter Capacity

Implementing Department: Department of Parks and Recreation

Program Description: The Shelter Capacity program consists of two projects designed to increase access to safe shelter facilities in two separate areas of the County: Kea‘au and North Kohala.

6.2.4a Ikuo Hisaoka Gymnasium Improvements

Project Description: North Kohala is the only district on the Island without a wind-rated evacuation shelter site. Ikuo Hisaoka Gymnasium is being retrofitted to meet this need. The Hisaoka Gymnasium project in its entirety includes design, engineering, permitting, hazardous materials remediation, and construction to harden the gym to shelter evacuees in the event of a disaster. Funds from CDBG-MIT will be utilized to conduct the design/engineering component of the project. County funding will then be secured to complete permitting, hazardous materials remediation, and construction within the CDBG-MIT twelve-year Period of Performance. The total project cost is estimated at $7,000,000-10,000,000 including design and engineering work covered with CDBG-MIT funds and funding for construction costs to be identified by the County.

Project Type: Design/Engineering

Total Budget: $840,000

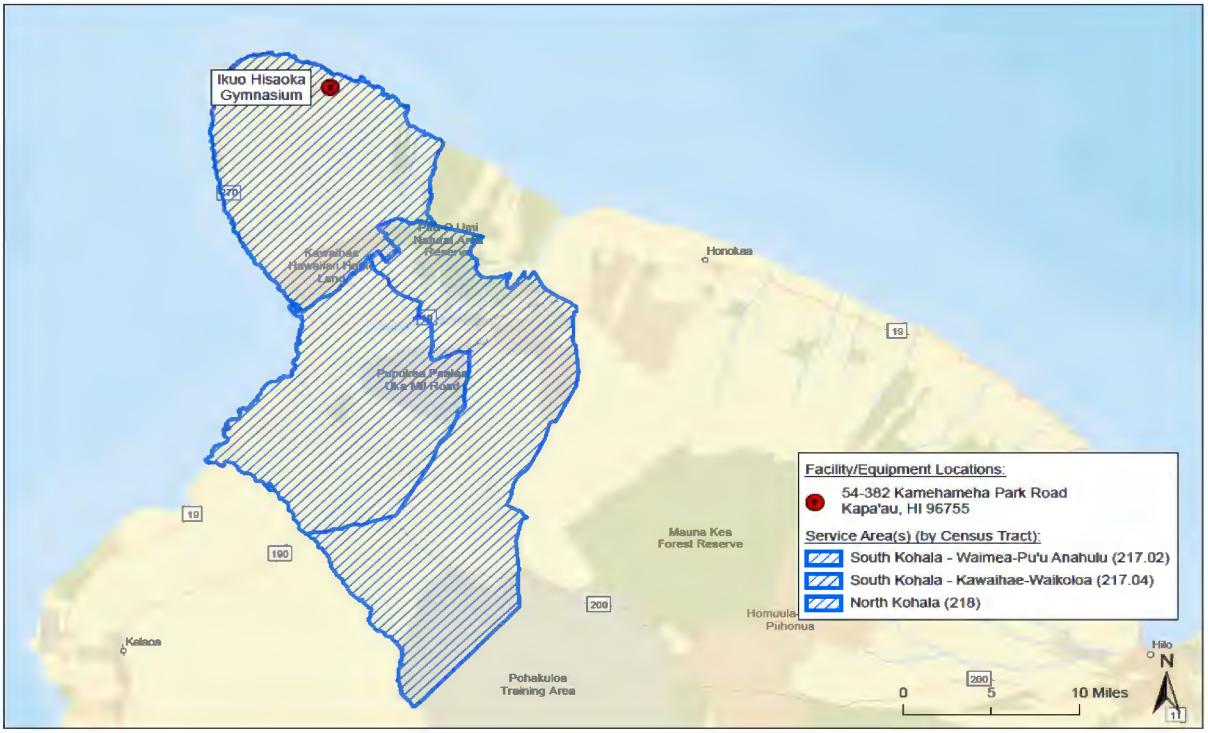
O&M: County Funded

Project Start Date: January 2023

Project Completion Date: September 2024

Service Area: North Kohala, South Kohala (Waimea-Pu‘u Anahulu and Kawaihae-Waikoloa)

Figure 6-6. Hisaoka Gymnasium Service Area Map



National Objective: Low- to Moderate-Income Clientele (LMC) Benefit. The service area, with a total population of 25,080 and an LMI population of 9,750 (38.9%) does not meet HUD LMA criteria. However, research suggests that though open to all persons regardless of income, disaster shelters tend to be utilized by those in lower socioeconomic groups. According to Fothergill and Peek (2004), "Research has shown that in the United States, those with lower SES [socioeconomic status] levels are more likely to seek refuge in mass shelters (Bolin and Bolton, 1986; Mileti et al., 1992; Yelvington, 1997). Roy Popkin (pers. comm., 2002) noted that in many disasters those who utilized shelters could not afford gasoline to drive long distances or pay for a motel room….Furthermore, evidence suggested that poorer victims tended to remain in emergency, temporary shelters longer after [disasters]….Fothergill (2004) found that higher-income families were less likely to stay at mass evacuation shelters than lower-income individuals" (Fothergill, Alice & Peek, Lori A. 2004. Poverty and Disasters in the United States: A Review of Sociological Findings. *Natural Hazards*, Issue 32, pages 89-110). The full text of this journal article is accessible on the Natural Hazards Center website at: https://hazards.colorado.edu/uploads/publications/49_2004_Fothergill_Peek%20.pdf.

The American Red Cross manages disaster shelter intake for the Island of Hawai'i. The County attempted to obtain data on disaster shelter resident income levels to include in this Action Plan, but the Red Cross Director confirmed this is not a statistic they have kept for previous disasters. However, the County intends to do its best, without hindering emergency operations, to collect this data in future disasters to show that 51% or more of those benefiting from this shelter site are LMI Clientele.

When not needed as a disaster shelter site, the Hisaoka Gym is used for a number of youth programs and other recreational activities, adding benefits to area residents. According to the Hawai'i County Recreation Administrator, low- to moderate-income persons live in the more affordable housing in the center of town closer to the facility, while higher income populations live further out.

Related Hazard Mitigation Action(s):

- HC27: Evacuation and Sheltering Assessment and Protocol

Hazards Addressed: Climate Change/Sea Level Rise, Dam Failure, Drought, Earthquake, Flood, High Windstorms, High Surf/Storm Surge/Coastal Flooding, Landslide, Tropical Cyclone, Tsunami, Wildfire, Volcanic Eruption

FEMA Community Lifelines: Food/Water/Shelter, Health and Medical, Safety and Security

Benefit to Hazard Risk Reduction, Incident Response, and/or Post-Disaster Recovery: Prior to, during, and following hazard events, evacuation and sheltering locations are extremely important to the local community. These sites ensure the population has a secure space to gather during an emergency and provide a central location for life-essential services and goods, such as a safe and sanitary shelter, food and water, up-to-date information, and access to medical care.

Impacts on Protected Classes and Vulnerable Populations: The program will benefit all residents in its service area. The table below provides demographics on key vulnerable populations and protected classes living in the service area.

Table 6-7. Protected Classes and Vulnerable Populations in Hisaoka Gymnasium Service Area

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Below Poverty	11.3%
Low- to Moderate Income	38.9%
65+	19.1%
Under 18	25.8%
Minority	65.5%
Limited English Proficiency	8.5%
Disabled	12.2%
Race	
- White	35.7%
- African American	1.0%
- American Indian and Alaska Native	0.0%
- Asian	19.6%
- Native Hawaiian and Other Pacific Islander	12.8%
- Other	1.4%
- Two or More Races	29.3%
Gender	
- Male	46.6%
- Female	53.4%
National Origin (% Foreign Born)	13.8%
Familial Status (Households with Children under 18)	34.2%

Sources: 2018 ACS 5-Year Data: Table B02001 (Race), DP05 (Gender), DP02 (National Origin & Familial Status); 2018 SVI (Poverty, 65+, Under 18, Minority, Disabled); 2017 ACS 5-Year Data (LEP)

In the service area, the highest concentration of poverty (15.5% below poverty) and minority populations (66.9%) exist within North Kohala.

Due to the nature of this program, no individuals or group of individuals in the service area stands to benefit more, shall be excluded from, or shall be negatively impacted by this program. However, as noted above, based on research on mass sheltering post disaster, it is likely that lower income individuals will utilize the shelter facility.

When the facility is not being used as a disaster shelter, it serves as a center for recreation and youth programs, adding benefits to Kohala area residents. It is important to note that per the National Center for Education Statistics (NCES) 2020-2021 Common Core Data, at the schools nearest the facility, Kohala Elementary School (1.5 miles; 348 students), Kohala Middle School (1.9 miles; 172 students) and Kohala High School (1.6 miles; 269 students), between 63% and 66% of students are eligible for free and reduced-cost lunches, noting the higher concentration of households with children experiencing poverty in the immediate facility area. Kohala Adventist School, with approximately 7 students per the most recent NCES data for this facility (2019-2020 Private School Universe Survey), is the next closest school at 2.6 miles from the facility; lunch program data for these students is not available through NCES. No other public or private elementary, middle or high schools exist in North Kohala. The next closest schools, in Waimea, are approximately 23 miles away, a 40-minute drive; thus students from this area are much less likely to use Hisaoka Gym recreational facilities and programs. In this area as well, however, between 58% (public high school students) and 72% (public elementary school students) are eligible for free or reduced cost lunches.

Impacts on Promotion of Resilient, Affordable Housing: This project provides safe shelter to individuals in the service area during and after disasters, providing an essential community lifeline for area residents and protecting lives, thus enhancing the resiliency of the neighborhood. It does not directly promote affordable housing.

6.2.4b Kea'au Armory Improvements

Implementing Department: Department of Parks and Recreation

Project Description: Kea'au Armory is opportunely located at the junction of primary roadways connecting and serving upper Puna, lower Puna, and Hilo. It serves as a long-term shelter and center of operations for recovery efforts. It is the only County-operated facility with reasonable sheltering square footage in the area. This project covers repairs to and replacement of building systems and components necessary to make Kea'au Armory a safe, ADA-compliant short and long-term disaster shelter for the area. Improvements include but are not limited to re-roofing, re-painting, hazardous building materials mitigation, ADA retrofits, and door and window modifications.

Project Type: Design/Engineering

Total Budget: $1,470,000

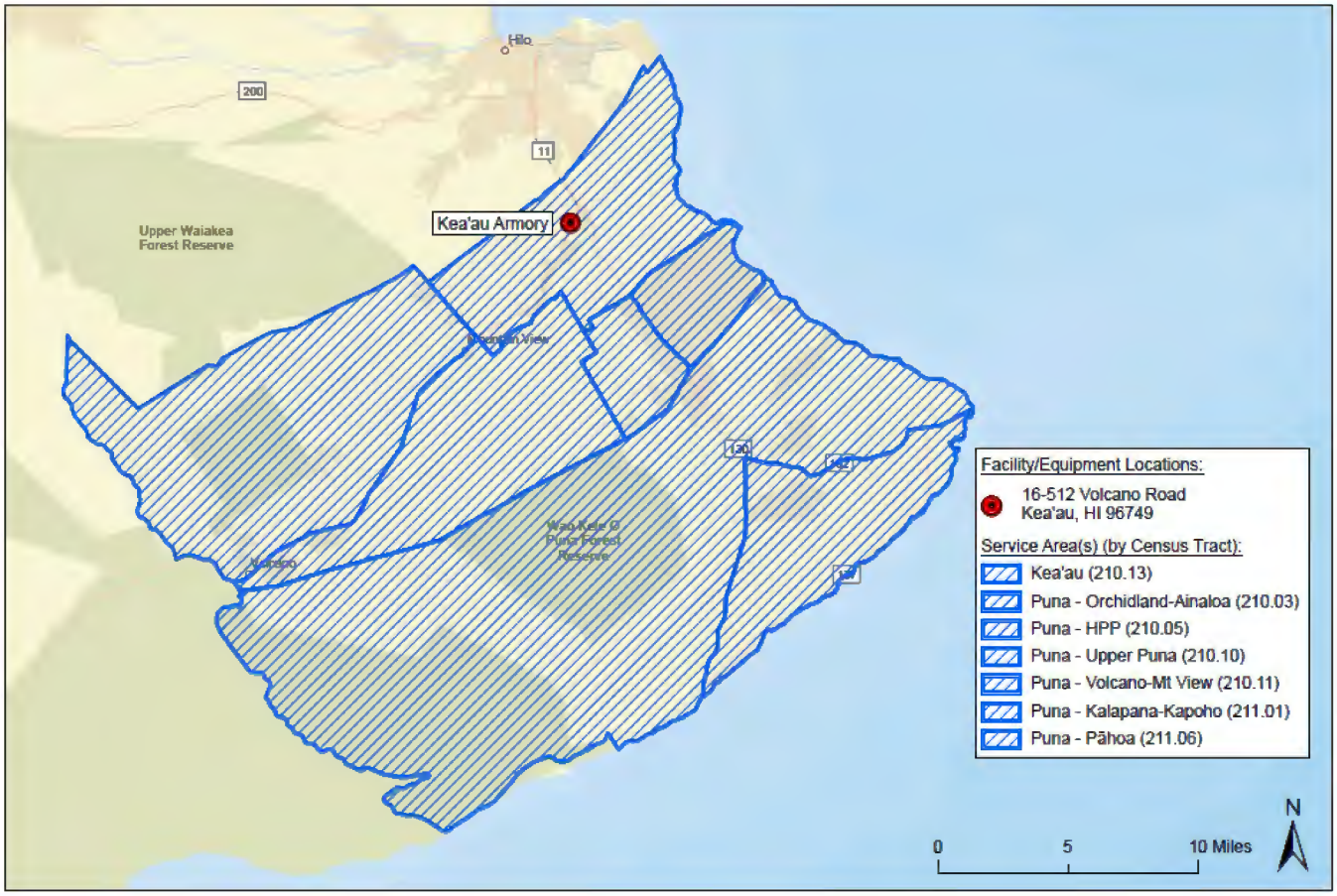
O&M: County Funded

Project Start Date: July 2022

Project Completion Date: December 2023

Service Area: Kea'au

Figure 6-7. Shelter Capacity: Kea'au Armory Service Area Map



National Objective: LMA Benefit. The service area consists of approximately 44,280 persons, 26,785 (or 60.5%) of which are LMI per HUD FY 2021 CDBG LMISD, meeting HUD's LMA Benefit requirements.

Related Hazard Mitigation Action(s):

- HC27: Evacuation and Sheltering Assessment and Protocol

Hazards Addressed: Climate Change/Sea Level Rise, Dam Failure, Drought, Earthquake, Flood, High Windstorms, High Surf/Storm Surge/Coastal Flooding, Landslide, Tropical Cyclone, Tsunami, Wildfire, Volcanic Eruption

FEMA Community Lifelines: Food/Water/Shelter, Health and Medical, Safety and Security

Benefit to Hazard Risk Reduction, Incident Response, and/or Post-Disaster Recovery:
Prior to, during, and following hazard events, evacuation and sheltering locations are extremely important to the local community. These sites ensure the population has a secure space to gather during an emergency and provide a central location for life-essential services and goods, such as a safe and sanitary shelter, food and water, up-to-date information, and access to medical care.

Impacts on Protected Classes and Vulnerable Populations: The program will benefit all residents in its service area. The table below provides demographics on vulnerable populations and protected classes in the service area.

Table 6-8. Protected Classes and Vulnerable Populations in Kea'au Armory Improvements Service Area

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Below Poverty	21.2%
Low- to Moderate Income	60.5%
65+	18.2%
Under 18	21.5%
Minority	65.5%
Limited English Proficiency	4.8%
Disabled	15.8%
Race	
- White	38.3%
- African American	0.4%
- American Indian and Alaska Native	1.0%
- Asian	16.3%
- Native Hawaiian and Other Pacific Islander	15.1%
- Other	2.5%
- Two or More Races	26.5%
Gender	
- Male	50.1%
- Female	49.9%
National Origin (% Foreign Born)	9.2%
Familial Status (Households with Children under 18)	26.6%

Sources: 2018 ACS 5-Year Data: Table B02001 (Race), DP05 (Gender), DP02 (National Origin & Familial Status); 2018 SVI (Poverty, 65+, Under 18, Minority, Disabled); 2017 ACS 5-Year Data (LEP)

The highest concentrations of poverty in the service area exist in Puna/Kalapana-Kapoho (28.4%), Puna/Orchidland-Ainaloa (25.6%), Puna/Mountainview-Volcano (23.4%), Puna/ Pāhoa (22.6%). Service-area-wide, the percentage of individuals below poverty is 21.2%.

The highest concentrations of minority populations in the service area fall nearest the facility, within Kea'au (79.3%), Puna/Orchidland-Ainaloa (74.4%) and Puna/Volcano-Mountain View (71.7%). Service-area-wide, the percentage of minority individuals in the population is 65.5%.

Due to the nature of this program, no individuals or group of individuals in the service area stands to benefit more, shall be excluded from, or shall be negatively impacted by this program. However, based on the LMA designation of the service area as well as research on mass sheltering post disaster, it is more likely that lower income individuals will utilize the shelter facility.

When the facility is not being used as a disaster shelter, it serves as a center for County and State youth programs. Currently it is home to the Starbase Program, designed to improve skills and knowledge in science, technology, engineering and math at the 5th grade level, and serving socio-economically disadvantaged and other groups historically underrepresented in STEM.

Impacts on Promotion of Resilient, Affordable Housing: This project provides safe shelter to individuals in the service area during and after disasters, providing an essential community lifeline for area residents and protecting lives, thus enhancing the resiliency of the neighborhood. It does not directly promote affordable housing.

6.3 Planning Activities

6.3.1 Revisions to Zoning and Subdivision Codes

Implementing Department: Planning Department

Program Description: As part of a Department-wide effort to update the County's Zoning (Chapter 25) and Subdivision (Chapter 23) Codes, the Planning Department will utilize funds for a combination of land use analysis, strategic planning, and development of regulatory and enforcement tools to directly mitigate against a range of natural hazards.

Program Type: Planning/Study

Total Budget: $420,000

O&M: Not Applicable

Project Start Date: July 2022

Project Completion Date: June 2024

Service Area: Island-wide

Figure 6-8. Zoning and Subdivision Code Service Area Map

National Objective: Not Applicable

Related Hazard Mitigation Action(s):

- HC20: Plan Integration
- HC23: Codes and Policies for Sea Level Rise
- HC26: Reduce Development in High-Risk Hazard Areas

Hazards Addressed: Climate Change/Sea Level Rise, Dam Failure, Drought, Flood, High Surf/Storm Surge/Coastal Flood, Landslide, Tsunami, Wildfire, Volcanic Eruption

FEMA Community Lifelines: Communications, Food/Water/Shelter, Hazardous Materials, Health and Medical, Safety and Security, Transportation

Benefit to Hazard Risk Reduction, Incident Response, and/or Post-Disaster Recovery: By applying a hazard mitigation lens to its zoning and subdivision codes, the County will be able to utilize land use and development controls to reduce exposure to natural hazards in areas of our island that are currently settled and developed, as well as those with planned growth. As part of the recovery process from the 2018 Kīlauea eruption, the County researched land use controls that reduce exposure to volcanic hazards. Application of these findings to current zoning and subdivision codes, along with research, analysis and development of subsequent policies focused on other natural hazards, will help the County mitigate for impacts of future volcanic eruptions, sea level rise, tsunamis, storm surge and in-land flooding, landslides, and wildfires. The County envisions that the proposed updates may include policy frameworks that can help guide rebuilding strategies, including when to avoid rebuilding depending upon disaster impacts, available resources to support recovery, and community planning priorities. Such risk reduction planning, by its nature, should ultimately decrease the need for disaster response and recovery efforts.

Impacts on Protected Classes and Vulnerable Populations: The program will benefit all residents in its service area. The table below provides demographics on key vulnerable populations and protected classes living in the service area.

Table 6-9. Protected Classes and Vulnerable Populations in Zoning /Subdivision Code Revision Service Area

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Below Poverty	16.7%
Low- to Moderate Income	46.8%
65+	19.7%
Under 18	22.3%
Minority	71.1%
Limited English Proficiency	6.3%
Disabled	13.9%
Race	
- White	33.5%
- African American	0.7%
- American Indian and Alaska Native	0.4%
- Asian	22.5%

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
- Native Hawaiian and Other Pacific Islander	12.4%
- Other	1.8%
- Two or More Races	28.7%
Gender	
- Male	49.7%
- Female	50.3%
National Origin (% Foreign Born)	11.9%
Familial Status (Households with Children under 18)	28.7%

Sources: 2018 ACS 5-Year Data: Table B02001 (Race), DP05 (Gender), DP02 (National Origin & Familial Status); 2018 SVI (Poverty, 65+, Under 18, Minority, Disabled); 2017 ACS 5-Year Data (LEP)

The highest concentrations of poverty on the island exist within Hilo/University-Houselots (44.7% below poverty), Hilo/Villa Franca-Kaiko (39.1% below poverty), Hilo/Pu‘u‘eo-Downtown (35.7% below poverty), Ka‘ū (34.7%), Puna/Kalapana-Kapoho (28.4%), Puna/Orchidland-Ainaloa (25.6%), Puna/Mountainview-Volcano (23.4%), Puna/ Pāhoa (22.6%), Pauka‘a-Wailea (21.7%), and Upper Puna (21.4%). Service-area-wide, the percentage of individuals below poverty is 16.7%

The highest concentrations of minority populations island-wide are within Hilo/Keaukaha-Pana‘ewa (89.5%), Hilo/University-Houselots (88.2%), Hilo/Kahuku-Kaumana (88.1%), North Kona/Kealakehe (83.4%) Kea‘au (79.3%), Hilo/Villa Franca-Kaiko‘o (78.4%), Hilo/Pi‘ihoonua-Kaumana (75.4%), Puna/Orchidland-Ainaloa (74.4%), South Kohala/ Waimea-Pu‘u Anahulu (74.4%), Hilo/Pu‘u‘eo-Downtown (74.1%), Puna/Volcano-Mountain View (71.7%). Service-area-wide, the percentage of minority individuals in the population is 71.1%.

Due to the nature of this program, no individuals or group of individuals in the service area stands to benefit more, shall be excluded from, or shall be negatively impacted by this program.

Impacts on Promotion of Resilient, Affordable Housing: This program will result in data and information that will then be utilized by the County island-wide to improve zoning and subdivision codes. Ultimately, this will lead to improved regulations that help promote disaster-resilient, affordable housing and will help ensure improved conditions for existing subdivisions. As with persons, no property in the service area shall benefit more or be excluded from the benefits of this program.

6.3.2 Flood Studies and Assessments

Implementing Department: Department of Public Works

Program Description: Perform needs assessment on coastal and riverine flooding hazards, in numerous flood-prone areas of the County order to identify flood control projects and policies to mitigate against the exposure to flood hazards, such as amendments to Flood Insurance Rate Maps (FIRMs). Initial consideration is for the district of Puna, with North Kona and South Kohala as additional geographic vicinities eventually requiring studies. All three districts were identified in the 2020 Multi-Hazard Mitigation Plan. The County aims to partner with the U.S. Army Corps of Engineers to conduct flood studies for Puna through its Planning Assistance to States (PAS) program using CDBG-MIT funds as the non-federal share towards the cost of the flood studies.

Program Type: Planning/Study

Total Budget: $413,250

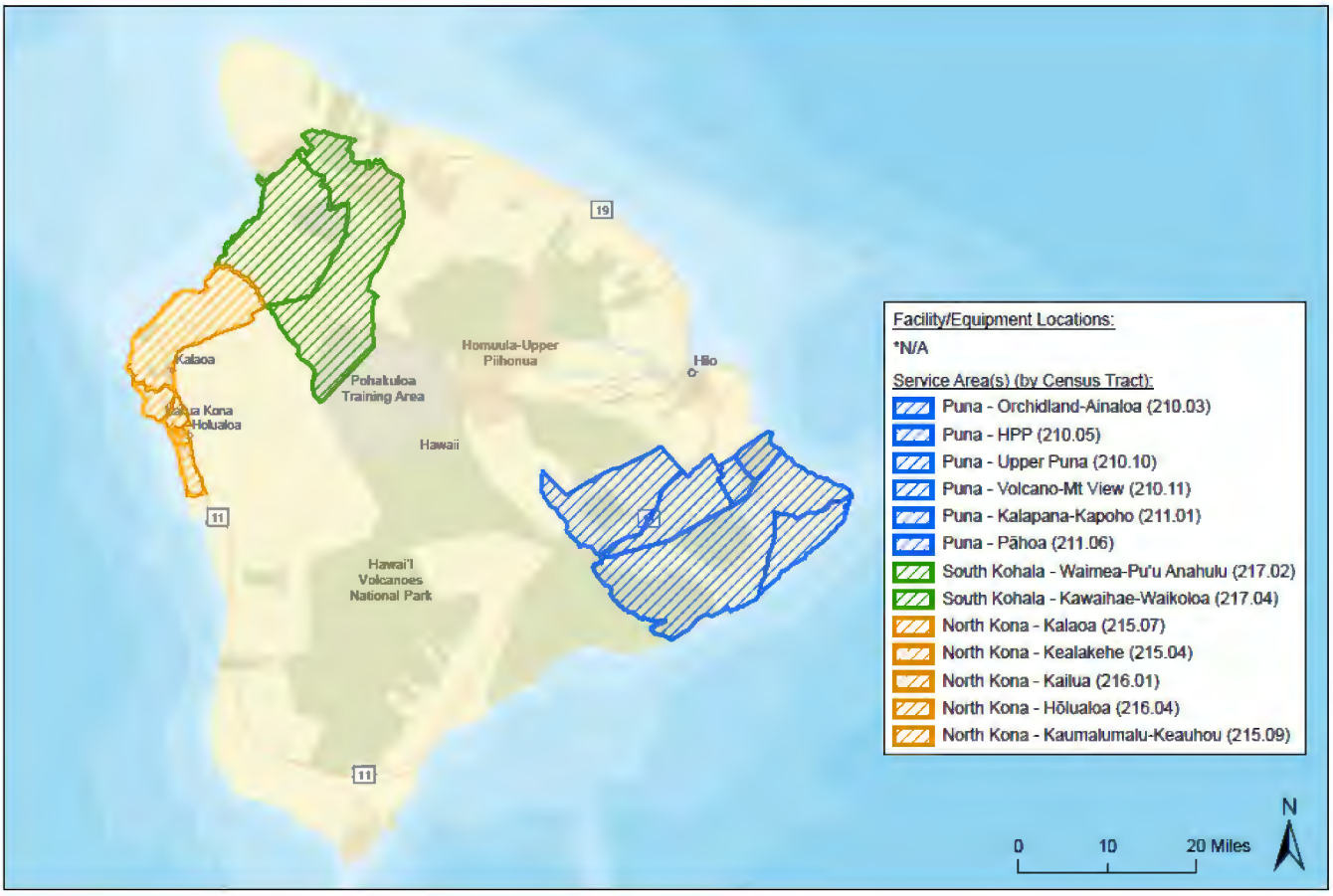
O&M: Not Applicable

Project Start Date: July 2022

Project Completion Date: July 2027

Service Area: Puna, North Kona and South Kohala

Figure 6-9. Flood Studies Service Area Map



National Objective: Not Applicable

Related Hazard Mitigation Action(s):

- HC12: Flood Hazard Needs Assessment

Hazards Addressed: Climate Change/Sea Level Rise, Flood, High Surf/Storm Surge/Coastal Flooding, Landslide, Tropical Cyclone, Tsunami

FEMA Community Lifelines: Communications, Energy (Power and Fuel), Food/Water/Shelter, Hazardous Materials, Health and Medical, Safety and Security, Transportation

Benefit to Hazard Risk Reduction, Incident Response, and/or Post-Disaster Recovery: Flood mitigation minimizes public and private losses, promotes protection of human life and health, reduces the expenditure of public money, and prevents the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the public. These flood studies can provide information on flood-prone areas and inform a framework for future development in high-hazard areas vulnerable to flooding.

Impacts on Protected Classes and Vulnerable Populations: The program will benefit all residents in its service area. The table below provides demographics on vulnerable populations and protected classes in the service area.

Table 6-10. Protected Classes and Vulnerable Populations in Flood Studies Service Area

Protected Class or Vulnerable Population Category	Percentage of Individuals (or Households if Indicated) Living in Service Area
Below Poverty	14.7%
Low- to Moderate Income	49.3%
65+	18.9%
Under 18	22.1%
Minority	62.8%
Limited English Proficiency	6.2%
Disabled	12.3%
Race	
- White	40.6%
- African American	0.8%
- American Indian and Alaska Native	0.6%
- Asian	17.5%
- Native Hawaiian and Other Pacific Islander	14.0%
- Other	2.7%
- Two or More Races	23.9%
Gender	
- Male	49.9%
- Female	50.1%
National Origin (% Foreign Born)	12.5%
Familial Status (Households with Children under 18)	28.4%

Sources: 2018 ACS 5-Year Data: Table B02001 (Race), DP05 (Gender), DP02 (National Origin & Familial Status); 2018 SVI (Poverty, 65+, Under 18, Minority, Disabled); 2017 ACS 5-Year Data (LEP)

The highest concentrations of poverty in the service area exist within Puna/Kalapana-Kapoho (28.4%), Puna/Orchidland-Ainaloa (25.6%), Puna/Mountainview-Volcano (23.4%), and Puna/ Pāhoa (22.6%). Service-area-wide, 14.7% of individuals are below poverty.

The highest concentrations of minority populations in the service area fall within Puna/Orchidland-Ainaloa (74.4%) and South Kohala/ Waimea-Pu'u Anahulu (74.4%), and Puna/Volcano-Mountain View (71.7%). Service-area-wide, the percentage of minority individuals in the population is 62.8%.

Due to the nature of this program, no individuals or group of individuals in the service area stands to benefit more, shall be excluded from, or shall be negatively impacted by this program.

Promotion of Resilient, Affordable Housing: This program will result in information that will be utilized by the County in identified service areas to inform future development and to help ensure that affordable housing and infrastructure within service areas are built and maintained to reduce the risk of flooding.

SECTION 7. CITIZEN PARTICIPATION

The purpose of a Citizen Participation Plan (CPP) is to allow residents the opportunity to inform the CDBG-MIT Action Plan and projects that will be funded with this grant. The design of the CPP aligns with the requirements listed in the applicable Federal Register Notices allocating funds for hazard mitigation.

7.1 Goals

The goals of the CPP are to:

1. Provide for and encourage citizen participation, particularly of low- and moderate-income persons.
2. Ensure residents have reasonable and timely access to public meetings being held to receive input on the Action Plan, as well as clearly communicate to residents how to submit public comments on the Action Plan.
3. Ensure residents are notified of amendments to the Action Plan.
4. Provide residents with information about programs to be funded, how they meet national objectives, and local needs, in addition to how decisions were made.

7.2 Procedures to Maintain a Comprehensive Website

To facilitate public engagement, the County will make the CPP and Action Plan available through a comprehensive website dedicated to the CDBG-MIT program(https://www.planning.hawaiicounty.gov/general-plan-community-planning/cdbg-mit). The CDBG-MIT website will be the primary repository for these and related documents. This page also will direct viewers to the Multi-Hazard Mitigation Plan on the Civil Defense website for additional background information. Links to the CDBG-MIT webpage will be provided on the County's homepage and Civil Defense website to increase its visibility.

Materials and links that will be published to the website will include:

- Action Plan and Action Plan Amendments
- Information on Projects and Programs Funded by CDBG-MIT
- Procurement Policies and Procedures
- Notice of Active Procurements
- Procured Contracts with CDBG-MIT Funds
- Citizen Participation Plan
- Program Policies and Procedures
- Public Meeting Notices
- Anti-Fraud, Waste and Abuse Policy
- Program Guidelines.

Updates to the website will be made in conjunction with any new activity, associated with the CDBG-MIT program Action Plan. Further, any new document created in support of the CDBG-MIT program will be published to the website within 5 business days of the final approved publication date.

Notices for public comment will be published on Hawai‘i Island's two daily newspapers – Hawai‘i Tribune-Herald and West Hawai‘i Today – in addition to press releases. The County's Communications staff will work with

reporters to answer questions and coordinate regarding use of social media to promote opportunities for public involvement. Department staff also will coordinate with the County's nine Council members to distribute information to their constituents. This could include use of their email distribution lists, newsletters, websites, social media, etc.

Members of the public will be able to lodge complaints via an email link on the website, as well as through non-electronic means. The email address for complaints will be monitored daily. The County will respond promptly within 15 days of receipt of each complaint. An assigned Communications Specialist will monitor the email address, log all complaints, and coordinate to provide responses.

7.3 Public Meetings

The County held two public meetings, one prior to the publication of the Draft Initial Action Plan and one during the 45-day Public Comment Period for the Draft Initial Action Plan. At the time of this publication, meetings were held virtually due to the COVID-19 pandemic. Recordings of the meetings with closed captioning have been posted on the County's website. Comments and questions received during the meetings were documented and responded to. Notices and press releases for the meetings were provided 14 calendar days ahead of time. In-person public meetings are expected to resume once the COVID-19 pandemic is no longer a risk to public health and safety. This protocol for a public meeting during a 45-day Public Comment period will be followed for any substantial amendments to the Action Plan.

7.4 Submitting Comments

Comments will be collected and responded to by the County's Planning Department. Outside of public meetings, comments will be accepted through:

- By email: cdbgmit@hawaiicounty.gov
- In-person, during office hours, at:
    - 101 Pauahi Street, Suite 3, Hilo, HI 96720
    - 74-5044 Ane Keohokalole Highway, Building E, 2nd Floor, Kailua-Kona, HI 96740
- By U.S. mail to 101 Pauahi Street, Suite 3, Hilo, HI 96720

All comments will be given the same consideration regardless of the method of submission. The County will consider all comments and views expressed by members of the public on the Action Plan and may make modifications to the Action Plan, if deemed appropriate.

7.5 Citizen Advisory Committee

Following acceptance of the Action Plan, the County will form a Citizen Advisory Committee that will meet in an open forum at least bi-annually, either virtually or in-person. The goal of the Citizen Advisory Committee is to serve as an ongoing public forum to inform CDBG-MIT projects and programs, leading to transparency. The Committee will serve as an ongoing public forum and to inform the public on CDBG-MIT projects and programs.

7.6 Low- to Moderate Income Persons

The County of Hawai'i is separated into nine geographic districts: North and South Kona, North and South Kohala, Hāmākua, North and South Hilo, Puna, and Ka'ū. According to American Community Survey data, in 14 of the 31 Census Tracts, the average household makes less than 80% of the County's median household income. These tracts are located in four Districts – Puna, Ka'ū, and North and South Hilo. These geographic areas will be reached through press releases and public service announcements in newspaper and radio, social media, and coordinating with area local and state elected officials.

7.7 Language Access

According to the 2013-2017 American Community Survey, 5-year Estimates (ACS), 74.2% of the population in the State of Hawai'i speaks only English, and 25.8% speaks a primary language other than English. The County contains a slightly higher concentration of people who primarily speak English, with 80.5% of the County's population speaking only English and 19.5% speaking a primary language other than English. The most prevalent languages spoken in the County following English are Asian and Pacific Island languages, which are spoken by 15.2% of the population (28,019 residents).

The ACS estimates that 6.3% percent of County residents speak English less than "very well," which represents the County's Limited-English Proficient (LEP) population. Language for LEP persons can be a barrier to accessing important benefits or services, understanding and exercising important rights, complying with applicable responsibilities, or understanding other information provided by the County. In certain circumstances, failure to ensure that LEP persons can effectively participate in or benefit from federally assisted programs and activities may violate the prohibition under Title VI against discrimination on the basis of national origin.

In order to determine the level of access needed by LEP persons the County in its administration of CDBG-MIT funded activities considered four factors: (1) the number or proportion of LEP persons eligible to be served or likely to be encountered by the CDBG-MIT program; (2) the frequency with which LEP persons come in contact with the CDBG-MIT program; (3) the nature and importance of the program, activity, or service provided by the CDBG-MIT program to people's lives; and (4) the resources available to the County and associated costs. Balancing these four factors will ensure meaningful access by LEP persons to critical services in a way that is consistent, appropriate, and meaningful. For each factor in its analysis, the County has assigned a value between one (1) and five (5), one being very low and five being very high.

Factor 1 – Number/Proportion of LEP Persons Eligible to be Served or Likely to be Encountered by the Program

HUD requires that grantees ensure meaningful access for each LEP language group that constitutes 5% or more or 1,000 persons, whichever is less, of the population of persons eligible to be served or likely to be affected or encountered by the CDBG-MIT Program. Based on 2013-2017 data from the American Community Survey (see Table 2.6) three language groups meet this qualification countywide: Spanish (1,018 LEP speakers, or 0.6% of County population), Tagalog (1,752 LEP speakers, or 1.0% of County population), and Ilocano (1,543 LEP speakers, or 0.8% of County population). While all CDBG-MIT programs are for public infrastructure or planning studies and do not provide direct services to individuals or households, all County residents will be automatically served by three or more CDBG-MIT programs without requiring application or interaction with the Program or Program staff.

Factor 1 Conclusion: The number of LEP speakers of three languages is above the 1,000 person threshold and below the 5% threshold established by HUD. The County has assigned a value of four (4) in its analysis, as the count of individual LEP persons who will be served by the CDBG-MIT program is high, and the proportion of LEP persons as a percentage is low.

Factor 2 - Frequency with which LEP Persons Come in Contact with the Program

Projects are all internal County-coordinated public infrastructure and planning projects and do not involve applications for or the provision of direct service. While projects will enhance community lifelines in times of disaster, County residents, including LEP persons, are highly unlikely to come into direct contact with the CDBG-MIT Program often, if at all. The two shelter retrofit projects will impact resident lives most directly, as this will involve closing the Hisaoka Gym and the Kea'au Armory temporarily during renovations.

In general, the need for language services even for County programs and services more directly and regularly accessed by County residents is typically low. According to a survey conducted by the County's Equal Opportunity Officer in 2021, the total number of requests made by LEP individuals to all County departments from March 2019 – March 2020 was 3,924 persons representing 19 languages, with 63% requesting services from the Immigration Information Office, 25% from Parks and Recreation, 7% from the Hilo Golf Course, and only 5% requesting services or information from other County departments.

Factor 2 Conclusion: The frequency with which LEP persons will come into contact with the CDBG-MIT Program is one (1), very low.

Factor 3 – Nature/Importance of the Program, Activity, or Service Provided by the Program to People's Lives

Projects will ultimately impact the safety and security of individuals and property island-wide. However, unlike housing buyouts or programs focused on direct service, aside from operational efficiencies noticed by emergency management staff, residents will not experience direct benefits of any one project in their day-to-day lives, until policies implemented as a result of zoning and flood studies impact where and how the County is further developed. In fact, most residents should not expect to experience recognizable project impacts within a year or more, pending frequency and intensity of emergency and disaster events. Benefits will become more apparent in the event of an emergency incident or disaster with improved emergency response times (ArcGIS, fire equipment and water storage tanks), power redundancy to continue the supply of potable water to neighborhoods, availability of safe shelter space, and any long-range outcomes catalyzed by planning assessments.

Factor 3 Conclusion: Due to the nature of the activities and the low level of importance in residents' day to day lives, the County has assigned value of two (2) to this Factor, or low.

Factor 4 - Resources Available to the County and Associated Costs

The cost to translate 100+ page documents such as an Action Plan into another language can range from $10 to $100 per page, averaging $25 per page, depending upon the language, font size, and technical complexity of the document. Using the $25 average, this means that translation of key program documents (which in this case are the Action Plan, Policies and Procedures, and RFPs, as no program applications are involved) could cost the County as much as $7,500 or more to translate a 100-page document into three languages, adding a strain to the County's already limited budget.

Because the percentage of LEP persons is 6.3% of the population island-wide, the number of individuals speaking each language represented within this population is low, and the County seldom receives requests for LEP services

for the programs proposed in this CDBG-MIT Action Plan, the County does not translate larger documents for the variety of the County's LEP populations as a practice. Instead, the County provides public information to LEP persons by offering translated written notice in the primary language of LEP persons regarding the right to receive competent oral interpretation of any written materials at no cost. With respect to interpreter services, the County has a contract with LanguageLine Solutions to provide telephone interpretation services upon request.

Factor 4 Conclusion: Due to limited resources and high cost of translating key documents involved in CDBG-MIT programs, a score of one (1, very low) has been given to this Factor, for the low level of cost reasonableness in providing written translation.

Scoring and Conclusion

Using the reasoning provided above and a County-devised scoring system to help assess level of access needed to written CDBG-MIT documents, the County has determined that the level of access needed is Low. The County is confident that its existing procedure for providing oral interpretation of written CDBG-MIT documents upon request provides fair and equal access to LEP individuals in the County.

Factor 1: 4

Factor 2: 1

Factor 3: 2

Factor 4: 1

Average Score = 8/4 = 2 (Low)

7.8 Individuals with Disabilities

The County is committed to the full inclusion of all members of the public in community engagement and the implementation of CDBG-MIT projects without regard to disability or any other classification protected by state or federal law. As part of this commitment, the County will ensure that persons with disabilities are provided reasonable accommodations as it pertains to accessing information and participation in CDBG-MIT activities. Per Section 508 of the Rehabilitation Act of 1973, the County's Action Plan and other program documents available on the CDBG-MIT website are made ADA-compliant using Adobe Acrobat Pro DC so that digital documents available to the public are readable by software utilized by blind and vision-impaired individuals. The County will continue to provide all uploaded documents in this format to ensure that individuals with disabilities have ready access to and use of information and data comparable to the access and use of information and data by individuals without disabilities, so long as this does not result in an undue burden on the County.

Relay Hawai'i, a service overseen by the Hawai'i Public Utilities Commission, provides full telephone accessibility to people in Hawai'i who are deaf, hard of hearing, deafblind or have a speech disability and is accessed by dialing 711. Sign language interpreters are able to be hired through our Equal Opportunities Officer (EOO) if needed for public events and individual interpretation, and assisted listening devices are available through the EOO for in-person use as well. Any member of the public can contact the Planning Department by phone at (808) 961-8288 (East Hawai'i) or 323-4770 (West Hawai'i), or by email at cdbgmit@hawaiicounty.gov, for support to access information and services provided by the County.

SECTION 8. PRE-AWARD IMPLEMENTATION PLAN

Per the Public Laws 115-123 and 116-20, CDBG-MIT grantees must submit Risk Analysis Documentation to demonstrate in advance of signing a grant agreement that it has in place proficient controls, procedures, and management capacity. This is inclusive of the grantee's ability to prevent duplication of benefits as defined by Section 312 of the Stafford Act as well as demonstration that the grantee can effectively manage the funds, ensure timely expenditure of funds, maintain a comprehensive website regarding all disaster recovery activities assisted with these funds, and ensure timely communication of application status to applicants for disaster recovery assistance. Finally, the grantee must demonstrate that it has adequate policies and procedures to detect and prevent fraud, waste, and abuse.

In addition to the financial management review, each grantee is required to submit a Pre-Award Implementation Plan to describe the grantee's capacity to carry out the recovery, including the operational and program management functions relative to CDBG-MIT funding. Any capacity gaps must be identified and filled based on the plan and timeline outlined by the grantee. The County of Hawai'i submits its Pre-Award Implementation Plan with this Action Plan.

8.1 Capacity Assessment

8.1.1 County CDBG Experience

Since 2003, the County of Hawai'i has received an approximate annual allocation of $2.6 million in CDBG entitlement funds through its Office of Housing and Community Development. The County typically uses its program dollars to support housing to serve low- to moderate-income households, public facilities including public health and safety, infrastructure, economic development, and public services.

More recently, with the allocation of over $100 million in CDBG-DR funds, additional County capacity-building was deemed necessary. A Disaster Recovery Division was created within the County's Planning Department to coordinate the recovery effort from the 2018 Kīlauea eruption and directly implement the CDBG-DR grant award. Under the supervision of the Disaster Recovery Officer, the Division is comprised of staff who oversee grant management, policy and planning, environmental review, systems and reporting, and communications, outreach, program operations, financial management, compliance and monitoring, and other CDBG-DR project activities. The Planning Department is designated the responsible party for coordinating and monitoring the $6.8 million CDBG-MIT grant award and program activities which will be implemented through County departments.

8.1.2 Key County Departments

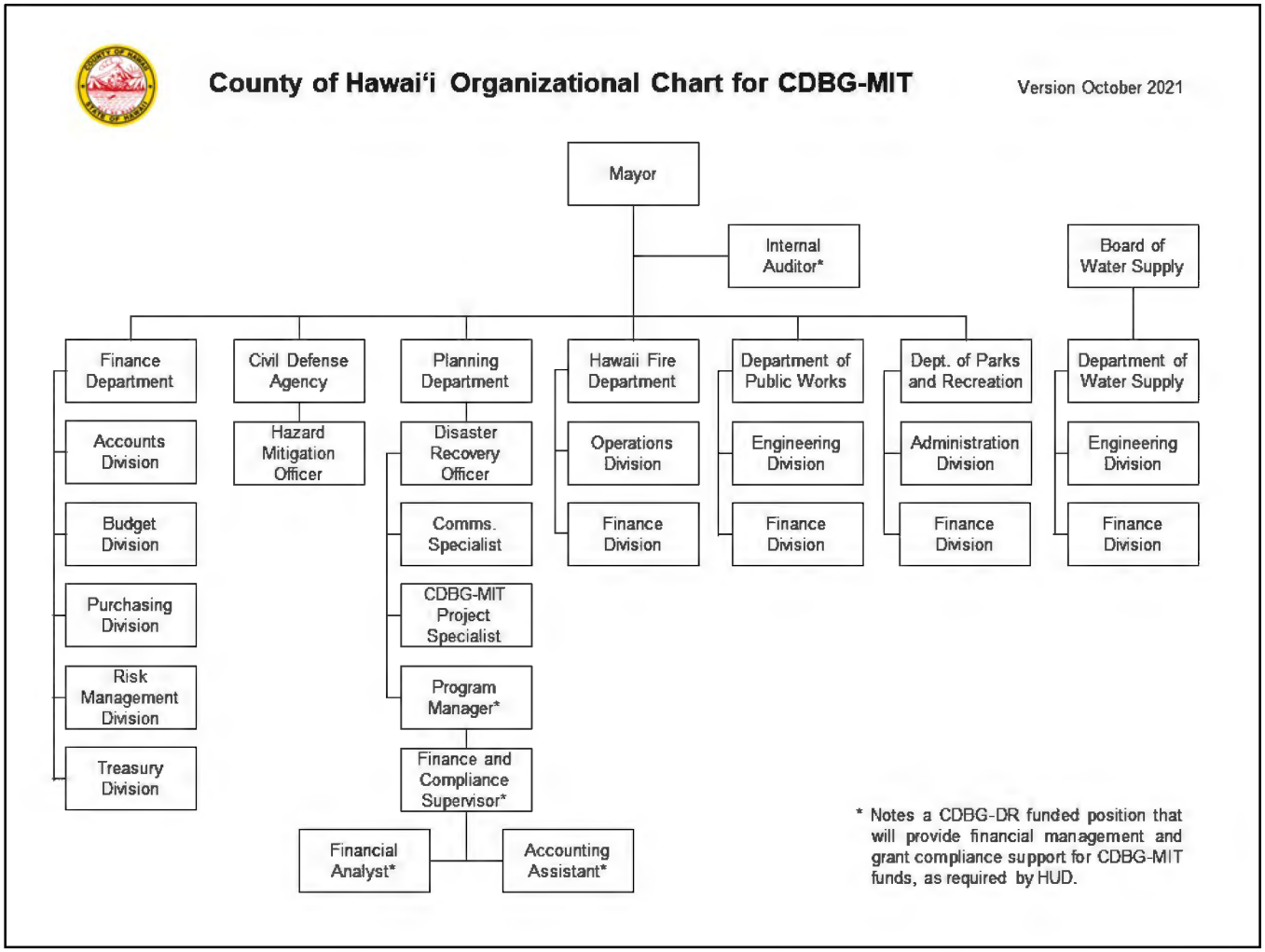
The Planning Department and Civil Defense Agency are close partners in the hazard mitigation effort, jointly sponsoring the development of this CDBG-MIT Action Plan. The Action Plan is being used to implement the County's 2020 Multi-Hazard Mitigation Plan developed by the Civil Defense Agency. Planning and Civil Defense will be coordinating directly with the County departments on their mitigation-related efforts and improvements. The Department of Finance is a key implementation partner within the County for CDBG-MIT project activities. The Department will maintain the FRESH financial management system; implement financial controls and sound financial management practices to ensure financial compliance and timely expenditure of funds; facilitate internal monitoring and the prevent of fraud, waste, and abuse; and will oversee procurement and other purchasing activities funded with CDBG-MIT grant award.

The Department of Information Technology serves the technology needs of County departments. For CDBG-MIT project activities the Department will support applications, database management, data security, telecommunications infrastructure, and technology equipment necessary to manage the CDBG-MIT grant award and implement project activities effectively.

8.1.3 Staffing and Departmental Collaboration

Within the Planning Department and under the supervision of the Disaster Recovery Officer, a CDBG-MIT Program Specialist will work with the Finance Department and departmental staff implementing CDBG-MIT funded programs to ensure administrative, financial and programmatic compliance and effectiveness for all CDBG-MIT activities. Figure 8-1 shows the organization to support collaboration and accountability in the administration of CDBG-MIT funding and programs within the County. HUD has required the County to integrate the capacity it has built to administer CDBG-DR funds into the management of CDBG-MIT grant funds. Specific CDBG-DR funded positions will provide financial management and grant compliance support to the CDBG-MIT program overall. Since the submission of the Draft Initial Action Plan, the County has hired a CDBG-MIT Program Specialist who brings to the team over 20 years of experience in community development, cross-sector collaborations facilitation, grants management, and federal disaster recovery programs, including work with state and local jurisdictions on Section 406 mitigation measures funded in conjunction with the FEMA Public Assistance program.

Figure 8-1. County of Hawai'i Organizational Chart for CDBG-MIT



8.2 Technical Assistance

HUD has provided third-party technical assistance to the County throughout the development of this CDBG-MIT program and Action Plan. HUD-provided technical assistance to the County has been beneficial to date, outlining specific requirements of Federal Register Notices and guidance as the County designs and undertakes CDBG-MIT programs. This technical assistance has included site visits, ongoing coordination meetings, training, online resources such as the HUDExchange, and on an "as-needed" basis for general policy guidance or clarification of statutory requirements.

The County will continuously work with HUD to identify technical assistance needs and potential resources or providers. County staff will be provided with all training necessary to ensure that activities funded under this Action Plan are correctly administered. Technical assistance will be provided to any contractors and sub-recipients on a consistent basis to ensure they are up to date on the most current disaster recovery information and program requirements. This will be accomplished through training sessions, webinars, presentations, or other communication tools.

8.3 Accountability

The Planning Department is the administering agency for the CDBG-MIT grant award. Within the Planning Department, the responsible party for program oversight and implementation is the Disaster Recovery Officer. The Disaster Recovery Officer is tasked with program coordination among County agencies/stakeholders and will serve as the lead point of contact for HUD related to monitoring, compliance, and issue resolution. The Disaster Recovery Officer also reports to the Planning Director and Mayor, and regularly reports on activities directly to the County Council and the public.

The Mayor will serve as authorized signatory of the contract between HUD and the County, and will authorize major agreements, contracts, and change orders. The Managing Director also has delegated authority from the Mayor to sign contracts and agreements that bind the County. The Director of Finance or the Disaster Recovery Officer will certify to financial reporting, as appropriate for the reporting mechanism. The Disaster Recovery Officer will oversee compliance and monitoring, financial management, and oversight of the HUD line of credit, including management of timely expenditures. These activities will be conducted in coordination with the Department of Finance.

The Disaster Recovery Officer will serve as the lead point of contact for HUD related to monitoring and compliance and issue resolution. The CDBG-MIT Program Specialist will oversee daily operations of the CDBG-MIT program in collaboration with designated staff and divisions of the County departments implementing CDBG-MIT funded projects and activities, including construction and contract management, policy and procedure, reporting, including management of the DRGR system. A Communications Specialist will be responsible for public information and implementation of the Citizen Participation Plan.

8.4 Pre-Award Cost Reimbursement

The County anticipates eligible CDBG-MIT program costs prior to the execution of a grant agreement to include expenditures for personnel, Action Plan development, environmental review, and implementation of the Citizen Participation Plan. The County will seek reimbursement for these eligible expenditures following the execution of a grant agreement with HUD for CDBG-MIT grant funds.

8.5 Management of Funds

The County of Hawai‘i will ensure that the appropriate protocols are in place to manage the CDBG-MIT funds and to incorporate measures to prevent any fraud, waste, and/or abuse of government funds. The County will use its existing protocols and resources, supplemented by any potential consultants, to assist with the development of policies, procedures, and other program resources to effectively manage program funds.

8.6 Leverage of Funds

The County of Hawai‘i is committed to the strategic use of limited funds and resources for hazard mitigation efforts. As such, the County will leverage multiple sources of funding, where possible, to maximize mitigation actions. This includes prioritizing projects in which other Federal, State, and local funding sources can be leveraged to allow CDBG-MIT funding to pay only a portion of project costs.

8.7 Program Income

Any program income resulting from programs/projects derived from CDBG-MIT funds will be re-allocated to the purposes for which this plan has been developed. By doing so, the County will ensure that program income will aid in the continuing recovery process for the County and allow for the maximum benefits to be accomplished in the utilization of CDBG-MIT funds.

Generally, program income is gross income received by the County that is directly generated by a CDBG-MIT funded activity, with some exclusions. Any amounts received shall be returned to the County. All program revolving income, regardless of amount and resource, is considered program income, and all program income must be carefully tracked and returned to the grantee. The administration of program income will be guided by the following provisions:

- The County will retain five percent (5%) for administrative costs, the maximum allowable
- The County will record the amount withheld for administrative costs against the Administrative Costs activities in DRGR
- All program income amounts must be recorded and tracked against the activity which generated the income
- The County will record amounts in the appropriate Special Revenue Fund Accounts in the Program Income accounts
- CDBG-MIT amounts will be entered in DRGR, and offsets must occur outside of DRGR before the drawdown takes place. At the end of the CDBG-DR program year, all amounts generated by CDBG-MIT will be aggregated
- Amounts received will be used to offset drawdowns against the activity that generated the income. However, these offsets cannot be held in abeyance until they can be applied against another draw on the associated activity. Offsets must be taken against any claim for funds, and the associated entries must reflect this fact. CDBG-MIT amounts will be entered in DRGR
- Appropriate adjustments will be made to the Administrative Costs budgets as deemed appropriate

Program income includes:

- Proceeds from the disposition by sale or long-term lease of real property purchased or improved with CDBG-MIT funds
- Proceeds from the disposition of equipment purchased with CDBG-MIT funds
- Gross income from the use or rental of real or personal property acquired by the County with CDBG-MIT funds, less the costs incidental to the generation of the income
- Gross income from the use or rental of real property owned by the County that was constructed or improved with CDBG-MIT funds, less the costs incidental to the generation of the income of principal and interest on loans made using CDBG-MIT funds
- Proceeds from the sale of loans made with CDBG-MIT funds
- Proceeds from the sale of obligations secured by loans made with CDBG-MIT funds
- Interest earned on funds held in a revolving fund account
- Interest earned on program income pending disposition of the income
- Funds collected through special assessments made against properties owned and occupied by households not of low and moderate income, where the special assessments are used to recover all or part of the CDBG portion of a public improvement

- Gross income paid to the grantee from the ownership interest in a for-profit entity acquired in return for the provision of CDBG-MIT assistance

Program Income does not include:

- Interest earned on CDBG-MIT deposit accounts for advance payment drawdowns, which is miscellaneous income
- Income earned from the investment of initial proceeds of a grant advance from the U.S. Treasury; interest earned on loans or other forms of assistance with CDBG-MIT funds that are used for activities that are determined by HUD to be ineligible; and interest earned on the investment of amounts reimbursed to the program account prior to the use of the reimbursed funds for eligible activities
- Income generated by certain Section 108 activities (reference 24 CFR 570.500 (a)(4)(ii))
- Funds collected through special assessments to recover non-CDBG-DR outlays of public improvements

8.8 Action Plan Amendments

If the need arises, this Action Plan will be amended in accordance with the Federal Register and all related HUD requirements. The following modifications will constitute a substantial amendment to this Action Plan:

- A change in program benefit or eligibility criteria
- The allocation or re-allocation of 10% or more of the CDBG-MIT grant
- The addition or deletion of an activity

Prior to submitting a substantial amendment, the County will work with its HUD CPD representative to ensure the proposed change is consistent with the Federal Register and all other HUD requirements. The County will follow its Citizen Participation Plan in engaging with the public on this substantial amendment to the Action Plan. Once HUD approves this substantial amendment to the Action Plan associated changes to projects and budgets will be updated in DRGR and reflected in its accounting system. The approved amendment will be posted on the County's CDBG-MIT website. The County shall make those changes to its accounting system as well as DRGR in a timely manner.

For non-substantial amendments the Disaster Recovery Officer will review the proposed change(s) to the Action Plan to determine if the change constitutes a non-substantial amendment. If the change requires a non-substantial amendment, the grantee will submit the non-substantial Amendment to HUD. After HUD approval, the County posts the non-substantial amendment to the County's CDBG-MIT website. The County shall make those changes to its accounting system as well as DRGR in a timely manner. A statement of why the change is necessary shall be submitted with the request for a budget revision.

8.9 Timely Information on Application Status

Effective communication is one of the keys to success in delivering programs. This Action Plan only includes programs and projects that will be administered to the County and does not include any programs that would have an individual, household, or business program applicant. Should the County develop a CDBG-MIT program that provides direct funding or assistance to members of the public, the County will, at a minimum, engage in a two-tiered applicant communication strategy, with larger program-wide information being made available on the

County’s CDBG-MIT website and proactive case management to move applicants along within program processes, notifying applicants of status at each critical juncture.

The County of Hawai‘i believes that an effective and comprehensive communications strategy will better allow community access and create a culture of personal resilience among the individuals participating in potential CDBG-MIT funded projects. The County has been proactive in engaging the public in the development of this Action Plan, using its website as a clearinghouse of information for community stakeholders. The County intends to maintain this website as the central repository of information to connect members of the public to resources available from the CDBG-MIT programs.

The County will institute both a complaint and an appeals process to address applicant concerns and grievances. Complaints or grievances will be reviewed, and a response will be issued within 15 business days, as required by HUD in the Federal Register notice. Where a complaint or grievance cannot be resolved within 15 days, the aggrieved party will be notified, in writing, of the expected timeline or process for resolution. Applicants will be notified of the complaint process at application intake, and information about the complaint process will be posted to the County’s disaster recovery website.

Appeals of program decisions will be acknowledged within 15 days of receipt and resolved according to the appeals process that will be developed for each of the program activities the County chooses to undertake. Applicants will be notified, in writing, of their opportunity to appeal decisions and the process for appealing at the application stage of the process. They will be reminded of their right to appeal through details provided on all program status notifications. Information about the appeals process will also be posted to the County’s CDBG-MIT website.

8.10 Period of Performance

Federal Register Notice 86 FR 568, Section V. Duration of Funding, published January 6, 2021, requires each CDBG-MIT grantee to expend 50 percent of its CDBG–MIT grant for 2018 disasters on eligible activities within six years of HUD’s execution of the grant agreement and 100 percent of its CDBG–MIT grant for 2018 disasters within twelve years of HUD’s execution of the grant agreement. The County of Hawai‘i has developed these procedures to ensure the timely expenditure of funds.

The County of Hawai‘i has designated the Planning Department to have the responsibility to review expenditures and drawdown funds within HUD’s Disaster Recovery Grant Reporting (DRGR) system. Planning will be the agency approving expenditures from any of its own vendors and contractors as well as reviewing expenditures submitted by all program partners and sub-recipients. Planning will work collaboratively with the County’s Finance Department to ensure that all funds are expended and drawn down by the twelve-year deadline.

As part of the Action Plan process, Planning will work to develop expenditure projections and milestones for CDBG-MIT funds within the twelve-year period of performance. These projections and milestones will serve as a guide to monitor the spending on CDBG-MIT projects and to ensure timely expenditure of funds. The County uses a financial management system called FRESH for budgeting revenue, managing expenditures, carrying balances, and encumbrances against fund accounts. The County will also use DRGR for reporting of expenditures and processing drawdowns with HUD for the CDBG-MIT funds. A Drawdown Projection Report, with data from DRGR, will be used in tandem with the Action Plan projections to show the pace of drawdowns and alignment with the twelve-year drawdown deadline. The FRESH system of financial record will track expenditures by vendors and contractors managed by the Planning Department and departments implementing CDBG-MIT activities as well as expenditures

submitted by and program partners and sub-recipients, if applicable. This system will also track expenditure progress across the County's CDBG-MIT projects. Reports from this system will provide the insight into the expenditures currently being processed and tracked.

The Disaster Recovery Division, Internal Auditor and Finance Department will meet regularly to discuss expenditures and drawdown, at least on a quarterly basis. Planning will provide reporting regarding drawdown progress and provide reporting regarding expenditure progress. These meetings will be used to strategize around the twelve-year expenditure deadline. During these meetings both groups will identify projects or activities that may not meet the expenditure deadline. This group will provide recommendations regarding these activities that may be stalled. The County will review these recommendations as well as reassess any potential remaining unmet needs. The County will then begin the process to re-program funds to other activities.

8.11 Expenditure Reporting with DRGR

The Planning Department will use HUD's Disaster Recovery Grant Reporting (DRGR) system to draw down funds and report program income. These systems, though used for reporting critical program metrics to HUD, will be used as grant management tools by the Department as well.

The County has established clear and actual lines of responsibility and approval authority, including separation of duties. CDBG-MIT program finance is overseen by the Disaster Recovery Officer who leads the Recovery Division of the Planning Department. Within the County's established procedures for financial management and internal controls transactions are handled at the department-level then audited and approved by the Finance Department.

In addition to electronic systems, supporting original or source accounting documentation is maintained in compliance with the County's record-keeping policies. These policies comply with the record keeping requirements specified in 85 FR 4681.

The County understands that the DRGR system is HUD's official system of record to submit the detailed Action Plan for project setup, draw down funds, report program income, and submit Quarterly Performance Reports. The official system of record for County financial records and reporting is FRESH. County staff members attended HUD-hosted DRGR training in Kansas City, KS, on July 31 – August 1, 2019; and participated in virtual DRGR training in June 2021. County staff members from the Planning Department will be responsible for all DRGR project setup, data entry, quarterly reporting, and Action Plan amendments. Funding drawdowns, approvals and other financial activity will be managed by County staff members only.

8.12 Procedures to Determine Timely Expenditures

Federal Register Notice 86 FR 568, Section V. Duration of Funding, published January 6, 2021, requires each CDBG-MIT grantee to expend 50 percent of its CDBG–MIT grant for 2018 disasters on eligible activities within six years of HUD's execution of the grant agreement and 100 percent of its CDBG–MIT grant for 2018 disasters within twelve years of HUD's execution of the grant agreement. However, we understand that HUD will periodically review the County's progress in drawing down funding from its Line of Credit (LOC). The County will review in-house expenditures and beneficiary expenditures to ensure that funds are spent on eligible costs and in a timely manner. The County projects that 50% of its allocation of funds will be expended within six years and 100% will be expended within twelve years. The County will prepare a more specific and detailed projection once the program activities are defined. Project funds and schedules will be monitored by the County of Hawai'i Finance Department, the Planning Department, and ultimately audited through the County's independent audit function.

The County will use similar procedures to its current CDBG-DR processes to ensure consistency and continuity among program activities. Specifically, the County will:

1) Utilize the worksheet “CDBG – MIT Timely Expenditures Tracking.xlsx” to track actual expenditures versus projected expenditures. Each month the Accounting Supervisor will update actual expenditures with information generated from the County’s financial reporting system.
    a. The Finance and Compliance Supervisor will distribute the worksheet to the Disaster Recovery Officer, no later than the 15th of the following month.
2) A cumulative variance between actual and projected expenditures greater than 15% will trigger further action.
    a. The Disaster Recovery Officer will convene a meeting of the CDBG-MIT team within 15 days of receiving the worksheet. Specific agenda items of this meeting will include:
        i. Identify the cause of lagged expenditures.
        ii. An assessment of whether expenditures will get back on track within the next six months. If not:
            1. Identify potential solutions and consider specific activities to be modified or terminated.
            2. Consider reprograming of funds for stalled activities.
            3. Revise expenditure projections.

The County will hold all contractors and subrecipients accountable through the establishment of benchmarks and other critical milestones. Contractors and subrecipients will be required to provide the worksheet “CDBG – MIT Timely Expenditures Tracking.xlsx” to track actual expenditures versus projected expenditures Frequency of reporting will be established on a per project basis given the potential varied nature of eligible activities that the County may choose. It is expected that the County will require contractors and subrecipients to provide monthly County of Hawai‘i Grant Compliance Policies and Procedures for CDBG-MIT reports; however, due to the varying nature of each project, specific projects may be asked to provide those project updates more frequently.

The County expects to use the Recovery Division of the Planning Department to administer all CDBG-MIT programs with County departments implementing CDBG-MIT activities and may use contractor augmentation to execute implementation. When contracting with contractors or other program funding recipients, the County will establish certain benchmarks that must be achieved prior to the release of funding. As a part of its contractual obligations to the County, contractors will be required to present the County with a plan on how they will implement procedures to reach the determined benchmarks. Each contract with contractors will require that penalties be implemented for failure to reach benchmarks. In addition to ensuring that contractors are meeting project timelines, these benchmarks will allow the County to project expenditures for each individual project.

Per Federal Register Notice 84 FR 45838 published August 30, 2019, the County will submit a projection of expenditures and an outcomes plan to HUD with the Action Plan. Projections will be based on each quarter’s expected performance— beginning with the quarter funds are available to the grantee and continuing each quarter until all funds are expended. The projections will enable HUD, the public, and the grantee to track proposed versus actual performance. The projections will also be clearly and conspicuously displayed on the grantee’s website. We understand that HUD will use this information to track the County’s proposed versus actual performance. It will serve as a tool to measure overall performance, as well as project-specific performance. The

County will aggressively monitor its contractors, using benchmarks, milestones, and projections as a means to prevent bottlenecks in the process while also minimizing delays in expending funds for eligible project activities.

County of Hawai‘i has a variety of unmet needs related to hazard mitigation, and as such will undertake a variety of projects to meet those needs. The County understands that some projects/programs may take longer than others to implement and complete. In an effort to demonstrate consistent progress towards recovery, the County will direct attention toward those programs furthest along in development, with an eye toward eliminating internal regulatory barriers that limit its ability to move forward on projects that are critical to the County's recovery and long-term resilience efforts. These projects may take longer to plan and coordinate. The County will consider how it may phase longer term projects to demonstrate progress.

Using the project monitoring tools, the County will identify any project that appears to be stalled or which has not commenced in a timely manner. Corrective actions will be established to get the projects back on target. Corrective actions may include reassignment of work packages to other contractors or reprogramming of funds to other projects. Once the program activities are defined, specific parameters for project timelines and corrective measures will be detailed within the Action Plan.

The County will account and manage program income guided by the following provisions, which will also apply to subrecipients:

1) The County will retain five percent (5%) for administrative costs, the maximum allowable.
2) The County will record the amount withheld for administrative costs against the Administrative Costs activities in DRGR.
3) All subrecipient grant agreements will specify that program income is to be returned to the County.
4) Subrecipients must report amounts received monthly to the County.
5) All program income amounts must be recorded and tracked against the activity which generated the income.
6) The County will record amounts in the appropriate Special Revenue Fund Accounts in the Program Income accounts.
7) The County must enter the amounts reported by the subgrantee from Subrecipients and the amounts received by the subgrantee generated by activities directly managed by the subgrantee or subrecipient.
8) CDBG-MIT amounts will be entered in DRGR, and offsets must occur outside of DRGR before the drawdown takes place. At the end of the CDBG-MIT program year, all amounts generated by CDBG-MIT will be aggregated.
9) Amounts received will be used to offset drawdowns against the activity that generated the income. However, these offsets cannot be held in abeyance until they can be applied against another draw on the associated activity. Offsets must be taken against any claim for funds, and the associated entries must reflect this fact. CDBG-MIT amounts will be entered in DRGR.
10) Appropriate adjustments will be made to the Administrative Costs budgets as deemed appropriate.

The Disaster Recovery Division of the Planning Department will be responsible for the procedures described above. Contact information:

Douglas Nam Le, AICP
Disaster Recovery Officer
County of Hawai‘i Planning Department
101 Pauahi Street, Suite 3, Hilo, HI 96720
Email: douglas.le@hawaiicounty.gov
Telephone: (808) 961-8174
Fax: (808) 961-8742

8.13 Financial Controls

As a recipient of federal funds, County is subject to the Single Audit Act of 1984, as amended in 1996. The Single Audit Act, which standardizes requirements for auditing federal programs, requires review of all federal programs by an independent Certified Public Accountant (CPA) for compliance with program requirements and proper expenditure of funds. The Department of Finance coordinates the conduct of the single audit with an independent Certified Public Accountant (CPA) annually. The single audit report completed for each fiscal year is submitted to the Mayor and County departments and is made available to the public on the County's website.

Concurrently with the development of its Action Plan, the County submitted its most recent Single Audit produced in response to the most recent audit conducted in accordance with 2 CFR Part 200, Subpart F, and its most recent financial statement prepared in accordance with 2 CFR 200.510. Neither the Single Audit nor financial statement indicated that County of Hawai‘i has material weaknesses, significant deficiencies, or questioned costs.

The County of Hawai‘i has completed and submitted the P.L. 116-20 and 115-254 Financial Management and Grant Compliance Certification to HUD on August 8, 2021. This was completed by the Disaster Recovery Division of the Planning Department, which will implement CDBG-MIT grant award, with the Department of Finance. The County affirms that it has the requisite financial controls in place to account for the $6,862,000 of CDBG-MIT funding in a manner that is consistent with all federal and local accounting requirements.

The County of Hawai'i has been a CDBG entitlement community since 1974. This has required the County to manage and maintain financial processes, policies, and procedures for the CDBG program for more than 40 years. In addition, the County has been the recipient of a variety of programmatic funds from HUD, including but not limited to HOME funds, Neighborhood Stabilization Program (NSP) 1 & 3 funds, Tenant Based Rental Assistance (TBRA), and Housing Preservation Grant Program (HPG) funds. The County's 2019 allocation of HUD funds includes approximately $2.5 million in CDBG funds, $2.8 million in HOME funds, and $4.4 million in Housing Trust Funds (HTF).

The CDBG entitlement program, while recognizably different from the CDBG-MIT program, is structured similarly with many of the same regulatory requirements. This provides the County with a considerable amount of familiarity with much of the regulatory requirements and processes of the CDBG-MIT program. The County is keenly aware of the differences between the entitlement and hazard mitigation programs and will make the necessary accommodations to comply with Public Law 114-113.

The County has standards to ensure that accounting records contain the appropriate information on the CDBG-MIT grant award, authorizations, obligations, unobligated balances, assets, liabilities, expenditures, program income, and interest as defined by the relevant Federal Register Notices and the federal Uniform Administrative Requirements 24 CFR Part 570, as applicable. The County intends to utilize the existing centralized accounting system, which has managed the County's entitlement program, to support the grants management function of the CDBG-MIT program. The County utilizes an accounting system called Fiscal and Resource Enterprise Software for the County (FRESH). This system is managed by the County's Department of Finance. FRESH is an enterprise-wide software application that is used for Budgeting, Purchasing and Disbursements, General Ledger Accounting, Billing and Receivables, Inventory, and Human Resources, and Payroll, among other non-financial management functions. It is an application that allows the purchasing and budgeting process to be distributed to department users and allows for greater management control of expenditures through real-time financial reporting and online approvals. Access levels are customized according to staff function and department.

The County's Planning Department will use HUD's Disaster Recovery Grant Reporting (DRGR) system to draw down funds and report program income. These systems, though used for reporting critical program metrics to HUD, will be used as grant management tools by the Department as well.

In addition to electronic systems, supporting original or source accounting documentation is maintained in compliance with the County's recordkeeping policies. These policies comply with the recordkeeping requirements specified in the Federal Register Notice(s).

The County understands that the DRGR system is HUD's official system of record to submit the detailed Action Plan for project setup, draw down funds, report program income, and submit Quarterly Performance Reports (QPR). The official system of record for County financial records and reporting is FRESH. County staff members attended HUD-hosted training on management of the DRGR system in Atlanta, GA, from July 10-11, 2019. County staff will be responsible for all DRGR project setup, data entry, quarterly reporting, and Action Plan amendments. Funding drawdowns, approvals, and other financial activity will be managed by County staff members only.

The County has established clear and actual lines of responsibility and approval authority, including separation of duties. The County's CDBG-MIT grant award will be managed by the Disaster Recovery Division of the Planning Department. In this role the Division will have responsibility over grant compliance and day-to-day financial management which are governed by CDBG-MIT program policies and procedures that complement the established financial policies and procedures of the County. The County of Hawai‘i Department of Finance is responsible for maintaining the fiscal integrity of the County's financial records. This office reports results of the County's operations and changes in its financial position to various interested parties, such as state and federal grantors, regulatory agencies, and concerned taxpayers. The Department of Finance, which is overseen by the Director of Finance, will manage controls on the financial management functions of the CDBG-MIT program. Additionally, the Department of Finance will coordinate budgeting, single audit requirements and risk management for the CDBG-MIT grant award with the Disaster Recovery Division. An independent Internal Auditor for the CDBG-DR and CDBG-MIT grant awards, which will report to the Mayor, will lead internal monitoring and compliance for the CDBG-DR program.

Accountability and financial transparency are not only required by the Federal Government where federal funds are used but are hallmarks of a well-run government. In support of transparent financial reporting, the County of Hawai‘i posts unaudited Budget Reports and Accounts Payable Check Register online with the Annual Comprehensive Annual Financial Report (CAFR) and Approved Budget.

The County of Hawai'i Department of Finance prepares the CAFR in conformity with Generally Accepted Accounting Principles (GAAP) as applied to governmental units. Additionally, the County's reporting entity applies all relevant Governmental Accounting Standards Board (GASB) pronouncements. Proprietary funds, governmental funds, and business-type activities apply Financial Accounting Standards Board (FASB) pronouncements and Accounting Principles Board (APB) opinions issued on or before November 30, 1989, unless those pronouncements conflict with or contradict GASB pronouncements, in which case GASB prevails.

8.14 Necessary and Reasonable Costs

In the implementation of MIT program activities, the County will verify costs are necessary and reasonable. This helps ensure that funds are efficiently and effectively utilized. The determination of necessary and reasonable costs generally apply to any project or program receiving funding, including grant awards to individual property owners or businesses, as well as administrative and planning funds. The County will utilize the cost principles described in 2 CFR Part 225 (Office of Management and Budget (OMB) Circular A-87) to determine necessity and reasonableness. According to 2 CFR Part 225, "A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person under the circumstances prevailing at the time the decision was made." The County will follow these principles and fund only project costs that are deemed necessary and reasonable.

8.15 Prevention of Duplication of Benefits

Federal law prohibits any person, business concern, or other entity from receiving federal funds for any part of such loss as to which he/she has already received financial assistance under any other program, private insurance, charitable assistance, or any other source. Such duplicative funding is called Duplication of Benefit (DOB). This prohibition laid out in the Stafford Act, as amended, is a significant added layer of regulation not found within the County's entitlement CDBG program. This is a new regulation with which the County will comply for its CDBG-MIT grant.

Per 42 U.S.C. 5155(a) a duplication of benefits occurs when a beneficiary receives assistance from multiple sources for a cumulative amount that exceeds the total need for a recovery purpose. The amount of the duplication is the amount of assistance provided more than need.

Pursuant to the Stafford Act, the County will establish and follow policies and procedures to uphold the safeguard against DOB within its program guidelines for each eligible activity. Understanding that prevention of DOB is especially critical in the context of housing programs, the County has established a framework for identifying potentially duplicative sources of funds and reducing documented duplications from potential project awards prior to any award actually being made.

During the application period and eligibility determination, a case manager will document sources of funds received or approved from private insurance, SBA, FEMA, and / or volunteer organizations (including in-kind assistance) used for the same purpose that the CDBG-MIT award will be intended. Once sources have been identified and after determining an applicant's remaining unmet recovery need, any sources of funds previously received for the same recovery need will be deducted except where those funds were spent on activities allowable per Stafford Act and HUD guidance, sometimes known or referred to as Allowable Activities. Allowable Activities will not result in a reduction of the final award. Additionally, per the Federal Register Notice 84 FR 28836 regarding DOB, assistance from FEMA (e.g. rental assistance, home repairs, home replacement), SBA (e.g. loans for repairs, reconstruction or relocation), private insurance (e.g. loss of structure and contents), and private sources (e.g.

grants for home repairs) will not constitute a DOB for Voluntary Housing Program and Housing Relocation Services because these sources of assistance are for a “different purpose” than the expressed purpose and use of these CDBG-DR eligible projects.

Also, per Federal Register Notice 84 FR 28836 regarding DOB, the County will ensure that program costs and grant awards are necessary and reasonable. The County will assess necessity and reasonableness based on the cost principles described at 2 CFR 200.404.

The County understands that applicant benefits from FEMA, SBA, and insurance can be a moving target with additional funds received much later than initial payouts or due to appeals and litigation. Further, all funding sources may not be known at the time of application. Therefore, the County will continuously monitor program applicants and perform its due diligence to verify benefits that may have been secured from FEMA, SBA, private insurers, charitable contributions, and any other available financial assistance after the date of application.

Late or additional benefits from other sources can also result in a change to the outcome of the award amount for which an applicant is ultimately eligible. Applicant awards may have to be adjusted as new sources are identified to prevent DOB and minimize recapture.

The County has already secured FEMA and SBA data related to the 2018 Kilauea eruption (DR-4366-HI) that it will use as a part of its DOB analysis. Further, the County has already established relationships with volunteer organizations that have provided assistance to disaster-affected citizens. The County will work to leverage these relationships and applicant release forms to obtain additional DOB data from philanthropic sources. All data used to evaluate DOB will be the most current available to the County.

As a part of its case management process, the County will require applicants to execute an Application for Assistance that will include an Income Certification, Insurance Certification and Release, Release of Information, and Subrogation Agreement, which will become part of each applicant’s record. These documents will hold each applicant accountable for the accuracy of information provided and also give the County recourse if it is determined at a later time that applicants received other financial assistance not identified at the time of application.

If a duplication of benefit arises within the term of the applicant benefit delivery and compliance/monitoring period, the County of Hawai‘i will adhere to the guidelines set forth in OMB Circular A-87 and the Stafford Act (Chapter 37 of Title 31) for recapture of funds. Beneficiaries of CDBG-DR program funds will be informed of fund recapture in an agreement executed with the County if it is determined that a DOB exists. The CDBG-MIT Program Specialist will bear responsibility for ensuring compliance with DOB regulatory requirements at the eligibility stage, and for monitoring latent additional funding sources.

To administer these policies and procedures to prevent the duplication of benefits the County will develop programmatic forms and templates such as:

- DOB Certification Form
- DOB Consent to Release Form
- Verification of Receipts Process
- SBA Hardship Forms
- DOB Worksheet Final Approval (an applicant worksheet will also be available)

8.16 Procurement

In addition to local and state law, procurement for CDBG-MIT programs is governed by federal requirements. The County of Hawai‘i Purchasing Manual developed by the Department of Finance and managed by the Purchasing Officer is the guiding document governing procurement activities for the County. A copy of the Purchasing Manual is kept in the Planning Department. All manuals are updated periodically when material becomes available.

In addition to compliance with the County of Hawai‘i Purchasing Manual, all Planning Department procurement activities paid for using CDBG-MIT funds are to be performed in accordance with the appropriate federal and state statutes, rules, and regulations, whichever is stricter. Copies of the federal statutes, rules, and regulations governing the use of federal funds shall be kept in the Planning Department.

The County of Hawai‘i is currently following its established Purchasing Manual and has developed supplemental procedures related to procurement for the expenditure of CDBG-DR and CDBG-MIT funds to ensure that these standards are equally or more restrictive as the federal requirements. However, where the local procurement standards are less restrictive, the more stringent federal requirements will be followed for CDBG-DR and CDBG-MIT programs. The procurement manuals utilized by the County for CDBG-DR and CDBG-MIT were developed in consultation with the County's CDBG Entitlement Program through the Office of Housing and Community Development. These standards have been consistently approved by HUD as part of HUD's past monitoring activities with the County. The County's Purchasing Officer within the Department of Finance has reviewed the procurement policies and procedures to ensure conformity applicable CDBG-DR and CDBG-MIT regulations. The County's Corporation Counsel has provided the opinion that the County's procurement policies and procedures for CDBG-DR and CDBG-MIT are proficient and consistent with the specific applicable procurement standards identified in applicable the Federal regulations.

Per Federal Register Notice 5928-N-01, Part III, Management and Oversight of Funds, Section 2(a) Procurement, the County provides the following chart cross-referencing the State of Hawai‘i Revised Statutes (HRS) and Administrative Rules (HRA), along with the County Purchasing Manual which provide sources for policies and procedures for the statutory requirements in 2 CFR 200.318 – 200.326. The County's procurement practices meet the federal requirements in 2 CFR 200.318-200.26 ensuring fair and open competition.

Table 8.3. Procurement & Contracting Procedures

2 CFR Statutory Citation	Statutory Requirements	Sources for Policies and Procedures	County of Hawai‘i Responsible Department
2 CFR 200.318(a)	Documented procurement standards	• County of Hawai‘i Purchasing Manual • HRS §103D • HAR §3-120 through §3-132 • Rules and Regulations of the Director of Finance, Rule 4	Department of Finance, Purchasing Division
2 CFR 200.318(b)	Contractor oversight	• County of Hawai‘i Purchasing Manual, § 18.0 Vendor Performance, page 32	Planning Department, Disaster Recovery Division

2 CFR Statutory Citation	Statutory Requirements	Sources for Policies and Procedures	County of Hawai‘i Responsible Department
2 CFR 200.318(c)	Conflict of interest provisions	• County of Hawai‘i Purchasing Manual, § 4.0 Ethical Procurement, page 6 • HRS §103D-101 Requirements of Ethical Public Procurement • County Code Chapter 2, Article 15, §2-84 • HAR 3-131-1.02	Department of Finance, Purchasing Division
2 CFR 200.318(d)	Avoidance of unnecessary acquisition	• Rules and Regulations of the Director of Finance, Rule 4.2 b), page 13	Department of Finance, Purchasing Division
2 CFR 200.318(e)	Promotion of economy (intergovernmental agreements / inter-entity agreements)	• County of Hawai‘i Purchasing Manual, § 7.0 Price Term Agreements, page 15 • County of Hawai‘i Purchasing Manual, § 8.0 Cooperative Purchasing / Vendor List Contracts, page 15	Department of Finance, Purchasing Division
2 CFR 200.318(f)	Excess and surplus property	• HAR §3-130-9 Excess State Property	Department of Finance, Purchasing Division
2 CFR 200.318(g)	Value engineering clauses	• HRS §103D-411 Value Engineering Clauses • HAR §3-132 Value Engineering Incentives in Construction Contracts	Department of Finance, Purchasing Division
2 CFR 200.318(h)	Responsible Contractors	• County of Hawai‘i Purchasing Manual, § 6.6.2, page 13 and pages 51 - 58	Department of Finance, Purchasing Division
2 CFR 200.318(i)	History of Procurement	• County of Hawai’i Paper & Electronic Records Retention Schedule • HRS §103D-320 Retention of Procurement Records	Planning Department, Disaster Recovery Division
2 CFR 200.318(j)	Use of Time and Material Contracts	• HAR §3-122-140 Time and Materials Contract	Department of Finance, Purchasing Division
2 CFR 200.318(k)	Settlement of contractual and administrative issues	• HRS §103D-703 Authority to Resolve Contract and Breach of Contract Controversies	Department of Finance, Purchasing Division
2 CFR 200.319	Competition	• HRS §103D- 405 Maximum Practicable Competition	Department of Finance, Purchasing Division

2 CFR Statutory Citation	Statutory Requirements	Sources for Policies and Procedures	County of Hawai'i Responsible Department
2 CFR 200.320	Types of Procurement	• County of Hawai'i Purchasing Manual, § 6.0 Purchasing Methods, pages 7 - 15	Department of Finance, Purchasing Division
2 CFR 200.321	MBE/WBE Surplus provisions	• County of Hawai'i Grant Compliance Policies and Procedures for CDBG-DR	Department of Finance, Purchasing Division
2 CFR 200.322	Procurement of recovered materials	• HRS §103D-1005 Recycled Products	Department of Finance, Purchasing Division
2 CFR 200.323	Contract cost and price	• HRS §103D-312 Cost or Pricing Data	Department of Finance, Purchasing Division
2 CFR 200.324	Federal Pass through	• HRS §103D-404 Relationship with Using Agencies	Department of Finance, Purchasing Division
2 CFR 200.325	Bonding	• HRS §103D-324 Contract Performance and Payment Bonds	Department of Finance, Purchasing Division
2 CFR 200.326	Federal contract provisions	• Grant Compliance Policies and Procedures for CDBG-DR	Department of Finance, Purchasing Division

8.17 Documentation and Monitoring

The County of Hawai'i understands its fiduciary duty to ensure proper disbursement of grant funds for eligible activities. The County will remain in compliance with applicable CDBG-MIT rules and regulations as well as other applicable federal regulations, such as Office of Management and Budget Circulars A-87, A-133, 2 CFR 200.318 - 326 and 24 CFR Part 85 (Uniform Administrative Requirements) in the management of the CDBG-MIT funds. The County will institute measures to detect, investigate, and mitigate fraud, abuse, and mismanagement related to accounting, procurement, and accountability. The County will adhere to the conflict-of-interest provisions referenced at 24 CFR 570.

HUD will conduct monitoring for compliance by the County against federal requirements and programmatic policies and procedures throughout the life of the CDBG-MIT grant award. The County, thorough its internal monitoring procedures, will also be responsible for maintaining compliance to federal requirements and programmatic policies associated with the CDBG-MIT grant award. These activities will ensure that the County will:

- Fund only expenditures that are eligible CDBG activities, address hazard mitigation-related needs, and meet at least one of the CDBG national objectives.
- Document that all program activities meet a national objective, address hazard mitigation-related needs, and are eligible activities.
- Document all program costs and maintain supporting documentation for all administration costs incurred and activities undertaken.
- Develop a monitoring policy that will outline the activities that will be monitored and the compliance parameters for each activity, including frequency of the monitoring activities. The County envisions that

it will monitor project activities no less than quarterly to ensure compliance and timely expenditure of funds. The County anticipates that monitoring activities will include project file review as well as on-site visits to projects. The County will utilize resources, including written monitoring and technical assistance guidelines, checklists, and policies and procedures that will be developed specifically for the CDBG-MIT program activities selected for implementation using HUD's Hazard Mitigation Monitoring Checklist as a template for their creation.

- Build monitoring and compliance requirements into all contracts executed with vendors, professional services, and construction contractors. Vendors will be required to submit project performance reports, financial status reports, and documented requests for reimbursement/invoicing for the duration of contract periods.
- Provide a quality assurance (QA) and quality control (QC) functions for internal checks and balances, including random sample file audits as a self-check. This will include source documentation file audits conducted monthly by CDBG-MIT program staff as a first-level internal check.
- Use the HUD-provided DRGR contracts management system and upload all quarterly performance reports (QPR) to that system. The County will develop QPRs that will be submitted to HUD no later than 30 days following the end of each quarter after grant award and continuing until all funds have been expended and all expenditures have been reported. Each quarterly report will include information about the uses of funds during the applicable quarter, including but not limited to the project name, activity, location, and national objective; funds budgeted obligated, drawn down, and expended; the funding source and total amount of any non-CDBG-MIT funds to be expended on each activity; beginning and completion dates of activities; achieved performance outcomes; and the race and ethnic status of persons assisted under direct-benefit activities, if applicable. The County will also post the submitted Quarterly Performance Reports to its official website.
- Enter its Action Plan for Hazard Mitigation, including performance measures, into HUD's DRGR system. As more detailed information about uses of funds is identified by the County, it will enter such detail into DRGR.
- Develop and implement corrective actions if any weaknesses are identified during monitoring activities.

The County of Hawai‘i has a County Auditor as required by our Charter, Section 3-18. The County Auditor shall conduct or cause to be conducted the annual financial audit for the county as required in Article X, Financial Procedures, Section 10- 13, Post-audit. In addition, the County Auditor should conduct performance and/or financial audits of the funds, programs, services, and operations of any county agency, executive agency or program based in their annual risk-based audit plan.

The Department of Finance employs an Internal Control Manager. This position is responsible for assessing risk and reviewing internal controls countywide. Under the direct supervision of the Finance Director, this position plans, coordinates, and supervises the conduct of audits and technical studies in the review, analysis, development, installation and establishment of accounting and internal control systems and procedures for County-wide fiscal operations.

8.18 Personally Identifiable Information

In the normal course of grant administration, the Planning Department may receive personally identifiable information (PII), such as names, addresses, income verification documents, disability status, employment status, etc., from applicants and/or beneficiaries. CDBG and CDBG-MIT activities most likely to result in the Planning Department's receipt of PII include housing assistance, small business assistance, and public services.

The Planning Department will take the following steps to protect PII:

- Maintain hard copies of PII records in locked filing cabinets.
- Password protect electronic folders and/or files containing PII.

Filing cabinet keys and electronic passwords will be available only to authorized County staff. The Planning Department will release records containing PII after verification to the following entities:

- Federal and state auditors.
- Other federal or state agencies for duplication of benefits analyses.

If records containing PII are subject to the Uniform Information Practices Act, (HRS Chapter 92F), such records shall only be released in accordance with state and federal law.

Hawai‘i Revised Statue 487N defines a security breach as an incident of unauthorized access to and acquisition of unencrypted or unredacted records or data containing personal information where illegal use of the personal information has occurred, or is reasonably likely to occur and that creates a risk of harm to a person. Any incident of unauthorized access to and acquisition of encrypted records or data containing personal information along with the confidential process or key constitutes a security breach. Good faith acquisition of personal information by an employee or agent of the business for a legitimate purpose is not a security breach; provided that the personal information is not used for a purpose other than a lawful purpose of the business and is not subject to further unauthorized disclosure.

The County of Hawai’i shall provide notice to the affected person that there has been a security breach following discovery or notification of the breach. The disclosure notification shall be made without unreasonable delay, consistent with the legitimate needs of law enforcement, and consistent with any measures necessary to determine sufficient contact information, determine the scope of the breach, and restore the reasonable integrity, security, and confidentiality of the data system. The County of Hawai‘i which maintains or possesses records or data containing personal information of residents of Hawaii shall notify the owner or licensee of the information of any security breach immediately following discovery of the breach, consistent with the legitimate needs of law enforcement.

In the event of a security breach of personal information, the County of Hawai‘i will provide notice to the affected parties in coordination with law enforcement activities. The notice shall include a description of the following:

- The incident in general terms;
- Type of personal information that was subject to the unauthorized access;
- The general acts of the County to protect the personal information from further unauthorized access;
- Telephone number that the person may call for further information and assistance; and
- Advice that directs the person to remain vigilant by reviewing account statements and monitoring free credit reports.

Notice to affected persons may be provided by one of the following methods:

- Written notice to the last available address the business or government agency has on record;
- Electronic mail notice, for those persons for whom a business or government agency has a valid electronic mail address and who have agreed to receive communications electronically if the notice provided is consistent with the provisions regarding electronic records and signatures for notices legally required to be in writing set forth in 15 U.S.C. Section 7001; or
- telephonic notice, provided that contact is made directly with the affected persons.

All PII collected shall be maintained, to the extent applicable, in compliance with the Privacy Act (5 U.S.C. 552a) and all other federal, state, and local laws.

8.19 Conflict of Interest

The County will adhere to the conflict-of-interest provisions reference at 24 CFR 570.611. Further, the County has adopted a high standard within its Code Ethics that is consistent with 24 CFR 570.611. These provisions can be found within County of Hawai‘i Code, Article 15. Code of Ethics, Section 2-84. Conflict of Interests.

8.20 Anti-Fraud, Waste, and Abuse

The County of Hawai‘i will ensure that the appropriate protocols are in place to manage the CDBG-MIT funds and to incorporate measures to prevent any fraud, waste, and/or abuse of government funds. The County will use its existing protocols and resources to assist with the development of policies, procedures, and other program resources to effectively manage program funds.

A variety of measures will be taken by the County to identify and address fraud, waste, and abuse within the CDBG-MIT program. Some of these measures are described in the following sections with remaining measures being addressed in the subsequent policies and procedures which will be established for the CDBG-MIT program. Within the County’s *CDBG-MIT Grant Compliance Policies and Procedures Manual* the County addresses specific fraud, waste and/or abuse issues including timesheet recordkeeping, travel, purchasing of property and equipment, and accounting policies.

Any discovered, suspected, or reported fraud, waste, and abuse within the CDBG-MIT programs will be documented and reviewed. The disposition of the incident will be documented in a written decision. Any corrective or disciplinary actions will be carried out in accordance with the County of Hawai‘i law and County personnel rules and regulations. Suspected fraud requires further investigation. When the suspected fraud involves a County employee an internal investigation will first be conducted per established human resources policies and procedures and as required by the collective bargaining agreements. Verified fraud by County employees will then be referred to local law enforcement agencies. When the suspected fraud involves an individual or company outside of the County government investigations will be led by local law enforcement agencies. The County will forward any cases of fraud, whether suspected or verified, to the HUD Office of the Inspector General (OIG) at 1-800-347-3735 or hotline@hudoig.gov.

The County of Hawai‘i understands its fiduciary duty to ensure proper disbursement of grant funds for eligible activities. The County will remain in compliance with applicable CDBG-MIT rules and regulations, as well as other applicable federal regulations such as Office of Management and Budget Circulars A-87, A-133, 2 CFR 200.318 - 326 and 24 CFR Part 85 (Uniform Administrative Requirements) in the management of the CDBG-MIT funds.

Specific procedures for verification of the accuracy of information provided by applicants will be developed once the individual programs are determined and designed. Generally, the County's oversight and monitoring shall include procedures to ensure the veracity of the information being provided by applicants. The County's existing monitoring staff will test program staff's adherence to the verification procedures by testing applicant files using judgmental sampling techniques and possibly utilize analytics software designed to identify anomalies and irregularities. Further, the County shall consider embedding quality assurance monitors into the intake process who will be charged with ensuring adherence to prescribed applicant verification procedures.

The primary purpose of the County's monitoring system is to ensure that all program activities comply with applicable federal regulations and are effectively meeting their stated goals. The monitoring will address program compliance with contract provisions, including but not limited to environmental reviews, procurement, fair housing, Section 3, Davis-Bacon Act, and other labor standard provisions, URA, equal opportunity requirements, OMB Circular A-87, program income, and other CDBG financial requirements. Additionally, the County's monitoring system will be put in place to:

- Ensure that only expenditures that are eligible CDBG activities, meet the HUD definition of hazard mitigation, and meet at least one of the CDBG national objectives are funded.
- Ensure that documentation is produced to substantiate that all program activities meet a national objective, meet the HUD definition of hazard mitigation, and are eligible activities.
- Ensure that all program costs, administrative costs, and activities undertaken are documented.

CDBG programs and activities will be monitored quarterly. The County will perform a risk analysis to determine if an activity warrants more frequent monitoring. All programs will be monitored at least once on-site during the life of the activity. Monitoring activities will include project and applicant file review, and/or on-site visits to projects. The County will utilize resources including written monitoring and technical assistance guidelines, checklists, and policies and procedures that will be developed specifically for the CDBG-MIT program activities selected for implementation, using existing CDBG resources and HUD's Monitoring Checklist as a template for their creation. The results of monitoring activities will be reported to the Planning Director, Finance Director and Disaster Recovery Officer.

Additional steps the County will take to detect fraud, waste, or abuse are:

- Build monitoring and compliance requirements into all contracts executed with vendors, professional services, and construction contractors. Vendors will be required to submit project performance reports, financial status reports, and documented requests for reimbursement/invoicing for the duration of contract periods.
- Provide a quality assurance (QA) and quality control (QC) function for internal checks-and-balances, including random sample file audits as a self-check. This will include source documentation file audits conducted monthly by Department of Community Development staff, as a first-level internal check.
- Use the HUD-provided DRGR contracts management system and upload all quarterly performance reports (QPR) to that system. The County will develop QPRs that will be submitted to HUD no later than 30 days following the end of each quarter after grant award and continuing until all funds have been expended and all expenditures have been reported. Each quarterly report will include information about the uses of funds during the applicable quarter including (but not limited to) the project name, activity, location, and national objective; funds budgeted, obligated, drawn down, and expended; the funding source and total amount of any non-CDBG Mitigation funds to be expended on each activity; beginning and completion dates of activities; achieved performance outcomes; and the race and ethnic status of persons assisted

under direct-benefit activities. The County will also post the submitted quarterly reports to its official website.
- Enter its Action Plan for Mitigation, including performance measures, into HUD's DRGR system. As more detailed information about uses of funds is identified by the County, it will enter such detail into DRGR.
- Develop and implement corrective actions if any weaknesses are identified during monitoring activities.
- Key members of the County's CDBG-MIT team and all contractors and subrecipients will attend fraud related training provided by HUD OIG within six months of grant award.

The County understands that the cornerstone in preventing fraud is the existence of a culture that fosters integrity and ethical conduct. To that end, the County is establishing formal fraud and whistleblower policies to demonstrate that the detection and deterrence of fraud, waste or abuse is endorsed and supported throughout all levels of County management.

Internal Auditor Function

The County of Hawai‘i Internal Auditor will be the Internal Auditor for the County's CDBG-MIT program. The Internal Auditor will ensure compliance with CDBG-MIT rules and regulations as prescribed under Public Laws 116-20 and 115-254, and prevent occurrences of fraud, waste, and abuse of these federal funds. For CDBG-MIT funds the function of the Internal Auditor will be enhanced by including the monitoring of CDBG-MIT programs and activities in at least one (1) of the quarterly monitoring activities. Additionally, the Internal Auditor will have the responsibility of financial and programmatic monitoring of County departments expending CDBG-MIT funds and any contractors or subrecipients receiving these funds. The Internal Auditor will test for compliance with financial standards and procedures including procurement practices and cost reasonableness investigations for all operating costs and grant-funded activities. All program expenditures will be evaluated to ensure they are necessary and reasonable, allocable, and made in accordance with Generally Accepted Government Auditing Standards (GAGAS). The County's comprehensive website will include links to report fraud, waste, or abuse to the Internal Auditor and the HUD OIG.

Complaints and tips can be submitted to the Office of the County Auditor through the following:

- To Report Fraud and Waste: (808) 480-8213
- To Report Abuse: (808) 480-8279
- To Access the Complaints Directory: https://www.hawaiicounty.gov/departments/office-of-the-county-auditor/whistleblower

Monitoring of Subrecipients, Contractors and Other Program Participants

In the administration of CDBG-MIT funds the County, through the Planning Department and Finance Department, will enhance its capability to monitor County departments expending CDBG-MIT funds and contractors receiving CDBG-MIT funds. These monitoring activities will occur at a minimum once a year for each CDBG-MIT program and will complement ongoing monitoring of CDBG-MIT programs by the County's Internal Auditor and HUD. Enhanced monitoring procedures with County departments and contractors will include on-site field visits, regular communication on program performance, training on understanding and applying rules, regulations and requirements associated with CDBG-MIT funds, and technical assistance on record-keeping systems. The County will utilize a monitoring checklist for the CDBG-MIT programs which include activity summaries, status updates, documenting applicable regulations and requirements, challenge identified, and corrective actions.

The County does not anticipate a role of subrecipients in the delivery of its CDBG-MIT funded programs and activities. Should subrecipients be engaged with CDBG-MIT grant funds, the County will establish criteria to evaluate the capacity of potential subrecipients and these enhanced monitoring procedures for contractors and other program participants described here will apply to these subrecipients.

Conflict of Interest Policy

The County will adhere to the conflict of interest provisions reference at 24 CFR 570.611. Further, the County has adopted a high standard within its Code Ethics that is consistent with 24 CFR 570.611. These provisions can be found within County of Hawai‘i Code, Article 15. Code of Ethics, Section 2-84. Conflict of Interests. Any identified conflicts of interest related to the expenditure of CDBG-MIT funds and associated with County employees, program participants, contractors and subrecipients will be reported to the Planning Director and Corporation Counsel within 3 business days to review and processing. All discretionary decisions related to the reported conflicts of interest shall be held and involvement of any of the identified parties will cease until such time that the Planning Director and Corporation Counsel can determine whether a conflict of interest exists, and the proper actions required to address the conflict.

8.21 Grievance Policy

The County will institute a Grievance policy for filing general concerns or complaints regarding the County CDBG-MIT program. Sufficient supportive documentation concerning the Grievance will need to be identified and submitted for staff consideration. Grievances will be reviewed, and a response will be issued within 15 business days, as required by HUD in the Federal Register notice. Where a Grievance cannot be resolved within 15 days, the aggrieved party will be notified, in writing, of the expected timeline or process for resolution.

APPENDICES

- Appendix A: Acronyms
- Appendix B: Hazard Descriptions
- Appendix C: Sources of Data Used in HAZUS Modeling
- Appendix D: CDBG-MIT Certifications
- Appendix E: Public Comments and Responses
- Appendix F: Timely Expenditure Schedules

APPENDIX A: ACRONYMS

ACRONYM	NAME
ACS	American Community Survey (Census)
ADA	Americans with Disabilities Act
APB	Accounting Principles Board
CAFR	Comprehensive Annual Financial Report
CDBG	Community Development Block Grant
CFR	Code of Federal Regulations
CI	Critical Information
CPA	Certified Public Accountant
CPP	Citizen Participation Plan
CZM	State Coastal Zone Management Program
DHS	U.S. Department of Homeland Security
DLNR	Hawai‘i State Department of Land and Natural Resources
DOB	Duplication of Benefit
DOFAW	Hawai‘i State Division of Forestry and Wildlife
DR	Disaster Recovery
DRGR	HUD’s Disaster Recovery Grant Reporting System
EOC	Emergency Operations Center
FASB	Financial Accounting Standards Board
FEMA	Federal Emergency Management Agency
FR	Federal Register
FRESH	Fiscal and Resource Enterprise Software (County’s Financial Management System)
GAAP	Generally Accepted Accounting Principles
GASB	Governmental Accounting Standards Board
GIS	Geographic Information System
HAR	Hawai‘i Administrative Rules
HI-EMA	Hawai‘i Emergency Management Agency
HMGP	FEMA Hazard Mitigation Grant Program
HOME	HUD’s Home Investment Partnerships Program
HPG	Housing Preservation Grant Program
HFD	Hawai‘i Fire Department
HRS	Hawai‘i Revised Statues
HUD	U.S. Department of Housing and Urban Development
LEP	Limited English Proficiency
LMI	Low to Moderate Income
MCP	Mobile Command Post
MHMP	Multi-Hazard Mitigation Plan
MID	Most Impacted and Distressed
MIT	Mitigation (Hazard Mitigation)
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NICC	National Interagency Coordination Center
NSP	Neighborhood Stabilization Program

ACRONYM	NAME
OIG	HUD's Office of the Inspector General
OMB	Office of Management and Budget
PA	FEMA Public Assistance Program
PGV	Puna Geothermal Venture
PTA	Pōhakuloa Training Area
QA	Quality Assurance
QC	Quality Control
QPR	Quarterly Performance Report
SBA	Small Business Administration
SPS	Sewer Pump Station
TBRA	Tenant Based Rental Assistance
TMK	Tax Map Key
URA	Uniform Relocation Act
USACE	U.S. Army Corps of Engineers
WWTP	Wastewater Treatment Plant

APPENDIX B: HAZARD DESCRIPTIONS

The following are descriptions of the significant natural hazards assessed in the Multi-Hazard Mitigation Plan:

Climate Change

Climate, consisting of patterns of temperature, precipitation, humidity, wind and seasons, plays a fundamental role in shaping natural ecosystems and the human economies and cultures that depend on them. "Climate change" refers to changes over a long period of time.

Climate change will affect the people, property, economy and ecosystems of Hawai'i County in a variety of ways. Consequences of climate change include increased flood vulnerability and increased heat-related illnesses. Climate change will have a measurable impact on the occurrence and severity of natural hazards.

Dam Failure

Dams are generally identified as one of the following three types:

- Detention dams minimize the effects of flood runoff by storing all or part of an anticipated flood runoff. The stored floodwater is released at a rate that does not exceed the carrying capacity of the channel downstream.
- Storage dams impound water during periods of surplus supply to be used during dry periods for crop irrigation, livestock watering, municipal or industrial water supply, or electricity generation.
- Diversion dams (not regulated) provide hydraulic head for diverting water from streams and rivers into ditches or canals.

Partial or full failure of dams has the potential to cause massive destruction to the ecosystems and communities located downstream.

Drought

A drought is a period of abnormally dry weather. Drought diminishes natural stream flow and depletes soil moisture, which can cause social, environmental, and economic impacts. In general, the term "drought" is reserved for periods of moisture deficiency that are relatively extensive in both space and time.

Lack of rainfall is not the only factor defining drought. Drought can be characterized based on various impacts or measurements:

- Meteorological measurements such as rainfall deficit compared to normal or expected rainfall
- Agricultural impacts due to reduced rainfall and water supply (e.g., crop loss, herd culling, etc.)
- Hydrological measurements of stream flows, groundwater, and reservoir levels relative to normal conditions
- Direct and indirect socio-economic impacts on society and the economy (e.g., increased unemployment due to failure of an industry because of drought)

Earthquake

An earthquake is the vibration of the earth's surface following a release of energy in the Earth's crust. This energy can be generated by a sudden dislocation of the crust or by a volcanic eruption. Dislocations of the crust cause most destructive quakes. The crust may first bend and then, when the stress exceeds the strength of the rocks, break and snap to a new position. In the process of breaking, vibrations called "seismic waves" are generated. These waves travel outward from the source of the earthquake at varying speeds.

An earthquake hazard is anything associated with an earthquake, including:

- Surface Faulting – Displacement that reaches the earth's surface during slip along a fault. Commonly occurs with shallow earthquakes, those with an epicenter less than 20 kilometers.
- Ground Motion (shaking) – The movement of the earth's surface from earthquakes or explosions. Ground motion or shaking is produced by waves that are generated by sudden slip on a fault or sudden pressure at the explosive source and travel through the earth and along its surface.
- Landslide – A movement of surface material down a slope.
- Liquefaction – A process by which water-saturated sediment temporarily loses strength and acts as a fluid. Earthquake shaking can cause this effect.
- Tectonic Deformation – A change in the original shape of a material due to stress and strain.
- Tsunami – A sea wave of local or distant origin that results from large-scale seafloor displacements associated with large earthquakes, major submarine slides, or violent underwater volcanic eruptions.

Flood

Floods are one of the most common natural hazards in the U.S. They can develop slowly over a period of days or develop quickly, with disastrous effects that can be local (impacting a neighborhood or community) or regional (affecting entire river basins, coastlines and multiple counties or states). A floodplain is defined as the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that becomes inundated with water during a flood.

Because they border water bodies, floodplains have historically been popular sites to establish settlements. Human activities tend to concentrate in floodplains for a number of reasons: water is readily available; land is fertile and suitable for farming; transportation by water is easily accessible; and land is flatter and easier to develop. But human activity in floodplains frequently interferes with the natural function of floodplains. It can affect the distribution and timing of drainage, thereby increasing flood problems. Human development can create local flooding problems by altering or confining drainage channels. This increases flood potential in two ways: it reduces the stream's capacity to contain flows, and it increases flow rates or velocities downstream during all stages of a flood event.

High Surf/Storm Surge/Coastal Flood

The hazards associated with high surf include debris overwash, flooding, erosion, high wave energy and turbulence in the near shore zone, and strong currents. Waves that reach the shoreline are determined by the energy inherent in the approaching swell (a function of wave height and wave length – the distance between successive wave crests), shoreline aspect, slope, morphology, and geology, and offshore characteristics including seafloor depth, and barriers (islands, rocks, reefs, sandbars).

Coastal floods are characterized by inundation of normally dry lands by ocean waters. This flooding is often caused by storm surge caused by severe storms, tsunamis, or extreme high tide events that result in shallow flooding of low-lying coastal areas. Storm surge floods typically result in coastal erosion, salinization of freshwater sources, and contamination of water supplies. These floods are also responsible for significant agricultural losses, loss of life, and damage to public and private structures and infrastructure.

High Windstorm

Wind is one of the costliest hazards to insured property, causing more damage than earthquakes or other natural hazards. Wind pressure, and generally not wind speed, causes damage. There are three types of wind pressure:

- Positive wind pressure is the direct pressure from the force of the wind pushing inward against walls, doors, and windows.
- Negative wind pressure occurs on the sides and roof of buildings as wind blows past. Air moving parallel to a surface reduces the air pressure on the surface, resulting in a force pulling the surface outward toward the moving air. Negative pressure causes buildings to lose all or a portion of their roofs and side walls and pulls storm shutters off the leeward (side sheltered from wind) side of a building.
- Interior pressure increases dramatically when a building loses a door or window on its windward side. The roof is placed under tremendous internal pressures pushing up from inside of the building together with the negative wind pressure lifting the roof from the outside.

Besides the high wind pressures exerted on structures during windstorms, and especially during tropical cyclones, windborne debris can be a major factor in causing damage. Such debris includes flying objects, such as tree limbs, outdoor furniture, signs, roofs, gravel, and loose building components.

Landslide

A landslide is a mass of rock, earth or debris moving down a slope, caused by a combination of geological and climate conditions, as well as the encroaching influence of urbanization. They can be initiated by storms, earthquakes, fires, or volcanic eruptions. These natural conditions may be affected by human residential, agricultural, commercial, and industrial development and the infrastructure that supports it.

Landslides are caused by one or more of the following factors: change in slope of the terrain, increased load on the land, shocks and vibrations, change in water content, groundwater movement, frost action, weathering of rocks, and removing or changing the type of vegetation on slopes.

Tropical Cyclone

Tropical cyclones are among the most dramatic, damaging, and potentially deadly events that occur in the Hawaiian Islands. Hawai'i lies in the Central Pacific, which, on average, experiences four to five tropical cyclones every year. Almost all tropical cyclones in the Pacific basin form between June 1 and November 30. This timeframe is known as hurricane season. August and September are peak months for hurricane development.

The threats caused by an approaching hurricane can be divided into three main categories:

- Storm Surge – Water that is pushed toward the shore by the force of the winds swirling around the storm. This advancing surge combines with the normal tides to create the hurricane storm tide, which can

increase the mean water level 15 feet or more. Storm surge is responsible for nearly 90 percent of all hurricane-related deaths and injuries.

- Wind Damage – The force of wind can quickly decimate the tree population, down power lines and utility poles, knock over signs, and damage/destroy homes and buildings. Flying debris can also harm both structures and people. When hurricanes first make landfall, it is common for tornadoes to form, which can cause severe localized wind damage.
- Rainfall/Flooding – The torrential rains that normally accompany a hurricane can cause serious flooding. Whereas the storm surge and high winds are concentrated around the “eye,” the rain may extend for hundreds of miles and may last for several days, affecting areas well after the hurricane has diminished.

Tsunami

A tsunami consists of a series of high-energy waves that radiate outward like pond ripples from an area where a generating event occurs. The waves arrive at shorelines over an extended period. According to the National Tsunami Hazard Mitigation Program’s *National Tsunami Hazard Assessment*, Hawai‘i as a whole is classified as a “high hazard” area for tsunamis. The state has experienced the highest number of tsunami-associated deaths in the country.

Tsunamis are typically classified as local or distant. Locally generated tsunamis have minimal warning times, leaving little time for response. They may be accompanied by damage resulting from the triggering earthquake through ground shaking, surface faulting, liquefaction, or landslides. Distant tsunamis may travel for hours before striking a coastline, giving a community a chance to implement more detailed evacuation plans.

Volcanic Eruption

The Hawaiian Islands are geophysically young land masses caused by tectonic and volcanic activity within the Pacific Ocean. The islands were created by a hotspot beneath the Earth’s crust over which Hawai‘i County is currently located. The volcanoes formed by this hot spot are shield volcanoes, which are the largest volcanoes on earth. Lava from shield volcanoes consists almost entirely of basalt, which is very fluid, so the lava flows for long distances, resulting in the volcanoes’ gentle slopes.

The County of Hawai‘i collaborated with the USGS Hawaiian Volcano Observatory (HVO) to identify the following volcanic hazards:

- Lava Flow
- Laze (Lava Haze)
- Vog (Volcanic Smog)
- Acid Rain
- Explosive Eruption
- Ashvall
- Tephra (Volcanic Glass)
- Earthquake
- Ground Failure (Subsidance)
- Tsunami

Wildfire

A wildfire is any uncontrolled fire occurring on undeveloped land that requires fire suppression. Wildfires can be ignited by lightning or by human activity such as smoking, campfires, equipment use, and arson.

The potential for significant damage to life and property exists in areas designated as “wildland urban interface (WUI) areas,” where development is adjacent to densely vegetated areas. Fires in WUI areas tend to be more damaging than urban structural fires, are often more difficult to control, and behave differently from structural fires. When these fires erupt, people and structures must take priority, often at a devastating expense to natural resources. People who live in these areas often come directly from urban areas and may have little understanding of wildfire cycles and dangers. Homes and other structures are built and maintained in a manner that leaves them and their occupants vulnerable. Thus, fire becomes a significant threat to both humans and natural resources.

APPENDIX C: SOURCES OF DATA USED IN HAZUS MODELING

Data	Source	Date	Format
Property parcels	Hawai'i County	2019	Digital (GIS) format
Real property data (including use description, area, date of construction, number of stories, and foundation type)	Hawai'i County	2019	Digital (text) format
Building replacement cost	RSMeans	2019	Paper format. Updated RSMeans values
American Community Survey 5-year Population Estimates at the Census block group level	Hawai'i Statewide GIS Program Geospatial Data Portal	2015	Digital (GIS) format
Land Use Pattern Allocation Guide	Hawai'i County	2015	Digital (GIS) format
Sea Level Rise Exposure Area (SLR-XA) 3.2ft	Hawai'i Sea Level Rise Vulnerability and Adaptation Report	2017	Digital (GIS) format
1%-Annual-Chance Coastal Flood Zone (1%CFZ) + 3.2ft SLR	Hawai'i Sea Level Rise Vulnerability and Adaptation Report	2017	Digital (GIS) format
Dam failure inundation areas	Provided by Pacific Disaster Center (original data prepared for DLNR)	2009	Digital (GIS) format
Earthquake ShakeMaps	USGS Earthquake Hazards Program website	2017	Digital (GIS) format
NEHRP Soils	AECOM	2008	Digital (GIS) format
Effective DFIRM	FEMA	2017	Digital (GIS) format
Straight Line Wind Awareness Area	Hawai'i County	2019	Digital (GIS) format
Landslide susceptibility	Provided by Pacific Disaster Center (original data prepared by URS)	2009	Digital (GIS) format
Hazus wind field import files for the Hawai'i Catastrophic Hurricane Plan	Provided by Pacific Disaster Center	2015	Hazus import format
Sea, Lake and Overland Surges from Hurricanes (SLOSH) Model Data for the State of Hawai'i	NOAA National Hurricane Center, Storm Surge Unit	2018	Digital (GIS) format
2009 Hawai'i Tsunami Mapping Project tsunami inundation areas	Provided by Hawai'i County	2009	Digital (GIS) format
Lava flow hazard zones	Hawai'i Statewide GIS Program Geoportal (original data prepared by USGS Hawaiian Volcano Observatory)	1991	Digital (GIS) format
Historic lava flows (1790 to 2018)	USGS Hawaiian Volcano Observatory	2018	Digital (GIS) format
Communities at Risk from Wildfire	Provided by Hawai'i Wildfire Management Organization (prepared in conjunction with DLNR Division of Forestry and Wildlife	2013	Digital (GIS) format
Coastal 3-meter Digital Elevation Model	NOAA Office for Coastal Management website	2013	Digital (GIS) format
10-meter Digital Elevation Model	USGS	2016	Digital (GIS) format
Makani Pahili 2017 Emergency Power Prioritization Workshop Series Final Report (Critical facilities including EOCs, buses, electrical power, fuel, gas,	Hawai'i Emergency Management Agency (HI EMA)	2017	Digital (GIS) format

Data	Source	Date	Format
communication, water wells, pump stations, nursing homes, assisted living centers, residential care, extended care, ice distributors, grocery stores, jails, community centers, and gyms)			
Fire stations	State of Hawai'i Office of Planning	2017	Digital (GIS) format
Hospitals/Medical facilities	State of Hawai'i Department of Health	2019	Digital (GIS) format
Police stations	State of Hawai'i Office of Planning	2017	Digital (GIS) format
Sirens	County of Hawai'i	2019	Digital (GIS) format
Harbors	State of Hawai'i Department of Transportation Harbors Port Handbook		Digital (GIS) format
Airports	State of Hawai'i Department of Transportation	2019	Digital (GIS) format
Bridges	State of Hawai'i Office of Planning	2018	Digital (GIS) format
Electrical Power	U.S. Environmental Protection Agency	2013	Digital (GIS) format
Puna Geothermal Venture Wells	County of Hawai'i (Roy Takemoto)	2019	Digital (GIS) format
Electric Substations/Transfer Stations, Fuel (HSIP data)	Oak Ridge National Laboratory	2019	Digital (GIS) format
Fuel (HSIP data)	Oak Ridge National Laboratory	2017	Digital (GIS) format
Wastewater Facilities/Pumps	Hawai'i County Department of Environmental Management (Wastewater Map)	2019	Digital (GIS) format
Debris Clearing and Disposal	Hawai'i County Department of Environmental Management - Solid Waste	2019	Digital (GIS) format
Financial Institutions	State of Hawai'i Department of Commerce and Consumer Affairs	2019	Digital (GIS) format
Schools	State of Hawai'i Office of Planning,	2019	Digital (GIS) format
Assisted Living Centers	Hawai'i County Civil Defense	2019	Digital (GIS) format
Emergency Shelters	Hawai'i County Department of Education	2019	Digital (GIS) format
Emergency Shelters	Hawai'i County Department of Parks and Recreation	2019	Digital (GIS) format
Facility Registry Service (FRS) - Toxic Release Inventory facilities	U.S. Environmental Protection Agency website	2019	Digital (GIS) format

Source: Table 6-1 from Page 6-5 of 2020 MHMP, online version 10/21/2021
https://www.hawaiicounty.gov/departments/civil-defense/multi-hazard-mitigation-plan-2020

APPENDIX D: CDBG-MIT CERTIFICATIONS

Hawai'i County makes the following certifications with this Action Plan:

a. Hawai'i County certifies that it has in effect and is following a residential anti-displacement and relocation assistance plan in connection with any activity assisted with CDBG-MIT funding.

b. Hawai'i County certifies its compliance with restrictions on lobbying required by 24 CFR part 87, together with disclosure forms, if required by part 87.

c. Hawai'i County certifies that the Action Plan is authorized under State and local law (as applicable) and that Hawai'i County, and any entity or entities designated by Hawai'i County, and any contractor, subrecipient, or designated public agency carrying out an activity with CDBG-MIT funds, possess(es) the legal authority to carry out the program for which it is seeking funding, in accordance with applicable HUD regulations and this notice. Hawai'i County certifies that activities to be undertaken with CDBG-MIT funds are consistent with its Action Plan.

d. Hawai'i County certifies that it will comply with the acquisition and relocation requirements of the URA, as amended, and implementing regulations at 49 CFR part 24, except where waivers or alternative requirements are provided for in this notice.

e. Hawai'i County certifies that it will comply with section 3 of the Housing and Urban Development Act of 1968 (12U.S.C. 1701u) and implement regulations of 24 CFR part 135.

f. Hawai'i County certifies that it is following a detailed citizen participation plan that satisfies the requirements of 24 CFR 91.105 or 91.115, as applicable (except as provided for in notices providing waivers and alternative requirements for this grant). Also, each local government receiving assistance from a State grantee must follow a detailed citizen participation plan that satisfies the requirements of 24 CFR 570.486 (except as provided for in notices providing waivers and alternative requirements for this grant).

g. Hawai'i County certifies that it has consulted with affected local governments in counties designated in covered major disaster declarations in the non-entitlement, entitlement, and native government areas of the State in determining the uses of funds, including method of distribution of funding, or activities carried out directly by the State.

h. Hawai'i County certifies that it is complying with each of the following criteria:
   1. Funds will be used solely for necessary expenses related to disaster relief, long-term mitigation, restoration of infrastructure and housing, and economic revitalization in the most impacted and distressed areas for which the President declared a major disaster in 2015, 2016, 2017 and 2018 pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974 (42 U.S.C. 5121 et seq.).
   2. With respect to activities expected to be assisted with CDBG-MIT funds, the Action Plan has been developed to give the maximum feasible priority to activities that will benefit low- and moderate-income families.
   3. The aggregate use of CDBG-MIT funds shall principally benefit low- and moderate-income families in a manner that ensures that at least 50 percent of the grant amount is expended for activities that benefit such persons.

4. Hawai‘i County will not attempt to recover any capital costs of public improvements assisted with CDBG-MIT grant funds, by assessing any amount against properties owned and occupied by persons of low- and moderate-income, including any fee charged or assessment made as a condition of obtaining access to such public improvements, unless: (a) disaster mitigation grant funds are used to pay the proportion of such fee or assessment that relates to the capital costs of such public improvements that are financed from revenue sources other than under this title; or (b) for purposes of assessing any amount against properties owned and occupied by persons of moderate income, Hawai‘i County certifies to the Secretary that it lacks sufficient CDBG funds (in any form) to comply with the requirements of clause (a).

i. Hawai‘i County certifies that the grant will be conducted and administered in conformity with Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) and the Fair Housing Act (42 U.S.C. 3601–3619) and implementing regulations, and that it will affirmatively further fair housing.

j. Hawai‘i County certifies that it has adopted and is enforcing the following policies. In addition, States receiving a direct award must certify that they will require UGLGs that receive grant funds to certify that they have adopted and are enforcing:
   1. A policy prohibiting the use of excessive force by law enforcement agencies within its jurisdiction against any individuals engaged in nonviolent civil rights demonstrations; and
   2. A policy of enforcing applicable State and local laws against physically barring entrance to or exit from a facility or location that is the subject of such nonviolent civil rights demonstrations within its jurisdiction.

k. Hawai‘i County certifies that it (and any subrecipient or administering entity) currently has or will develop and maintain the capacity to carry out disaster mitigation activities in a timely manner and that Hawai’i County has reviewed the requirements of this notice. Hawai‘i County certifies to the accuracy of its Mitigation Financial Management and Grant Compliance certification checklist (Public Laws 115-123) or 116-20 and 115-254 Financial Management and Grant Compliance certification checklist, or other recent certification submission, if approved by HUD, and related supporting documentation referenced at A.1.a under Section V and its Implementation Plan and Capacity Assessment and related submission to HUD referenced at A.1.b under Section V (84 FR 45838) and its Implementation Plan and Capacity Assessment and related submission to HUD referenced at (86 FR 561).

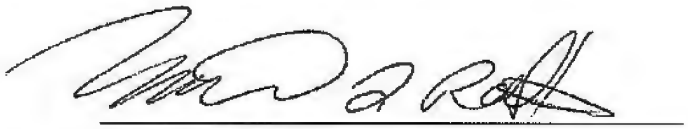
l. Hawai‘i County certifies that it considered the following resources in the preparation of its Action Plan, as appropriate:
   - FEMA Local Mitigation Planning Handbook: https://www.fema.gov/media-library-data/20130726-1910-250459160/fema_local_mitigation_handbook.pdf;
   - DHS Office of Infrastructure Protection: https://www.dhs.gov/sites/default/files/publications/ip-fact-sheet-508.pdf;
   - National Association of Counties, Improving Lifelines (2014): https://www.naco.org/sites/default/files/documents/NACo_ResilientCounties_ Lifelines_Nov2014.pdf;
   - The National Interagency Coordination Center (NICC) for coordinating the mobilization of resources for wildland fire: https://www.nifc.gov/nicc/);
   - The U.S. Forest Service’s resources around wildland fire (https://www.fs.fed.us/managing-land/ fire); and
   - HUD’s CPD Mapping tool: https://egis.hud.gov/cpdmaps/.

a. Hawai‘i County certifies that it will not use grant funds for any activity in an area identified as flood prone for land use or hazard mitigation planning purposes by the State, local, or native government or delineated as a Special Flood Hazard Area (or 100-year floodplain) in FEMA’s most current flood advisory maps, unless it also ensures that the action is designed or modified to minimize harm to or within the floodplain, in accordance with Executive Order 11988 and 24 CFR part 55. The relevant data source for this provision is the State, local, and native government land use regulations and hazard mitigation plans and the latest- issued FEMA data or guidance, which includes advisory data (such as Advisory Base Flood Elevations) or preliminary and final Flood Insurance Rate Maps.

b. Hawai‘i County certifies that its activities concerning lead-based paint will comply with the requirements of 24 CFR part 35, subparts A, B, J, K, and R.

c. Hawai‘i County certifies that it will comply with environmental requirements at 24 CFR Part 58.

d. Hawai‘i County certifies that it will comply with applicable laws.



Signature of Authorized Official

3/3/2022

Date

APPENDIX E: PUBLIC COMMENTS AND RESPONSES

Key Facts

- Pre-Release Public Meeting: October 19, 2021
- Draft Initial Action Plan Released: October 25, 2021
- Post-Release Public Meeting: November 16, 2021
- Public Comment Period: October 25, 2021 – December 8, 2021
- Written Comments Received: 4

Summary of Public Comments

Comments received in general were in support of the proposals described in the Draft Initial Action Plan and offered solutions and approaches to implement the projects therein.

- The County received three (3) public comments regarding flood risk reduction and protecting water quality for coastal areas in North Kona:
  - One (1) comment suggested nature-based and property-scale solutions to manage storm runoff, prevent soil erosion and improve water quality.
  - One (1) comment identified the limited capacity of existing drainageways and culverts as a contributing factor to flooding in the area and encouraged the County to access federal resources to study and build new flood mitigation infrastructure.
  - One (1) comment identified land management for mauka (upland) agricultural and conservation land to manage stormwater runoff impacting coastal areas and the need for adequate drainage infrastructure.
- The County received one (1) public comment suggesting the creation of a mass sheltering site at the Papa‘aloa Park facility which has been identified for demolition and reconstruction by the County due to hazardous conditions and disrepair.

Responses to Public Comments

<u>Flood Risk Reduction and Water Quality for North Kona</u>

The public comments received clearly identified the need for planning and implementation of flood risk reduction in the North Kona district that can protect property, ensure a level of service for public infrastructure, and protect the ecosystems and water quality of near-shore waters. A variety of solutions and approaches to flood risk reduction were suggested in these public comments which the County will incorporate into the flood studies proposed for North Kona and other areas with these CDBG-MIT funds. The proposed flood studies are a critical first step to advance solutions to the issues raised in the public comments.

<u>Sheltering Facility for the Hāmākua District in Papa‘aloa</u>

The hardening and rehabilitation of public facilities for mass sheltering is a program of this CDBG-MIT Action Plan. Decisions on where these proposed investments should go were based on considerations such as the coverage of established sheltering facilities, areas serving low- to moderate-income residents based on HUD data, and the

capacity to leverage these limited CDBG-MIT grant funds to complete projects, among other factors described in Section 6 of this Action Plan. Rebuilding the Papa‘aloa Park Facility has been identified as a priority for the County, and State funds are being pursued to initiate this project. For CDBG-MIT grant funds the Hisaoka Gym was identified as a priority for design and engineering because there are no wind-rated sheltering facilities serving the North Kohala district; and the Kea’au Armory was identified as a priority because the project can be completed within the scale of funding available in addition to the repeated use of this site for mass sheltering in recent years.

APPENDIX F: TIMELY EXPENDITURE SCHEDULE

Proposed 2022 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$1,334,993**	**$0**	**$0**	**$667,496**	**$667,497**
ArcGIS System Purchase and Installation	$388,050	$0	$0	$194,025	$194,025
Emergency Power for Water Infrastructure	$96,444	$0	$0	$48,222	$48,222
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$17,403	$0	$0	$8,702	$8,702
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$45,597	$0	$0	$22,798	$22,798
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$52,500	$0	$0	$26,250	$26,250
Shelter Capacity: Kea'au Armory Improvements	$735,000	$0	$0	$367,500	$367,500
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$157,500**	**$0**	**$0**	**$78,750**	**$78,750**
Revisions to Zoning and Subdivision Codes	$105,000	$0	$0	$52,500	$52,500
Flood Studies and Assessments	$52,500	$0	$0	$26,250	$26,250
Administration	**$64,239**	**$24,537**	**$26,554**	**$6,574**	**$6,574**
Total	$1,556,732	$24,537	$26,554	$752,820	$752,821

Proposed 2023 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$1,365,156**	**$525,038**	**$525,038**	**$157,540**	**$157,540**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$78,906	$19,726	$19,726	$19,727	$19,727
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$50,760	$12,690	$12,690	$12,690	$12,690
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$132,990	$33,247	$33,247	$33,248	$33,248
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$52,500	$13,125	$13,125	$13,125	$13,125
Shelter Capacity: Kea'au Armory Improvements	$735,000	$367,500	$367,500	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$315,000	$78,750	$78,750	$78,750	$78,750
Planning	**$315,000**	**$78,750**	**$78,750**	**$78,750**	**$78,750**
Revisions to Zoning and Subdivision Codes	$210,000	$52,500	$52,500	$52,500	$52,500
Flood Studies and Assessments	$105,000	$26,250	$26,250	$26,250	$26,250
Administration	**$37,096**	**$8,329**	**$8,329**	**$10,219**	**$10,219**
Total	**$1,717,252**	**$612,117**	**$612,117**	**$246,509**	**$246,509**

Proposed 2024 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$1,864,905**	**$466,226**	**$466,226**	**$466,227**	**$466,227**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$578,655	$144,664	$144,664	$144,664	$144,664
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$195,787	$48,947	$48,947	$48,947	$48,947
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$512,963	$128,240	$128,240	$128,241	$128,241
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$52,500	$13,125	$13,125	$13,125	$13,125
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$525,000	$131,250	$131,250	$131,250	$131,250
Planning	**$210,000**	**$78,750**	**$78,750**	**$26,250**	**$26,250**
Revisions to Zoning and Subdivision Codes	$105,000	$52,500	$52,500	$0	$0
Flood Studies and Assessments	$105,000	$26,250	$26,250	$26,250	$26,250
Administration	**$33,316**	**$8,329**	**$8,329**	**$8,329**	**$8,329**
Total	**$2,108,221**	**$553,305**	**$553,305**	**$500,806**	**$500,806**

Proposed 2025 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$647,745**	**$161,936**	**$161,936**	**$161,936**	**$161,936**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$122,745	$30,686	$30,686	$30,686	$30,686
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$130,525	$32,631	$32,631	$32,631	$32,631
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$341,975	$85,494	$85,494	$85,494	$85,494
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$52,500	$13,125	$13,125	$13,125	$13,125
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$75,600**	**$18,900**	**$18,900**	**$18,900**	**$18,900**
Revisions to Zoning and Subdivision Codes	$0	$0	$0	$0	$0
Flood Studies and Assessments	$75,600	$18,900	$18,900	$18,900	$18,900
Administration	**$87,316**	**$21,829**	**$21,829**	**$21,829**	**$21,829**
Total	**$810,661**	**$202,665**	**$202,665**	**$202,665**	**$202,665**

Proposed 2026 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$472,500**	**$118,125**	**$118,125**	**$118,125**	**$118,125**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$130,525	$32,631	$32,631	$32,631	$32,631
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$341,975	$85,494	$85,494	$85,494	$85,494
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$0	$0	$0	$0	$0
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$75,600**	**$18,900**	**$18,900**	**$18,900**	**$18,900**
Revisions to Zoning and Subdivision Codes	$0	$0	$0	$0	$0
Flood Studies and Assessments	$75,600	$18,900	$18,900	$18,900	$18,900
Administration	**$94,471**	**$23,179**	**$23,179**	**$23,179**	**$24,934**
Total	**$642,571**	**$160,204**	**$160,204**	**$160,204**	**$161,959**

Proposed 2027 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$0**	**$0**	**$0**	**$0**	**$0**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$0	$0	$0	$0	$0
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$0**	**$0**	**$0**	**$0**	**$0**
Revisions to Zoning and Subdivision Codes	$0	$0	$0	$0	$0
Flood Studies and Assessments	$0	$0	$0	$0	$0
Administration	**$26,562**	**$26,562**	**$0**	**$0**	**$0**
Total	**$26,562**	**$26,562**	**$0**	**$0**	**$0**

Proposed 2028 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$0**	**$0**	**$0**	**$0**	**$0**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$0	$0	$0	$0	$0
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$0**	**$0**	**$0**	**$0**	**$0**
Revisions to Zoning and Subdivision Codes	$0	$0	$0	$0	$0
Flood Studies and Assessments	$0	$0	$0	$0	$0
Administration	**$0**	**$0**	**$0**	**$0**	**$0**
Total	**$0**	**$0**	**$0**	**$0**	**$0**

Proposed 2029 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$0**	**$0**	**$0**	**$0**	**$0**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$0	$0	$0	$0	$0
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$0**	**$0**	**$0**	**$0**	**$0**
Revisions to Zoning and Subdivision Codes	$0	$0	$0	$0	$0
Flood Studies and Assessments	$0	$0	$0	$0	$0
Administration	**$0**	**$0**	**$0**	**$0**	**$0**
Total	**$0**	**$0**	**$0**	**$0**	**$0**

Proposed 2030 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$0**	**$0**	**$0**	**$0**	**$0**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$0	$0	$0	$0	$0
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$0**	**$0**	**$0**	**$0**	**$0**
Revisions to Zoning and Subdivision Codes	$0	$0	$0	$0	$0
Flood Studies and Assessments	$0	$0	$0	$0	$0
Administration	**$0**	**$0**	**$0**	**$0**	**$0**
Total	**$0**	**$0**	**$0**	**$0**	**$0**

Proposed 2031 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$0**	**$0**	**$0**	**$0**	**$0**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$0	$0	$0	$0	$0
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$0**	**$0**	**$0**	**$0**	**$0**
Revisions to Zoning and Subdivision Codes	$0	$0	$0	$0	$0
Flood Studies and Assessments	$0	$0	$0	$0	$0
Administration	**$0**	**$0**	**$0**	**$0**	**$0**
Total	$0	$0	$0	$0	$0

Proposed 2032 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$0**	**$0**	**$0**	**$0**	**$0**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$0	$0	$0	$0	$0
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$0**	**$0**	**$0**	**$0**	**$0**
Revisions to Zoning and Subdivision Codes	$0	$0	$0	$0	$0
Flood Studies and Assessments	$0	$0	$0	$0	$0
Administration	**$0**	**$0**	**$0**	**$0**	**$0**
Total	**$0**	**$0**	**$0**	**$0**	**$0**

Proposed 2033 Budget

Use of Funds	Budget	Q1	Q2	Q3	Q4
Infrastructure	**$0**	**$0**	**$0**	**$0**	**$0**
ArcGIS System Purchase and Installation	$0	$0	$0	$0	$0
Emergency Power for Water Infrastructure	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (LMI)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Wildfire Equipment Purchase (UNM)	$0	$0	$0	$0	$0
Wildfire Mitigation and Incident Response: Installation of Water Storage Tanks	$0	$0	$0	$0	$0
Shelter Capacity: Kea'au Armory Improvements	$0	$0	$0	$0	$0
Shelter Capacity: Ikuo Hisaoka Gymnasium Improvements	$0	$0	$0	$0	$0
Planning	**$0**	**$0**	**$0**	**$0**	**$0**
Revisions to Zoning and Subdivision Codes	$0	$0	$0	$0	$0
Flood Studies and Assessments	$0	$0	$0	$0	$0
Administration	**$0**	**$0**	**$0**	**$0**	**$0**
Total	**$0**	**$0**	**$0**	**$0**	**$0**