

Lahaina Fire Comprehensive Timeline Report



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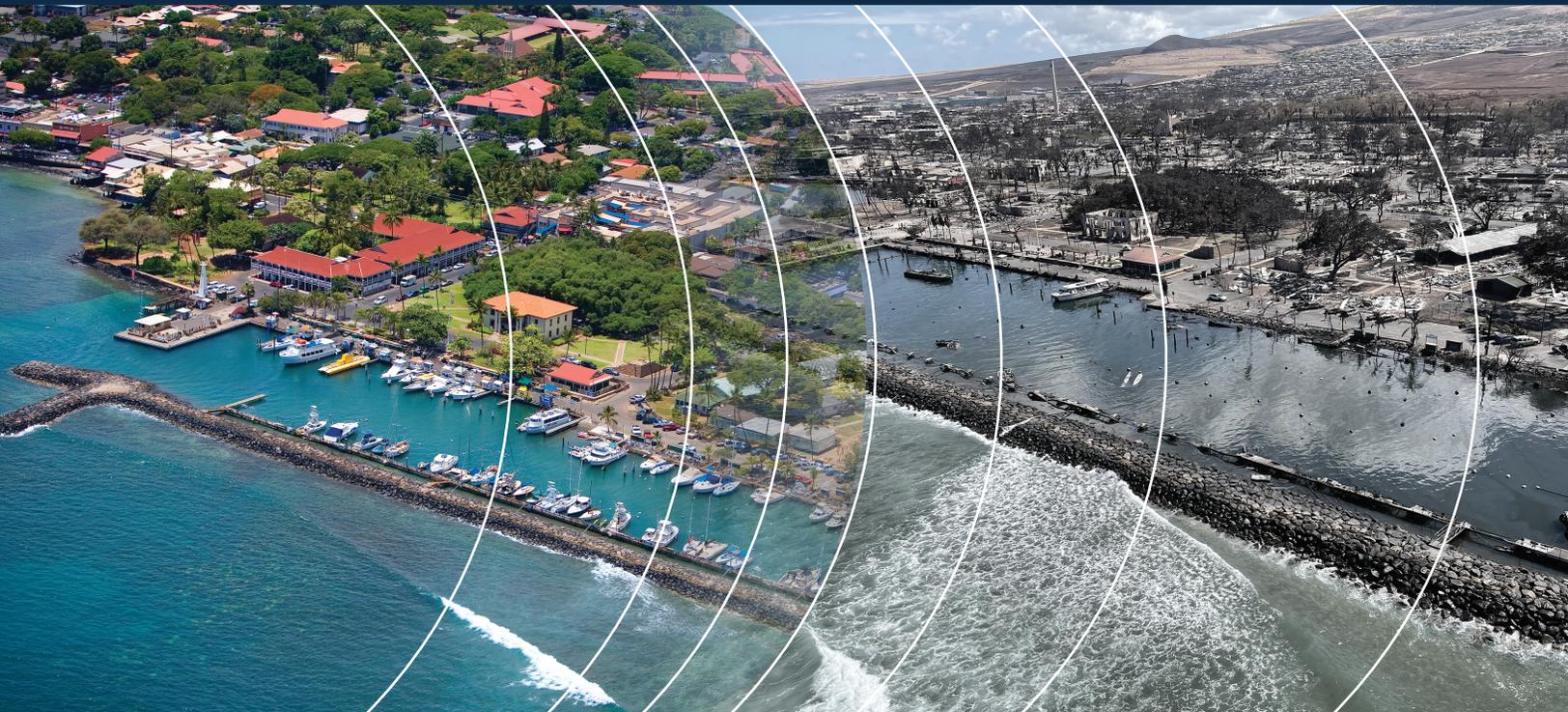


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ABSTRACT

On August 8–9, 2023, the town of Lahaina, Hawai'i (on the island of Maui), endured a devastating fire fueled by environmental conditions, leading to 101 fatalities, widespread destruction, and devastating community impacts.

The Fire Safety Research Institute (FSRI) conducted an extensive data collection effort to establish a comprehensive timeline and fact base around the Lahaina fires. This Lahaina Fire Comprehensive Timeline Report (Phase 1) focuses on the events that occurred prior to, during, and immediately following the Lahaina fire, such as preparedness efforts, weather and its impact to infrastructure, and other fires occurring on Maui for the time period beginning at 14:55 (2:55 p.m. HST) on August 8, 2023, and concluding at 08:30 (8:30 a.m.) on August 9, 2023. Data from the three (3) other Maui fires is also included in specific sections to give context to the situation in Lahaina.

Keywords: Maui fire, wildland-urban interface, WUI, Lahaina Fire, grassland fire, urban conflagration

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EXECUTIVE SUMMARY

On August 8-9, 2023, the historic town of Lahaina, Hawai'i, suffered a devastating fire that ranks among the deadliest in U.S. history. A confluence of environmental and geographic factors, combined with preparedness and response conditions, enabled the fire to rapidly intensify into an urban conflagration (extensive fire that causes significant destruction), resulting in 101 confirmed fatalities, widespread destruction of homes and businesses, and catastrophic impacts on the community.

In August 2023, shortly after the fire, the Hawai'i Department of the Attorney General (DOAG) contacted the Fire Safety Research Institute (FSRI), a part of UL Research Institutes (ULRI) for subject matter expertise. After a site visit and initial consultation with FSRI experts in Lahaina, Hawai'i Attorney General (AG) Anne E. Lopez engaged FSRI to conduct a comprehensive independent analysis of the Lahaina fire. This report focuses on the events that occurred prior to, during, and immediately following the Lahaina fire, such as preparedness efforts, weather and its impact to infrastructure, and other fires occurring on Maui for the time period beginning at 14:55 (2:55 p.m. HST) on August 8, 2023, and concluding at 08:30 (8:30 a.m.) on August 9, 2023. Data from the three (3) other Maui fires is also included in specific sections to give context to the situation in Lahaina.

FSRI conducted an extensive data collection effort to establish a comprehensive timeline and fact base around the Lahaina fire. This report pieces together a detailed timeline of preparedness efforts, fire progression, evacuation activities, emergency response, and fire suppression actions based on a comprehensive array of data sources including radio communications and transcripts, video, images (still images or image capture from digital videos), emergency logs, technical discussions (TDs) with authorities and residents, text and phone logs, email records, automatic vehicle location applications, social media posts, witness accounts, and corroborated personal experiences. Mapping and analysis illustrate how the fires moved from the wildland into Lahaina's neighborhoods, rapidly transforming from a grassland fire into a catastrophic urban conflagration.

Data collection for this report consisted of gathering all known available facts relating to the August Lahaina fire as well as the preparedness efforts by the Maui Fire Department (MFD), Maui Police Department (MPD), Maui Emergency Management Agency (MEMA), and state, federal and private cooperating agencies. These facts included time-stamped conditions (i.e., damage to buildings due to wind, fire, smoke, fallen trees and utility poles, traffic, etc.) and actions (i.e., evacuation, fire suppression, rescues, etc.). Data requests were prioritized by their value in establishing an event timeline and understanding the facts of the conditions existing prior to and during the incident. This data offers the most precise representation of the fire's rate of spread through Lahaina and the corresponding response efforts.

FSRI's goal is to thoroughly document the facts around this tragic event to allow for subsequent analysis and lessons learned. While this report does not analyze causation, it lays the critical foundation for examining the policies, practices, preparedness, and response that will ultimately improve public safety and resilience against similar fire disasters. This document is the first in a series of independent reports that will provide a complete timeline—based on voluminous evidence and contemporary fire science—of the August 2023 Lahaina fire on Maui; an exhaustive analysis of contributing factors to the horrible outcome; and finally, a forward-looking report with actionable recommendations to help prevent future tragedies.

Summary of the Lahaina Fire

In the days preceding August 8, 2023, Maui found itself in the crosshairs of a potential disaster. As Hurricane Dora approached from the south, passing approximately 500 miles offshore, it created a pressure gradient that meteorologists warned would bring damaging winds, low humidity, and an elevated risk of wildfires to the island. Recognizing the impending threat, several organizations, including the National Weather Service (NWS), the Maui County Department of Fire and Public Safety, the Maui County Emergency Management Agency (MEMA), and the Hawai'i Emergency Management Agency (HI-EMA), issued numerous alerts about the possibility of high winds and extreme fire danger on August 8, 2023. In anticipation of the hazardous conditions, MEMA partially activated the Emergency Operations Center (EOC) on the evening of August 7, 2023.

During the early morning of August 8, 2023, the predicted high winds arrived across central and western Maui. Trees toppled, utility poles fell, and power lines were downed, blocking critical roadways and making evacuation challenging.

Enabled by the dry fuels, sustained winds, and the dense urban landscape, a fire that began near the Lahaina Intermediate School spread rapidly, overwhelming initial efforts to contain it. The origin of the Lahaina fire can be traced back to 06:35 (6:35 a.m.), when a fast-moving brush fire, later dubbed the "Lahaina AM fire," ignited near Ku'ialua Street and Ho'okahua Place. Intense winds, rocky terrain, a ravine, and utility poles with overhead electrical wires in the fire area would also complicate fire suppression efforts. Firefighters responded to the scene, employing private bulldozers and water tankers to construct perimeter lines and soak the fire area with water. They later reported that the fire was extinguished and returned to quarters at 14:17 (2:17 p.m.).

At 14:55 (2:55 p.m.), the "Lahaina PM fire" or "Ku'ialua fire," was reported at the same location as the earlier fire. This time, fueled by sustained high winds, the fire spread rapidly. Embers carried by the wind ignited unburned grassland areas downwind from the initial fire location and continued to spread, reaching homes and other structures. From there, the fire spread through direct flame contact, radiant heating, and flying embers. The high winds, funneling the fire into Lahaina Town and towards the Pacific Ocean, created a conflagration that overwhelmed the town's limited evacuation routes, some of which were blocked by downed utility poles and electrical lines. At times, people were forced to use the ocean for safe refuge.

Hawai'i Route 3000 (Lahaina Bypass), a primary evacuation route, was among the roadways impacted. Smoke, pushed low to the ground by the wind, made visibility difficult and soon overwhelmed the efforts of police and firefighters to evacuate the area. Many residents found themselves trapped, unable to escape the advancing flames and thick, blinding smoke. On Lahainaluna Road, vehicles became stranded and civilians were trapped by the rapidly encroaching fire. A similar scenario played out north on Kahua Street, where the fire's path of destruction would claim numerous lives. Responders and residents created several alternate evacuation routes by opening locked gates and clearing access to dirt roads in the area.

As the fire was moving quickly and roadways remained blocked, several crews of firefighters became trapped near Pauoa Street by the advancing fire and were overwhelmed by flames. Fire apparatus became entangled by power lines

or were unable to evacuate the area due to obstructions—and had to be abandoned, further hampering efforts to combat the growing blaze. One (1) firefighter rescued seven (7) colleagues, including an unconscious officer who required urgent medical attention. Numerous firefighters administered emergency care to the officer.

No longer just a wildfire, the fire had also become an urban conflagration, consuming more buildings than the firefighters were able to protect. Burning structures, vehicles, and vegetation all produced embers and became sources of radiant heat and flames. The fire quickly spread across Honoapiʻilani Highway (Hwy-30) and all the way to the ocean's edge.

As homes and other buildings burned, the water pipes failed and water flowed unrestricted. Pressure in the water mains dropped to the point that there was no water coming from fire hydrants in some parts of Lahaina.

In the aftermath of this catastrophe, questions linger about the adequacy of warning systems, evacuation planning, and the preparedness of communities for such extreme fire events. The tragedy serves as a sobering reminder that the threat of grassland fires, wildfires, and wildfire-initiated urban conflagrations, fueled by climate change and urban encroachment into wildland areas, is a reality that must be addressed with the utmost urgency and diligence—not just in Hawaiʻi, but around the globe.

While the physical scars of this disaster will take time to heal, the emotional toll on the people of Lahaina and the wider Maui community will be felt for generations to come. As the island and the nation mourn the lives lost, the focus must also turn to learning from this tragedy, strengthening emergency response capabilities, and building more resilient communities that can withstand the increasing challenges posed by a changing climate and the ever-present threat of wildfires.

An Incident Analysis Report in Phase 2, outlining FSRI's independent analysis of these events, will follow the initial report. It will provide detail on conditions influencing the original fire situation, attempts to stop its rapid progression through Lahaina Town, evacuation efforts, as well as suppression analysis, electrical power status, burnover assessment, communication effectiveness, and structural damage analysis. Incident analysis will incorporate science and evidence-based analyses with information from FSRI's fire dynamics research, local subject matter experts, industry standards and best practices, and the collective experiences of FSRI's research team.

The Forward-Looking Report developed in Phase 3 of this independent analysis will help answer critical questions about, "How do we prevent this from happening again?" This Phase 3 report will have several discrete and interrelated components including a standards of cover analysis to assess the capabilities of the Maui County Fire Department, a community risk assessment to analyze natural and human caused risks to Maui, community risk reduction planning to help mitigate risk, and a review of fire and building codes.



INTRODUCTION

The fires that occurred on August 8, 2023, and August 9, 2023, on Maui resulted in significant loss of life and property damage. A total of 101 fatalities have been confirmed in Lahaina, with two (2) additional individuals still reported as missing by the Maui Police Department (MPD).¹

Despite the devastation, numerous acts of heroism and community cooperation were observed. Residents assisted in fire fighting and evacuation efforts, utilizing resources such as garden hoses, portable pumps, and pool water to protect homes. Rescues were conducted by both civilians and first responders, often extracting individuals from dangerous conditions involving heavy smoke, flying embers, and active fires. Law enforcement officers attempted to evacuate residents while contending with hazards such as downed power lines, broken utility poles, and debris obstructing roadways. Firefighters engaged the fires from precarious positions and, after hydrants were depleted, used personal vehicles to transport evacuees to safety.

The Native Hawaiian concept of “laulima”, emphasizing familial cooperation, was prevalent, with residents aiding neighbors and strangers alike. However, the loss of elders (the term Kupuna is most commonly used in Hawai‘i), revered knowledge bearers in Polynesian cultures, was particularly impactful.

This document is the first in a series of independent reports that will provide a complete timeline—based on voluminous evidence and contemporary fire science—of the August 2023 Lahaina fire on Maui; an exhaustive analysis of contributing factors to the horrible outcome; and finally, a forward-looking report with actionable recommendations to help prevent future tragedies. This report honors those who perished and remain missing.

1.1 Fire Safety Research Institute’s (FSRI) Responsibility

The Fire Safety Research Institute (FSRI)², part of UL Research Institutes³ (ULRI), is a leading independent safety science organization with a global footprint and a lineage dating back to the formation of Underwriters Laboratories (UL) in 1894. Fire safety was an initial catalyst for the formation of UL, and FSRI was the first research institute to be incorporated within ULRI.

In August 2023, shortly after the tragic Lahaina fire on Maui, the Hawai‘i Department of the Attorney General (DOAG)⁴ contacted FSRI for subject matter expertise in the wake of this horrific event. After a site visit and initial consultation with FSRI experts on the fireground, Hawai‘i Attorney General (AG) Anne E. Lopez engaged FSRI to conduct a comprehensive independent analysis.⁵

FSRI is widely recognized as the premier fire safety science organization in the world. The organization advances fire safety knowledge to address the world’s unresolved fire safety risks and emerging dangers through advanced science, rigorous research, extensive outreach, and education. Drawing on the resources of ULRI’s global network of scientists and safety professionals, FSRI is uniquely positioned to apply science to complex real-world challenges.

Most importantly, FSRI’s independent assessment of the August 2023 Lahaina fire is informed by the best-available science on fire dynamics, relevant subject matter experts located in Hawai‘i and beyond, and the FSRI team’s 200-plus years of collective experience researching, responding to, managing, and recovering from major fire incidents around the globe.

FSRI is humbled to assist the State of Hawai‘i with this important analysis, which has implications across Maui Nui (the islands that make up Maui County, including Maui, Moloka‘i, Lāna‘i, Kaho‘olawe, and the islet of Molokini), the broader Hawaiian Islands, and so many other communities worldwide.

1.2 Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) Responsibility

Given the historic impact of the Lahaina fire, the federal Bureau of Alcohol, Tobacco, Firearms and Explosives⁶ (ATF) immediately responded with its National Response Team (NRT) to assist the Maui County Department of Fire and Public Safety with determining the origin and cause of the August 2023 Maui fires.⁷

The ATF’s role in such investigations is to help local officials identify the initial point of origin and cause of a fire. FSRI experts met with the ATF NRT on Maui and received a detailed briefing on the progress of its analysis. As a federal agency, the ATF only releases its findings to Maui County, the requesting locality.

The ATF NRT departed Maui on August 30, 2023, and provided the Maui County Department of Fire and Public Safety (MFD) with the information it compiled. The ATF investigation is ongoing and a date of report release has not been announced.

1.3 FSRI Analysis of Structure-to-Structure Fire Spread in Lahaina Town

The initial focus of FSRI’s analysis was to comprehensively describe the progression of the fire that destroyed much of Lahaina Town on August 8, 2023, and August 9, 2023, starting where the origin and cause investigation concludes.

From evidence gathered across Maui, informed by FSRI’s extensive experience and research in fire dynamics, especially structure-to-structure fire spread, much of the fire behavior in Lahaina transcended its initial wildland-urban interface (WUI) character to become an even more devastating urban conflagration with alarming speed arising from wind-driven flames and embers.

While the Lahaina fire’s origin was in a WUI setting mauka of Lahaina town (on the mountain side), once it crossed the Hawai‘i Route 3000 (Lahaina Bypass) and ignited the first structures, its primary fuel became structural components and contents, with additional fire spread through grass- and vegetation-covered interstitial areas, driven by extraordinary weather conditions.

FSRI and its partners have multiple research projects underway that are directly relevant to the complex fire progression scenario in Lahaina. For example:

- Development of an Interactive Database of Contemporary Material Properties for Fire Modeling⁸
- Firebrand Ignition of Building Materials⁹
- Firebrand Showers Impacting Roofs¹⁰
- Heat Transfer and Fire Damage Patterns on Walls for Fire Model Validation¹¹
- Heat Transfer from Structure Fires¹²

¹ <https://www.capitalgazette.com/2024/02/13/police-confirm-identity-of-101st-victim-of-huge-maui-wildfire/>

² <https://fsri.org/>

³ www.ul.org

⁴ www.ag.hawaii.gov

⁵ Department of the Attorney General News Release, August 31, 2023

⁶ www.atf.gov

⁷ ATF News Release, August 30, 2023 <https://www.atf.gov/news/pr/atf-national-response-team-departs-maui-consolidates-info-maui-fire-department>

⁸ <https://fsri.org/research/development-interactive-database-contemporary-material-properties-fire-modeling>

⁹ <https://fsri.org/research/firebrand-ignition-building-materials>

¹⁰ <https://fsri.org/research/firebrand-showers-impacting-roofs>

¹¹ <https://fsri.org/research/heat-transfer-and-fire-damage-patterns-walls-fire-model-validation>

¹² <https://fsri.org/research/heat-transfer-structure-fires>

INTRODUCTION

Beyond this research and an intensive review of the relevant academic literature, the FSRI team has engaged directly with subject matter experts across Hawai'i, to better understand the local factors influencing fire dynamics on Maui.

This interaction includes, but is not limited to:

- Hawai'i Division of Forestry and Wildlife (DOFAW)¹³
- Hawai'i Wildfire Management Organization (HWMO)¹⁴
- National Weather Service (NWS) Forecast Office Honolulu, HI¹⁵

1.4 Scope of the Analysis Performed by FSRI

Given the scale of the August 2023 tragedy in Lahaina, the scope of FSRI's comprehensive independent analysis consists of three (3) discrete phases, as stated by the DOAG on August 31, 2023, and described in the balance of this section.¹⁶

Phase 1: Fact-finding about how the fire incident unfolded.

The Comprehensive Timeline presented in this report was compiled from a wide range of data sources, including: FSRI researchers' direct field observations across Lahaina; information from responding Maui County agencies; and exhaustive interviews with residents, survivors, family members, government officials, and first responders.

This data was then compiled into a spreadsheet which shows the Lahaina fire's progression and identifies responders' contemporaneous events and actions. To see the complete dataset, visit <https://ag.hawaii.gov/maui-wildfire-investigation-resources-page/> and <https://doi.org/10.54206/102376/VQKQ5427>.

This report focuses on the time period beginning at 14:55 on August 8, 2023, and concludes at 08:30 on

August 9, 2023, and includes the relevant events that occurred prior to and during this time, such as preparedness efforts, weather and its impact to infrastructure, and other fires occurring on Maui.

Data from the three (3) other Maui fires is also included in specific sections to give context to the situation in Lahaina. An example of this is where Hawai'i Division of Forestry and Wildlife (DOFAW) resources assigned to Olinda, Kula, and the Pūlehu-Kīhei fires are shared to show the high demand for wildland firefighting resources on the island on August 8, 2023 (see section 4.3.11).

The resulting timeline is *the foundation of the analysis* for FSRI's work in Phase 2.

Phase 2: Analysis of the data, determining how various fire protection systems functioned in this fire incident.

The *Incident Analysis Report* developed in Phase 2 of FSRI's independent analysis will provide detail on conditions influencing the original fire situation, attempts to stop its rapid progression through Lahaina Town, and evacuation efforts. This phase will use science and evidence-based analyses with information from FSRI's cutting-edge fire dynamics research, local subject matter experts, industry standards and best practices, and the collective experiences of FSRI's team.

Phase 3: Best practices that incorporate additional data and recommendations for Hawai'i to act toward prevention.

The *Forward-Looking Report* developed in Phase 3 of this comprehensive independent analysis will help answer critical questions about, "How do we prevent this from happening again?"

Phase 3 will have several discrete and interrelated components, described in the following paragraphs.

• Standards of Cover (SOC) Analysis

A standards of cover (SOC) analysis will be developed, using data provided by Maui County and analyzed using state-of-the-art operations research modeling techniques—to determine the level of fire protection resources (i.e., fire apparatus and personnel) needed for the MFD to meet applicable national standards for "all hazards" fire and emergency response across its entire area of responsibility.

• Community Risk Assessment

A community risk assessment (CRA) will be performed, using data from Maui County and a wide array of complementary sources, to assess the level of risk from all hazards (i.e., fire, flood, tsunami, etc.) throughout Maui Nui, with special emphasis on WUI fires.

• Community Risk Reduction Planning

Using a wide range of approaches to engage directly with communities across Maui County, community risk reduction planning will be conducted to help develop realistic fire prevention and risk reduction strategies for residents, businesses, and visitors.

• Fire and Building Code Review

At the request of the MFD, FSRI will perform a review of existing fire and building codes, in concert with the International Code Council (ICC). This review will engage code officials and other relevant groups across Maui and the entire State of Hawai'i.



¹³ <https://dlnr.hawaii.gov/dofaw/>

¹⁴ <https://www.hawaiiwildfire.org/>

¹⁵ <https://www.weather.gov/hfo/>

¹⁶ Department of the Attorney General News Release, August 31, 2023 <https://ag.hawaii.gov/wp-content/uploads/2023/08/News-Release-2023-42.pdf>

BACKGROUND

2.0 Background

2.1 Description of Area–Fire Environment

Several factors interact to comprise the wildfire-prone nature of Maui. These factors that contribute to wildfire occurrence and spread include a combination of biophysical characteristics of the natural environment (topography, climate/weather, vegetation, and natural resource management) and the built environment (land use and development patterns). An overview of these and other factors provide a baseline for understanding of the fire environment on Maui. Comprehensive discussions of these factors at a regional level are included in several existing localized wildfire plans:

- Western Maui Community Wildfire Protection Plan¹⁷
- South Maui Community Wildfire Protection Plan¹⁸
- Upcountry Maui Community Wildfire Protection Plan¹⁹
- Leeward Haleakalā Community Wildfire Protection Plan²⁰



Figure 2.1.1.1 Maui Nui (the islands that make up Maui County, including Maui, Moloka'i, Lāna'i, Kaho'olawe). Source: Gaia GPS.

¹⁷ <https://dlnr.hawaii.gov/forestry/files/2024/01/Western-Maui-CWPP.pdf>
¹⁸ https://dlnr.hawaii.gov/forestry/files/2018/04/2016_SouthMauiCWPP_HWMO.pdf
¹⁹ <https://dlnr.hawaii.gov/forestry/files/2018/04/UMCWPPPlanwithappendices161230.compressed.pdf>
²⁰ https://dlnr.hawaii.gov/forestry/files/2023/10/LH-CWPP-2020_FINAL-w-appendices-compressed.pdf

An overview for the entirety of Maui is provided below.

2.1.1 Physical Characteristics

Maui is the second largest island in the state of Hawai'i and was formed by two (2) volcanoes merging—Haleakalā to the east (10,023 ft. elevation) and Mauna Kahālāwai (also known as the West Maui Mountains, 5,788 ft. elevation) to the west. The island is 48 miles long and 26 miles at its widest, comprising a total of 728 square miles. The two (2) mountain areas are connected by a broad lowland isthmus. Like the rest of Hawai'i, Maui's significant elevation changes from sea level to mountain peaks and its exposure to northeast trade winds for the majority of the year, contribute to a complex pattern of localized microclimates, ecosystems, and wildland-urban development patterns. (Figures 2.1.1.1 and 2.1.1.2).



Figure 2.1.1.2 Maui Island. Source: Gaia

2.1.2 Climate and Weather ^{21,22}

Hawai'i lies on the northern margin of the tropics (just below the Tropic of Cancer). Over 2,000 miles from any continental land mass, the climate of the archipelago is greatly influenced by the surrounding Pacific Ocean. Hawai'i's warmest months are August and September, and its coolest months are February and March, reflecting the effects of seasonal lag in the ocean's temperature. For most of Hawai'i, there are two (2) seasons. The winter season takes place between November to April; summer is May to October. Hawaiian references to these seasons of winter and summer use the words "ho'oilō" and "kau," respectively.²³

The tall mountains of Mauna Kāhālāwai and Haleakalā on Maui have associated topographic features that include peaks, valleys, ridges, saddles, and slopes. These features influence every aspect of its weather and climate as well as fire behavior.

Across Maui, there is high variability in rainfall. Maui receives most of its rainfall on its north and east flanks via north-easterly trade winds and orographic precipitation. The southern and western sides of Maui are drier due to the "rain shadow" effect caused by the mountain shielding of those leeward sides, also referred to as the "orographic effect." Altitude also plays a role in rainfall gradients. Annual rainfall is highest in the upper crests and ridges and lowest in the leeward lowlands, as presented in Figure 2.1.2.1.²⁴

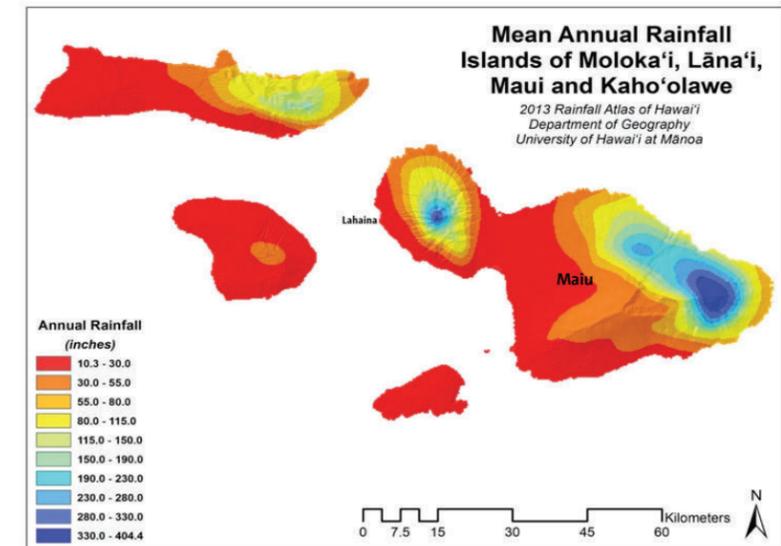


Figure 2.1.2.1 Mean Annual Rainfall Islands of Moloka'i, Lāna'i, Maui, and Kaho'olawe / 2013 Rainfall Atlas of Hawai'i. Department of Geography. University of Hawai'i at Mānoa.

²¹ Giambelluca, T.W., Q. Chen, A.G. Frazier, J.P. Price, Y.-L. Chen, P.-S. Chu, J.K. Eischeid, and D.M. Delparte, 2013: Online Rainfall Atlas of Hawai'i. Bull. Amer. Meteor. Soc. 94, 313-316, doi: 10.1175/BAMS-D-11-00228.1. <http://rainfall.geography.hawaii.edu/howtocite.html>
²² National Weather Service, National Oceanic and Atmospheric Administration. Climate in Hawai'i. Based on a condensed chapter on Hawai'i's climate from the Second Edition (University of Hawai'i Press, 1983) of the "Atlas of Hawai'i." authored by Saul Price, former Hawai'i State Climatologist and Staff Meteorologist for the National Weather Service Pacific Region. https://www.weather.gov/hfo/climate_summary
²³ Prevailing Trade Winds: Weather and Climate in Hawai'i, Edited by Marie Sanderson. University of Hawai'i Press, February 1994.
²⁴ Frazier, A. G., and Giambelluca, T. W. (2017). Spatial trend analysis of Hawaiian rainfall from 1920 to 2012. Int. J. Climatol., 37(5), 2522-2531. doi: 10.1002/joc.4862

BACKGROUND

2.1.3 Wind, Storms, and Fire Behavior

Wind Patterns

In general, winds on Maui originate from three (3) main sources: persistent northeast trade winds that typically dominate conditions from May to September, bringing cool, moist air from the ocean onto the windward slopes; southwesterly Kona winds that occasionally occur during the winter months, typically from October to April when the trade winds weaken or reverse due to passing storm fronts; and rare wind events from hurricanes and tropical storms passing through Hawaiian waters, including periodic downslope wind events. In general, the trade winds are more persistent in summer (90–92%) than in winter (50%).^{7,25} High wind warnings (sustained wind speeds of 40 mph with 60+ mph gusts) are typically issued during winter storms or tropical storms.²⁶ Localized thermally-driven land-sea breezes can also impact near-shore areas.

The State of Hawai'i Hazard Mitigation Plan (2018) provides a detailed description of the hazard profile of these wind patterns.²⁷ The graph in Figure 2.1.3.1 (shown right) demonstrates the distribution of high wind events according to month.

Historical Accounts of Wind on Maui

Virtually all island habitats, including Hawai'i, are prone to potentially devastating ocean-borne winds. There are many names for and meanings of wind in Hawaiian culture. Relevant to the grassland fire events of August 2023 on Maui are the Kaua'ula²⁸ winds, which impact the west side of Maui in the Lahaina-Wahikuli region. This periodic wind phenomenon has been noted from historical times. One such account of a historical wind event in this area is shown right.²⁹

Wind and Fire Behavior

The wind patterns on Maui influence fire behavior by affecting intensity, direction, and rate of spread. Wildfires have occurred under both typical conditions and rare weather and/or wind events. Wildfires on Maui do not occur exclusively during high wind events, nor do they occur

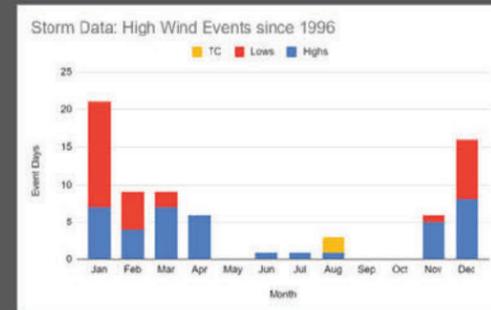


Figure 2.1.3.1 Distribution of source of high wind events in Hawai'i. Source: Bravender, J. NOAA National Weather Service. "TC" contributions are considered to be when an area is not within the high wind field of a tropical cyclone, but effects such as down-sloping winds on the periphery of a tropical cyclone prompted the NWS to issue a High Wind Warning. "Lows" are events associated with low pressure, and "Highs" are strong trade wind events caused by high-pressure systems.

From Kaua'ula³⁰ Valley blows a wind made famous in mele (songs) for its power of destruction. It was known to blow with hurricane force in the 1800s and has been clocked at over 120 miles per hour. Coming from Iao Valley over Pali Kāhili, down Kaua'ula Valley, the Makani Kaua'ula (Sacred Battle Wind) could blow from Honokowai to Waikapū, tearing down everything in its path. In 1858 it famously tore off the stone steeple and half the roof of the Waine'e Church. A hundred years later, in 1951, it completely demolished the second church, built in 1894 by H. P. Baldwin to replace the original structure burned out by anti-Royalists in 1893.

Mrs. Ka'ae (Auntie Kai) reported that the people were given a warning when the hurricane winds would blow...

—Michelle Anderson. The Storied Places of West Maui: History, Legends, and Place Names of the Sunset Side of Maui, 2016

²⁵ Sonia P. Juvik, James O. Juvik, and Thomas R. Paradise. Atlas of Hawai'i 2nd Edition. University of Hawai'i Press. p. 65

²⁶ Based on discussion with several representatives from NOAA-National Weather Service, Honolulu. January 2024.

²⁷ 2018 State of Hawai'i Hazard Mitigation Plan. Section 4. <https://dod.hawaii.gov/hiema/files/2018/06/Draft-Section-4-10-High-Wind-Storms.pdf>

²⁸ Pukui-Elbert Hawaiian Dictionary defines Kaua'ula as: "A strong mountain wind, often destructive, at Lahaina, Maui. Lit., the red rain [referring to red soil washed away by a storm]." <https://wehewehe.org/gsd/2.85/cgi-bin/hdict?e=q-11000-00-off-0hdict-00-1-0-10-0-0-direct-10-ED-4-textpukuielbert%2Ctextmamaka-0-11-11-en-Zz-1-Zz-1-home-kaua-00-3-1-00-0-4-0-0-11-00-0uffZz-0-00&a=d&d=D72691>

²⁹ Anderson, M. The Storied Places of West Maui: History, Legends, and Place Names of the Sunset Side of Maui. University of Hawai'i Press. (2016) p.23

³⁰ Anderson, M. The Storied Places of West Maui: History, Legends, and Place Names of the Sunset Side of Maui. University of Hawai'i Press. (2016) p.23

exclusively during downslope wind events. While wildfires are directly influenced by wind speed and direction, valleys and canyons on Maui frequently channel winds, accelerating fire spread and intensifying fire behavior as winds funnel through narrow passages or flow around objects.

Links Between Storms and Wildfire

While storms can also bring heavy rainfall, particularly wet seasons can worsen fire risks in subsequent dry seasons. This occurs due to the accumulation of vegetation (fuel loading) during the wet season, locally referred to as "green up" events. When the next dry period ensues, this excess fuel desiccates and becomes highly flammable standing fuel, intensifying the potential for wildfires.^{31,32}

Seasonality of Fires^{33, 34}

Fires can occur any time of year, but annual rainfall seasonality and El Niño-driven drought events are the key area of fire activity across all of Hawai'i, including Maui. The annual cycle, which includes a wet season that promotes fuel accumulation and a pronounced dry season that allows fuels to cure, contributes greatly to the risk of fire ignition and spread. El Niño events greatly exacerbate dry/wet season patterns, often increasing rainfall at the start of the event followed by severe, region-wide drought.

Links Between Hurricanes and Wildfire

Several recent examples of the profound link between proximate hurricanes and wildfires have been recorded. For instance, in 2018, the low relative humidity (RH) and strong winds, connected to Hurricane Lane's nearby passing drove several wildfire events across Hawai'i, including one (1) in Lahaina, Maui, that burned 2,100 acres, 21 structures, and 27 vehicles.³⁵ Just a few weeks

earlier from August 5-8, 2018, the Keauhou Ranch Fire burned over 3000 acres, as Hurricane Hector (100 knots 959 millibars) passed about 160 nautical miles south of the Big Island (Hawai'i). Nearly 9,000 acres burned in Mākaha Valley & Wai'anae Valley (Wai'anae Kai Baby Girl Fire) around August 5-6, 2018.

The effects of hurricane-wildfire connections have been scientifically studied. For example, in 2020, an analysis of hurricane winds and their relationship to fire was published by a team of researchers from the University of Hawai'i.³⁶ It details the compounding hazards of rain-driven flooding, heavy winds, and multiple fires that were produced by Hurricane Lane in 2018. The study concluded that both fire and rain severity were influenced by the hurricane environment and local topographic features. Conditions at the edge of the storm resulted in dry windy weather conducive to fire, while closer to the storm center, the incredibly moist atmosphere lifted by Hawai'i's mountains brought intense, long-lasting rainfall.³⁷

Fire Danger Weather and Red Flag Warnings³⁸

The National Weather Service³⁹ issues fire weather planning forecasts daily with event-driven updates issued as necessary:

Red Flag Program:

Forecasters will issue Fire Weather Watches/Red Flag Warnings when the combination of dry fuels and weather conditions support extreme fire danger and/or fire behavior. Extreme fire behavior in Hawai'i is typically characterized by a wind-driven fire with high rates of spread that create control difficulties. Red Flag event criteria consist of both fuel and weather parameters and is primarily based on fuel and weather data from the Honolulu International Airport (PHNL).

³¹ Wildfire Challenges Today. Pacific Fire Exchange webpage. <https://pacificfireexchange.org/resource/hawaii-fire-challenges-today/>

³² Changing Climate and Wildfire in Hawai'i. Climate Change Series September 2022. Pacific Fire Exchange. <https://pacificfireexchange.org/resource/changing-climate-wildfire-in-hawaii-current-observations-future-projections/>

³³ Wildfire in Paradise - Management Context & Challenges. Pacific Fire Exchange. https://pacificfireexchange.org/wp-content/uploads/2022/07/WildfireInParadise_WUIContext_2018.10.01.pdf

³⁴ Trauermicht, C. 2019. Vegetation-Rainfall Interactions reveal how climate variability and climate change alter spatial patterns of wildland fire probability on Big Island, Hawai'i. Science of the Total Environment 650:459-469

³⁵ Maui County After Action Report and Improvement Plan for 2018-8-16 Tropical Cyclone Lane. Prepared by County of Maui Emergency Management Agency 2019. https://www.scribd.com/document/680401526/2018-Maui-wildfires-after-action-report#from_embed

³⁶ Nugent, A. D., R. J. Longman, C. Trauermicht, M. P. Lucas, H. F. Diaz, and T. W. Giambelluca, 2020. Fire and Rain: The Legacy of Hurricane Lane in Hawai'i. Bull. Amer. Meteor. Soc., 101, E954-E967, <https://doi.org/10.1175/BAMS-D-19-0104.1>

³⁷ <https://hawaii.edu/epsco/hurricane-lane-brought-fire-and-rain-to-hawaii/>

³⁸ <https://www.weather.gov/media/hfo/Firewxops.doc>

³⁹ Fire Weather Operations Plan. National Weather Service Forecast Office in Honolulu, Hawai'i, Brechley, Wroc, and Bravender. June 2018 Update. <https://www.weather.gov/media/hfo/Firewxops.doc>

BACKGROUND

The Keetch-Byram Drought Index (KBDI), which is derived from temperature and rainfall data at the PHNL, is used to diagnose fuel conditions. A Red Flag event will be triggered for leeward portions of the state when all three (3) of the following criteria are met for two (2) hours or more during any part of a day at the PHNL:

- 1 KBDI \geq 600
- 2 Minimum RH \leq 45 % (two hours or more)
- 3 Wind \geq 20 mph (\geq 17 kt) (two hours or more)

Fire Weather Watch:

Fire Weather Watches are issued to alert fire and land management agencies to the possibility of Red Flag conditions beyond the first forecast period (12 hours). The watch can be issued 18 to 96 hours in advance of the expected onset of criteria.

Red Flag Warning:

A Red Flag Warning is used to warn of an impending or occurring Red Flag event. Its issuance denotes a high degree of confidence that weather and fuel conditions consistent with Red Flag event criteria are occurring or will occur in 48 hours or less.

2.1.4 Vegetation and Fuels

Since Maui covers a vast stretch of topographic and climatic characteristics, a complex mosaic of land cover types exists. Vegetation generally follows a pattern of horizontal lines of vegetation zones, a consequence of rainfall and weather gradients. Higher elevations contain mixed native watershed forests. A patchwork of native mesic ecosystems, active or fallow agricultural lands, and limited development occupy mid-elevation areas. In many leeward areas, the vegetation in mid-to- lower

elevations include mixed grass-shrublands dominated by introduced, fire-prone species. Invasive grasses and shrubs are especially prolific on fallow former agricultural lands, unmanaged vegetated corridors, and vacant/unmanaged lots. Developed areas are planted predominantly with ornamental landscaping.

Grass-Fire Cycle—Fuel Loads

Fuels build up quickly on unmanaged lands due to a year-round growing season and highly competitive nature of the invasive grass and shrub species that have taken hold across Hawai'i. Warm temperatures year-round and ample annual rainfall result in rapid fuel accumulation and very high fine fuel loads.⁴⁰ The potential to carry fire for fine fuel types, such as the invasive grasses described above, is highly sensitive to quick and relatively small fluctuations in RH. Many fire managers in Hawai'i consider an RH of 60 percent or less to be a threshold for high fire potential.⁴¹ Also utilized is the tracking of long-term 12-month rainfall yields, as this is a primary indicator of dry season fuel loads.

2.1.5 Hawai'i Fire History

Wildfires are increasing in frequency, size, and severity on all islands in Hawai'i. Wildfires in the islands were once limited to those caused by active volcanic eruptions and infrequent dry lightning strikes. Nearly all fires in Hawai'i are now human-caused, and they often pose threats to communities and natural and cultural resources.⁴² With the combination of annual dry seasons and episodic droughts, high density of human-caused ignitions, and vast areas of unmanaged fuels, human-caused wildland fire has become a frequent hazard and disturbance throughout the state.⁴³

Across Hawai'i, the number of acres burned has increased three-fold in the last two (2) decades. (Figure 2.1.5.1).

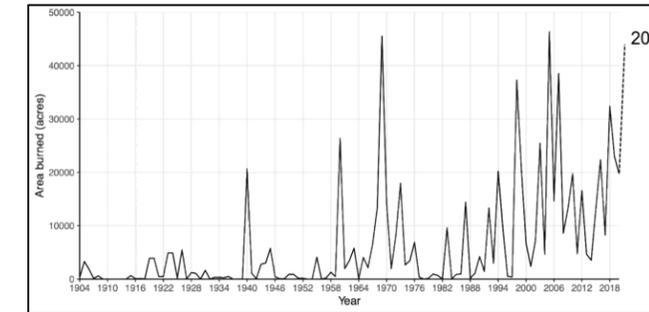


Figure 2.1.5.1 Wildfire Occurrence In Hawai'i, 1904–2021 (Credit: C. Trauernicht & HWMO).

Wildfire Ignitions

Approximately 99 percent of wildfires in Hawai'i are caused by human activity.⁴⁴ Natural causes of ignition are very rare, with lava restricted to active flows on Hawai'i Island and lightning strikes accounting for less than 0.2 percent of attributed wildfire causes.⁴⁵ The numbers of ignitions that require a fire suppression response have increased over the last several decades across Hawai'i islands on both (Figures 2.1.5.2 and 2.1.5.3) and are taking place throughout the year on all islands on both windward and leeward sides. Spatial patterns of prior wildfires reveal that ignitions are most frequent in developed areas, but most areas that burn large acreage occur in dry non-native grasslands and shrublands (Figure 2.1.5.4 – see following page). The four (4) densest areas of ignition on Maui are West Maui, South Maui (Kīhei to Kaupō), Kahului, and the corridor between the central-north shore to Upcountry Maui (Figure 2.1.5.5 – see following page).

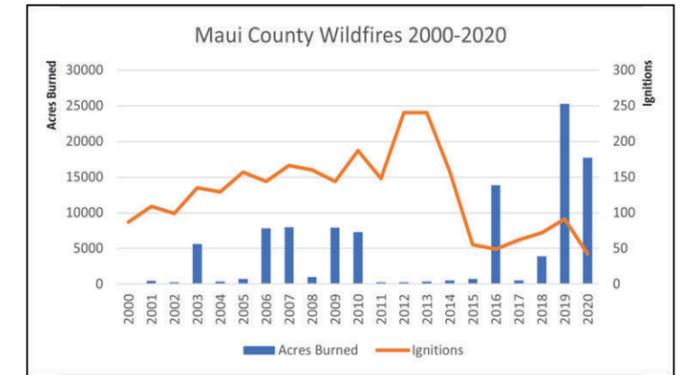


Figure 2.1.5.2 Maui County Wildfire Ignitions and Acres Burned by Year, 2000–2020. From 2016 to 2020 there was an inverse relationship between acres burned and ignitions. A. Bare and C. Trauernicht. Pacific Fire Exchange. Data Source: C. Trauernicht and Hawai'i Wildfire Management Organization. 2023.

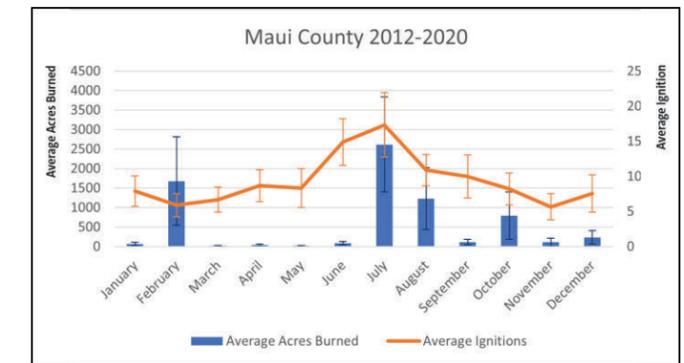


Figure 2.1.5.3 Maui County Ignitions and Acres Burned by Month, 2012–2020. Data indicates the greatest number of ignitions occurring during summer months. A. Bare and C. Trauernicht. Pacific Fire Exchange. Data Source: C. Trauernicht and Hawai'i Wildfire Management Organization. 2023.

⁴⁰ Trauernicht, et al. 2015. The scale and context of wildfire in Hawai'i. *Pacific Science* 69:427-447; and Minton. 2006. Fire, erosion, and sedimentation in the Asan-Piti watershed and War in the Pacific NHP, Guam. Pacific Cooperative Studies Unit, University of Hawai'i at Mānoa, Department of Botany. PCSU Technical Report, 150. https://www.fs.usda.gov/psw/publications/giardina/psw_2015_giardina001_trauernicht.pdf

⁴¹ Wildfire in Paradise - Management Context & Challenges. Pacific Fire Exchange. https://pacificfireexchange.org/wp-content/uploads/2022/07/WildfireInParadise_WUContext_2018.10.01.pdf

⁴² Summary of Fire Past and Present. Pacific Fire Exchange. <https://pacificfireexchange.org/region/Hawaii/>

⁴³ Challenges to Rapid Wildfire Containment in Hawai'i. Draft. C. Trauernicht, L.X. Gollin, M.P. Lucas, and C.P. Giardina. University of Hawai'i, Mānoa. College of Tropical Agriculture and Human Resources. Cooperative Extension. https://www.nrem-fire.org/_files/ugd/81f7ef_569dd0cfb4144307806fe8d8c9391cb.pdf

⁴⁴ Trauernicht, C., E. Pickett, C.P. Giardina, C.M. Litton, S. Cordell, A. Beavers, A. 2015. The contemporary scale and context of wildfire in Hawai'i. *Pacific Science* 69:427-444 Friday, J.B., S. Cordell, C.P. Giardina, F. Inmahn-Narahari, N. Koch, J.K. Leary, C.M. Litton, C. Trauernicht. 2015. Future directions for forest restoration in Hawai'i. *New Forests* 46:733-746

⁴⁵ Trauernicht, C., E. Pickett, C.P. Giardina, C.M. Litton, S. Cordell, A. Beavers, A. 2015. The contemporary scale and context of wildfire in Hawai'i. *Pacific Science* 69:427-444 Friday, J.B., S. Cordell, C.P. Giardina, F. Inmahn-Narahari, N. Koch, J.K. Leary, C.M. Litton, C. Trauernicht. 2015. Future directions for forest restoration in Hawai'i. *New Forests* 46:733-746

BACKGROUND

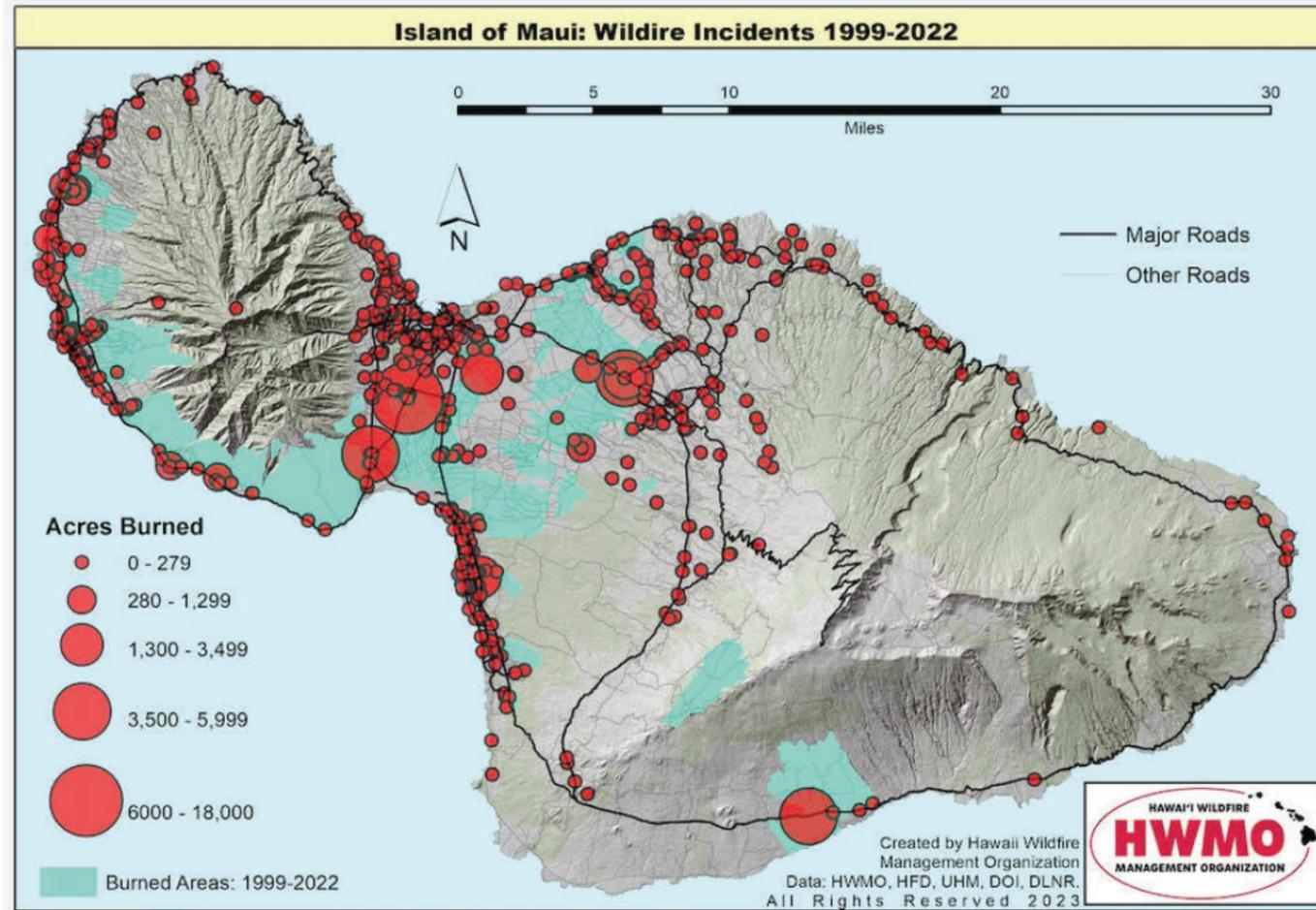
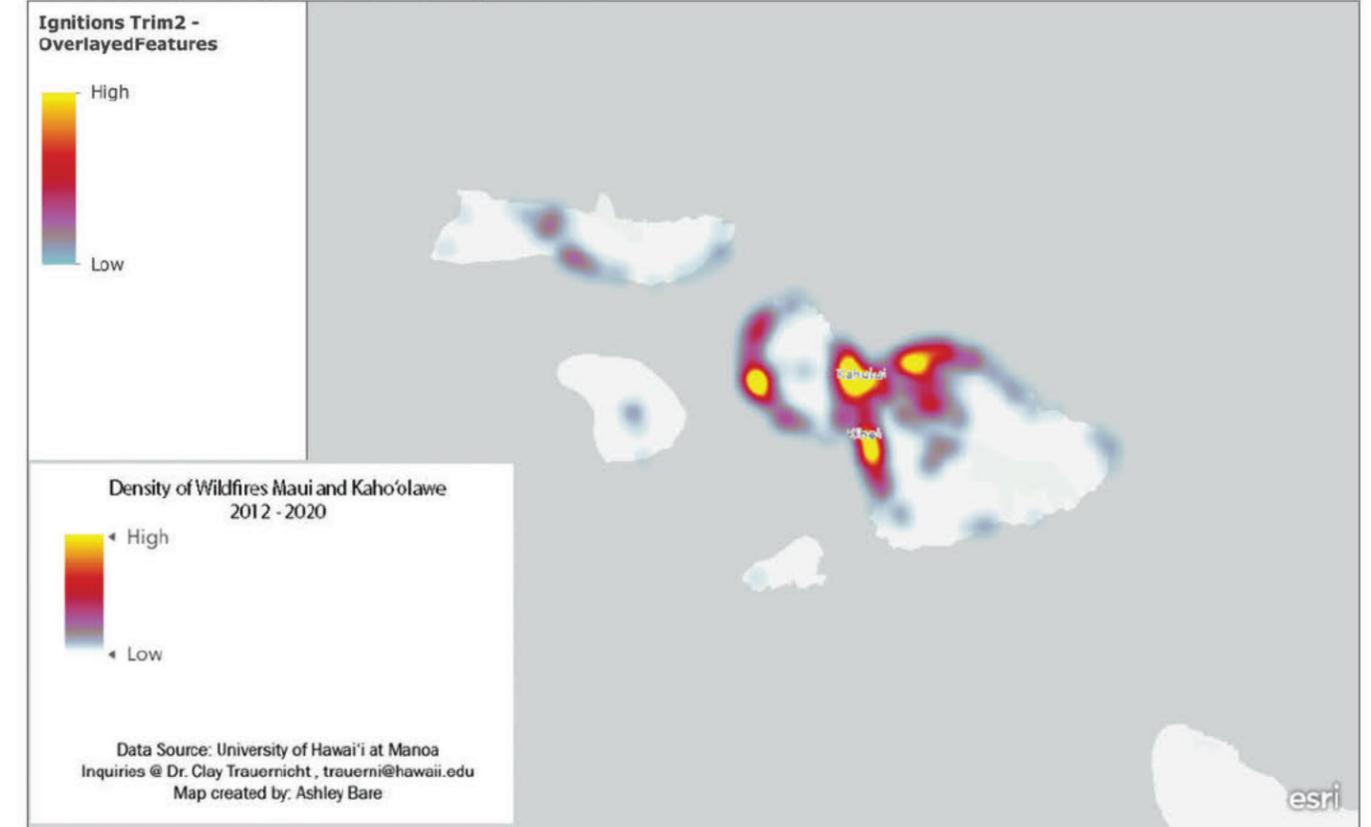


Figure 2.1.5.4 Maui Ignition Locations and Large Fire Burned Areas. 1999–2022. O. Smith. Hawai'i Wildfire Management Organization. 2023.

Maui County Fire Ignitions Heat Map 2012-2020



Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, USFWS | United States Geological Survey (USGS); Hawaii Statewide GIS Program | Esri, TomTom, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, USFWS

Figure 2.1.5.5 Density of Wildfires on Maui and Kaho'olawe. 2012–2020. A. Bare and C. Trauernicht. Pacific Fire Exchange. Data Source: C. Trauernicht and Hawai'i Wildfire Management Organization. 2023.

BACKGROUND

2.1.6 Land Use

Land uses on Maui are organized and zoned as agricultural, conservation/natural resources, urban, and rural districts. Each of these contributes to, or is impacted by wildfire, as detailed below.

Land Use: Agriculture

Agriculture has historically been a vital component of Maui's economy, and according to the Maui County General Plan 2030: Maui Island Plan⁴⁶, it will continue to be an important industry from an economic, social, and environmental perspective: "Although Maui's agriculture has evolved over the years, its importance remains constant." Agriculture is embraced on Maui as being an important agriculture include the higher costs

of land, water rights and availability, social changes, and affordable housing.⁴⁷

According to the 2020 Update to the Hawaii Statewide Agricultural Land Use Baseline⁴⁸, of all the Hawaiian Islands, the island of Maui has seen the most dramatic changes to its agricultural landscape between 2015–2020. The final closure of the Hawaiian Commercial & Sugar Company (HC&S) in 2016 removed 38,810 acres of sugarcane production from the island, contributing to an overall decline in cropped acreage of 82%. Diversified agriculture is now the largest crop on Maui, (Figure 2.1.6.1), which increased by 115%, followed by pineapple, which dropped by 12 percent down to 959 acres.⁴⁹

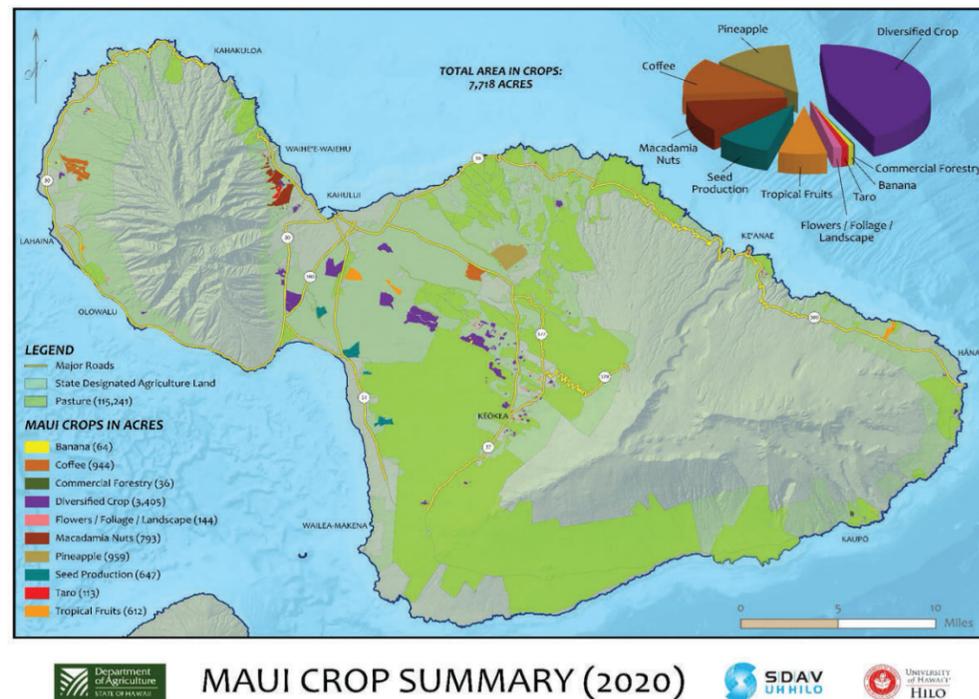


Figure 2.1.6.1 Maui Crop Summary, 2020. Hawaii Department of Agriculture Update to the Hawaii Statewide Agricultural Land Use Baseline. Source: 2020 Update to the Hawaii Statewide Agricultural Land Use Baseline.

⁴⁷ Maui County General Plan 2030. Maui Island Plan, p. 7-2. <https://www.maui-county.gov/DocumentCenter/View/84682/Chapter-7?bidId=>
⁴⁸ 2020 Update to the Hawaii Statewide Agricultural Land Use Baseline https://hdoa.hawaii.gov/wp-content/uploads/2022/01/2020_Update_Ag_Baseline_all_Hawaiian_Islands_v5.pdf
⁴⁹ 2020 Update to the Hawaii Statewide Agricultural Land Use Baseline. Prepared for Hawaii Department of Agriculture. Prepared by University of Hawaii at Hilo. Spatial Data Analysis & Visualization Research Laboratory. https://hdoa.hawaii.gov/wp-content/uploads/2022/01/2020_Update_Ag_Baseline_all_Hawaiian_Islands_v5.pdf

Links Between Agriculture and Wildfire

There are direct links between changes in land use, the abandonment of active agriculture, and wildfire occurrence statewide. Hawaii's spike in wildfires and their growth over time, closely follows land use changes and agricultural decline.⁵⁰ Active agriculture (irrigated managed crops, large-scale or traditional localized farming, or grazing) has long served as an effective and essential landscape scale wildfire mitigation tool⁵¹ with multiple additional community benefits across Hawaii (i.e., jobs, food security, etc.). The removal of active agriculture and the subsequent accumulation of highly combustible standing dead fuel on unmanaged lands is leading to more and larger fires.

This shift from active agricultural use to now-unmanaged regions has been especially prevalent on Maui, where in 2019, over 19,300 acres burned across 14 incidents. Nearly all of these wildfires occurred in the recently abandoned agricultural fields of central Maui. Substantial rainfall the winter prior, followed by summertime drought and record heat, fueled the 8,000-acre Waiko Road fire on July 12, 2019, which was Maui's largest wildfire on record at that time.⁵² The August 2023 fires also took place in former agricultural lands where the accumulation of invasive and fine fire fuels is high. See Figures 2.1.6.2 and 2.1.6.3 for burn scars and their underlying land use.

Land Use: Conservation and Natural Resources

On Maui Island, over 50 percent of the lands are in the Conservation District. These four (4) areas have the most conservation lands: West Maui and Wailuku-Kahului, which share the West Maui Mountains, and East Maui and Makawao-Pukalani-Kula, which share the slopes and summit of Haleakalā Crater.⁵³

Three (3) watershed partnerships exist on the island of Maui. They include the Mauna Kahālawai Watershed Partnership,⁵⁴ East Maui Watershed Partnership,⁵⁵ and the Leeward Haleakalā Watershed Restoration Partnership.⁵⁶ Each is a voluntary alliance of both public and private landowners committed to the common value of protecting forested watersheds for water recharge, conservation, and other ecosystem services through collaborative management.

⁵⁰ https://pacificfireexchange.org/wp-content/uploads/2023/08/Historic_active_landuse_mauifires2023-1.png
⁵¹ Kirk W. Davies, Katie Wollstein, Bill Dragt, Casey O'Connor, Grazing management to reduce wildfire risk in invasive annual grass prone sagebrush communities, *Rangelands*, Volume 44, Issue 3, 2022, Pages 194–199.
⁵² Abandoned Agriculture in 2019 is Hawaii's Fire Problem. *Pacific Fire Exchange. Wildfire Review Series.*
⁵³ <http://hwrp.org/>
⁵⁴ <http://www.westmauiwatershed.org/>
⁵⁵ <http://eastmauiwatershed.org/>
⁵⁶ <http://hwrp.org/>

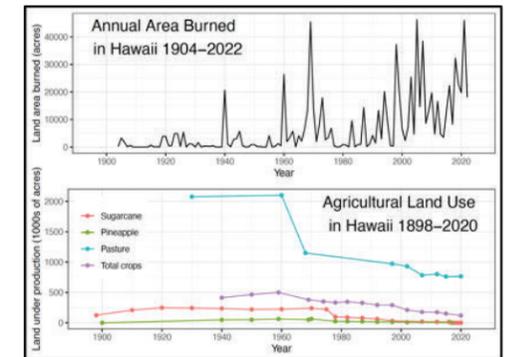


Figure 2.1.6.2 Hawaii Fire History and Agricultural Decline (Credit: Trauernicht & HWMO).

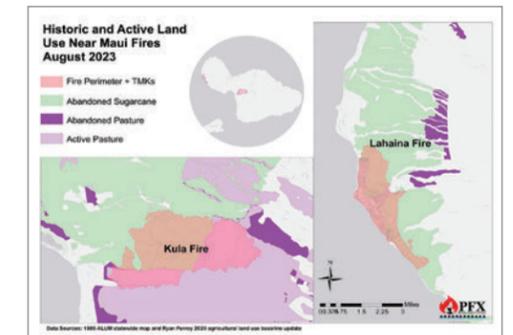


Figure 2.1.6.3 Historic and Active Land Use Maui Fires, 2023 (Credit: UH Wildland Fire). Tax Map Key (TMK) data showing individual pieces of property within the fire perimeter.

BACKGROUND

Watershed plans have been created for the West Maui Mountains Watershed,⁵⁷ Pōhākea Watershed,⁵⁸ the Southwest Maui Watershed,⁵⁹ and the Ma‘alaea Watershed.⁶⁰ These watershed management plans aim to protect sensitive watershed resources and to restore resources that have already been degraded by agriculture; urbanization; and damaging events,⁶¹ including fire.

Additional relevant guiding documents for natural resource management on Maui include:

- Hawaii Forest Action Plan⁶²
- Kahana, Honokahua and Honolua Watersheds Characterization Report, and Wahikuli-Honokōwai Watershed Characterization Report⁶³
- West Maui Mountains Watershed Partnership Weed Management Plan⁶⁴
- West Maui Watershed Study, Prepared by U.S. Army Corps of Engineers, for State of Hawai‘i Department of Land and Natural Resources, Division of Aquatic Resources⁶⁵

There are two (2) nationally protected areas on Maui: Haleakalā National Park and Keālia Pond National Wildlife Refuge. State conservation lands, including forest and water reserve areas, are under the control of the Department of Land and Natural Resources (DLNR). Forest reserves include: Hāna Forest Reserve, Kahikinui Forest Reserve, Kamehamehenui Forest Reserve, Kīpahulu Forest Reserve, Ko‘olau Forest Reserve, Kula Forest Reserve, Makawao Forest Reserve, Waihou Spring Forest Reserve, and West Maui Forest Reserve. Each of these has a management plan.⁶⁶

⁵⁷ West Maui Mountains Watershed Management Plan by US Army Corps of Engineers, for State of Hawai‘i Department of Land and Natural Resources, Division of Aquatic Resources.

⁵⁸ Pōhākea Watershed Management Plan. <https://www.mauiwatershed.org/maalaea>

⁵⁹ Southwest Maui Watershed Management Plan. <https://www.mauiwatershed.org/home>

⁶⁰ Ma‘alaea Watershed Management Plan. <https://www.mauiwatershed.org/maalaeawatershed>

⁶¹ <https://www.mauiwatershed.org>

⁶² <https://dlnr.hawaii.gov/forestry/files/2013/09/Hawaii-Forest-Action-Plan-2016-FINAL.pdf>

⁶³ Kahana, Honokahua and Honolua Watersheds Characterization Report, and Wahikuli-Honokōwai Watershed Characterization Report. <https://www.westmaui2r.com/>

⁶⁴ West Maui Mountains Watershed Partnership Weed Management Plan by US Army Corps of Engineers, for State of Hawai‘i Department of Land and Natural Resources, Division of Aquatic Resources.

⁶⁵ West Maui Watershed Study, Prepared by US Army Corps of Engineers, for State of Hawai‘i Department of Land and Natural Resources, Division of Aquatic Resources. <https://www.poh.usace.army.mil/Portals/10/docs/Civil/20Works/West%20Maui%20Watershed%202021/2023%20West%20Maui%20WMP-Final%20Report.pdf?ver=LpXdfFUZvArD2tJWw9tyQ%3d%3d>

⁶⁶ State Forest Reserve Management Plan website: <https://dlnr.hawaii.gov/forestry/firs/reserves/maui-nui/>

⁶⁷ Fact Sheet: After Fire, First Things First. Pacific Fire Exchange. After-Fire Action Series Resource 1. August 2023. <https://pacificfireexchange.org/resource/after-fire-first-things-first/>

⁶⁸ Challenges to Rapid Wildfire Containment in Hawai‘i. Draft. C. Trauernicht, L.X. Gollin, M.P. Lucas, and C.P. Giardina. University of Hawai‘i, Mānoa. College of Tropical Agriculture and Human Resources.

⁶⁹ Cooperative Extension. https://www.nrem-fire.org/_files/ugd/81f7ef_569dd0cfb4144307806fe8d8c9391cbd.pdf

Links Between Conservation, Natural and Cultural Resources, and Wildfire

Many areas on Maui provide critical habitat for threatened and endangered species. Because Hawai‘i’s ecosystems are not fire adapted, once an area burns, it is frequently replaced by fire prone exotic species, which promotes landscape conversion through the grass-fire cycle described above. Wildfires also burn soil and cause lasting changes, leaving soil hydrophobic and less able to absorb water and recharge aquifers. Heavy rain events after fires also cause erosion that sloughs off topsoil, leaving some areas completely denuded and unable to support vegetation. Post-fire erosion fills streams with sediment, depositing it in the ocean. This sedimentation smothers coral reefs, negatively impacting nearshore water quality, fisheries, and coral health.⁶⁷

Forest loss from wildfires and subsequent increased downstream sediment deposition to nearshore reefs have important implications for cultural and civic resources, recreation, food resources, and cultural practices. These negative impacts are particularly acute in Hawai‘i given the sensitivity of native ecosystems to fire disturbance, short ridge to reef linkages between terrestrial and marine ecosystems,⁶⁸ the dependence of Hawai‘i’s tourism economy on natural resource quality and desirability, and on the tight integration of Hawaiian history and cultural connection to land and water.

Hawaiian history and lore are filled with images, stories, and deities related to volcanic fire and the symbolism of

destruction and birth from that volcanic fire. However, with the rapid increase in modern, human-caused fires over the last several decades, cultural practices and resources have experienced negative impacts. Unlike indigenous uses of fire in continental fire-adapted ecosystems—where systematic and regular burns were used for millennia as a tool for forest health, regeneration, and swidden agriculture—the intentional use of fire in Hawai‘i was largely limited to the clearing of lowland agricultural fields, cooking, the burning of waste, and small ceremonial practices. Since Hawaiian forests are less adapted to fire and are often destroyed when burned, the cultural ramifications of increased wildfires in Hawai‘i are significant. These impacts include the loss of cultural sites and landmarks and the loss of native ecosystems that provide the natural resources used for sustenance, traditional Hawaiian practices, and a sense of history and place. This has major implications for Hawaiian cultural identity. Land (‘āina), water, and animals are essential to Hawaiian culture:

“‘Āina is a living and vital part of the Native Hawaiian cosmology and is irreplaceable. The natural elements—land, air, water, ocean—are interconnected and interdependent. To Native Hawaiians, land is not a commodity; it is the foundation of their cultural and spiritual identity as Hawaiians. The ‘āina is part of their ‘ohana, and they care for it as they do for other members of their families. For them, the land and the natural environment are alive, respected, treasured, praised, and even worshiped.”

— Professor Pualani Kanaka‘ole Kanahele,
Kumu Hula⁶⁹

⁶⁹ <https://www.resilientmaui.org/pages/sustainability-resiliency-native-hawaiian-culture>

⁷⁰ Maui County General Plan 2030. Maui Island Plan, p. 7-12-13 <https://www.maui-county.gov/DocumentCenter/View/84682/Chapter-7?bidId=>

⁷¹ Hawai‘i Data Collaborative. Covid-19 Highlights Vulnerability of Rural Hawai‘i. Joyce Lee-Ibarra, JLI Consulting LLC

⁷² <https://www.hawaiidata.org/news/2020/4/20/covid-19-highlights-vulnerabilities-of-rural-hawaii#:~:text=Overall%2C%208.1%20percent%20of%20Hawaii%27s,percent—live%20in%20rural%20areas.>

⁷³ Chapter 19.29 Maui County Code, in Maui County General Plan 2030. Maui Island Plan. Table 7-1. State and County Regulatory Controls for Rural Lands. P. 7-12.

⁷⁴ Maui County General Plan 2030. Maui Island Plan, p. 7-18.

BACKGROUND

Links Between the Built Environment and Wildfire

Over the years since wildfires began increasing on Maui, they have threatened lives, homes, and human health. Many neighborhoods on Maui have unmanaged/untended fire fuels interspersed within developed areas; homes built with combustible materials; and subdivisions designed with minimal setbacks, egress routes, water resources, and firefighting access. On several occasions, these factors have contributed to fire spread through communities and into surrounding areas and loss of structures. Air quality during fires is greatly reduced from smoke, and wind-borne dust from burned lands and soil is easily lifted into the air in heavy winds, sometimes for weeks to months after a wildfire event.

Wildfires also impact economic and municipal infrastructure and activities. Burned soil from wildfires decreases groundwater recharge, which can affect drinking water supplies. As noted above, post-fire rain events cause erosion that damages nearshore resources, which can have effects on one of the area's primary economic bases—coastal and marine-based tourism, as well as resident and visitor recreational activities. Traffic and road closures during fire events and post-fire flooding can block access routes, keeping people from their homes and work, and are costly to local governments. Finally, agricultural, ranching, and energy production (e.g., Auwahi Wind Farm, Hawaiian Electric) all face disruptions in operations during wildfire events and have had to deal with damaged infrastructure.

Resilience to wildfire and other natural hazards, the management of natural and cultural resources, and plans and goals for the built environment can be found

in the following Regional Community Development Plans:

- Kīhei - Mākena
- Pā'ia - Ha'ikū
- Wahikuli - Kahului
- Makawao - Pukalani - Kula
- Hāna
- West Maui
- Maui County Resolution No. 13-13 contains the order of the Community Plan updates.

2.2 Power and Water Infrastructure

2.2.1 Hawaiian Electric

Hawaiian Electric produces and distributes electrical power to Maui. Hawaiian Electric serves 95 percent of Hawaii's 1.4 million residents on the islands of O'ahu, Maui, Hawai'i, Lāna'i, and Moloka'i. Electricity is distributed by overhead transmission lines in many parts of Lahaina. Newer developments, such as the Kupuohi Street industrial park, homes on Komo Mai Street, the community of Kahoma Village, the Hawaiian Homes neighborhood off of 'Aipuni Street, and some streets on the south end, receive their electricity via an underground distribution system. More information regarding Hawaiian Electric's undergrounding efforts is included in their website.⁷⁴

In 2019, the Maui Electric and Hawai'i Electric Light brands were formally changed to Hawaiian Electric.⁷⁵ The acronyms "HECO" and "MECO" are still used locally to refer to this organization and appear in transcribed sections of this report.

⁷⁴ Undergrounding Utility Lines | Hawaiian Electric
⁷⁵ Maui Electric and Hawaii Electric Light to be renamed Hawaiian Electric

2.2.2 Department of Water Supply

The Department of Water Supply is an agency of the County of Maui. Its mission is to provide clean water efficiently. The Department of Water Supply provides water to approximately 36,400 customer accounts on Maui and Moloka'i.⁷⁶

Maui County Water System in Lahaina

Drinking water is provided to the Lahaina area by the Maui County Department of Water Supply. In Maui County, Hawai'i, as well as the rest of the United States, drinking water may be used by people and communities for drinking, showering/bathing, flushing toilets, washing clothes, watering plants and lawns, washing vehicles, firefighting, filling swimming pools, and many other things.

The Maui County Department of Water Supply has two (2) drinking water treatment plants that produce drinking water for the Lahaina area. Although the storage and distribution systems for these two (2) drinking water treatment facilities are connected, there is no interconnection with other parts of the Maui County water system or other smaller water providers in the Lahaina area. Maui County Department of Water Supply meets current design and capacity standards for the Lahaina and the Māhinahina treatment, storage, and distribution systems in terms of water treatment capacity and water storage required.



⁷⁶ <https://www.khon2.com/local-news/maui-electric-and-hawaii-electric-light-to-be-renamed-hawaiian-electric#:~:text=Starting%20in%20January%2C%20Maui%20Electric,differences%20besides%20the%20name%20change>
⁷⁶ <https://www.maui-county.gov/126/Department-of-Water-Supply>

BACKGROUND

LAHAINA DRINKING WATER TREATMENT PLANT

Elevation: 800 Feet

1.8 Million Gallons Per Day = 1250 Gallons Per Minute

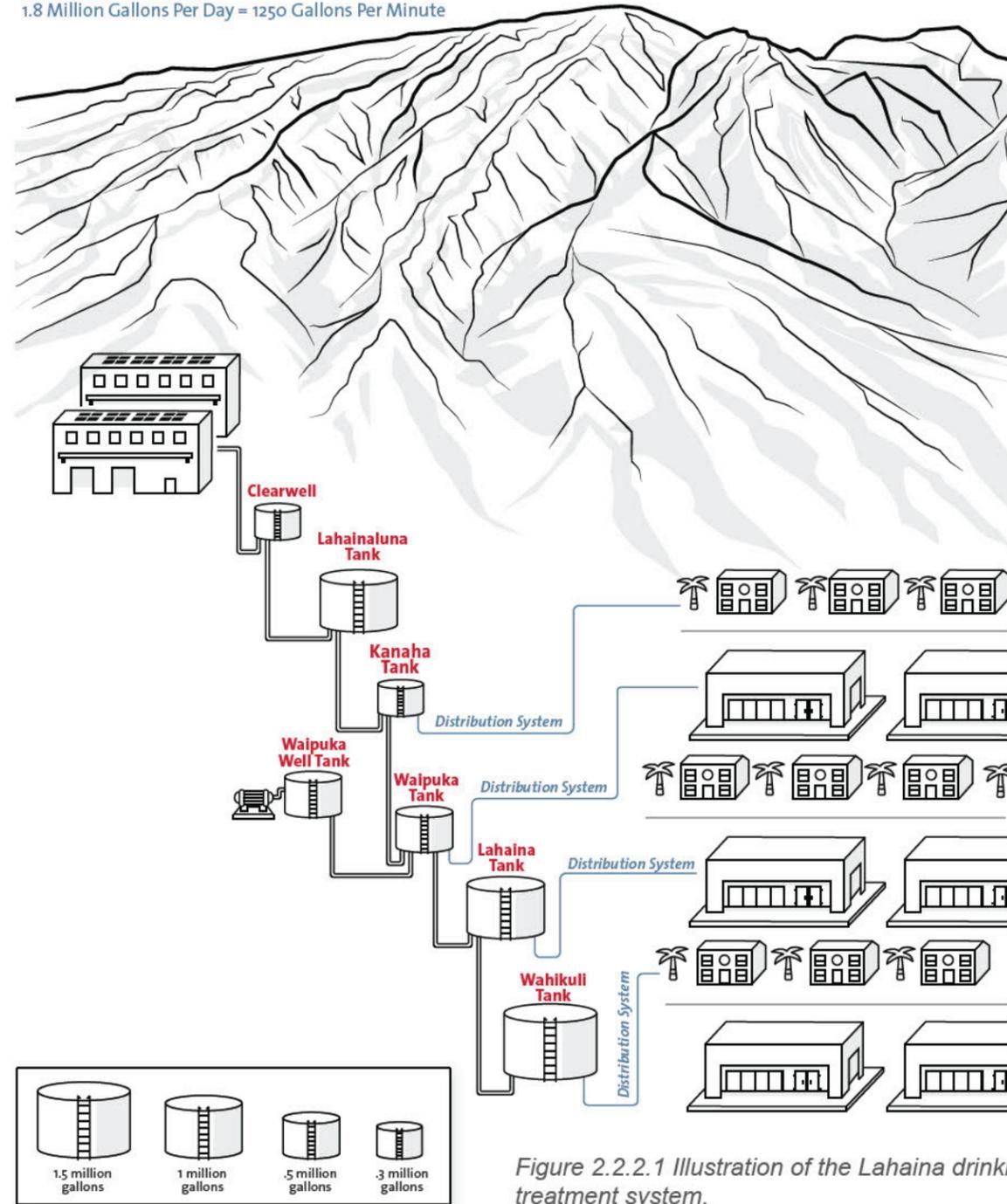


Figure 2.2.2.1 Illustration of the Lahaina drinking water treatment system.

[This is a representation of the system configuration.]

Drinking Water Treatment, Storage, and Distribution Systems

The Lahaina treatment plant (Figure 2.2.2.1), located near Lahainaluna High School, has a capacity of 1.8 MGD (million gallons per day, 1,250 gpm). The Māhinahina treatment plant, located near the Kapalua Airport, has a capacity of 2.0 MGD (1,390 gpm). These two (2) drinking water treatment plants are also supplemented by a system of three (3) small groundwater well/tank combinations that increase water production.

The Kanaha Stream is the source water for the Lahaina drinking water treatment plant (elevation approximately 800 feet). Water is treated by sedimentation, microfiltration, and disinfection. The disinfected water is pumped into the Lahainaluna Tank which completes the drinking water treatment process at this plant.

This treated water is then conveyed by gravity from the Lahainaluna Tank to four (4) storage tanks in the Lahaina distribution system with a total storage volume, including the Lahainaluna Tank, of 4.1 Million Gallons (MG). Pumps are not used within the Lahaina system once treated water leaves the plant. All storage tanks are filled by gravity, and distribution system pressures are the result of elevation change within the system and water level in the storage tanks.

BACKGROUND

MAHINAHINA DRINKING WATER TREATMENT PLANT

Elevation: 700 Feet
2 Million Gallons Per Day = 1390 Gallons Per Minute

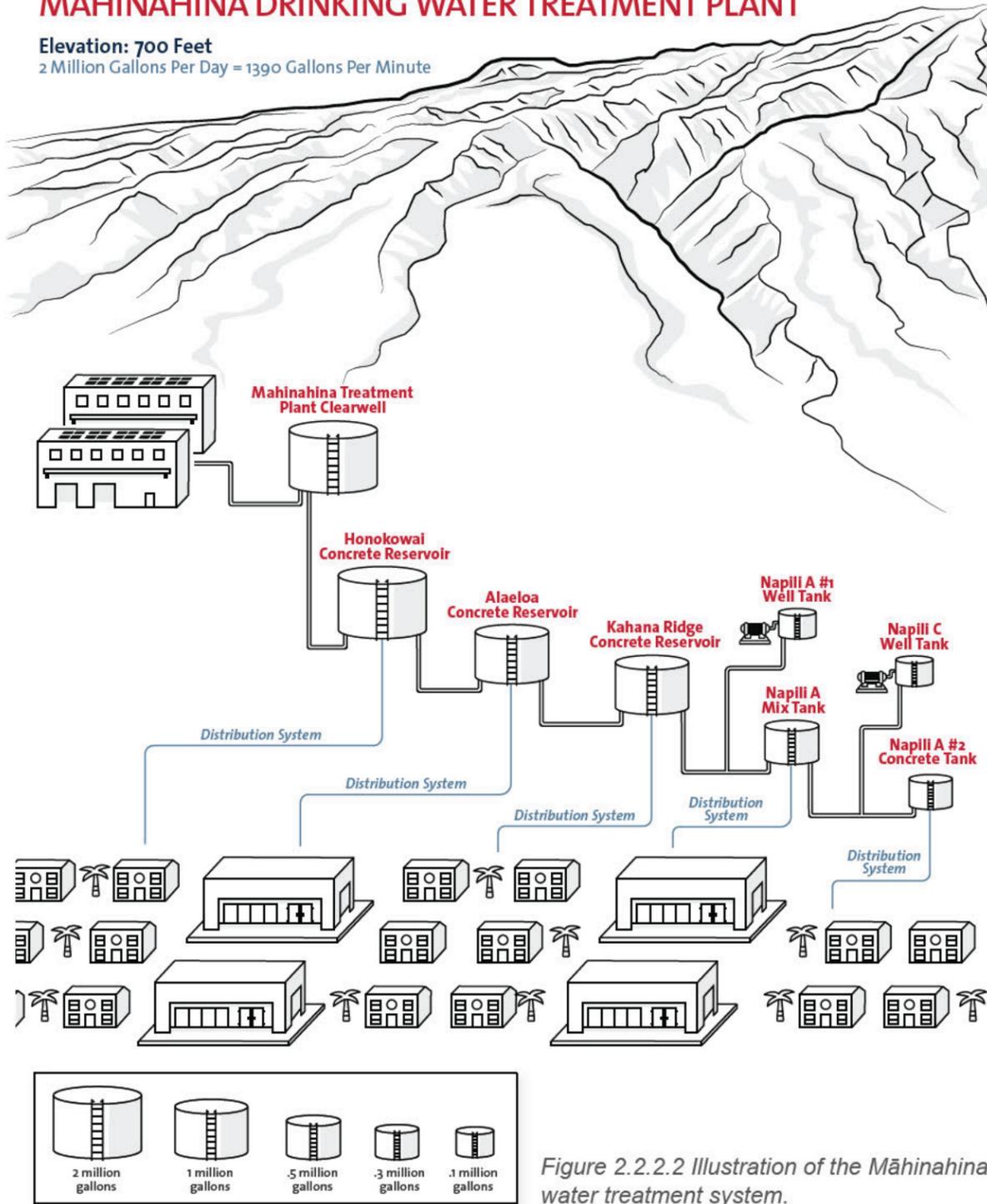


Figure 2.2.2.2 Illustration of the Māhinahina drinking water treatment system.

[This is a representation of the system configuration.]

The Māhinahina drinking water treatment plant, located near the Kapalua Airport, is at an elevation of approximately 700 feet (Figure 2.2.2.2). Source water for this system is surface runoff entering a 20 MG raw water pre-sedimentation/ equalization reservoir. The water is then treated by rapid mixing, flocculation, dual-media deep bed filtration, and disinfection. The disinfected water passes through a two (2) MG clearwell before entering the rest of the storage and distribution system. The Māhinahina storage and distribution system has six (6) storage tanks with a total volume of 6.2 MG (including the clearwell). As in the Lahaina system, pumps are not used to provide pressure or move drinking water within the Māhinahina distribution system. All pressure is a result of elevation change and water tank/reservoir water levels.

The Māhinahina system to the north and the Lahaina system to the south are connected using water lines located along Lower Honoapi'ilani Road and Honoapi'ilani Highway (Hwy-30). Again, pressure generated in the drinking water distribution systems is a result of elevation change and water tank/reservoir levels. Pumps are not used to provide pressure within either the Lahaina or Māhinahina drinking water storage and distribution systems.

BACKGROUND

2.3 Wildfire Prevention and Preparedness Organizations and Efforts

2.3.1 Maui Wildfire Task Forces

Across Maui, several local/regional fire task forces exist to collaboratively discuss, coordinate, and implement on-the-ground wildfire mitigation and preparedness projects. Composed of fire and emergency response agencies, as well as additional local partners, organizations, and community representatives, these task forces work on issues and goals specific to their focal areas. They include the West Maui Fire Task Force, South Maui Fire Task Force, and Leeward Haleakalā Fire Task Force.

2.3.2 Maui Fire Department Fire Prevention Bureau

The MFD Fire Prevention Bureau works to abate fire and life-safety hazards before they can cause injury and property damage. Focal services include fire education programs to increase the public's awareness of fire safety, including an annual fire safety program for Maui County Schools and the Smoke Alarm Maui Program. Other focal services include fire investigation, reviewing building plans and permits for fire safety, and issuing several special permits.

2.3.3 State Department of Land and Natural Resources—Division of Forestry and Wildlife (DLNR-DOFAW)

DLNR-DOFAW is statutorily mandated to take measures for the prevention of wildland fires within DLNR-DOFAW managed lands and to cooperate with county and federal fire agencies in developing plans and programs for prevention assistance of wildfires on additional lands. DLNR-DOFAW is involved with and committed to the

following community risk reduction initiatives: supporting the development and action plans of Community Wildfire Protection Plans, locally administering the U.S. Forest Service Wildland-Urban Interface grant program, serving as the state liaison for the Firewise USA® community risk reduction program (in partnership with Hawai'i Wildfire Management Organization (HWMO)), and administering State Legislature Grant-In-Aid awards given to local organizations who are working on wild-fire-related projects (in 2021, these included HWMO and Ka'ala Farm, Inc.).

2.3.4 Hawai'i Wildfire Management Organization (HWMO)

HWMO is a nonprofit organization founded in 2000 to focus on wildfire prevention, planning, and mitigation and the development of Hawai'i-specific wildfire information. The organization serves as a hub of wildfire information, risk reduction, and project assistance across Hawai'i. HWMO supplements and complements agency wildfire efforts, aims to meet community hazard reduction needs, and coordinates/leads multi-jurisdictional and multi-partner wildfire projects. HWMO develops and offers educational wildfire prevention, preparedness, and planning workshops for diverse audiences and stakeholder groups; leads the development of Community Wildfire Protection Plans and fire management plans; serves as the lead coordinator for the Firewise USA® program (in partnership with DLNR-DOFAW); facilitates several regional wildfire coordinating groups and multi-partner projects; and implements cross-boundary fuels management projects. On behalf of Hawai'i, HWMO partners closely with the Cohesive Wildland Fire Management Strategy team and the Fire Adapted Communities Learning Network. HWMO also works together with the University of Hawai'i to implement the

Pacific Fire Exchange project (PFX), a fire science communication project that develops, collates, and shares best available wildfire information on behalf of a broad partnership that includes DLNR-DOFAW, United States Department of Agriculture Forest Service, county fire departments, and other forestry and fire entities.

2.3.5 University of Hawai'i at Mānoa College of Tropical Agricultural and Human Resources (UHM-CTAHR)

UHM-CTAHR has several researchers, extension specialists, and some graduate students who synthesize and develop new information on topics pertaining to wildfire. Faculty expertise includes range management, forestry, ecology, social science, and fire science which has contributed to a range of wildfire-related products such as fuels data, maps, risk models, and other information. HWMO and UHM-CTAHR Cooperative Extension partner to implement the PFX project. PFX is a fire science communication project that works to improve the availability and sharing of fire science relevant to the Pacific Island region to support and inform the wildfire mitigation work of land managers and emergency responders.

2.3.6 National Weather Service⁷⁷ (NWS)

The NWS Forecast Office⁷⁸ in Honolulu, Hawai'i provides forecasts, watches, warnings, and consultation services for the prevention, suppression, and management of forest and rangeland fires in the State of Hawai'i. The forecast office is located on the campus of the University of Hawai'i at Mānoa in the Hawai'i Institute for Geophysics (HIG) building.

The NWS issues a standard fire weather planning forecast daily with event-driven updates issued as necessary. Fire Weather Watches and Red Flag Warnings are issued to alert land management agencies to the

potential for widespread ignitions or control problems with existing fires. Spot forecasts for government agencies involved in fighting currently burning wildfires or soon-to-be ignited prescribed burns are provided on request.

Hawaiian Fire Weather Products Available: ⁷⁹

- Fire Weather Planning Forecast
- Graphic Forecast with Fire Weather Parameters (RH, Transport Winds, Mixing Heights)
- NWS Spot Forecast Request for Hawai'i—Request a Spot Forecast Online
- NWS Spot Request Instructions
- Hawai'i Remote Automatic Weather Stations (RAWS) Data
- Fire Weather Operations Plan Updated: June 2018
- Hawai'i Fire Weather Program Information
- National Fire Weather Program

Together, all of the above entities participate in and support the multi-agency statewide Wildfire and Drought Lookout! awareness and preparedness campaign each year; conduct wildfire hazard assessments (often in partnership with one another); and collaborate whenever possible on education, planning, and wildfire mitigation projects.

⁷⁷ About the NWS. <https://www.weather.gov/about/>

⁷⁸ Fire Weather Operations Plan. National Weather Service (NWS) Forecast Office in Honolulu, Hawai'i. National Oceanic and Atmospheric Administration. Brenchley, Wroe, and Bravender. June 2018 Update. <https://www.weather.gov/media/hfo/Firewxops.doc>

⁷⁹ Hawaiian Fire Weather Products. National Weather Service, National Oceanic and Atmospheric Administration Webpage. <https://www.weather.gov/hfo/firewx>

BACKGROUND

2.4 Emergency Response Organizations

2.4.1 Maui County Emergency Services and Public Safety

Maui County Emergency Services and Public Safety include the Maui Fire Department (MFD) and Maui Police Department (MPD). MFD resources and equipment are spread across the entire county and are made available when needed if they are not already in use. MFD has 14 fire stations across Maui County. There are ten (10) fire stations on the Island of Maui. Initial response to the majority of wildfires (as well as all medical and other emergencies) is the responsibility of MFD.⁸⁰

MPD has six (6) districts and police stations located in Wailuku (headquarters), Lānaʻi, Hāna, Lahaina, Molo-kaʻi and Kīhei, serving 29 motorized “beats.” The Maui County 911 center (“Central”) is part of the MPD Communications Section. Central is responsible for 911 emergency call-taking and dispatch, answering non-emergency calls, as well as answering and assisting with police administrative calls for Maui County (including a secondary location on Molokaʻi for coverage of Molokaʻi and Lānaʻi). Central dispatches MPD, MFD, and emergency medical services for AMR (“Med Comm”). During incidents, Central is responsible for incident coordination, personnel tracking, and may assist with resource requests from field personnel (e.g., requesting Hawaiian Electric’s assistance).

2.4.2 State: Hawaiʻi Department of Land and Natural Resources-Division of Forestry and Wildlife (DLNR-DOFAW)⁸¹

DLNR-DOFAW responds to wildfire events on state lands and provides additional wildland firefighting assistance when state lands are threatened and/or mutual aid agreements are invoked. In the early 1980s, a map of

each county was delineated to depict areas where the Division of Forestry and Wildlife (DOFAW) has primary fire responsibility, areas where it could respond mutually with other firefighting agencies, and areas out of its jurisdiction (color-coded white in Figure 2.4.2.1). DOFAW was granted authority to respond to fires in the white areas only under specific conditions (i.e., extreme threats to public safety, local resources fully committed, extreme fire behavior, etc.), through the appropriate channels, and if its resources are available. In order for DOFAW to respond to fires in the white areas, the request for assistance must come from the County Civil Defense/Emergency Management Agency through the Hawaiʻi Emergency Management Agency (HI-EMA). The request can also come directly from the MFD to DOFAW. The map in Figure 2.4.2.1 from DLNR-DOFAW demonstrates the independent and shared response zones of each agency:



Figure 2.4.2.1 Island of Maui Fire Response Zones. 2022 (Source: DLNR-DOFAW).

2.4.3 Federal: The Department of the Interior (DOI)

Within Hawaiʻi and the Pacific Islands, the DOI has established a single interagency wildland fire program serving the National Park Service and U.S. Fish and Wildlife Service. The staff are located on the Island of Hawaiʻi and serve the 34 National Parks and National Wildlife Refuges scattered across the Pacific, including Haleakalā National Park and Keālia Pond located on the Island of Maui. Specifically on Maui, the U.S. Fish and Wildlife Service maintains a Type Six (6) wildland fire engine which is staffed by employees from Hawaiʻi Island when fires occur. Ongoing hazardous fuels treatments with the highest risk of fire are occurring on federal lands on Maui.

2.4.4 Maui Emergency Management Agency (MEMA)

The MEMA utilizes emergency management principles to protect all persons within Maui County and achieve whole community resiliency. This includes planning, preparing, and coordinating emergency management operations in meeting disaster situations and coordinating post-disaster recovery operations.⁸² MEMA maintains and staffs the emergency operations center (EOC) when activated.

2.4.5 Hawaiʻi Emergency Management Agency (HI-EMA)

The HI-EMA plans for and responds to both natural and human-caused emergencies. These include emergencies resulting from all hazards, from tsunamis, wildfires, and hurricanes to incidents involving hazardous materials or nuclear power. The agency prepares and implements a statewide Comprehensive Emergency Management Plan, and routinely conducts extensive exercises to test state and county emergency response capabilities.

including the four county emergency management agencies—Hawaiʻi County Civil Defense, Maui Emergency Management Agency, City and County of Honolulu Department of Emergency Management, and Kauaʻi Emergency Management Agency—and the Federal Emergency Management Agency (FEMA).

After an incident, HI-EMA conducts damage assessment surveys and advises the Governor on whether to declare an emergency and seek federal relief funds. The agency maintains a primary Emergency Operations Center (EOC) in Diamond Head Crater, Honolulu. HI-EMA also operates the State Warning Point (SWP), a state emergency communications center staffed 24 hours, 7 days a week. The center maintains statewide communications with county emergency officials and other partners.

Organized within the State of Hawaiʻi Department of Defense, HI-EMA has a total authorized strength of approximately 60 full-time employees. HI-EMA is responsible for a wide range of functions supporting the entire State of Hawaiʻi and its comprehensive emergency management program.⁸³

2.4.6 Heavy Equipment Contractors

Private heavy equipment contractors provide direct and indirect fire line construction during wildland firefighting operations on Maui. Dozers, excavators, loaders, and water tenders (referred to as water tankers in Maui)⁸⁴ are owned and maintained by construction companies supporting a variety of different industries. These private companies make their equipment available for wildland firefighting upon request by MFD and DOFAW, or they can also self-dispatch and report to the incident commander on scene. These resources can be used on county, state, federal, and private land fires. The private companies invoice the county or state (depending on land ownership) for the number of hours worked at the conclusion of the incident.⁸⁵

⁸⁰ <https://www.mauicounty.gov/1460/Fire-Public-Safety>

⁸¹ <https://dlnr.hawaii.gov/forestry/fire/response-maps/>

⁸² <https://www.mauicounty.gov/2452/About-MEMA>

⁸³ <https://dod.hawaii.gov/hiema/>

⁸⁴ <https://www.nifc.gov/resources/equipment/water-tenders>

⁸⁵ Information provided by DOFAW Maui Unit Leader.

DATA COLLECTION

3.0 Data Collection

The objective of the data collection process is to gather all available facts relating to the August 8, 2023, Maui wildfires as well as the preparedness efforts that occurred prior. Although FSRI's data collection included information related to the weather conditions that contributed to all of the August 8, 2023, fires, the evacuation and fire suppression efforts focused only on the Lahaina Fire incident from August 8 to August 9, 2023. These facts consist of time stamped conditions (i.e., damage to buildings due to wind, fire, smoke, fallen trees and utility poles, traffic, etc.) and actions (i.e., evacuation, fire suppression, rescues, etc.) as evidenced by images (still photos or videos), radio communications recordings, radio transcripts, witness statements, text and phone logs, email records, technical discussions (TDs) with individuals, and any other form of data. Data requests were prioritized by their value in establishing an event timeline and understanding the facts of the conditions existing prior and during the incident. Data points were cross referenced and further supported by the collective dataset.

The information request process was agreed upon by Maui County Department of Corporation Counsel (Maui Corp Counsel) and FSRI. Initially, the process consisted of FSRI requesting information via email direct to Maui Corp Counsel, with copies to the leader of the county department possessing the data, and Maui Corp Counsel's outside counsel. Maui Corp Counsel maintained a Google Sheets request and production log where all activity was tracked and communicated. The Google Sheets log was shared with FSRI. Maui Corp Counsel and FSRI communicated specific needs and concerns mostly using the comments tool within the Google Sheets log. Maui Corp Counsel delivered products to FSRI via Google Drive.

3.1 Written Requests for Information

At the request of Maui Corp Counsel, FSRI emailed requests in small segments. The initial requests for information were centered on learning incident facts through radio communication logs, transcripts, recordings, and other preparedness and response time stamped data. This was necessary to prepare the FSRI team for technical discussions with responders, cooperators, government leaders, and evacuees as well as establish a timeline of events. FSRI emails requesting information from Maui Corp Counsel are documented in the appendices.

FSRI also emailed requests for information to agencies and organizations not affiliated with Maui County. These organizations included the United States Coast Guard (USCG), HI-EMA, Hawai'i Department of Health, Hawaiian Electric, Hawai'i DOFAW, HWMO, American Medical Response (AMR), and NWS (Honolulu). FSRI members followed up with several in-person and virtual meetings to learn details of the agency/organization participation. This method of requesting information from non-Maui County organizations was maintained throughout the data collection process.

On November 29, 2023, Maui Corp Counsel required FSRI to discontinue requesting information via email in favor of subpoenas prepared by the AG. At the same time, Maui Corp Counsel also requested that all communications be exclusively between Maui Corp Counsel and the AG. FSRI and the AG prepared subpoenas for new requested information and for information previously requested but pending fulfillment.

See table 6.1 in the Appendix for details regarding the subpoenas (collected as of March 29, 2024). FSRI received written records in many different forms. Most organizations responded to requests via a returned email with attached documents (e.g., Microsoft Excel, Microsoft Word, and Adobe Portable Document Format (PDF)), or narrative form within an email. Larger documents were shared via a virtual data locker. Maui Corp Counsel records were received mostly in PDF form. Because PDFs are images rather than letters and numbers that can be read by a computer the data had to be converted to a usable format. Where possible, data extraction tools were used to transfer information into Excel spreadsheets. This only worked for PDFs containing information that was organized in columns and rows or where the images (i.e., letters and numbers) were legible. Even the best scraping tools produced errors requiring correction by FSRI team members. The FSRI team manually converted hundreds of pages of documents due to scraping tools being unable to reliably convert the information into Excel in an automated fashion.

3.2 Radio Communications

Maui County 911 calls and MFD and MPD field radio communication recordings were received in short segments, ranging from a few seconds to a couple minutes. FSRI personnel with specific emergency responder expertise listened to 48 hours of radio transmissions on multiple channels and transcribed the information to a spreadsheet. Due to some recordings having multiple channels, a quality control transcriber ensured that the critical operational periods of August 8–9, 2023, were accurately transcribed. This enabled FSRI to have reasonable confidence that all communications provided were evaluated for critical content needed to capture time stamped events thoroughly and accurately.

3.3 Site Visits

Visits to the exclusion zone of the Lahaina Fire started late August 2023 and extended through January 2024. Arriving early ensured researchers had ample opportunity to collect data as close as possible to the actual event. Visits in September through November focused on capturing high-definition imagery (stills and videos) of each undamaged, damaged, and destroyed structure. The impact of wind, fire, smoke, and fire suppression on structures was captured for each street within Lahaina. The remaining vegetative fuel component of the burn was also evaluated as was the east side (mauka) of the fire's perimeter, capturing the burn to unburned interface, typically referred to as, "black to green." The FSRI team also surveyed the area via helicopter, capturing aerial imagery of all burned and adjacent unburned areas.

3.4 Technical Discussions (TDs)

TDs are in-person meetings with individuals and groups designed to learn what they experienced and observed during an incident. For this study, TDs were restricted to those impacted by the August 8, 2023, Lahaina Fire (i.e., residents) and those responsible for preparedness and response.

From September through November 2023, FSRI engaged in more than 100 TDs to capture their experiences. Most often, these meetings took place in hotels where fire-displaced residents were temporarily living. For those still able to occupy their homes—those just outside of the burn area—the meetings took place on their properties. FSRI walked streets and talked with residents willing to answer questions about the incident and about their experiences. Many shared in detail while offering photos and videos via AirDrop. Sharing large files through AirDrop preserved important metadata, including date, time and geographical location of where the media was captured.

DATA COLLECTION

Interactions with residents were not restricted to personal contact. The questions asked of residents were also provided via FSRI fliers that included a virtual link where they could submit responses and upload images. The fliers were printed in English, Hawaiian, Chinese, Japanese, Tagalog, Ilocano, Marshallese, Chuukese, Tongan, and Spanish to address the diverse population of Lahaina. Fliers were also distributed at the Disaster Recovery Center located at the Lahaina Civic Center, and other locations where residents were living and receiving care.

TDs with Maui County’s current and retired employees were conducted by two (2) to five (5) FSRI representatives. FSRI representatives were chosen based on their relevant backgrounds and expertise. For example, fire department technical discussions were conducted by FSRI personnel having fire service backgrounds. Discussions were also attended by a Maui Corp Counsel attorney; a labor representative (for represented employees only); and most times, Maui outside counsel from McCarriston Miller Mukai MacKinnon LLP.⁸⁶

Most TDs with Maui County current and retired employees were conducted in small group settings in Maui; however, due to work schedules and relocations, some were with individuals. Most took place in Maui County buildings, six (6) were held in State buildings, and one (1) was in a hotel. Some former Maui County employee TDs were completed off island if the individual moved to another area.

TDs for MPD and MFD personnel were conducted in the same fashion. FSRI personnel asked questions, and responses were captured by a FSRI note taker using a laptop, on a recording device, and on hard copies of Lahaina maps using different colored pens to identify fire progression, unit location, and tasks performed and observed.

The majority of Maui County personnel attended TDs without personal notes or reference materials. Some MPD officers referenced their official submitted reports.

TDs with Maui Emergency Management Agency (MEMA), HI-EMA, elected officials, and Maui Water were conducted similarly but did not include maps.

FSRI requested and selected participants for TDs to ensure a comprehensive understanding of the critical events. Invitations were extended to key individuals and groups based on their vital roles or leadership positions during the incident.

Engaging individuals as close to the time the incident occurred as possible was desired to improve the recall of events they experienced. FSRI conducted TDs with each of the following agencies at their first availability (Table 3.4.1).

In addition to formal TDs, FRSI personnel also arranged in-person and virtual meetings with members of HWMO, NWS, and DOFAW. These meetings were essential to learning about the history of Hawai’i wildfire and the ongoing efforts to manage it.

Table 3.4.1 Technical Discussions Conducted by FSRI.

TECHNICAL DISCUSSIONS			
Party	Interview(s)	Format	Date(s)
MFD	MFD Assigned units	Groups of 3–5 per session	October 21- November 1, 2023
	Fire 2 and Fire 3	Together	
	Other chief officers	Individually	
Government Officials	Governor Josh Green	Staff	November 30, 2023
	Lt. Governor Sylvia Luke	Staff	
	Mayor Richard Bissen	Counsel	December 4, 2023
HI-EMA	Major General (MG) Kenneth Hara	Counsel	December 1, 2023
	James Barros	Staff	
MPD	MPD Assigned Officers	Individually	January 2-12, 2024
Water Department	Water Department Staff	Individually	January 22-24, 2024
MEMA	MEMA Staff	Individually	January 23 - 31, 2024
Maui Dispatcher	Maui Dispatch Staff	Individually	January 23, 2024

⁸⁶ McCarriston Miller Mukai MacKinnon <https://www.m4law.com/>

TIMELINE OF EVENTS

4.0 Timeline of Events

Throughout the report, time is identified in a 24-hour format that includes two-digits for hour, colon/separator, and two (2) digits for minutes. (i.e., 14:00 is 2:00 p.m. HST).

- The Composite Timeline includes information from multiple agencies and organizations and records of significant events ranging from pre-fire activities on August 7, 2023, through the response effort at 08:30 on August 9, 2023.
- The Pre-Fire Timeline addresses preparation, weather conditions, organizational structures, staffing, and other aspects of the pre-fire situation.
- The Operational Timeline contains the events of the response.

Points of Reference:

- Pre-fire: Events occurring before 06:30 HST on August 8, 2023
- Lahaina AM fire: Fire occurring August 8, 2023, between 06:34 and 14:17
- HST Lahaina PM fire (Ku'ialua fire): Fire occurring August 8–9, 2023, between 14:55 and 06:00 HST

The timelines are displayed by organization, date, time, event description, and source (e.g., where the information was taken from). A comprehensive timeline consisting of all organizations represented within this report can be found online <https://ag.hawaii.gov/maui-wildfire-investigation-resources-page/> and <https://doi.org/10.54206/102376/VQKQ5427>.

Note: Not all organizations that assisted or cooperated in the pre-fire events and response efforts are included in the timeline. This is not to de-emphasize their importance or the impact they had on saving lives and property. The organizational timelines were created from facts that were provided by the organization or that were available via public-facing websites or social media sites at the time this report was published.

4.1 Summary of August 8, 2023, and August 9, 2023, Maui Fires

High winds and low relative humidity set the stage for multiple events (Figure 4.1.1) on August 8, 2023.



Figure 4.1.1 Map of Maui, showing the location and extent of the four fires over the August 8, 2023, and August 9, 2023, incident.

At 00:22, the Olinda (Figure 4.1.2) fire started at 21 Olinda Road, Makawao. It quickly grew into a large fire that threatened lives and structures and required a sizable response over the next few days.

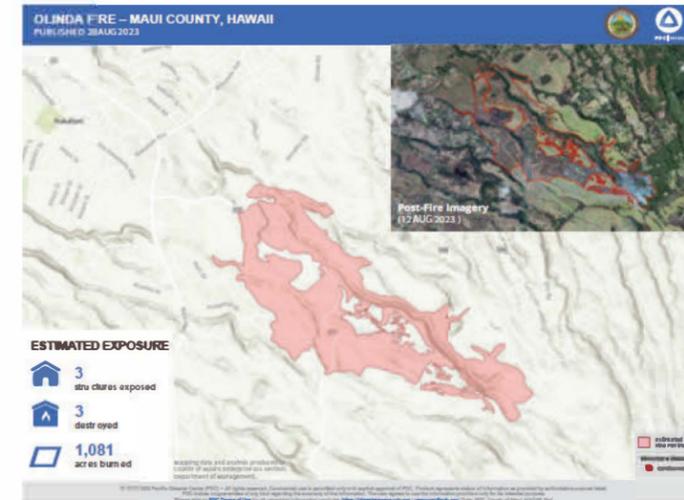


Figure 4.1.2 Map of the Maui County showing the extent of the Olinda fire, including statistics (lower left inset) and post-fire image (upper right inset). Source: Pacific Disaster Center.

A few hours later, at 06:35, the Lahaina AM fire (Figure 4.1.3), a fast-moving brush fire, broke out near Ku'ialua Street and Ho'okahua Place, across from Lahaina Intermediate School. This fire was reported as contained a few hours later.

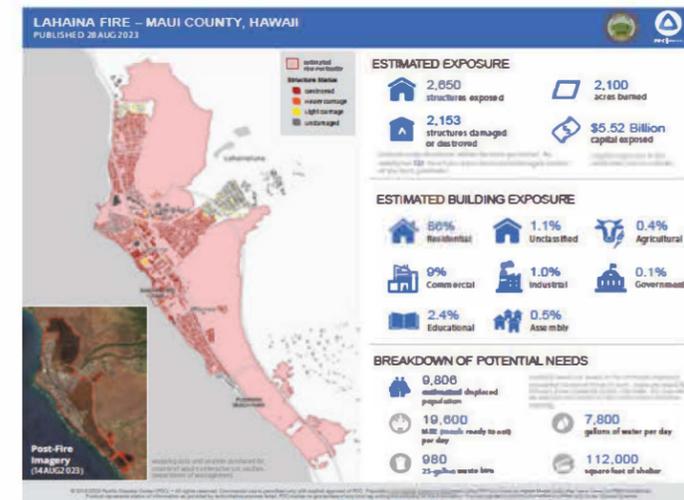


Figure 4.1.3 Map of the greater Lahaina area of Maui County showing the extent of the Lahaina fire, including statistics (right inset) and post-fire image (lower left inset). Source: Pacific Disaster Center.

TIMELINE OF EVENTS

At 11:27, a third wildfire (the Kula fire (Figure 4.1.4) broke out at Kualono Place, Kula and remained active and uncontained for over a week. The Olinda and Kula fires eventually came to be known as the Upcountry fires. At 14:55, The Lahaina PM fire (the Ku'ialua fire) was reported from 7 Ku'ialua Street, Lahaina. This was the same location as the Lahaina AM fire and is the fire that would eventually destroy a substantial portion of Lahaina Town.

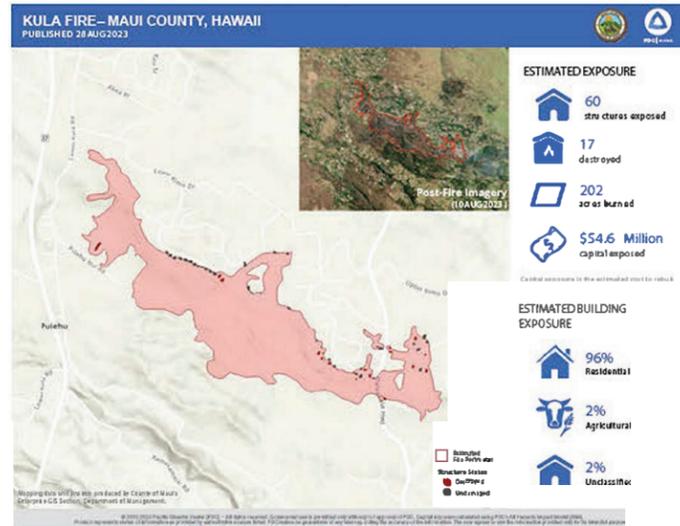


Figure 4.1.4 Map of the Maui County showing the extent of the Kula fire, including statistics (lower left inset) and post-fire image (upper right inset). Source: Pacific Disaster Center.

Finally, the Pūlehu fire (Figure 4.1.5) started at 18:01 at Pūlehu Road and Ōpalipali Place in Kula. This fire eventually burned over 3,000 acres and required many days to contain. During the Lahaina PM fire, emergency responders were engaged with multiple fires and continued to respond to new incidents across the island.

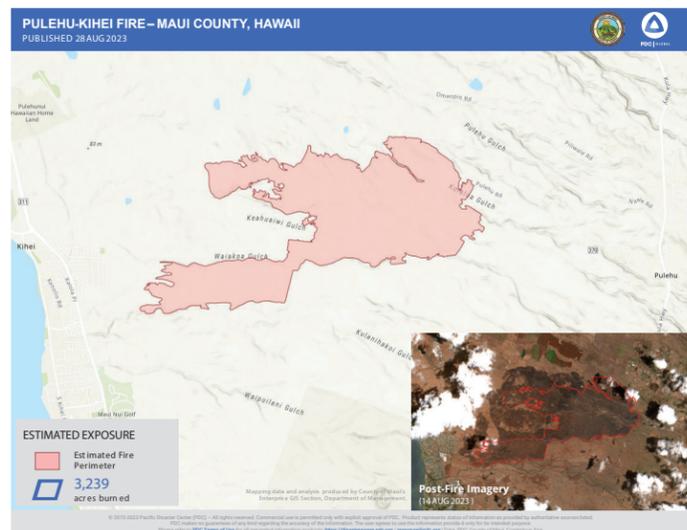


Figure 4.1.5 Map of Maui County showing the extent of the Pūlehu-Kihei fire, including statistics (lower left inset) and post-fire image (lower right inset). Source: Pacific Disaster Center.

4.2 Pre-Fire Events

4.2.1 Weather Alerts National Weather Service (NWS)

NWS Forecast Office Honolulu, Hawai'i is responsible for all Hawaiian Island weather forecasting. NWS distributes forecasts in different forms called products. The weather forecast products leading up to the Maui wildfires on August 8, 2023, were distributed via the Area Forecast Discussion (routine, four (4) times a day), Fire Weather Planning (routine, once (1) a day), Red Flag Warning/Fire Weather Watch (as needed), and High Wind Watch/Warning/Advisory (as needed). These products related to weather potentially impacting Maui on August 8, 2023, were released over several days prior to August 8, 2023, via NWS established public facing channels.⁸⁷ NWS Forecast Office Honolulu also participated in conference calls to further explain the forecast products.

The following is a summary of NWS's forecast products pertaining to Hurricane Dora, high wind, and fire weather. For the complete list of NWS's forecast products on August 8, 2023, and August 9, 2023, see Table 6.2 in the Appendix.

On August 1, 2023, NWS issued an Area Forecast Discussion that predicted the arrival of increased trade wind speeds and dry air associated with the passage of Hurricane Dora. The forecast also mentioned the possibility of Red Flag conditions by early the next week.

On August 3, 2023, an NWS Area Forecast Discussion mentioned the possibility of high winds over and downwind of terrain. The discussion specifically mentioned the possibility of severe fire weather development early in the coming week.

On August 4, 2023, the NWS Honolulu forecaster sent an email to Hawai'i fire contacts predicting strong and dry winds Monday and Tuesday of the following week and warning that NWS Honolulu would issue a Fire Weather Watch over the weekend. The forecaster recognized that this much notice of such a warning was rare. The Honolulu NWS forecaster made a presentation on the Dora-related weather at a meeting organized that day by HI-EMA.

On August 5, 2023, the NWS revised its level of concern for fire weather and predicted that Monday and Tuesday of the next week would present critical fire weather with Tuesday predicted as especially dry.

On August 6, 2023, the NWS issued an Area Forecast Discussion that predicted critical fire weather conditions beginning Monday, August 7, 2023. Dry air and low humidity were also predicted for Tuesday, August 8, 2023. High Wind Watches were issued for portions of Lāna'i, Maui, and the Big Island (Hawai'i), and Red Flag Warnings were issued for the leeward portions of the Hawaiian Islands at 03:33 on August 6, 2023. Lahaina and Ka'anapali were specifically mentioned.

⁸⁷ <https://www.weather.gov/about/warning-dissemination>

TIMELINE OF EVENTS

On August 7, 2023, the NWS restated wind and Red Flag Warnings and predicted markedly stronger winds and low humidity and made predictions of damaging wind levels.

Early in the day (03:00 to 09:30) on August 8, 2023, the NWS reiterated its wind and Red Flag Warnings and predicted the development of wind gusts up to 60 mph.

See Appendix Table 6.2 for a spreadsheet of NWS products released prior to the Lahaina PM fire on August 8, 2023. The table includes specific NWS forecast products addressing the weather that contributed to the August 8, 2023, Maui Wildfires; NWS social media posts; and other direct contacts made by NWS to explain the forecasts. Note that the forecast information represented in this table does not include all mentions of Hurricane Dora, high winds, fire weather, etc. Products were captured using Iowa Environmental Mesonet,⁸⁸ and due to many of the products being disseminated several times a day and at times there being little change from one forecast to another, the table does not include all NWS releases. Instead, the table includes the communications that highlight forecasted weather conditions that most contributed to the August 8, 2023, Maui wildfires.

Maui Emergency Management Agency (MEMA)

On August 6, 2023, MEMA issued wind watch notices beginning Monday, August 7, 2023, through Facebook and Twitter/X for areas of several Hawaiian Islands, specifically mentioning Maui. A Facebook posting specifically mentioned a Fire Weather Watch for the leeward portions of all Hawaiian Islands. MEMA advised that residents should watch for updates to the fire weather predictions.

On August 7, 2023, MEMA communicated through social media channels, such as Facebook and Twitter/X, that a Red Flag Warning had been issued for the leeward portions of all Hawaiian Islands through Wednesday, August 9, 2023.

The Maui County Fire Department also warned of high winds, high surf, and Red Flag weather in Facebook and Twitter/X posts on August 7, 2023.

See Appendix Table 6.3 for social media posts regarding forecasted weather from MEMA, Maui County, and Maui 24/7. Although not an exhaustive accounting of social media activity, the table includes a relevant representational sample of critical announcements.

4.2.2 Staffing and Preparedness

Hawai'i Emergency Management Agency (HI-EMA)

The HI-EMA administrator is Major General Kenneth Hara, who also serves as The Adjutant General for the state's Department of Defense (i.e., Army and Air National Guard). The HI-EMA administrator who manages the agency's daily operations is Colonel (Ret.) James Ds. Barros, who started in that role on February 1, 2023.

⁸⁸ <https://www.weather.gov/about/warning-dissemination>

HI-EMA's State Warning Point (SWP) in Honolulu is staffed 24-hours a day, 7 days a week for 365 days a year with a minimum of two (2) personnel who monitor a wide variety of information sources to maintain situational awareness across the Hawaiian Islands and beyond, since events around the Pacific basin can pose serious threats to the State of Hawai'i. To understand what's happening across the entire state, the SWP relies heavily on incoming communication and reports from county emergency management agencies.

The State Emergency Operations Center (SEOC) is typically unstaffed unless an impending or ongoing disaster situation creates a need for statewide coordination of emergency response and recovery resources. For major events, HI-EMA has divided its overall staffing complement into two (2) emergency response teams (ERTs) (blue and orange) that, when activated, can bring approximately 30 personnel into the SEOC for around-the-clock operations. (Figure 4.2.2.1).

ERT Roster

OPERATIONS CHIEF: Brian Fisher	PLANNING CHIEF: Nlea Gardner	LOGISTICS CHIEF: Jackie Russell	FINANCE & ADMIN CHIEF: Helen Au	OPERATIONS CHIEF: Jacob Bateman	PLANNING CHIEF: Kelsey Yamanaka	LOGISTICS CHIEF: Ryan Hirae	FINANCE & ADMIN CHIEF: Gay Takai
DEPUTY: Francis Kau	DEPUTY: VACANT	RESOURCE MANAGEMENT: Shaun Brown	TIME / COST / PROCUREMENT: Joanna Chang	DEPUTY: VACANT	DEPUTY: Jeff Wong	RESOURCE MANAGEMENT: Sedrick Hartanto, Antonio Harvey	TIME / COST / PROCUREMENT: Janice Leung
RFI / RFA MANAGER: Garret Garadle	RESOURCE UNIT: Leah Boisvert	IT / COMMUNICATION: Justin Post	CLAIMS / COMPENSATION: Wesley Wakamura	RFI / RFA MANAGER: Lalo Medina	RESOURCE UNIT: VACANT	IT / COMMUNICATION: Nathan Garret, Emerson Ibara	CLAIMS / COMPENSATION: Radford Real
HAWAII COUNTY: Peter Kawamura	SITUATION UNIT: Casey Kunimoto	EARLY WARNING / SIRENS: David Yamada, Jack Machida	FRONT DESK: Julang Chen, Mary Hatch	HAWAII COUNTY: Dawn Shinsato	SITUATION UNIT: Jinna Park	EARLY WARNING / SIRENS: Mark Nonaka, Eric Shimabuku	FRONT DESK: Linda Okamoto, Carmela Vigue
MAUI COUNTY: Julie Fujimoto	DOCUMENTATION UNIT: Lori Miyashita, Sarah Hutchinson			MAUI COUNTY: Lauren Mark	DOCUMENTATION UNIT: Lily Liu, Puanani Akaka		
C&C HONOLULU: Darrick Ching	RECOVERY: Lorinda Wong-Lau			C&C HONOLULU: Coleen Yoshina	RECOVERY: Susan Meade		
KAUAI COUNTY: Paul Hoe	FUTURE PLANNING INFRASTRUCTURE: Jonah Yano, Chad Satterfield HUMAN SERVICES: Debbie Dickinson EMERGENCY SERVICES: Zeph Mckee			KAUAI COUNTY: Jennifer Robertson, Rebeca Osorno	FUTURE PLANNING: INFRASTRUCTURE: Jonathan Hui, John Vierra Jr. HUMAN SERVICES: Kyle Tucker EMERGENCY SERVICES: Trina Nakamura		
OPERATIONS: Richard Largo	GIS SUPPORT: VACANT DEMobilIZATION: VACANT			OPERATIONS: VACANT	GIS SUPPORT: VACANT DEMobilIZATION: VACANT		

AS OF: 02JUN2023

Figure 4.2.2.1 HI-EMA ERT Roster, June 2, 2023.

During the first week of August 2023, HI-EMA was tracking Hurricane Dora's approach, and from August 2, 2023, the SEOC was enhanced with a two (2)-person crisis action team (CAT); assigning a CAT is essentially the first step in activating the SEOC.

As weather forecasts began to suggest that the main body of the hurricane would not directly impact the Hawaiian Islands, HI-EMA's attention shifted to the threat of high winds and potential WUI fires.

TIMELINE OF EVENTS

The NWS Honolulu Field Office (HFO) issued a weather warning on August 4, 2023 (Figure 4.2.2.2), to multiple state/local agencies and organizations across Hawai'i, including HI-EMA, with a notice about high winds and impending "critical fire weather" conditions.



Figure 4.2.2.2 NWS HFO "Critical Fire Weather" Message, August 4, 2023.

As fires on the Big Island and the Upcountry fires on Maui became an increasing concern on August 8, 2023, HI-EMA began preparing to bring additional staff into the SEOC (Figure 4.2.2.3).

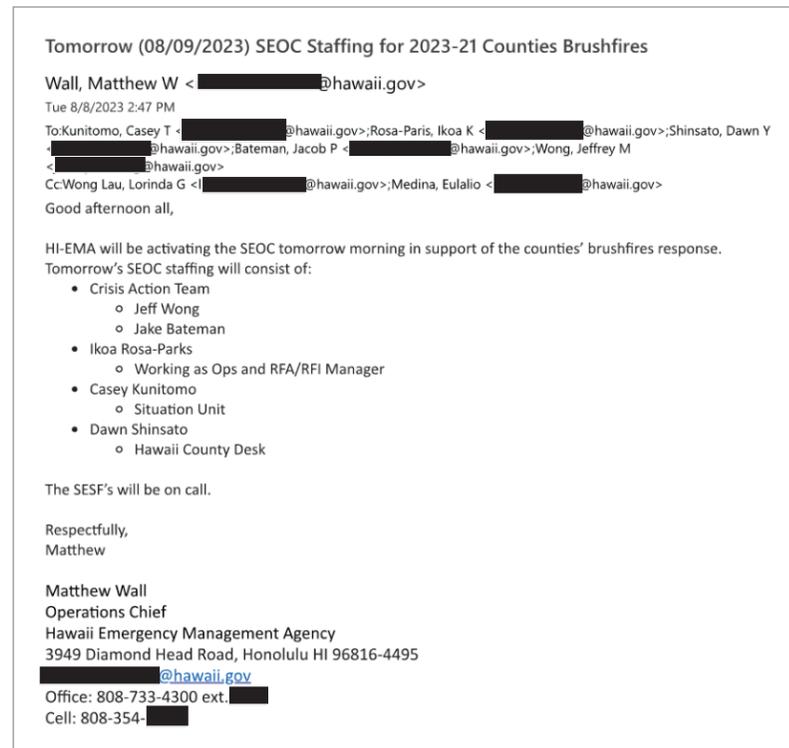


Figure 4.2.2.3 SEOC Staffing Email, August 8, 2023.

In the overnight hours between August 8, 2023, and August 9, 2023, as reports started arriving at HI-EMA about conditions in Lahaina, the SEOC went to partial activation.

After the tragic situation in Lahaina became apparent to HI-EMA during the early morning hours of August 9, 2023, the SEOC became fully activated and was expanded with staffing from multiple state and federal agencies to help coordinate resources for the ongoing Maui response and recovery efforts. HI-EMA also sent a three (3)-person incident management team (IMT) to the Maui County EOC on August 10, 2023, and has maintained that resource ever since.

Maui Emergency Management Agency (MEMA)

MEMA is responsible for staffing the Maui Emergency Operations Center (EOC). The number of staff members assigned to the EOC is dependent on the demands of the incident or preparedness efforts required for an impending incident due to forecasted weather.

On and before August 8, 2023, MEMA full-strength staffing consisted of an Administrator and eight full time direct reports. The eight personnel were assigned to perform in a variety of roles during an EOC activation, including operations, planning, logistics, recovery, communications technology, and public information. Personnel are assigned radios and cell phones to be able to monitor situations when away from the EOC.

MEMA maintains a weekly, rotating on-call rostered staff duty officer. The staff duty officer is expected to maintain readiness response capability and is the first person expected to report to the EOC should an incident occur. The administrator is responsible for designating who can serve as a staff duty officer based on experience and requisite knowledge. Prior to being rostered as a staff duty officer there are some mandatory training requirements, including attending state-level training for use of the statewide notification networks (Emergency Alert System (EAS), Hawai'i Warning System (HAWAS), etc.). During the period prior to August 8, 2023, Colleen Hauptman was the staff duty officer.

On August 7, 2023, two (2) MEMA members were unavailable for EOC staffing. MEMA Administrator Herman Andaya was attending the Pacific Partnership Conference on O'ahu with other emergency managers from the state of Hawai'i and the federal government, and Josh Aquinde, Staff Specialist III, was fulfilling his National Guard responsibilities.

MEMA partially activated the EOC with two (2) individuals on August 7, 2023, at 21:00 to monitor the high winds and Red Flag weather conditions forecasted by NWS and to prepare for a potential emergency. Senior MEMA member Paul Coe assumed the role as EOC Director. Colleen Hauptman was also assigned to staff the EOC and assisted with monitoring conditions. The partial activation extended to August 8, 2023, at 16:30 when it was fully activated.

TIMELINE OF EVENTS

Maui Police Department (MPD)

MPD has six (6) districts and police stations located in Wailuku (headquarters), Lānaʻi, Hāna, Lahaina, Molokaʻi and Kīhei, serving 29 motorized “beats” (Figure 4.2.2.4) Prior to the wind and fire events of August 8, 2023, MPD had staffing levels that were consistent with normal day-to-day operations. This includes 296 sworn and 96 civilians serving in six districts and stations.⁸⁹ This staffing represents a 25 percent vacancy in sworn personnel (400 sworn is fully staffed) and 34 percent vacancy in civilian positions. More specifically, within the civilian ranks, there is a 51 percent vacancy in dispatch overall.⁹⁰

MPD staffing chart for Lahaina (District 4), dated August 1, 2023, identified 45 total personnel assigned to this location. The staffing chart indicated there was an allocation for 53 personnel, showing the Lahaina location had eight (8) vacancies. The Lahaina District fielded the following personnel:

- 1 Captain
- 1 Office Operations Assistant
- 1 Lieutenant
- 6 Sergeants
- 34 Police Officers (1 vacancy for Community Policing Officer and 4 vacancies for Police Officers)
- 1 Evidence Custodian
- 4 Public Safety Aide (3 vacancies)

MPD has 24-hour, 365-day coverage each year. Personnel assigned to patrol work one (1) of two (2) 12-hour shifts:

- Alpha shift (Dayshift): 06:00-18:00
- Bravo shift (Graveyard): 18:00-06:00

No additional personnel were added to the patrol shifts on August 7, 2023.



Figure 4.2.2.4 MPD station locations. Source: Maui County. Credit: FSRI.

⁸⁹ http://www.maui.police.com/uploads/1/3/1/2/131209824/pre_aar.pdf
⁹⁰ http://www.maui.police.com/uploads/1/3/1/2/131209824/mpd_strategic_plan_2023_-_2028.pdf

Maui Fire Department (MFD)

The MFD serves all of Maui County, including the islands of Maui, Molokaʻi, and Lānaʻi.

MFD provides services to the community through a network of ten (10) fire stations on Maui itself, with three (3) stations on Molokaʻi and one (1) on Lānaʻi. The department also staffs 12 Ocean Safety lifeguard towers on beaches throughout Maui (Figure 4.2.2.5).

The department is staffed with a total of 430.5 full-time equivalent positions across all three (3) islands. MFD firefighters assigned to emergency response work a rotating three (3) shift schedule with 24-hour on-duty shifts.

The MFD operates two (2) fire stations in the Lahaina community:

- The Lahaina Fire Station is located at 1860 Hwy-30 near the Lahaina Civic Center. The station houses Engine 3, staffed each day with four (4) firefighters; Ladder 3, staffed with four (4) firefighters; Tanker 3, staffed with one (1) firefighter; and Battalion Chief 2, staffed with one (1) command officer.
- The Nāpili Fire Station is located at 4950 Hanawai Street, near the intersection of Hwy-30 and Nāpilihau Street. The station houses Engine 11, staffed each day with four (4) firefighters, and Mini 11, cross-staffed with Engine 11.

The next closest MFD fire stations are the Kahului Fire Station located at 200 Dairy Road, the Wailuku Fire Station located at 21 Kinipōpō Street, and the Kīhei Fire Station located at 11 Waimāhaʻihaʻi Street. All three (3) are approximately 30 minutes from Lahaina when traveling in typical road traffic conditions for responding fire apparatus.

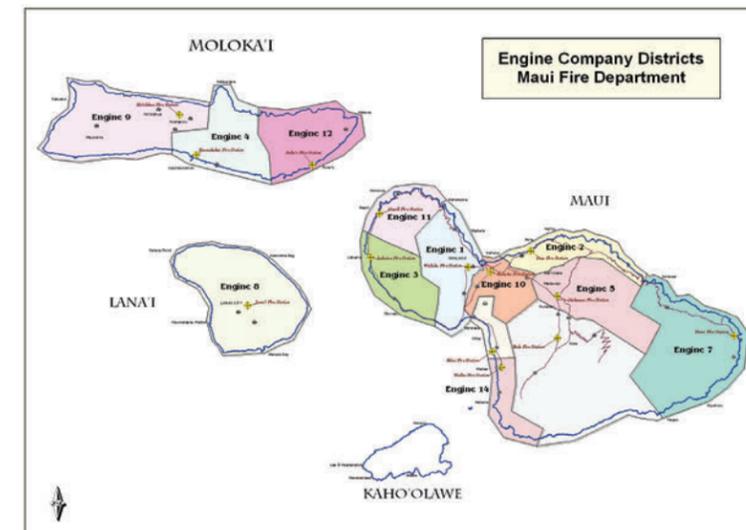


Figure 4.2.2.5 MFD engine company districts. Source: Maui County.

TIMELINE OF EVENTS

Fire and rescue air operations are provided by contracted helicopter services based at the Kahului Airport.

The MFD has mutual aid agreements with the fire departments providing services to the Kahului Airport and the Kapalua Airport located near Lahaina.

On August 7, 2023, the fire department was staffed for normal operations. With Fire Chief Bradford Ventura (Fire 1) away on the mainland, Deputy Chief Gavin Fujioka (Fire 2) was the senior leader on duty.

Dispatch

Central staff are trained in call-taking (e.g., answering emergency, non-emergency, and MPD administrative calls), and are cross-trained to dispatch and monitor incidents for police, fire, and emergency medical response units. Each dispatcher is trained to staff the terminals and radio channels. Staffing may rotate on a daily basis.

Central is located at Wailuku Police Station. On the island of Maui, Central has five (5) radio consoles—including a dispatch terminal, three (3) call taking terminals, and one (1) training terminal that can be put into use if needed. Staffing on the island consists of a supervisor and three (3) dispatchers. This is considered “normal” staffing on a day-to-day basis. The supervisor has the ability to take over the radio to provide relief for a dispatcher or to answer calls during increased call volume, as needed. Central personnel are split into two (2) shifts (i.e., First Watch and Second Watch). Due to staffing shortages, dispatchers work five (5) or six (6) 12-hour shifts per week. First Watch is typically from 06:30 to 18:30, and Second Watch covers from 18:30 to 06:30.

Dispatch services for Moloka‘i and Lāna‘i are covered by a satellite location on the island of Moloka‘i. Moloka‘i has one (1) dispatcher responsible for emergency, non-emergency, and police administrative calls for Moloka‘i and Lāna‘i. Depending on call volume and caller location, it is possible for Moloka‘i to receive calls from the other islands within the county and the state.

Hawaiian Electric

Hawaiian Electric maintains a fleet of more than 70 vehicles to maintain electrical infrastructure on the island of Maui. These light, medium, and heavy vehicles are assigned to Transmission and Distribution Operations as well as Substation and Meter Substations. Going into the evening of August 7, 2023, operations and dispatch staffing was according to normal operations. Personnel worked their assigned shifts and other personnel were available for after hour call back as needed.

Department of Water Supply

The Department of Water Supply maintains 15 certified operators to draw from to staff the two (2) water treatment facilities located in West Maui. The West Maui water treatment facilities were staffed as per normal operational demands on the morning of August 8, 2023. Deputy Director James Langraf signed in on the Maui EOC log on August 8, 2023 at 08:30.⁹¹

Hawai‘i Division of Forestry and Wildlife (DOFAW)

According to the DOFAW Maui Unit Leader, DOFAW was staffed normally on August 8, 2023 (Table 4.2.2.1), with fire suppression equipment inventory outlined in Table 4.2.2.2.

Table 4.2.2.1 Hawai‘i Division of Forestry and Wildlife (DOFAW) Personnel on August 8, 2023.

DOFAW Personnel On Duty August 8, 2023	
Number	Qualification/Role
38 available district staff	District staff trained to operate equipment and perform in wildland firefighting operational roles. Includes 6–7 members of the District IMT–Command and General staffing
~20+ additional staff	Access to out-of-district personnel from O‘ahu, Hawai‘i island, and Kaua‘i (w/in 24 hours from request) for fire crew, IMT, fallers, CDL, etc.

Table 4.2.2.2 Hawai‘i Division of Forestry and Wildlife (DOFAW) Fire Suppression Equipment Inventory on August 8, 2023.

DOFAW Fire Suppression Equipment Inventory August 8, 2023	
Type of Equipment	Quantities
Heavy equipment	<ul style="list-style-type: none"> One (1) Type II Dozer (Komatsu D61 EX) Two (2) backhoes (CAT 416)
Engines	<ul style="list-style-type: none"> Three (3) Type IV M62s One (1) Type IV Model 5 Three (3) Type VI (F450/F550) Four (4) 150–300 gallons slip-on units
Helicopter	<ul style="list-style-type: none"> Access to on-island contract vendor (Windward Aviation) helicopters Four (4) Type III helicopters One (1) Type II helicopter (MFD Air 1)
Tankers/Water Tenders	<ul style="list-style-type: none"> Type 1 (4,000 gallons; 6x6) Type 3 (1,000 gallons; 6x6)
Firefighting Equipment/ Small Engine	<ul style="list-style-type: none"> One (1) skid steer masticator Two (2) medium diameter capacity mobile chippers Four (4) portable helicopter mop-up tanks Two (2) portable 6' high helicopter dip tanks (3,500 gallons each) Two (2) 4x4 UTV w/ 60–100 gal slip-on high psi pump Two (2) ultra striker portable pumps Chainsaws of various sizes and capacities

⁹¹ Department of Water Supply Lahaina and Māhinahina Water Treatment Facility Operations and Emergency Plan 2021.

TIMELINE OF EVENTS

4.2.3 Pre-Fire Utility and Structure Damage/Destruction

Prior to the vegetation fires reported at 06:55 and 14:55 on August 8, 2023, Lahaina sustained widespread damage due to high winds. Utility poles broke in half, and some fell to the ground blocking roads. Electrical lines were draped across major egress routes, roofs were blown off structures, and mature trees were toppled to the ground. Traffic congestion through Lahaina increased throughout August 8, 2023, as roads became impassable due to downed utility poles, electrical lines, and trees. This report will not include an exhaustive list of all damage sustained, which is beyond the scope of this Phase One (1) Timeline report. The following images are examples of the extent of the damage. These images are representative of the damage seen but multiplied across the greater Lahaina region.

Impact of Downed Utility Poles on Traffic and Evacuation Routes

The high winds impacted the above-ground electrical and communications infrastructure throughout Lahaina. Many large utility poles supporting multiple lines broke, resulting in the posts and wires blocking roads or being close enough to the road to impede the flow of traffic (Figure 4.2.3.1). This was most evident on Hwy-30, where several critical intersections were impacted by compromised utility equipment (Figure 4.2.3.2). The combination of traffic signals not working and blocked streets from utility poles and trees made for difficulties in traveling through Lahaina, even before the Lahaina PM fire response. The added vehicles evacuating at the onset of the Lahaina PM fire would ultimately challenge most evacuation routes leading out of Lahaina (Figure 4.2.3.3).

Compromised Structures

The strong winds in Lahaina on August 8, 2023, resulted in structural damage even before the fire, generating forces great enough to rip roofs from structures, tear awnings from buildings, dismantle fences and loft household belongings into the air and toward downwind structures and utilities (Figure 4.2.3.4). Airborne materials (projectiles) may impact structures with enough force to compromise the building envelope, through broken windows or displaced vents. Resident videos showed outdoor furniture and play equipment being blown about the streets. One (1) image (Figure 4.2.3.5) showed a large trampoline entangled in overhead electrical lines. Others show substantial roofing damage in residential and commercial structures. A compromised building envelope ultimately created pathways for embers to enter structures.



Figure 4.2.3.1 Image capture of civilian video showing westbound traffic on Lahainaluna Road between Kale Street and Pauoa Street taken August 8, 2023 at 09:07.



Figure 4.2.3.2 Civilian photo of a utility pole blocking Hwy-30 at the Lahaina Civic Center. Taken August 8, 2023.

4.3 Fire and Response Timeline

The Fire and Response Timeline section is largely focused on the facts about the Lahaina AM and PM fires. The impact the Olinda, Kula, and Pūlehu fires had on the Lahaina PM fire response will be explored in the Phase 2 report of this analysis.

The Fire and Response section includes data from time-stamped events indicating the fire's path of travel, resident evacuation and rescue efforts, and fire suppression activities. Much of this information was gathered from pictures, video, radio communications, automatic vehicle locating (AVL) applications, text messages, social media posts, emails, and corroborated personal experiences. This data provides the most accurate picture of how fast the fire moved through Lahaina and details the response effort of agencies playing a role in handling the emergency.

West Maui did not have a Remote Automated Weather Station (RAWS) on August 8, 2023, thus, there were no recorded weather measurements in this portion of the island. The Maui RAWS closest to Lahaina is not a good comparison because it is not positioned on a southwest slope. A Hawaiian Island RAWS that likely provides the best indication of conditions in Lahaina is Kohala Ranch (KHRH1). It is located on the leeward side of the Big Island (Hawai'i), on a southwest slope. This RAWS recorded some of the highest wind speeds of all Hawaiian Island RAWS on August 8, 2023. From 11:35 to 16:35 the average wind speed was 40 mph, the average wind gusts were 70 mph, and the highest recorded gust was 82 mph at 16:35. The winds measured in Kohala track with what was experienced in Lahaina. See Appendix Table 6.4 for the KHRH1 RAWS data.



Figure 4.2.3.5 August 8, 2023, at 07:01. Civilian image of trampoline in overhead electrical lines at Dickenson Street and Mill Street.



Figure 4.2.3.3 Civilian image taken August 8, 2023, at 16:11 showing westbound traffic on Komo Mai Street toward Kuhua Street and Keawe Street.

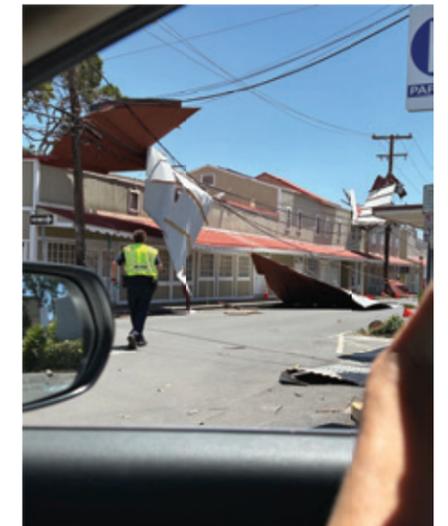


Figure 4.2.3.4 August 8, 2023, at 13:46. Civilian photo of roof damage, looking west down Lahainaluna Road from Luakini Street.

TIMELINE OF EVENTS

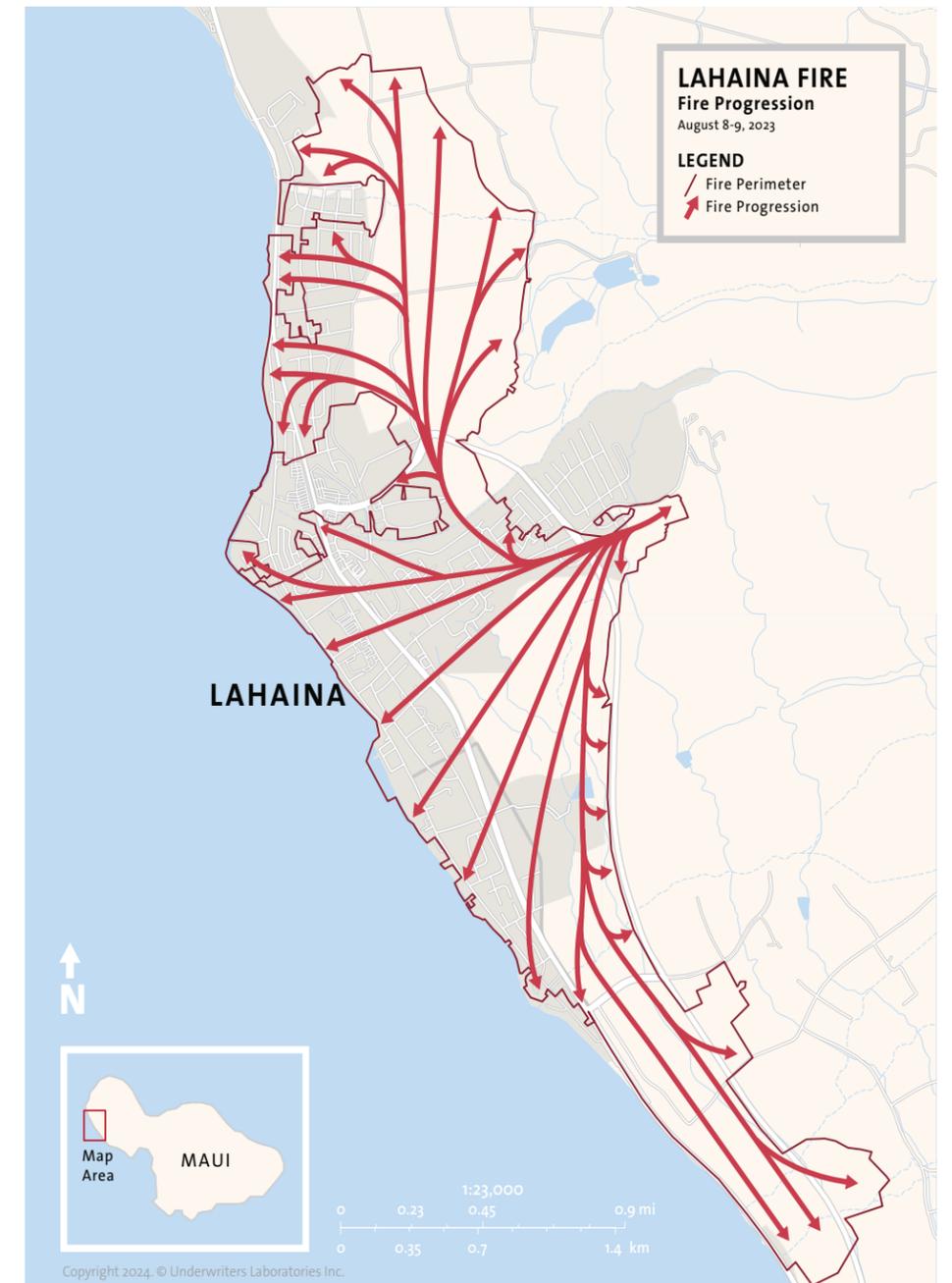
4.3.1 Fire Progression

A detailed summary of the fire progression timeline and facts impacting the fire progression are presented in this section. A fire progression map shown in Figure 4.3.1.1 shows a summary of the fire spread from the time period of 14:55 on August 8, 2023, through 06:07 on August 9, 2023. The final fire perimeter is indicated by the red outline. Section 6.13 in the Appendix shows specific data and sources of the data that support the fire progression map. Figure 4.3.1.2 shows each of the data points on the map with its respective time stamp. The data points located outside of the fire perimeter represent the location the data was captured from. In many cases observations were made from a safe location, with an observation into the fire perimeter. Details about the observations are explained in the following sections and in the Appendix. Fire spread data presented in this report was collected from dispatch records, MFD radio recordings, MFD fire incident reports, MPD radio recordings, pictures and videos from civilians, MPD body worn camera footage, 911 call recordings, and technical discussions with MPD and MFD personnel. All this data was cross referenced and further supported by the collective dataset. Technical discussions with MPD and MFD were used to validate timeframes noted by image timestamps or dispatch records.

Fire spread within the built environment is driven by three (3) mechanisms: direct flame contact, radiant heat, and embers (Figure 4.3.1.3 on the following page). Direct flame contact can occur when fire spreads through continuous fuel, vegetative or otherwise, to the building or when separation between a burning object and a target (such as a burning structure near another structure that has not yet caught fire) is less than the flame length. This results in flames touching the structure. If burning fuels are not close enough to allow direct flame contact, they can heat a building by radiation which may cause it to ignite. Embers, also referred to as firebrands, are generated by burning fuels and transported by wind, causing ignitions beyond the fire perimeter. Spot fires ignited by embers can cause direct flame contact or radiant heating of structures in the built environment. Embers can also enter the building through vents, windows, and/or openings caused by wind damage that may ignite the structure and cause it to burn from the inside out.

Fire can spread along fuels at the perimeter of the property, such as fences and sheds to fuels closer to the home, such as outdoor furniture and ornamental vegetation. Building features, such as roofs, eaves, vents, siding, doors, and windows, may also provide pathways for structures to ignite. Fuels in the built environment, including vehicles, liquified propane gas (LPG) tanks, structures, and household belongings, can generate more intense flames and embers compared to vegetative fuels. In (sub)urban communities, homes are closely spaced and may have continuous (or nearly continuous) fuels between them, which can lead to conflagration with built-environment dominant fuels.

Figure 4.3.1.1 Comprehensive fire progression map of the greater Lahaina and western Maui areas. Arrows indicate the general direction of fire spread based on the data collected. The fire's progression and speed was influenced by direct flame contact, radiant heating, and wind-driven embers from all of the fuel in the fire's path.



TIMELINE OF EVENTS

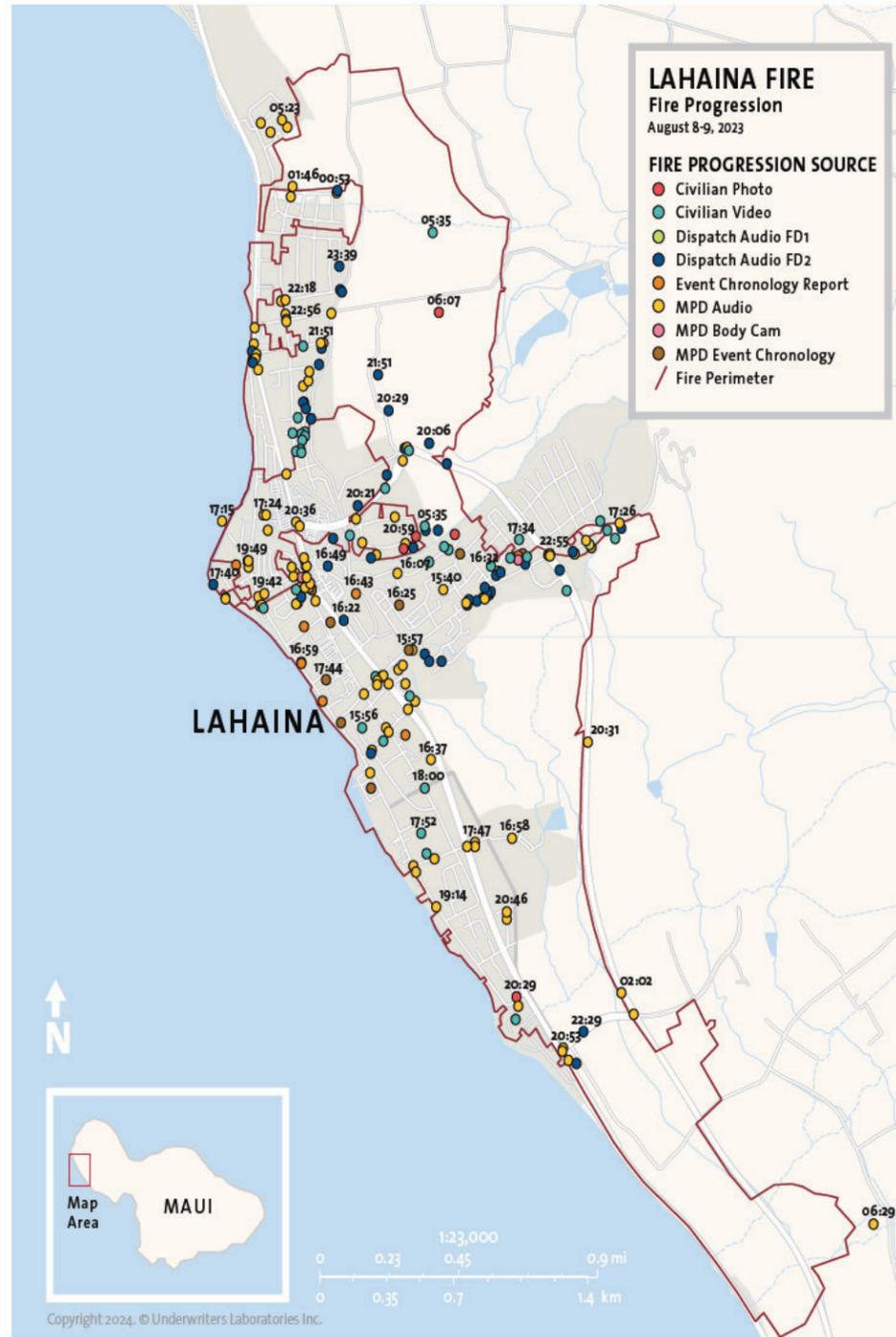
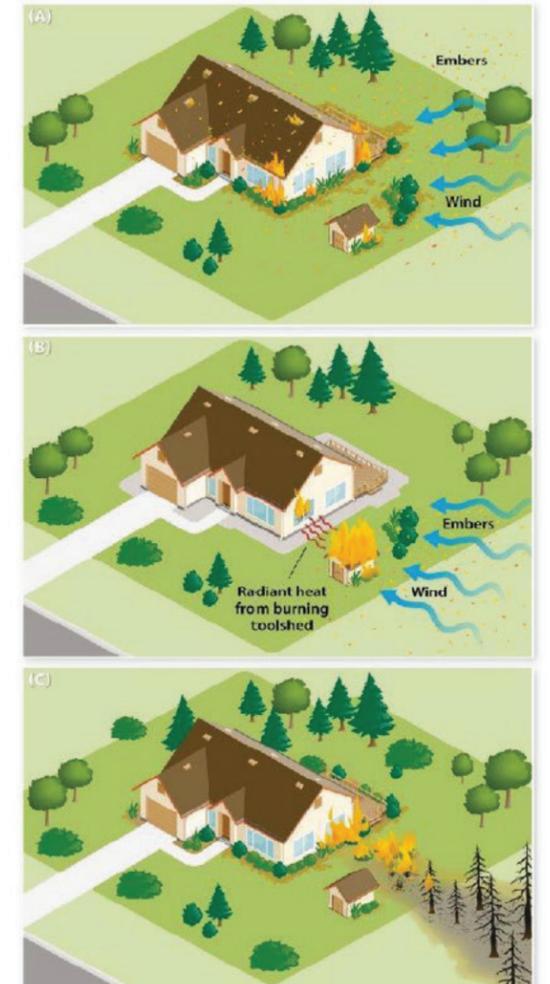


Figure 4.3.1.2 Fire progression map of western Maui with detailed data from various sources. Detailed maps in the following sections will discuss the points and times with more specificity.

How embers advance fire spread.

There are three (3) stages in the life cycle of embers: generation, transport, and accumulation/deposition, which may result in ignition⁹³. Burning fuels generate embers when particles break off due to ambient wind and buoyant fire-induced plumes. Characteristics of embers which relate to transport and ignition potential depend on the type of fuel (vegetative or structure). Embers are lofted by the fire plume and/ or carried by ambient wind, traveling relatively short (feet) to long (more than a mile) distances. After embers land, they can accumulate in areas driven by wind eddies at obstructions (e.g., where a wall meets the ground) and along rough surfaces (e.g., mulch). If accumulated embers have enough energy and land on a receptive (i.e., combustible) fuel, they can cause it to ignite, creating a spot fire. Since embers can be lofted above the flames and travel ahead of the fire front, they can cause spot fires remote from the burning material that produced them. This mechanism can lead to discontinuous fire spread, resulting in unburned fuel islands.

Additional analysis—including the impact of suppression efforts by the fire department, police department, private water tankers, and civilians; fire burning over civilians and/or firefighters; evacuation routes affected by fire and/or smoke; and wind, fuels, and terrain—will be included in a subsequent report.



Incorporating fire safe concepts requires preparing for three different types of fire exposures: embers (A), radiant heat (B), and direct flame contact (C).

Figure 4.3.1.3 Building ignition mechanisms from fire exposures: embers, radiant heat, and direct flame contact. Source: *Reducing the Vulnerability of Buildings to Wildfire: Vegetation & Landscaping*.⁹² 2021.

⁹² <https://anrcatalog.ucanr.edu/Details.aspx?itemNo=8695>

⁹³ Manzello SL, Sayaka S, Gollner MJ, Fernandez-Pello AC. (2020) Role of firebrand combustion in large outdoor fire spread. *Progress in Energy and Combustion Science*. <https://doi.org/10.1016/j.pecs.2019.100801>

TIMELINE OF EVENTS



Figure 4.3.1.4 Map of fire progression running roughly along Lahainaluna Road from 14:55 through 15:37.

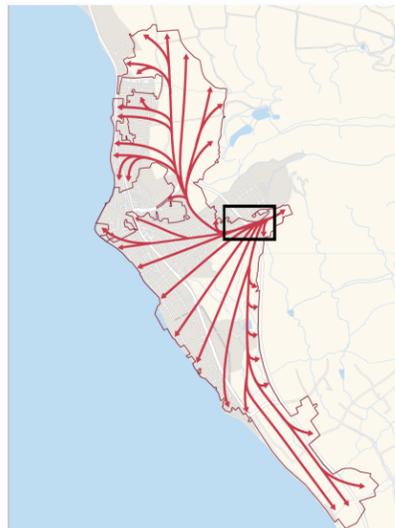


Figure 4.3.1.4 provides an overview of fire progression from 14:55 to 15:37. On August 8, 2023, at 14:55, the MFD was dispatched to 7█ Ku'ialua Street after numerous callers to 911 identified that there was a fast-spreading fire at the end of the cul-de-sac of Ku'ialua Street. At 14:57, Engine 11 (E11) advised they could see smoke, and at 15:00, E11 arrived on scene and reported that the fire was approximately 20 x 100 feet, moving rapidly makai (toward the ocean). Several civilian pictures and videos show smoke in the area of the ravine moving with the wind toward the Lahaina Bypass exit for Lahainaluna Road (Figure 4.3.1.5). The first structure reported to be on fire was a storage shed at 7█ Ho'okahua Place. This was confirmed by police officers arriving at the shed at 15:05. Embers carried by the wind caused the fire to spot toward the bypass and over the bypass westward into the culvert in the loop created by the exit road from the bypass to Lahainaluna Road at 15:21.

At 15:23, the MFD command advised that the fire had been spotted over Lahainaluna Road and was in the Kelaweua Mauka Makai Park and noted that there was very poor visibility due to the amount of smoke (Table 4.3.1.1). At 15:28, Ladder 3 (L3) advised that there was a structure on fire south of Lahainaluna Road across from Kalena Street. By 15:30, numerous vehicles caught on fire in the area of the Lahaina Bypass, and embers were exposing all of the homes west (makai) and south of Kelaweua Park. At 15:37, multiple fire department units advised of several structures on fire on Ka'akolu Street.

Table 4.3.1.1 Maui Fire Department (MFD) Command communications with Relief Engine 11 (RE11) and Engine 3 (E3) on August 8, 2023, at 15:37.

MFD Command Communications 15:37, August 8, 2023	
Command	There is one house on Lahainaluna that is fully going now. We need to stop it where you are. That has to be the cutoff there, that road back there.
Relief Engine (RE11)	Copy that Chief, I did move positions, we took that road Ka'akolu and took a right into a cul-de-sac, and we have some houses threatened on the backside. We are stretching attack lines.
Engine 3 (E3) to Command	We got a structure fire at 5█ Ka'akolu. We are going to need an engine company over here. All we have is our wildland.
Command	Copy, is that on the corner there?
Engine 3 (E3)	It's up from the corner, just behind the park. It might be multiple structures. Right now we have 5█ Ka'akolu that we are going to lose.
Command	Yeah, there are multiple structures going.



Lahaina PM fire starts 14:55



Figure 4.3.1.5 Image capture from civilian video showing smoke in the area of the ravine moving with the wind toward the Lahaina Bypass exit for Lahainaluna Road (14:58). (Below: represents the camera operator's approximate visual scope.)



TIMELINE OF EVENTS

Figure 4.3.1.6 provides an overview of fire progression from 15:38 through 16:08. At 15:38, multiple 911 callers indicated that their homes, fences and sheds were on fire near Paunau Street (4█ and 4█ Pā'ū'ū Place). At 15:40, an MPD officer (499) advised of fire in the brush at 4█ Kauhi Place, approximately 1,000 ft west (makai) of the structure fires MFD was working on. The combination of structure-to-structure fire spread due to the homes and other structures being very close together, combined with many ladder fuels, such as vehicles, fences, trees, shrubs, sheds, propane tanks, additional outbuildings, etc. caused the fire to spread rapidly ahead of suppression efforts. Embers from numerous burning fuels were being carried by the strong wind ahead of the structure fires, causing spot fires in grass, shrubs, trees, and other fuels around and in homes.

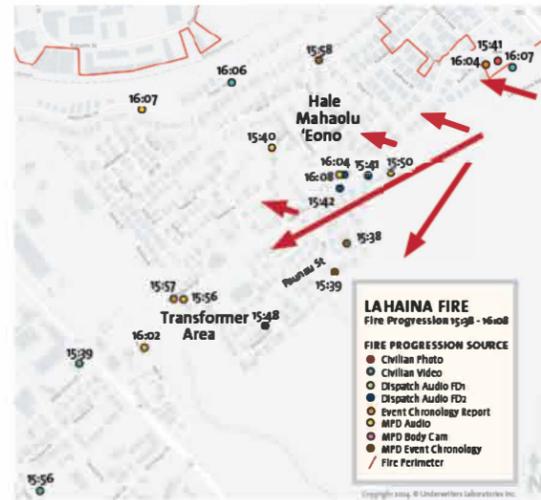
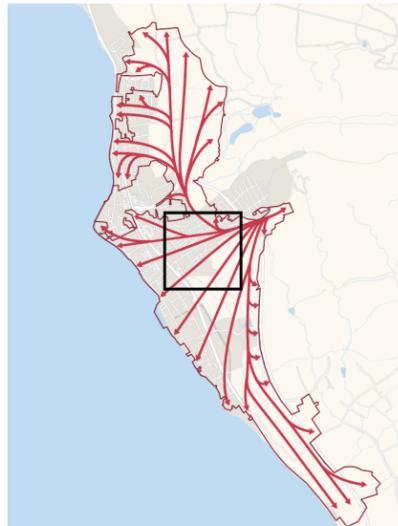


Figure 4.3.1.6 Fire progression map showing fires in or near the Lahainaluna Road area from 15:38 through 16:08.

With many structures on fire, the smoke thickened, and the plume could be seen making its way all the way to the ocean. The heavy wind drove the smoke to the ground, limiting the visibility of those in the path. Civilian pictures and videos show the northern and southern bounds of the smoke plume. At 15:39, a civilian video shows that the smoke was moving past the smokestack and toward the Outlets of Maui. At 15:43, MPD officer 4SA2 advised that the smoke was getting “pretty bad” at Lahainaluna and Hwy-30. A civilian video shows the southern border of the smoke plume at the northern end of the harbor at 15:56. On the northern side, a civilian video captured the smoke plume passing over 3█ Komo Mai Street at 16:06. Figure 4.3.1.7 shows an approximation of the smoke plume at approximately 16:00.

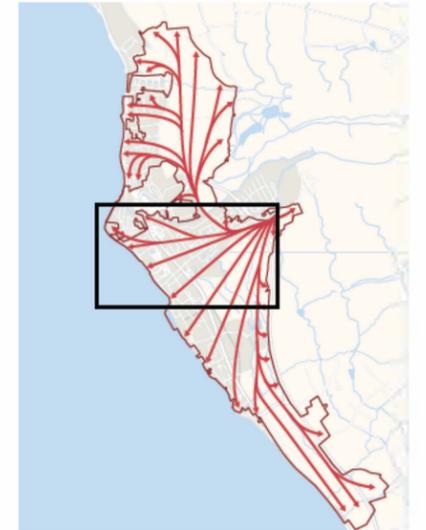


Figure 4.3.1.7 Smoke boundary map of the greater Lahaina area at approximately 16:00.

The fire continued to spread quickly west (makai) on Lahainaluna Road. At 15:41, MFD command advised of several houses catching fire west (makai) on Lahainaluna Road, toward Kelaweia Street and at 15:42, confirmed the fire was all the way down to Kelaweia Street. An MPD officer indicated that the fire had reached the transformer area, across from the intersection of Lahainaluna Road and Kuhua Street, at 15:56. One (1) minute later, another caller to 911 advised that the fire was starting up at Lahainaluna Road and Kuhua Street. At 15:48, a 911 caller stated her yard was on fire at 4█ Pauwala Place.

While the fire was spreading from structure-to-structure and spotting ahead of the structure fire by embers carried by the wind toward the ocean, the fire continued to burn across the grasses to the south and west. The fire spread west of the Lahaina bypass and south toward the Lahaina Recreation Center (off of Shaw Street, east of Hwy-30).

At 15:58, there was a dispatch report of a house on fire behind 8█ Lu'i Street on Kalena Street. At the same time, there was a report that the house at 8█ Lu'i Street at the intersection with Kalena Street was fully involved in fire. This indicates that the fire spread north in addition to west. At 16:04, a county water works truck was reported to be on fire adjacent to 6█ Ka'alo Place. This truck was the easternmost vehicle or structure damaged by fire north of Lahainaluna Road. At the same time, another vehicle fire was reported at the Hale Mahaolu 'Eono senior living center at Lahainaluna Road and Kelaweia Street. By 16:08, MPD officers confirmed that the fire had reached Hale Mahaolu.



After start of Lahaina PM fire

TIMELINE OF EVENTS

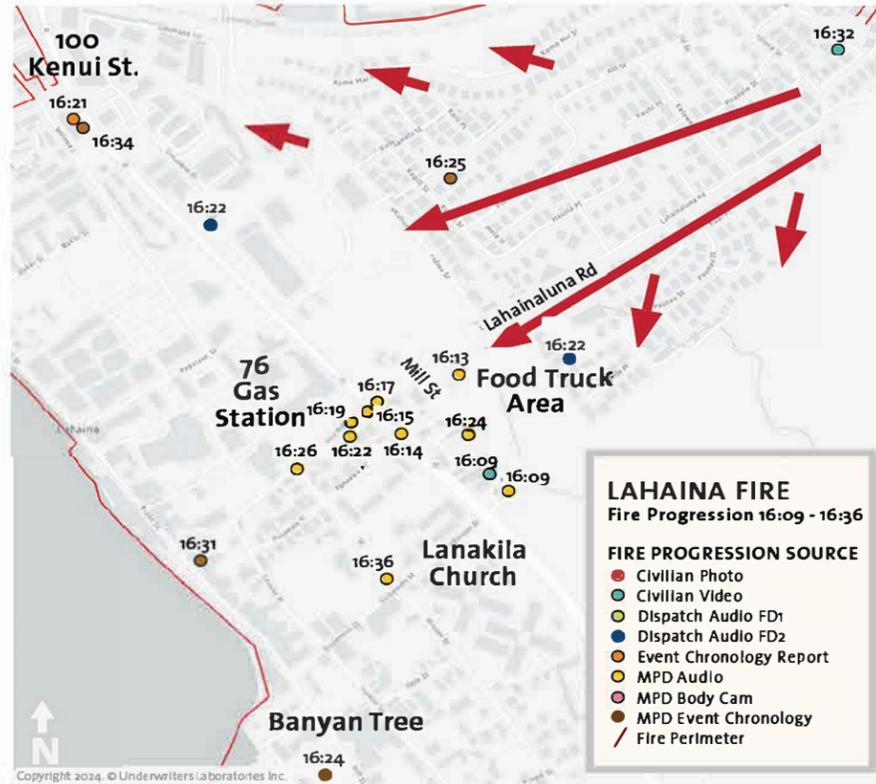
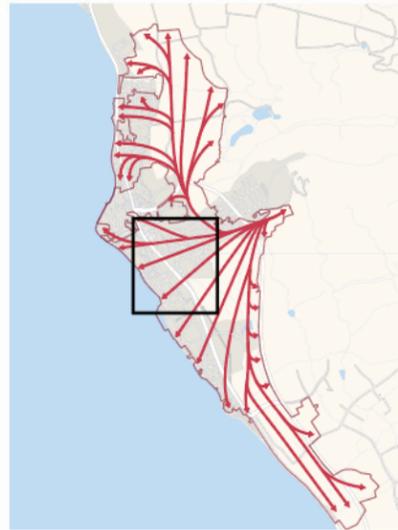


Figure 4.3.1.8 Map showing fire progression in the Lahainaluna Road, Dickenson Road, and Hwy-30 area from 16:09 through 16:36.

As depicted in Figure 4.3.1.8, at 16:09, MPD Officer 401 reported that the fire had reached Mill Street. At 16:13, MPD Officer T22 reported that the fire had reached the food truck area at the corner of Lahainaluna Road and Mill Street. At 16:14, MPD Officer 4SA2 reported that the fire was burning the grass in the median of Hwy-30 and was in the area between Lahainaluna Road and Dickenson Road. At 16:17, MPD Officer 415 advised of the first fire to spot on the west (makai) side of Hwy-30, followed by MPD Officer 4SA2 advising of another fire by the 76 gas station on the northwest corner of the intersection of Lahainaluna Road and Hwy-30.

Engine 1, Engine 6, Wildland 6, and Relief Engine 1 were operating on Pauoa Street south of Lahainaluna Road. They declared emergency traffic (i.e., critical life safety radio communications that take priority over all other transmissions) at 16:17, and at 16:22, they became trapped by the fire conditions and other vehicles trying to evacuate. Video from the firefighters shows many structures on fire in the area and embers being driven through their location by strong winds.

At 16:24, a civilian reported a fire by the “Big Banyan Tree.” This location is 1.3 miles from the area where the fire originated. Also, at 16:24, Officer 401 radioed, “We might have one (1) fatality, homes rear of Mill Street.” This indicates that immediately dangerous to life and health (IDLH) fire conditions had progressed to the area of Mill Street and Hwy-30.

While the fire was spreading rapidly toward the ocean (head of the fire), the perimeter also began to widen. A civilian video taken from 8 Kanua Street at 16:32 shows numerous houses on fire on Ka’akepa Street. This allowed additional heat and embers to be forced west and north by the winds.

At 16:26, Officer 415 radioed that there were numerous poles on fire and houses catching fire on Waine’e Street. The same officer advised that there was a fire next to the [Maria] Lanakila Church and that Dickenson and Wainee’s were engulfed at 16:36. At the same time, numerous calls were coming in to advise of fire further north on Waine’e Street at Kenui Street, the back of 1 Kenui Street. There was also a call for a pavilion on fire at 10 Waine’e Street at the same time. Simultaneously, there were reported fires along approximately 0.6 miles (3,200 feet) of Waine’e Street.

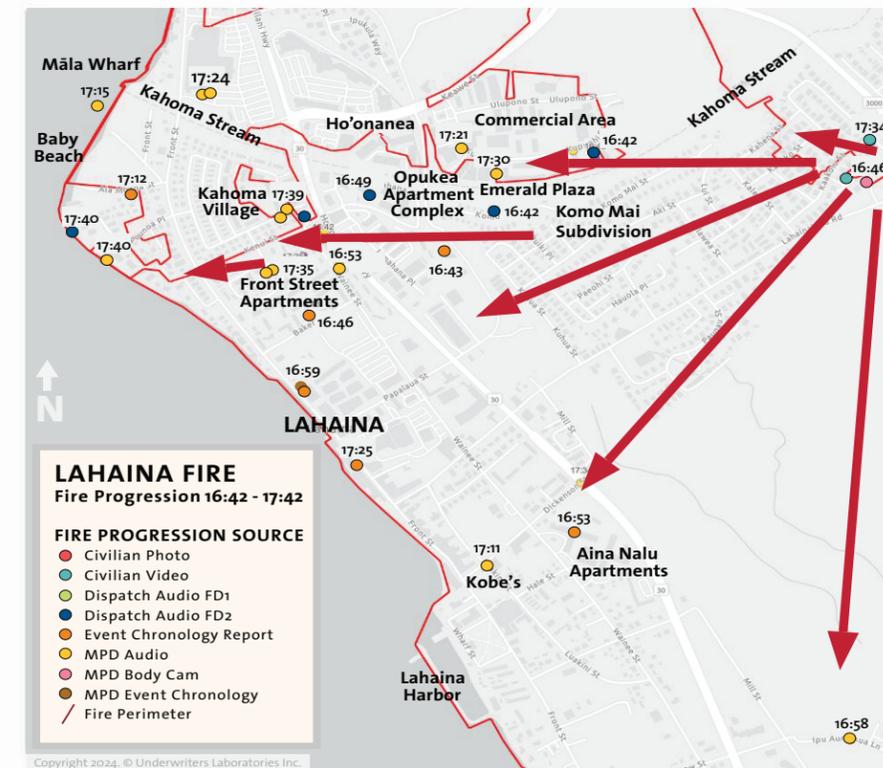
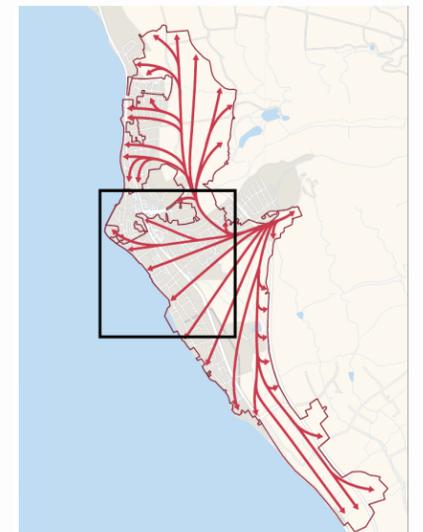


Figure 4.3.1.9 Fire progression map showing particularly fierce fire spread in the Waine’e Street area from 16:42 through 17:42.



TIMELINE OF EVENTS



After start of Lahaina PM fire

Figure 4.3.1.9 (on a previous page) provides an overview of fire progression from 16:42 through 17:42. At 16:42, there were two (2) reports of fires on the north side of Kahoma Stream. RE11 radioed to command that they had fallen back to Foodland Farms and that multiple structures in the Komo Mai subdivision were on fire. The second report was from MFD Command to E11 advising that there was a vacant lot on fire between 2█ and 1█ Kupuohi Street. Right on the other side of Kahoma Stream from the Ho'onanea at Lahaina condominiums, RE11 reported at 16:49 that the Opukea apartment complex had cars on fire, and the fire was extending to the building.

On the south flank of the fire, a "large fire" was reported at Aina Nalu apartments (660 Waine'e Street) at 16:53. Five (5) minutes later, an unknown MPD Officer advised that the fire was coming by the shelter for the unhoused, located east (mauka) of Lahaina Recreation Center on Shaw Street. This indicated that the fire continued to spread south from the area of Lahainaluna Road and the Bypass through the grasses and brush to the area of the Lahaina Recreation Center.

At 16:59, there was a report of a house on fire at 9█ Front Street. MPD Officer 415 radioed that the former Kobe's restaurant was on fire, along with that area of Waine'e Street, at 17:11. At 17:12, palm trees were reported to be on fire near █ Ala Moana Street, and at 17:15, MPD officer 4B31 advised that Māla Wharf was on fire. These reports indicate that the fire had spread to the ocean from at least Māla Wharf at the north to Lahaina Harbor at the south with structures on fire throughout the area.

From 17:21 to 17:30, several more fires were reported in the commercial area on the north side of Kahoma Stream. MPD Officer 4SA2 advised that the Island Grocery Depot (58 Kupuohi Street) was starting to catch fire, and the fire was spreading toward the Minit Stop (10 Kupuohi Street). He also advised that there was a truck fully engulfed at 190 Kupuohi Street. At 17:26, MPD Officer VOP8 advised that there was a flare up (10 ft by 10 ft) above where the fire started and across from the middle school. At 1730, MPD Officer 4K14 advised that there were a couple of structures and vehicles on fire near Emerald Plaza.

At 17:31, E11 advised of a single-family residence's roof on fire in Kahoma Village. This was the second house from the corner of Hwy-30 and Kenui Street. A civilian video shows several houses on fire at 17:34 near 6█ Ka'akolu

Street. Across from Kahoma Village, the Front Street Apartments were catching fire at 17:35, according to MPD Officer 4A30. At 17:40, a civilian reported a fire starting in the area of Baby Beach. At 17:42, an MPD Officer advised that there was a house fully engulfed at Front Street and Ala Moana Street. At 17:43, MPD Officer 4B10 advised that visibility was getting poor in Kahoma Village, indicating that the fire was widening toward the north.

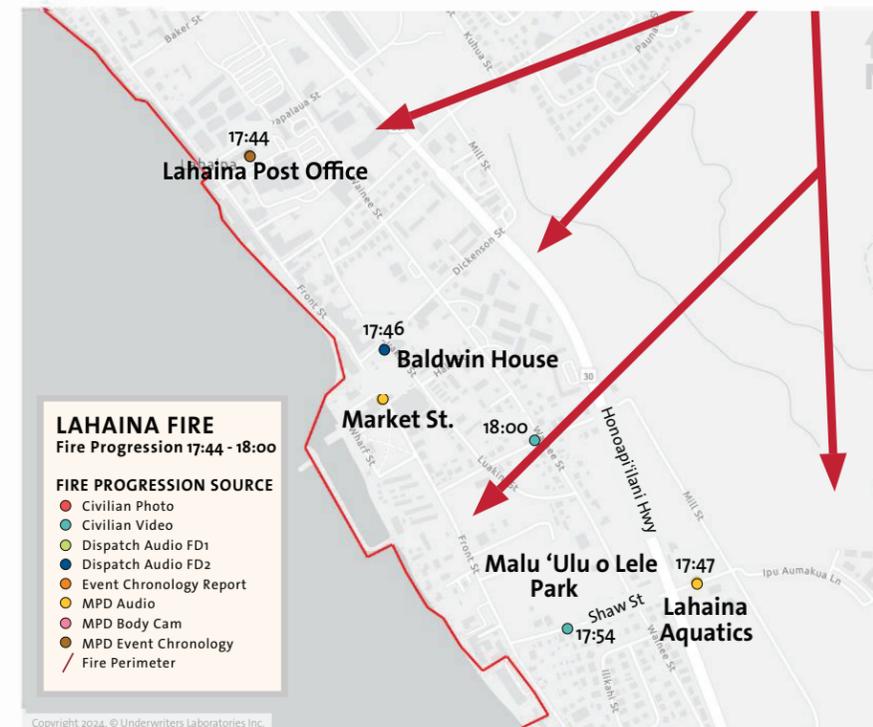
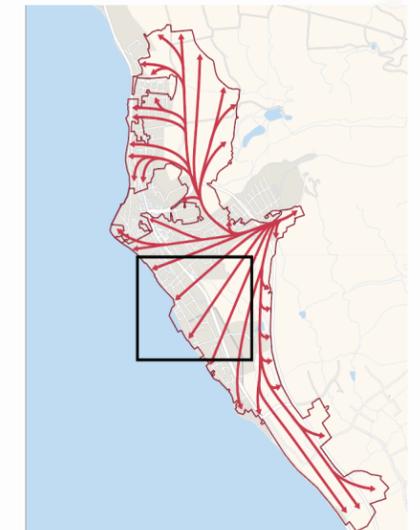


Figure 4.3.1.10 Southern flank of fire showing fire progression from 17:44 and 18:00.

On the south flank of the fire (Figure 4.3.1.10), at 17:44, a civilian reported that the Lahaina Post Office was on fire as well as the Outlets of Maui and several vehicles in the area. MPD Officer 418 advised that Front Street was on fire all the way down to Market Street, Baldwin House was on fire, and the road was not passable. Further south of this area, MPD Officer 415 radioed that the Lahaina Aquatic Center area was catching fire at 17:47. Five minutes later (17:54), a civilian shot a video from 1█ Shaw Street showing a tree on fire in the Malu 'Ulu o Lele Park. Just after this, MPD Officer 415 advised, "We're engulfed from H-Piilani down to Front Street by Shaw Street. Both sides."



TIMELINE OF EVENTS



Figure 4.3.1.11 Image capture from a civilian video recorded from 1 Shaw Street looking north showing fire progression from Waine'e Street to Front Street (18:00).

(Below: represents the camera operator's approximate visual scope.)



A civilian video shows the fire progressing at 18:00 from Waine'e Street to Front Street along Prison Street. It also shows the edge of the thick smoke plume moving toward the ocean (Figure 4.3.1.11).

On the northern flank of the fire (Figure 4.3.1.12), Hwy-30 was impassable at Kenui Street due to fire conditions at 17:55, per MPD Officer 4A20. Just west of there, a structure was on fire at Front Street and Kai Pali Place per MPD Officer T34 at 17:58. On the other side of Kahoma Stream, at 18:02, MPD Officer 4A20 advised that the fire was approaching the cannery and that the grass on the side of the cannery was on fire and heading toward the structure. The fire spread from the area where the bridge crosses over the

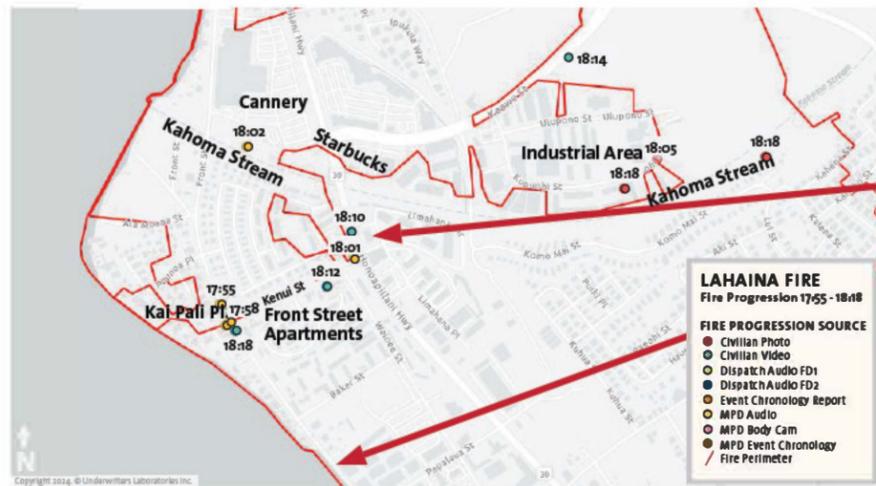
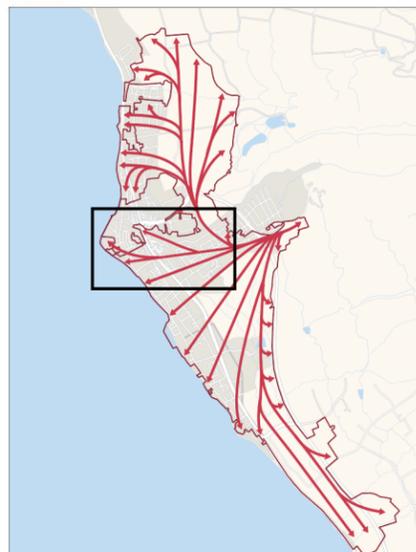


Figure 4.3.1.12 Fire progression map of the northern flank of the fire from 17:55 to 18:18.



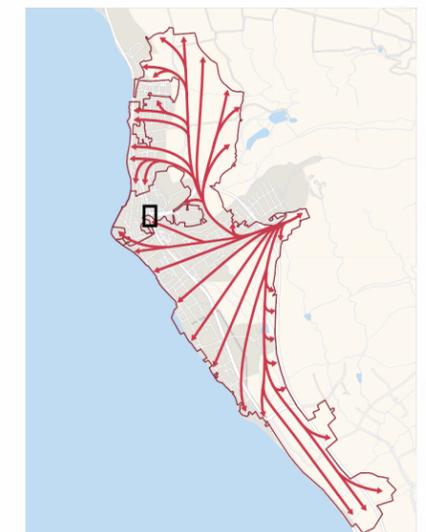
Kahoma Stream, near the end of Komo Mai Street along grasses and fence, to two (2) structures in the apartment complex along Kahoma Stream. From these two (2) buildings, the fire spread via grasses and shrubs behind the Starbucks and across the Hwy-30 to the grass adjacent to the Cannery Mall. The fire stopped in the grass and did not extend further (Figure 4.3.1.13).



Figure 4.3.1.13 Map of fire progression showing fire spread from the Kahoma Stream area, near the end of Komo Mai Street along grasses and fence to two (2) structures in the apartment complex along Kahoma Stream and beyond, eventually terminating near the Cannery Mall.



After start of Lahaina PM fire



TIMELINE OF EVENTS

Between 18:05 and 18:18, several civilian videos show fire spreading through Komo Mai Street and across the Kahoma Stream in the industrial area. There were spot fires near 2 █ Kupuohi Street. At 18:14, a civilian video shows that the wind drove house fires from the east end (mauka) of Komo Mai Street all the way down to the west end (makai) of Komo Mai Street (Figures 4.3.1.14 through 4.3.1.17).



Figure 4.3.1.14 Image capture from a civilian video of the far west end (makai) of Komo Mai Street (18:14). (Inset on left: represents the camera operator's approximate visual scope.)



Figure 4.3.1.15 Image capture from a civilian video of the west end (makai) of Komo Mai Street (18:14). (Inset on left: represents the camera operator's approximate visual scope.)



Figure 4.3.1.16 Image capture from a civilian video of the west end (makai) of Komo Mai Street (18:14). (Inset on right: represents the camera operator's approximate visual scope.)

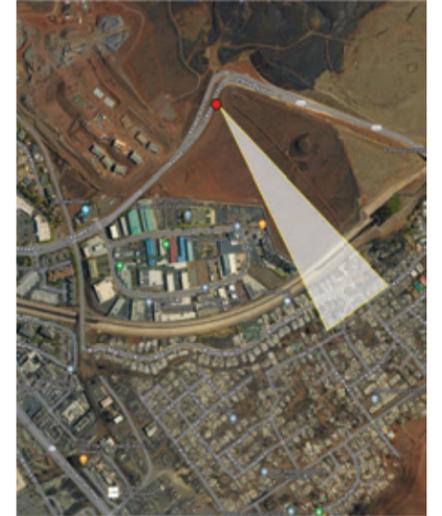
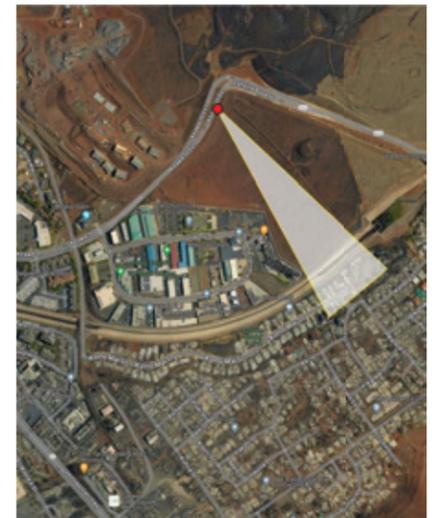


Figure 4.3.1.17 Image capture from a civilian video of the east end (mauka) of Komo Mai Street (18:14). (Inset on right: represents the camera operator's approximate visual scope.)



TIMELINE OF EVENTS

At 18:18, a civilian video shows that material and vehicles were on fire between 1 and 1 Kupuohi Street, and just after that, MFD Command requested RE1 to check out the area of Tamura's Fine Wine and Liquors store and the new apartment buildings at the top of Kupuohi Street for fires in and around these buildings. At 18:12 and 18:18, civilian video shows fire spreading through Front Street Apartments with house fires all the way down Kenui Street, from Hwy-30 to Front Street and Kai Pali Place (Figures 4.3.1.18 and 4.3.1.19).

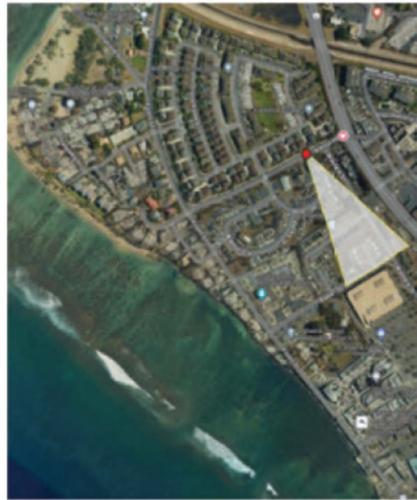


Figure 4.3.1.18 Image capture from a civilian video taken at Front Street Apartments on Kenui Street East (18:12). (Inset on left: represents the camera operator's approximate visual scope.)

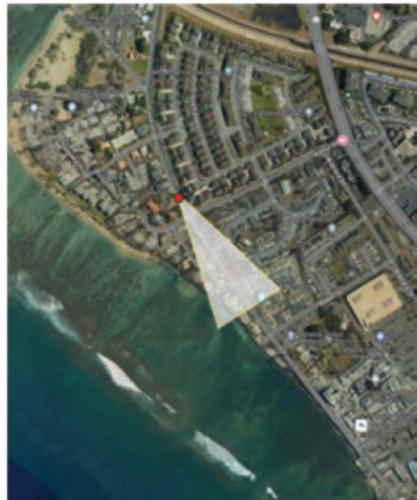


Figure 4.3.1.19 Image capture from civilian video taken of Front Street near Kenui Street West (18:18). (Inset on left: represents the camera operator's approximate visual scope.)

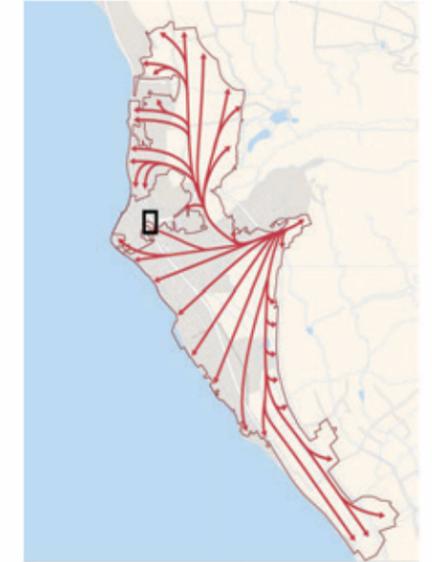


Figure 4.3.1.20 Map of fire progression from multiple fires from 18:28 through 19:38 in the southern area of the fire.

From 18:28 to 19:38, there were several fire progression reports in the southern area of the fire (Figure 4.3.1.20). A civilian video taken from Pualei Drive in the Puamana community shows the southernmost vantage point of the fire with heavy smoke moving east (mauka) to west (makai), just north of this location (Figure 4.3.1.21).



Figure 4.3.1.21 Image capture from a civilian video taken from Pualei Drive in the Puamana community and showing the southernmost vantage point of the fire with heavy smoke moving east (mauka) to west (makai) and imaged facing north (18:28). (Inset on right: represents the camera operator's approximate visual scope.)



TIMELINE OF EVENTS

Another civilian video recorded at 18:47 near Shaw Street and Front Street shows 1█ Shaw Street (Salvation Army Building) well involved in fire as well as another structure on fire just north on Front Street. (Figures 4.3.1.22 and 4.3.1.23).

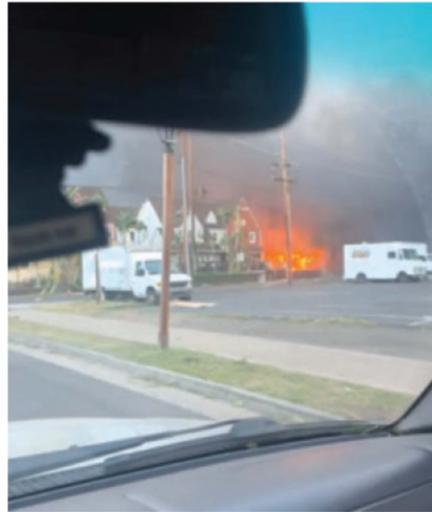


Figure 4.3.1.22 Image capture from a civilian video taken near Shaw Street and Front Street showing a structure on 505 Front Street on fire. The same video shows 1█ Shaw Street (Salvation Army Building) well involved in fire (18:47). (Inset on left: represents the camera operator's approximate visual scope.)



Figure 4.3.1.23 A civilian image taken near Shaw Street and Front Street showing another structure (near the Salvation Army building) on fire just north on Front Street (18:47). (Inset on left: represents the camera operator's approximate visual scope.)

At 19:00, MPD Officer 4B10 advised that Front Street and Shaw Street down to Front Street and Māla was engulfed in flames and at 19:10, radioed concern that fire was about to jump into Lahaina Recreation Center. Shortly after, MPD Officer 6B40 advised that there was zero visibility by the Front 505 Shops [Shops at 505] (at 19:11) and that the 400 block of Front Street was impassable (at 19:14). At 19:38, on the other end of Shaw Street near the Highway, MPD Officer 4Z20 advised the fire "jumped" Shaw Street to the south and the fire was extending into the neighborhood (Figure 4.3.1.20).

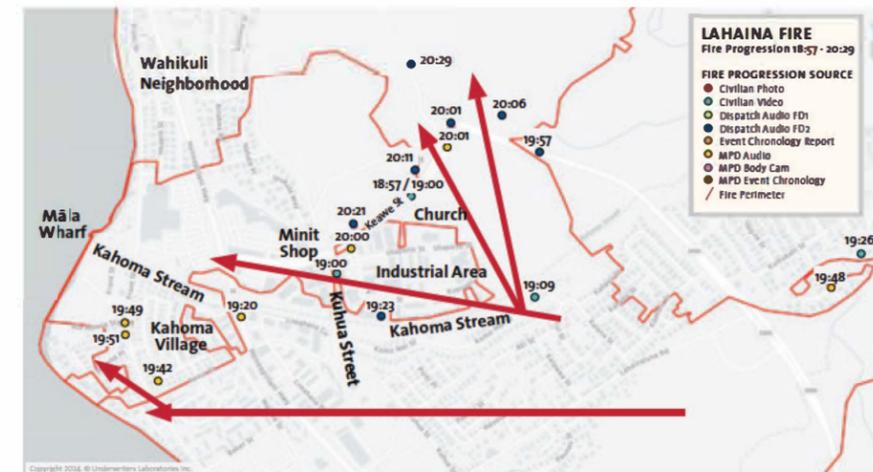


Figure 4.3.1.24 Fire progression map from 18:57 through 20:29 showing fire spread in the Kahoma region, spreading west and north.

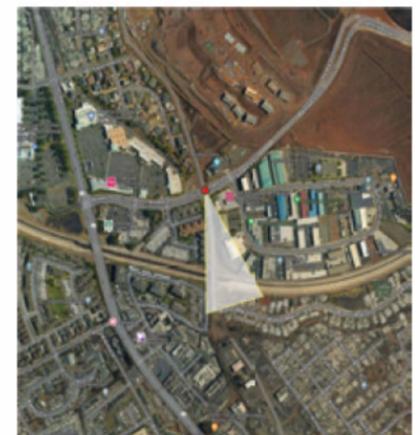
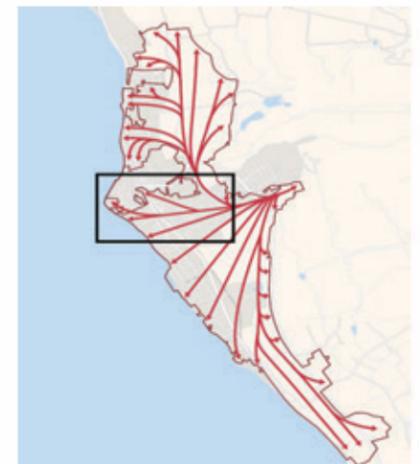
Figure 4.3.1.24 provides an overview of fire progression in the Kahoma region from 18:57 through 20:29. At 18:57, a civilian video taken from Keawe Street shows that the wind shifted to blow north causing the smoke plume to cover most of the industrial area. The edge of the smoke plume was now over the church at 1█ Ulupono Street. Another civilian video shows spot fires in the trees at 19:00 along Kuhua Street behind 1█ Kupuohi Street (Figure 4.3.1.25).



Figure 4.3.1.25 Image capture from civilian video showing spot fires in the trees along Kuhua Street, behind 1█ Kupuohi Street (19:00). (Inset on right: represents the camera operator's approximate visual scope.)



After start of Lahaina PM fire



TIMELINE OF EVENTS

At 19:23, RE1 was operating a structure fire at █ Kupuohi Street. The fire ignited the warehouse at this location, which was in line with the embers that started the spot fires along Kuhua Street.

At 19:26, a civilian video taken near the location of the fire's origin pans the area west (makai) down Lahainaluna Road and south toward the Puamana community (Figure 4.3.1.26). Structures can be seen on fire across the entire pan of the video and embers can be seen being generated close to the video as grass and shrubs continue to burn, aided by the wind (Figures 4.3.1.26 through 4.3.1.32).



Figure 4.3.1.26 Image capture from a civilian video of the view from Lahainaluna Road (near Niheu Street) looking south (home in the foreground is on Ho'okahua Street). (19:26). (Inset on left: represents the camera operator's approximate visual scope.) (Inset on left: represents the camera operator's approximate visual scope.)



Figure 4.3.1.27 Image capture from a civilian video showing another view from Lahainaluna Road looking southwest (homes in the foreground is on Ho'okahua Street) (19:26). (Inset on left: represents the camera operator's approximate visual scope.) (Inset on left: represents the camera operator's approximate visual scope.)



Figure 4.3.1.28 Image capture from a civilian video taken from Lahainaluna Road looking southwest toward Ku'ialua Street showing multiple spot fires (19:26). (Inset on right: represents the camera operator's approximate visual scope.) (Inset on right: represents the camera operator's approximate visual scope.)



Figure 4.3.1.29 Image capture from a civilian video from Lahainaluna Road showing multiple spot fires on Ku'ialua Street (19:26). (Inset on right: represents the camera operator's approximate visual scope.)



TIMELINE OF EVENTS



Figure 4.3.1.30 Image capture from a civilian video of a fifth view from Lahainaluna Road (toward Ku'ialua Street) showing a burned tree with surrounding embers in the foreground, indicating that the fire has just swept through (19:26). (Inset on left represents the camera operator's approximate visual scope.)



Figure 4.3.1.31 Image capture from a civilian video of another view from Lahainaluna Road showing multiple spot fires looking west (19:26). (Inset on left: represents the camera operator's approximate visual scope.)



Figure 4.3.1.32 Image capture from a civilian video of another view from Lahainaluna Road showing multiple spot fires looking west (19:26). (Inset on right: represents the camera operator's approximate visual scope.)



Figures 4.3.1.26 through 4.3.1.32 Composite image of captures from a civilian video from Lahainaluna Road looking west (19:26). (Inset on right: represents the camera operator's approximate visual scope.)



At 19:42, the fire continued to burn in the area west (makai) of Kahoma Village. At 19:49, MPD Officer T34 advised that the fire was burning along Front Street south of Ala Moana Street. He also stated, "The back of 11 Front Street is on fire, coming from Māla Wharf, guess it jumped Ala Moana from the back." Between spot fires ignited by embers and structure-to-structure fire spread, the fire burned several homes along the ocean between Kenuli Street and Ala Moana Street. The damage to Māla Wharf was caused by embers, as there was no connection of burning fuels.

TIMELINE OF EVENTS



After start of Lahaina PM fire

The structure fires did not extend north of Ala Moana Road or west (makai) of Front Street in the area of Māla Wharf. The original fire at Māla Wharf was reported at 17:15, and it continued to burn up until at least 19:51.

At 19:57, E3 and T3 were trying to coordinate the control of the fire that was burning in the grasses north of the Kahoma Stream, heading toward Keawe Street and the Lahaina Bypass (Figure 4.3.1.24 on page 64). The fire burning in the area of Keawe and Kuhua Street by the Minit Shop was also increasing in size per MPD Officer S40, and the visibility was reported as “very bad” and “the fire is right on it now” at 20:00. At this time, the medics also advised dispatch that the fire was moving quickly toward Keawe Street and the Lahaina Bypass, and MPD Officer 4B30 advised that the fire was creeping toward Wahikuli. At 20:06, E3 advised that the fire had jumped the Lahaina Bypass and was above Wahikuli and headed north. At 20:11, RE14 arrived on scene at the area of Keawe Street and the Lahaina Bypass and advised that the fire had jumped the road from south to north. At 20:29, RE14 advised that the fire was north of Oil Road and was making its way into Wahikuli. (Note: According to Google Maps, Oil Road is the dirt road at the far east end of Pu’ukoli’i Road in the Kā’anapali area. However, emergency responders and residents also referred to Oil Road as the dirt road located east of, and behind the homes located on Ipukula Way, from Keawe Street to the Civic Center. For this analysis, Kuhua Street is on the south side of Keawe Street, and Oil Road is on the north side.)



Figure 4.3.1.33 Fire progression map from 20:29 through 21:01 showing the fire spreading south.

While the fire was spreading north toward Wahikuli, it also continued to push south (Figure 4.3.1.33). The south flank burned back against the wind in the grass toward the Lahaina Bypass south of Lahainaluna Road (Figure 4.3.1.33). The fire was also spreading through the structures south of Shaw Street and down toward the Puamana community. A civilian photo taken at 20:29 shows the fire impacting structures in the area of Hwy-30 and 'Aholo Road (Figure 4.3.1.34).



Figure 4.3.1.34 Civilian image taken at Front Street and Hwy-30 looking north toward 'Aholo Street with a bystander in the foreground (20:29). (Inset on right: represents the camera operator's approximate visual scope.)

At 20:31, MPD Officer 6B41 advised that the fire was creeping up to the top of the bypass in the area of Mile Marker 3. At 20:37, an unknown MPD officer advised that the fire was starting to cross over into the structures at Aulike Street. By 20:46, MPD Officer 4A40 advised that there were a few houses engulfed on Aulike Street and Leoleo Street. At 21:01, MPD Officer 4B30 advised that the fire was within 200 yards of Hōkiokio Place.



After start of Lahaina PM fire

TIMELINE OF EVENTS

Figure 4.3.1.35 shows the north and west fire progression from 21:25 through 22:29. At 21:25, RE1 advised that the fire was fast-moving and that it looked like it was approaching Akeke Place off of Kahoma Street. RE1 repositioned from Kapunakea Street toward Kahoma Street and advised that the fire was impacting the homes on the east (mauka) side of Kahoma Street.

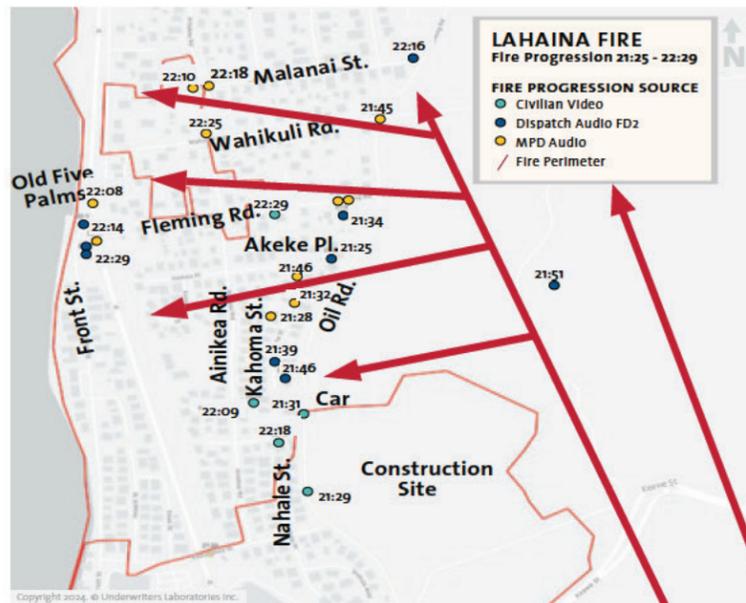


Figure 4.3.1.35 Fire progression map from 21:25 through 22:29 showing the fire spreading west and north.

A civilian video taken from the area of Nahale Street shows the fire wrapping around the east (mauka) and north sides of the construction site that is north of Keawe Street (Figure 4.3.1.36).



Figure 4.3.1.36 Image capture from civilian video of the fire wrapping around the east (mauka) and north sides of the construction site north of Keawe Street (21:29). (Inset on left: represents the camera operator's approximate visual scope.)

At 21:31, the same civilian walked up Oil Road, and their video shows the vehicle fire at the northwest corner of the construction site that is extending to the brush across Oil Road (Figure 4.3.1.37).

The car was located behind 13 Kahoma Street. At 21:32, MPD Officer 4B10 explained that there was zero visibility in the area of Kahoma Street and that there was fire behind the houses. A minute later, Officer 4Z20 advised that the fire was behind 1 Fleming Road and advancing quickly. At 21:36, the Water Supply Group Supervisor advised via MFD radio that there was a car on fire on Oil Road that is spreading the fire across to the homes west (makai) of that location. By 21:46, the Water Supply Group Supervisor radioed that six (6) buildings were fully involved in fire on Kahoma Street.

At 22:08, MPD Officer 415 advised that the fire impacting the Wahikuli area was making its way to Hwy-30. This indicates that the fire was spreading quickly from east (mauka) to west (makai) through the homes. A civilian video taken from the cul-de-sac on Nahale Street at 22:09 shows that the fire moved from east (mauka) to west (makai) in the area of Kahoma Street (Figure 4.3.1.38).



Figure 4.3.1.38 Image capture from civilian video taken from the Nahale Street cul-de-sac looking north (22:09). (Inset below: represents the camera operator's approximate visual scope.)



Figure 4.3.1.37 Image capture from civilian video of a fully engulfed car on Oil Road (21:31). (Inset below: represents the camera operator's approximate visual scope.)



After start of Lahaina PM fire

TIMELINE OF EVENTS

At 22:14, the MFD Structure Group Leader advised that the fire was beginning to spot in the area of Fleming Road and Front Street. There were trees on fire at that location. The fire continued to spread south toward Kapunakea Street and north toward Wahikuli Road driven by the wind gusting from east (mauka) to west (makai) and slightly north. At 22:18, MPD Officer 4Z20 advised that they were at the intersection of 'Ainakea Road and Malanai Street, and the fire was getting close to Wahikuli Road. At 22:25, the same officer radioed that the fire had reached Wahikuli Road at 'Ainakea Road. A civilian video taken from 1█ Wahikuli Road shows the fire moving east (mauka) to west (makai) down Fleming Road at 22:29 (Figure 4.3.1.39). At the same time, MPD advised that the old Five Palms/Chart House restaurant, the building where Front Street and Hwy-30 come together, was on fire.

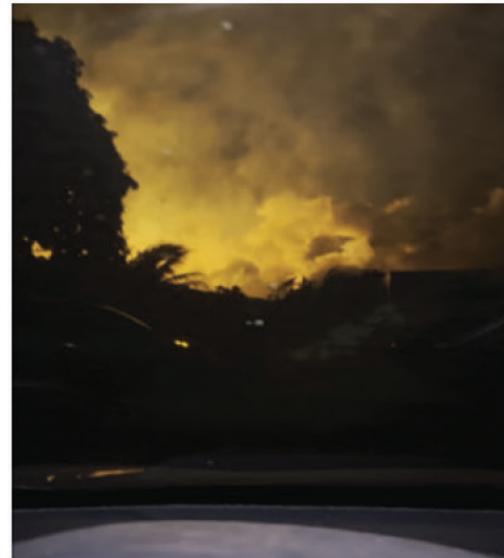


Figure 4.3.1.39 Civilian image showing fire moving east (mauka) to west (makai) down Fleming Road (22:29). (Inset on left: represents the camera operator's approximate visual scope.)

On the south side of the fire (Figure 4.3.1.40 on next page), MPD Officer W2 advised that the fire had jumped Hōkiokio Place at 22:29. At 22:41, Engine 11 advised command that the fire had jumped Hōkiokio Place and was making its way west (makai) toward the Puamana community. At 23:01, MPD Officer 4B30 advised that the fire was moving slowly south and was nearing the Puamana community. There was little fire progression reported in the south until August 9, 2023, at 02:02, when MPD Officer W2 reported that the fire jumped east (mauka) of the Lahaina Bypass on Hōkiokio Place.

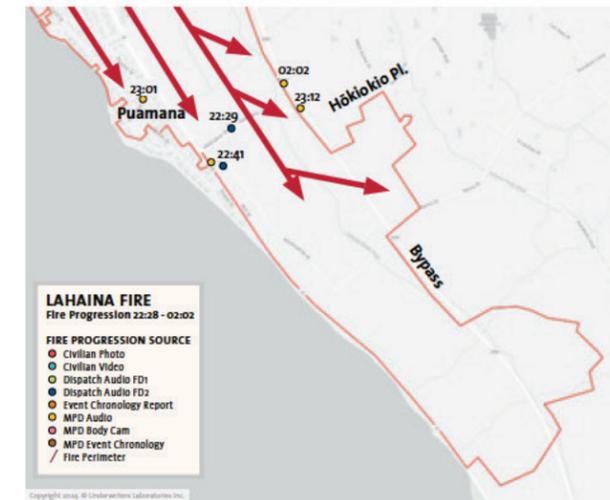


Figure 4.3.1.40 Fire progression map from 22:28 through 02:02 showing the fire spreading south to southeast.

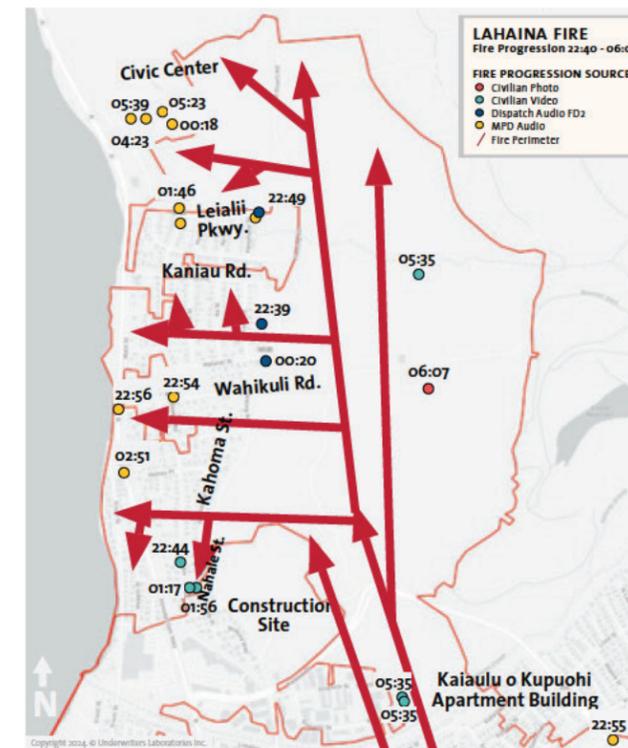


Figure 4.3.1.41 Fire progression map from 22:40 through 06:07 showing the fire spreading west and north.

TIMELINE OF EVENTS



After start of Lahaina PM fire



On the northern end of the fire, the fire continued to spread structure-to-structure, aided by a wind that was east (mauka) to west (makai) and north (Figure 4.3.1.41 on previous page). At 22:40, MPD Officer 4Z20 advised that the fire was still south of Wahikuli Road and 'Ainakea Road. A civilian video taken from 12█ Nahale Street at 22:44 shows the fire moving from east (mauka) to west (makai) and progressively igniting 12█ Kahoma Street, 12█ Kahoma Street, 12█ Kahoma Street, 1█ Hiki Place, 1█ Hiki Place, and 1█ Hiki Place (Figure 4.3.1.42). At 22:49, MPD Officer 415 radioed that the fire was approaching Leiali'i Parkway. At 22:54, MPD Officer 4Z20 advised that the fire had crossed Wahikuli Road and was headed north. At 23:39, the MFD Support Group Leader advised that the brush was on fire above Malanai Street, and the fire was making its way to Kaniau Road, impacting several homes in that area.



Figure 4.3.1.42 Image of fires at Kahoma to Hiki Place (22:44). (Inset on left: represents the camera operator's approximate visual scope.)



TIMELINE OF EVENTS



After start of Lahaina PM fire



Fire Progression: August 9, 2023

The civilian at 12█ Nahale Street continued to video the fire moving toward his home. At 23:59, 12█ and 12█ Nahale Street were on fire, and at 00:33, 12█ Nahale Street caught fire. At 01:17, the homes in the area of 12█ 'Ainakea Road were burning. At 01:56, the home at 12█ Nahale Street caught fire (Figures 4.3.1.43 through 4.3.1.45).



Figure 4.3.1.43 Image capture from civilian video of fire at 12█ Nahale Street (23:59). (Inset on left: represents the camera operator's approximate visual scope.)

Figure 4.3.1.44 Image capture from a civilian video showing a close up view of 12█ Nahale Street on fire and 12█ Nahale Street destroyed (01:17). (Inset on left: represents the camera operator's approximate visual scope.)



Figure 4.3.1.45 Image capture from a civilian video showing fire continuing to advance south along Nahale Street (01:56). (Inset on right: represents the camera operator's approximate visual scope.)

As the fire moved south, the wind shifted to blow in a more northerly direction, and the fire spread in this area stopped. A video at 02:30 shows the fire burning the fence of 12█ Nahale Street, but it did not ignite the home (Figure 4.3.1.46).



Figure 4.3.1.46 Image capture from civilian video shows 12█ Nahale engulfed in flames. The fire does not advance beyond the fence of 12█ Nahale Street (02:30). (Inset on right: represents the camera operator's approximate visual scope.)



TIMELINE OF EVENTS



After start of Lahaina PM fire

At 00:18, MPD Officer 401 advised that the fire was slowly creeping toward the police station. At 00:20, Mini 1 was advised that the fire was at Malanai Street and that they should leave the area. At 00:53, MPD advised that they had embers reaching Leialii Parkway, and at 01:46, MPD Officer 418 advised that the flames were 100 yards south of Leialii Parkway. Shortly after that, MPD Officer 401 radioed that the fire was slowly surrounding Leialii Village at 01:54.

MPD Officer 401 provided several updates overnight. At 02:51, they advised that the flames were still east (mauka) of the highway, except for the area near Fleming Road where they crossed over. At 04:23, they advised that the smoke was engulfing the Civic Center and the Police Station, and at 05:23, the fire appeared to have gone around the buildings in the Civic Center complex. At 05:39, MPD officer 401 confirmed the fire did not affect the police and fire stations, and the fire was moving up the mountain.

Early in the morning, at 05:35 through 06:07, a civilian took video from a dirt road east (mauka) of the Wahikuli area. The video shows the north flank of the fire in the grasses from Wahikuli Road toward the Civic Center (Figures 4.3.1.47 and 4.3.1.48).



Figure 4.3.1.47 Image capture from civilian video taken showing the grass fire east of the end of Wahikuli Road. The fire is advancing north and backing east (mauka) upslope (05:35). (Inset on left: represents the camera operator's approximate visual scope.)



Figure 4.3.1.48 Image capture of civilian video showing a second view of the grass fire backing upslope, just east (mauka) of the end of Wahikuli Road (05:35). (Inset on right: represents the camera operator's approximate visual scope.)

The video also pans south to show the Kaiāulu o Kupuohi apartment building on fire (258 Kupuohi Street) and numerous structures on fire in the Wahikuli area (Figures 4.3.1.49 and 4.3.1.50).



Figure 4.3.1.49 Image capture from civilian video showing the Kaiāulu o Kupuohi apartment building on fire (05:35). (Inset on right: represents the camera operator's approximate visual scope.)

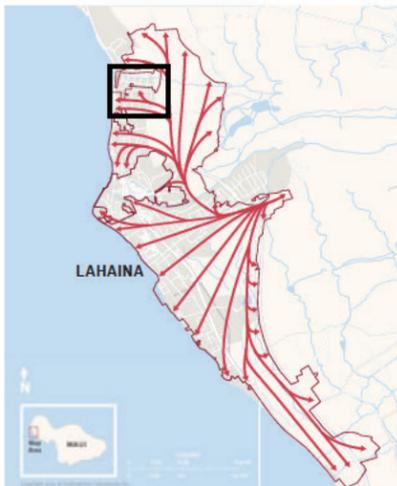


Figure 4.3.1.50 Image capture of civilian video showing another image of the Kaiāulu o Kupuohi apartment building on fire (05:59). (Inset on right: represents the camera operator's approximate visual scope.)

TIMELINE OF EVENTS



After start of Lahaina PM fire



Other photos from the same area show a portion of the north flank of the fire burning from Wahikuli Road (near the water tank) to Kā'anapali (Figure 4.3.1.51).



Figure 4.3.1.51 Image showing the grass fire backing upslope from Wahikuli Road (near the water tank) to Kā'anapali (05:59). (Inset on left: represents the camera operator's approximate visual scope.)

At approximately 05:00, MFD repositioned resources to stop the forward progress of the fire in the northern end of the Wahikuli neighborhood and the surrounding grass fires (Figures 4.3.1.52 and 4.3.1.53). On the southern end of the fire, at 06:29, MPD Officer S2 advised of flames about 200 yards from 1 █ Haniu Street. MFD positioned resources to stop the spread of fire to the south before it reached the homes in the area of Kai Hele Kū Street (Figures 4.3.1.54 and 4.3.1.55).



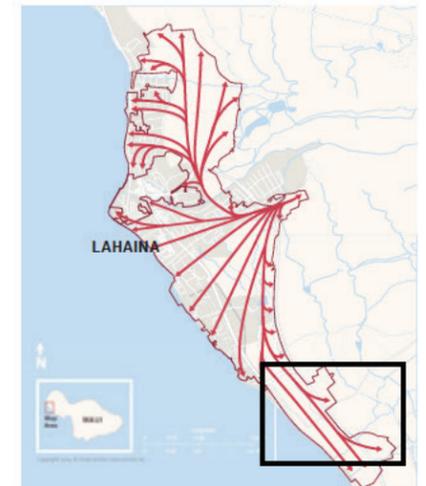
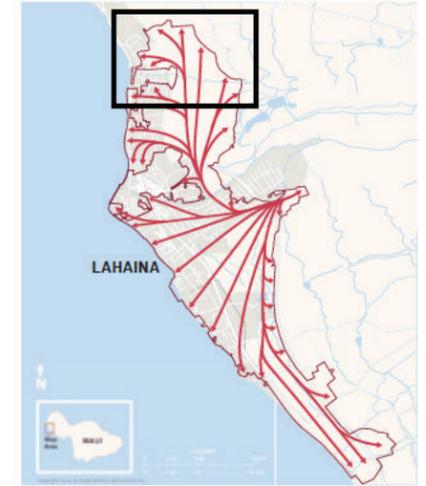
Figure 4.3.1.52 Aerial image after the fire that shows where structure-to-structure fire spread ceased. Source: Google. The final perimeter overlay (red line) was added with PowerPoint Freeform: Shape and based on GIS perimeter used for Figure 4.3.1.2 and is subject to some error/difference from the GIS perimeter.



Figure 4.3.1.53 A second aerial view showing where the grass fire spread was stopped. Source: Google. The final perimeter overlay (red line) was added with PowerPoint Freeform: Shape and based on GIS perimeter used for Figure 4.3.1.2 and is subject to some error/difference from the GIS perimeter.



Figure 4.3.1.54 An aerial image showing where the southern spread of grass fires was stopped. Source: Google. The final perimeter overlay (red line) was added with PowerPoint Freeform: Shape and based on GIS perimeter used for Figure 4.3.1.2 and is subject to some error/difference from the GIS perimeter.



TIMELINE OF EVENTS

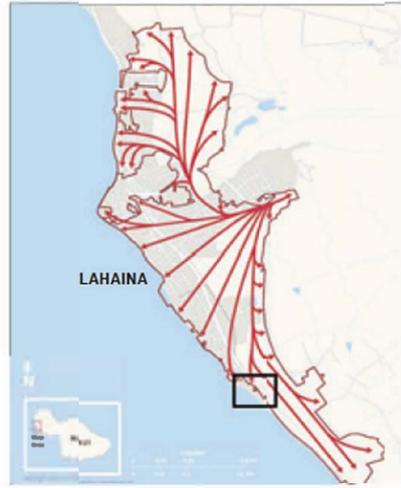


Figure 4.3.1.55 An aerial image showing where the southern building-to-building fire spread ceased. Source: Google. The final perimeter overlay (red line) was added with PowerPoint Freeform: Shape and based on GIS perimeter used for Figure 4.3.1.2 and is subject to some error/difference from the GIS perimeter.

4.3.2 Maui Fire Department (MFD) Response

Staffing

On August 7, 2023, and the morning of August 8, 2023, MFD was staffed as normal.

On August 7, 2023, MFD B-Watch was on duty as scheduled. Frontline apparatus were assigned and staff responded to the Olinda fire at 00:22 on August 8, 2023. B-Watch personnel also responded to the Lahaina AM fire at 06:55 on August 8, 2023.

Around 07:00 on August 8, 2023, A-Watch reported for duty to find frontline apparatus deployed. Some were able to staff the available relief apparatus and others were instructed to relieve crews on scene.

Battalion Chief 3 (BC3) was called in to assist with running 911 operations and reported for duty at 07:30 on August 8, 2023. Fire 3 (F3—Assistant Chief of Operations) authorized BC3 to staff relief apparatus. As staff reported for duty, they were assigned to relief apparatus and deployed. BC3 was staffing to optimize district coverage island wide and address specific needs for the fires.

While A-Watch resources remained on scene at the Lahaina AM fire, B-Watch returned to the station and went off duty. Personnel assigned to west Maui fire stations received emergency call back notifications around 16:30.

An overview of the MFD shift schedule is provided in Table 4.3.2.1. See the Lahaina Fire Staffing Matrix in the Appendix 6.12 for unit-level staffing and crew exchange during the incident.

Table 4.3.2.1 MFD Shift Schedule August 7, 2023, through August 10, 2023.

MFD Shift Schedule August 7, 2023 – August 10, 2023		
B-Watch (8/7–8/2023) 07:00–07:00	A-Watch (8/8–9/2023) 07:00–07:00	C-Watch (8/9–10/2023) 07:00–07:00

Fire Incident Management Organization

The rapid spread of fire over the large geographical area of Lahaina/ West Maui created a dynamic situation where the fire incident management organization changed several times due to changing conditions and locations of impact. The Incident Commander (IC) operated exclusively from their battalion vehicles throughout the incident. The initial fire IC was BC5, who maintained command until approximately 21:46 when he transferred command to BC4, when they were face-to-face off of Keawe Street. Fire resources remained on one (1) radio channel for the duration of the Lahaina incident.

A division is typically designated for a geographic location, whereas a group is designated to perform task-related or tactical functions. During the Lahaina fire incident, the ICs attempted to scale the fire incident management organization and mobilize/demobilize divisions/groups as needed.

TIMELINE OF EVENTS

Individual resources (e.g., an engine, utility, private tanker, aircraft rescue firefighting unit (ARFF), etc.) were assigned to a division/group, and each division/group had a designated supervisor/leader.

During the August 8, 2023, Lahaina fire, the following divisions/groups were utilized, although these designations and units assigned change with the event (see Table 4.3.2.2).

Table 4.3.2.2 MFD Incident Management Assignments on August 8, 2023, and August 9, 2023.

MFD Incident Management Assignments		
DATE	TIME	ASSIGNMENTS
August 8, 2023	06:44	E3 officer establishes Lahaina Command
August 8, 2023	06:50	BC5 assumes Lahaina Command from E3 officer
August 8, 2023	09:27	BC5 transfers Lahaina Command back to E3 officer
August 8, 2023	14:17	E3 officer releases units and returns to quarters
August 8, 2023	15:01	E11 officer establishes Ku'ialua Command
August 8, 2023	15:10	BC5 assumes command from E11 officer
August 8, 2023	15:59	South Division (E6 with WL6, E1 and RE1 assigned)—Units operating in the area of Pauoa Street south of Lahainaluna Road. Geographical boundaries not identified.
August 8, 2023	16:13	West Division (E11 with E3 and RE11 assigned, changed to E3 with E11 and RE11 assigned)—Units operating in the area of Ka'akolu Street north of Lahainaluna Road. Geographical boundaries not identified.
August 8, 2023	20:43	Structure Group (U5 with L3 and E3 initially assigned, E1 added, RE11 added, Aircraft Rescue and Firefighting (ARFF) units added, RE1 started reporting to Structure Group but no record of being officially assigned)—Units continued to change within the Group. Throughout the dispatch record, units refer to being Structure Group or Structure Protection Group, and even units assigned to Support Group stated they were doing structure protection and/or triage.

continued

MFD Incident Management Assignments <i>continued</i>		
DATE	TIME	ASSIGNMENTS
August 8, 2023	20:47	Water Supply Group (Comms 2—Officer).
August 8, 2023	20:51	Bypass Group (RE14 with U5 and E11/Mini11)—Specific function and geographic area not identified.
August 8, 2023	20:53	Support Group (U3 with U3B, and E6 (in SUV) assigned, Mini1 also used in Support Group function)—“Your assignment is to assist with support where you can, evacuation, all fire and structure protection.”
August 8, 2023	21:46	BC4 assumes Lahaina Command from BC5
August 8, 2023	22:12	Bypass Group transferred to E11 when roads became impassable. Bypass Group covered the area south of Fleming Road, and the staging point was the Bypass and Hōkiokio Place. E11 had Mini11 and four (4) private tankers assigned.
August 9, 2023	00:35	Support Group reassigned to U3B with E6, Mini6, E1, E3A and Kapalua ARFF also assigned to U3B. “Your assignment is support function and then gear up for evacuation for the next neighborhood north.”
August 9, 2023	05:36	North Division (units assigned not identified, geographical boundaries not identified.)
August 9, 2023	06:33	South Division (E3A with E11, Mini11, RE14, Mini 1, T3, and four (4) private tankers initially assigned)—Units operating in the area of south Lahaina. Geographical boundaries not identified.

Red Text: Indicates Lahaina AM fire.

Resource Assignments

Frontline apparatus are fully equipped for their task-specific functions, unless otherwise noted (e.g., hoseline, supply line, nozzles, water appliances, rescue tools, ladders, portable/individual radios/riding position, self-contained breathing apparatus (SCBA)/each riding position, wildland hose, emergency shelters, flotation devices, basic emergency response medical equipment, etc.).

TIMELINE OF EVENTS

Throughout the Lahaina fire, the amount of equipment, as well as the personnel, changed dynamically. Several units were destroyed (as noted), many units had to abandon equipment to make emergency evacuations, and other units scouted for and retrieved equipment as the incident evolved. Staffing numbers changed as injuries occurred (including a mayday event indicating an immediate life threat), additional personnel responded to assist, and shifts changed throughout the extended operational period. Also, apparatuses of all types were used to effect rescues and transport citizens away from the smoke and fire, so vehicle occupancy changed throughout. The resource assignments outlined in Table 4.3.2.3 indicate the number of individuals assigned to each vehicle, as reported by responding crew members, over the course of the events of August 8, 2023, and into the morning of August 9, 2023.

Table 4.3.2.3 MFD Resource Assignments on August 8, 2023.

MFD Resource Assignments August 8, 2023								
Station Assignment	Unit Identifier & Abbreviation	Equipment Type	Water Capacity (gal)	Minimum Staffing	Staffing on 8/8	Apparatus Notes	Equipment	Damage (Pre-Existing or Incident-Related)
Fire Station 1 (FS1) – Wahikuli	Engine 1 (E1)	Type 1	750	4	4	Frontline unit	Fully equipped	Engine was destroyed by fire.
Fire Station 1 (FS1) – Wahikuli	Mini 1 (Mini1)	Type 6	400	0	1 --- 7 --- 4*	Cross-staffed by E1 crew (and later E6 crew) as incident needs dictated	Not specified	Mini1 became entangled in power lines and other debris and was left at the corner of Shaw & the Highway. A firefighter reporting to duty stopped and helped free the unit as E1 & E6 crew arrived in MPD SUV with downed firefighter. Mini1 was placed back in service with a crew of 7 until E6 crew of 3 moved to a BC SUV.
Fire Station 1 (FS1) – Wahikuli	Relief Engine 1 (RE1)	Type 1	750	0	4	Used for up-staffing during Lahaina fires (also used as reserve for frontline unit)	Hose packs No other equipment specified	None noted. Top deck gun was torn off, and engine experienced an air leak during evacuation from the neighborhood but was able to maintain 90 psi. RE1 continued to be used through 8/8 and 8/9.
Fire Station 3 (FS3) – Lahaina	Engine 3 (E3)	Type 1	750	4	4	Frontline unit	Fully equipped	None noted.
Fire Station 3 (FS3) – Lahaina	Wildland 3 (WL3)	Type 6	400	0	1 --- 2*	Cross-staffed with E3 or L3 as incident needs dictated	Basic wildland complement	Utility pole came down trapping WL3. When crews returned it had been destroyed by fire.
Fire Station 3 (FS3) – Lahaina	Ladder 3 (L3)	105-foot Rearmount	500	4	4	Frontline unit	Fully equipped	None noted

*Staffing changed dynamically throughout the incident.

continued

MFD Resource Assignments August 8, 2023 – continued

Station Assignment	Unit Identifier & Abbreviation	Equipment Type	Water Capacity (gal)	Minimum Staffing	Staffing on 8/8	Apparatus Notes	Equipment	Damage (Pre-Existing or Incident-Related)
Fire Station 3 (FS3) – Lahaina	Tanker 3 (T3)	Type 1 Water Tender	2000	1	1	Frontline Unit	Not specified	T3 windows would not roll up, which exposed the driver to heavy smoke and flying embers during the course of the day. 15:27 T3 inoperable until 15:32 due to mechanical problems.
Fire Station 3 (FS3) – Lahaina	Utility 3 (U3)	Tow vehicle, 4x4 pick up	N/A	0	1 --- 3*	None noted	Officer filled the truck with spare SCBA cylinders, radios, radio batteries, water, and other support items for delivery to field personnel.	None noted
Fire Station 3 (FS3) – Lahaina	Utility 3B (U3B)	Lifeguard truck		0	1 --- 3*	Extended cab, four (4)-door Equipped with emergency lights, No sirens, mobile radio	Crew equipped with one (1) portable radio, wildland snubber bag, handlines, and tools from FS3. Retrieved 40 gpm nozzle from a tanker later in the incident.	None noted
Fire Station 6 (FS6) – Kihei	Engine 6 (E6)	Type 1	750	4	5 --- 4*	Frontline unit	Fully equipped	E6 experienced mechanical problems and was abandoned. It was recovered on 8/9 and retrieved for repair.
Fire Station 6 (FS6) – Kihei	Wildland 6 (WL6)	Type 6	Not specified	0	1	Basic wildland firefighting complement	Not specified	WL6 became trapped by a downed utility pole and was tangled in wires. It was recovered in operable condition on 8/9 and placed in service.
Fire Station 11 (FS11) – Nāpili	Engine 11 (E11)	Type 1	750	4	4 --- 6*	Frontline unit	Fully equipped	None noted
Fire Station 11 (FS11) – Nāpili	Relief Engine 11 (RE11)	Type 1	750	4	4	Used for up-staffing during Lahaina fires (also serves as reserve for frontline unit).	Stocked with mobile radio, basic complement of hoseline, supply line, and appliances. Unit did not have SCBAs, portable radios, or emergency medical response equipment. Crew added additional rolls of 1.5" and 2.5" hoseline, one (1) portable radio.	None noted
Fire Station 11 (FS11) – Nāpili	Mini 11 (Mini11)	Type 6	350	0	1 --- 2*	Cross-staffed by E11 crew	Not specified	Mini11 pump experienced pump failure (unclear if this was before or during the incident) but responded with E11 for the duration of the incident.
Fire Station 10 (FS10) – Kahului	Utility 5 (U5)	Skid mount brush truck	250	0	5 --- 4*	Brush truck	No SCBA, limited EMS equipment	None noted

*Staffing changed dynamically throughout the incident.

continued

TIMELINE OF EVENTS

Table 4.3.2.3 MFD Resource Assignments on August 8, 2023 (continued).

MFD Resource Assignments August 8, 2023								
Station Assignment	Unit Identifier & Abbreviation	Equipment Type	Water Capacity (gal)	Minimum Staffing	Staffing on 8/8	Apparatus Notes	Equipment	Damage (Pre-Existing or Incident-Related)
Fire Station 10 (FS10) – Kahului	Relief Engine 14 (RE14)	Type 1	750	0	4	None noted	Not specified	None noted
Fire Station 10 (FS10) – Kahului	Battalion 3 (BC3)	SUV	N/A	1	3 — 2 — 1*	None noted	Not specified	Vehicle broke down responding to the mayday/CPR in progress on Shaw Street. Personnel moved to another BC vehicle that was delivered to scene by MFD personnel responding to the incident.
Fire Station 3 (FS3) – Lahaina	Engine 3A (E3A)	Lifeguard Truck	N/A	0	4 — 1	None noted	PA system No other equipment specified	None noted
Fire Station 3 (FS3) – Lahaina	Battalion 4 (BC4)	SUV	N/A	1	1	None noted	Not specified	None noted
Fire Station 3 (FS3) – Lahaina	Battalion 5 (BC5)	SUV	N/A	1	1 — 2 — 1*	BC5 was in a reserve BC SUV on 8/8	No incident command board	None noted
Lahaina ARFF	Not reported	Firefighting Apparatus	Not reported	Not reported	Not reported	Not reported	Not reported	Not reported

*Staffing changed dynamically throughout the incident.



TIMELINE OF EVENTS

The resource assignments outlined in Tables 4.3.2.4 to 4.3.2.18 indicate the dispatches, actions, and reports over the course of the events of August 8, 2023, and into the morning of August 9, 2023, from technical discussions with responding crew members, dispatch records, fire incident reports, and/or radio traffic. In the resource assignments that follow, when timestamp line is gray, there was no information to report or the unit did not exist at that time.

Table 4.3.2.4 MFD Incident Management Assignments for Engine 3 (E3) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignments: Engine 3 (E3)
August 8, 2023	
06:00–08:00	<p>05:16 E3 dispatched for a service call near Ku‘ialua Street and Lahainaluna Road. E3 reports a snapped pole with low-hanging wires across Ku‘ialua Street, not impacting Lahainaluna Roazd. MECO* was contacted but no ETA provided.</p> <p>06:34 E3 B-Watch was dispatched to Ku‘ialua Street across the street from Lahaina Intermediate School for multiple calls of a brush fire.</p> <p>06:42 E3 reported a 500 by 500 brush fire, winds blowing about 30 mph north, approaching the houses. E3 reported they would attack the fire from the top side and defend the homes. E3 crew used a hand held anemometer (wind meter) and measured wind speeds at 40 mph with 60 mph wind gusts.</p> <p>06:44 E3 established Lahaina Command.</p> <p>06:50 Battalion Chief 5 (BC5) assumed Command.</p> <p>07:17 E3 reported that the east (mauka) and heel of the fire looked good, and they were mopping up.</p> <p>07:51 BC5 reported that A-Watch personnel from Fire Station 3 (FS3) were heading to the scene. A-Watch personnel arrived on scene in a MFD utility truck to relieve B-Watch personnel on scene (They reported no obstructions driving up.). B-Watch crew returned to the station in the utility truck. E3 officer (A-Watch) walked the burned area and saw where fire had come through. E3 officer noted that power lines had already come down along the gulch (behind structures located on Ho‘okahua Street), and the standing lines were swaying in the wind. He advised the crew not to stand under the power lines. Fire had been knocked down so E3 continued to mop up. They had one (1) line off and were using tank water.</p>

Date/Time	MFD Resource Assignments: Engine 3 (E3)
08:00–10:00	<p>08:02 Central dispatched E3 for a smoke call in Kahana. They responded and found it was steam from an exhaust vent at the pumphouse, so they canceled other responding units while they finished investigating.</p> <p>08:34 E3 left the pumphouse to return to the Lahaina brush fire. E3 was delayed by traffic. E3 returned to the cul-de-sac on Ho‘okahua Street and hooked up to the hydrant. They stretched a horizontal standpipe (2.5" hoseline with a wye operating 2 handlines) up the hill (east/mauka side) while RE11 was pulling lines down (west/makai side) to the bottom edge of where the fire had reached.</p> <p>Crew noted it was much more windy than the average day; the wind seemed to be blowing generally in the direction toward the ocean.</p> <p>09:27 BC5 returned Command to E3 officer.</p> <p>09:59 E3 reported they were still mopping up the Lahainaluna brush fire (Lahaina AM fire). Crew recalled they worked the upper area for about two (2) hours, covering and dumping water across the area. They had access within the entire perimeter except for a small area at the bottom of the gulch.</p> <p>Around that time, a Truth Excavation (TruX) dozer was cutting a fireline in the area through the gulch near the end of Ku‘ialua. TruX is one of several private companies that provides heavy equipment to support the MFD during incident response. TruX had a tanker and two (2) dozers operating at this incident. E3 officer was unsure when, or at what point, TruX left.</p>
10:00–12:00	
12:00–14:00	<p>12:06 E3 reported the area was secure and they were awaiting the arrival of MECO.*</p> <p>12:21 Ladder 3 (L3) was dispatched to Niheu Street for lines down. E3 canceled L3, and two (2) members of E3 responded in Wildland 3 to assess. Multiple poles (4–5) had snapped—lines were down on roofs and backyards along the whole block (8█–8█ Niheu Street). WL3 crew went to all houses impacted, knocked on doors, and advised residents to take caution.</p>

*Now known as Hawaiian Electric.

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignments: Engine 3 (E3)
12:00–14:00	WL3 went back and rejoined E3 as they continued mopping up the (Lahaina AM fire). E3 crew was still waiting for MECO.* A MECO* worker arrived in a pickup truck. E3 officer asked if lines were de-energized, but a MECO rep on scene could not confirm that lines were de-energized.
14:00–16:00	<p>14:17 E3 advised that MECO* was working on the powerline situation along Nihue, and the Lahainaluna fire (Lahaina AM fire) was extinguished, and they were returning to FS3.</p> <p>14:55 E3, Tanker 3 (T3), BC5, and Engine 11 (E11) dispatched for numerous calls for a fire at a cul-de-sac at the end of the Ku‘ialua Street (near Lahainaluna Road and the Bypass). E3, T3, and WL3 respond.</p> <p>15:02 E3 reported power lines down at Kapunakea Street and Papalaua. Crew recalled that these power lines had not been down before. It seemed like the wind had increased.</p> <p>15:04 E3 reported they were arriving on scene. E3 went up Lahainaluna toward Bypass and planned to cut it off from the dirt road east (mauka) of the Bypass by the water tank. E3 recalled instructing WL3 and T3 to get up the dirt road because the engine was not able to. There was a lot of smoke and bad visibility. E3 officer was on foot to recon, but conditions were too bad and he had to jump in WL3. He could see where fire had burned to the edge. The only visible flame was backing into the gulch. WL3 staged on the dirt road behind 7 Ho‘okahua Place, and T3 was in front of WL3. All crew members stated they had never felt winds like that before.</p> <p>15:09 E11 reported a shed on fire. E3 reported to Command (E11) that the E3 operator was responding alone until additional personnel were available.</p> <p>15:17 E3 operator (in E3) responded to 7 Ho‘okahua Place and hooked up to a hydrant. E3 operator recalled PD was on scene attempting to extinguish the shed fire with garden hoses. E3 operator used the redline to attack the fire. The shed had a heavy fuel load (including a motorcycle) and was close to a structure (no fire extension had occurred.). PD left at this point. E3 operator remained on scene for an extended period.</p>

*Now known as Hawaiian Electric.

Date/Time	MFD Resource Assignments: Engine 3 (E3)
14:00–16:00	<p>When BC assigned WL3 to hit the fire where it jumped the Bypass at Kelawea Mauka Makai Park, WL3 staged on Lahainaluna Road (below the park, closer to the back of the structures) and pulled lines to the west (makai) side of the park (near 5-5 Ka‘akolu). E3 officer walked out to do recon and saw a structure had smoke coming off the roof. E3 officer called E3 operator on the radio; E3 operator was doing structure protection, so E3 officer requested an available engine. E11 responded but stopped en route at another structure fire.</p> <p>15:37 E3 officer reported a structure fire at 5 Ka‘akolu. E3 officer advised that they only had WL3 on scene and they needed another engine for fire attack.</p> <p>15:47 E3 operator asked if they should relocate E3 back to the Lahainaluna fire, and E3 officer affirmed. E3 operator recalled setting up a garden hose directed on the shed fire, leaving lines open, and returning to meet E3 crew/WL3.</p>
16:00–18:00	<p>Per E3 crew, E3 reunited around 16:00.</p> <p>16:11 Central advises that MECO* reported that power was shut off.</p> <p>16:12 E11 reported that they were with E3 at Ka‘akolu Street and Kalena Street.</p> <p>Per E3 crew, E3 met with E11 at Ka‘akolu Street. E3 used a 4" supply hose from E11 and hooked to the same hydrant as E11. E3 crew did not see any civilians in this area. As crews were operating, a powerline came down and draped across the road. Fire was steadily impinging, so E3 crew abandoned the hoselines and went one (1) block over between Ka‘akolu Street and Kanua Street to attempt another fire stop. E3 recalled vehicle traffic and one (1) structure fire along Kahako Street. E3 stopped along Kahako Street and connected to the hydrant. They still had good water pressure; however E3’s deck gun malfunctioned. E11 came up Ka‘akepa Street and turned down Kahako Street past E3. E3 officer was monitoring egress and crew safety.</p> <p>16:32 Command (BC5) advised the cut-off point would be Kahoma Stream.</p>

Red text: Indicates that the power supply is cut off.

*Now known as Hawaiian Electric.

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignments: Engine 3 (E3)
16:00–18:00	<p>16:37 E11 reported E11 and E3 crews were accounted for (Personal Accountability Report (PAR)).</p> <p>16:46 E3 crew advised they were above Lahainaluna packing up hose. Per E3 crew, E3 reloaded the hoseline and tried to get WL3, but a pole was now down blocking the road, and they could not retrieve WL3. Kahako Street was blocked, so E3 went down Kahena Street with L3 in front of them.</p> <p>17:08 Command (BC5) requested E3 check for E1 and E6. E3 reported they had multiple lines down and were having trouble with egress. E3 advised they would try to make it to Lahainaluna Road to recon.</p> <p>E3 sized up the area around Lu'i Street; one (1) house was on fire, and they determined that area was the flank of the fire. E3 crew used a 2.5" handline to knock down the structure fire at 8 Lu'i Street. They experienced intense wind gusts that carried embers, ash, and debris. E3 crew members took shelter behind the apparatus at some points. E3 crew recalled seeing a huge line of smoke traveling horizontally over Lahaina to the ocean. Embers carried from wind were igniting spot fires all around the houses. E3 crew used 2–3 packs of 50' of 2.5" hose to knock down fires between houses near 5 Kahena Street and Kalena Street and knock down fire at 3 Komo Mai Street and 3 Komo Mai Street. The hydrant at Komo Mai Street still had good pressure. However, as the crew was doing exposure protection, the water pressure started sputtering. E3 had to shut down the lines because intake pressure had dropped significantly, and the supply hose was getting soft.</p> <p>E3's egress plan was to drive down Komo Mai Street, which the crew could still see down at that point. It appeared that the fire had not yet crossed Kahoma stream at the top of Komo Mai Street, but fire continued spotting through the neighborhood. E3 and L3 drove down Komo Mai Street and had to cut a fence post and street sign in order to get out because poles were down and blocking the street.</p>
18:00–20:00	<p>Central dispatched a structure fire on Kupuohi Street (Emerald Plaza). At 19:48, E3 saw fire in the brush, and they determined the next stop would be at Keawe Street and the Bypass.</p>

Date/Time	MFD Resource Assignments: Engine 3 (E3)
18:00–20:00	<p>E3 set up in the parking lot at Ulupono Street (Church of Jesus Christ of Latter-day Saints), but the hydrant in this location had no water available. Wind was intense with extreme gusts causing smoke, ash, and embers to be widely dispersed.</p>
20:00–22:00	<p>At 20:06 E3 Officer reports the fire jumped the bypass above Wahikuli heading north.</p> <p>E3 relocated to Foodland to try to refill tank. Hydrant was very slow—this was very unusual. E3 went up Oil Road (no access issues at this point) to the Wahikuli area and stopped at the top of Fleming to see if the hydrants had water. When the hydrant was opened it began "sucking air", they had never seen this before.</p> <p>20:07 E3 officer reported that PD may be needed for evacuation of Wahikuli area and Command (BC5) acknowledged.</p> <p>20:31 E3 reported they were checking the Wahikuli neighborhood and that the fire had not yet reached the area. E3 crew advised Command (BC5) that the new construction site [off Oil Road] looked like it could provide a buffer and allow them to make a stand.</p> <p>20:32 E11 advised the fire had jumped the road [Keawe Street] and was burning north. E11 advised they would relocate to Oil Road near the new apartment complex once conditions on Keawe Street became passable.</p> <p>20:33 E1 reported that E1 and RE1 were standing by at the entrance to Oil Road.</p> <p>20:39 U3B reported 3 Alpha tankers were working along Oil Road and the Wahikuli Road gate was open. E3 advised the construction area encompassed a large area "where nothing can burn" and that the Alpha tankers should focus on the strip of brush on fire between the construction site and Oil Road. U3B advised they would relay the information to the Alpha tankers.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignments: Engine 3 (E3)
20:00–22:00	<p>20:43 E3 advised they were "scalping" the brush above Wahikuli but a dozer line was needed above Wahikuli. Command (BC5) advised he would make the request to the EOC but that it would "be a while." E3 advised that the hydrants were dry and that they anticipated, if the wind continued, the fire was going to come around the construction site and impact Wahikuli. Command (BC5) advised E3 would be Structure Group with L3 and U5 reporting to E3. Command (BC5) advised it would be three (3) hours minimum before a dozer could respond.</p> <p>20:58 E3 reported they were driving through Wahikuli neighborhood announcing evacuations using the engine's public announcement system. A relief crew of five (5) in a lifeguard utility truck met E3 crew at 'Ainakea Road and Kapunakea Street. E3 crew relocated into the Lifeguard utility truck, using designator E3A, and the relief crew went into service as E3.</p> <p>21:34 Central reported flames behind 1█ Fleming Road. E3/Structure Group advised they were located at the top of Fleming and the fire appeared to be off of Akeke Place.</p> <p>21:35 E3 advised RE1 to standby at Akeke Place.</p> <p>21:36 E3/Structure Group advised that a vehicle was on fire on Oil Road and it was causing "all the problems on Kahoma and Akeke." E3 assigned T3 to respond on Oil Road to extinguish the vehicle fire.</p> <p>E3 officer recalled that the attack plan was to spread units out, with apparatus staged on Kahoma, Kapunakea Street and Akeke Place, to contain the spread, but the wind was causing the fire to move too fast and there was no water supply. E3 crew recalled spot fires were happening throughout the fire due to "softball and basketball" sized embers. The embers were causing structures to ignite, and the fire was then spreading from structure-to-structure.</p> <p>21:37 E3/Structure Group assigned Airport Fire to stage at the top of Hawaiian Homes and report if the fire was spreading in that direction.</p> <p>21:39 RE1 advised Kahoma Street was heavily impacted on the mauka side and they had to abandon their position.</p>

Date/Time	MFD Resource Assignments: Engine 3 (E3)
20:00–22:00	<p>E3/Structure Group advised RE1 to stage at the top of Fleming Road.</p> <p>21:52 RE11 advised fire was spreading from structure-to-structure and they were not making any impact. RE11 advised they had to abandon the area. E3/Structure Group acknowledged. RE1 advised they made access to a residence on Malolo Place but the resident was combative and they were unable to evacuate the resident. RE1 advised they had relocated to Kahoma Street and were experiencing "heavy ember wash."</p> <p>21:53 E3/Structure Group requested MPD assistance to evacuate the combative resident.</p>
22:00–00:00	<p>E3 crew recalled they did not want to become trapped in the neighborhood and had to retreat to the Highway. They tried to access Front Street to assist with evacuations, but the smoke and road conditions were too severe, and they had to retreat back to the Highway.</p> <p>22:05 RE1 reported a resident on Wahikuli Road was refusing to leave. E3 advised RE1 to head toward the Highway and evacuate as much as possible.</p> <p>E3 crew recalled poles along the highway began to lean forcing them to retreat north past Fleming Road on the highway.</p> <p>22:25 Central advised that per MPD the fire jumped the highway south of Fleming Road in multiple spots with fires extending up to Wahikuli Road.</p> <p>22:34 Command (BC4) advised any units operating between Keawe Street and Fleming Road to exit the area immediately.</p> <p>22:47 E3/Structure Group advised all units assigned to Structure Group to relocate to Fire Station 3.</p> <p>23:29 E3/Structure Group advised all units assigned to Structure Group to stage at the Highway near Halelo Street.</p> <p>23:34 Command (BC4) advised Fire Station 3 was being abandoned and all units should relocate to the Highway immediately.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignments: Engine 3 (E3)
August 9, 2023 00:00–02:00	<p>00:25 Command (BC4) assigned E3 and Structure Group units to meet with RE14 and make a plan for the next stand.</p> <p>E3 crew recalled a plan was made to make a stand in the Kā'anapali area (which was the next neighborhood expected to be impacted). The Structure Group was dissolved and units were spread out throughout the neighborhood. Crews hooked up to hydrants (water supply was good) and stretched lines. E3 crew recalls spending hours in the area. At some point in the early morning the winds died down and the fire never reached their location.</p>
02:00–04:00	<i>Remained in Kā'anapali Golf Estates.</i>
04:00–06:00	<p>04:55 Command (BC4) assigned all units in the Ka'anapali Golf Estates area to relocate to the Civic Center.</p> <p>05:19 U3B/Support Group assigned E3 to work with RE11 above Fire Station 3 to attack fire spreading behind /mauka of the station.</p> <p>05:24 Command reassigns U3B to North Division with RE11, E3 and L3 reporting to North Division.</p>
06:00 – 08:00	<p>E3 crew recalled shift exchange occurred on scene at approximately 07:30.</p> <p><i>07:44 E3 reported they were ready for reassignment with a crew of 3.</i></p>
08:00 – 10:00	
10:00 – 12:00	



TIMELINE OF EVENTS

Table 4.3.2.5 MFD Incident Management Assignments for Wildland 3 (WL3) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Wildland 3 (WL3)
August 8, 2023	06:43 WL3 responded with Ladder 3 (L3) (split crew).
06:00–08:00	WL3 crew recalled turning down Ku’ialua Street, and fire was starting to come down Lahainaluna Road and Ho’okahua Place. WL3 turned down the cul-de-sac of Ho’okahua Place and could see light, flashy fuels catching fire and that the fire was moving quickly. WL3 hooked to a hydrant on Ho’okahua Place and pulled a 1.5" hoseline behind the houses to protect exposures. A private tanker was behind them trying to wet down the same area. 07:48 Command (BC5) reported the situation was looking pretty good.
08:00–10:00	08:01 WL3 reported they were on the west (makai) flank of the fire, which they reported to be looking “pretty cool.”
10:00–12:00	They reported they were still working with L3 crew and had lines in place, but they were ready for reassignment. WL3 remained on scene with Engine 3 (E3).
12:00–4:00	12:21 L3 got dispatched to 9 ■ Niheu Street for lines down. E3 canceled L3, and two (2) members of E3 responded in WL3 to assess. Multiple poles (4-5) had snapped, and lines were down on roofs and backyards along the whole block of Niheu Street. WL3 crew went to all houses impacted, knocked on doors, and advised residents to take caution. WL3 went back and rejoined E3 as they continued mopping up.
14:00–16:00	14:55 Engine 3 (E3), Tanker 3 (T3), Battalion Chief 5 (BC5), and Engine 11 (E11) dispatched for numerous calls for a fire at cul-de-sac at the end of the Ku’ialua (near Lahainaluna and the Bypass). E3, T3, and WL3 responded. WL3 responded with a split crew from E3. E3 instructed WL3 and T3 to get up the dirt road (access behind 7 ■ Ho’okahua Place) because the engine was not able to. There was a lot of smoke and bad visibility. E3 officer went on foot to recon, but conditions were too bad, and he had to jump in WL3. He could see where fire had burned to the edge, but the only visible flame was backing into the gulch.

Date/Time	MFD Resource Assignment: Wildland 3 (WL3)
14:00–16:00	WL3 staged on the dirt road behind 762 Ho’okahua Place. T3 was in front of WL3. E3 crew was using redline from WL3. E3 FF recalled heavy smoke conditions and saw flames going down along the dirt road, heading downhill toward the houses. E3 FF focused the hoseline on the houses and recalled seeing other MFD apparatus working on the east (mauka) side.
16:00–18:00	BC5 called WL3 and assigned them to go hit the fire where it jumped the Bypass at Kelaweia Mauka Makai Park. WL3 staged on Lahainaluna Road (below the park, closer to the back of the structures) and pulled lines to the west (makai) side of the park (near 5 ■-5 ■ Ka’akolu). 16:11 Central advises that MECO* has reported that power is shut off. 16:46 After conditions worsened, E3 crew tried to retrieve WL3, but the pole was now down, and they had to abandon WL3. WL3 apparatus caught fire in that location and was inoperable for the remainder of the incident.
18:00–20:00	
20:00–22:00	
22:00–00:00	
August 9, 2023	
00:00–02:00	
02:00–04:00	
04:00–0600	
06:00–08:00	
08:00–10:00	
10:00–12:00	

Red text: Indicates that the power supply is cut off.

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TIMELINE OF EVENTS

Table 4.3.2.6 MFD Incident Management Assignments for Ladder 3 (L3) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Ladder 3 (L3)
August 8, 2023	
06:00–08:00	<p>06:43 L3 reported they were responding to the Lahainaluna Fire. L3 and Wildland 3 (WL3) (split crew) met up with Engine 3 (E3).</p> <p>07:07 L3 reported the west (makai) side of the fire had been controlled, and they were ready for assignment. Command (BC5) assigned L3 to check on houses west (makai) of the fire.</p> <p>07:19 L3 reported they had limited access and would be tied in with E3 to set up the aerial ladder for exposure protection. L3 worked with E3 to set up a horizontal standpipe (2.5" hoseline connected to a gated wye, which handlines can attach to).</p> <p>07:48 Command (BC5) reported the situation was looking pretty good, and L3 and WL3 were ready for assignment.</p> <p>07:29 Command (BC5) advised L3 to swap crews with Relief Engine 11 (RE11), a relief unit with limited equipment that is unable to respond to medical calls. L3 was assigned to provide district coverage.</p>
08:00–10:00	<p>08:01 WL3 reported they were on the west (makai) flank of the fire, which they noted to be looking "pretty cool." They reported they were still working with L3 crew and had lines in place, but they were ready for reassignment.</p>
10:00–12:00	<p>L3 returned to service to provide district coverage. L3 ran numerous calls, including snorkelers in distress, water craft in distress, structural damage to houses due to wind, utility poles snapped, and medical calls.</p>
12:00–14:00	
14:00–16:00	<p>15:10 Battalion Chief 5 (BC5) called for L3 to respond to the second Lahainaluna fire (originally dispatched at 14:55 near Ku'ialua Street). L3 crew recalled there were numerous lines and poles down west (makai) of Keawe, so they had to cut through the Safeway parking lot (earlier in the day, this area had been navigable).</p> <p>15:18 L3 arrived at Lahainaluna Road and the Bypass. L3 crew recalled pulling a 200' 1.75" handline in an attempt to</p>

Date/Time	MFD Resource Assignment: Ladder 3 (L3)
14:00–16:00	<p>stop the fire from jumping the east (mauka) side of the Bypass to the west (makai). L3 crew was still in wildland gear. L3 crew recalled the wind was so intense that when they opened the door to exit the vehicle, the wind broke the door guard, causing it to swing open past 90 degrees. The crew also recalled the wind causing their helmets to blow off, despite having their chin straps secure. The fire quickly impinged on their location and the crew took shelter on the driver's side of L3. The crew "shoved" the hose back in and turned west down Lahainaluna Road.</p> <p>15:23 Command (BC5) told L3 the fire had jumped over Lahainaluna, and L3 was assigned to address the grassy area in Mauka Park (Kelaweau Mauka Makai Park). L3 reported they were responding west down Lahainaluna from the Bypass.</p> <p>15:28 L3 reported an exterior structure fire at Dickenson Street off the side of Lahainaluna. L3 reported they were establishing a water supply and would start a fire attack.</p> <p>L3 crew recalled their wildland gear was not providing enough protection from radiant heat, so they switched into structural firefighting gear.</p> <p>15:34 L3 EMERGENCY TRAFFIC-L3 reported a victim trapped at 5█ Lahainaluna Road. Engine 11 (E11) responded.</p> <p>15:36 Command (BC5) assigned L3 to evacuate two (2) victims from 5█ Lahainaluna Road.</p> <p>15:41 L3 reported that two (2) individuals had been removed, and primary search was complete (no other victims found). Command (BC5) advised he had the rescued civilians and was transporting them to medics. Command (BC5) reported multiple structures were on fire and fire was progressing towards L3's location. L3 recalled abandoning the hoselines. They recalled seeing "fire running through the houses like dominoes." Command (BC5) instructed L3 to move down to Kelaweau Street and Lahainaluna Road to attack a house on fire. L3 crew recalled hooking up to a hydrant near Dickenson and Lahainaluna and laying a horizontal standpipe (2.5" hoseline with gated wye and with two (2) 1.75" handlines) to attempt to stop the fire from burning west of Dickenson.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Ladder 3 (L3)
14:00–16:00	<p>15:49 L3 reported they had civilians in their apparatus. L3 crew recalled unknown MFD members placing a family of seven (7), including a baby, in their cab. L3 operator provided oxygen and a non-rebreather mask for the baby. L3 and Command (BC5) coordinated to meet up so civilians could be transferred to Command (BC5).</p> <p>L3 raised the aerial and tried to protect the houses on the east (mauka) and west (makai) sides of Dickenson. Around this time, L3 recalled seeing two (2) private vehicles evacuating off Dickenson, and another victim was placed in the cab of L3. L3 crew recalled fire spotting due to high wind gusts and large fire brands. L3 crew recalled roofs catching fire and fire from structures extending to unoccupied parked vehicles. L3 crew recalled limited to no visibility due to strong wind with extreme gusts.</p>
16:00–18:00	<p>16:10 L3 reported good water pressure and one (1) civilian sheltering in their truck. L3 requested that MECO* shut down power to the “whole area.”</p> <p>16:11 Central advises that MECO* reported that power was shut off.</p> <p>16:32 PRIORITY TRAFFIC Command (BC5) advised all units to evacuate the Lahainaluna subdivision. Command (BC5) noted that a cut-off point would be established on the Nāpili side of Kahoma Stream.</p> <p>L3 crew abandoned their lines and lowered the aerial. L3 crew reversed down Kelaweā from Aki Street to Lu’i Street to access Komo Mai Street. L3 crew used a 1.5" handline to extinguish hot spots around the houses at the end of the cul-de-sac by Lu’i Street and Komo Mai Street. L3 operator raised the aerial, but the master stream was ineffective due to strong wind and gusts dispersing the stream. Around this time, E3 arrived, and the officers of E3 and L3 had a face-to-face conversation. L3 and E3 performed coordinated fire attack along Komo Mai Street.</p> <p>Around 16:55, L3 crew heard the fire had jumped Hwy-30 and was impacting the apartments near the Aina Nalu resort. The crew were in disbelief and shocked at how the fire was spreading.</p>

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Date/Time	MFD Resource Assignment: Ladder 3 (L3)
16:00–18:00	<p>17:02 Engine 6 (E6) member operated the emergency button and called a mayday. L3 crew heard transmission. L3 was still attacking fires along Komo Mai Street, but the apparatus continued to take heat, and the crew continued to be pushed west (makai) by the fire spread.</p> <p>17:26 L3 advised E3 that they had a structure fire “coming up behind” them. E3 was assigned to scout the area of Lahainaluna for E6 and E1. Neither E1 nor E6 were responding to radio traffic from Command (BC5), and their location was unknown.</p>
18:00–20:00	<p>18:27 L3 advised that hydrants were starting to get low on water pressure. Command (BC5) advised they had communication with a Goodfellows tanker that had set up in their area.</p> <p>18:57 E3 radioed L3 and asked the status of water pressure in L3’s area (on Komo Mai Street). E3 reported, “We pretty much got nothing over here.” L3 crew responded, “Yeah, we got barely enough.” E3 advised they would be picking up their hoselines and changing location to a different cul-de-sac (in the Lahainaluna neighborhood), and L3 responded they would be doing the same if they could not maintain water pressure.</p> <p>L3 crew recalled their apparatus began taking heat and the water pressure was insufficient. L3 crew recalled assisting E3 with picking up their hoselines while L3 operator lowered the aerial. L3 proceeded straight down Komo Mai Street, allowing E3 to pass them (L3 crew was still sheltering one (1) civilian in their cab—a female in her late 60s with burns on both arms.). At this point, L3 recalled there was no traffic on the road. L3 followed E3 down Komo Mai Street. As L3 crew traveled down Komo Mai Street, they were surprised to encounter numerous structures that had burned to the ground on both sides of the street. L3 operator lived on Komo Mai Street, and he saw that his home was completely destroyed (his two (2) dogs had been inside, but his wife had gone to work on the other side of the island).</p> <p>At the bottom of Komo Mai Street, the road was blocked, so L3 crew had to use a rotary saw (K12) to cut a street sign and a tree in order to egress out of the neighborhood.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Ladder 3 (L3)
18:00–20:00	<p>19:27 L3 met up with E3 near Island Grocery on Kupuohi Street in the industrial park.</p> <p>L3 and other MFD crews attacked fires in Emerald Plaza within the Kupuohi industrial park. L3 crew pulled into the parking lot of 95 Kupuohi Street, and L3 operator raised the aerial. L3 connected to the hydrant in the parking lot and recalled the water pressure “was not ideal.” They directed the master stream through the upper windows of the building, but the water supply quickly became inadequate.</p> <p>19:56 L3 requested a utility for transfer of the civilian they had evacuated approximately five (5) hours prior.</p>
20:00–22:00	<p>20:07 Command (BC5) assigned Utility 3 (U3) to meet with L3 and retrieve the civilian.</p> <p>20:43 L3 was assigned to the Structure Group with E3 and Utility 5 (U5).</p> <p>At 21:05, L3 returned to Fire Station 3 (FS3) to refuel. L3 remained at FS3 awaiting relief crew.</p> <p>21:36 L3 was assigned to stage near Kahoma Street and Fleming Road.</p> <p>21:46 Dispatch from BC4: BC4 was assuming Lahaina Command, and BC2 was 911.</p> <p>21:56 L3 reported they were in staging at the top of Fleming Road.</p> <p>L3 moved to stage at Wahikuli Road and ‘Ainakea Road, where L3 officer had a face-to-face conversation with another MFD officer. There was no water supply and there was concern about power lines falling in the area so, it was determined that L3 would return to FS3 to stage.</p>
22:00–00:00	<p>22:40 L3 reported they were staging at FS3.</p> <p>23:34 Command (BC4) orders all units at FS3 to abandon the station and to stage near Halelo Street and Hwy-30 immediately due to the fire rapidly spreading north.</p>

Date/Time	MFD Resource Assignment: Ladder 3 (L3)
<p>August 9, 2023</p> <p>00:00–02:00</p>	<p>00:25 All Structure Group units (including L3) were assigned to the Kā’anapali area designated as the next cut-off point. Relief Engine 14 (RE14) reported that the fire appeared to be heading in that direction, and there was good water supply in the hydrants in that area. Area now designated as the Summit Group under the supervision of U3. L3 recalls having good water pressure from the hydrants and being able to set up an aerial master stream to pre-treat structures in that area.</p> <p>01:57 U3 passed command of Summit Group to L3 so U3 can assist with evacuations/moving people. L3 confirmed and assumed command of Summit Group.</p>
02:00–04:00	L3 remained in the Ka’anapali area as Summit Group leader with other MFD apparatus.
04:00–06:00	<p>04:55 All units staging in the Kā’anapali Golf Estates area (Summit Group) were reassigned to report to the Civic Center. The fire spread had slowed, and tactics were being reevaluated.</p> <p>04:58 L3 was assigned to respond to regroup at Leiali’i Parkway.</p> <p>05:16 L3 reported they were approaching the post office near Leiali’i Parkway, and they were instructed to stage in that location.</p> <p>05:24 L3 responded to assist with brush fire above (mauka) FS3. L3 operator recalled dropping off crew member(s) to assist with fire attack, while L3 operator shuttled water from Hanaka’ō’ō Park (Canoe Beach) to crews operating above FS3 using L3’s 440-gallon tank.</p>
06:00–08:00	<p>06:18 L3 reported the fire attack crew had run out of hose-line, and the fire had made its way north (mauka) of their location. They reported they were relocating because the next wind shift could cause the fire to bear down on them.</p> <p>07:24 L3 reported they were returning with water to the fire above FS3 and they were sending an airport Aircraft Rescue and Firefighting (ARFF) unit to assist with water supply. U3B reported an Alpha tanker and D9 dozer were there attacking the fire and cutting fire lines.</p>

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Date/Time	MFD Resource Assignment: Ladder 3 (L3)
06:00–08:00	At 07:25, E11 reported good progress was being made on the north flank. 07:50 L3 was told by U3B they could return to FS3. L3 crew was relieved.
08:00–10:00	
10:00–12:00	

Table 4.3.2.7 MFD Incident Management Assignments for Engine 11 (E11) and Mini 11 on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Engine 11/Mini 11 (Responded Together)
August 8, 2023 06:00–08:00	06:43 E11 marked en route to a brush fire near Lahaina Intermediate School per Engine 3 (E3) request. E11 positioned at cul-de-sac of Ku‘ialua Street, connected to the hydrant, and stretched handlines. E11 crew recalled E3 had already knocked down a bulk of the fire. 06:57 E11 reported they would be providing structure protection and triage from Ku‘ialua Street and Ho‘okahua Place/Street. E11 worked on the west (makai) side of Ku‘ialua Street, wetting down steaming dead wood and grass. E11 and Ladder 3 (L3) stretched a horizontal stand-pipe (2.5" hose to a gated wye^ connecting two (2) 1.5" handlines). E11 crew recalled heavily saturating the area along with E3 and L3 (07:22). 07:26 E11 A-watch crew took RE11 to relieve E11 B-Watch crew on scene of the Lahaina brush fire. B-Watch personnel swapped into RE11.
08:00–10:00	Units remained on scene flowing water and protecting structures. 08:38 E11 was released from the scene and returned to Fire Station 11 (FS11) for district coverage.

Date/Time	MFD Resource Assignment: Engine 11/Mini 11 (Responded Together)
10:00–12:00	E11 ran calls for structural damage, wires down, and other miscellaneous service calls.
12:00–14:00	
14:00–16:00	14:55 Central dispatched E3, Tanker 3 (T3) and Battalion Chief 5 (BC5) to a fire on Ku‘ialua Street with flames seen. E11 was mobile in the area of Keawe and BC5 directed E11 to respond to the fire. E11 responded and reported smoke visible at 14:57. 15:00 E11 was the first unit on scene and reported a 20' x 100' brush fire on the north flank near houses. E11 recalled turning off Lahainaluna onto an access road before Ku‘ialua Street. E11 reported they were deploying a hoseline to extinguish the fire heading west toward the Bypass. E11 established Ku‘ialua Command. 15:01 Central from E11, "let's go ahead and set up command, Ku‘ialua Command on FD2." E11 officer recalled E3, T3, and Wildland 3 (WL3) arriving on scene, and he had a face-to-face conversation with WL3 operator. E11 officer assigned E3, T3, and WL3 to return to the MECO* dirt road (where they had been on the first Lahaina fire) to try to knock down the fire. E11 officer recalled large embers being lifted by the wind and being blown past their location causing the fire to start to run toward the Bypass. 15:06 E11 radioed for evacuation of houses south [of that location]. 15:10 BC5 arrived on scene and assumed command from E11. 15:18 E11 reported the fire was moving very rapidly toward the Bypass. 15:21 E11 reported the fire jumped the Bypass and was heading west (makai) toward the shore and toward Lahainaluna Road. E11 instructed dispatch to have MPD shut down

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 11/Mini 11 (Responded Together)
14:00–16:00	<p>down the Bypass. E11 officer recalled the smoke was lying horizontally (due to the sustained severe wind), causing limited visibility.</p> <p>15:28 E11 officer heard L3 report a structure was being impacted on Dickenson Street off of Lahainaluna Road. E11 officer instructed the E11 crew to cut and abandon the hose-lines so they could reposition further down Lahainaluna Road. E11 crew was met with parties evacuating and E11 directed them to head east (mauka) out of the way of the wind and fire. E11 was unable to pass L3 on Lahainaluna Road, so they turned down Kalena Street and turned around, facing Lahainaluna Road, to maintain the ability to egress. At that point, E11 crew recalled seeing houses igniting off on Ka'akolu Street.</p> <p>15:44 E11 connected to a hydrant and pulled the large diameter preconnect 2.5" handline up Ka'akolu Street and deployed a second 1.75" preconnect handline to the corner of Kalena Street and Lahainaluna Road for another structure fire.</p> <p>E11 crew recalled seeing structure-to-structure fire spread, and they had to reposition up Kahako Street to the corner of Kanua Street, positioning the apparatus facing west (makai) for rapid egress if necessary. E11 crew re-established water supply and used the engine's deck gun and 2.5" handline to try to extinguish the fire on the interior of a structure. E11 crew recalled the water having little to no effect on the fire.</p> <p>15:51 Command (BC5) gave E11 the order to evacuate and cut/abandon hoselines. E11 officer had a face-to-face conversation with E3 and relayed the evacuation order. E11 crew evacuated via Ka'akepa Street to Kahako Street to Kalena Street and out to Lu'i Street to Komo Mai Street. As E11 left the neighborhood, they used the engine's PA system to broadcast an immediate evacuation notice. E11 crew was able to assist several citizens evacuate the area.</p>
16:00–18:00	<p>16:11 Central advises that MECO* reported that power was shut off.</p> <p>16:13 Command (BC5) assigned E11 to West Division and assigned E3 and Relief Engine 11 (RE11) to them.</p>

*Red text: Indicates that the power supply is cut off.
Now known as Hawaiian Electric

Date/Time	MFD Resource Assignment: Engine 11/Mini 11 (Responded Together)
16:00–18:00	<p>E11 crew traveled through Emerald Plaza, hitting hot spots, and noted that the structures had not been impacted. E11 crew saw embers being carried by the wind and saw fire in the sewer system at one point. E11 crew emptied their tank in the area and relocated to Safeway to refill.</p> <p>17:31 While at Safeway, E11 crew picked up two (2) additional MFD crew members that had arrived in a BC vehicle (the BC vehicle was left at the Cannery Mall by two (2) responding MFD personnel who joined E11 crew).</p> <p>E11 relocated to Hwy-30 and Kenui Street, where they used booster lines to extinguish walls on fire that were threatening Kahoma Village structures. A single structure was on fire at the edge of Kahoma Village (near the corner of the Hwy and Kenui Street). Using E11's bumper turret and with the assistance of T3 and a private tanker, they were able to prevent further fire spread.</p> <p>17:42 E11 reported Mini11 pump was inoperable, and they were relocating further down to Front Street and Kenui Street to try to establish a cut-off point. E11 staged on Front Street and began attacking the fire as best they could.</p> <p>17:50 E11 reported to Command (BC5) that they were fighting a fire at █ Ala Moana. E11 recalled extinguishing the fire on Ala Moana where an ohana dwelling (secondary structure) had ignited.</p> <p>E11 crew then moved to Kai Pali Place west of Front Street, where at least two (2) structures were on fire. E11 crew attacked the fire, but the winds were so strong any fire attack was ineffective. E11 crew recalled that no matter how much water they dumped on the fires, it seemed to make no difference; the fires kept reigniting.</p>
18:00–20:00	<p>E11 crew saw fire further down by Front Street Apartments. They repacked their hoseline and relocated to Kenui Street and Front Street in an effort to keep fire from spreading south of Kenui Street. Along the way, they extinguished vehicle fires that were igniting due to wind-driven ember cast. Trees and brush along Ala Moana and Kenui were igniting, and E11 crew recalled seeing the fire spreading west (makai). E11 crew recalled redirecting people evacuating the area toward the Cannery Mall for safety.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 11/Mini 11 (Responded Together)
18:00–20:00	<p>18:54 E11 advised they received an MPD report of eight (8) people trapped at Bubba Gump restaurant. Due to the condition of Front Street past Kenui, it was determined that E11 would not be able to access the location. Utility 3B (U3B) reported they would respond.</p> <p>19:04 E11 crew tried to use Mini11 pump but it remained inoperable.</p> <p>19:06 E11 launched a fire attack at Front Street Apartments, but they reported seeing fire spread from one building to another, and they realized they would not be able to stop the progression. E11 crew recalled seeing the fire from one (1) building hit the other buildings as the wind was blowing generally from east (mauka) to west (makai). E11 crew recalled the fire would creep north when the wind would shift.</p> <p>19:18 E11 reported they relocated near Island Grocery.</p> <p>19:23 Command (BC5) advised E11 to remain at that location, protect the exposure, and support Relief Engine 1 (RE1) crew who were attempting to extinguish a commercial structure fire in Emerald Plaza. E11 crew recalled a masonry fire wall protected Island Grocery while E11 assisted RE1 with water supply.</p> <p>19:36 E11 reported to Command (BC5) that they were fighting a truck on fire next to a warehouse on Kupuohi Street. E11 reported that they were with Mini1 (staffed by Engine 1 and Engine 6 (E1 and E6) personnel), E3, and L3. E11 advised Command (BC5) they were available for reassignment if needed.</p>
20:00–22:00	<p>20:06 E3 reported a brush fire jumped the Bypass above Wahikuli, behind Foodland Farms on the east (mauka) side of Oil Road.</p> <p>20:15 E11 notified Command (BC5) that they were proceeding to that location to assist.</p> <p>E11 recalled meeting up with E3 in the parking lot of the Church of Jesus Christ of Latter-Day Saints to try to stop fire progression. E11 crew recalled the attempt being successful. E11 then left that location and repositioned along the Bypass.</p>

Date/Time	MFD Resource Assignment: Engine 11/Mini 11 (Responded Together)
20:00–22:00	<p>20:29 E11 reported fire jumped the road north at Keawe and was heading toward Wahikuli. E11 advised evacuation of the Wahikuli subdivision. Command (BC5) relayed the evacuation notice to Fire 4.</p> <p>20:51 Command (BC5) assigned Relief Engine 14 (RE14) as Bypass Group with RE11 and Utility 5 (U5) as resources.</p> <p>21:13 E11, assigned to Bypass Group under RE14, assisted with fighting the brush fire west (mauka) of the Bypass near Keawe. Command (BC5) advised Bypass Group that four (4) private tankers were en route with an ETA of 30 minutes.</p> <p>21:42 E11 reported the four (4)-story building in the Emerald Plaza industrial area was fully engulfed.</p> <p>21:46 BC4 to Dispatch: BC4 was assuming Lahaina Command, and BC2 was 911.</p>
22:00–00:00	<p>22:12 E11 officer recalled the fire that started behind Emerald Plaza, south of the Bypass, spotted, and was starting to move north. RE14, U5, and a private tanker relocated to attack the fire and stop further progression. RE14 passed Bypass Group to E11, who was staging at the Bypass near Keawe. E11 had radio communications with RE14 about the condition of roadways. E11 expressed concern that the fire was moving faster through the structures along the lower road than the grass, and E11 officer was concerned about getting trapped while moving through that area.</p> <p>22:21 E11 reported that they were at the corner of Keawe Street Extension and the Bypass, and all fire activity appeared to be west (makai) of their location. E11 officer relayed that RE14, U5, and the private tanker used a dirt road (Oil Road) to try to attack the fire, but they had to exit on Wahikuli Road. E11 reported they were ready for reassignment.</p> <p>22:27 Command (BC4) advised E11 to stand by to monitor and that they would be used as a contingency for the south end. E11 officer recalled they could not make it back safely north toward FS3 because poles and power lines were down, blocking the right hand turn at Keawe onto the Hwy.</p> <p>E11 coordinated with the private tanker that arrived at their location (it had the capability to supply E11.). Three other</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 11/Mini 11 (Responded Together)
22:00–00:00	<p>private tankers, equipped with turrets, were still en route.</p> <p>22:29 Command (BC4) assigned E11 and the private tanker to take the Bypass and check on the status of Hōkiokio Place.</p> <p>22:41 E11 reported that the fire jumped Hōkiokio Place and was heading west (makai) toward the Puamana community. E11 reported the tanker needed to fill at Hōkiokio Road and E11 would advise further.</p> <p>22:47 All other units were instructed to abandon their locations to regroup at FS3 to coordinate the location of the next cut-off point.</p> <p>E11 officer realized that there was not a passable route and they were the only fire apparatus available to cover the southern division. The three (3) incoming tankers were assigned to E11 and remained in the southern area.</p> <p>22:49 E11 relayed they would remain in the area to provide fire protection, but they were in need of diesel fuel.</p> <p>E11 crew recalled hydrants at Kai Hele Kū Street and Hōkiokio Place still had water. The water pressure was low, but it was enough to fill the tanks of E11 and the private tankers.</p> <p>During this time, E11 was also dispatched to miscellaneous service calls in that area.</p> <p>23:15 Command (BC4) advised E11 was the only unit south of Fleming Road, and they were low on fuel. Command (BC4) advised they may have limited response capacity.</p> <p>Command (BC4) advised E11 it was unlikely they would be able to deliver diesel fuel. Command (BC4) advised E11 to get to the safest location possible in case they run out of fuel.</p>
August 9, 2023 00:00–02:00	<p>E11 continued to monitor the Bypass. E11 officer recalled that from the Bypass to Keawe Street was clear (at Keawe Street and Hwy-30 they could not make a right-hand turn due to wires down). The Bypass was clear south to Hōkiokio Place. E11 crew recalled the fire would spot east (mauka) of the Lahaina Bypass, but E11 and the private tankers were</p>

Date/Time	MFD Resource Assignment: Engine 11/Mini 11 (Responded Together)
August 9, 2023 00:00–02:00	<p>able to mitigate those fires.</p> <p>E11 crew parked E11 at Hōkiokio Place and the Lahaina Bypass to ensure the fire did not jump the road, and they used Mini11 to retrieve hoselines from accessible locations.</p> <p>00:41 E11 reported there had been a shift in the wind, blowing on shore and causing fire to spot east (mauka). E11 and private tankers extinguished the spot fires between Hōkiokio Place and Kai Hele Kū Street.</p> <p>01:27 E11 requested radio batteries from the Support Group. E11 officer relayed that they had run out of radio batteries. Support was not able to make it to E11 location due to numerous roads blocked by downed power lines.</p>
02:00–04:00	<p>02:01 E11 reported fire approximately 200 yards away from and approaching Hōkiokio Place. E11 performed structure triage and reported that the homes had good defensible spaces but they needed tankers to return to the area and they needed radio batteries and diesel fuel. E11 officer advised that the E11 low fuel light had illuminated, but he believed they would be able to get to FS3 or Nāpili if the roads became passable.</p> <p>02:09 Command (BC4) advised E11 that the roads continued to be impassable, and E11 should head south to a safe location and stage.</p>
04:00–06:00	<p>05:02 E11 advised they were responding to a trailer in Launiupoko Beach Park with lines down, propane tanks, and fire approaching. The trailer was off Kai Hele Kū Street between the Bypass and lower Hwy. Dispatch advised E11 should use Waianukole Street (street identified on county parcel map, located off Kai Hele Kū Street between Hwy-30 and the Bypass) north for access. E11 advised they could not make access due to downed power lines.</p> <p>05:48 Central advised that Engine 3A (E3A) confirmed roads were passable to the fire station and E11 should return to the station to refuel, restock, and rehab.</p> <p>05:51 Command (BC4) advised MPD reported a fire on the east (mauka) side of the Bypass, 100-150 yards from Kai Hele Kū Street. E11 responded they were headed that way</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 11/Mini 11 (Responded Together)
04:00–06:00	<p>to deal with it.</p> <p>05:55 E11 advised they were running out of water, and the east-side (mauka-side) fire was growing. E11 advised using air support as soon as they became available. Command (BC4) advised helicopters would not be able to fly for approximately 30–40 minutes, but they would respond as soon as they were able.</p> <p>06:05 Command (BC4) advised E11 to return to FS3 to refuel.</p> <p>E11 Officer recalled they returned to FS3 where they were relieved by E11 C-Watch personnel.</p>

[^]Gated wye is a type of firefighting hose valve with gateable valves on each outlet, which gives the fire-fighter maximum control over the water flow.

Table 4.3.2.8 MFD Incident Management Assignments for Relief Engine 11 (RE11) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Relief Engine 11* (RE11) (No structural response capability—limited hoseline, no SCBA, no portable radios)
August 8, 2023 06:00–08:00	<p>07:25 RE11 reported to Central that they were responding to the Lahaina fire. RE11 officer advised Command (BC5) that RE11 was staffed with oncoming A-Watch personnel. They advised Command (BC5) they did not have a full complement of structural firefighting equipment.</p> <p>07:29 Command (BC5) directed them to report to the cul-de-sac at Ku‘ialua Street to meet up with Ladder 3 (L3).</p> <p>RE11 A-Watch personnel recalled when they arrived on scene that it seemed most of the fire had been knocked down. B-Watch officer had face-to-face briefing with oncoming A-Watch officer.</p> <p>RE11 (now staffed by B-Watch personnel) remained on scene. A-Watch personnel took over staffing E11.</p>

*While most reserve apparatus is staged at FS10, FS11 and FS3 each have a reserve engine at the firehouse. RE11 is housed at FS11, but it is not equipped with a full complement of structural firefighting (e.g., hose packs, nozzles, etc.) or medical equipment.

Date/Time	MFD Resource Assignment: Relief Engine 11* (RE11) (No structural response capability—limited hoseline, no SCBA, no portable radios)
08:00–10:00	<p>08:15 RE11 was directed to respond to a call for smoke at the water treatment plant. They responded with Engine 3 (E3) and Wildland 3 (WL3). E3 arrived on scene and confirmed it was a false alarm. E3 canceled other units. RE11 returned to the area of Ku‘ialua Street and remained on scene hitting hot spots and wetting down the area.</p> <p>09:27 BC5 transferred Lahaina Command to E3, and E3 remained on scene with RE11.</p>
10:00–12:00	<p>10:20 RE11 was released from the incident. E3, Tanker 3 (T3), and a private tanker remained on scene continuing to wet down the area.</p> <p>10:21 RE11 reported they were going to remain available. RE11 advised they had no structural or medical response capability.</p> <p>10:21 BC5 instructed RE11 to stop at the fire station and pick up the complement of medical gear from BC5’s SUV prior to returning to Fire Station 11 (FS11).</p> <p>10:37 RE11 reported they were leaving the scene and heading to Fire Station 3 (FS3) to pick up emergency medical response (EMR) equipment. BC5 and RE11 communicated via radio, and it was determined RE11 was going to remain at FS3 for any reported brush fire calls.</p> <p>B-Watch officer recalled returning to the station in RE11. RE11 B-Watch officer left for the day, and a B-Watch firefighter became the acting officer of RE11. A firefighter from A-watch joined the RE11 crew.</p>
12:00–14:00	<p>RE11 remained available for response from FS3.</p>
14:00–16:00	<p>14:55 Central received numerous calls for a fast-spreading fire at the end of the cul-de-sac of Ku‘ialua Street with flames seen.</p> <p>14:58 BC5 directed Central to add RE11 to the response. E3 advised RE11 to take the Bypass due to numerous power lines down on the Hwy.</p> <p>15:12 Command (BC5) directed RE11 initially to respond to 7█ Ho‘okahua Place to assist MPD officers on scene trying</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Relief Engine 11* (RE11) (No structural response capability—limited hoseline, no SCBA, no portable radios)
14:00–16:00	<p>to extinguish a shed fire near a house.</p> <p>15:18 RE11 reported they were in the area where the fire was about to jump the Bypass to Lahainaluna. Command (BC5) directed RE11 to hit the fire from there. Command (BC5) reassigned E3 to the shed fire.</p> <p>15:26 RE11 moved their lines to extinguish fire in the park area (Kelaweā Mauka Makai Park).</p> <p>15:29 RE11 announced Priority Traffic and reported they had a structure with fire on the roof with a second structure potentially involved. RE11 reported they had hooked up to a hydrant and were stretching lines.</p> <p>RE11 recalled they went down Lahainaluna Road to Kalena Street and then reversed down Ka'akolu Street and backed into Ka'alo Place (a cul-de-sac). There was a hydrant at that location with good water pressure. RE11 crew pulled a 1.75" preconnect handline and started attacking the fire between 6█ and 6█ Ka'alo Place. RE11 crew recalled the shed in the SW corner of 6█ Ka'alo was fully involved and was spreading to the trees and brush. As they knocked down that fire, the shed behind 6█ Ka'alo Place ignited. The shed at 614 Ka'alo Place started to impact the roof of 6█ Ka'alo Place (due to topography, 6█ Ka'alo Place sat 3–4' lower than 6█ Ka'alo Place). RE11 crew's hoseline could not reach 6█ Ka'alo Place. A resident was also on scene using a garden hose to mitigate the fire.</p>
16:00–18:00	<p>16:11 Central advises that MECO[^] reported that power was shut off.</p> <p>16:13 RE11 officer reported to Command (BC5) they were actively fighting two (2) structure fires on the cul-de-sac of Ka'alo Place.</p> <p>16:26 Fire 3 (F3) reported to Command (BC5) that the entire neighborhood, including between Lahainaluna Road and Keawe Street up to the Industrial area, needed to be evacuated.</p> <p>RE11 crew recalled hearing three (3) long air horn blasts, the signal for immediate evacuation. RE11 crew cut the lines but</p>

Red text: Indicates that the power supply is cut off.

[^] Now known as Hawaiian Electric.

Date/Time	MFD Resource Assignment: Relief Engine 11* (RE11) (No structural response capability—limited hoseline, no SCBA, no portable radios)
16:00–18:00	<p>grabbed the appliances (nozzles). They were unsure of why the evacuation tone had sounded until they pulled out and saw Engine 11 (E11) attempting a fire attack on multiple houses using the engine's deluge gun. They noted multiple other structures in the smoke's path were also fully engulfed.</p> <p>16:31 RE11 reported to Command (BC5) that they were going to pull back to the Lahaina or Nāpili side of the Kahoma Stream bed and use that as a cut-off point.</p> <p>RE11 went down Kanua Street to Kahako Street. RE11 crew recalled the neighborhood was full of people; many residents were standing in their front yards or using garden hoses to wet down houses and extinguish spot fires. RE11 crew recalled there were some language-barrier challenges as they made evacuation notifications. RE11 crew reported Kanakea Loop was congested with parked vehicles making the road very narrow and difficult to navigate. RE11 crew recalled seeing a house engulfed in fire on Kahena Street.</p> <p>16:34 RE11 crew heard the radio traffic regarding Lahainaluna Road being blocked in multiple locations. RE11 scouted the route down to the cul-de-sac off Lu'i Street and Komo Mai Street. RE11 recalled the area was still relatively clear. RE11 went back up Kahena Street to loop around again and continue evacuations.</p> <p>16:34 RE11 crew reported their only means of egress was going to be Kahena Street, and they were advising residents to exit off that route.</p> <p>During their second trip down Kahena Street, RE11 crew continued down Komo Mai Street where they encountered several houses fully engulfed in fire. The visibility had decreased to almost zero. They were able to take Komo Mai Street to Kuhua Street and onto Keawe Street.</p> <p>16:42 RE11 reported to Command (BC5) that they had fallen back to Foodland Farms and that multiple structures in the Komo Mai subdivision were on fire. RE11 recalled working within that neighborhood to make evacuation notices. RE11 recalled some residents were resistant to evacuate.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Relief Engine 11* (RE11) (No structural response capability—limited hoseline, no SCBA, no portable radios)
16:00–18:00	<p>16:49 RE11 officer reported to Command (BC5) that they could see from across Kahoma Stream the Opukea apartments starting to be impacted due to extension on the exterior from vehicle fires adjacent to the building. RE11 advised the area should be evacuated.</p> <p>RE11 recalled they had to stop at Cannery Mall to refill their tank, and they recalled having good water pressure at that time.</p> <p>16:59 RE11 assisted E11 and Mini11 with extinguishing a wall on fire threatening Kahoma Village with some extension into the ravine. RE11 advised they had to abandon their hose, so they were operating with limited suppression equipment.</p> <p>17:02 RE11 reported Front Street was impassable due to traffic.</p> <p>RE11 crew recalled they repositioned near the Ho'onanea subdivision to address fire on the Kahoma Stream side of the property, since a vinyl fence was systematically catching fire traveling down the edge of Kahoma Stream. Command (BC5) assigned one (1) incoming tanker to that location and another tanker to assist E11 in Kahoma Village.</p>
18:00–20:00	<p>18:00 RE11 crew reported they were still along the back corner of the Ho'onanea complex trying to mitigate fire spread and protect Keawe roadway for the medic units.</p> <p>18:05 Command (BC5) assigned Mini1 (staffed by four (4) members of Engine 1 (E1) and three (3) members of Engine 6 (E6) due to loss of E1 and E6 rigs during the Lahainaluna Road burnover event) to assist RE11. Mini1 also did not have a full complement of structural firefighting equipment.</p> <p>RE11 and Mini1 relocated to 181 Kupuohi Street to knock down fire near that location and mitigate hot spots.</p> <p>19:01 RE11 reported to Command (BC5) they were working in the Emerald Plaza area. RE11 officer reported that Ho'onanea had been mitigated as best they could and that the auto sprinklers had activated.</p>

Date/Time	MFD Resource Assignment: Relief Engine 11* (RE11) (No structural response capability—limited hoseline, no SCBA, no portable radios)
18:00–20:00	<p>19:15 Battalion Chief 4 (BC4) arrived with callback relief personnel, and crew swap of RE11 occurred on scene in Emerald Plaza.</p> <p>At this time, three (3) RE11 firefighters reached their 36-hour shift limit (one was AO). They were relieved by one (1) officer and three (3) firefighters. One (1) RE11 firefighter remained on duty (A-Watch is their regular day, and they were riding extra on August 8, 2023).</p> <p>17:25 RE11 reported they were ready for assignment. They were assigned to check the Aina Nalu Apartments off Waine'e Street.</p> <p>RE11 crew recalled they tried several routes trying to gain access to Waine'e Street but were unable to do so due to downed power lines and heavy fire conditions. RE11 officer recalled they were almost able to make it to Kenui Street. They picked up a civilian walking in the area, dropped them off at Keawe and Hwy-30, and returned to Keawe.</p> <p>19:51 RE11 reported they were heading to assist E3 with fire attack and structure protection near the Church of Jesus Christ of Latter-Day Saints.</p> <p>RE11 officer recalled heavy smoke and fire conditions at the east end of Ulupono Street. The large white apartment building at the east end of Ulupono Street was engulfed in flames. They met up with several other MFD apparatus and effected evacuations of the area.</p>
20:00–22:00	<p>20:06 E3 reported the fire had jumped the Bypass east (mauka) of Wahikuli and was heading north. RE11 was assigned to head to that location.</p> <p>20:11 Relief Engine 14 (RE14) advised that, as they turned down Keawe, the fire jumped Keawe from south to north, headed in the direction of the apartments under construction (east (mauka) of Oil Road). Command (BC5) advised RE11, E3, and T3 were en route to that location.</p> <p>RE11 crew positioned along Oil Road with T3 and used the redline and a 1.5" handline to mitigate fire spread in the brush and grass along Oil Road. RE11 officer recalled they were managing the fire pretty well until they ran out of water.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Relief Engine 11* (RE11) (No structural response capability—limited hoseline, no SCBA, no portable radios)
20:00–22:00	<p>20:21 RE11 reported they were about to lose the corner of Oil Road east (mauka) by Ipukula Way, and they needed a tanker. Command (BC5) advised that two (2) tankers were en route to that location.</p> <p>RE11 officer recalled that the tankers arrived within approximately five (5) minutes. Neither tanker had a radio, and the operators seemed inexperienced with fire attack. RE11 officer recalls the tankers having minimal impact as the fire head continued to advance toward homes. RE11 retreated to refill their tank, but the hydrant in the Foodland Farms shopping center was dry.</p> <p>20:49 Command (BC5) requested a Condition/Actions/Needs (CAN) report from RE11. RE11 reported they were looking for a viable water source, and they were at the Civic Center with T3.</p> <p>21:07 RE11 reported they had refilled their tank and were ready for assignment. Command directed RE11 to return to FS3 for a face-to-face conversation.</p> <p>21:15 Support Group requested additional apparatus to help evacuate people from Front Street. RE11 was assigned to respond.</p> <p>RE11 officer recalled visibility by Front Street was “less than five (5) inches.” The fire had jumped to the west (makai) side, and structures on Front Street were fully involved, but some people were still refusing to evacuate. RE11 continued to Māla Wharf looking for people to evacuate. RE11 recalled they were reassigned to FS3. RE11 tried to refill their tank while there but the hydrant was only producing “a trickle.” RE11 officer recalled RE11 got blocked in by the evacuation traffic at the Civic Center.</p> <p>21:26 Command (BC5) assigned RE11 to report to E3 as part of the Structure Group. RE11 was assigned to head to Kapunakea Street and the Kahoma Street area to assess conditions.</p> <p>RE11 reported there were heavy fire conditions along Kahoma Street. RE11 pulled 2–2.5" handlines and made an attack near 13█ Kahoma Street. Despite putting large amounts of water on the fire, structures started to catch</p>

Date/Time	MFD Resource Assignment: Relief Engine 11* (RE11) (No structural response capability—limited hoseline, no SCBA, no portable radios)
20:00–22:00	<p>both south and west (makai). RE11 crew recalled other MFD units and an Airport Rescue Firefighting Apparatus (ARFF) unit were operating in the area as well. They were trying to make a stand and stop fire progression within the neighborhood.</p> <p>21:46 BC4 to Dispatch: BC4 was assuming Lahaina Command, and BC2 was 911.</p> <p>21:52 RE11 reported that they were not making any impact on the structures, and the fire “is going one after another.” RE11 reported they had to pull out of the area.</p> <p>RE11 crew recalled they had to extinguish vehicle fires and other flare ups in order to egress the neighborhood. RE11 reported staging along the highway.</p>
22:00–00:00	<p>22:14 Structure Group assigned RE11 to respond to Front Street near Fleming Road for a fire attack. RE11 reported they were out of water.</p> <p>22:47 RE11 reported they were abandoning their position and heading to FS3. Structure Group advised all units to regroup at FS3.</p> <p>RE11 crew received a report that there was a working hydrant at Canoe Beach. RE11 went to that location and was able to fill the RE11 tank (they noted that there were other MFD apparatus there as well).</p> <p>23:45 RE11 reported they were staging on Hwy-30 above Canoe Beach.</p>
August 9, 2023	<p>RE11 crew recalled around this time a decision was made to relocate apparatus into Kā'anapali, which had working hydrants and was expected to be the next location impacted.</p>
00:00–02:00	
02:00–04:00	<p>RE11 crew recalled setting up on Anapuni Loop, connecting to a hydrant and laying a 2.5" horizontal standpipe (hoseline with a gated wye that branches off to 2 - 1.5" handlines). RE11 remained in that location for some time, with other MFD units spread throughout the neighborhood, prepared to make a coordinated attack.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Relief Engine 11* (RE11) (No structural response capability—limited hoseline, no SCBA, no portable radios)
04:00–06:00	04:54 RE11 reported that the fire still appeared to be a good distance from their location.
06:00–08:00	<p>04:55 Command (BC4) recalled all units in the Golf Estates Area to report to the Civic Center.</p> <p>05:16 Utility 3B (U3B) requested a suppression unit with sufficient water supply to respond to the top parking lot above FS3 to address a spreading brush fire. RE11 was assigned to assist.</p> <p>RE11 crew recalled they were assigned with L3 to stop the north flank of the fire, west to east above the Civic Center. RE11 crew recalled they laid 1500' of 1.5" hoseline and apparatus was shuttling water to them. The crew recalled the sun was coming up around this time.</p> <p>They could not reach the top area of fire spread, so they disconnected the lines (left them in place), relocated up to Pu'ukoli'i Road, and came back down Old Stuart Road. At the corner of Pu'ukoli'i Road and Old Stuart Road, RE11 crew met up with a HECO[^] rep who told them all lines had been de-energized.</p> <p>RE11 pulled 500-600' of 1.5" hoseline and was able to mitigate the fire. A D9 dozer was brought to their location and cut a line north above Old Stuart Road down to the Civic Center. They also coordinated with a private dozer operator to make additional fire stops.</p>
08:00–10:00	08:31 RE11 demobilized and returned to Fire Station 10 (FS10) where another crew was waiting to staff RE11.

**While most reserve apparatus is staged at FS10, FS11 and FS3 each have a reserve engine at the firehouse. RE11 is housed at FS11, but it is not equipped with a full complement of structural firefighting (e.g., hose packs, nozzles, etc.) or medical equipment.*

[^]Now known as Hawaiian Electric.

Table 4.3.2.9 Maui Fire Department (MFD) Incident Management Assignments for Engine 6 (E6) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Engine 6 (E6)
August 8, 2023	
06:00–08:00	<p>06:47 E6 dispatched to assist Engine 3 (E3) for a fire off of Lahainaluna Road.</p> <p>06:49 E6 advised they were responding with Wildland 6 (WL6). E6 crew consisted of three (3) B-Watch crew members and one (1) member of the oncoming A-Watch shift. WL6 was driven by an E6 B-Watch crew member.</p> <p>07:23 Command (BC5) assigned E6 and WL6 to respond to Tanker 3's (T3) position to assist with stretching lines and fire attack.</p> <p>E6 Crew responded along a dirt road above the Bypass behind the houses. They recalled an MFD tanker and private tanker(s) were on scene. The bulk of the fire had been knocked down and crews appeared to be "mopping up."</p> <p>07:45 E6 reported they had established a wet line about 100' in and that a dozer was on scene.</p> <p>07:57 Command (BC5) advised that E11 would be taking over for E6, and E6 crew could return to their district. E6 and WL6 returned to quarters.</p>
08:00–10:00	E6 continued to run numerous calls within their district. E6 officer noted the extreme weather conditions including whitecaps covering the ocean and water spouts in multiple locations.
10:00–12:00	
12:00 -14:00	
14:00–16:00	<p>15:30 Battalion Chief 3 (BC3) requested E6 be added to Lahaina fire to assist.</p> <p>15:32 E6 reported they are responding with WL6 to Lahaina.</p> <p>15:51 Command (BC5) instructed E6 & WL6 to access Lahainaluna Road from Hwy-30, not the Bypass, and to turn onto Kelawea Street to address structures in that area. E6 crew recalled there was heavy traffic on the highway due to HECO* lane closures. HECO* crews were working on downed</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 6 (E6)
14:00–16:00	<p>poles and power lines. MPD was directing traffic and allowed the responding units to get through.</p> <p>15:56 Command (BC5) assigned E6 to be South Division (SD) and warned that there were extreme fire conditions. E6 requested clarification on where to focus exposure protection and establish a cut-off point. Command (BC5) advised he did not have a visual, but to proceed to the area around Paunau Street. E6 copied and advised Command (BC5) that WL6 was with them and Engine 1 (E1) was also responding.</p> <p>15:59 Command (BC5) assigned Relief Engine 1 (RE1) to E6 as part of SD.</p>
16:00–18:00	<p>16:00 E6 advised RE1 to access Lahainaluna Road from Hwy-30. E6 advised MECO* had the road barricaded, but they will let emergency traffic through.</p> <p>16:11 Central advised that MECO* reported that power was shut off.</p> <p>16:05 E6 crew reported trying to evacuate cars off of Pauoa Street. E6 crew recalled that around this time, approximately 30-40 percent of the houses in the area had active fire. E6 attempted to make a fire attack on a house fire at the corner of Lahainaluna Road and Pauoa Street, but the engine turret was ineffective due to extreme wind. E1, Mini1, and RE1 arrived on scene. E6 stretched a 200' of 1.5" pre-connected handline, but the stream was ineffective due to wind. E6 officer told the crew to disconnect the line to allow them to relocate and residents to evacuate. E6 officer had a face-to-face conversation with E1 officer to coordinate efforts. Communications were very difficult due to the severity of the wind. E6 officer had a face-to-face with RE1 crew member and advised them to abandon their location (off Lahainaluna Road) to allow traffic to pass. RE1 was also positioned under a monkeypod tree with a large, broken branch hanging perilously over the rig.</p> <p>16:17 E6 EMERGENCY TRAFFIC E6 advised all units assigned to SD to evacuate positions to allow residents to evacuate.</p>

Red text: Indicates that the power supply is cut off.

**Now known as Hawaiian Electric.*

continued

Date/Time	MFD Resource Assignment: Engine 6 (E6)
16:00–18:00	<p>16:20 RE1 advised they abandoned their location. They were trying to evacuate, but a "warehouse" fell over and was blocking Lahainaluna Road.</p> <p>16:22 E6 advised Command (BC5) that they were stuck on Pauoa Street unable to egress, and there were residents in the path of the fire. At this time, another unit reported that electrical components had fallen on WL6 at Pā'ū'ū Place and Paunau Street, and a pole was blocking the road perpendicularly.</p> <p>16:27 WL6 operator reported trying to push the pole out of the road so other apparatus can get through. A hydrant had sheared from the base, and water was hitting WL6, which was covered in electrical lines. E6 officer physically moved the power lines to allow WL6 operator to exit the vehicle and rejoin E6 crew.</p> <p>16:29 E6 reported they had to abandon WL6. E6 crew recalled reversing down Pā'ū'ū Place to turn around and exit the way they entered (Pauoa Street and Lahainaluna Road). At the corner, they maneuvered around E1 (which was facing south on Pauoa in front of the Kaunoa Senior Center) and attempted to push debris and abandoned vehicles to make egress onto Lahainaluna Road. E6 crew recalled the debris "was as high as the truck."</p> <p>16:35 RE1 reported to E6 that they found an open spot for egress, and RE1 instructed E6 to follow them. E6 copied the transmission. Around this time, E6 crew recalled reversing back down Pauoa Street looking for an egress point until E6's transmission failed and the vehicle would not shift into reverse. E6 was positioned nose-to-nose with E1 in front of parking lots to the Kaunoa Senior Center when they made the decision to shelter in place (the parking lots provided an approximately 50-60' buffer of open space.). E6 crew recalled that Mini1 was in one of the parking lots of the Kaunoa Senior Center. E1 was taking heavy heat. E6 had approximately 0.25 tank of water and they sprayed down multiple vehicles on fire due to flames impinging on E1. Just before running out of water, E6 officer instructed the crew to wet down E6. The wind was so intense it was spraying the solid stream sideways. E6 crew sheltered inside of E6, but it became hotter inside the cab than outside, even though the</p>

continued

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 6 (E6)
16:00–18:00	<p>ground outside was causing their boots to melt. Around this time, E6 officer recalled being overcome by heat and losing fine motor skills (he had trouble changing the air cylinder of his SCBA, and his crew had to help him.). E6 crew member, still in wildland gear, was burned by coming in contact with the window while sitting in the interior of the cab.</p> <p>16:47 E6 reported they were unsure if they would be able to hold their position and they were in need of assistance. Around this time, E6 crew member recalled exiting the cab of E6 to retrieve extra cylinders from exterior compartments of E6, and he noted that one (1) compartment door had melted shut. He retrieved as many cylinders as he could and put them in the interior of E6. The crew was not communicating in an effort to conserve air. E6 crew member exited E6 to go check Mini1’s operability. Mini1 was operable, and E6 firefighter was able to drive over a curb, through debris, in between E1 and E6. He tried honking the horn to get the attention of all crew on scene, but he had very little visibility, and there was no response.</p> <p>17:02 Central advised Command (BC5) that E6 was calling a mayday on the emergency channel and that the portable radio emergency alert button had been activated. Despite multiple attempts, Command (BC5) was unable to contact E6.</p> <p>E6 firefighter (who drove away in Mini1—see Mini1 chronology) returned in an MPD SUV and pulled up beside E1 and E6. All eight (8) crew members, including the unresponsive member of E6, were loaded into the MPD SUV (after removing MPD equipment and their SCBAs), and E6 firefighter took the same route in zero visibility back to Shaw Street and the highway. The crew unloaded the unresponsive member of E6 and began CPR.</p> <p>17:11 Command (BC5) reported CPR in progress at the intersection of Shaw and the highway.</p> <p>17:22 medics were reported to be on scene, and they transported an unresponsive E6 member to the hospital. E1 and E6 (with assistance from an off-duty firefighter sitting in traffic) were able to free the debris impeding Mini1.</p>

Date/Time	MFD Resource Assignment: Engine 6 (E6)
18:00–20:00	18:05 E1 reported that E1 (crew of four (4) and E6 (with a crew of three (3) loaded into Mini1 and redesignated the unit as E1 in Mini1 (see Mini 1 chronology for further actions).
20:00–22:00	
22:00–00:00	
August 9, 2023	
00:00–02:00	
02:00–04:00	
04:00–06:00	
06:00–08:00	
08:00–10:00	
10:00–12:00	

Table 4.3.2.10 Maui Fire Department (MFD) Incident Management Assignments for Wildland 6 (WL6) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Wildland 6 (WL6)
August 8, 2023	
06:00–08:00	<p>E6 officer (A-watch) recalls knowing about the fire up country and that the conditions were expected to be hotter, drier, and windier throughout the day. WL6 was put into service to run medical calls in case it was needed to respond to a wildland call at some point.</p> <p>06:49 WL6 (driven by one (1) Engine 6 (E6) crew member) responded with E6 to assist Engine 3 (E3) with a brushfire near the Bypass and Lahainaluna Road.</p> <p>07:23 Command (BC5) assigned E6 and WL6 to respond to Tanker 3 (T3) positions to assist with stretching lines and fire attack.</p> <p>07:57 Command (BC5) advised E6 (and WL6) to return to their district.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Wildland 6 (WL6)
08:00–10:00	WL6 remained available for district coverage.
10:00–12:00	
12:00–14:00	
14:00–16:00	<p>15:32 WL6 responded with E6 to Lahaina. One (1) member of E6 drove WL6 and three (3) members on E6.</p> <p>15:51 Command (BC5) instructs E6 & WL6 to access Lahainaluna Road from Hwy-30, not the Bypass, and to turn onto Kelawea Street to address structures in that area. E6 crew recalled there was heavy traffic on the highway due to HECO* lane closures. HECO* crews were working on downed poles and power lines. MPD was directing traffic and allowing the responding units to get through.</p> <p>15:56 Command (BC5) assigned E6 to be South Division (SD) and warned that there were extreme fire conditions. E6 requested clarification on where to focus exposure protection and establish a cut-off point. Command (BC5) advised he did not have a visual but to proceed to the area around Paunau Road. E6 copied and advised Command (BC5) that WL6 was with them and E1 was responding.</p>
16:00–18:00	<p>16:11 Central advises that MECO* has reported that power is shut off.</p> <p>16:17 E6 EMERGENCY TRAFFIC E6 advised all units assigned to SD to evacuate positions to allow residents to evacuate.</p> <p>16:21 E6 advised WL6 to follow E6 as they tried to egress.</p> <p>16:22 E6 advised Command (BC5) that they were stuck on Pauoa Street unable to egress, and residents were in the path of the fire. At this time, another unit reported that electrical components had fallen on WL6 at Pā'ū'ū Place and Paunau Street, and a pole was blocking the road perpendicularly.</p> <p>16:27 WL6 reported he had tried to push the pole out of the road so other apparatus could get through. A hydrant had sheared from the base, and water was hitting WL6, which was covered in electrical lines. E6 officer physically moved the power lines to allow the WL6 operator to exit the vehicle.</p> <p>16:29 E6 reported they had to abandon WL6.</p>

Red text: Indicates that the power supply is cut off.
**Now known as Hawaiian Electric.*

Date/Time	MFD Resource Assignment: Wildland 6 (WL6)
18:00–20:00	
20:00–22:00	
22:00–00:00	
August 9, 2023	
00:00–02:00	
02:00–04:00	
04:00–06:00	
06:00–08:00	
08:00–10:00	
10:00–12:00	

Table 4.3.2.11 Maui Fire Department (MFD) Resources Assignments for Engine 1 (E1) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Engine 1 (E1)
August 8, 2023	
06:00–08:00	
08:00–10:00	STATION COVERAGE
10:00–12:00	
12:00–14:00	
14:00–16:00	<p>15:34 Battalion Chief 3 (BC3) told Central to send E1 to the Lahainaluna fire (Lahaina PM fire).</p> <p>E1 recalled splitting the crew and responding with Mini1 (two (2) crew members in E1 and two (2) crew members in Mini1). En route, E1 crew recalled seeing heavy black smoke that</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 1 (E1)
14:00–16:00	<p>was “laying down pretty good.” En route to the fire, E1 crew encountered electrical workers conducting repairs near Hwy-30 and Hōkiokio, and they saw MPD as they approached Lahainaluna Road and Mill Street. At this point, people were still evacuating Lahainaluna Road and the surrounding neighborhood.</p> <p>15:57 Command (BC5) assigned E1 to Engine 6 (E6) as part of South Division (SD) on Lahainaluna Road. E1 crew recalled seeing E6 fighting a structure fire near the corner of Lahainaluna Road and Pauoa Street. E6 and E1 officer had face-to-face conversation. E6 officer tasked E1 with traveling up Pauoa to Paunau to see if they could make a stop further up the neighborhood. E1 crew recalled the houses in the Paunau area being heavily impacted. Visibility became greatly reduced, so they couldn’t see anything past the initial houses, and they knew further up was a loss. E1 crew recalled there were many vehicles trying to turn from Paunau onto Lahainaluna Road. E1 crew recalled pulling a 1.75" handline to mount a fire attack for one of the houses on fire.</p>
16:00–18:00	<p>16:11 Central advises that MECO* has reported that power is shut off.</p> <p>16:17 E6 (SD) EMERGENCY TRAFFIC all units assigned to SD were told to evacuate their positions to allow private vehicles to egress.</p> <p>16:26 E1 reported they have not been able to evacuate the neighborhood. E1 crew recalled they tried to exit at Paunau and Lahainaluna Road, but traffic was backed up. They turned around, which took a lot of time due to the narrow roads and parked vehicles (unoccupied). Occupied vehicles attempting to evacuate were backed up on both Paunau and Lahainaluna Road. E1 officer tried to direct traffic to get more vehicles out.</p> <p>16:27 Command (BC5) reported that SD units would have to fall back to Hwy-30 from the bottom of Paunau.</p> <p>16:32 E6 reported that SD was going to anchor and shelter in place along Paunau because upper and lower Paunau were both blocked at Lahainaluna Road.</p>

Red text: Indicates that the power supply is cut off.

**Now known as Hawaiian Electric.*

Date/Time	MFD Resource Assignment: Engine 1 (E1)
16:00–18:00	<p>16:33 E1 confirmed they would be sheltering in place. E1 officer recalled most communications between the crews were being done face-to-face because there was a lot of radio traffic, and the wind was extremely loud.</p> <p>E1 crew decided to shelter in place at the Kaunoa Senior Center parking lot—they ended up facing E6 (E1 and E6 were nose-to-nose in front of the two (2) parking lots in front of Kaunoa Senior Center, and Mini1 was parked in the parking lot next to the Kaunoa Senior Center.). Visibility was poor and getting worse, E1 crew recalled “there were moments where it was blacked out like midnight... It was so dark, you couldn’t even see flame.” E1 crew recalls cell phones and mobile maps were not working. They tried to use street maps to locate an alternate egress.</p> <p>E1 crew prepped the turrets and hoselines and prepared for direct flame impingement. E1 crew pulled 1.5" handline, but it was so hot the line burst (double jacketed hose). E1 crew decided to shelter inside E1. The house in front of E6 started deteriorating (this was the house E1 initially tried to attack), and the Kaunoa Senior Center quickly caught fire and had a large fuel load. This increased the heat E1 was taking. E1 crew recalled that the interior of the engine cabin became “as hot as an oven” so they retreated to the exterior. E1 crew laid on the ground on the leeward side of E1 (E1 was facing south on Pauoa Street, so the pump panel was on the east/mauka side). E1 officer recalled making numerous attempts to call for assistance over the radio, but transmissions were not going through.</p> <p>17:02 Central reported that E6 called a mayday, and the emergency alert button on a portable radio had been activated. Neither central nor Command (BC5) could get through to E6 crew.</p> <p>17:04 Command (BC5) called E1 over the radio multiple times without a response.</p> <p>E1 firefighter recalled seeing one (1) member of E6 outside of their apparatus. He was not wearing an SCBA and seemed disoriented. E6 crew member sat down by a curb and would not respond to E1 crew members. E1 firefighter grabbed disoriented E6 member, and they rejoined the rest of E1</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 1 (E1)
14:00–16:00	<p>was “laying down pretty good.” En route to the fire, E1 crew encountered electrical workers conducting repairs near Hwy-30 and Hōkiokio, and they saw MPD as they approached Lahainaluna Road and Mill Street. At this point, people were still evacuating Lahainaluna Road and the surrounding neighborhood.</p> <p>15:57 Command (BC5) assigned E1 to Engine 6 (E6) as part of South Division (SD) on Lahainaluna Road. E1 crew recalled seeing E6 fighting a structure fire near the corner of Lahainaluna Road and Pauoa Street. E6 and E1 officer had face-to-face conversation. E6 officer tasked E1 with traveling up Pauoa to Paunau to see if they could make a stop further up the neighborhood. E1 crew recalled the houses in the Paunau area being heavily impacted. Visibility became greatly reduced, so they couldn’t see anything past the initial houses, and they knew further up was a loss. E1 crew recalled there were many vehicles trying to turn from Paunau onto Lahainaluna Road. E1 crew recalled pulling a 1.75" handline to mount a fire attack for one of the houses on fire.</p>
16:00–18:00	<p>16:11 Central advises that MECO* has reported that power is shut off.</p> <p>16:17 E6 (SD) EMERGENCY TRAFFIC all units assigned to SD were told to evacuate their positions to allow private vehicles to egress.</p> <p>16:26 E1 reported they have not been able to evacuate the neighborhood. E1 crew recalled they tried to exit at Paunau and Lahainaluna Road, but traffic was backed up. They turned around, which took a lot of time due to the narrow roads and parked vehicles (unoccupied). Occupied vehicles attempting to evacuate were backed up on both Paunau and Lahainaluna Road. E1 officer tried to direct traffic to get more vehicles out.</p> <p>16:27 Command (BC5) reported that SD units would have to fall back to Hwy-30 from the bottom of Paunau.</p> <p>16:32 E6 reported that SD was going to anchor and shelter in place along Paunau because upper and lower Paunau were both blocked at Lahainaluna Road.</p>

Red text: Indicates that the power supply is cut off.

**Now known as Hawaiian Electric.*

Date/Time	MFD Resource Assignment: Engine 1 (E1)
16:00–18:00	<p>16:33 E1 confirmed they would be sheltering in place. E1 officer recalled most communications between the crews were being done face-to-face because there was a lot of radio traffic, and the wind was extremely loud.</p> <p>E1 crew decided to shelter in place at the Kaunoa Senior Center parking lot—they ended up facing E6 (E1 and E6 were nose-to-nose in front of the two (2) parking lots in front of Kaunoa Senior Center, and Mini1 was parked in the parking lot next to the Kaunoa Senior Center.). Visibility was poor and getting worse, E1 crew recalled “there were moments where it was blacked out like midnight... It was so dark, you couldn’t even see flame.” E1 crew recalls cell phones and mobile maps were not working. They tried to use street maps to locate an alternate egress.</p> <p>E1 crew prepped the turrets and hoselines and prepared for direct flame impingement. E1 crew pulled 1.5" handline, but it was so hot the line burst (double jacketed hose). E1 crew decided to shelter inside E1. The house in front of E6 started deteriorating (this was the house E1 initially tried to attack), and the Kaunoa Senior Center quickly caught fire and had a large fuel load. This increased the heat E1 was taking. E1 crew recalled that the interior of the engine cabin became “as hot as an oven” so they retreated to the exterior. E1 crew laid on the ground on the leeward side of E1 (E1 was facing south on Pauoa Street, so the pump panel was on the east/mauka side). E1 officer recalled making numerous attempts to call for assistance over the radio, but transmissions were not going through.</p> <p>17:02 Central reported that E6 called a mayday, and the emergency alert button on a portable radio had been activated. Neither central nor Command (BC5) could get through to E6 crew.</p> <p>17:04 Command (BC5) called E1 over the radio multiple times without a response.</p> <p>E1 firefighter recalled seeing one (1) member of E6 outside of their apparatus. He was not wearing an SCBA and seemed disoriented. E6 crew member sat down by a curb and would not respond to E1 crew members. E1 firefighter grabbed disoriented E6 member, and they rejoined the rest of E1</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 1 (E1)
16:00–18:00	<p>sheltering in place. E1 crew recalled an MPD SUV suddenly pulling up next to them being driven by a member of E6. Disoriented E6 crew member collapsed before making it inside the SUV. The seven (7) crew members from E1 and E6 loaded the unresponsive member and themselves into the SUV (three (3) in front, three (3) in back, and two (2) in the hatch area) They had to remove their SCBA in order to fit. E1 crew did not recall the evacuation route, but they did recall E1 was not on fire when they left; it was still intact.</p> <p>E1 crew recalled encountering heavy heat and smoke down the highway all the way. The highway was backed up traveling north, so they took the oncoming lane (there were no cars in those lanes). The smoke cleared up near Shaw Street. That's where they stopped, removed the unresponsive crew member, and started CPR.</p> <p>17:11 Central reported CPR in progress at Shaw and the highway. Central reported medics were on scene at 17:22. Medic unit transported unresponsive E6 crew member to the hospital.</p>
18:00–20:00	<p>18:05 E1 officer advised four (4) members from E1 and three (3) remaining members of E6 will be operating out of Mini1 using the designator E1.</p> <p>E1 was out of service due to fire damage and was abandoned on Pauoa Street. The rest of the chronology for E1 falls under Mini1.</p>
20:00–22:00	
22:00–00:00	
August 9, 2023	
00:00–02:00	
02:00–04:00	
04:00–06:00	
06:00–08:00	
08:00–10:00	
10:00–12:00	

Table 4.3.2.12 Maui Fire Department (MFD) Incident Management Assignments for Mini 1 on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Mini 1
August 8, 2023	
06:00–08:00	
08:00–10:00	
10:00–12:00	
12:00 -14:00	
14:00–16:00	<p>15:34 Battalion Chief 3 (BC3) told Central to send Engine 1 (E1) to the Lahainaluna Road fire. E1 and Mini1 (split crew with two (2) E1 members in E1 and two (2) E1 members in Mini1). Mini1 followed E1 to Lahainaluna Road and Pauoa Street. E1 officer and Engine 6 (E6) officer had a face-to-face conversation. Crew recalled E1 and Mini1 went up Pauoa and Paunau, but fire conditions were too severe, and both units had to turn around.</p> <p>Mini1 crew recalled deploying a hoseline off E1 to attack a house on fire on the corner of Pauoa (possibly 7█ Pauoa) that was not yet fully involved. Almost immediately after pulling the hoseline, an evacuation order was issued by E6. Mini1 crew recalled that at least four (4) houses on Pauoa and one (1) house on Pauwala Place were all on fire, but the smoke made it very difficult to see where exactly the fire was. Mini1 crew recalled experiencing “rolling blackouts due to heavy smoke.” Mini1 crew recalled E1 and Mini1 trying to return to Lahainaluna Road via Pauoa, but it was blocked by cars trying to exit onto Lahainaluna Road.</p>
16:00–18:00	<p>16:11 Central advises that MECO* has reported that power is shut off.</p> <p>16:47 E6 reported they were unsure if they would be able to hold their position, and they were in need of assistance. Around this time, E6 crew member recalled exiting the cab of E6 to retrieve extra cylinders from exterior compartments of E6, and he noted that one (1) compartment door had melted shut. He retrieved as many cylinders as he could and put them in the interior of E6.</p>

Red text: Indicates that the power supply is cut off.

*Now known as Hawaiian Electric.

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Mini 1
16:00–18:00	<p>The crew was not communicating in an effort to conserve air. Another E6 crew member saw Mini1 in the parking lot of the Kaunoa Senior Center, and he exited E6 to go check for air cylinders. When he approached Mini1 he realized it was operable. E6 firefighter was able to drive over a curb, in between E1 and E6. He tried honking the horn to get the crew's attention, but did not get a response. There was also limited visibility due to smoke. He knew Lahainaluna was blocked so he went around the traffic by driving over a concrete barrier, over downed power lines, over a short rock wall, through debris, and through the yard of the HECO* substation to make it to Hwy-30. Mini1 operator stated that he made several attempts to call a mayday via radio but was unsure if transmissions were being received.</p> <p>17:02 Central advised Command (BC5) that E6 was calling a mayday on the emergency channel and that the portable radio emergency alert button had been activated. Despite multiple attempts, Command (BC5) was unable to contact E6.</p> <p>Mini1 operator (E6 firefighter) recalled encountering heavy traffic along Hwy-30 to Shaw Street. He encountered a police officer directing traffic at the Hwy and Shaw Street where smoke conditions and visibility were better. He recalled removing his SCBA and called another mayday. He told the MPD officer multiple MFD crews were in trouble, and Mini1 was compromised (It had power lines, debris, and a shopping cart wrapped around the axles and wheel wells.). MPD officer advised Mini1 operator/E6 FF to take the MPD SUV. Mini1 operator took the MPD SUV and returned along the same route back to retrieve E1 and E6 crew members. Mini1 operator/E6 FF recalled the visibility was so poor he could not tell where the flames were or what structures were on fire. He found his way back to the substation yard, went over the rock wall and concrete barriers, and pulled up beside E1 and E6. All eight (8) crew members, including an unresponsive member of E6, were loaded into the MPD SUV (after removing MPD equipment and their own SCBAs), and Mini1 operator/E6 FF took the same route in little to zero visibility back to Shaw Street and the highway. The crew unloaded the unresponsive member of E6 and began CPR.</p> <p>17:11 Command (BC5) reported CPR in progress at the intersection of Shaw Street and the highway.</p>

Date/Time	MFD Resource Assignment: Mini 1
16:00–18:00	<p>17:22 Medics were reported to be on scene, and they transported an unresponsive E6 member to the hospital.</p> <p>E1 and E6 (with assistance from an off-duty firefighter sitting in traffic) were able to free the debris impeding Mini1.</p>
18:00–20:00	<p>Mini1 became E1 Designator (For the purpose of tracking resource type accurately within this document, E1/Mini1 designator is used to denote E1 crew on Mini1 apparatus.).</p> <p>18:05 E1 officer advised four (4) members from E1 and three (3) remaining members of E6 would be operating out of Mini1 using the designator E1. E1/Mini1 (E1 and E6 crew) recalled turning into a neighborhood to fill the tank of E1/Mini1 (400 gallon capacity⁹⁴).</p> <p>18:12 RE11 requested assistance from E1/Mini1 along Kupuohi Street. E1/Mini1 met RE11 near the Minit Stop at 10 Kupuohi Street. E1/Mini1 crew recalled using the redline to extinguish spot fires within the industrial park. E1/Mini1 refilled their tank (Water pressure was still good.) and pulled the redline around the back of the buildings north of Kahoma Stream.</p> <p>18:15 E1/Mini1 requested additional personnel, 2.5" hose, 1.5" hose, and full SCBA cylinders.</p> <p>E1/Mini1 crew recalled traveling into Emerald Plaza where water supply was limited. E1/Mini1 crew saw multiple spot fires and vehicle fires as they looped around Kupuohi Street and Ulupono Street. Due to limited water they were not able to engage in structural firefighting. They were able to refill the tank of E1/Mini1 "a few times," but the water pressure was very low and slow. E1/Mini1 crew recalled RE11 operating in and around the same area. While operating in the Emerald Plaza area during this time, E1/Mini1 crew recalled seeing fires on the roof of some of the buildings, but none were fully engulfed. Visibility in this area was clear. The crew recalled the winds were still blowing in a westerly (makai) direction and were still very strong and steady with severe gusts that made it hard to stand.</p>

⁹⁴ <https://skeeteremergencyvehicles.com/maui-co-fire-rescue/>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Mini 1
20:00–22:00	<p>20:10 Command (BC5) requested the location of E1/Mini1. E1/Mini1 reported they were in Emerald Plaza. E1/Mini1 advised that the hydrants were down in that area. Command (BC5) reported that he would come to the location to pick up remaining E6 crew members and redistribute them. The three (3) members of E6 crew were picked up by F2 and transferred to a BC SUV, while E1 (crew of four (4)) remained in Mini1.</p> <p>20:29 E1/Mini1 reported staging at the bottom of Kupuohi (at the intersection of Keawe and Oil Road). E1/Mini1 crew recalled that Relief Engine 1 (RE1) was in staging with them, and they saw private tankers (three (3) or four (4)) wetting down the area along Oil Road (20:37).</p> <p>20:53 E1/Mini1 was assigned to the Support Group to assist Utility 3 (U3) with evacuating civilians being evacuated on foot from Front Street. U3 advised the best access point was Waive'e Street and Kenui Street.</p> <p>E1/Mini1 operator recalled assisting with loading multiple evacuees onto E1/Mini1 and transporting them to the Lahaina Civic Center. Three (3) E1/Mini1 crew members staged at Fire Station 3 (FS3) to make room for more evacuees. E1/Mini1 operator made multiple trips in E1/Mini1 to transfer evacuees from the area of Front Street/Waive'e & Kenui to the Civic Center.</p> <p>21:01 Command (BC5) reported a dozen people at Bubba Gump needing transport to the Civic Center. E1/Mini1 operator made multiple trips to assist with evacuations off of Kenui Road.</p> <p>21:46 BC4 to Dispatch: BC4 was assuming Lahaina Command, and BC2 was 911.</p> <p>21:53 E1/Mini1 crew reported that medics were abandoning their station near the Civic Center and were heading to the old train station.</p> <p>21:55 E1/Mini1 asked Command (BC4) if the Civic Center was being evacuated. Command (BC4) could not confirm.</p> <p>21:58 E1/Mini1 reported a resident was told by the Red Cross that everyone was evacuating north. Fire 4 confirmed that the shelter was being moved from the Lahaina Civic Center to Maui Prep Academy.</p>

Date/Time	MFD Resource Assignment: Mini 1
20:00–22:00	<p>The E1/Mini1 crew members that staged at FS3 relocated to Lahaina Civic Center to assist with loading evacuees into buses for transfer to Maui Prep.</p>
22:00–00:00	<p>22:09 E1/Mini1 operator was called back to meet up with all Support Group units at the Lahaina Civic Center to assist with shuttling evacuees to Maui Prep.</p> <p>22:45 Once all evacuees were transferred to Maui Prep, units from the Support Group convened at FS3 and had face-to-face communication.</p> <p>E1/Mini1 crew reunited and attempted to suppress fires impacting utility poles, fences, and sheds along Hwy-30 toward Kapunakea using the red line from within the cab. E1/Mini1 crew was able to refill tanks at Canoe Beach, since it still had good water pressure.</p> <p>23:24 E1/Mini1 was assigned to assist with evacuating the Wahikuli area with E6 and U3. U3 was stuck south of Fleming Road due to obstructions on roadways. E1/Mini1 reported they would drop off three (3) personnel to make room for evacuees and were assigned to start at Malo Street and work east (mauka). E6 was assigned to start at the upper roads near Aa Street. E1/Mini1 operator recalled driving through the neighborhood with sirens and knocking on doors. E1/Mini1 operator reported the wind had died down and the smoke was "going straight up," not "lying down," as it had been before. E1/Mini1 operator recalled the fire on the south side of Wahikuli Road started getting more intense.</p> <p>23:27 Command (BC4) advised the fire was moving very rapidly toward the north, and the Support Group should consider pulling crews out to find safe refuge.</p> <p>23:29 All Support Group units (including E1/Mini1) were advised to make last security checks as they pulled back north to stage at Halelo Street in Kā'anapali (other units were already in the area preparing to make a stand).</p> <p>23:34 Command (BC4) ordered all units to abandon FS3 and to immediately stage at Hwy-30 (north of FS3).</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Mini 1
<p>August 9, 2023</p> <p>00:00–02:00</p>	<p>00:20 An MFD officer called E1/Mini1 operator and advised the fire was at Malanai Street, so E1/Mini1 was advised to leave the area immediately. E1/Mini1 advised there were a couple of streets left as E1/Mini1 made egress.</p> <p>01:11 E1/Mini1 was reassigned to the Support Group and was assigned to head back to the Leiali'i area to make checks of the Hawaiian Homes neighborhood. E1/Mini1 reported they would start close to the fire and work away from it, making checks.</p> <p>E1/Mini1 recalled seeing 3–4 other engines making fire stops along 'Aipuni and Hanohano Street. E1/Mini1 crew recalled the wind was not as strong as earlier, but fire was still spreading from house to house. E1/Mini1 crew recalled houses on 'Aipuni and 'Ainakea Road were starting to catch. E1/Mini1 pulled hoselines and hit what fires they could.</p> <p>01:21 Central received a call from Coast Guard Honolulu reporting there were 50 people requiring evacuation near the Waikiki Brewing Company. E1/Mini1 reported they would drop off personnel and E1/Mini1 operator would head toward Kenui to assist with transfer of individuals.</p> <p>01:24 Support requested E1/Mini1 crew in Mini1 to extinguish a telephone pole on fire near the old Five Palms/Chart House restaurant and a pallet on fire next to the Safeway.</p> <p>01:40 E1/Mini1 crew in E1/Mini1 reported they were unable to address the pallet fire and they were heading to drop off personnel to help with transport of civilians. Support copied and reported there were about 40 more near shore who would be walked out to a collection point in Longs parking lot.</p> <p>01:53 E1/Mini1 operator reported staging along Kapunakea Street. E1/Mini1 was requested at Kapunakea Street and Front Street, where approximately 60 people needed to be transferred to the post office collection point where buses were being used to transfer people to Maui Prep.</p>
02:00–04:00	02:58 Command (BC4) advised Canoe Beach would be the next collection point due to numerous road closures due to debris, poles, and power lines. E1/Mini1 was directed to transport additional civilians from Longs to Canoe Beach.

Date/Time	MFD Resource Assignment: Mini 1
02:00–04:00	03:17 E1/Mini1 operator reported picking up the rest of the crew from the Lahaina police station and going to assess a Matson container fire in close proximity to the Safeway.
04:00–06:00	<p>04:22 E1/Mini1 crew assigned to extinguish pole fires from Kapunakea to Fleming Road to preserve road access.</p> <p>04:28 E1/Mini1 crew assigned to respond to a fire at Ala Moana Street.</p> <p>E1/Mini1 responded to Ala Moana to provide exposure protection. E1/Mini1 tank refilled and Support Group assigned E1/Mini1 to Leiali'i Parkway to assess a brush fire above the post office.</p> <p>05:42 E1/Mini1 reported they were going to refill their tank and then return to Leiali'i Parkway where fire was progressing. E1/Mini1 crew recalled driving around 'Aipuni into the cul-de-sac. E1/Mini1 pulled a handline between houses and extinguished hot spots in the backyard that backed up to the houses on Kaniau Road (most of the houses on Kaniau Road had burned and were smoldering). E1/Mini1 recalled the wind had let up but it was still blowing in the same direction, toward the west (makai).</p>
06:00–08:00	<p>06:25 Support Group reported that Hawaiian Homes area was looking good, and E1/Mini1 and T3 could be reassigned.</p> <p>06:35 E1/Mini1 reassigned to South Division (SD) and was advised to stage at an access road near Hōkiokio Place and the Bypass to prepare to engage.</p> <p>E1/Mini1 recalled meeting up with a relief engine near Kai Hele Kū Street and Haniu Street. The crews pulled a 1.5" line off the engine and the red line off E1/Mini1 to stop the fire's progression toward the Launiupoko subdivision. At this time, Air 1 was able to fly and make water drops, and a private dozer was also working to construct a fire line.</p>
08:00–10:00	~08:30 E1 C-Watch crew arrived in a lifeguard vehicle and relieved E1 A-Watch crew on scene at Kai Hele Kū Street.

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Mini 1
08:00–10:00	Three (3) A-Watch crew members returned to Fire Station 1 (FS1) in the lifeguard vehicle, and one (1) A-Watch member remained.
	En route back to FS1, the crew stopped at E1 and saw that it had been destroyed.
10:00–12:00	

Table 4.3.2.13 MFD Incident Management Assignments for Relief Engine 1 (RE1) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Relief Engine 1 (RE1)
August 8, 2023	
06:00–08:00	
08:00–10:00	
10:00–12:00	
12:00–14:00	
14:00–16:00	<p>RE1 was staffed by a callback crew of four (4). Personnel met at Fire Station 10 (FS10) and prepared RE1 for service.</p> <p>15:58 RE1 reported they were near Olowalu and were available for assignment.</p> <p>Command (BC5) instructed RE1 to respond to Lahainaluna Road from below and assigned them to South Division (SD) under Engine 6 (E6).</p> <p>16:00 E6 advised RE1 to come up Lahainaluna Road from Hwy-30. E6 advised MECO* had barricaded the road at that intersection but were allowing emergency vehicles to pass.</p>
16:00–18:00	<p>16:08 RE1 advised they were coming up Lahainaluna Road and were encountering heavy smoke.</p>

Date/Time	MFD Resource Assignment: Relief Engine 1 (RE1)
16:00–18:00	<p>RE1 crew recalled that, as they traveled up Lahainaluna Road, the road was heavily congested with cars trying to travel down Lahainaluna Road. RE1 crew recalled MPD trying to direct traffic off of Lahainaluna Road at Hwy-30. As they traveled through the neighborhood, they saw lines of cars from each of the side streets trying to exit onto Lahainaluna Road.</p> <p>They noticed multiple sporadic fires (e.g., a car, shed, tree). The visibility was still okay, and nothing had been fully engulfed, but they could see the fire spreading. They were not yet aware of the severity of the wind.</p> <p>RE1 crew recalled they pulled in behind E6 (Engine 1 (E1) was in front of E6) on Pauoa Street. RE1 officer and E6 officer had a face-to-face discussion. RE1 crew recalled being told to deploy lines. The crew deployed two (2) 150' 1.75" preconnect handlines. As they were operating outside the vehicle, they experienced the strong wind, with one (1) member being blown over onto the ground.</p> <p>RE1 crew recalled visibility went from mostly clear to barely visible within minutes. Gusts of wind decreased visibility to zero. RE1 crew recalled houses on the north side of Lahainaluna Road starting to quickly ignite due to extension from a 40' shipping container that was on fire. RE1 crew saw a vehicle drive into the container on fire due to lack of visibility. Cars stacked behind the crash and no one would reverse, so no one could get out. RE1 crew recalled the road had become completely blocked.</p> <p>RE1 had flames 20–30' blowing over their area. RE1 officer instructed the crew to cut and abandon the hoselines.</p> <p>16:11 Central advised that MECO* reported that power was shut off.</p> <p>16:20 RE1 advised E6 they had to evacuate and that Lahainaluna Road was blocked by a structure collapse across the road. RE1 advised they were trying to make their way out.</p> <p>E6, E1, and Mini1 abandoned their positions to try to find egress off Pauoa with RE1 following.</p>

Red text: Indicates that the power supply is cut off.

**Now known as Hawaiian Electric.*

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Relief Engine 1 (RE1)
16:00–18:00	<p>E6 made it to the top of Paunau but advised it was impassable. RE1 reversed and went back the way they came (with E6 behind them). RE1 passed Wildland 6 (WL6), which had pulled off onto a side road, and saw a pole down and wires covering the vehicle. Everyone in RE1 had donned their SCBA (the operator had to take it off at times to try to see anything outside the windshield).</p> <p>RE1 was attempting to find egress at the end of the cul-de-sac off Paunau Street. RE1 crew recalled seeing a victim that had perished in the roadway.</p> <p>16:27 Command (BC5) advised all SD units to egress at the bottom of Paunau and fall back to Hwy-30, which would be used as a cut-off point.</p> <p>16:31 RE1 asked E1 for assistance with egress and advised they were taking heat. RE1 turned around in the Kaunoa Senior Center parking lot and did a face-to-face with E1. E1 stated they were going to shelter in place.</p> <p>16:32 Command (BC5) ordered all units to evacuate Lahaina-aluna subdivision and establish cut-off points on the Nāpili side of Kahoma Stream. They assigned SD to establish a cut-off along Hwy-30. SD reported they were going to anchor and shelter in place.</p> <p>RE1 left Pauoa Street to find an alternate location to shelter in place. RE1 decided to shelter in Paunau Park. RE1 crew recalled the interior of RE1 got so hot the windows started to crack. The crew was wearing their brush gear with SCBAs within the cab. When there was a moment where the wind decreased, RE1 crew exited the cab.</p> <p>RE1 crew members used the rig's redline to provide protection from several fully engulfed homes, using approximately half a tank of water. RE1 operator looked at his phone, which had lost service, but he was able to pull up a map and saw that Dickenson Street bordered an open area of land.</p> <p>RE1 crew returned to the cab. They had difficulty reversing the rig due to the conditions and poor visibility. One (1) member received a burn to his forehead when trying to look</p>

Date/Time	MFD Resource Assignment: Relief Engine 1 (RE1)
16:00–18:00	<p>out the closed window to help guide RE1 driver. RE1 crew reversed down Pauwala Place, impacting mailboxes, a hydrant, and other debris. The gate on Paunau was not locked, so they were able to cross over Dickenson into the dirt field.</p> <p>16:35 RE1 called to E6 to follow their directions to an open spot behind them. RE1 called to Command (BC5) but communications were cut off.</p> <p>RE1 crew recalled they got out of the cab in the field, and the wind continued to intensify. RE1 crew member recalled the wind was so strong they had to wait for a lull to open the engine doors and exit the apparatus. The crew exited the super-heated cab and took shelter behind the rig, which was in the open field facing east/mauka. They recalled the wind coming down the mountain and over the engine "sounded like a jet engine." At this point they were still in the wind path, but they were out of the path of the fire and smoke, which was blowing horizontally at ground level.</p> <p>17:26 RE1 crew advised they had all personnel accounted for, and they were in a safe location in a dirt field by Dickenson and Paunau.</p> <p>17:43 RE1 reported they were trying to make egress out of the rocky field. RE1 crew recalled they continued up the field, trying to access utility paths, heading east (mauka) to the Bypass. RE1 crew had to use hand tools to clear the path so RE1 could pass at some points.</p> <p>17:54 RE1 advised Command (BC5) they had made it onto the Bypass and were ready for assignment. Command (BC5) assigned RE1 to make their way down to Front Street to assess the conditions and provide structural protection.</p>
18:00–20:00	<p>18:08 RE1 reported to Command (BC5) while they were refilling their tank at Cannery mall that their unit had developed a major air leak in the braking system, and they needed fresh SCBA cylinders.</p> <p>18:18 RE1 crew advised they were able to refill and replenish supplies. They reported the air leak was not resolved but the apparatus was still operable (maintaining <90 psi), and</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Relief Engine 1 (RE1)
18:00–20:00	<p>they were ready for assignment. Command (BC5) assigned RE1 to check the status of the apartment building by Tamuras near Kupuohi Street and Ulupono Street in the Emerald Plaza area.</p> <p>18:37 RE1 reported there were heavy smoke conditions in that location.</p> <p>RE1 crew recalled extinguishing hot spots and vehicle fires in the area being caused by the ember cast. RE1 encountered a unit fully engulfed at 95 Kupuohi Street that had been impacted by fire crossing Kahoma Stream. RE1 hooked to a hydrant, which had good water pressure, and used a 2.5" handline to spray water into the blown-out windows of the buildings, but their stream was ineffective. Ladder 3 (L3) arrived and began hitting it with their master stream.</p> <p>19:05 RE1 reported to Command (BC5) that they were able to put the fire out. RE1 advised the structures next to Island Grocery and the buildings across Kahoma Stream had been fully impacted.</p> <p>19:23 E11 was dispatched to assist RE1 by Island Grocery. RE1 deployed a ground monitor directed at Emerald Plaza A and B.</p>
20:00–22:00	<p>20:10 RE1 advised they relocated to refill at Cannery Mall, and they left L3 who would be picking up.</p> <p>After refilling the tank, RE1 went to stage at Oil Road and Keawe Road due to reports that the fire had jumped Keawe and was burning north behind the construction site and impinging on the Wahikuli neighborhood.</p> <p>21:05 RE1 was assigned to report to the top of Fleming Road and Oil Road to monitor and stop the fire from jumping west (makai). As the fire started to encroach on the location, RE1 began making evacuations along with MPD, Tanker 3 (T3), and other unknown apparatus. RE1 crew recalled seeing people evacuate by car, bicycle, and on foot.</p> <p>RE1 crew split from T3. RE1 staged at 'Ainakea Road and Fleming Road and recalled seeing multiple structures burning in the cul-de-sac of Akeke Place.</p>

Date/Time	MFD Resource Assignment: Relief Engine 1 (RE1)
20:00–22:00	<p>21:25 Structure group advised there was a fast-moving fire coming down Akeke Place off Kahoma.</p> <p>21:28 RE1 relayed to Structure Group that the fire was moving fast and impacting structures east (mauka) on Kahoma Street. Structure Group advised RE1 to not engage. RE1 relayed they were making their way down the tracks.</p> <p>21:33 RE1 advised they met up with MPD units and evacuated Kahoma Street.</p> <p>21:39 RE1 reported to the Support Group that Kahoma Street was heavily impacted and they had to abandon their position. Structure Group assigned RE1 to relocate to Fleming Road.</p> <p>A privately owned vehicle (POV) approached RE1 and stated that an individual needed to be rescued.</p> <p>21:43 RE1 reported an unresponsive person at 1█ Pahalo (later corrected to 1█ Malolo).</p> <p>RE1 crew responded and noted that many of the houses along Kahoma Street had been impacted and the fire was quickly moving from structure-to-structure. The hydrants in the area were dry, so they had no water supply. They encountered a male with an altered mental state who became combative when they tried to remove him from the home. RE1 requested MPD assistance. A medic unit arrived on scene, and RE1 officer had a face-to-face conversation with the medic.</p> <p>21:46 BC4 to Dispatch: BC4 was assuming Lahaina Command, and BC2 was 911.</p>
22:00–00:00	<p>22:05 RE1 continued evacuating the area and reported another resident refusing to leave at 1█ Wahikuli Road. Relief Engine 14 (RE14) was instructed to evacuate whom-ever they could and retreat out to Hwy-30.</p> <p>22:47 RE1 and all Structure Group units were called to regroup at Fire Station 3 (FS3) to refuel and rehab. Chiefs and officers were in the station actively planning next steps.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Relief Engine 1 (RE1)
August 9, 2023 00:00–02:00	00:25 Command (BC4) assigned Structure Group to head north to the neighborhoods in Kā'anapali, where RE14 had scouted out, and prepare to make the next stand. RE1 crew recalled apparatus establishing defensive positions in the cul-de-sacs throughout the neighborhood in preparation of fire impingement. RE1 crew recalled units staged there until sometime around dawn.
02:00–04:00	
04:00–06:00	05:02 RE1 was reassigned to Leiali'i Parkway to perform structural triage. RE1 crew recalled spending the morning extinguishing fires and hot spots in and around the structures along 'Aipuni Street in the Hawaiian Homes area. RE1 used Canoe Beach hydrant since it was the only functioning one.
06:00–08:00	Once the situation seemed to be under control, RE1 refueled at FS3, then drove it back to FS10 where an oncoming crew was waiting to relieve them.

Table 4.3.2.14 MFD Incident Management Assignments for Utility 3 (U3) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource: Utility 3 (U3)
August 8, 2023 06:00–08:00	
08:00–10:00	
10:00–12:00	
12:00–14:00	U3 officer received emergency callback notification. He called Battalion Chief 4 (BC4) (couldn't reach him), contacted BC-FSO while en route to Fire Station 3 (FS3), and requested where the Command post was. BC-FSO advised he was not sure, but Battalion Chief 5 (BC5) was the Incident Commander (IC).
14:00–16:00	
16:00–18:00	When U3 officer arrived at FS3, he ran into an MFD employee who was experiencing mechanical issues with the light and air truck.

Date/Time	MFD Resource: Utility 3 (U3)
16:00–18:00	U3 officer loaded U3 with approximately 15 spare SCBA cylinders, spare portable radios, and a cooler full of water. U3 officer heads into Lahaina via Hwy-30 towards the fire to search for the IC. He recalled heavy winds and numerous downed poles along the way.
18:00–20:00	18:08 Relief Engine 1 (RE1) reported to Command (BC5) they were refilling their tank at Cannery mall, their unit had developed a major air leak in the braking system, and they needed fresh SCBA cylinders. U3 officer crossed into the Safeway parking lot and came across RE1. He provided them with fresh SCBA cylinders and water. They did not have a clear assignment and were unsure where the Command post was. U3 officer continued to Keawe (Tanker 3 (T3) was filling at the corner) and came to the Komo Mai Street intersection where he had a face-to-face exchange with an MFD member who advised that crews were working in the area of Emerald Plaza. U3 officer continued up Keawe, passed the Bypass and made access to Lahainaluna Road, where he encountered thick black smoke. MPD were already at that location, and he had a brief face-to-face exchange. U3 officer proceeded to try to make it into the town, but access was blocked. He had to back out and turn around. He continued along the Bypass to Hōkiokio Place to Hwy-30, all the way to Shaw Street. He took Shaw Street to Front Street where he was approached by civilians—one (1) was badly burned, and a couple of others were ambulatory and non-critical. 18:39 U3 officer reported he was on Front Street and Shaw trying to get transport for the patients. Command (BC5) advised him to transport the individuals. U3 Officer transported patients to Medic 4's location.* U3 Officer recalled trying to make access back down Hwy-30 when he encountered U3B and had a face-to-face exchange. U3 provided U3B with a portable radio and two (2) members (riding with six (6), now four (4)) joined U3 officer to establish a crew of three (3).

*Not disclosed in the dispatch record.

TIMELINE OF EVENTS

Date/Time	MFD Resource: Utility 3 (U3)
18:00–20:00	<p>18:42 U3B reported they have rescued the trapped parties in a van by Territorial Savings Bank, and U3 officer assisted in shuttling people to the Cannery Mall collection point for transfer to the Civic Center shelter.</p> <p>18:51 U3B reported that they had removed all parties reported trapped at the Territorial Savings Bank and The Coffee Bean.</p> <p>18:51 U3 officer advised Command (BC5) that he had just come from the area of 505 Front Street, and that was probably the last defensible space, everything else was on fire or was being impacted by heavy smoke. He advised he would be hesitant to commit crews past that location. Command (BC5) copied.</p> <p>U3 officer recalled seeing Relief Engine 11 (RE11) firefighter backing apparatus into a space, fighting a propane fire. He offered them water and SCBA cylinders, but they did not have SCBA packs.</p> <p>19:18 U3 advised that access for the Ipu Aumakua housing area was beginning to be blocked off and he had hundreds of cars parked there with people walking around. U3 asked Command (BC5) if they should start evacuating. Command (BC5) affirmed. U3 requested MPD assistance.</p> <p>U3 officer began evacuation of all buildings. All individuals had POVs for egress.</p> <p>19:21 Central advised that MPD were unable to access Ipu Aumakua and U3 advised they were already at the location and concerned they may be trapped.</p> <p>U3 officer scouted a gravel road through the park he could use to egress people out. He did not have to use the access road because MPD was ultimately able to make access to the area to assist with traffic evacuation, and U3 was able to egress.</p> <p>U3 officer saw three (3) males walking towards the fire towards Front Street. U3 officer picked them up and dropped them off out of the smoke and returned to Lahaina town.</p>

Date/Time	MFD Resource: Utility 3 (U3)
18:00–20:00	<p>19:25 Central reported there were two (2) parties trapped in Aina Nalu, and RE11 responded but reported they had no access to Aina Nalu. Command (BC5) advised dispatch to instruct parties to shelter in place. U3 crew heard RE11 was unable to make access to the area, so they responded.</p> <p>U3 officer recalled that they traveled down Shaw and went down multiple cross streets that were blocked by poles and hanging wires (i.e., Waine'e Street, Luakini, and Prison). The U3 crew continued to the back side of the condos and forced entry into the gate. All buildings were fully involved except for the building west (mauka) along Hwy-30. In the back of the buildings, they found two (2) women sheltering in the pool.</p> <p>19:38 U3 advised they gained access into Aina Nalu and found two (2) people that they were bringing out. They headed to Hōkiokio Place and encountered the three (3) males again walking towards town. U3 officer instructed them to get in the back of the vehicle. U3 went to the police barricade north of Hōkiokio Place and dropped the three (3) males off past the police barricade so they would not wander back into the fire. They then took the two (2) females to Medic 4 station.</p> <p>U3 firefighter began driving for U3 officer.</p>
20:00–22:00	<p>20:53 Ladder 3 (L3) advised they had a civilian requiring transfer from Emerald Plaza.</p> <p>20:07 Command (BC5) advised U3 to go to L3 and pick up the civilians needing transport and then communicated with two (2) private tankers operating in Emerald Plaza, who had no radios, to work on the area north of the Bypass.</p> <p>20:23 U3 reported that their assignment was complete and suggested starting evacuation of the Wahikuli neighborhood.</p> <p>20:29 Central advised an elderly couple needed rescue from Front Street and Papalaua Street.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource: Utility 3 (U3)
20:00–22:00	<p>U3 responded to the call for the two (2) trapped elderly patients on Front Street. They went back down Hwy-30, cutting across Safeway. Smoke was impacting structures north of Keawe, but no active flames were seen. They took Kenui where they recalled seeing multiple structures involved, not continuous, all in different stages of burning. They encountered multiple lines down along Waine'e Street and Front Street—between Kenui and Baker—and the road was blocked by flames. The crew parked U3 at Waine'e Street and Kenui.</p> <p>U3 officer and U3 FF proceeded to walk down Waine'e Street while U3 operator remained with U3 awaiting transfer of patients. U3 officer and U3 FF walked along Waine'e Street to find them. They found over a dozen people taking shelter in a parking garage—some were cooperative and some were combative. All were ambulatory and uninjured. The parties were told to continue to shelter in place as they made their way to the sea wall.</p> <p>As they continued to make their way along Papalaua Street, U3 FF recalled there were so many burning buildings that “it was the middle of the night, and it was very bright.” He recalled the buildings along Papalaua Street were starting to ignite, but Banana Republic had not been impacted yet. U3 crew were searching for people, shouting, “Fire Department!” along the way. U3 FF saw a hand emerge from the sea wall near Waikiki Brewing, and then people began to emerge—some were ambulatory and some were not. U3 FF recalled seeing one (1) fatality along the wall.</p> <p>U3 FF walked about a dozen people back to the parking area (carrying a three (3)-month-old baby and an elderly woman over his shoulder) and U3 officer stayed and continued to manage the rest of the people along the sea wall. At the parking garage, some people were combative and trying to break into cars. U3 FF told them they had the option to leave.</p> <p>21:02 U3 officer reported they had transferred 12 to the collection point, and he had another 20 with him. U3B/Support Group advised they were responding on foot to assist.</p> <p>U3B officer and U3B FF responded by foot while U3B operator waited to receive parties at the collection point. U3 and U3B officers had a face-to-face exchange within the parking structure to coordinate rescues.</p>

Date/Time	MFD Resource: Utility 3 (U3)
20:00–22:00	<p>U3 officer and firefighter and U3B officer and firefighter returned to the sea wall where another group of approximately 25 had emerged along the sea wall. These individuals were transported to the Civic Center, passing through Kahoma Village, Front Street, and Safeway to access the Civic Center.</p> <p>21:10 U3B/Support Group advised they were coming to the collection point with approximately 40 parties and had an ETA of ten (10) minutes. U3, Mini,* a BC vehicle, and U3B were waiting at Waine'e Street and Kenui to begin shuttling parties.</p> <p>U3 operator received the group of people and began shuttling them to the Civic Center while U3 crew stayed to effect additional rescues. U3 operator picked up three (3) additional parties along the way and then returned to the collection point awaiting the next load.</p> <p>U3 crew returned to the sea wall where several others had emerged, and they were guided to the collection point. U3 crew were then told there were more people trapped at Bubba Gump. U3 officer and U3 FF went to Bubba Gump and evacuated seven (7) individuals to the collection point. By the last trip, Banana Republic had caught fire (one of the last buildings standing), and the smoke was laying down.</p> <p>21:38 U3B/Support Group advised they were headed to the collection point with nine (9) civilians, three (3) of them children, with a ten (10)-minute ETA. U3B operator advised Front Street was starting to get impacted; he was not sure how much longer they were going to be able to access this location. U3B/Support Group advised this was the last trip.</p> <p>At some point, an elderly male outside of the operational area insisted to the U3 officer that additional individuals were trapped behind Bubba Gump. U3 and U3B officers responded, and conditions had deteriorated. U3 officer recalled structures were under heavy fire on the west (makai) side of Hwy-30. U3 went back down Kapunakea Street to Front Street, through Kahoma Village to Kenui. U3 crew took the same path to the sea wall where fire had intensified. They found a wheelchair along the way and brought it along.</p> <p>Once near Front Street, U3 officer traveled south by foot while U3B officer and U3 FF canvased north. U3 officer</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource: Utility 3 (U3)
20:00–22:00	<p>found seven (7) people behind Bubba Gump, including several children. He met back up with the other team who had rescued two (2) invalids, using the wheelchair to help evacuate all parties. All parties were transported to the Civic Center.</p> <p>21:46 BC4 to Dispatch: BC4 was assuming Lahaina Command, and BC2 was 911.</p> <p>21:58 U3 crew reported they had dropped off all parties and were staging at Medic 4's location with Engine 6 (E6, in a BC SUV) awaiting reassignment.</p>
22:00–00:00	<p>22:05 Command (BC4) advised that the Civic Center was being abandoned, and numerous parties needed transfer to Maui Prep. U3 responded to assist.</p> <p>22:52 Comms 2/Water Supply reported parties were trapped without a car at 13█ Keao Street. An unidentified unit tried to make access but was unable to. U3 responded.</p> <p>23:08 U3 reported they had barely made it through Hwy-30 and were at Kapunakea, noting "it is pretty bad over here."</p> <p>U3 rescued three (3) individuals from Keao Street, and Comms2/Water Supply hailed them down for another patient requiring care and transport. All parties were transferred to the triage area.</p> <p>23:21 U3 reported they were able to drop the parties for transfer to the shelter and were heading back to the Safeway area awaiting assignment. U3B/Support Group advised they were evacuating and searching for people in the Wahikuli neighborhood. U3 reported they would try to make access to the Wahikuli area.</p> <p>U3 crew recalled they made a trip to Wahikuli and rescued a man, a dog (he had been trying to defend his property), and an elderly couple and older son from Hoapili Street (north of Safeway) to the Civic Center. Then they helped to evacuate the people at the Civic Center up to Maui Prep. They returned and went back through Wahikuli and Hawaiian Homes as the fire continued to spread north, looking for evacuees and notifying parties to "Abandon</p>

Date/Time	MFD Resource: Utility 3 (U3)
22:00–00:00	<p>[their] homes!" They encountered numerous downed poles and heavy smoke in the neighborhood as they traveled down the side streets. They recalled another smaller MFD rig was evacuating the area as well.</p> <p>They made it to Aa Street and 'Aipuni where a man was sheltering in place and said he would leave on his own. They found another male with a dog and transported him to the golf course.</p> <p>U3 officer recalled assisting to load people at the Civic Center with U3 FF while U3 operator shuttled evacuees to Maui Prep. They are unsure of how many trips they made—it was several.</p> <p>23:54 Command (BC4) disbanded Support Group and assigned U3 to head north into Kā'anapali with Relief Engine 14 (RE14) to do some scouting in preparation for the fire approaching. U3 crew recalled there was no smoke in that area.</p>
August 9, 2023 00:00–02:00	<p>At approximately 00:23, a decision was made to relocate apparatus throughout the Pinnacle neighborhood, the next expected neighborhood to be impacted. During that time, the wind died down, and the fire spread had seemed to slow.</p> <p>01:10 U3B reported they were going to head back to Leiali'i Parkway in Hawaiian Homes to recheck the area. U3 reported that they had been assigned Summit Group leader in the Pinnacle neighborhood with L3 and RE1 reporting and they would not be able to break away.</p> <p>01:21 Central advised Coast Guard Honolulu Small Boat (CGSB) was reporting 50 parties requiring rescue by Waikiki Brewing Company near 900 Front Street. Command (BC4) advised that they had affected the rescue of 40 people from that location one (1) to two (2) hours ago, they would be sending one (1) unit to recheck that location. CGSB advised visibility was low, one (1) CG member was responding to check the area via surfboard but they could see people flashing lights so they knew they were there.</p> <p>01:57 U3 passed Summit Group supervision to L3 to go support rescues from the Front Street sea wall.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource: Utility 3 (U3)
02:00–04:00	<p>U3 crew recalled that the fire was well involved throughout the Wahikuli neighborhood at this point, and the Chart House was fully engulfed. They were able to take Kapunakea Street down to Front Street; the fire had died down, but poles and vehicles were still blocking the road.</p> <p>U3B officer had already separated the injured from the uninjured (a total of possibly 50 people) by the northernmost side of the sea wall by Pi Pizzeria (900 Front Street). U3 officer and U3 FF made trips walking groups to Kenui and Front Street, while U3 operator shuttled parties for evacuation to Maui Prep. U3 officer and U3 FF made at least four (4) trips, carrying injured, until all parties had been extricated.</p>
04:00–06:00	<p>U3 crew reunited and returned to check the Hawaiian Homes area.</p> <p>04:53 U3 reported there was access for suppression vehicles to get into Hawaiian Homes, in and around the Civic Center, and the fire station. U3 reported that Hawaiian Homes did not have water, but there was a weak hydrant at the post office. Command (BC4) copied.</p> <p>04:55 all units from Summit Group were assigned to report to Fire Station 3 (FS3) to coordinate protection of Hawaiian Homes and Civic Center.</p> <p>05:54 Command (BC4) assigned U3 to return to FS3 to collect the Pumpkin Tank (water collection device used by air support to perform water drops) and scout a location where it could be set up in anticipation of helicopters being able to fly.</p> <p>U3 recalled setting up the Pumpkin Tank in the Summit area of Kā'anapali Golf Estates area.</p> <p>U3 returned for FS3 to rehab and shift change.</p>

Table 4.3.2.15 MFD Incident Management Assignments for Utility 3B (U3B) on August 8, 2023, and August 9, 2023.

Date/Time	Resource Assignment: Utility 3B (U3B)
August 8, 2023	
06:00–08:00	
08:00–10:00	
10:00–12:00	
12:00–14:00	
14:00–16:00	
16:00–18:00	
18:00–20:00	<p>U3B started with a crew of five (5) at Fire Station 10 (FS10) where they were assigned a lifeguard utility pickup truck for response. No structural firefighting equipment was available. U3B crew had a police escort to Fire Station 3 (FS3) to stock up equipment. En route to FS3, U3B crew recalled taking the Bypass with no visibility down Lahainaluna Road and active fire along Komo Mai Street. At FS3, they retrieved an additional crew member waiting for assignment, as well as 150' 2.5" hoseline, 150' 1.75" hoseline, and a hydrant wrench (no nozzles were available). As the crew reported into town, they encountered a tanker in the Safeway parking lot, and they were able to obtain an old 40 gpm nozzle.</p> <p>18:35 U3B officer reported their call sign was 3-Bravo. U3B recalled their first assignment was to respond to Kahoma Village. As they were driving in, the visibility was very poor due to heavy smoke and wind. They encountered wires and utility poles down in the roadways throughout the area. They recalled the wind and the smoke were generally blowing in the direction of the ocean, and the plume almost stretched to Lāna'i. Occasionally, winds would shift, launching embers into the air and causing other buildings to be impacted. U3B crew recalled "seeing fire everywhere."</p>

TIMELINE OF EVENTS

Date/Time	Resource Assignment: Utility 3B (U3B)
18:00–20:00	<p>U3B officer met with Command Battalion Chief 5 (BC5) face-to-face and was assigned to fight a structure fire at the southeast corner of Kahoma Village (near the corner of Kahoma Village Loop and Kenui Street). Houses on the east (mauka) side of the highway had heavy fire, and houses south of Kenui (Kenui and Waine'e Street) had already ignited.</p> <p>U3B crew noted that some residents were evacuating Kahoma Village in their POVs but mostly the neighborhood had already been abandoned. U3B crew recalled that MPD were also operating in the neighborhood assisting with evacuation efforts.</p> <p>U3B split the crew into three (3) teams:</p> <ul style="list-style-type: none"> Two (2) crew members of U3B crew connected attack lines directly to the hydrant and made a defensive attack on the northwest corner of Kenui Street and Hwy-30. At least one (1) U3B crew member noted there was a Tesla battery wall in the garage. Two (2) members began doing door knocks throughout the neighborhood notifying residents of the need to immediately evacuate. Two (2) members took U3B into the Kelawea (east Lahainaluna) neighborhood to try to retrieve any salvageable equipment from the abandoned apparatus. When they got into the Kelawea area, they noted the impassable roads, heavy winds, and active fire in the area. They did not get out of the vehicle and abandoned the neighborhood. U3B FFs rejoined the rest of their crew at Kahoma Village. <p>U3B crew was met with an Alpha Construction water truck, which was tasked with taking over suppression efforts of the structure on fire.</p> <p>18:38 Central advised Command (BC5) that there were people trapped in a van at the Territorial Savings Bank parking lot (170 Papalaua Street) surrounded by fire. U3B responded to the scene. En route to the location, U3B traveled down Hwy-30 to try to access Papalaua Street, but wires were down, and they had to reverse U3B back to Kenui Street. At the corner of Hwy-30 and Kenui Street. U3B</p>

Date/Time	Resource Assignment: Utility 3B (U3B)
18:00–20:00	<p>met with U3 being operated solely by U3 officer. Two (2) crew members from U3B switched to U3 to assist U3 officer.</p> <p>18:40 U3B advised Command (BC5) they were traveling down Waine'e Street (en route to Territorial Savings). U3B officer advised Command (BC5) they triaged Front Street Apartments (2001 Kenui Place) and determined "there is nothing [they could] do here now."</p> <p>18:43 Central advised Command (BC5) there were additional parties trapped at The Coffee Bean (878 Front Street).</p> <p>U3B traveled down Waine'e Street towards Territorial Savings and The Coffee Bean. U3B officer recalled heavy smoke conditions and visible structure fires near 1080 Waine'e Street down to around 10 Waine'e Street.</p> <p>U3B located the van and also encountered approximately 12 other individuals that had sheltered in The Coffee Bean that required evacuation.</p> <p>U3B officer recalled loading the people into the white van, U3B, other MFD units, and MPD vehicles. U3B officer drove the POV white van out of the area (with U3B following), with other units transporting the additional parties. All parties met in the parking lot of Longs where MPD was coordinating transfer to the Civic Center shelter.</p> <p>U3B, now a four (4)-person crew, returned to Kahoma Village to check on the structure they had been fighting, and the fire was still contained.</p> <p>U3B crew then went to check/evacuate the Opukea condominium complex at 1300 Limahana Place. They could not access the neighborhood due to blocked roads. U3B crew parked U3B in the Cannery Mall parking lot, near Longs Drugs, and then walked to the fence at Cannery Mall, down Kahoma Stream bed, under the bridge, then up the hill and over the fence into the Opukea complex.</p> <p>They split into two (2)-person crews and began checking the buildings along Limahana Circle. All the buildings were intact, but there was fire activity around the buildings. The crew recalled there was still heavy smoke in the area and visibility was at about 60 percent.</p>

TIMELINE OF EVENTS

Date/Time	Resource Assignment: Utility 3B (U3B)
18:00–20:00	<p>In the northeast corner of Opukea, U3B crew encountered two (2) individuals in a POV and a family of five (5) in another POV sheltering in place. The parties were told to stay in their vehicles while the buildings were checked for other occupants. There were some language-barrier challenges, but U3B crew recalled the individuals being compliant with MFD instructions.</p> <p>U3B crew had flashlights, and they grabbed fire extinguishers as they walked through the buildings. The U3B crew members used the extinguishers to put out hot spots and small flare-ups in front of and inside units where exterior doors had been left open. They recalled the fires were sporadic in nature. Fire alarms were going off but they do not recall sprinklers going off in any of the buildings.</p> <p>Upon completion of the search, U3B crew gathered the parties from their cars and walked them out to Kahoma Stream through an opening in the fence. They walked the group up the stream and into the Walgreens parking lot (342 Keawe Street). One (1) U3B crew member retrieved U3B from Cannery Mall and drove it to pick up the parties and other U3B crew members. All were transported to the Civic Center Shelter.</p> <p>18:46 U3 advised U3B to meet at Keawe Street and the Bypass where medics were waiting to transport the more seriously injured. U3B confirmed they would meet up with the medics.</p> <p>18:51 U3B advised Command (BC5) that they had transported 15 people from Territorial Savings Bank/The Coffee Bean, and the crew was now operating in Kahoma Village.</p> <p>U3B returned to Kahoma Village and found a dumpster on fire. They hooked lines to the hydrant to extinguish the fire but there was no water. The southeast building they had been trying to extinguish before was now on fire on the downwind side with a “jet flame” blowing from the structure. The tanker that had been there previously was gone, and U3B had no means of fighting the fire.</p> <p>18:54 Command (BC5) advised there was a report of people trapped at Bubba Gump. Command (BC5) advised Front Street to Papalaua Street was not possible, and access</p>

Date/Time	Resource Assignment: Utility 3B (U3B)
18:00–20:00	<p>would have to be made via Waine’e Street to Papalaua Street, but he advised that area was also “pretty sketchy.”</p> <p>19:06 Utility 3 from 3B: Bubba Gump is gone. Command (BC5): Nobody is in there. U3B to Command (BC5): We just made it there; everything around it and Bubba Gump is gone.</p> <p>Command (BC5): Oh, it burned down? U3B: Yeah, Tommy Bahamas is on fire, _____ is pretty much down, and Bubba Gump is gone, the road is getting pretty impassable.</p>
20:00–22:00	<p>20:03 U3B relayed to Command (BC5) that Opukea, where they rescued seven (7) individuals on foot, now had a structure fire in Building 11.</p> <p>20:03 U3 responded to radio traffic regarding evacuation of the Wahikuli neighborhood. U3B officer relayed he was in the Safeway parking lot with two (2) Alpha tankers that were available to respond.</p> <p>U3B officer recalled driving through Wahikuli making checks along ‘Ainakea Road (could not access Kahoma Street because multiple structures were fully engulfed), but they found no one in the neighborhood.</p> <p>20:39 U3 reported to Engine 3 (E3) that three (3) Alpha tankers were working off Oil Road, the Wahikuli Road gate was open, and hydrants in the area were dry. E3 asked U3B to relay to Alpha tankers (operators had no radios) that there was access to the construction site, and the Alpha tanker should focus on the “strip of brush between [the construction site] and Oil Road” to prevent fire impingement into the neighborhood. U3B responded they would relay.</p> <p>20:53 Command (BC5) assigned U3 as Support Group supervisor with U3B and Engine 6 (E6, working out of a reserve BC SUV) assigned. U3 reported he was on Front Street making rescues and was “super gassed.” U3 reported the collection point was Waine’e Street and Kenui, and U3 operator advised the best access [from the north] was down Front Street.</p>

TIMELINE OF EVENTS

Date/Time	Resource Assignment: Utility 3B (U3B)
22:00–24:00	<p>22:52 Water Supply Group advised U3B/Support Group that there were three (3) people trapped without a car at 13█ Keao Street north of Cannery Mall. U3B/Support Group advised a unit (unknown) was responding. The responding unit advised the roads were impassable, and the individuals should shelter in place.</p> <p>22:53 Water Supply reported there were two (2) people trapped in a van at the intersection of Kapunakea Street and Hwy-30. U3B/Support Group reported they were responding. Department of Water Supply advised them to be safe and that the roads looked pretty impassable.</p> <p>22:58 E6 reported that a Maui Prep representative was requesting lighting, as the school had no power, 100 people had been offloaded, and they were being transferred to classrooms. Support responded they would take care of that through F4.</p> <p>23:06 E6 reported the two (2) buses had been offloaded and asked if they should return to the Civic Center. U3B/Support Group responded they should remain at Maui Prep and asked if Red Cross and Public Works had responded. E6 replied Red Cross was on location but they had not been able to contact F4 to request Public Works.</p> <p>23:08 U3 reported to U3B/Support Group that they barely made it through Hwy-30, they were at Kapunakea Street, and they had retrieved one (1) person and were trying to access others. U3 reported “it is pretty bad over here.” U3B/Support Group advised they were going above the fire area and would be available to assist. U3B/Support Group advised they should be able to make it to Keawe Street. U3 reported they were able to evacuate everyone and were still making checks. U3 advised Hwy-30 was passable to Safeway “if you go slow and stay on the right-hand side.”</p> <p>23:18 U3B/Support Group advised E6 (in SUV) to remain at the Civic Center. U3B/Support Group reported Wahikuli Road had structures on fire on one side, but it was passable and they were in the process of loading civilians. U3B/Support Group reported they were going to check the area again and update.</p>

Date/Time	Resource Assignment: Utility 3B (U3B)
22:00–24:00	<p>23:21 U3 reported they were heading back to Safeway and asked if U3B/Support Group needed assistance transporting survivors to the Shelter. U3B/Support Group advised them to stage at Safeway as they were looking for more people. U3 advised they were going to try to make access to the Wahikuli neighborhood to help look for people. U3 confirmed they were on ‘Ainakea Road at 23:24.</p> <p>23:24 U3B/Support Group requested E6 (in SUV) and E1/Mini1 respond to the Wahikuli area to pick up people that are starting to come out. E1/Mini1 confirmed that they are dropping personnel at FS3 and responding to the Wahikuli area. E6 (in SUV) confirmed they were responding as well.</p> <p>23:25 U3 advised they went across ‘Ainakea Road, up Wahikuli Road to Oil Road but could not pass. U3B/Support Group advised U3 to start at Malo Street and work outward and for E6 (in SUV) to start at Aa Street and work on the upper roads of Wahikuli.</p> <p>23:27 Command (BC4) advised U3B/Support Group that the fire was rapidly moving north, and U3B/Support Group should consider making any last-minute security checks, pulling out their units, and finding safe refuge.</p> <p>23:29 U3 reported they were not able to make it past Fleming Road, as there were multiple structures on fire, and they were making their way back to ‘Ainakea Road. U3B advised all Support Group units to pull back north to FS3 as they made their checks.</p> <p>23:38 U3 advised they were in the Hawaiian Homes area using the PA and knocking on doors to get everyone out.</p> <p>23:39 E6 (in SUV) advised they had completed the Wahikuli area west (makai) of Aa Street and could circle back around through Hawaiian Homes. U3 advised they had a civilian they were taking back to FS3, but they had only been able to canvas ‘Aipuni Street</p> <p>23:39 Command (BC4) advised U3B/Support Group that they had abandoned FS3 and advised Support Group units to report to Hwy-30 north of FS3. U3B/Support Group</p>

TIMELINE OF EVENTS

Date/Time	Resource Assignment: Utility 3B (U3B)
22:00–24:00	<p>advised the brush was on fire east (mauka) of Malanai Street traveling towards Kaniau Road, impacting homes along the top portion of the neighborhood again.</p> <p>23:48 U3 advised they had extracted one (1) and had reported to staging behind Command (BC4). U3B/Support Group- Supportadvised they were making their way out of Leiali'i Parkway.</p> <p>23:53 U3B/Support Group advised Engine 3A (E3A) they were canvassing the top area (near Lokia Street where houses were starting to ignite) and requested E3A (in a lifeguard vehicle) to go down Aa Street.</p> <p>23:54 Command (BC4) advised U3B he was going to break apart the Support Group to utilize U3 and U3B. U3B advised they were doing one (1) last sweep of Wahikuli and would be ready for reassignment. E3A advised they had people in 17 Hanohano Street, and they were in the process of collecting them. Command (BC4) advised U3 and U3B to meet up with Relief Engine 14 (RE14) to go north to do some scouting of the area. U3B confirmed they were responding.</p>
August 9, 2023	
00:00–02:00	<p>00:05 U3B reported they were delayed in leaving the area because they continued to find people.</p> <p>U3B crew recalled going door-to-door along Aa Street (U3 had a PA, but U3B did not) and evacuated several individuals from that area to FS3 where they were shuttled to Maui Prep.</p> <p>00:11 E1/Mini1 reported they were on Ku'uipo Street in Wahikuli, making rounds and evacuating an elderly couple.</p> <p>00:13 Command (BC4) advised U3B they no longer needed to report to the previous assignment (scouting areas north with RE14).</p> <p>00:22 U3B advised Command (BC4) they were leaving the Wahikuli area and had civilians to drop off. Command (BC4) advised U3B to bring the civilians to his location on Hwy-30 between the bridge and Kā'anapali Parkway.</p> <p>00:35 Command (BC4) advised U3B that he was reassigning them to Support Group with E6, E1/Mini1, E3A (in a lifeguard pick up), and Kapalua ARFF (one (1) of two (2) ARFF units, the second designated as Airport Fire assigned</p>

Date/Time	Resource Assignment: Utility 3B (U3B)
00:00–02:00	<p>to Structure Group) reporting. Command (BC4) advised their assignment was a "support function and then gear up for evacuation for the next neighborhood north." U3B reported they were leaving FS3 and that the wind had shifted, seemed to be lighter, and was blowing back down west (makai).</p> <p>00:47 E6 (in SUV) advised U3B/Support Group they had dropped off evacuees, were at ¼ tank of fuel, and ready for reassignment. Support advised E6 (in SUV) to stage in the Kā'anapali area, conserve fuel, and await reassignment.</p> <p>01:10 U3B/Support Group advised U3 that they were going to head back to Leiali'i from Kā'anapali because Kā'anapali "look[ed] pretty good right now." U3 advised Command (BC4) had assigned them to run Summit Group with L3 and RE1 reporting to them so they would not be able to assist.</p> <p>U3B operator dropped off U3B crew with Tanker 3 (T3) at the bottom of Leiali'i Parkway. T3 was filling off a hydrant at that location, but the water pressure was very low. U3B officer borrowed a Polaris from a FFs house, and he directed resources to the backyards of houses along Kaniau Road. U3B officer recalled two (2) engines assisted and used handlines fed by T3. U3B recalled seeing two (2) houses of 'Aipuni Street burning (8 and 9 'Aipuni Street).</p> <p>01:11 U3B/Support Group inquired if E1/ Mini1 and E3A (in lifeguard vehicle) wanted to head back out to Leiali'i Parkway to make checks of the neighborhood again. E1 responded they would meet U3B there and they would start close to the fire and work away. E3A asked if 1 Wahikuli Road had been checked, as someone was inquiring about that residence. U3B/Support Group reported they would try to respond.</p> <p>01:21 Central advised they received a call from Coast Guard Honolulu, the Coast Guard Maui team was on scene at Waikiki Brewing Company, on Front Street with 50 parties there, and they were requesting MFD assistance to extract those people at 900 Front Street. U3B/Support Group advised they would go check road access by Chart House but advised earlier they had to make their way on foot. E3A (in lifeguard vehicle) advised they would meet U3B by the Chart House to assist. E1/Mini1 advised they would drop off</p>

TIMELINE OF EVENTS

Date/Time	Resource Assignment: Utility 3B (U3B)
00:00–02:00	<p>crew and make their way to Kenui Street to assist with shuttle operation. U3B/Support Group advised they were able to make their way past Chart House, but there was a pole on fire, and if it fell, it would block their egress. Command (BC4) acknowledged.</p> <p>01:24 U3B/Support Group advised E1/Mini1 crew) to extinguish the pole fire by old Five Palms/Chart House and then extinguish a pallet fire near the Safeway. E1 crew acknowledged.</p> <p>01:25 Per U3, Command (BC4) advised the call may have been for a rescue that had already taken place and advised U3B to commit one (1) resource to scout. U3B acknowledged and advised they encountered three (3) people near Kahoma Stream Bridge requiring extrication from the area. U3B advised Command (BC4) they had one (1) burn patient requiring transport at Safeway.</p> <p>01:31 U3B/Support Group asked E3A (in lifeguard vehicle) if they had been able to make it through the area. E3A reported they had not found access due to downed power lines everywhere.</p> <p>01:33 Command (BC4) advised Coast Guard Honolulu Small Boat (CGSB) that approximately 40 people had been rescued from that area one-to-two (1–2) hours prior, and Command (BC4) asked if they could see people requiring assistance. CGSB advised visibility was limited but they could see people flashing lights, so they knew they were there, and one (1) crew member was going in on a surfboard to try to get people back to a dinghy.</p> <p>01:34 E3A advised they were able to get through Kapunakea Street and were driving through the Safeway parking lot. U3B/Support Group advised they made it down Front Street and were parked in front of Front Street Apartments, which had already burned.</p> <p>01:40 E1/ Mini1 advised they were unable to extinguish the pallet fire and they were dropping crew off so E1/Mini1 operator could transport civilians. U3B/Support Group advised they had approximately 40 people offshore that they were going to walk out. Support advised that everyone looked ambulatory, and E3A should respond to Front Street Apartments to help load.</p> <p>01:44 U3B/Support Group requested F4 to dispatch a bus to transfer evacuees to Maui Prep. Support advised the</p>

Date/Time	Resource Assignment: Utility 3B (U3B)
00:00–02:00	<p>collection point would be the post office. Command (BC4) confirmed that was a safe collection point, and F4 confirmed the request.</p> <p>01:53 U3B/Support Group advised they had approximately 60 people needing evacuation (instead of 40 estimated by Mini1 at 01:40).</p> <p>01:59 U3B/Support Group advised they were working with the Coast Guard to reunite a family, coordinating using FD6 radio channel.</p>
02:00–04:00	<p>02:14 E1/Mini1 advised on-shore winds were shifting a structure fire toward Front Street, which would impact egress from the area.</p> <p>02:23 E3A advised MPD moved the collection point further north due to a pole on fire along Hwy-30 near the post office, which was threatening access. Support advised Battalion Chief 3 (BC3) was checking for alternate access off Keawe Street down Oil Road.</p> <p>02:26 U3B coordinated with Coast Guard to assist with the rescue and reunification of a family. (Two (2) children had been transferred to Coast Guard vessel).</p> <p>02:32 BC3 advised they had approximately seven to eight (7–8) civilians in their vehicle that were picked up at Front Street. They advised they were bringing them to the collection point, but they reported it appeared lines had come down by Canoe Beach, and buses were turning around. BC3 advised they would take the civilians directly to Maui Prep and then return.</p> <p>02:43 U3B/Support Group reported to Command (BC4) that they had transferred a large portion of the group to Longs Drugs (1221 Hwy-30 in Cannery Mall) until alternate transfer plans were in place. They advised they were still working to extricate the non-ambulatory. BC3 advised they were able to transport their group via Oil Road but that it was no longer a viable option, as too many lines had come down.</p> <p>02:54 E1/Mini1 operator reported Hwy-30 was clear from Kapunakea Street to the post office, but advised units would have to hug the west (makai) side of the road.</p>

TIMELINE OF EVENTS

Date/Time	Resource Assignment: Utility 3B (U3B)
02:00–04:00	<p>02:57 U3B/Support Group advised there was a clear route if transporting patients in the interior of the vehicles from Front Street to north past FS3. Support advised power lines were down but only on the east (mauka) side of the roadway, so the road was accessible from FS3 to Kā'anapali Parkway where a collection point could be established. E1 crew advised that per MPD, Canoe Beach would be the new collection point for people coming out of Lahaina and that the route was clear from Canoe Beach north.</p> <p>03:02 U3B/Support Group advised they still had 20–30 people at Longs requiring transfer to a new collection point and requested U3 respond. Command (BC4) advised U3 was being used to transfer injured to the triage point at the train station. BC3 advised the medics had moved the triage point to Fire Station 11 (FS11). Command (BC4) acknowledged. E1/Mini1 operator advised they were en route to assist transfer of people from Longs to the new collection point at Canoe Beach.</p> <p>03:12 U3B/Support Group advised the children transferred to the Coast Guard vessel had been returned to Māla Wharf via DNLR small boat to be reunited with father prior to transfer to the new collection point.</p> <p>U3B/Support Group officer recalled the group transferred to the collection point ended up being approximately 100 people, some of which had sustained burns or injuries and could not walk (they were carried by MFD personnel). All parties were transferred from the collection point to the medic station or Maui Prep. U3B officer recalled the crew making additional checks along Front Street to the area of Kimo's (845 Front Street), where fire on the east (mauka) side prevented further searching.</p> <p>03:17 E1/Mini1 Operator advised they were picking up E1 crew from the police station and would be returning to extinguish a container fire next to Safeway and pole fires. T3 responded to assist.</p> <p>03:55 U3B/Support Group reported that everyone had been transported to Canoe Beach collection point, and the CGSB would continue to scout for survivors and offload them later. U3B/Support Group advised they were working with T3 at Safeway to extinguish a trailer fire next to the building, and all the hydrants were dry.</p>

Date/Time	Resource Assignment: Utility 3B (U3B)
04:00–06:00	<p>04:15 CGSB advised they transferred two (2) people to DLNR small boat and they would be dropped off at Māla Wharf. U3B/Support Group acknowledged and reported they would be at that location in five (5) minutes.</p> <p>04:20 U3B/Support Group advised Command (BC4) that the wind shifted and was pushing hard north toward Command's (BC4) location. Command (BC4) affirmed and reported he was watching it.</p> <p>04:22 E3A advised U3B/Support Group they had people in POVs in the ballpark and to guide them up toward Kā'anapali.</p> <p>04:24 BC5 (with BC3) advised they would pick up the two (2) individuals (plus an additional person CGSB rescued) at Māla Wharf. U3B/Support Group reported they were relocating back to Leialii Parkway. U3B/Support Group advised E1/Mini1 crew there was a small fire between houses near Ala Moana with multiple savable houses. E1/Min1 crew reported they were responding.</p> <p>04:34 T3 advised U3B/Support Group that the Safeway "container" fire had been extinguished, and they needed to refill. U3B/Support Group advised T3 to bring all personnel and report to Leialii Parkway so they could pull lines from Hawaiian Homes to the Wahikuli side to stop radiant heat from igniting more homes. U3B/Support Group reported that the winds had lightened up, and the smoke was blowing straight up. Support advised T3 to refill at the hydrant by the post office, as all the hydrants in Hawaiian Homes were dry.</p> <p>04:48 U3B/Support Group advised T3 to report to Hanohano Street, where an exterior deck fire was extending into the eaves of the home. U3B/Support Group advised T3 they needed him to respond before finishing filling (post office hydrant had low pressure, and T3 was filling slowly.). U3B/Support Group requested an engine be dispatched to that location to stop further fire spread into Hawaiian Homes neighborhood.</p> <p>04:55 U3B/Support Group directed T3 to break away from the hydrant and report to the exterior structure fire on Hanohano Street.</p> <p>04:58 Command (BC4) directed all units to relocate to Leialii Parkway to assist with structure protection and triage in Hawaiian Homes</p>

TIMELINE OF EVENTS

Date/Time	Resource Assignment: Utility 3B (U3B)
04:00–06:00	<p>05:02 U3B/Support Group directed RE14 to report to Hawaiian Homes and pull a line to the back of 1 █ 'Aipuni Street. U3B/Support Group directed RE1 to provide exposure protection to █ 'Aipuni Street and advised the house next door had burnt down but was still smoldering.</p> <p>05:08 E1/Mini1 crew reported they had refilled their tank and were awaiting assignment. U3B/Support Group directed them to Leiali'i Parkway, where a brush fire was starting just south of the post office.</p> <p>05:13 U3B/Support Group assigned Airport Engine and assist MFD units operating off Leiali'i Parkway attacking a grass-fire impinging on homes along the Hwy-30 side.</p> <p>05:16 U3B/Support Group advised Command (BC4) a suppression unit with sufficient water was needed at the top parking lot for a grass-fire extending above FS3. RE11 reported. U3B/Support Group scouted the area above FS3 and directed E3 to respond to assist RE11. U3B/Support Group reported they had a favorable wind blowing five (5) mph south.</p> <p>05:22 Airport Engine reported they were headed to Canoe Beach to refill. U3B/Support Group advised Airport Engine to stay along hwy-30 and extinguish pole fires to keep the roadway open. U3B/Support Group advised L3 to report to the brush fire above FS3 from staging.</p> <p>05:24 Command (BC4) reassigned U3B to North Division with RE11, E3, and L3 reporting.</p> <p>05:27 RE1 reported to U3B/North Division that fire at 78 'Aipuni Street had been extinguished, and they were refilling at the post office. U3B/North Division advised RE1 to check the houses in that area again.</p> <p>05:51 Command (BC4) advised U3B/North Division that E3A needed additional assistance at the Bypass above Keawe Street. E3A advised they had three (3) tankers in the area, and the next area of concern is Kai Hele Kū Street.</p> <p>05:54 Command (BC4) directed U3 to report back to FS3 to load the pumpkin and scout a location for set up in anticipation of helicopters being able to respond. Command (BC4) advised U3 to take caution, as heavy equipment was</p>

Date/Time	Resource Assignment: Utility 3B (U3B)
04:00–06:00	<p>operating in the area. Command (BC4) asked if U3B/North Division copied.</p> <p>05:57 Command (BC4) asked if U3B/North Division was sending any units to assist E3A with fire near Kai Hele Kū Street. U3B/North Division advised the brush fire was threatening the top portion of Hawaiian Homes. U3B/North Division confirmed they still had RE11, E3, and RE14. U3B/North Division advised they could release RE14 but they would need time to refill.</p>
06:00–08:00	<p>06:16 Airport Engine reported they had to refuel and would return. T3 reported they had half a tank of water but also needed to refuel. U3B/North Division reported it was looking good, and T3 should refuel.</p> <p>06:25 E3A requested additional resources (an engine or wildland) by Kai Hele Kū Street. U3B/North Division reported the Hawaiian Homes area looked good, and E1/Mini1 crew) and T3 could respond. Command (BC4) affirmed and advised to keep one (1) unit at that location on fire watch.</p> <p>06:30 Utility 5 (U5) reported that they had gone through the backyards of Hawaiian Homes with E1/Mini1, and the area looked good. U3B/North Division made U5 available.</p> <p>07:03 Airport Engine reported they were staging at the post office. U3B/North Division told them to standby to see if they could be used elsewhere.</p> <p>07:05 U3B/North Division advised the training field area above the Civic Center was looking good, and Airport Engine and RE1 could be available. Command (BC4) advised for the units to remain in staging and be used for contingencies.</p> <p>07:47 U3B/North Division advised they were on the north flank accessed by Pukolii. U3 reported they were coming with relief personnel.</p>
08:00–10:00	

TIMELINE OF EVENTS

Table 4.3.2.16 MFD Incident Management Assignments for Utility 5 (U5) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Utility 5 (U5) F250 pick-up with skid pump, 300-gallon tank, no hose
August 8, 2023	
06:00–08:00	
08:00–10:00	
10:00–12:00	
12:00–14:00	
14:00–16:00	
16:00–18:00	
18:00–20:00	
20:00–22:00	<p>Personnel reported to Fire Station 10 (FS10) on call back. The crew of five (5) was assigned to U5, which was a Ford 250 pickup truck that had a skid pump in the bed and a 300-gallon tank (no hoseline).</p> <p>20:40 U5 reported they were on the Bypass with five (5) personnel ready for assignment in a utility vehicle with a pump but no hose. Command (BC5) assigned U5 and Ladder 3 (L3) to Structure Group under Engine 3 (E3).</p> <p>U5 officer recalled that they were positioned near Keawe Street and the Bypass. U5 crew recalled the wind was intense, but the smoke was not blowing towards them; it was blowing in the direction of Wahikuli (west/makai and north).</p> <p>20:51 U5 reported they met with Medic 15 (M15). M15 relayed that Medic 3 (M3) had 32 patients and needed to know if they had egress access from Lahaina Station. Command (BC5) reported he believed the route from Hwy-30 through the Safeway parking lot to Keawe Street up to the Bypass was clear. U5 reported they were at the top of the Bypass, and the road was now impassable due to heavy smoke and fire.</p> <p>20:51 Command (BC5) designated Relief Engine 14 (RE14) to be the Bypass Group with U5 and Engine 11 (E11) assigned to them. RE14 reported the fire was burning around the new construction site east (mauka) of Oil Road heading north.</p>

Date/Time	MFD Resource Assignment: Utility 5 (U5) F250 pick-up with skid pump, 300-gallon tank, no hose
20:00–22:00	<p>RE14 reported that the head of the fire was advancing toward the Wahikuli neighborhood. RE14 assigned the private tanker to hit the fire and wet down the area between Oil Road and Crater Road. U5 was instructed to travel up Crater Road to meet with the tanker and run a line to mitigate the fire that was spotting in the grass.</p> <p>U5 followed a private tanker down Crater Road; they recalled they had difficulty with accessing some areas due to the topography. U5 assisted with brushwork and extinguishing fire by using a 1.5" handline working off the tanker.</p> <p>RE14 reported they were making good progress on the fire with U5 working off of the tanker already on scene. RE14 officer reported RE14 and E11 were staging at the top of Keawe Street to make sure the fire did not spread east (mauka).</p> <p>U5 crew described the brush in that area as continuous and approximately waist high, and a great deal of spotting was occurring due to large embers being blown by the wind.</p> <p>U5 crew recalled the fire front was coming from east (mauka) of Crater Road. The tanker tried to pre-treat the area before the fire reached them. U5 crew tried to make a stop, but the fire ran past them in seconds. U5 and the tanker had to pull back.</p> <p>21:19 U5 reported the tanker had run out of water.</p> <p>When the tanker ran out of water, they had to reverse the tanker out so it could go refill. RE14 officer instructed U5 to check the status of Crater Road all the way to Wahikuli Road.</p> <p>21:46 BC4 to Dispatch: BC4 was assuming Lahaina Command, and BC2 was 911.</p> <p>U5 crew recalled taking Crater Road to Wahikuli Road down toward Oil Road. U5 crew saw citizens in their POVs evacuating the area on Wahikuli, and they saw POVs and pedestrians leaving the area by heading north on Oil Road (approximately 21:49).</p>
22:00–00:00	<p>U5 saw two (2) tankers working in the area of Oil Road. One (1) tanker filled U5 tanks and then went back to spraying the area along Oil Road east (mauka) of Wahikuli Road. Some tankers would leave to refill while others worked on pre-treating the</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Utility 5 (U5) F250 pick-up with skid pump, 300-gallon tank, no hose
22:00–00:00	<p>area. U5 officer recalled the fire was heading in that direction, and they decided they would try to make a stand near the intersection of Oil Road and Wahikuli Road. U5 crew recalled the fire appeared to be a couple of hundred yards away. They deployed handlines, but within seconds, the fire had reached them. Two (2) private tankers had to leave to refill, so U5 worked off Tanker 3 (T3) to try to mitigate the spotting and fire spread above the Wahikuli subdivision as best they could.</p> <p>U5 recalled they could see structures igniting and progressing north of Kapunakea. U5 crew reported it appeared to be sporadic fire spread at that point due to the large ember cast; it had not reached the level of structure-to-structure ignition.</p> <p>U5 was assigned to scout the dirt access roads along Oil Road up to and around Kā'anapali Coffee Farms to identify access and egress routes. U5 crew recalled there were power lines down along portions of Oil/Old Stuart Road (prior to Pu'ukoli'i Road), but they were able to navigate around them in U5 pickup truck. U5 turned around and traveled down to Fleming Road and found the gate at Fleming Road open, which allowed for egress onto Hwy-30. As U5 traveled down Fleming Road they went house to house, knocking on doors and informing residents to immediately evacuate. As they were making the evacuation notifications, U5 crew recalled seeing the glow of the fire front traveling towards them. U5 officer recalled most residents complied, although residents of two (2) homes refused to evacuate despite being told of the immediate fire threat. U5 crew recalled that as they reached the bottom of Fleming Road, they could see houses at the top of Fleming Road starting to be impacted by the flames.</p> <p>U5 proceeded to Hwy-30 where they met and staged with RE14, T3, and two (2) private tankers.</p> <p>U5 officer recalled that E11 had remained at a lookout point at the top of Keawe Street, and they were now cut off on the other side of the Bypass with no way to get through. E11 remained in that location and became the Bypass Group leader.</p> <p>U5 officer recalled the next assignment was to move units north into Kā'anapali (the next area expected to be impacted).</p>
August 9, 2023 00:00–02:00	<p>00:12 Command (BC4) directed U5 to remain with RE14 as they set up to make a stand in the Pinnacle neighborhood.</p>

Date/Time	MFD Resource Assignment: Utility 5 (U5) F250 pick-up with skid pump, 300-gallon tank, no hose
00:00–02:00	<p>00:33 U5 scouted the roads off Anapuni Loop for access and egress points. They found access to Old Stuart Road through a vacant lot. U5 found Old Stuart Road was clear to the Lahaina Civic Center. U5 returned to Anapuni Loop and reported their findings. U5 crew did not deploy handlines (other apparatus had) as they wanted to remain mobile.</p> <p>01:24 Support Group assigned Mini1 to address a pole fire by the Chart House and pallet fire next to Safeway. U5 responded to assist at Safeway.</p>
02:00–04:00	<p>03:30 Battalion Chief 3 (BC3) reported that houses near Baby Beach could be saved. U5 officer recalled being assigned to determine if there were any salvageable structures along Front Street. U5 crew recalled they traveled down Front Street but could not make it past Ala Moana Road.</p> <p>Most of the houses had already burned and/or collapsed. One (1) house on a flag lot off Ala Moana was still burning, and they darkened down that fire and wet down the standing exposures. There was a hydrant with very low pressure in that area, but it was enough to allow the U5 operator to fill the tank. Mini1 came and assisted, dropping another tankful of water in this location.</p>
04:00–06:00	<p>04:18 U3B/Support Group requested U5 to return to the Leiali'i Parkway area of Hawaiian Homes for assessment of conditions.</p> <p>U5 officer recalled when they arrived at Leiali'i, they saw MFD apparatus already working in the area. U5 crew went across Hanohano Street and down to 'Aipuni.</p> <p>U5 was able to retrieve hose from Mini11 (their pump was inoperable), and U5 crew stretched a 1.5" handline to the rear of the houses near the cul-de-sac of 'Aipuni. Houses behind 'Aipuni (addressed off Kaniau) had already or were still burning. U5 crew was joined by another engine and wildland unit using and repositioning the hoselines to extinguish fires and protect the standing structures. The crews continued to work down 'Aipuni, to Aa Street, and then to Hooli. At this point, it was daylight, and the Hawaiian Homes area seemed to be managed.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Utility 5 (U5) F250 pick-up with skid pump, 300-gallon tank, no hose
04:00–06:00	<p>U5 Officer recalled he was asked to go down and check the conditions along Front Street. U5 had attempted multiple routes but was ultimately able to make access by traveling down the Bypass to Hōkiokio Place, past the Puamana community, to Front Street. U5 officer recalled that everything had burned out at this point. They were approached by a female civilian who reported there was another man in need of rescue with burns to his body and feet. U5 crew retrieved the victim and carried him back to U5. U5 crew took the civilians back to Hōkiokio Place and transferred them to medics. U5 checked the area for other survivors but did not find any.</p> <p>05:51 U5 was assigned to assist Engine 3A (E3A) with a brush fire on the east (mauka) side of the bypass 100-150 yards from Kai Hele Kū Street. U5 responded and pulled a 1.5" line fed by a private tanker to help mitigate fire spread in the brush adjacent to the highway. U5 encountered three (3) citizens, one (1) requiring medical care for burns, so U5 transported them back to the medics at Hōkiokio Place.</p>
06:00–08:00	<p>U5 returned to the Launiupoko area and assisted with fire attack along Haniu Street.</p> <p>06:09 U5 was asked for the status of their personnel. U5 was directed to swap crew (Ferreira moved to RE14) and return to Fire Station 3 (FS3) where the oncoming shift was waiting to relieve them. Remaining U5 crew returned to FS3 and took a lifeguard vehicle back to FS10 to retrieve their POVs.</p>

Table 4.3.2.17 MFD Incident Management Assignments for Engine 3A (E3A) on August 8, 2023, and August 9, 2023.

Date/Time	MFD Resource Assignment: Engine 3A (E3A)
August 8, 2023	
06:00–08:00	
08:00–10:00	
10:00–12:00	
12:00–14:00	
14:00–16:00	
16:00–18:00	
18:00–20:00	
20:00–22:00	<p>A relief crew in a lifeguard utility truck met Engine 3 (E3) crew at 'Ainakea Road and Kapunakea Street. E3 crew relocated into the Lifeguard utility truck, using designator E3A, and the relief crew went into service as E3.</p> <p>E3A returned to Fire Station 3 (FS3) for rehab.</p> <p>21:46 BC4 to Dispatch: BC4 was assuming Lahaina Command, and BC2 was 911.</p>
22:00–00:00	<p>E3A assisted with relocating the Lahaina Civic Center Shelter to Maui Prep and assisted with loading people onto buses.</p> <p>E3A assisted with evacuating the Wahikuli area. E3A crew recalled people were actively in the process of leaving the neighborhood while others were walking into the neighborhood. E3A picked up at least four (4) individuals and brought them to where the buses were.</p>
August 9, 2023	<p>~00:08 E3A crew made multiple additional rescues but were unsure of how many.</p>
00:00–02:00	<p>00:27 E3A crew member utilized their personal minivan to collect evacuees from E3A and shuttle them to Maui Prep. The neighborhood appeared to be clear. E3A officer was concerned they may get trapped in the neighborhood due to deteriorating conditions.</p>

TIMELINE OF EVENTS

Date/Time	MFD Resource Assignment: Engine 3A (E3A)
August 9, 2023 00:00–02:00	00:35 E3A was reassigned to the Support Group and relocated to Kā'anapali to regroup with other FD units to coordinate. 01:21 E3A responds with Utility 3 (U3) to assist with evacuating civilians rescued from the water near the area of Waikiki Brewing and 900 Front Street (United States Coast Guard (USCG) requested assistance for evac of 50 people.).
02:00–04:00	03:42 E3A returned to Cannery Mall to ensure all civilians had been evacuated. E3A continued to assist with evacuation shuttles to Maui Prep.
04:00–06:00	04:18 E3A responded to Launiupoko Beach Park to check on residents and assess conditions. Battalion Chief 5 (BC5) responded and canceled E3A. At this time, both units noted a change in wind and reported, "Hard push north now, offshore and north" (04:20). 05:36 Command (BC4) assigned E3A to scout the Bypass and check for fire extension and access points. E3A reported fire had remained on the west (makai) side, and most of the west (makai) side had burned out. E3A was assigned to stage at Keawe Street and the Bypass. 05:51 MPD reported fire jumped to the east (mauka) side of the Bypass approximately 100–150 yards from Kai Hele Kū Street. E3A reported Engine 11 (E11) was responding, that there were three (3) private tankers in the area, and requested air support, if available. E3A reported additional assistance was needed for the east (mauka) fire near Kai Hele Kū Street. Relief Engine 14 (RE14) was sent to respond. An additional private tanker responded as well. E3A reported poor water pressure in the area. Tankers were taking turns attacking and refilling (two (2) at a time, rotating).
06:00–08:00	06:33 E3A reported to Command (BC4) that the fire near Kai Hele Kū Street should be a priority area once air support is available. E3A continued to assist with coordination of resources in that area.
08:00–10:00	
10:00–12:00	

Table 4.3.2.18 MFD Incident Management Assignments for Relief Engine 14 (RE14) on August 8, 2023, and August 9, 2023.

Date/Time	Relief Engine 14 <small>RE14 had minimal equipment - base radio only, 4 SCBAs and 3 Flashlights, No hose (had to use their own hose stored at FS10)</small>
August 8, 2023 20:00 – 22:00	20:01 RE14 went into service from FS10 with a callback crew and was dispatched to Keawe Street and the Bypass. RE14 crew recalled that, while en route, they could see the upcountry fire. Once they passed Olowalu, RE14 crew noticed a change in the wind – the wind was much stronger and was blowing in a N/NW direction. As they came up the Bypass they encountered heavy smoke and one (1) crew member recalled the area looked "real grim" like "a huge battle zone." As they approached Lahainaluna Road, they were met with a "curtain of smoke." RE14 recalled that they could not see actual structures through the smoke, they just saw "balls of fire." 20:06 Command (BC5) assigned RE14 and RE11 to respond to a brush fire that jumped the Bypass above the Wahikuli neighborhood and was headed north. E3 advised they would not be able to extinguish all of the fire but the priority was to keep it on the mauka side of Oil Road. 20:11 RE14 confirmed the fire had jumped across Keawe Street from south to north. RE14 reported they were headed toward the construction site mauka of Oil Road where the new apartments were being built. RE14 officer recalled there were cars still trying to go down Keawe Street. RE14 officer tried to contact Central on FD2 but the radio traffic was congested. RE14 officer switched to FD1. 20:17 RE14 asked Central if MPD units were available to respond to Lahaina. 20:18 RE14 reported civilians were trying to evacuate down Keawe Street, but the area was being overrun by heavy fire and smoke. RE14 requested MPD units shutdown all traffic traveling into Lahaina. 20:20 E11 requested any available tankers to proceed to the area and wet it down in an effort to contain the fire from spreading further north. Command (BC5) advised that private

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Date/Time	Relief Engine 14 RE14 had minimal equipment - base radio only, 4 SCBAs and 3 Flashlights, No hose (had to use their own hose stored at FS10)
20:00 – 22:00	<p>tankers may already be in that area but they had no radios. Command (BC5) advised E11 to flag them down.</p> <p>RE14 officer recalled encountering Mini11 coming up Keawe Street toward the Bypass. RE14 had a face-to-face with Mini11 crew and asked for a portable radio but they had none. Moments later E11 came up Keawe Street and RE14 officer had a face-to-face conversation with E11 officer. E11 officer advised they had just evacuated the area and E11 staged with RE14 on Keawe Street.</p> <p>20:26 RE14 and RE1 had a radio exchange regarding the status of Keawe Street. They communicated the plan would be for an incoming tanker to try to keep the fire from jumping the Bypass mauka of the apartments.</p> <p>20:49 RE14 reported they were staging with a private tanker on Keawe Street near the Church of Jesus Christ of Latter-Day Saints.</p> <p>20:51 RE14 reported the fire was burning around the new construction site mauka of Oil Road heading north. RE14 reported that the head of the fire was advancing toward the Wahikuli neighborhood. Command (BC5) assigned RE14 to be Bypass Group with U5 and E11 reporting to RE14.</p> <p>RE14 officer (no portable radio) scouted the area on foot with E11 officer (had a portable radio) mauka of Oil Road. RE14 officer recalled seeing the fire “backing into the wind” where the north and south tradewinds met. RE14 assigned the private tanker to hit the fire and wet down the area between Oil Road and Crater Road. The tanker made it up Crater Road just northeast of the Bypass and Keawe Street. RE14 stated he had E11 officer contact U5. U5 was instructed to travel up Crater Road to meet with the tanker and run a line to mitigate the fire that was spotting in the grass.</p> <p>21:14 RE14 (Bypass Group) requested command to send an additional tanker to that location. Command advised four (4) private tankers were en route with an estimated time of arrival of approximately 30 minutes. RE14 reported they were making good progress on the fire with U5 working off of the tanker already on scene. RE14 officer reported RE14 and E11 were staging at the top of Keawe Street to make sure the fire did not spread mauka.</p>

Date/Time	Relief Engine 14 RE14 had minimal equipment - base radio only, 4 SCBAs and 3 Flashlights, No hose (had to use their own hose stored at FS10)
20:00 – 22:00	<p>21:19 U5 operator advised RE14 that the tanker ran out of water and needed to refill.</p> <p>RE14 reversed the apparatus up Crater Road with the objective to attack the fire from that position. RE14 crew recalled they used an 1.5" handline from the rear of the engine as well as two (2) reels of wildland hose. RE14 recalled the fire continuing to slowly back into the wind.</p> <p>21:46 BC4 to Dispatch: BC4 was assuming Lahaina Command, and BC2 was 911.</p> <p>21:47 RE14 reported a wind shift and advised all units to be aware the fire spread may change.</p> <p>21:49 U5 stated Crater Road was clear to Wahikuli and the gate to Wahikuli Road was open.</p>
22:00 – 00:00	<p>22:08 RE14 had an exchange with E11 asking if the road had been compromised. RE14 reported seeing new black smoke between their location on Crater Road and E11 (staging near Keawe and the Bypass). RE14 expressed concern that they may not be able to get back to E11's location. E11 could not confirm.</p> <p>RE14 identified Wahikuli Road as their escape route. As a tanker arrived to their location, RE14 and the tanker traveled from Crater Road to Wahikuli Road.</p> <p>22:11 RE14 had radio exchange with U5 and confirmed the tanker was able to exit off Crater Road to Wahikuli Road so the RE14 would be able to follow. E11 advised RE14 that fire is makai of their location.</p> <p>RE14 officer recalled seeing four to five (4-5) tankers operating off Oil Road (he could see their lights). As they were operating off Oil Road, RE14 could see fire starting near Keawe Street and Oil Road. RE14 officer could see the fire line moving north in the Wahikuli and Kahoma neighborhoods and he noted the structure fires were starting to outpace the brush fire between Crater Road and Oil Road.</p> <p>22:12 RE14 transfers Bypass Group to E11 (who had a portable radio) due to the roads becoming impassable.</p>

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Date/Time	Relief Engine 14 RE14 had minimal equipment - base radio only, 4 SCBAs and 3 Flashlights, No hose (had to use their own hose stored at FS10)
22:00 – 00:00	<p>As RE14 passed the intersection of Oil Road and Wahikuli Road they saw that multiple structures had already started to ignite. RE14 crew saw houses in the neighborhoods south were burning faster and faster. RE14, with the tanker following, took Wahikuli Road to the lower Hwy-30.</p> <p>22:15 RE14 advised Command (BC4) they had come down from mauka of Oil Road. They traveled down the second road north of Fleming Road and advised that fire was impacting the top side of that road.</p> <p>RE14 officer recalled the structure fires were moving north. MFD apparatus passing by them were using hand signals to let them know there was no water in the area.</p> <p>RE14 officer met with a private tanker operator (who had no portable radio). The tanker driver indicated there was a good hydrant at Canoe Beach.</p> <p>22:50 RE14 officer reported over the radio there was a good water supply confirmed at Canoe Beach (Hanaka'ō'ō Park).</p> <p>RE14 refilled tank there, encountering numerous roads that had been blocked by downed poles/wires along the way. RE14 had a face-to-face conversation with Command (BC4) and Command (BC4) made the decision to recall units to stage along the Highway. RE14 officer stated that a collective decision was made to have smaller trucks scout the area to assess the road conditions.</p>
August 9, 2023 00:00 – 02:00	<p>00:12 RE14 reported a civilian approached them at Coffee Farms and advised the gates were open but there were poles and wires down on that section of Oil Road. RE14 relocated to Pu'ukoli'i Road and Old Stuart Road to try to get a vantage point from that location. Command directed U5 to remain with RE14.</p>
02:00 – 04:00	<p>00:23 RE14 confirmed they saw a pole down on Oil Road. RE14 officer reported the fire seemed to be heading toward Kā'anapali. RE14 officer confirmed the Kā'anapali area had good water supply. RE14 officer suggested strategically staging units in the cul-de-sacs in the Pinnacle neighborhood to make a stand and stop fire progression.</p>

Date/Time	Relief Engine 14 RE14 had minimal equipment - base radio only, 4 SCBAs and 3 Flashlights, No hose (had to use their own hose stored at FS10)
02:00 – 04:00	<p>00:37 RE14 advised they traveled up Lai'ikae and were staging in a cul-de-sac near the Pinnacle entrance.</p> <p>RE14 officer recalled placement of units as follows: U5 and T3 staged in south Pinnacle RE14 and ARFF unit staged in the middle of Pinnacle RE1 and a ladder company set up in north Pinnacle Bypass Division remained E11</p> <p>The units set up, pulled hose lines, and prepared for fire attack.</p> <p>02:14 Command (BC4) requested an update location for RE14 and they advised they were in the Pinnacle cul-de-sac.</p> <p>RE14 officer recalled the units remained in that area until approximately 04:00.</p>
04:00 – 06:00	<p>RE14 officer recalled that at approximately 05:00, while the apparatus was staged in the Pinnacle neighborhood, the winds shifted. RE14 officer recalled the dominant wind now seemed to be tradewinds coming from the south. U5 went to scout Oil Road to reassess conditions and U5 officer reported the fires moving north had slowed and the field above the Civic Center had not been impacted.</p> <p>RE14 officer recalled that units were sent to do structural triage on 'Aipuni and other streets in the Hawaiian Homes area. Aa and 'Ainakea Roads had poles down, so large apparatus could not access.</p> <p>05:02 U3 advised that hydrants around the Civic Center and fire station were dry.</p> <p>05:02 Support Group assigned RE14 to travel from Leiali'i Parkway to their first right, and where it tees off at 'Aipuni Street RE14 was assigned to pull to the back of house addressed at 108</p> <p>05:05 RE14 responded to 'Aipuni Street. RE14 officer recalled seeing at least 3 engines along 'Aipuni Street putting out fires within and around 'Aipuni Street. RE14 operator recalled trying to access hydrants within the neighborhood but they were all dry. Canoe Beach was still being used as the main water supply and RE14 refilled there.</p>

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Date/Time	Relief Engine 14 <small>RE14 had minimal equipment - base radio only, 4 SCBAs and 3 Flashlights, No hose (had to use their own hose stored at FS10)</small>
04:00 – 06:00	<p>05:26 RE14 requested an assignment from Support Group. Support Group responded that everything in that area was being addressed and RE14 should return to the Civic Center.</p> <p>RE14 officer was instructed to drop off L3 officer (so he could join L3 to be with his regular oncoming crew) and pick up another firefighter from U5. After crew swap, RE14 returned to assist with extinguishing hot spots in the Hawaiian Homes neighborhood.</p> <p>05:57 RE14 was released from Hawaiian Homes and dispatched to assist E3A with a fire near Kai Hele Hu. RE14 reported they would need 10 minutes to refill. E3A reported that the water pressure was low and refill times were long in the Kai Hele Kū Street /Launiupoko area.</p>
06:00 – 08:00	<p>E3A instructed RE14 to come to Kai Hele Ku to the round-about and they would be guided in.</p> <p>06:25 Support reports that the Hawaiian Homes area looks good and they could send units to assist with the fire near Launiupoko.</p> <p>06:33 Command assigns RE14, E11, Mini11, Mini1, and T1 to be South Division (SD) under E3A.</p> <p>RE14 crew recalled there were 4 private tankers working in the area – 2 would work the fire while 2 left to refill. Private dozers (not coordinated with MFD) were cutting fire lines farther mauka.</p> <p>06:43 RE14 crew recalled working spot fires between the Bypass and Launiupoko where a brush fire was burning mauka. RE14 crew pulled a handline to hit fire progressing mauka through a rockpile.</p> <p>07:04 E3A/SD advised RE14 that they were in the location of the active flame front. RE14 advised the fire had reached up the road and they were knocking it down. RE14 advised they were stopping it at this location.</p> <p>07:32 Command (BC4) advised the area was looking good – private dozers (coordinated by MFD) were able to cut lines. Air1 advised that with the dozer and T3 addressing a spot, it was “looking really good over here.”</p> <p>At shift change [time not provided] they checked in at Station 3 then they were released to return to Station 10 to switch out with oncoming crew.</p>

Event Log Fire 2 and Fire 3

- **Fire 2 (F2): Deputy Chief Gavin Fujioka**
- **Fire 3 (F3): Assistant Chief of Operations Henry “Hanale” Lindo**

Fire Chief Ventura was in Colorado (in another time zone, four (4) hours ahead) on August 8, 2023, and F2 was the senior officer on duty. F2 received WhatsApp messages about the Olinda fire from chief officers. Chief Ventura called F2 at approximately 03:00 HST, which was around the time evacuations in the Olinda area started occurring. F2 responded to Fire Station 10 immediately after talking to Fire Chief Ventura. As the oncoming crew came on, F2 approved the backfilling of positions (including Lahaina).

F3 saw messages about the Olinda fire at approximately 04:00 and he reported to headquarters at approximately 06:00. F3 talked to the battalion chiefs on duty to see if they needed additional resources.

- Battalion Chief 6 (BC6) went to help with the Olinda fire voluntarily at approximately 04:00 on August 8, 2023 (they have authorization to do so for large incidents). BC6 assisted BC2, who was the IC. BC6 left the Olinda/Kula fire at approximately 06:00 on 8/9 and went to assist in Lahaina and also coordinated staffing (911 operations) for that evening and the next day.
- Battalion Chief 5 (BC5) worked August 7, 2023, and was held over on August 8, 2023, to cover the west side of the island. He assumed Command of the Lahaina AM Fire from E3 officer at 06:50. He returned Command to E3 at 09:27. BC5 assumed Command of the Lahaina PM Fire from E11 and retained Command until 21:46, when BC4 assumed Command.
- Battalion Chief 2 (BC2) was the IC of the Olinda fire (August 7, 2023–August 8, 2023).
- Battalion Chief 3 (BC3) arrived at headquarters at approximately 07:30 on callback. He was called in to assist with staffing (911 operations). BC3 passed staffing (911 operations) duties to BC4 after BC4 returned from the Olinda fire at approximately 16:02. BC3 responded with F2 and F3 to the Lahaina PM Fire.
- Battalion Chief 4 (BC4) came in to assist with the Olinda fire (initially) at approximately 07:30 on August 8, 2023. BC3 passed staffing duties (911 operations) to BC4 at 16:02 (BC4 returned to FS10 headquarters from the Olinda fire). BC4 passed staffing duties (911 ops) to BC2 at 21:46 when he assumed Command of the Lahaina PM Fire. BC4 retained Command until approximately 17:00 on August 9, 2023.
- Battalion Chief 1 (BC1) came in at approximately 07:30 on August 8, 2023 to relieve Olinda Command (BC2).

When F2, F3, and BC3 were monitoring the radio, they were initially focused on Olinda fire operations and the Kula fire, which started at 11:13. In the afternoon, when they heard the first structure had ignited in Lahaina, they talked to BC5,

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and decided to redirect resources dedicated to Kula back to Lahaina. There was concern about coverage needed for other parts of the island, but they knew Lahaina was going to need support. F3 recalled that E11 was en route to Kula but was redirected back to Lahaina, as they only had three (3) engine companies staffed on the west side of the island.

F2 recalled that at approximately 15:45, F2, F3, and BC3 traveled together in BC3's reserve BC vehicle to Lahaina. F3 recalled listening to BC5 on the radio as he managed the incident and started building out command.

15:51 F2 advised Command that Alpha was sending two (2) tankers, [inaudible] was sending zone (1) tanker, and F2 advised Command that he, F3, and BC3 were heading his way.

He did not recall all the radio traffic, but he knew there were structures involved.

16:05 Command from Fire 2: What is your location?

Command: I am coming up Lahainaluna to the bypass, you can't get down, it's not safe to drive down past Kelaweia (Street) from the top, it's complete blackout, I just coming up now to the Bypass from Lahainaluna.

Fire 2: We are entering the bypass now and will meet you. Have we confirmed the area below Lahainaluna Road from the Bypass has been evacuated.

Command: I can't confirm that.

Command to Dispatch: I see a bunch of residents trying to drive out. Do you know if police are active below that trying to get all the residents below Kelaweia (Street) out.

Central: They are actively trying to get everyone out. They have some at Hale Mahaolu and the adjacent areas.

F2 recalled arriving near the scene at approximately 16:15. F2, F3, and BC3 met with BC5 (IC) at Lahainaluna Road and the Bypass. They had a face-to-face discussion, and F3 transferred to BC5's vehicle. F3 recalled the front passenger door would not open so he sat in the back seat and started functioning in the role of deputy IC for BC5. F3 recalled calling private heavy equipment companies requesting deployment of resources to both Kula and Lahaina (approximately 15:50). F3 recalled being "in a wall of smoke" and he had no visual of where the fire apparatus was located. At this point they could see multiple structures fully involved down in the Lahainaluna neighborhood (Kelaweia area) and the wind was "howling." F3 recalled seeing multiple structures on fire along the makai side of the park and noted how fast the fire was moving. F3 asked BC5 if F3 should take command, and BC5 responded that he could manage.

At 16:11 Command requested power to be shut off due to multiple downed utility poles and wires down. Central immediately responded that power was shut off.

16:11 Command: We need to shut power down.

Central: MECO confirming power is shut off.

After some time monitoring the situation, F2 told BC3 he wanted a view from Keawe Street. F2 and BC3 relocated down to Keawe Street so they could get a view looking back up towards the fire. F2 recalled communications on the radio were busy, but they could follow the traffic, despite that some transmissions were muffled. F2 recalled the column of smoke was pitch black and covered the entire neighborhood traveling towards the ocean. F2 talked face-to-face with F3 about repositioning. At some point, F2 recalled dispatch reporting the train station was on fire, which housed a 30,000 gallon propane tank.

16:22 Central: I know there are no units, we are getting reports of the sugar cane train off of the Mohana on fire with propane tanks, they are trying to evacuate.*

(*Mohana—Unknown word in dispatch record. Most likely Limahana Place, where propane tanks and Sugar Cane Train are located.)

F2 had a radio exchange with Command about establishing a cut-off point for the rapidly progressing fire.

16:25 Command from Fire 2: Why don't you ... over on this side. We might have to write this whole subdivision and industrial area off. I cannot see us stopping anything.

Command: Where are you guys? You on the Bypass?

Fire 2: We are coming down Keawe to the right of the church (85 Ulupono Street).

Command: Yeah, you are talking about Kahoma Stream.

Fire 2: Yeah, copy that, the fire will be on Kahoma Stream shortly, and I am not sure or confident that stream will hold this fire.

Around that time, F2 took a left off Keawe Street onto Hwy-30. They saw apartment buildings near Kenui Street (possibly 10 Waine'e Street) completely engulfed by fire. F2 recalled it was at this point they realized the fire had spotted across Hwy-30. F3 and BC5 switched places so that F3 could drive and BC5 could track the incident. Normally BC5 would have an incident command board, but BC5 was in a reserve BC vehicle which was not equipped with a command board. F3 recalled a radio exchange between BC5 and Dispatch regarding evacuation of the Lahainaluna neighborhood (Kelaweia area).

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16:29 Dispatch from Command: We need to evacuate the whole Lahainaluna subdivision and also on the Lahaina side of Kahoma Stream, we are going to evacuate that whole area.

Command from Dispatch: They are working on it. They are currently at Lahaina Surf, Kahoma Village. They currently have one (1) fatality.

16:32 Command: All units, units, priority traffic, this is command. I want all units to evacuate the whole Lahainaluna subdivision. We are going to establish cutoff points on the Nāpili side of Kahoma Stream and south use the highway.

Command from South: We are going to anchor and shelter in place, we are going to find the best place to do that off Pauoa.

Next, F2 and BC3 went to survey the Emerald Plaza area. F2 recalled seeing E11 with Mini11 attacking a brush fire in an empty lot while people were evacuating down the riverbed. F2 ran out of the vehicle to help load civilians into an MPD vehicle. F2 recalled hearing radio traffic of E1 reporting they were stuck and would shelter-in-place and that Mini6 had to be abandoned.

F3 drove down Keawe Street, and he recalled the only units he could see were E3 and L3 making a stand on Kelawe Street (near Lu'i Street) and people were still running out of the neighborhood. F3 recalled they were trying to locate E1 and E6 but had been unable to do so. They heard other units in the Emerald Plaza area so they relocated there, but when they arrived, the visibility in the area was clear, and MFD units were working to extinguish a brush fire. They continued to drive down Keawe Street to Hwy-30, where they passed MPD. They could see fire impacting Kahoma Village and BC5 tried to reach E11 and other units to try to mitigate that area. F3 recalled that visibility would be very bad at times and then it would shift and be clear. F3 recalled that the fire had not impacted Komo Mai Street at this point. BC5 continued to retain command and was using a notepad for unit tracking but he could not locate E1 and E6. They were by Kahoma Stream when they heard the mayday come across the radio at 17:02 followed by the CPR in progress report.

17:11 E1 from Command: Shaw and the Highway, Shaw and the Highway, CPR in Progress

17:13 Dispatch from Command: Do you have the medics coming, you said they are on the Bypass?

Command from Fire 2: Medics just headed that way on the Bypass.

17:14 [Unit unknown]: Priority Traffic, Priority Traffic, We are at Honoapi'ilani and Shaw, we are rescue breathing.

Command: Medics should be there in a couple minutes.

F3 (with BC5) and F2 (with BC3) responded to Hwy-30 and Shaw Street. F2 had to travel Keawe Street to the Bypass, all the way down to Hōkiokio Place to the Hwy-30 in order to gain access to Shaw Street. F3 recalled Hwy-30 being heavily congested with traffic from Hōkiokio Place to Shaw Street and Hawaiian Electric crews working to clear downed utility poles.

At this point F2's focus shifted from the fire to the downed firefighter and the other firefighters that had been operating in the same area.

17:25 F2 asked Command if a personnel accountability report (PAR) had been received for RE1. Command responded that they had not heard from them in a while.

RE1 tried to respond multiple times but their transmissions were inaudible.

At 17:26 RE1 operator reported that all crew members were accounted for and they were in a dirt field off Dickenson in a safe position.

Prior to reaching Shaw Street, the relief BC vehicle occupied by F2 and BC3 broke down. At 17:28, F2 radioed BC5 and arranged for BC5 and F3 to pick up F2 and BC3 in BC5's vehicle. They would then transport them to the Cannery Mall Parking lot, where MFD personnel had left another BC vehicle (two (2) firefighters drove it to Safeway parking lot, where they added to E11 crew at 17:30). F2, F3 and BC3 designated this vehicle as F2 and drove to the hospital. BC5 remained with his vehicle and retained command.

F2 recalled there was no cell service, so he used the radio to instruct BC4, who was now handling 911 ops/staffing at FS10 headquarters, to inform the Fire Chief and the Fire Chief's secretary of the mayday so that family notifications could be made.

17:39 BC4 from Fire 2: Can you help me with some notifications? We don't have cell service down here. Can you call Chaz and Fire 1, let them know E6 A-Watch Captain is on his way to the hospital?

17:40 Fire 2 from BC4: Good copy, and I'll advise right now.

BC4 from Fire 2: We have to go switch out BC vehicles. Our BC vehicle won't shift, so we are going to switch it out and then go to the hospital.

The next day, F2 did a reconnaissance flight with Air 1 to survey the area of impact and help coordinate other incoming air assets.

06:02 Command from Fire 2: We are going to do a reconnaissance with Air 1 and then coordinate with them, air ops from the other helicopters that are going to be coming to Maui.

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Command from Fire 2: We heard you are setting up a pumpkin so you have a little time until we recon.

Fire 2 from BC3: Bringing back the E6 personnel from yesterday, they don't have PPE. We did some recon and found E6 and E1, E1 is a total loss, E6 survived and some cosmetic damage, possible salvage.

BC3 from Fire2: Copy that. As soon as we get the road clear and we can move vehicles out of there, we will get mechanics there.

Fire2 from BC3: There is some equipment on E6, there is plenty of gear to salvage.

Aviation Resources

Aviation resources are critical to addressing the all-hazard environment of Maui County. Aircraft are needed to respond to vegetation fires, aerial rescues from mountainous areas, and personnel and equipment transport when roads are impassable. MFD contracts with Windward Aviation⁹⁵ for their helicopter operations. Windward provides the helicopters, pilots, and maintenance personnel. Since July 2022, the helicopter designation Air 1 has been a twin-engine Airbus/Eurocopter, BK 117-850G2, capable of delivering 300 gallons of water from a Bambi bucket, performing hoist operations, transporting personnel and equipment, and completing reconnaissance missions. A Hughes MD-500 capable of delivering 120 gallons of water is operational when the BK 117 is out of service for maintenance. The contract also allows for multiple aircraft to be operational when demand exists and if Windward Aviation has helicopters available. Requests for aircraft are made by the IC through a battalion chief.

Aircraft from the Hawai'i National Guard (HING) are also available for response to Maui and other Hawaiian counties. At the time of the Maui wildfires on August 8, 2023, and just prior, Army National Guard helicopter availability for emergency response was limited to a CH-47 Chinook (2,000 gallons using a Bambi bucket) and UH-60 (or HH-60) Black Hawk (500 gallons using a Bambi bucket) out of O'ahu. The reduced number of aircraft was due to many Black Hawks being located in Louisiana with the 29th Infantry Brigade Assigned to Fort Johnson for specialized training. The two (2) aircraft with crews were placed on standby on August 7, 2023, to ensure their ability to be "wheels up" in 30 minutes to two (2) hours.

Pōhakuloa Army Training Center on the Big Island also had a CH-47 Chinook and a UH-60 Black Hawk available for firefighting missions. As per Major General Hara, HI-EMA Director, these aircraft were available for Hawai'i County response on August 8, 2023, due to their proximity to the wildfires occurring on that island.

⁹⁵ <https://www.windwardaviation.com/about>

The following timeline includes communications (Table 4.3.2.19) with aviation assets assigned to the Lahaina AM and PM fires and communications referencing helicopter usage on the fire. Note: this record may not include all air-to-ground communications and other communications referencing the grounding of aircraft due to weather/ wind conditions.

Table 4.3.2.19 MFD Timeline of MFD aviation communications on August 8, 2023, and August 9, 2023.

Timeline of Aviation Communications August 8, 2023 - August 9, 2023		
DATE/TIME	AIR 1	AIR 2
August 8, 2023 06:00–08:00	07:24 Air 1 reported they were lifting off from the airport to assist Air 2 with the Lahaina fire.	06:48 Air 2 reported they were responding to the west side for the Lahaina fire.
	07:41 Air 1 reported that MFD resources and Air 2 would be able to have the Lahaina fire under control. Air 1 also noted that "this [was] sub conditions for flying." Air 1 returned to the airport.	07:05 Command (BC5) advised Air 2 there were strong winds and power lines surrounding the area they were operating in. Command (BC5) also advised they would not be able to provide a water source.
		07:12 Air 2 advised Command (BC5) that the winds were very strong, and they had a visual of the power lines. Air 2 advised there was a road above the Bypass, which may have been able to be utilized for fire attack (this was the dirt utility access road south of Ho'okahua Place). Air 2 advised he was going to try to land, but he would not be able to shut down due to the wind. Command (BC5) dispatched Tanker 3 (T3) to the road identified by Air 2.
		07:18 Air 2 confirmed T3 was in a good spot along that road, and if the fire progressed, T3 should have been able to make a good stand. Air 2 advised the bucket would be ineffective given the wind conditions so Air 2 could only provide observation support at this point.
		07:21 Air 2 advised they were looking for an area to land so they would not be in dry brush.
	07:41 Air 2 reported the fire appeared to be under control (Command (BC5) agrees). Air 2 expressed concern about the increasing wind and was going to discontinue air support. Command asked if Air 2 was able to locate a reservoir, and Air 2 confirmed the Kaua'ula reservoir was available but was a long haul. Air 2 left to return to base.	

continued

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Timeline of Aviation Communications August 8, 2023 - August 9, 2023

DATE/TIME	AIR 1	AIR 2
August 8, 2023 08:00–10:00		08:04 Air 2 arrived at the hangar.
10:00–12:00	10:44 Air 1 left the airport in an attempt to get a visual of the Kula fire and assess wind conditions. 11:26 Air 1 reported they finished recon of Olinda fire and had returned to base. Air 1 reported they would not be able to fly due to the high winds.	
12:00–14:00		
14:00–16:00		15:31 Air 2 contacted Command (BC5) and requested a condition update. Command (BC5) advised the winds were the same, if not worse. Air 2 reported they would try to respond. 15:51 Command (BC5) asked if Air 2 had launched. Air 2 reported that they wanted to help but conditions were too unsafe to launch.
16:00–18:00		
18:00–20:00		
20:00–22:00		
22:00–00:00		
August 9, 2023 00:00–02:00		
02:00–04:00		
04:00–06:00	05:49 Battalion Chief 5 (BC5) reported he spoke with Don Sherer of Windward Aviation and was informed that helicopters would be able to fly today.	
06:00–08:00	06:02 Fire 2 (F2) advised Command he would be doing a recon with the air support to coordinate efforts, so Command (BC4) would have time to set up a pumpkin.	

continued

Timeline of Aviation Communications August 8, 2023 - August 9, 2023

DATE/TIME	AIR 1	AIR 2
August 8, 2023 06:00–08:00	06:55 Air 1 advised they were just above the station and were looking for an assignment. Command advised that South Division (SD) is the most critical area at this point (where fire is near Kai Hele Kū Street and the Launiupoko community). Air 1 confirmed and reported they would head south. 06:59 Air 1 requested assignment from SD. SD advised they did not have a pumpkin available because they had no water pressure. SD advised east (mauka) of the Lahaina Bypass should be the priority area. 07:03 Engine 11 (E11) reported there was a pool located at 1 █ Haniu Street that Air 1 could possibly draw from. 07:32 Command (BC4) stated that the area was looking good, and the dozers had been able to cut lines. SD responded they should be able to release Air 1 in approximately 15–20 minutes. 07:36 E11 reported that there were flames burning back toward the Bypass on the north. SD reported they would have Air 1 make water drops. 07:41 Air 1 reported they saw a dozer line east (mauka) of it, but they would take care of it. 07:55 Air 1 reported to Command (BC4) that there were four (4) aircraft covering the south area now, so Air 1 was considering locating to the other side. Command (BC4) advised Air 1 to respond where they would be most effective. Command (BC4) advised there was a pumpkin set up on the north side. No further transmissions.	

TIMELINE OF EVENTS

4.3.3 Maui Police Department (MPD) Response

Staffing

The wind conditions caused increased calls for service for MPD. There were reports of power outages around Lahaina, causing traffic signals to no longer work. There were also reports of large wind-borne debris, causing traffic hazards and damage to personal property. There were multiple reports of large tree limbs and metal roofing flying into the roadways, creating additional traffic hazards.

MPD had staffing levels that were consistent with normal day-to-day operations. No additional personnel were added to the patrol shifts on August 7, 2023. In the morning of August 8, 2023, high winds created the need to hold Bravo shift over to assist with increased calls for service. The Bravo (graveyard) shift Sergeant made the decision to hold over Bravo shift to assist with clearing calls for service. Bravo shift consists of six (6) officers. Alpha (daytime) shift came in for their normally assigned shift at 06:00. Alpha and Bravo shifts were normally scheduled to work 12-hour periods. Holding Bravo shift over increased the staffing level in Lahaina Town to a total of 13 officers.

Communication

Communications infrastructure is a vital component to managing a dynamic, complex operation that develops in natural or human-caused disaster incidents. High winds crippled the communications infrastructure, destroying cellular phone communication within the Lahaina region in the late morning of August 8, 2023.

Not having cellular communication significantly impacted first responders, residents, and tourists as they navigated the impacts of the incident. With no cellular communication, residents and tourists were not able to receive emergency alerts, communicate with loved ones, and/or to receive incoming or outgoing calls/texts. Cellular telephone technology has advanced over the years with cellular communication; most households no longer utilize traditional landline telephones. Studies have shown people more often transitioned to cellular communication as their primary telephone number and no longer use landline telephones⁹⁶. Knowing both the number of residents in the Lahaina region who utilized landline telephone systems and whether those landlines were usable throughout the power outages is difficult, and it is unknown if landlines were operable when Lahaina suffered power outages.

The MPD no longer had cellular communication capabilities and had to rely solely on their portable and car radio systems while working in the Lahaina area. MPD personnel did state they did not have any cellular communication and were unable to let their family and friends know they were safe. MPD worked the entire fire incident without the ability to communicate with their family or friends to see if they were safe from the fire. In one (1) incident, an officer indicated that his daughter was babysitting at a residence in the Kelaweā neighborhood; without cellular communication, he was unable to determine if his daughter had escaped safely. The officer stated he was able to finally learn his daughter was safe two (2) days after the fire.

⁹⁶ Wireless Substitution: National Health Interview Survey Early Release Program

Dispatch

On August 7, 2023, Central was operating under “normal” staffing conditions until the early hours of August 8, 2023. At approximately 04:00 on August 8, 2023, an additional supervisor was contacted and requested to report to work on the island of Maui due to increased call volume. The supervisor reported to work at approximately 05:00. Upon arrival, the supervisor was informed that there was an active, large wildfire upcountry in the Olinda area. The Olinda wildfire, and associated wind-related events (e.g., wires/poles down, structural damage), were the primary focus throughout the morning. At approximately 10:00, an additional supervisor was called in to support staffing, and she was assigned to a dispatch terminal.

When a dispatcher answers an incoming call, they are responsible for the entirety of that call (i.e., dispatch of units and monitoring tactical radio operations until the resolution of an incident). The primary radio channel for fire operations is FD1. Multiple incidents may use FD1 as the primary communication channel between Central and field personnel. During shift change at 06:30 on the morning of August 8, 2023, one (1) tenured dispatcher noted that both FD1 and FD2 channels were in use, which was unusual.

Throughout the day on August 8, 2023, dispatchers were required to monitor multiple radio channels for the four (4) fires, in addition to weather-related events, and normal “day-to-day” calls. As the events continued to unfold, channels were assigned as follows:

- FD1—Primary Dispatch Channel
- FD2—Lahaina fire
- FD3—Upcountry fires (Olinda and Kula, which were merged on August 8, 2023, due to geographic co-location)
- FD4—Pūlehu fire
- FD5—Molokaʻi and Lānaʻi (Molokaʻi was receiving increasing calls from the island of Maui during the late afternoon and evening hours of August 8, 2023)
- FD6—Communication between field Battalion Chiefs (as needed)

Police channels were also in use and being monitored by dispatchers. Police channels operate separately from fire channels, and there is no interoperability for field personnel (police cannot hear fire/medic traffic, and fire/medics cannot hear police channels). During active incidents, the dispatchers must monitor radio traffic and track the location of field assets using computer-aided dispatch (CAD) and mapping software. Incidents are flagged on an incident map and prioritized by color (e.g., red is a high-priority call, orange is lower priority). Public safety vehicles equipped with automatic vehicle locating (AVL) or CAD global positioning system (GPS) systems can be seen on the map. While most police patrol vehicles had this capability, the majority of fire apparatuses did not, which presented challenges for maintaining accountability of assets. Due to staffing needs, previous Maui dispatchers, who were working for other County agencies, were requested to respond to assist at Central. A dispatcher on family leave offered to report to duty, and they were also brought in to assist. A new dispatcher (who had completed their training one (1) month prior), requested to be moved to a call-taking only station due to the overwhelming amount of radio traffic and the difficulty tracking first responder assets on scene. All five (5) call-taking/dispatch terminals were filled.

TIMELINE OF EVENTS

Throughout the day, dispatchers were assigned multiple radio channels to monitor. One (1) dispatcher, who had also worked the 2018 Lahaina fire, started her shift on August 8, 2023, with responsibility for three (3) radio channels (FD1, FD2, and Medic Comm), but during the height of activity, she was responsible for six (6) radio channels (FD1, FD2, FD3, FD4, FD 6, and Medic Comm). The dispatchers also supported field assets by tracking road closures (e.g., due to downed power lines, poles, or other debris); making calls for outside resources, including contacting Hawaiian Electric and private companies for heavy equipment assistance (e.g., bulldozers, tankers, etc.); and answering non-fire related calls.

Sometime after 14:30, the lone dispatcher on the island of Moloka'i started to field an increasing number of emergency calls originating from the island of Maui. Citizens were calling asking for evacuation directions out of Lahaina to flee the worsening fire conditions. Many of the calls came into Moloka'i with no geographical coordinates. The Moloka'i dispatch terminal has the capability to see the same incident map as Central, and the dispatcher was able to see the volume and nature of calls occurring in Lahaina. They were monitoring channel FD5 and did not have further information about the events happening in Lahaina. To protect life safety, the dispatcher advised callers to seek shelter in the ocean. As calls "stacked" (i.e., placed on hold until a call-taker was available to answer), there was no time for the dispatchers to coordinate between the Moloka'i and Central dispatch locations.

Despite upstaffing Central and receiving support from Moloka'i, the "stacking of calls" meant that Central had to triage dispatch of units to the highest-priority events.

Brief Chronology of Significant Dispatch Events

Table 4.3.3.1 highlights a sample of the critical Lahaina fire event calls received by Central (limited to MFD resources). This is not a comprehensive list of calls received. It should be noted that Central was also receiving fire-related calls from the Olinda/Kula and Pūlehu areas, non-fire related emergency calls (e.g., medical emergencies, suicide, domestic violence, motor vehicle accidents, structural damage, wires/poles down, etc.), non-emergency calls (e.g., questions about power status, road closures, requests for unification with family members), and police administrative calls. All entries in the table refer to August 8, 2023. For the comprehensive list of these events, visit <https://ag.hawaii.gov/maui-wildfire-investigation-resources-page/> or <https://doi.org/10.54206/102376/VQKQ5427>.

Table 4.3.3.1 Chronology of significant dispatch events on August 8, 2023, and August 9, 2023.

Chronology of Significant Dispatch Events August 8, 2023 - August 9, 2023	
TIME	EVENT
06:36	Central dispatched units to Ku'ialua Street near the Lahaina Intermediate School for a brush fire.
08:42	Central relayed to Battalion Chief 5 (BC5) that MECO* had a troubleshooter a few minutes away.
14:17	Engine 3 (E3) reported to Central that MECO* was working on power lines along Niheu Street and the Ku'ialua Street and Ho'okahua Place/Street fire was extinguished.
14:56	Central dispatched MFD units for multiple calls reporting fire near Ku'ialua Street with flames seen.
15:06	Central received reports that evacuations were ordered for the area of Lahainaluna.
15:32	Central reported multiple calls for another fire at Kai Hele Kū Street and Hwy-30.
16:29	BC5 reported to Central that the entire neighborhood of Lahainaluna to Kahoma Stream must be evacuated. Central advised they were working on it and they currently had a report of one (1) fatality.
17:02	Central received an emergency alert activation from a firefighter's radio, known as a "1015" alert, signaling a firefighter mayday (i.e., immediate life threat). Once activated, the 1015 alert flashed across all dispatch terminals. It was this time that E1 and E6 crews were being overcome by fire and one (1) crew member had collapsed. Central was not able to contact the crew member initiating the 1015 or determine his location. Field personnel provided an update at 17:11 indicating CPR was in progress.
17:40	Central reported Front Street Apartments were fully engulfed.
17:48	Central reported Lahaina Pool and Aquatic Center were also catching fire.
18:38	Central reported parties trapped in a van at Territorial Savings.
18:43	Central reported there were parties trapped at The Coffee Bean.

*Now known as Hawaiian Electric.

continued

TIMELINE OF EVENTS

Table 4.3.3.1 Chronology of significant dispatch events on August 8, 2023, and August 9, 2023.

Chronology of Significant Dispatch Events August 8, 2023 - August 9, 2023	
TIME	EVENT
19:25	Central reported people trapped in Aina Nalu apartments, surrounded by fire.
20:01	Central advised medics were reporting fire near Keawe Street and the Bypass moving quickly toward structures.
21:34	Central reported flames seen behind 1█ Fleming Road.
22:05	Lahaina Civic Center was being abandoned as a shelter, and all parties needed to transfer to Maui Prep.
22:36	Central advises Command that two (2) buses were headed to help with transfer of parties to Maui Prep. Central also advised flames were moving fast toward the intersection from 'Ainakea Road to Malanei.
23:44	Central advised high power lines had fallen on houses on Lau Niu Way with two (2) residents trapped.
00:53	Central advised MPD reporting embers flying near Leiali'i Parkway.
01:21	Coast Guard Honolulu contacted Central to report 50 parties in need of rescue on Front Street by Waikiki Brewing Company.

Traffic Routes in Lahaina

Hwy-30 is the primary route to the Lahaina area from the Kahului airport. Hwy-340 is a secondary route but is significantly longer. Hwy-30 is the primary north/south route through Lahaina and the main route for tourists and residents to the Kā'anapali area and north. Construction began on the Lahaina Bypass in 2010, and the 2.5-mile section in the center from Keawe to Hōkiokio Place was completed in 2013. The next section of the Lahaina Bypass, 2.7 miles south from Hōkiokio Place to a point between Launiupoko and Olowalu, was completed in 2018. The Bypass provides an alternative route around downtown Lahaina.

Front Street provides access from the north at Fleming Road and Hwy-30 to the far southern end of Lahaina where it connects with the Bypass. Travel from Front Street east has the following streets that provide access to Hwy-30 from north to south:

- Fleming Road
- Kapunakea Street
- Kenui Street

- Papalaua Street
- Lahainaluna Road
- Dickenson Street
- Prison Street
- Shaw Street
- 'Aholo Road

Traffic conditions in this area on a normal day can be very challenging and slow moving from Lahaina residents and numerous tourists. Disruption of traffic signals and vehicular accidents further complicate traffic flows in this densely populated area.

From the Kelaweā neighborhood, Lahainaluna Road and Komo Mai Street are the only two (2) ingress and egress routes. Streets in the neighborhood are known to be very congested due to the narrow roadway, population density, and many vehicles parked on the street. This caused significant challenges for vehicle movement into and out of the area, exacerbating the crisis.

Natural bodies of water also affected evacuations. For instance, the Kahoma Stream runs east to west and ends at the ocean, creating a barrier for traffic flows north and south. There are only four (4) routes over the stream:

- Lahaina Bypass
- Komo Mai Street
- Hwy-30
- Front Street

TIMELINE OF EVENTS

The following table (Table 4.3.3.2) represents a summary of traffic control points and evacuation challenges in west Maui.

Table 4.3.3.2 Traffic Control Challenges as Reported by MPD

Traffic Control Challenges As reported by MPDe							
Point	Date	Time	Location	Hazard	Traffic conditions	Impact	Evacuation Notes
1	August 8, 2023	05:40	Keawe Street at the northbound lanes of Hwy-30	Downed utility poles and power lines.	Impeded northbound traffic on Hwy-30.	Major intersection for northbound and southbound travel in Lahaina. Limited access to the Bypass.	Caused major traffic congestion. Limited evacuation from south to north.
2	August 8, 2023	05:40	Hwy-30 and Nāpilihau Street	Traffic signals out.	Congestion for northbound and southbound traffic on Hwy-30 in the Kā'anapali area.	Major intersection for traffic flow in the Kā'anapali area.	Caused traffic congestion. Limited and slowed evacuations traveling north out of Lahaina.
3	August 8, 2023	06:37	Lahainaluna Road and Kelawe Street	Police traffic control location. Initial fire at Lahainaluna Road and Ku'ialua Street area.	Stopped eastbound traffic from entering the fire area.	Allowed two (2) westbound lanes for evacuations.	Opened after fire control.
4	August 8, 2023	07:18	Lahainaluna Road and Hwy-30	Traffic signals out.	Congestion for northbound and southbound traffic on Hwy-30.	Major intersection for north, south, east and west travel in Lahaina.	Caused major traffic congestion. Limited evacuation from the middle of Lahaina.
5	August 8, 2023	07:18	Hwy-30, in the Olowalu area	Tree in the northbound lanes.	Congestion for travel in and out of Lahaina.	Primary road for entering and exiting Lahaina area.	Unknown.
6	August 8, 2023	Unavailable	Hwy-30, Front Street and Fleming Road	Traffic signal out.	Congestion for northbound and southbound traffic on Hwy-30.	Major three (3)-way intersection. Slowed travel and hindered traffic exiting via Front Street.	Caused major traffic congestion. Limited evacuations on Front Street from the middle of Lahaina.
7	August 8, 2023	Unavailable	Hwy-30 from Keawe Street to Leialii Parkway	Traffic signals out. Power lines and utility poles down.	Congestion for northbound and southbound traffic on Hwy-30.	Primary road for northbound and southbound travel on the north side of Lahaina.	Caused major traffic congestion. Limited evacuations on Front Street from the middle of Lahaina.
8	August 8, 2023	08:04	Hwy-30 and Hōkiokio Place	Power lines down.	Congestion for northbound and southbound traffic on Hwy-30.	Primary road for northbound and southbound travel on the south side of Lahaina.	Caused major traffic congestion. Limited evacuations to the south of Lahaina.

continued

Traffic Control Challenges As reported by MPDe

Point	Date	Time	Location	Hazard	Traffic conditions	Impact	Evacuation Notes
9	August 8, 2023	11:41	Kauhi Place and Kelawe Street	Power lines blocking roadway.	Congestion in neighborhood.	Created significant challenges to ingress and egress from the area.	Caused major traffic congestion. Limited evacuations from the Kelawe neighborhood.
10	August 8, 2023	13:25	Hwy-30 between Papalaua Street and Lahainaluna Road	Power lines down.	Complete closure for northbound and southbound traffic on Hwy-30.	Complete closure for northbound and southbound traffic on Hwy-30.	Road closed. Caused major traffic congestion. Limited evacuation routes.
11	August 8, 2023	Unavailable	Lahainaluna Road from Front Street to Waine'e Street	Metal roofing material blocking the road.	Complete closure of Lahainaluna Road.	Primary exit off Front Street to the east to Hwy-30.	Road closed. Caused major traffic congestion. Limited evacuation routes.
12	August 8, 2023	14:40	1200 block of Hwy-30. Hwy-30 and Kenui Street	Abandoned vehicles.	Congestion for northbound and southbound traffic on Hwy-30.	Primary road for the Lahaina area.	Caused major traffic congestion. Limited evacuations from the neighborhood.
3a	August 8, 2023	14:55	Ku'ialua Street and Lahainaluna Road	Lahaina PM Fire.	Congested with responding Fire and Police units.	Primary evacuation route for the neighborhood east of the bypass.	Unknown.
13	August 8, 2023	Unavailable	Lahainaluna road westbound traffic from the Bypass to Hwy-30	Traffic signal out at Hwy-30 and Lahainaluna road.	Westbound traffic at a standstill.	Primary exit route for the Kelawe neighborhood.	Caused major traffic congestion. Limited evacuations from the Kelawe neighborhood.
14	August 8, 2023	15:26	Bypass between Keawe Street and Lahainaluna Road	Officers close the Bypass due to fire conditions.	Fire jumping the Bypass at Lahainaluna road.	Closed primary exit from Lahaina. Keawe Street and Hwy-30.	Public safety closure due to fire conditions. Reopened to allow traffic southbound on the Bypass after the fire passed.
15	August 8, 2023	Unavailable	Komo Mai Street and Keawe Street (Bypass)	Congestion from evacuating vehicles.	Congestion due to hazards at Hwy-30 and Keawe Street, and closure of Bypass due to fire conditions.	Traffic backing into the Kelawe neighborhood.	Caused major traffic congestion. Limited evacuations from the Kelawe neighborhood.
16	August 8, 2023	Unavailable	Komo Mai Street and Keawe Street at Oil Road	Gate opened to allow traffic onto Oil Road.	Not applicable.	Congestion relieved from Komo Mai Street and the Kelawe neighborhood.	Secondary exit route established.
6a	August 8, 2023	16:08	Hwy-30, Front Street, and Fleming Road	Traffic congestion from evacuating vehicles from the south. Gridlock.	Heavy traffic from the south. Traffic from the north (Kā'anapali area) attempting to travel south.	Severe traffic congestion.	Caused major traffic congestion. Limited evacuation route to the north.

continued

TIMELINE OF EVENTS

Traffic Control Challenges As reported by MPDe

Point	Date	Time	Location	Hazard	Traffic conditions	Impact	Evacuation Notes
17	August 8, 2023	16:36	Waine'e Street and Dickenson Street	Heavy fire conditions.	Eliminated ingress and egress from the neighborhood.	Primary exit off Front Street to the east to Hwy-30.	Eliminated evacuation exit route.
18	August 8, 2023	16:38	Kai Hele Kū Street used to access the Bypass	Exit route for south Lahaina area.	Traffic conditions allowed motorists to gain access to the Bypass.	Officers directed traffic south out of Lahaina.	Provided a secondary exit route to the south.
19	August 8, 2023	16:45	Eastern Kelawea neighborhood area	Gate opened to allow traffic out of the community.	Allowed motorists to egress the neighborhood.	Congestion relieved from the Kelawea neighborhood.	Provided a secondary exit route from the neighborhood.
6b	August 8, 2023	16:47	Hwy-30, Front Street, and Fleming Road	Traffic congestion from evacuating vehicles from the south.	Southbound traffic lanes opened for northbound travel.	Congestion relieved on northbound Front Street and Hwy-30.	Provided an additional lane to assist with exiting vehicles.
20	August 8, 2023	19:04	Shaw Street	Heavy fire conditions.	Eliminated ingress and egress from the area.	Primary exit off Front Street to the east to Hwy-30.	Eliminated evacuation exit route.
21	August 9, 2023	01:15	Wahikuli neighborhood	Heavy fire conditions.	Congested due to limited access and traffic on Hwy-30.	Eliminated ingress and egress from the area.	Slow evacuation due to traffic congestion.

Overnight wind conditions continued to increase, causing traffic hazards and delays. At approximately 05:40, officers reported downed poles and power lines in the northbound lanes of Hwy-30 and Keawe Street (Figure 4.3.3.1, #1). This caused extreme traffic congestion, as residents and tourists of Lahaina usually utilized Keawe Street and Hwy-30 to move to the north and south sides of Maui. Officers had to direct traffic at the intersection so they could assist motorists onto and off Keawe Street. Officers on traffic duty experienced high winds, airborne debris, loose dirt, and windborne objects. Officers also stated traffic signals were no longer operational due to the downed power lines in the northbound lanes of Hwy-30.

Around this same time, officers reported traffic signals were no longer functioning at Hwy-30 and Nāpilihau (Kā'anapali area) (Figure 4.3.3.1, #2). This created significant traffic congestion in both the northbound and southbound lanes of Hwy-30 in Kā'anapali. Officers attempted to alleviate the traffic congestion and responded to direct traffic at the impacted areas above. Officers remained in the area to help with traffic congestion until approximately 06:48, when additional resources were needed to assist with evacuations due to the fire above the Bypass.

Officers reported visible smoke at approximately 06:37 near the Ku'ialua Street and Lahainaluna Road area. As fire personnel began to fight the fire, officers evacuated the Ho'okahua Street and Ku'ialua Street areas. Officers continued to experience high winds, smoke-borne debris, loose dirt, and visible flames.

Officers evacuated the neighborhood north of Lahainaluna Road in the Ku'ialua Street area. The high winds caused the smoke and debris to blow west toward the Bypass. The only egress route out of this community was Lahainaluna Road, the only route to the Lahaina Bypass.

Officers made the decision to shut down traffic at Lahainaluna Road and Kelawea Street (Figure 4.3.3.1, #3). This decision prevented any traffic from moving eastbound toward the impacted fire area, allowing officers in the Ku'ialua Street area to evacuate residents out of the area without having to contend with any incoming traffic. Officers were creative while evacuating the residents, as they utilized both lanes of Lahainaluna Road to evacuate the residents toward the Bypass. These efforts now turned Lahainaluna Road into a two (2)-lane road west to the Bypass, which increased the number of evacuations from the area. Lahainaluna Road was reopened following fire control.

At approximately 07:18, officers provided an update that the traffic signals were no longer functioning at Lahainaluna Road and Hwy-30 (Figure 4.3.3.1, #4).

The Communications Center advised officers that a tree had fallen in the northbound lane of Hwy-30 (Lahaina bound lane of traffic) in the Olowalu area south of Lahaina (Figure 4.3.3.1, #5). This caused traffic congestion for residents and tourists traveling to and from Lahaina.

These initial traffic issues caused significant congestion along Hwy-30 on the morning of August 8, 2023. Each location required law enforcement officers to direct traffic and attempt to eliminate additional congestion. With the power outage and trees, power lines, and utility poles blocking the roadway, these were all long-term challenges with diminishing options.

Officers indicated that the traffic signals were no longer functioning at Hwy-30 where Front Street and Fleming Road converge on the north side of the shopping district in Lahaina Town (Figure 4.3.3.1, #6).

This additional traffic issue on Hwy-30 caused significant gridlock.

At approximately 07:23, residents of Aki Street in Lahaina (between Lahainaluna Road and Komo Mai Street areas) reported that a large piece of aluminum corrugated roof had blown off the residence at 4███ Aki Street striking multiple vehicles parked on the road and was "wrapped up in electric and utility lines."

Due to increased high winds, officers indicated utility poles and power lines were down at Front Street and Hwy-30 (Figure 4.3.3.1, #6). Officers reported all traffic lights were out on Hwy-30 from the Keawe Street to Leiali'i Parkway by the Lahaina Police Station (Figure 4.3.3.1, #7).

At approximately 07:38, officers reported that they were completely overwhelmed with both traffic and pedestrian numbers. Alpha Team Sergeant reported there were high voltage lines on the roadway preventing any flow of traffic along Hwy-30. Officers reported they needed to create a traffic post at Front Street/Fleming Road and Hwy-30 to alleviate heavy traffic congestion in all directions (Figure 4.3.3.1, #6).

TIMELINE OF EVENTS

Demonstrating the previously described community cooperation between the authorities and the public, the Alpha Team Sergeant reported a resident at 4 █ Kauhi Place advised that the whole front portion of their residence blew off into the roadway exposing multiple wires and creating hazardous conditions.

At approximately 08:04, officers reported all roadways were shut down at Hwy-30 and Hōkiokio Place due to downed power lines (Figure 4.3.3.1, #8). This significantly impacted both ingress and egress south of Lahaina Town. Officers stated that getting needed resources into Lahaina Town and evacuating both motorists and pedestrians was difficult due to downed utility poles blocking the highway near Hōkiokio Place.

This was the fifth major intersection in the Lahaina area with traffic issues and significant congestion. Each location required law enforcement officers to direct traffic and attempt to eliminate additional congestion. There were now very limited options for traffic flow and diversions

At approximately 11:41, officers reported downed power lines blocking the roadway at Kauhi Place and Kelaweia Street (Figure 4.3.3.2, #9). This created significant challenges to ingress and egress out of the area as Kelaweia Street was a main access point to Lahainaluna Road for residents in the Kelaweia neighborhood.

At approximately 13:25, Alpha Team Sergeant reported multiple downed power lines on the roadway at Hwy-30 between Papalaua Street and Lahainaluna Road (Figure 4.3.3.2, #10). This road closure cut off ingress and egress out of Lahaina Town. This road closure eliminated an eastbound exit route from Lahaina Town to Hwy-30, presenting a major closure of Hwy-30. This closure reduced the number of eastbound exit routes from eight (8) to seven (7) between Front Street and Hwy-30. Officers were forced to divert traffic to Front Street to exit Lahaina Town due to the roadway closure at the Bypass and Hwy-30.

At approximately 14:21, MPD Captain reported he was having the neighborhood evacuated at the Mill Street area between Lahainaluna Road and Dickenson Street due to downed power lines. This area contained a mix of residential and commercial properties.

Officers reported metal roofs had blown off properties in the Lahainaluna Road area, which blocked Lahainaluna Road traffic from Front Street to Waine'e Street (Figure 4.3.3.2, #11).

At approximately 14:40, the Communications Center received reports that motorists had stopped and abandoned their vehicles in the roadway at the 1200 block of Hwy-30 (Figure 4.3.3.2, #12). The 1200 block of Hwy-30 is just north of Kenui Street. This created additional traffic hazards, as motorists attempted to navigate the area. At this time, downed utility poles, blocked power lines, abandoned vehicles, and non-functioning traffic signals snarled Hwy-30 traffic in eight key locations.

Officers dealt with road closures, non-functional traffic lights, and heavy traffic congestion in the Lahaina area throughout the morning and into the afternoon. Officers dealt with uncooperative motorists and pedestrians as they worked to ease the traffic.

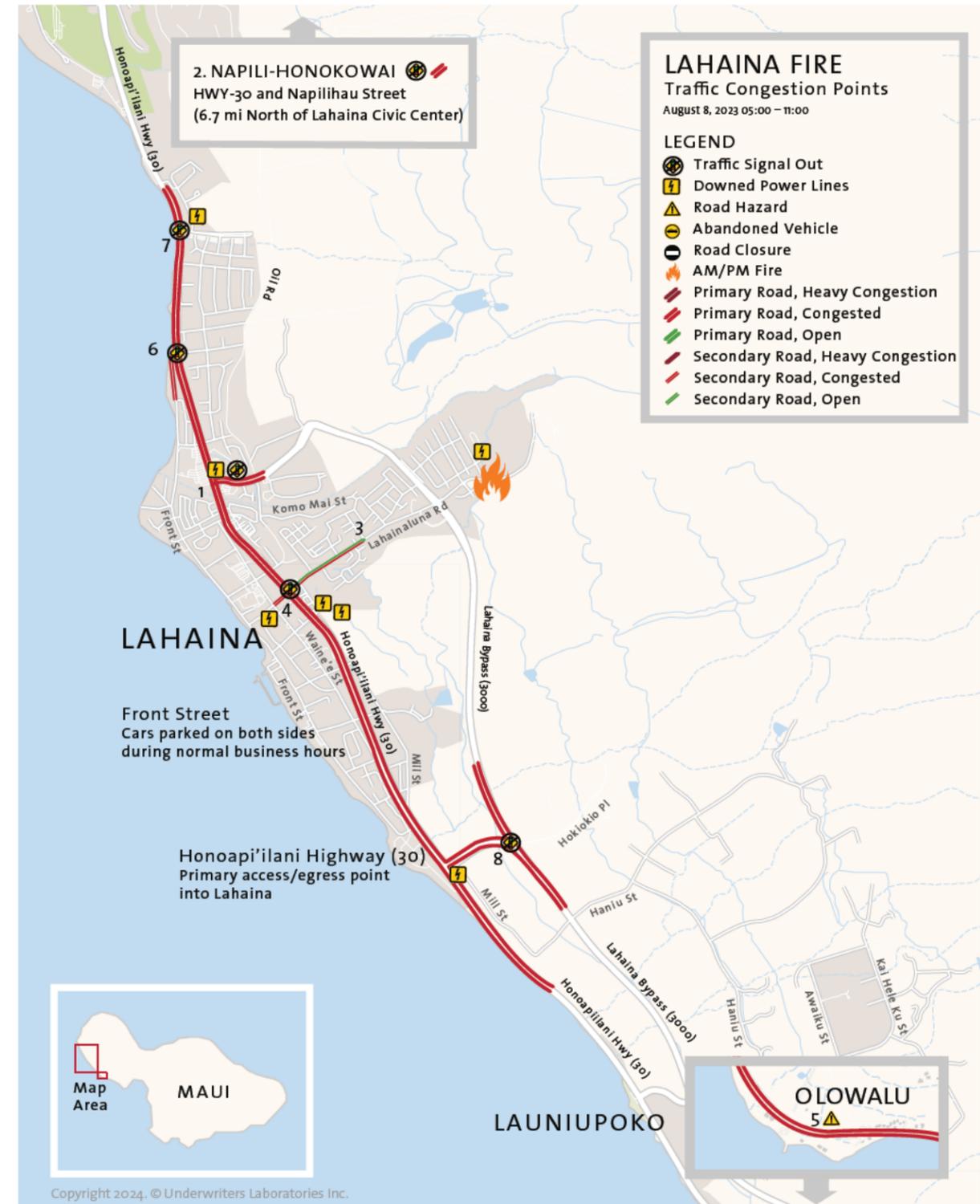


Figure 4.3.3.1 Traffic congestion points (August 8, 2023, 05:00–11:00).

TIMELINE OF EVENTS

At approximately 14:55, officers responded to Ku'ialua Street off Lahainaluna Road for a reported flare-up from the initial brush fire from the morning (Figure 4.3.3.2, #3a). Keawe Street to the Bypass was the only exit to the south of Lahaina, which was not blocked or impeded at this time. Officers voiced via the radio to stop all southbound traffic heading toward Lahaina on Hwy-30.

At approximately 15:06, officers responded to 7 Ho'okahua Street for a shed that was reported on fire. Officers were concerned about the fire being close to the propane tanks, so they used garden hoses to try to extinguish the fire.

A review of the CAD data indicated MPD staffing levels in Lahaina to be 19 officers at the time of the Lahaina PM fire, up from an initial 13 officers present during the first fire, which was already an increased number of on-duty officers. Additional officers responded from different locations in Maui. Two (2) officers who were on duty in Kihei responded to Lahaina to assist with the traffic posts and evacuations. Two (2) officers who had just completed a homicide training class in Wailuku responded to assist with the evacuations. One (1) officer who was off-duty responded from the Wailuku area to assist with evacuations. One (1) officer who had just completed Emergency Vehicle Operations Course (EVOC) training responded to assist with evacuations.

At approximately 15:23, officers blocked ingress traffic access to the area on Lahainaluna Road from Hwy-30. Officers drove through the neighborhood using PA announcements and door-to-door notifications to warn residents to evacuate the area.

Lahainaluna Road (westbound) traffic was at a standstill from the Bypass to Hwy-30 due to the traffic lights being out (Figure 4.3.3.2, #13).

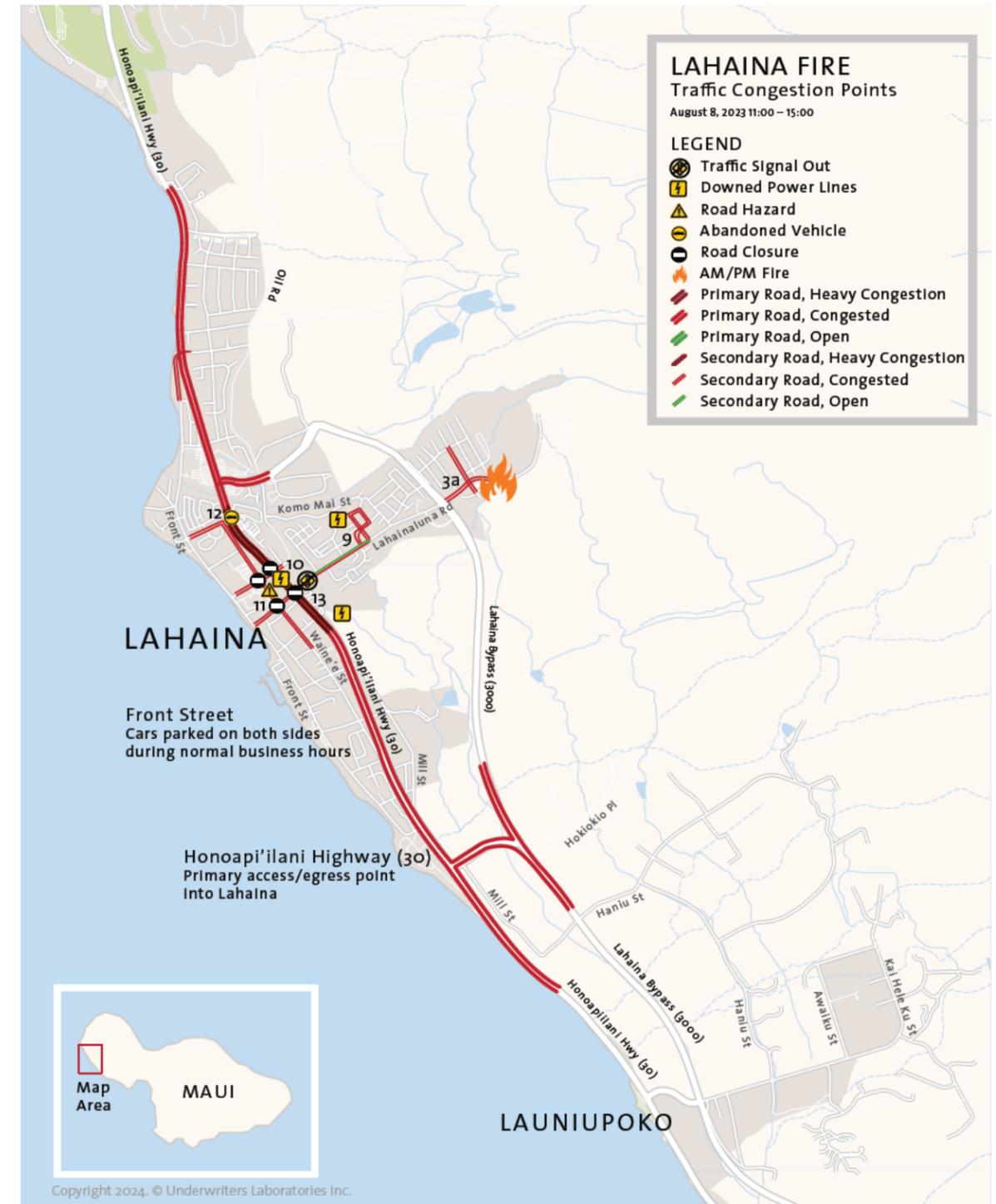


Figure 4.3.3.2 Traffic congestion points (August 8, 2023 11:00–15:00)

TIMELINE OF EVENTS

At approximately 15:26, the MFD dispatch stated that the fire jumped the Bypass and was heading westbound. MFD requested officers to evacuate the Kelawea residential community below the Bypass between Lahainaluna Road and Keawe Street. MFD personnel asked officers to shut down the Bypass, preventing any traffic to travel northbound or southbound (Figure 4.3.3.3, #14). Officers drove through the Kelawea neighborhood conducting PA announcements to evacuate the residents. Officers also stated they performed door-to-door notifications. Officers reported there were several residents already packing up to evacuate, while others refused to leave. Although complying with evacuation directions, residents leaving the area caused heavy traffic delays due to there only being two (2) ways out of the Kelawea community (i.e., Lahainaluna Road and Komo Mai Street). In the neighborhood, additional traffic congestion was caused by multiple parked vehicles, power lines down, and utility poles blocking the roadway. Officers could not evacuate residents eastbound Lahainaluna Road due to the fire moving westbound toward them.

There was heavy traffic congestion at the intersection of Hwy-30 and Lahainaluna Road due to traffic signal outages and downed utility poles on Hwy-30 between Papalaua Street and Lahainaluna Road. Komo Mai Street also experienced heavy congestion, as motorists could only turn westbound toward Hwy-30 due to the Bypass being closed to eastbound traffic (Figure 4.3.3.3, #15). Traffic congestion was compounded due to traffic signal outages at Hwy-30 and Keawe Street.

Traffic on Lahainaluna Road and Komo Mai Street was at a standstill. As another example of the authorities' and public's cooperation, officers were approached by a motorist who had keys to a gate for a dirt access road northbound off the Keawe Street (Bypass) at Oil Road. An officer opened the gate and escorted the heavy traffic off Komo Mai Street north out of the area (Figure 4.3.3.3, #16). Officers immediately recognized that they had to devise additional egress routes to help alleviate the traffic congestion on Komo Mai Street. Officers directed traffic into the Gateway shopping center, which later proved critical in getting the heavy traffic off Komo Mai Street and out of the path of the fire.

At approximately 15:56, due to increased hazardous conditions caused by fire, heavy smoke, high winds, and traffic conditions, officers began emergency transports of incapacitated residents. Officers transported residents to the Lahaina Civic Center, already a designated evacuation shelter for this incident. At approximately 16:04, officers responded and evacuated the senior citizens retirement home at 810 Kelawea Street. Officers faced challenges evacuating residents from the retirement home due to some disabled residents' inability to move quickly.

At approximately 16:08, officers advised that traffic at Hwy-30, Front Street, and Fleming Road was so impacted as to cause major delays due to the evacuation of residents from Front Street. Further delaying evacuation efforts, southbound traffic inflowed from the Kā'anapali area (Figure 4.3.3.3, #6a).

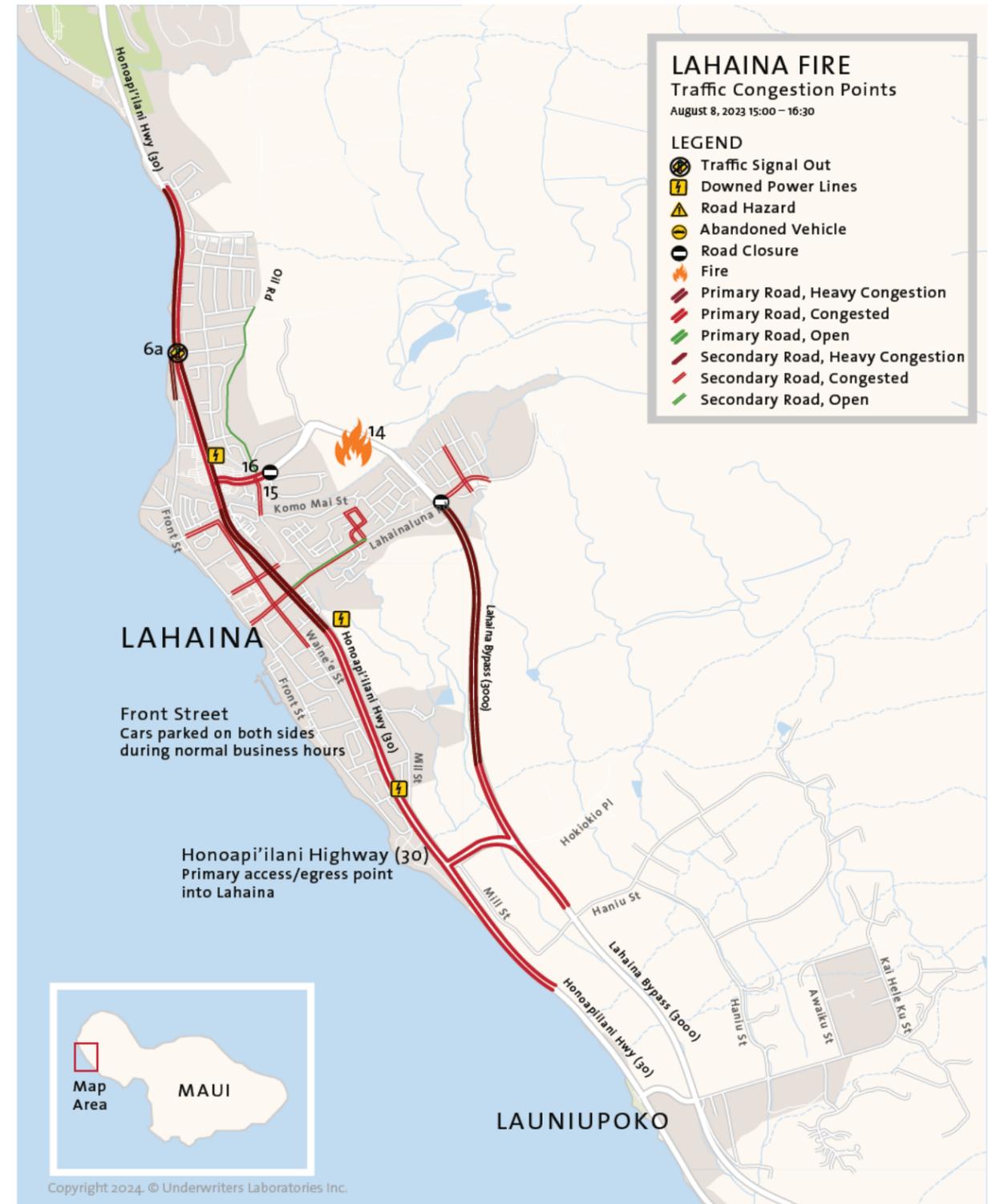


Figure 4.3.3.3 Traffic congestion points (August 8, 2023 15:00–16:30).

TIMELINE OF EVENTS

Officers evacuated residents on Mill Street as the fire encroached. Officers reported that propane tanks were exploding near the food truck area just east of Hwy-30 and south of Lahainaluna Road. Heavy smoke continued to saturate the area causing little to no visibility.

At approximately 16:26, officers reported that the fire was moving rapidly westbound through the Kelawea community. Officers described utility poles, houses, and center medians that were on fire around the area of Lahainaluna Road and Hwy-30. Officers reported that the smoke was so thick they had zero visibility when trying to evacuate area residents.

At approximately 16:29, an officer reported that Oil Road was passable, and all gates along the route were open to allow traffic to leave the Kelawea community area northbound from the fire. This now allowed officers to help alleviate some of the congestion by sending vehicles down Oil Road.

At approximately 16:32, officers evacuated the Weinberg Court Apartments at 615 Hwy-30. Officers rescued a 65-year-old male suffering from burns and drove him out of the area to medics, who provided medical attention.

At approximately 16:36, officers reported the neighborhood between Hwy-30, Waine'e Street, and Dickenson Street was completely engulfed with fire, significantly hindering ingress and egress from the area (Figure 4.3.3.4, #17). The impacts in this area caused significant problems for ingress and egress. Dickenson Street, one (1) of eight (8) roads from Front Street that connects to Hwy-30, runs east and west and continues eastbound past Hwy-30. This route was no longer an option for residents and tourists to evacuate the area from Lahaina Town. The fire moved rapidly, and the heavy smoke made it difficult to evacuate the area due to zero visibility at times. Waine'e Street parallels Hwy-30 and runs northbound from the curve at Kaua'ula Road until the road dead ends into Kenui Street. During normal traffic conditions, Waine'e Street is used to traverse through Lahaina Town to avoid traffic on Front Street. The fire and heavy smoke on Waine'e Street created significant challenges to utilize Waine'e Street to evacuate the area.

At approximately 16:38, a sergeant advised officers to direct egress traffic to the Bypass via Kai Hele Kū Street (southernmost street of Lahaina) (Figure 4.3.3.4, #18). This decision allowed officers to evacuate residents to the south and safely out of Lahaina Town. This traffic flow allowed motorists to gain access onto the Bypass.

At approximately 16:39, an officer transported two (2) adults to safety from the Weinberg Court Apartments off Waine'e Street to the Lahaina Civic Center.

At approximately 16:45, an officer found an access dirt road that was blocked by a metal gate that was locked. The gate was located in the southeast section of the Kelawea residential community and adjacent to the southside of Kahoma Stream that ran westbound from the Bypass. The officer stated there were about 30–50 cars trapped by the gate and unable to flee the area. The officer got help from a resident who responded with a reciprocating saw to cut the lock. An officer opened a chain-link gate nearby by pulling it open with a tow strap to allow traffic to flee the area to safety. One side of the gate was opened, and a motorist stopped at the gate because he was not sure if

there was enough clearance to get through. The officer noticed the structures next to the line of cars were now fully engulfed, so he ran toward the gate and rammed his body into the cyclone gate to open the other side (Figure 4.3.3.4, #19). The officer's actions allowed motorists to drive through the gate to get to safety. The officer indicated 30–50 fully loaded cars passed through the gate to safety.

At approximately 16:47, Alpha Team Sergeant opened southbound lanes of traffic at Hwy-30 and the southernmost point of Front Street, which allowed traffic to leave the area. This was critical in helping to alleviate the heavy traffic congestion and allowed a safe route for evacuations (Figure 4.3.3.4, #6b).

Officers rescued six (6) people from Weinberg Apartments and transported them to the Lahaina Civic Center. At approximately 16:57, an officer rescued two (2) women who were involved in a traffic accident. One (1) woman indicated she was having chest pains and felt like she was having a heart attack. The other passenger of the vehicle indicated she had an injury to her ankle. Officers transported them to the Lahaina Civic Center from Keawe Street and Kuhua Street to medics for treatment.

At approximately 17:01, an officer was at a traffic post at Shaw Street and Hwy-30 when he heard firefighters radio a "mayday," which indicated a fire crew was trapped by the fire. While directing traffic, a firefighter pulled up in a "Brush Truck" and stated he needed the officer's vehicle to go rescue members of his fire crew. The officer stated the Brush Truck was no longer operable due to the severe damage it received when the firefighter drove through heavy smoke and fire to get help for his fire crew.⁹⁷ The officer gave his vehicle to the firefighter to help rescue his fire crew that was trapped by the fire. The firefighter later returned to the officer's location with his fire crew. CPR was administered to the Fire Captain and he was later transported to the hospital for treatment. Shaw Street and Hwy-30 remained a traffic post until approximately 17:37 when the conditions deteriorated, and the officer responded to assist with evacuations at the Front Street Apartments.

At approximately 17:10, Alpha Team Sergeant informed the communications center the fire had now reached Front Street, and people appeared to be trapped.

Officers indicated the middle of Lahaina Town between Lahainaluna Road and Shaw Street was no longer accessible at times due to zero visibility from the heavy smoke, structure fires, and extreme heat. Officers began working from the north and south to enter Lahaina Town to conduct multiple evacuations and rescues.

At approximately 17:58, a detective rescued a female from Lahaina Town and escorted her to safety at the Lahaina Civic Center.

At approximately 18:01, officers advised the communications center that Kahoma Village started to catch fire. Officers drove through Kahoma Village and went door-to-door to evacuate residents. An officer contacted an elderly woman inside Kahoma Village who was watering her bushes with a garden hose. The officer encouraged the elderly woman to leave the area and assisted her with evacuating the location.

⁹⁷ Fire personnel later responded to the location of the Brush Truck and determined the vehicle was still operable after removing the debris from underneath the vehicle.

TIMELINE OF EVENTS

At approximately 18:15, officers indicated fire conditions, road conditions, and multiple traffic hazards made it difficult to conduct rescues in Lahaina Town. A radio announcement was made to request all available officers not assigned traffic posts to return to the station for additional assignments. To have a coordinated response, small teams of officers were assigned to four (4) sergeants. Lahaina Town was separated into four (4) quadrants. It was determined Lahainaluna Road would be the center of the officers' response grid, as it ran in an east-west direction from the ocean up toward the mountain range. Hwy-30 was the horizontal grid line, as it ran in a north-south direction from the southern point of Lahaina Town and northbound to the north side of Maui.

At approximately 18:42, officers were dispatched to The Coffee Bean at 878 Front Street where two (2) people were stuck inside a white van according to reported information. The responding officers drove through heavy smoke and structure fires to reach The Coffee Bean and located the white van. Upon arrival they noticed several cell phone flashlights shining from inside the café trying to get their attention. They opened the doors of the café and noticed approximately 15 people were stranded inside. The officers loaded as many people as they could into their vehicles receiving assistance from fire personnel to rescue the 15 people, driving them to safety at the Lahaina Civic Center. Body camera footage captured the rescue and fire conditions in the area. Heavy smoke made visibility difficult at times. One minute you could see the roadway and the next there was zero visibility. Officers and evacuees could be heard coughing and gasping for air as they escaped the area. The fire was burning on both sides of the roadway as they drove out of the area.

At approximately 18:43, officers were notified that the National Guard was activated and enroute to assist with traffic posts and evacuations.

At approximately 19:04, officers updated the communications center that Shaw Street was now impassable due to the fire (Figure 4.3.3.4, #20). This condition created another challenge for ingress and egress, since Shaw Street was no longer an escape route. This also cut off an additional exit route from Lahaina Town. With Papalua Street already blocked off from the fire and now Shaw Street being blocked off from the fire, the potential evacuation exit routes from Front Street in Lahaina Town were reduced from eight (8) to six (6).

At approximately 19:11, officers reported they were trapped due to heavy smoke and fire at 505 Front Street (Shaw Street and Front Street). Officers indicated there was zero visibility from the smoke and that they had to leave the area. Officers later updated they were able to find their way out of the area impacted by the fire.

At approximately 19:16, officers advised they evacuated the Aulike Street area, which contained a homeless shelter near the aquatic center. Officers stated they made multiple rescue transports to the Lahaina Civic Center from the Aulike Street area.

At approximately 19:18, officers conducted numerous rescue transports of residents to the Civic Center shelter from fire impacted areas.

At approximately 20:07, officers began driving through the Wahikuli community and conducted evacuations via PA announcements and door-to-door notifications. Officers drove through the neighborhood between Kapunakea Street and Leiali'i Parkway to conduct evacuations. Officers indicated residents were packing up to leave the area but contacted some residents who were reluctant to leave.

At approximately 20:37, the fire crossed into the Aulike Street area located between Mill Street and Hwy-30. Officers evacuated the Safeway at Keawe Street and Hwy-30. Officers transported several stranded pedestrians from the Safeway and drove them to the Lahaina Civic Center.

At approximately 21:01, the fire was about 200 yards from Hōkiokio Place and Hwy-30. Officers moved onlookers and residents south, away from Hōkiokio Place, because the fire was now moving in their direction. Hōkiokio area was eventually cleared of vehicles and residents. Officers were then forced to move the pedestrians from Puamana Park toward Launiupoko. The downed power lines in the area caused significant delays in traffic movement out of the area.

The Assistant Police Chief contacted officers at approximately 21:46 and stated the fire department provided information that the fire was about two (2) miles from the Lahaina Civic Center. The Assistant Police Chief stated via the radio they were with the mayor, and a decision was made for the evacuation of the Lahaina Civic Center. At approximately 21:49, the Assistant Police Chief ordered the evacuation of the Lahaina Civic Center and moved the shelter location to Maui Prep Academy.

At approximately 22:10, patrol units evacuated the Lahaina Civic Center by using Maui public transit buses to transport people to Maui Prep Academy. Alpha Team Sergeant reported hundreds, if not thousands, of people were moved to Maui Prep Academy. The evacuations were conducted via buses and private vehicles.

At approximately 00:20, an Assistant Police Chief advised patrol units about unconfirmed reports of "bodies" in Lahaina and requested a unit to respond and confirm. Due to unsafe conditions, officers were not able to access certain areas of Lahaina to check for fire casualties.

At approximately 00:49, officers updated that the fire had now moved eastbound (mauka) of the Bypass. The fire was now headed toward the residential community east of the Bypass and south of Hōkiokio Place. Officers drove through the residential community making PA announcements to evacuate the area.

At approximately 01:00, officers transported stranded Lahaina citizens from Lahaina to the Maui Prep School. At approximately 01:14, officers continued to respond to medical emergencies throughout the city and assisted citizens with various injuries.

TIMELINE OF EVENTS

At approximately 01:15, the fire was heading towards the Hawaiian Homes area just south of the Lahaina Civic Center. The fire was now in the residential community east of Hwy-30 and north of Kapunakea Street (Figure 4.3.3.4, #21). Evacuations were conducted in the area from Kapunakea Street to Leiali'i Parkway. Evacuations from this area were difficult due to the limited access points for ingress and egress. Oil Road was the eastern boundary and ran parallel to the residential community. Hwy-30 was the western boundary and ran parallel to the residential community. Residents were able to exit the community eastbound through the open gates by using Oil Road. There were five (5) roads that exited to Hwy-30 from the residential community. The five (5) access roads that allowed egress from the community were Kapunakea Street, Fleming Road, Wahikuli Road, Kaniau Road, and Leiali'i Parkway. The intersection at Hwy-30 and Kapunakea Street as well as the intersection at Fleming Road, Front Street, and Hwy-30 had heavy traffic congestion due to wires and poles down and the traffic signals not being functional. The intersections at Wahikuli Road and Hwy-30 and at Kaniau Road and Hwy-30 were controlled by a stop sign. There was heavy traffic congestion due to it being a "T" intersection and all traffic leaving Lahaina was headed northbound. The intersection at Leiali'i Parkway and Hwy-30 had heavy congestion due to wires and poles down and non-functional traffic signals. Officers assisted with traffic to head northbound from Leiali'i Parkway and Hwy-30. These conditions made evacuation of residents out of the residential community extremely difficult. Officers also stated they had difficulty evacuating residents who took refuge in the Wahikuli Wayside Park. The only evacuation route was northbound Hwy-30.

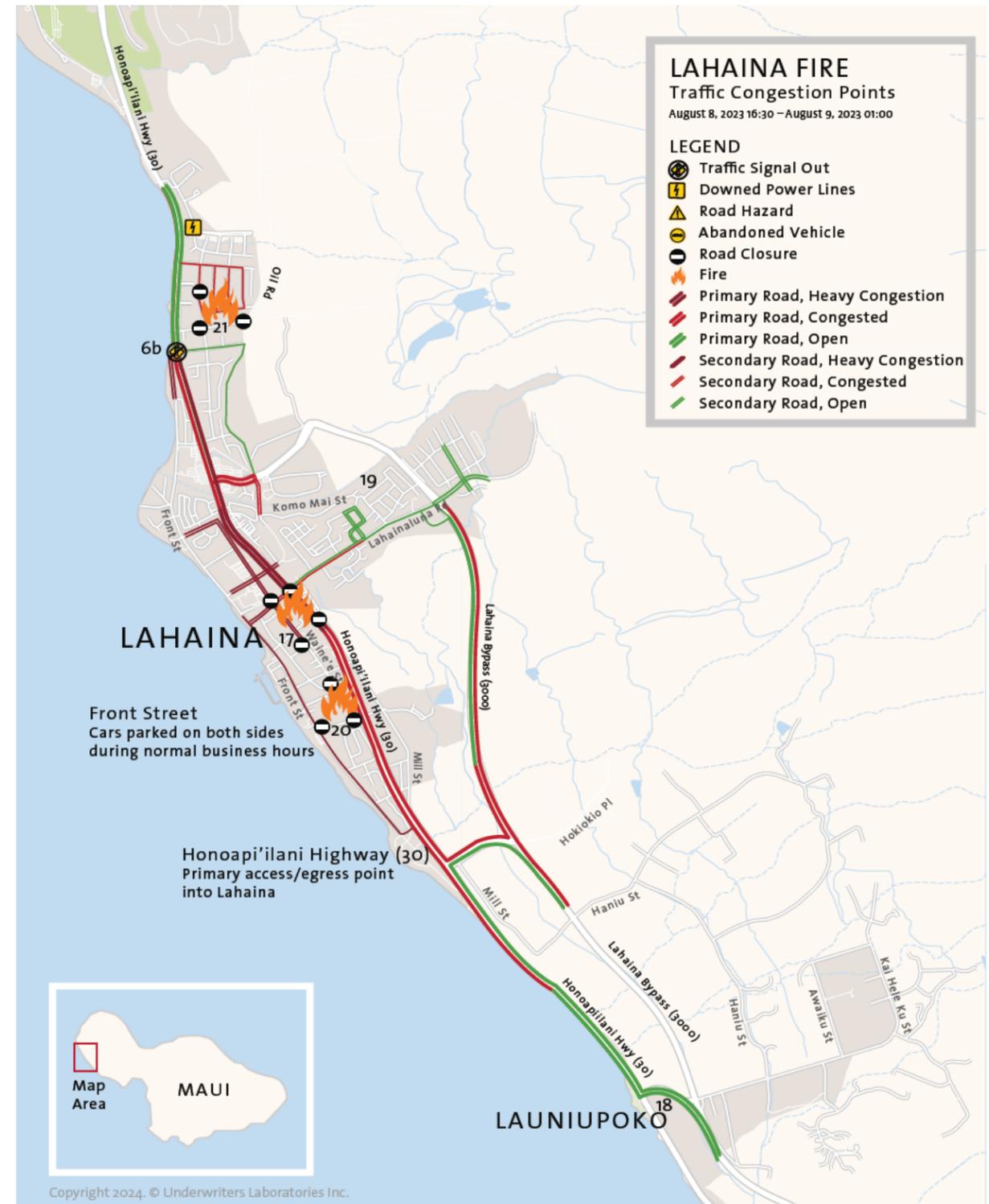


Figure 4.3.3.4 Traffic congestion points (August 8, 2023, 16:30–August 9, 2023, 01:00).

TIMELINE OF EVENTS

At approximately 01:19, Lahaina Fire personnel requested officers to evacuate the Kualapa Loop residents in Kā'anapali, as the fire appeared to move in that direction. Officers responded to the Kualapa Loop on Kā'anapali Parkway to evacuate residents from the vacation resorts.

At approximately 01:20, the Coast Guard asked for assistance from officers in attempting to locate and rescue approximately 50 people from the Waikiki Brewery Company area (900 Front Street and Papalaua Street). Due to unsafe conditions, officers were not able to access the area of Lahaina to check for fire casualties.

At approximately 03:25, officers located and transported a severe burn victim to medics to receive treatment.

At approximately 03:26, officers responded to the Honua Kai Resort (north of Lahaina) and evacuated their residents northbound.

From approximately 03:00 to 06:00, officers controlled several traffic posts north and south of Lahaina Town to assist with continued evacuations.

Evacuation efforts reduced until daylight as most of the traffic had already been diverted out of the area. These efforts continued until there was a transition to search the area for any remaining survivors and burn victims.

Throughout the fire, MPD personnel stated that they evacuated many residents in their patrol vehicles, filling the vehicles to capacity with each trip (Table 4.3.3.3). They also stated that they directed “thousands” of vehicles safely out of the fire’s path.

During interviews, officers advised they encountered residents and tourists who refused or had no sense of urgency to evacuate the area.

Officers stated they were verbally abused or ignored, and people drove around controlled traffic locations to enter Lahaina throughout the fire incident.

Table 4.3.3.3 Direct Rescues and Evacuations Discussed in Law Enforcement Technical Discussions (TDs).

Direct Rescues and Evacuations As reported by MPD in Technical Discussions			
Time	Location	Number Rescued	Evacuation Notes
06:37	Ku'ialua Street and Lahainaluna area	Unreported	Evacuations with PA and door-to-door notifications. Initial Fire area.
14:55	Ku'ialua Street and Lahainaluna area	Unreported	Evacuations with PA and door-to-door notifications. Lahaina PM Fire.
15:06	7 Ho'okahua Street	Unreported	Shed fire with extension.
15:23	Lahainaluna road area	Unreported	Evacuations with PA and door-to-door notifications.
15:26	Kelaweia community	Unreported	Evacuations with PA and door-to-door notifications.
n/a	Komo Mai Street area	Unreported	Opened gate to relieve traffic and provide a secondary means of egress. Evacuations with PA and door-to-door notifications.
15:56	Lahaina Area	Unreported	Evacuations with PA and door-to-door notifications. Officers began emergency transports of incapacitated residents.
16:04	8 Kelaweia Street	Unreported	Evacuation of the Hale Mahaolu 'Eono Senior Center.
n/a	Mill Street and Lahainaluna road	Unreported	Evacuations with PA and door-to-door notifications. Evacuation of residents.
16:32	Weinberg Court Apartments 615 Hwy-30	Unreported	Evacuation of apartments.
16:32	Weinberg Court Apartments 615 Hwy-30	65-year-old male	Evacuated with burns injuries.
16:39	Waine'e Street area	Two (2) adults	Evacuated.
16:45	Kelaweia Community	50+	Opened gate to provide secondary means of egress. Evacuations with PA and door-to-door notifications.
16:47	Weinberg Apartments	Six (6) citizens	Evacuated.
16:57	Keawe Street and Kuhua Street	Two (2) citizens	Involved in a traffic accident with significant injuries.
17:01	Shaw Street and Hwy30	Eight (8) firefighters	Assist with the mayday of eight (8) firefighters.
17:58	Lahaina	Unreported	Multiple fire related evacuations with PA and door-to-door notifications.
17:58	Lahaina	One (1) female	Rescued and evacuated from Lahaina Town.
18:01	Kahoma Village	Not available	Evacuations with PA and door-to-door notifications.
18:42	The Coffee Bean	15 citizens	Rescued and evacuated from Lahaina Town.

TIMELINE OF EVENTS

Search and Recovery of Deceased

At approximately 00:20, an Assistant Police Chief advised patrol units about unconfirmed reports of “bodies” in Lahaina and requested a unit to respond and confirm. Officers were not able to access certain areas of Lahaina to check for fire casualties.

Deceased body recoveries were conducted and supervised by Acting Lieutenant Matthew Brown and Detective Matthew Bigoss. The two (2) investigators relieved each other over the course of several days, beginning on August 9, 2023. Each worked a 12-hour shift and briefed the other as they transitioned onto their shift.

On August 9, 2023, after conducting evacuations and supervising efforts around Lahaina for almost 26 hours, Lieutenant Matthew Brown and his team began recovering bodies at 08:00.

The first human remains were located at approximately 08:00. As the day continued, officers from other MPD districts assisted with the body recovery process. On the first day, the team concentrated on body recoveries in the roadways. The bodies were photographed, noting time and location of recovery. The bodies were transported to the Lahaina Civic Center for the morgue technicians.

At 14:30, Detective Bigoss and his team relieved Lieutenant Brown. They continued with the recovery efforts until the evening hours and followed the same protocols for recoveries.

On August 10, 2023, at around 12:00, recovery search efforts continued and included mainly homes and vehicles. The supervisory team advised the bodies recovered in homes and on roadways were not recognizable as intact human remains. This created additional challenges in the recovery efforts. The human remains not being fully intact made it difficult to collect and transport to the Lahaina Civic Center.

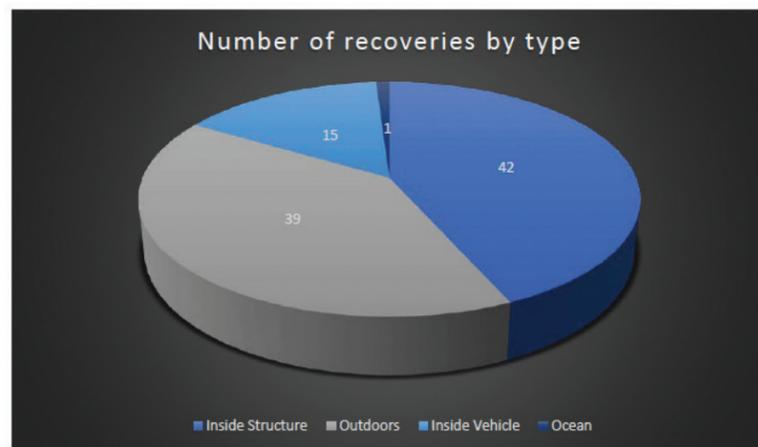


Chart 3.

Figure 4.3.3.5 MPD Preliminary After-Action Recovery Report, page 65. Victims and recoveries by type.⁹⁸

CHART 1

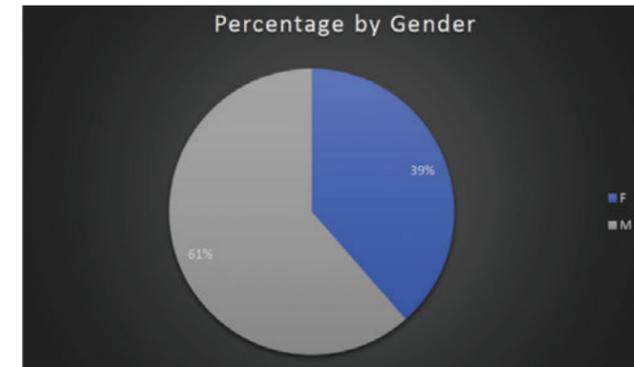


CHART 2

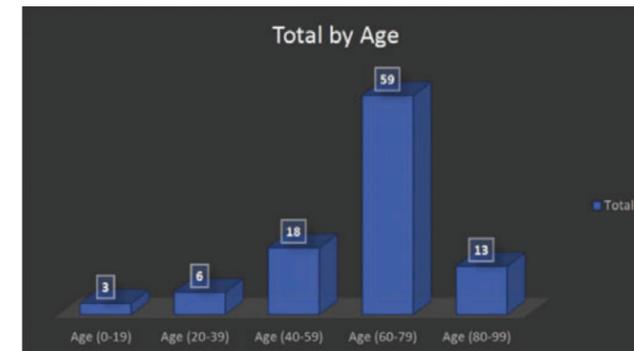


Figure 4.3.3.6 MPD Preliminary After-Action Recovery Report, page 54. Decedent data by gender and age type. Statistics/charts are based on total fire-related decedents identified.⁹⁹

On August 11, 2023, MPD utilized the Urban Search and Rescue (USAR) team to assist with human remains recoveries. They were equipped with cadaver canines trained to locate human remains.

The next day, a large contingent of USAR teams arrived to assist with search efforts. They divided the teams up into groups with one (1) team being responsible for north of Lahainaluna Road and the other team being responsible for south of Lahainaluna Road. The USAR teams were given MPD radios and advised to alert the MPD recovery teams when they located human remains. The recovery teams responded and followed the same protocols about photographing, noting time and location, and transporting remains to the Lahaina Civic Center until the morgue technicians could take possession of the human remains.

Lieutenant Matthew Brown advised that all recoveries were logged noting the date, time, and location of each recovery. See Figures 4.3.3.7 through 4.3.3.13 for MPD’s detailed victim recovery locations.

^{98, 99} http://www.mauipolice.com/uploads/1/3/1/2/131209824/pre_aar_master_copy_final_draft_1.23.24.pdf

TIMELINE OF EVENTS

C. Maps of Victim Recoveries

Map Legend 1

● = Location of recovery	
Number = Corresponding to number matching names to maps. (The number does not represent a recovery sequence; instead, it denotes specific locations.)	
First Name, Middle name or initial, LAST NAME (of decedent recovered)	Example:
(Number) = Age of decedent at time of death.	● 1, First, MI, LAST (99)
P = Parking Lot 🛒 = Grocery Store	

Figure 4.3.3.7 MPD Preliminary After-Action Report, page 47. Maps of victim recoveries, map legend 1.¹⁰⁰

¹⁰⁰ http://www.mauipolice.com/uploads/1/3/1/2/131209824/pre_aar_master_copy_final_draft_1.23.24.pdf

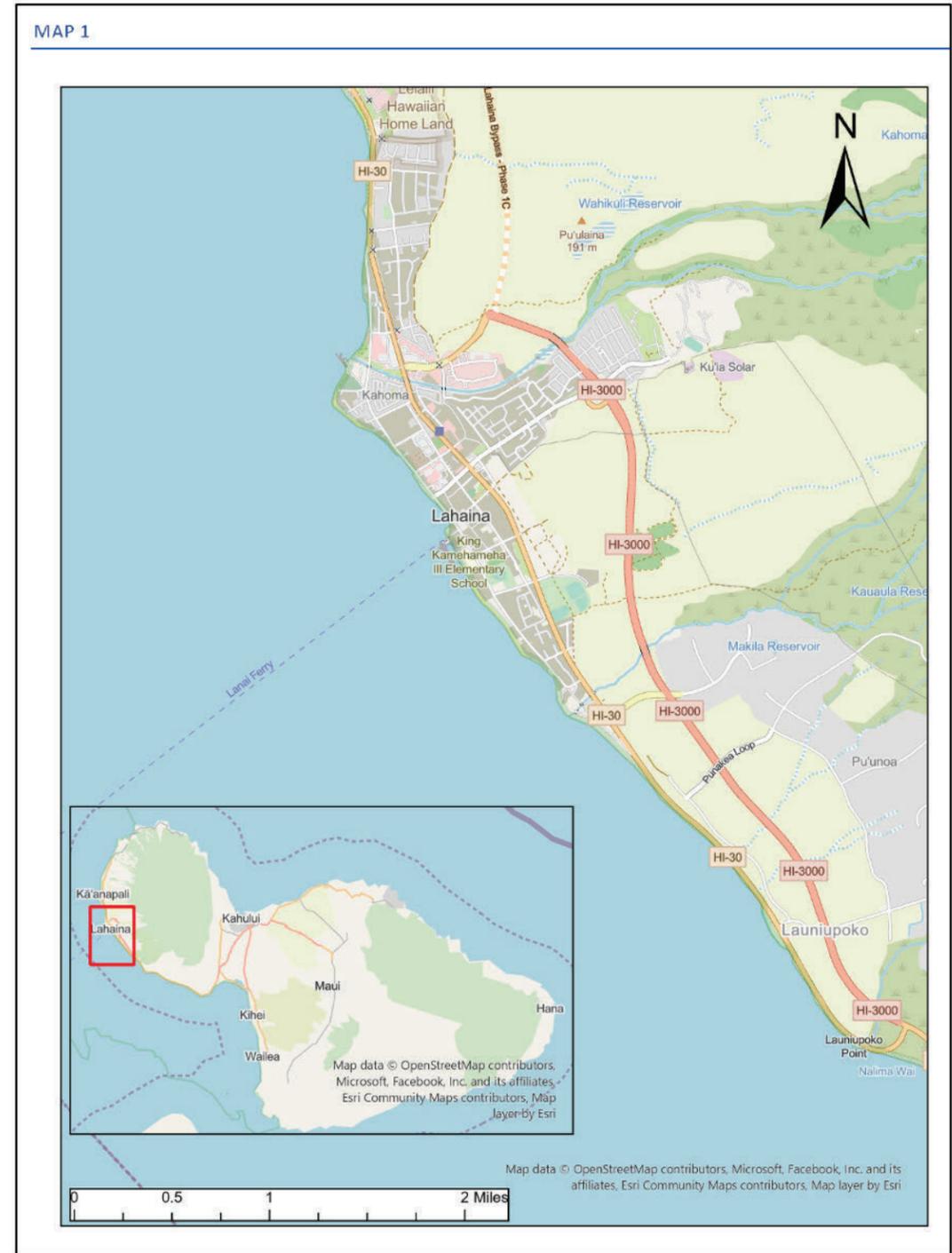


Figure 4.3.3.8 MPD Preliminary After-Action Report, page 48. Maps of victim recoveries, map 1.¹⁰¹

¹⁰¹ http://www.mauipolice.com/uploads/1/3/1/2/131209824/pre_aar_master_copy_final_draft_1.23.24.pdf

TIMELINE OF EVENTS

MAP 2

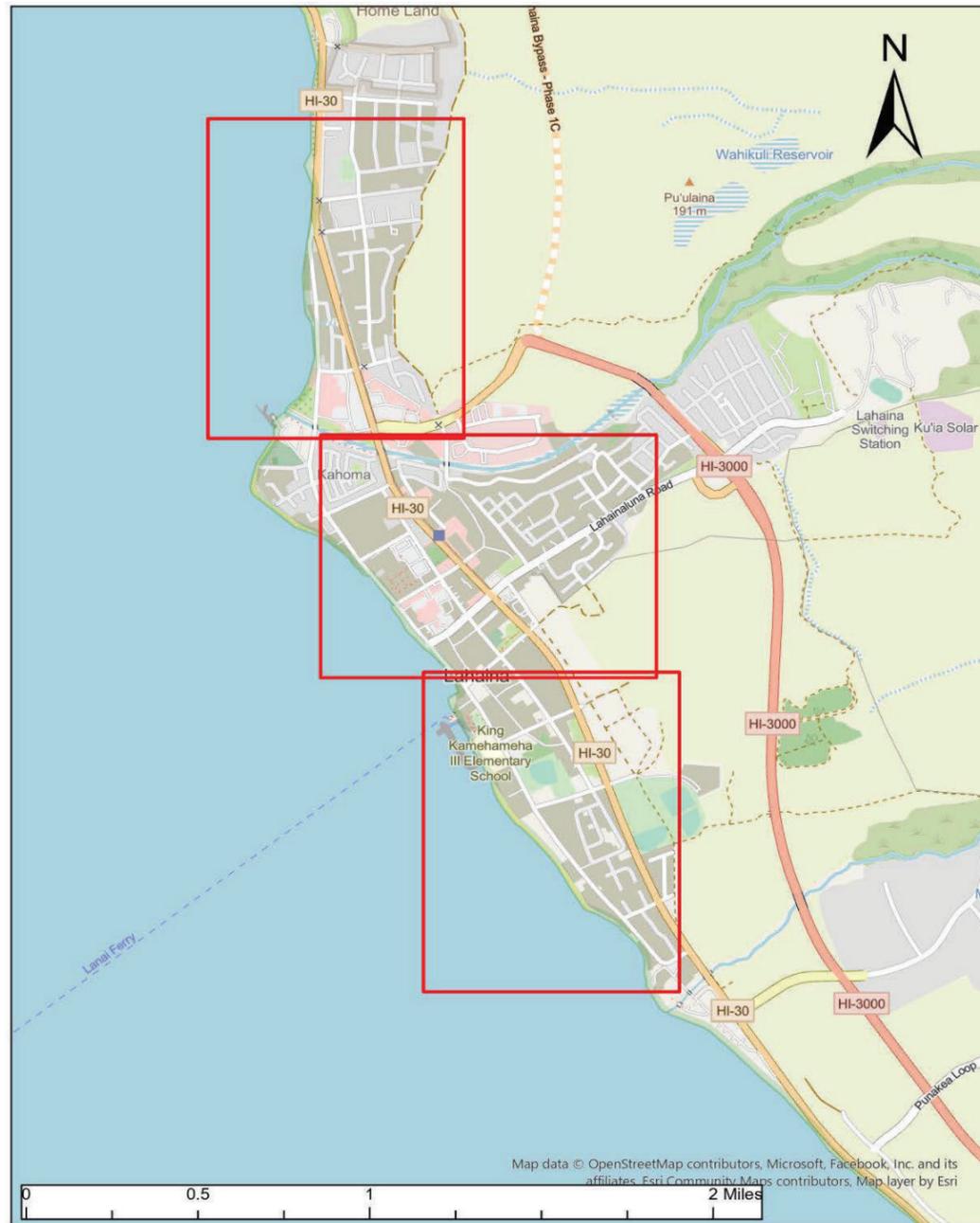


Figure 4.3.3.9 MPD Preliminary After-Action Report, page 49. Maps of victim recoveries, map 2.¹⁰²

¹⁰² http://www.mauipolice.com/uploads/1/3/1/2/131209824/pre_aar_master_copy_final_draft_1.23.24.pdf

MAP 3



Figure 4.3.3.10 MPD Preliminary After-Action Report page 50. Maps of victim recoveries, map 3.¹⁰³ Each red dot indicates the location of a recovery with a number that matches specific names to the mapped location (Figure 4.3.3.13).

¹⁰³ http://www.mauipolice.com/uploads/1/3/1/2/131209824/pre_aar_master_copy_final_draft_1.23.24.pdf

TIMELINE OF EVENTS

MAP 4

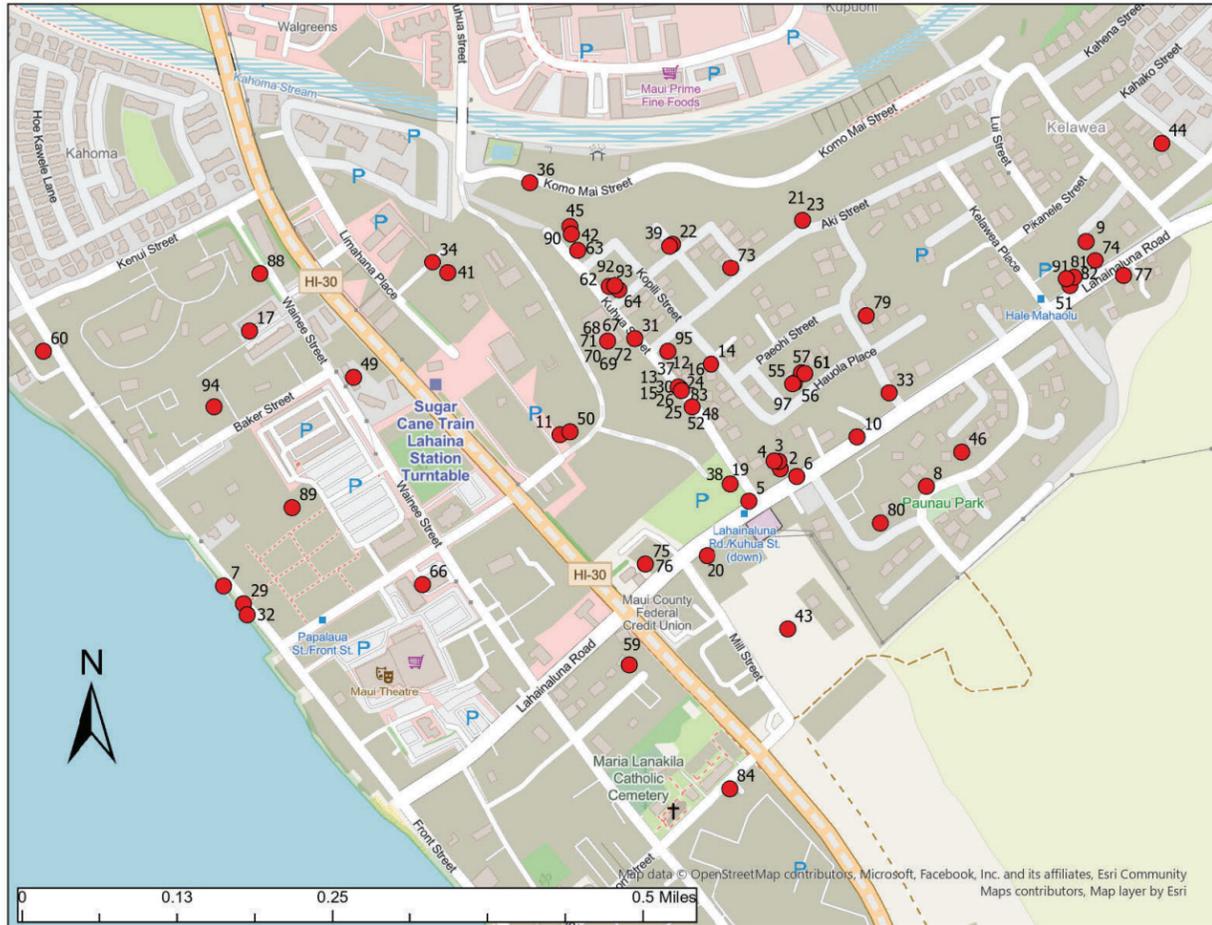


Figure 4.3.3.11 MPD Preliminary After-Action Report, Page 51*. Maps of victim recoveries, map 4.¹⁰⁴ Each red dot indicates the location of a recovery with a number that matches specific names to the mapped location (Figure 4.3.3.13). (*Note: Image rotated 90° clockwise from the original reference document).

¹⁰⁴ http://www.mauipolice.com/uploads/1/3/1/2/131209824/pre_aar_master_copy_final_draft_1.23.24.pdf

MAP 5

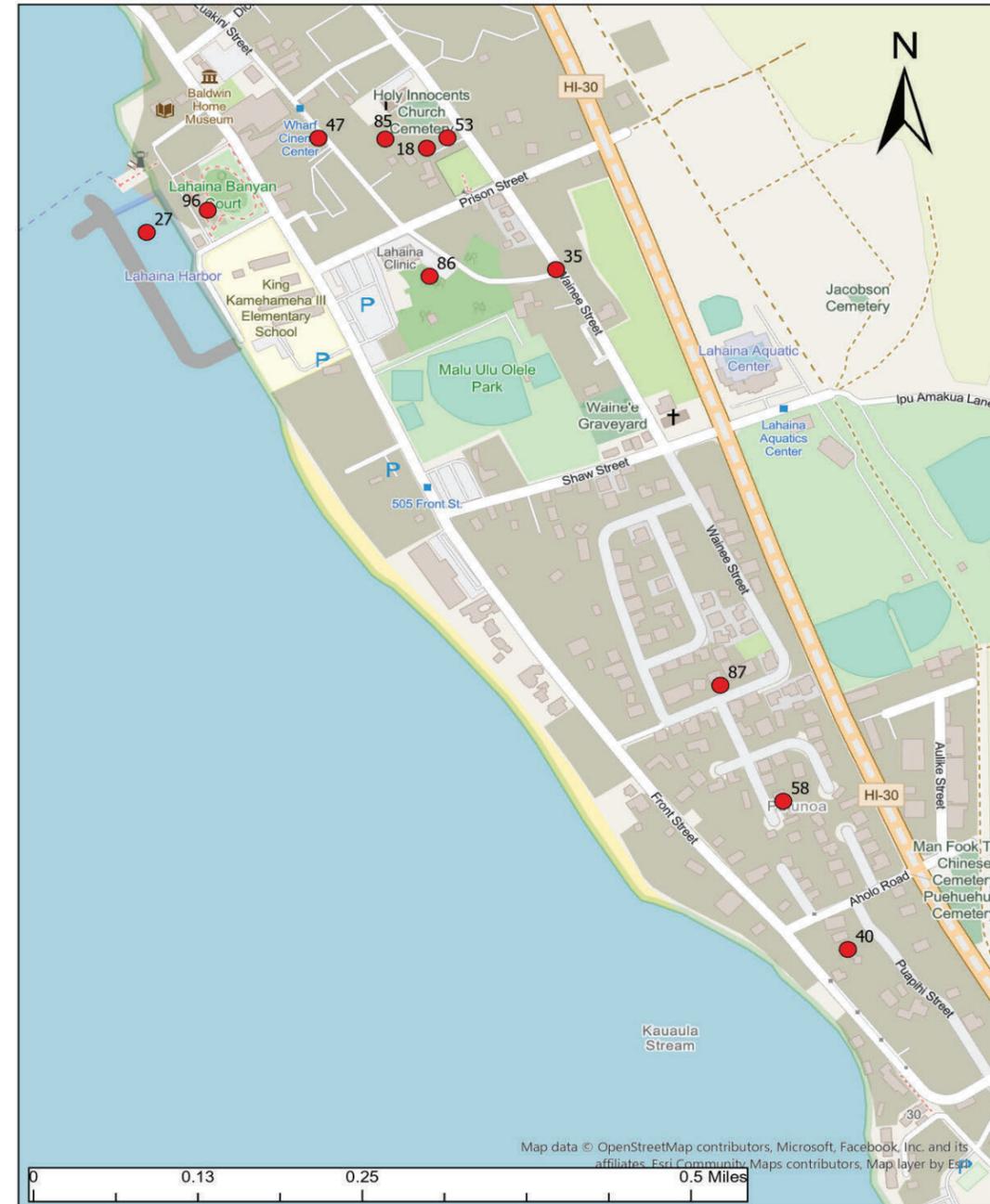


Figure 4.3.3.12 MPD Preliminary After-Action Report, page 52. Maps of victim recoveries, map 5.¹⁰⁵ Each red dot indicates the location of a recovery with a number that matches specific names to the mapped location (Figure 4.3.3.13).

¹⁰⁵ http://www.mauipolice.com/uploads/1/3/1/2/131209824/pre_aar_master_copy_final_draft_1.23.24.pdf

TIMELINE OF EVENTS

MAP LEGEND 2

- | | | |
|-------------------------------------|-------------------------------------|---|
| 1. Marilou Merquita DIAS (60) | 34. Mark John KAMINSKY (59) | 67. Eugene Lopez RECOLIZADO (50) |
| 2. Coleen Ann JONES (59) | 35. Todd Eiji YAMAFUJI (68) | 68. Maria Victoria Beza RECOLIZADO (51) |
| 3. Jonathan SOMAOANG (76) | 36. Alfredo Abanilla GALINATO (79) | 69. Justin Oliver Beza RECOLIZADO (11) |
| 4. Donna Lyn GOMES (71) | 37. Tony Manatu'ofa TAKAFUA (7) | 70. Angelica Quijano BACLIG (31) |
| 5. Lynn Misae MANIBOG (74) | 38. Danilo Domagay SAGUDANG (55) | 71. Adela Quijano VILLEGAS (53) |
| 6. Glenn Yoshio YOSHINO (75) | 39. Edward Katsumi SATO (76) | 72. Junmark Geovanie QUIJANO (30) |
| 7. Freeman TAM LUNG (80) | 40. Clyde Takahashi WAKIDA (74) | 73. Tim Tetsuo NAKAMOTO (69) |
| 8. Carolyn Hinae ONO (73) | 41. Michael Steven MAHNENSMITH (80) | 74. Angelita VASQUEZ (88) |
| 9. Virginia Bernadette DOFA (90) | 42. Glenda Quijano YABES (48) | 75. Vanessa BAYLOSIS (67) |
| 10. Rodolfo Sibucan ROCUTAN (76) | 43. Franklin Arturo TREJOS (68) | 76. Narciso BAYLOSIS Jr. (67) |
| 11. Douglas J. GLOEGE (59) | 44. Keyiro Emmanuel FUENTES (14) | 77. Richard Sing Fong KAM (88) |
| 12. Dale Ann RICHTER (66) | 45. Joel Ibbay VILLEGAS (55) | 78. Nicholas Stephen TURBIN (71) |
| 13. Terri E. THOMAS (62) | 46. Leroy WAGNER (69) | 79. Poomaikai Micah Kelikoaekalauaikeakai Estores LOSANO (28) |
| 14. Todd Mitsugi NAKAMURA (61) | 47. Rex Alfred COLE (64) | 80. Antonia Helen MOLINA (63) |
| 15. Maluifonua TONE (73) | 48. Bette Jo DYCKMAN (73) | 81. Alfred Raymond RAWLINGS (84) |
| 16. Faaoso TONE (70) | 49. Valerie Susan KAUFFMAN (78) | 82. June Nobue ANBE (78) |
| 17. Maurice BUEN (79) | 50. Rebecca Ann RANS (57) | 83. Bibiana Tomboc LUTRANIA (58) |
| 18. Tau PONALI (66) | 51. Buddy Lorenzo JANTOC (79) | 84. John Joseph MC CARTHY (74) |
| 19. Joseph Alexander SCHILLING (67) | 52. Robert P. DYCKMAN (74) | 85. Douglas Warren MATSUDA-BOUCHER (65) |
| 20. Conchita Domagay SAGUDANG (75) | 53. Michael Ray GORDON (68) | 86. Rogelio Erice MABALOT (68) |
| 21. Floyd Allen ST. CLAIR (75) | 54. Carlo Vagay TOBIAS (54) | 87. Jeanne Marie ELIASON (57) |
| 22. Melvamay Leimomi BENJAMIN (71) | 55. Luz Quijano BERNABE (64) | 88. Roxanne Kinuyo IBARA-HINAU (68) |
| 23. Janet Kay ST. CLAIR (75) | 56. Salvador C. COLOMA (77) | 89. Joseph LARA (86) |
| 24. Juan DELEON (45) | 57. Carole Gardner HARTLEY (60) | 90. Felimon Felipe QUIJANO (61) |
| 25. Revelina Baybayan TOMBOC (81) | 58. Leslie Eade SMITH (80) | 91. Louise ABIHAI (97) |
| 26. Edimede PAVIAN CASTILLO (35) | 59. Morris Sadao KAITA (74) | 92. Leticia Padagas CONSTANTINO (56) |
| 27. Theresa Elizabeth COOK (72) | 60. Buddy Joseph CARTER (85) | 93. Allen John Padagas CONSTANTINO (25) |
| 28. David Jerry NUESCA Jr. (59) | 61. Michael Joseph MORINHO (61) | 94. Linda Lee VAIKELI (69) |
| 29. Pablo Anteola PAGDILAO III (75) | 62. Rafael Arcega IMPERIAL (63) | 95. Matsuyuki OSATO (83) |
| 30. Salote U. TONE (39) | 63. Anthony Thomas SIMPSON (43) | 96. Lee Fletcher ROGO (76) |
| 31. Gwendolyn Kanani PUOU (83) | 64. Michael Mitsuru MISAKA (61) | 97. Pending Identification (N/A) |
| 32. James Pillow SMITH (79) | 65. Albert Hiroshi KITAGUCHI (62) | |
| 33. Bernard Sulidad PORTABES (75) | 66. George Howard HALL III (67) | |

Figure 4.3.3.13 MPD Preliminary After-Action Recovery Report, page 53. Maps of victim recoveries, map legend 2 ¹⁰⁶

¹⁰⁶ http://www.mauipolice.com/uploads/1/3/1/2/131209824/pre_aar_master_copy_final_draft_1.23.24.pdf

4.3.4 Hawaiian Electric

Hawaiian Electric had multiple crews working to address downed and unstable equipment from the early morning of August 8, 2023, and throughout the duration of the incident. However, the rate of the fire's growth would ultimately impede the crews' work in many areas of Lahaina.

In response to the early morning windstorm of August 8, 2023, the on-call field supervisor was notified of the need for early maintenance support at 03:40. The normal complement of maintenance personnel were available to respond. Maintenance crews in Lahaina were also supplemented by contractor support from Rokstad Power.

Dispatch was augmented starting in the morning of August 8, 2023 with four (4) dispatchers and one (1) supervisor working past their shifts into the evening. An operations engineer and several supervisors were also present to address the increased workload.

According to AVL records, beginning 04:17, Hawaiian Electric service vehicles were present in the Lahaina area. Twenty four unique Hawaiian Electric service vehicles would ultimately be present within the Lahaina Fire operational area throughout August 8, 2023.

Hawaiian Electric reported that they assigned a Liaison Officer to the Emergency Operations Center (EOC) at approximately 05:15 on August 8, 2023. This assignment was confirmed by the "Infrastructure" EOC sign-in log titled "2023-08-07 Severe Weather" and dated "08-07-2023" (see Appendix 6.5). Since the EOC was not staffed on August 7, 2023, at 05:15, it is believed that the date was documented in error, and the correct date for the sign-in log is August 8, 2023. The status report sent by Hawaiian Electric's EOC Liaison Officer via email to two (2) Hawaiian Electric personnel on August 8, 2023, at 05:58 (see Appendix Table 6.6) further verifies the presence of a Hawaiian Electric representative in the EOC on the morning of August 8, 2023. A second Hawaiian Electric representative signed in to the EOC on August 8, 2023, at 18:45. Hawaiian Electric states that this individual relieved the first representative.

Downed Equipment

Table 4.3.4.1 on the following page includes Hawaiian Electric's record of receiving reports of downed equipment as well as their response to these calls. Also included in the table are other reports for downed equipment found in the MPD dispatch record. A complete list of all downed utility equipment for the time period of this report is unknown. Knowing when equipment was compromised is impossible. Many factors could account for the lack of reporting, including people evacuating and equipment in remote areas or where people had already evacuated.

TIMELINE OF EVENTS

Table 4.3.4.1 Equipment Down Blocking Roadways as Reported by Hawaiian Electric.

Equipment Down Blocking Roadways as Reported by Hawaiian Electric*			
Date	Time	Problem	General Area Description provided by Hawaiian Electric
August 8, 2023	05:42:00	Poles leaning onto Hwy-30.	Hawaiian Electric received a report from the MPD at approximately 05:42 of poles leaning at the corner of Honoapi'ilani Highway and Keawe Street. Hawaiian Electric crews responded by about 07:20 and were able to reinforce and stabilize the poles over the course of the morning. We do not believe that these poles fell on August 8th, but we understand that MPD shut down the right-hand turning lane at the intersection of Keawe Street and Honoapi'ilani Highway.
August 8, 2023	05:51:00	Pole leaning near 761 Waine'e Street.	Hawaiian Electric received a report from the MPD at approximately 05:51 of a pole leaning near 761 Waine'e Street. Crews stabilized the pole. We understand that MPD closed Waine'e Street between Lahainaluna Road and Dickenson Street on August 8.
August 8, 2023	05:51:00	Several poles on Hwy-30 near Hōkiokio Place. Hwy closed between Front Street and Hōkiokio Place.	Hawaiian Electric received a report from the MPD at approximately 05:51 that a stretch of poles fell onto Honoapi'ilani Highway south of Lahaina near Hōkiokio Place. MPD reported several more poles down in this location at approximately 06:13, and the County of Maui issued a tweet at 06:38 notifying the public that Honoapi'ilani Highway between Front Street and Hōkiokio Place was closed. Additional poles fell across Honoapi'ilani Highway at the intersection with 'Aholo Road at approximately 16:12. Hawaiian Electric crews and crews from a contractor, Rokstad, responded to the location of these downed poles in the morning and spent the remainder of the day addressing them. Once crews became aware of the need to clear the highway to facilitate the evacuation after the Lahaina PM broke out, their focus shifted to that work. By approximately 16:48, crews cleared the southbound lane of Honoapi'ilani Highway, allowing traffic to move. At 17:00, Maui County issued a press release announcing that southbound Honoapi'ilani Highway had been opened.
August 8, 2023	06:40:00	Broken pole at intersection of Lahainaluna Road and Ho'okahua Street.	Hawaiian Electric received a report from the MPD at approximately 06:40 that a pole had broken at the intersection of Lahainaluna Road and Ho'okahua Street. The MPD reported a line came down and there was a fire. Hawaiian Electric informed police the line was not energized at the time that MPD informed Hawaiian Electric of the broken pole, as by then, the last transmission line to West Maui had tripped offline. A troubleman responded to this location at approximately 07:00 to evaluate the damage. Additional crews responded later in the day to begin repairs to several broken poles in the area. We are not aware of any reports that this downed equipment impeded egress from Lahaina in the afternoon of August 8th.
August 8, 2023	08:43:00	Line down at 4 █ Kauhi Place.	Hawaiian Electric received a report around 08:43 of a line down at 4 █ Kauhi Place in Lahaina. Because the address is at the end of a dead-end road, it is not believed these lines blocked egress.
August 8, 2023	09:45:00	Eight (8) poles down near Hwy-30 south of Hōkiokio Place.	Hawaiian Electric personnel observed eight (8) poles down in the Puamana area by Honoapi'ilani Highway, south of Hōkiokio Place, around 09:45. These poles were located some distance away from the highway and were not blocking the highway.
August 8, 2023	10:14:00	Broken line at 3 █ Dickenson Street.	A Hawaiian Electric crew identified a broken line at 3 █ Dickenson Street in Lahaina at approximately 10:14. It is not believed this line blocked traffic.

continued

*Note: The information in the table is from Hawaiian Electric's February 16, 2024, production.

Table 4.3.4.1 Equipment Down Blocking Roadways as Reported by Hawaiian Electric.

Equipment Down Blocking Roadways as Reported by Hawaiian Electric*			
Date	Time	Problem	General Area Description provided by Hawaiian Electric
August 8, 2023	10:17:00	Service line down at 7 █ Mill Street.	A Hawaiian Electric crew identified a service line down at 7 █ Mill Street in Lahaina at approximately 10:17 AM. It is not believed this line blocked traffic.
August 8, 2023	11:45:00	Leaning and fallen poles on Mill Street (dirt road east of Hwy).	Hawaiian Electric became aware of leaning and fallen poles on Mill Street—a dirt road east of Honoapi'ilani Highway not actively traversed—around 11:45. These downed poles did not appear to block traffic. A troubleman was on scene at 12:44 PM.
August 8, 2023	14:19:00	Down poles blocking Hwy-30 near Papalaua Street.	At approximately 14:19, a Hawaiian Electric employee reported they were unable to pass the Subway in Lahaina by Papalaua Street because downed poles blocked Honoapi'ilani Highway. We understand from public social media that Honoapi'ilani Highway between Lahainaluna Road and Papalaua Street was closed around 14:20 on August 8th.
August 8, 2023	15:01:00	Five (5) poles down blocking Hwy-30 between Keawe Street and Kapunakea Street.	At approximately 15:01, Hawaiian Electric became aware of five (5) poles down on Honoapi'ilani Highway between Keawe Street and Kapunakea Street in front of a Shell gasoline station. Hawaiian Electric troublemen responded within 20 minutes. We understand that these poles were not cleared on August 8th. Although these poles blocked certain lanes of traffic, it was possible to drive around them through the adjacent Safeway parking lot.
August 8, 2023	16:50:00	Poles down blocking Hwy-30 near Lahaina Civic Center.	At approximately 16:50, Hawaiian Electric became aware, through the County of Maui and Red Cross, of poles down on Honoapi'ilani Highway near the Lahaina Civic Center, north of Lahaina. Hawaiian Electric dispatched crews to clear the downed equipment, although they were not able to access the area immediately due to difficulty getting across Lahaina. Crews were able to reach the area and worked to clear the downed equipment starting around 19:37. We understand that the road was not fully blocked and that traffic was able to proceed around these poles while they were down. Crews were able to clear them from the roadway by later in the evening.

Table 4.3.4.2 Additional Sources of Downed Hawaiian Electrical equipment impacting vehicle traffic or emergency responder efforts.

Additional Sources of Downed Hawaiian Electric Equipment			
Date	Time	Report	Source
August 8, 2023	12:18:00	Four (4) utility poles down in the back of the homes located on Niheu Street.	Reported by MFD on scene of Lahaina PM fire at 12:18.
August 8, 2023	16:18:00	Hwy-30 near Leialii Parkway	Picture by motorist traveling southbound taken at 16:18.

TIMELINE OF EVENTS

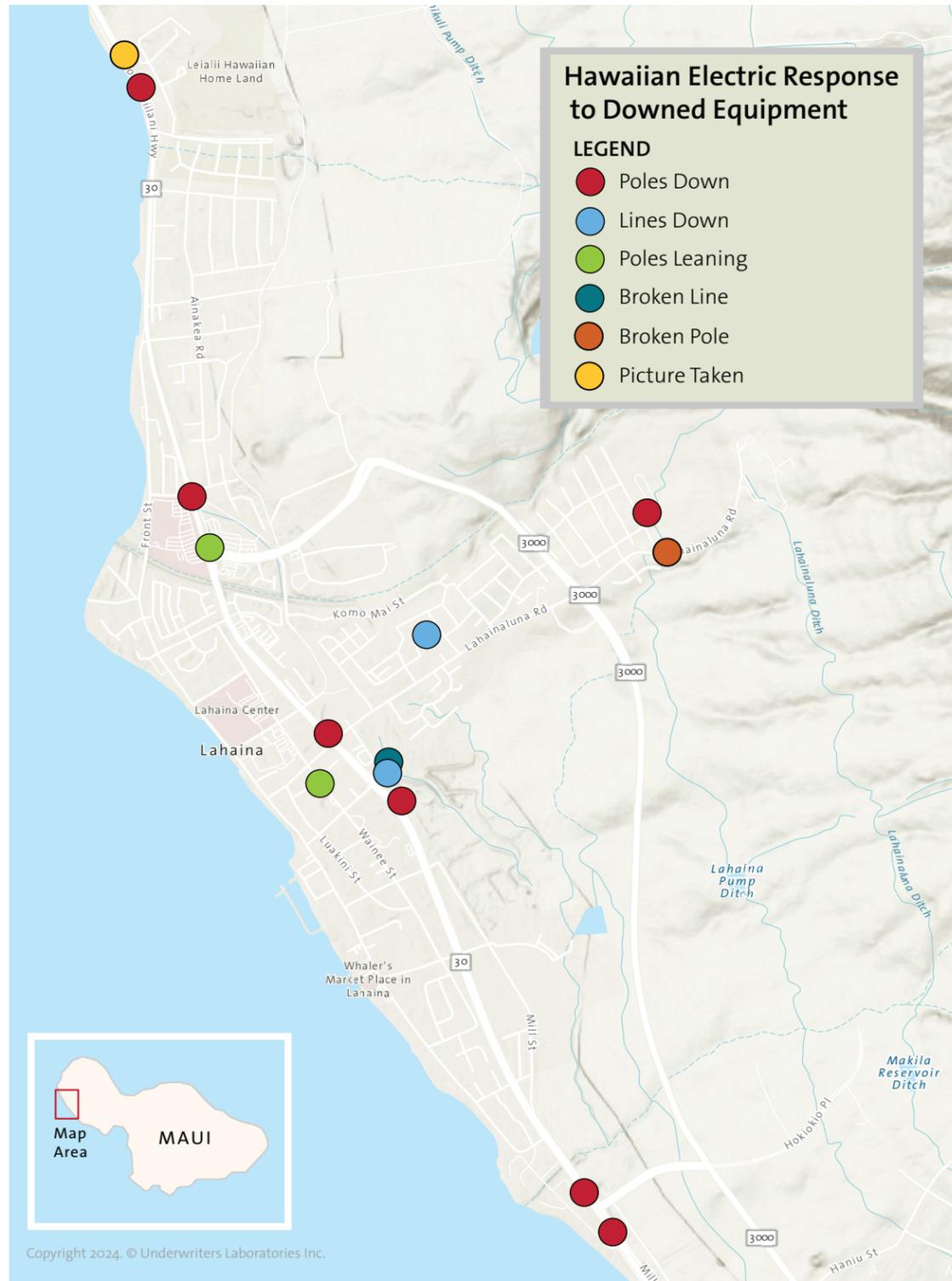


Figure 4.3.4.1 Hawaiian Electric response to downed equipment.



TIMELINE OF EVENTS

Hawaiian Electric Communications Regarding Power Status

Hawaiian Electric dispatch communicated power status to Central Dispatch (MPD) upon their request. Table 4.3.4.3 only includes the time power status was communicated. Objective evidence that the power was off in the areas requested by Central will be addressed within the ATF cause and origin report.

Table 4.3.4.3 Hawaiian Electric record of communications with MPD and MFD regarding power status. Central is MPD's central dispatch.

Hawaiian Electric Record of Communications About Power Status August 8, 2023

Date	Time	Hawaiian Electric Dispatch Communications with MPD/MFD Dispatch
August 8, 2023	5:51:00	<p>Central: The Sergeant is on scene those poles at Honoapi'ilani and Keawe, poles 14 and 13, the pole's leaning, some broke at the base, but it's leaning at a 45-degree angle, but the foundation of how you put it in, is coming out.</p> <p>Hawaiian Electric: On the corner of Honoapi'ilani Hwy and Keawe Street, Poles E14 and E13, one (1) is down and one (1) is leaning with the pedestal coming out. Does he know if that is a metal pole or wooden pole? What's the event # for that one?</p> <p>Central: 8002610.</p> <p>Hawaiian Electric: 8002610.</p> <p>Central: Several poles are down at Honoapi'ilani and Hōkiokio, that's just coming in.</p> <p>Central: 7 █ Waine'e, there is a pole, it looks like a transformer was on this pole, it broke, and it was moving back and forth, the officer says it's leaning toward the cemetery. He did not give a pole number. We are closing Wiāne'e from Dickenson to Lahainaluna.</p> <p>Central: Are we able to get an ETA for any of those that we just talked about, especially the Keawe Street one?</p> <p>Hawaiian Electric: No, not yet because we are working on the outage. We are running the lines from Lahaina to Lahainaluna to pick up the west side, then we can start hitting your list.</p>
August 8, 2023	6:40:00	<p>Hawaiian Electric: Hello Hawaiian Electric.</p> <p>Central: Hi Milea again, at 8 █ Lahainaluna Road right across from Lahaina Intermediate. Powerline came down and started a fire, so currently no one is on scene. They are headed up there now, but it's near a structure, so we need to de-energize that as well.</p> <p>Hawaiian Electric: I think it just went out.</p>
August 8, 2023	9:36:00	<p>Hawaiian Electric: Hello Maui Electric.</p> <p>Central: Hi Maui Electric, Police Department. I know I called early for the pole #7A, but command is on scene asking someone to come regarding all the wires down.</p> <p>Hawaiian Electric: Ok. We have crews going in that direction. Do you need...</p> <p>Central: Let me ask them where they want you guys to go, can I put you on hold?</p> <p>Hawaiian Electric: Yeah.</p> <p>Central: It's where the poles snapped, that's where they want you to go.</p> <p>Hawaiian Electric: It is de-energized there.</p> <p>Central: OK.</p> <p>Hawaiian Electric: Everybody is de-energized in Lahaina at the moment, and we have crews going over there. Do they still need somebody to go over there?</p> <p>Central: Yes, to the pole right below Lahaina Intermediate because there are wires down across the road.</p> <p>Hawaiian Electric: OK, thank you.</p>

Red text: Indicates that the power supply is cut off.

*Now known as Hawaiian Electric.

continued

Hawaiian Electric Record of Communications About Power Status August 8, 2023

Date	Time	Hawaiian Electric Dispatch Communications with MPD/MFD Dispatch
August 8, 2023	16:11:00	<p>Hawaiian Electric: Maui Electric Trouble Department.</p> <p>Central: Hi MECO,* police department. Fire is asking if you can shut down all the electric off of Lahainaluna, above and below the bypass.</p> <p>Hawaiian Electric: It's off right now.</p> <p>Central: It's all off?</p> <p>Hawaiian Electric: Yea.</p> <p>Central: OK, thank you.</p>
August 8, 2023	21:33:00	<p>Hawaiian Electric: Hello, Maui Electric.</p> <p>Central: This is the police department. We are trying to confirm that the lines down in front of the Lahaina Station on Honoapi'ilani are all de-energized.</p> <p>Hawaiian Electric: Yes, it is, but it is not grounded, so you still cannot touch the lines, but the substation is burning.</p> <p>Central: OK, because they need to evacuate, so can they drive over it?</p> <p>Hawaiian Electric: Oh, what is the location? Where is it? Lahainaluna Road?</p> <p>Central: On Honoapi'ilani Highway, in front of the Lahaina Station.</p> <p>Hawaiian Electric: The Lahaina substation, right?</p> <p>Central: The Lahaina Police Station.</p> <p>Hawaiian Electric: Oh, Lahaina Police Station (talking in the background asking about running over lines).</p> <p>Hawaiian Electric: Yeah. You can have them run over the lines.</p>

Red text: Indicates that the power supply is cut off.

*Now known as Hawaiian Electric.

TIMELINE OF EVENTS

4.3.5 Department of Water Supply

The data recording system for the Maui County Department of Water Supply records the water level every half hour in each of the water storage tanks in both the Lahaina and Māhinahina storage and distribution systems.

Figure 4.3.5.1 shows the water volume stored versus time for the Lahaina, Māhinahina and the two (2) systems combined. Please note, the water level data ceases at approximately 15:30 on August 8, 2023.

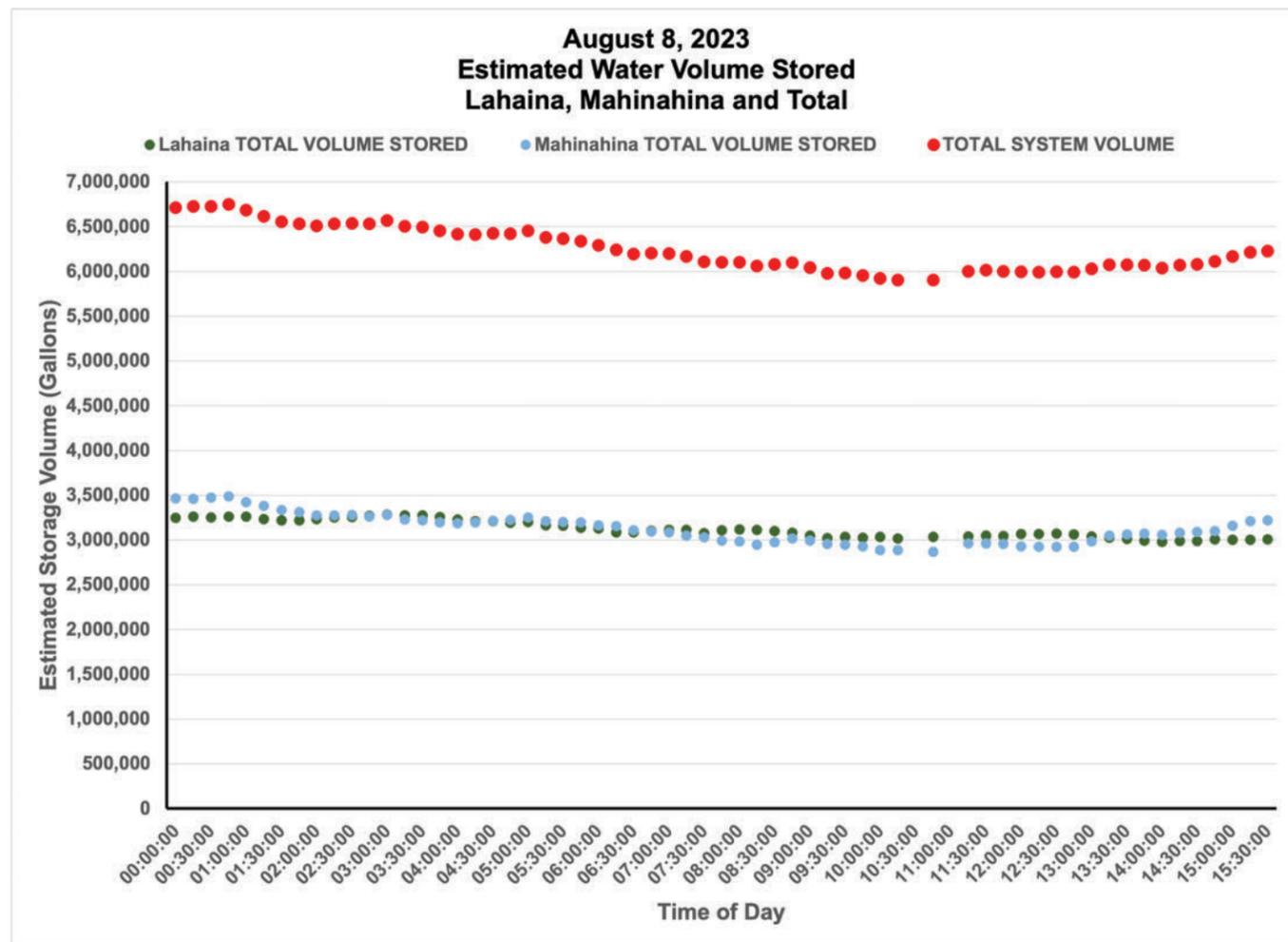


Figure 4.3.5.1 Estimated water volume stored by Maui County Department of Water Supply on August 8, 2023.¹⁰⁷

¹⁰⁷ The volumes calculated in this graph are preliminary estimates based upon the tank capacity and the tank level recorded by the system. The recording system stopped at 15:30 on August 8, 2023. This graph will be revised when additional information is provided by the County.

During the fire event of August 8, 2023, water demand in parts of Lahaina exceeded the ability of the water storage and distribution system to deliver sufficient quantities of water at adequate pressure to support firefighting operations. As homes and other buildings burned, pipes melted/failed, and water ran freely. Pressure in water lines dropped, and very little water was available for use by firefighters in central and southern Lahaina.

It should be noted that the water supply did not fail in all of Lahaina. Parts of Lahaina had water service throughout the fire. Water shortages were most common in central and south Lahaina. However, the Maui County Department of Water Supply continued to produce water throughout the duration of the Lahaina PM fire. Both plants had electrical power and produced water throughout the fire. In addition, there are no pumps in the Lahaina water distribution system, as it is fed by gravity.

As listed below, there were several factors and facts related to the inability of the water storage and distribution system to deliver sufficient quantities of water at adequate pressure to desired locations within the system for firefighting during the fire event of August 8, 2023:

- As homes and other structures were damaged and destroyed by fire, household plumbing (e.g., plastic piping) inside—and in some cases outside—of the buildings melted or failed, allowing water to flow unrestricted from one (1) or more locations at many residences. As more homes and structures were damaged or destroyed by the fire, more pipes melted or failed, resulting in water freely flowing from more structures and diminishing the overall water pressure and supply in the fire area.
- Early on August 8, 2023, as the fire spread to buildings, a fire hydrant (Number 126, shown in Figure 4.3.5.2) near the intersection of Paunau Street and Pupu Place was struck and sheared off at the base. Maui utilizes wet barrel fire hydrants so a large amount of water flowed from the damaged fire hydrant base unrestricted.

Figure 4.3.5.2 Damaged Fire Hydrant 126 at the Intersection of Paunau Street and Pupu Place.



TIMELINE OF EVENTS

- Due to fire and traffic conditions, Maui County Department of Water Supply employees were unable to access the fire area and shut off water at the meters of affected residences and other buildings until August 9, 2023. Thus, the loss of water from multiple locations continued until that time and contributed to the lack of pressure within the water distribution system.
- Due to distance, water line size, and headloss (i.e., pressure loss as water travels through pipe), water from the Māhinahina water treatment plant (WTP) storage and distribution system did not substantially support the firefighting water demand in central and southern parts of Lahaina.
- Most reports of low pressure and water loss were in central and southern Lahaina. Firefighters were able to access water from fire hydrants in Hanaka’ō’ō Park (just north of the Maui Civic Center) late in the evening of August 8, 2023. This access to water is likely because water from the Māhinahina system supplied the hydrants in the park.
- Both the Lahaina and the Māhinahina WTPs had electric power and continued to produce water throughout the Lahaina PM fire. These facilities also had diesel backup power available that was not used during the Lahaina PM fire.
- Large-scale structural destruction from the fire resulted in reduced pressure within the storage and distribution system, even with continued production by the two (2) drinking WTPs. This reduced pressure is likely to have led to back siphonage, possibly drawing contaminants into the storage and distribution system.
- Although the water treatment, storage, and distribution systems are adequately sized for normal drinking water demands and the demands for a large structure fire event, they were not adequate to provide water at the required pressure for the urban conflagration of August 8, 2023.
- There is little to no plastic pipe in either the Lahaina or the Māhinahina drinking water treatment, storage, and distribution systems before the meters that provide water access at the customer’s home or building. However, plastic pipe is likely widely used in homes and businesses for water piping after water passes through the meter into the individual occupancy.

4.3.6 Maui Emergency Management Agency (MEMA)

Table 4.3.6.1 MEMA Emergency Operations Center (EOC) staffing as of August 8, 2023.

MEMA Staff August 7, 2023–August 8, 2023		
Staff Member	MEMA EOC Regular Staff Position (During Activation)	MEMA EOC Staffing on 8/8 (Individuals had to assume different roles due to Administrator Andaya’s absence.)
Herman Andaya	EOC Director	Off island (attending conference in O’ahu)
Paul Coe	Operations Section Chief	EOC Director 8/7 21:00–8/8 14:24 Resumed EOC Director role at approximately 17:30 (per personal account)
Rocky Keohuhu-Bolor (Staff Specialist IV)	Planning Section Chief	Operations Section Chief EOC Director (relieved Paul Coe 8/8 14:24–8/8 17:30) Resumes Operations Section Chief [^]
Everett Balmores (Staff Specialist III)	Situational Awareness Chief*	Planning Section Chief Assigned this role under the guidance of Bolor This was the first time Balmores served in this capacity (per personal account)
Colleen Hauptman (Staff Specialist III [^])	Recovery Section Chief*	On-Duty Officer, Staffed Partial activation of EOC with Paul Coe from 8/7 21:00–8/8 10:41
Gina Albanese (Staff Specialist III [^])	No Role Designated	Assisted with Fire Management Assistance Grant (FMAG) [^] Did not participate in Technical Discussions
Darryl Takeda	Logistics Section Chief*	Logistics Section Chief [^] Did not participate in Technical Discussions
Gaye Gabaut	EOC Administrative Assistant MEMA Public Information Officer (PIO)	EOC Administrative Assistant MEMA PIO
Josh Aquinde (Staff Specialist III [^])	Training Deployment with National Guard	Not present during the 8/8 wildfire incidents

*Information gathered from the pre-printed MEMA EOC Sign-in sheets

[^]Information provided by MEMA staff during TDs

TIMELINE OF EVENTS

MEMA personnel are responsible for maintaining, staffing, and managing the Emergency Operations Center (EOC) operations. Access to the Maui EOC is restricted because of the confidential nature of the personal information (i.e., civilian names, addresses, etc.) used. Entry to the EOC requires an access code to open the door, and detailed sign-in logs are maintained. As an emergency event unfolds, the EOC staff on duty at the time requests representatives from the assisting and cooperating agencies to report to Maui EOC. The EOC sign-in sheets are grouped by organizational function and include pre-populated typewritten names of individuals representing specific organizations. The sign-in sheets also include spaces for signatures and time in and time out. All sign-in sheets provided to FSRI for August 7, 2023, through August 9, 2023, are in Appendix Table 6.5. The following information is taken from those entry logs.

Maui EOC was partially activated on August 7, 2023, at 21:00 with Paul Coe, Acting EOC Director in MEMA administrator's absence (according to technical discussions), and Colleen Hauptman (according to sign-in logs). As per the EOC sign-in sheets and WebEOC (the data management system used to manage EOC staffing and operations) records, many individuals confirmed their presence in the EOC from August 7, 2023, through September 30, 2023. Even though MEMA encourages strict compliance, it is apparent that people entered the EOC without following the sign-in/out process. As per the EOC Communications Test Log, the EOC was fully activated at 16:30 on August 8, 2023.

There is no data showing which MEMA personnel responded on August 8, 2023. The only missing EOC sign-in sheet is the one for MEMA personnel for August 8, 2023. Maui County has not produced this document after multiple requests.

MEMA Activity Logs (ICS 214 Form) are used to document individual tasks and events when assigned to an incident. This includes EOC assignments. These logs create an understanding of the event response minute-by-minute and hour-by-hour. They are typically used to recreate incidents and to prepare after action reports. As per information during TDs with MEMA personnel, completion of these forms is an expectation when assigned to the EOC. These forms were completed by some individuals representing assisting and cooperating agencies from August 7, 2023, through August 9, 2023, but not all.

The only ICS 214 Forms provided to support the incident analysis and report from August 7, 2023, through August 9, 2023, included representatives from MFD, MPD, Maui Corp Counsel, Agriculture, and Office of the Maui Mayor. There were no ICS 214 Forms received from MEMA personnel for these dates.

Because of missing data, it is difficult to make a complete and accurate accounting of activities within the EOC from August 7, 2023, through August 9, 2023.

EOC activities can also be documented within WebEOC. WebEOC is the data management system used to manage EOC staffing and operations. Individuals use the platform to complete requests for assistance (RFAs) and issue alerts for evacuations, road closures, or other types of emergencies. WebEOC can also be used by EOC members to log events, essentially taking the place of a paper 214.

For the period of August 7, 2023, through the early morning of August 9, 2023, the following event logs were completed by MEMA personnel within WebEOC (Table 4.3.6.2).

Table 4.3.6.2 Maui WebEOC Event Log Entries from August 7, 2023, through August 9, 2023.

Maui WebEOC Event Log Entries August 7, 2023–August 9, 2023						
Date	Time	Message Type	Message	Created By	Agency	EOC Position
August 7, 2023	21:33	Weather	Activated the EOC at 2100 hrs, 8/7/23 for the wind warning and to monitor any associated incidents.	Paul Coe	MEMA	Director
August 7, 2023	21:35	Weather	Advised State Warning Point of EOC partial activation.	Paul Coe	MEMA	Director
August 7, 2023	21:36	Weather	Created incident in WebEOC.	Paul Coe	MEMA	Director
August 7, 2023	22:29	Weather	Initiated Incident Action Plan.	Paul Coe	MEMA	Director
August 8, 2023	03:12	Fire	Fire burning between Olinda Road and Hwy-377. MFD on scene with multiple units.	Paul Coe	MEMA	Director
August 8, 2023	03:25	Info Update	Took call from (808) 281-█ requesting update on the Olinda Fire; advised that multiple MFD units were on scene and that at this point, no evacuations were requested. Advised caller to stay alert of fire conditions and that they could self-evac to family or friend if felt unsafe.	Paul Coe	MEMA	Director
August 8, 2023	04:51	Brushfire^	Shelter opened at Hannibal Tavares Community Center at 0445 on Makawao Road. At 0419 Evacuation Order Issued for Kula 200 subdivision off of 'Auli'i Drive due to brush fire. No word on shelters at this time.	Gina Albanese	MEMA	Unidentified
August 8, 2023	05:38	Power Outage	Power outage between Lahaina North to past Nāpili, Kapalua, approx. 7,000 customers.	Gina Albanese	MEMA	Unidentified
August 8, 2023	09:33	Bushfire	Maui Humane Society pet support trailer is on-station and operational at the Pukalani Shelter.	Andy Vliet	Red Cross	Emergency Shelters Group Leader
August 8, 2023	09:36	Info Update	Update to HI-EMA Mr. Chris Lupenui, Lahaina Fire 100% contained as of 830 hours Maui EOC Shift Change Brief.	Rocky Keohuhu-Bolor	MEMA	Operations Section Chief
August 8, 2023	10:23	Bushfire^	Generator on-site at Lahaina Civic Center shelter, and lights are on.	Andy Vliet	Red Cross	Emergency Shelters Group Leader
August 8, 2023	10:27	Utility Outage	Outage on Crater Road affecting 31 customers. Lines reported down by resident. Crews responding.	Kuheha Asiu	HECO*	Utilities Group Leader
August 8, 2023	10:36	Info Update	Received email from Director Public Works Jordan Molina at 910 hours. "Road closed at Olinda Road and lower Ehu Road in Makawao due to fallen trees. DPW crews on site working to clear. Will have another update at 11:00am."	Rocky Keohuhu-Bolor	MEMA	Operations Section Chief

continued

TIMELINE OF EVENTS

**Maui WebEOC Event Log Entries
August 7, 2023–August 9, 2023**

Date	Time	Message Type	Message	Created By	Agency	EOC Position
August 8, 2023	12:50	Tech Infrastructure	8 AM tech issues. Phone issues at Kahului Service Center—Rebooting Shoretel switch. Network issues Lahaina Locations: Senior Center, Fire Station.	David Duarte	Maui County	CMD Center Support
August 8, 2023	13:13	Bushfire	ARC Lahaina Recreation Center shelter manager reports that there are no clients there. Shelter population now zero.	Andy Vliet	Red Cross	Emergency Shelters Group Leader
August 8, 2023	14:00	Bushfire	Lahaina Civic Center shelter closed.	Andy Vliet	Red Cross	Emergency Shelters Group Leader
August 8, 2023	17:01	Utility Outage	Lahaina crews will be focusing on Hōkiokio Place to clear at least one (1) lane to allow traffic flow. Additional crew heading in to Lahaina to repair transmission lines.	Kuheha Asiu	HECO*	Utilities Group Leader
August 8, 2023	17:02	Utility Outage	A news release was issued to media and community leaders and stakeholders to advise them to prepare for an extended outage in Upcountry and West Maui. If power is not restored by 7 pm tonight, prepare for an overnight outage.	Kuheha Asiu	HECO*	Utilities Group Leader
August 8, 2023	23:49	Fire	FD3 requests diesel fuel to replenish engines responding to kula Fire. DPW to deliver fuel to Upcountry Fire crews in approximately 45 minutes following call.	Rocky Keohuhu-Bolor	MEMA	Operations Section Chief
August 9, 2023	01:39	Info Update	0515 hours 080923 0345 080823 observed and presumed deceased body is unconfirmed	Rocky Keohuhu-Bolor	MEMA	Operations Section Chief
August 9, 2023	02:27	Utility Outage	Lisa Paulson of Hotel and Lodging Association requests that if Kā'anapali resorts face evacuation, she be contacted. She is liaison with Hawai'i Tourism Authority and the resort management personnel. Incl. Ph #.	Leedo Anderson	State	Emergency Shelters

During this same date range, MEMA sent the following public messages via their mass notification system, Active Alerts | Maui County, HI - Official Website.¹⁰⁸ These messages were distributed via Integrated Public Alert and Warning System¹⁰⁹ (IPAWS), Emergency Alert System¹¹⁰ (EAS), and Wireless Emergency Alert¹¹¹ (WEA).

The following alerts are for all Maui wildfires during August 8, 2023, and August 9, 2023 (Table 4.3.6.3). Including the alerts for the Upcountry and Pūlehu fires provides context to the conditions personnel were performing under in the EOC.

Table 4.3.6.3 MEMA Public Alerts August 8, 2023–August 9, 2023.

**MEMA Public Alerts
August 8, 2023–August 9, 2023**

Date	Time	Event Type	Area	Message	Created By
August 8, 2023	04:09	Evacuation Immediate Warning	Kula	WEA long text message: Evacuation order on Maui for Kula 200 subdivision area off Aulii Dr due to a brushfire. Evacuate your family and pets now, do not delay. Will update with shelter info. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Maui Emergency Management Agency	Paul Coe
August 8, 2023	04:39	Fire Warning	Cmty Shelter Makawao	WEA long text message: Aulii Dr. evacuees, shelter will be established at Hannibal Tavares Community Center. Standby in lot until facility opened. MEMA	Paul Coe
August 8, 2023	05:00	Evacuation Immediate Warning	Kula	WEA long text message: Evacuation order on Maui for Hoopalua Dr. in Kula area due to a brushfire. Evacuate your family and pets now, do not delay. A shelter is open at Hannibal Tavres Community Center. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Maui Emergency Management Agency	Paul Coe
August 8, 2023	05:21	Evacuation Immediate Warning	Makawao	WEA long text message: Evacuation order on Maui for Hanamu Road and Kealaloa Avenue near Makawao for a brushfire. Evacuate your family and pets now, do not delay. A shelter is open at Hannibal Tavres Community Center. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Maui Emergency Management Agency	Paul Coe
August 8, 2023	16:04	Evacuation Immediate Warning	Kula	WEA message: Evacuation for Kulalani Subdivision Maui Emergency Management Agency has issued an evacuation order on Maui Island for Kulalani Subdivision in Kula due to a brushfire. Repeat, Maui Emergency Management Agency has issued an evacuation order on Maui Island for Kulalani Subdivision in Kula due to a brushfire. Evacuate your family and pets now, do not delay. Shelter is open at Hannibal Tavares Community Center. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Sent by the Maui Emergency Management Agency.	Everett Balmores

continued

TIMELINE OF EVENTS

MEMA Public Alerts August 8, 2023–August 9, 2023

Date	Time	Event Type	Area	Message	Created By
August 8, 2023	16:16	Evacuation Immediate Warning	Kelaweā Mauka Lahaina	WEA message: Evacuation for Kelaweā Mauka Maui Emergency Management Agency has issued an evacuation order on Maui Island for Kelaweā Mauka Subdivision due to a brushfire. Repeat, Maui Emergency Management Agency has issued an evacuation order on Maui Island for Kelaweā Mauka Subdivision due to a brushfire. Evacuate your family and pets now, do not delay. Shelter is open at Lahaina Civic Center. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Sent by the Maui Emergency Management Agency.	Everett Balmores
August 8, 2023	20:46	Evacuation Immediate Warning	Wahikuli	WEA message: Evacuation for Wahikuli Evacuation order on Maui for Wahikuli Subdivision in Lahaina due to the Brushfire. Repeat, Evacuation order on Maui for Wahikuli Subdivision in Lahaina due to the Brushfire. Evacuate your family and pets now, do not delay. Evacuate North out of town toward Kapalua. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Sent by the Maui Emergency Management Agency.	Paul Coe
August 8, 2023	22:24	Evacuation Immediate Warning	Kula	WEA message: Evacuation for Pūlehu Road Area Evacuation order on Maui for Holopuni Road to Calasa Road due to Brushfire. Repeat, Evacuation order on Maui for Holopuni Road to Calasa Road due to Brushfire. Evacuate your family and pets now, do not delay. Shelter is open at Hannibal Tavares Community Center and Maui High School Gym. Expect conditions that may make driving difficult and watch for public safety personnel operating in the area. Sent by the Maui Emergency Management Agency.	Paul Coe
August 8, 2023	22:42	Evacuation Immediate Warning	Kīhei	WEA message: Evacuation for North Kīhei Evacuation order for North Kīhei area, north of Ohukai Road due to Brushfire. Repeat, Evacuation order for North Kīhei area, north of Ohukai Road due to Brushfire. Evacuate your family and pets now, do not delay. Recommended shelter is open at Maui High School Gym. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Sent by the Maui Emergency Management Agency.	Paul Coe

¹⁰⁸ <https://www.maui-county.gov/983/MEMA-Alerts>

¹⁰⁹ <https://www.fema.gov/emergency-managers/practitioners/integrated-public-alert-warning-system>

¹¹⁰ <https://www.fcc.gov/emergency-alert-system>

¹¹¹ <https://www.fcc.gov/consumers/guides/wireless-emergency-alerts-wea>

continued

MEMA Public Alerts August 8, 2023–August 9, 2023

Date	Time	Event Type	Area	Message	Created By
August 8, 2023	23:28	Evacuation Immediate Warning	Kīhei	WEA message: Evacuation for Kīhei Mauka (east) of Piilani Hwy Evacuation order Kīhei Mauka (east) of Piilani Hwy, including all of Maui meadows, due to Brushfire. Repeat, Evacuation order Kīhei Mauka (east) of Piilani Hwy, including all of Maui meadows, due to Brushfire. Evacuate your family and pets now, do not delay. Recommended shelter is open at Maui High School Gym. Expect conditions that may make driving difficult and watch for public safety personnel operating in the area. Sent by the Maui Emergency Management Agency.	Paul Coe
August 9, 2023	00:37	Evacuation Immediate Warning	Upper Kimo	WEA message: Evacuation for Upper Kimo Road Evacuation order on Maui for Upper Kimo Road due to Brushfire. Repeat, Evacuation order on Maui for Upper Kimo Road due to Brushfire. Evacuate your family and pets now, do not delay. Shelter is open at Hannibal Tavares CC. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Sent by the Maui Emergency Management Agency.	Paul Coe
August 9, 2023	01:26	Evacuation Immediate Warning	Kā'anapali	WEA message: Evacuation for Kualapa Loop in Lahaina. Evacuation order on Maui for Kā'anapali Golf Estates area, including Kualapa Loop, Puu'Anoano Street, Hakui Loop, Wekiu Place due to Brushfire. Repeat, Evacuation order on Maui for Kā'anapali Golf Estates area, including Kualapa Loop, Puu'Anoano Street, Hakui Loop, Wekiu Place due to Brushfire. Evacuate your family and pets now, do not delay. Shelter is open at Maui Preparatory Academy. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Sent by the Maui Emergency Management Agency.	Paul Coe
August 9, 2023	05:50	Evacuation Immediate Warning	Launiupoko	WEA message: Evacuation for Launiupoko Evacuation order on Maui for Launiupoko Estates area off Punakea Loop due to Brushfire. Repeat, Evacuation order on Maui for Launiupoko Estates area off Punakea Loop due to Brushfire. Evacuate your family and pets now, do not delay. Must evacuate toward Kahului, shelter at Maui High School or War Memorial. Expect conditions that may make driving difficult, and watch for public safety personnel operating in the area. Sent by the Maui Emergency Management Agency.	Paul Coe
August 9, 2023	06:17	Evacuation Immediate Warning	Kīhei Return	WEA long text message: Maui Fire and Maui PD have cleared Kīhei residents to return to the homes. Drive safely as there are public safety personnel operating in many areas. Maui Emergency Management Agency	Paul Coe

TIMELINE OF EVENTS

The EOC also submitted the following Requests for Assistance (RFA) during the same timeframe.

Table 4.3.6.4 EOC Requests for Assistance (RFAs) August 8, 2023–August 9, 2023.

EOC RFAs August 8, 2023–August 9, 2023				
Date	Time	Task	Purpose	Requestor
August 8, 2023	16:37	Requesting Hawai'i National Guard (HING) assets to immediately assist with MFD with fire suppression for the Kula fire. Immediate need through 81023.	MFD resources exceeded due to addressing two (2) fires in Kula and Lahaina (opposite sides of Maui Island).	Darryl Takeda
August 8, 2023	17:29	Requesting Civil Air Patrol (CAP) photo recon in Lahaina (West Maui) for fire intel. Along Lahaina Bypass from Hōkiokio Place to Fleming Road.	For intel for MFD.	Darryl Takeda
August 8, 2023	18:58	Request assistance transporting cots and other shelter supplies from Maui Humane Society in Kahului to Evacuation Shelter at Hannibal Tavares Community Center in Pukalani.	Preparing for overnight and extended evacuees in Pukalani Shelter due to ongoing fire in Kula.	Darryl Takeda
August 8, 2023	22:05	Requesting two (2) liaison officers to relieve Col Todd Curtright for Maui ECO HING rep	Request relief ASAP, but preferably before start of next operational period 89 @ 07:00.	Darryl Takeda
August 8, 2023	23:42	Request Search & Rescue Team to assist with searching for injured civilians in areas that were overrun by fire. Primarily Lahaina area and potentially other areas as the fires are still not contained.	Request Search & Rescue Team to assist with searching for injured civilians in areas that were overrun by fire.	Darryl Takeda
August 8, 2023	23:55	Requesting deployment of a Disaster Mortuary Team to assist with management of potential fatalities as a result of fire.	To assist Maui County with management of potential fatalities as a result of fire.	Darryl Takeda
August 9, 2023	01:31	Incident Management Team	None	Darryl Takeda

**Now known as Hawaiian Electric.*

^These records appear as they exist within WebEOC. Some records use the term “brushfire” and others use “bushfire.”

MEMA Timeline of Significant Events

Individual accounts of the MEMA staff present during the August 8, 2023, Lahaina fire follows. This information was gathered through in-person technical discussions and document review produced by Maui County Corporate Counsel in response to requests for information by FSRI (Table 4.3.6.5 on the following page).

Table 4.3.6.5 MEMA Timeline of Significant Events on August 8, 2023, and August 9, 2023, based on Andaya Call/Text Records and technical discussions (TDs).

MEMA Timeline of Significant Events Based on Andaya Call/Text Records and Technical Discussion	
August 8, 2023	Andaya received a text notification regarding Olinda fire (the same that the public would receive). The text was an evacuation order for the Kula 200 subdivision of 'Auli'i Drive due to a brushfire. He recalls he texted Paul Coe and Gaye Gabuat (his administrative assistant) for an update, and he was told the situation was manageable.
04:19	According to phone records, Andaya was part of a group chat that consisted of Mayor Richard Bissen, Leo Caires, Mahina Martin, Tori Takeyesu, Keku Akana, and Josiah, and he recalled receiving intermittent texts about the event. During the TD with FSRI, he stated he felt confident that Paul Coe, who has extensive fire service and emergency management experience, could manage the situation.
05:35	ALERT was sent out regarding EOC status update advising personnel to be prepared for possible full activation.
06:21	ROAD CLOSURE Hwy-30 between Front Street and Hōkiokio Place due to down MECO* poles on the road.
06:52	Per Akana, the Lahaina Civic Center had opened for any residents needing shelter.
07:10	ROAD CLOSURE Lahainaluna Road from Kelaweia Street to Ku'ialua Street due to brushfire.
07:18	Gabuat relayed to Andaya that Mayor Bissen arrived at the EOC.
08:18	ROAD CLOSURE UPDATE Hwy-30 between 'Aholo Road and Hōkiokio Place due to down MECO* poles.
08:59	Andaya relayed to Coe that Mayor Bissen did not think it was necessary at that point to issue emergency proclamation. Andaya recalled asking Mayor Bissen if Maui was going to do an emergency proclamation because he was aware the Big Island was issuing one. Andaya stated the Mayor did not think it was necessary at that point.
09:22	Col Udani (Hawai'i National Guard (HING)) texted Andaya requesting an update on the current brushfire. Udani advised they were working on an RFA for Hawai'i County's ongoing brushfire.
09:30	Andaya provided an update to Udani. Andaya advised there were two (2) fires on Maui–Lahaina and Kula. Andaya advised MFD had a handle on Lahaina, but Kula was greater concern. Andaya relayed MG Hara asked if Maui needed state assistance, but the Mayor and Chief indicated they could manage with current assets. In the TD, Andaya recalled he was sitting next to Major General (MG) Hara, and Hara asked if Maui needed resources. Andaya recalled that MG Hara advised the Big Island was requesting resources, and he inquired if Maui would need assistance. He advised MG Hara that Paul would request resources, if needed.
09:55	Andaya asked Gabuat how many homes have been destroyed. Gabuat responded at 10:06 that two (2) were destroyed.
10:41	Hauptman leaves EOC (she was with Paul Coe when partial activation started at 21:00 on August 7, 2023).
10:42	Andaya relayed to Gabuat that he did not see anything on WebEOC.
10:47	Maui EOC produced Situation Report (SitRep) No. 1. See Appendix 6.7
11:03	Bolor advised Andaya via text that once logged into WebEOC, there was a SitRep and shelter info. Andaya recalled that at approximately 11:00, there was a video teleconference with Maui and Big Island—and the wildfires on the Big Island were the primary concern. At 11:32, Andaya texted Hiro Toiya (Honolulu County Emergency Management Agency) that he was in a state video teleconference.
12:38	ROAD CLOSURE UPDATE: Lahainaluna Road open.
12:51	Andaya advised group text, per General Hara, the state may declare an emergency declaration, even if Maui County did not. Tori Takayesu advised they have a draft that Paul Coe was reviewing just in case.

continued

TIMELINE OF EVENTS

MEMA Timeline of Significant Events Based on Andaya Call/Text Records and Technical Discussion

13:44	Toiya (Honolulu County Emergency Management Agency) advised Andaya that Big Island announced full activation over Hawai'i Warning System (HAWAS) and expected to be operating 24/7 for the next few days. He asked if Andaya would be staying in O'ahu. Andaya advised that MEMA staff, the mayor, and the Fire Chief are not requesting additional assets like Big Island.
14:03	ROAD CLOSURE Hwy-30 closed between Papalaua Street and Lahainaluna Road.
14:16 – 14:24	Text thread establishes that Paul Coe had been relieved by Rocky Keohuhu-Bolor. Bolor was now EOC Director. At 14:57, Bolor requested State Emergency Declaration status from Andaya.
15:15 – 15:27	Gabuat advised Andaya that there was a new fire in Lahaina near the Intermediate School, and it was approaching houses. At 15:25, she advised the fire jumped the roadway, and they were closing the Bypass. Andaya asked if the Mayor was in the room; Gabuat responded no. She advised that MFD was going to do another evacuation.
15:24	Caires advised via text that Lt. Governor Luke signed the State Declaration. At 15:25, Andaya sent an update to the group chat and advised he would forward a copy.
15:28	Andaya advised James Barros that Olinda, and a portion of Lahaina had to be evacuated.
15:37	ROAD CLOSURE Lahainaluna Road closed between Hwy-30 and the Lahaina Bypass due to fire.
15:29	Andaya reported to group text that there was a new fire in Lahaina near the Intermediate School, approaching houses per Chief Giese. The fire had jumped over the roadway. They were closing Lahaina Bypass, and MFD was doing another evacuation.
15:50	Andaya advised Bolor that the State Declaration had been signed.
16:02	Andaya relayed to Gabuat that he was texting the Mayor when he received updates from her or Chief Giese.
16:03 – 16:10	Gabuat commented that multiple people look overwhelmed. Andaya asked if he should come home. Gabuat responds that it may look okay. Andaya asked when Paul Coe was scheduled to return, and Gabuat responded that Coe was returning at 19:00.
16:16	Bolor responded to Andaya that Wireless Emergency Alerts (WEA) were being issued for the evacuations.
16:30	Maui EOC was at Level 1 Full Activation. State Warning Point (SWP) was apprised. HI-EMA was at normal operations. The State of Hawai'i had published an Emergency Declaration covering Hawai'i County and Maui County.
16:55	During the briefing Gabuat texted Andaya. Rocky Bolor relayed Chief Giese working with Gina Albanese on the Fire Management Assistance Grant (FMAG), and it was two (2) incidents. Now waiting on National Guard.
17:31	Andaya had an eight (8)-minute conversation with Paul Coe. Andaya relayed to Gabuat that two (2) separate FMAGs need to be submitted, and Paul sounded panicked.
17:43	Andaya asked Gabuat if any homes on the west side had been lost, but she responded she did not know.
18:18 – 18:28	Andaya and Gabuat texted about the shelter situation. Andaya advised they should activate the Community Emergency Response Team (CERT) to assist with shelter staffing and Red Cross.
19:00 – 20:31	Text communications between Andaya, Barros, and Bissen focused on request for assistance (RFA), including deployment of Air National Guard and possible aviation support on 8/9, if weather conditions permitted.
19:19 – 19:52	Luke Meyers (HI State Disaster Mgt. Adv.) requested status of Lahaina from Andaya. Meyers relayed there were social media reports of apartments and structures being affected. Andaya responded that Lahaina flared up again, Kelaweia Mauka subdivision was evacuated, and Lahaina Bypass was closed. Meyers asked if any businesses had been lost, and Andaya said he believed one (1) had.
19:47	ROAD CLOSURE Hwy-30, Lahaina bound closed at Ma'alaea.
20:06	Gabuat relayed there was a bad fire on Front Street. Andaya responded that he better come home tomorrow.
20:06	ROAD CLOSURE Hwy-30 to Lahaina bound traffic at Leiali'i Parkway, Kā'anapali bound open.

*Now known as Hawaiian Electric.

^These records appear as they exist within WebEOC. Some records use the term "brushfire" and others use "bushfire."

MEMA Timeline of Significant Events Based on Andaya Call/Text Records and Technical Discussion

20:07	ROAD CLOSURES Multiple road closures in Lahaina Town. Do NOT go to Lahaina Town.
20:08	Gabuat advised there were reports that about 100 people were going into the ocean to escape the smoke.
20:38	ROAD CLOSURE Keawe Street closed Hwy-30 to Lahaina Bypass.
21:01 – 21:14	Text conversation about loss of use of Lahaina and Kihei shelters due to staffing. Andaya recommended having county workers operate shelters like Honolulu and Kaua'i do, but Gabuat relayed Bolor raised liability issues.
21:31	Maui EOC produced SitRep No. 2 (see Appendix 6.8).
21:38	Gabuat advised there was now a fire in Kihei near Pūlehu Road.
21:57	Gabuat advised the Maui High School gym was now open with county workers.
22:39	Gabuat advised Kā'anapali hotels may have to be evacuated. Andaya asked if the Red Cross was in the room and to have them call his cell.
23:04	Andaya informed Barros he would be flying back to Maui tomorrow morning (8/9).
August 9, 2023	
01:11	Gabuat advised another evacuation in Lahaina and that it looks like the area from Lahaina to Kā'anapali had been destroyed.
03:16	National Weather Service (NWS) event canceled. High wind warning from 8/9/2023 03:15 to 18:00 HST for Maui County. Event extended wind advisory from 8/9/2023 03:15 to 18:00 HST for Maui County.
03:44	ROAD CLOSURE Kahekili Hwy closed to Lahaina bound traffic (evac. from Lahaina only).
03:59	ROAD CLOSURE UPDATE All roads in Lahaina Town are closed. Emergency personnel only.
07:03	Andaya requested to speak with Kuhea (HECO*) or an alternate contact number for HECO*. Balmores advised they were in their 07:00 shift change briefing.

TIMELINE OF EVENTS

4.3.7 Crisis Communications

Maui Mayor Richard T. Bissen, Jr.

With the approach of Hurricane Dora, Mayor Richard T. Bissen, Jr. was kept aware of weather forecasts by MEMA via email.

Given concerns about high winds and the NWS fire danger warnings, two (2) MEMA staff members were assigned to the EOC on the night of August 7, 2023.

When Mayor Bissen visited the EOC that evening (August 7, 2023) at approximately 19:30, it was empty, and he realized the night shift coverage was scheduled to start at 21:00.

On the morning of August 8, 2023, Mayor Bissen recalled receiving a text alert on his phone, around 05:00, that emergency evacuations were happening in Kula and a shelter was being opened. While he was already scheduled to be at a meeting in Kula that morning, he went directly to the EOC and arrived at approximately 06:00/06:30. At that point, he only knew about one (1) active fire—in Kula.

Arriving at the EOC, Mayor Bissen noted it was the most people he had seen in that facility since taking office in January 2023. Individuals present included the managing director, chief of communications, assistant fire and police chiefs, and MEMA personnel. He did not believe that all the available positions (approximately 60) were filled at that point but reported that later in the event, there were more than 100 people in the EOC.

At approximately 06:30, Mayor Bissen recalled that Lahaina reported a fire as well. While that fire was being monitored, “everything was about Kula,” given the larger size of the Kula fire and adjacent evacuation area at that time.

Mayor Bissen attended the HI-EMA statewide coordination meeting via Zoom that morning at 11:00 and recalls seeing Major General (MG) Hara, MEMA Administrator Herman Andaya, FEMA Regional Administrator Bob Fenton (who he didn’t know then), and several others standing around a camera—since they were all at the Pacific Partnership 2023 Meeting on O’ahu. There was great concern about fires on the Big Island and in Kula at that time; the winds on Hawai’i and Maui were steadily increasing, and air assets could not be used.

Later that morning, Mayor Bissen was advised that the Lahaina fire was contained.

Throughout the day on August 8, 2023, until approximately 02:30 the next morning (August 9, 2023), Mayor Bissen reported staying at the Maui County government complex in Kahului, moving between the EOC and his office.

“Nothing had let up in Kula” during this time; Mayor Bissen could still see the fire burning from the County Complex and thought Kīhei High School [Kūlanihāko’i High School] was going to be lost.

*Now known as Hawaiian Electric.

Arriving at the EOC on the morning of August 9, 2023, Mayor Bissen was first made aware that lives were lost in Lahaina. Later that day, when weather conditions allowed the CAP to perform a reconnaissance flight over Lahaina Town, “then [he] saw what happened.”

Mayoral Communication with MEMA

Mayor Bissen reported that his role in the EOC was to “ask layperson questions,” “be supportive,” “get needed resources,” and “not take over” from the professional staff in the EOC.

Much of the communication that occurred in the EOC was verbal, and Mayor Bissen recalled that it “got very loud.” Fire and police portable radios were the “main lifeline” for information from the field. At one point, Assistant Fire Chief Giese gave a report about the Lahaina fire during an EOC briefing.

There was limited information coming in from other sources and “nothing in real time.”

Mayor Bissen and his staff started seeing information “trickle in” via social media and also started getting calls from Lieutenant Governor Luke and others. He did not remember seeing any written flash reports or situation reports with “everything coming verbally.”

There was “no reliable communication other than (public safety) radio,” Mayor Bissen recalled. “Nobody knew how bad it was.” At one point, the room in the EOC got quiet, and he could tell something serious had happened. Assistant Fire Chief Giese reported that they had not received communication from one of the fire crews. Mayor Bissen does not remember how he found out about the water rescues along Front Street; his main concern was getting them out of the water.

In the EOC, Mayor Bissen spoke with the airport fire chief and obtained assistance with refilling SCBA cylinders for the MFD.

Mayor Bissen spoke to Lt. Colonel Curtright with Cto ask for help with traffic control, at the request of MPD. While he was initially reluctant to call MG Hara directly until advised that this was a past practice, he asked Administrator Andaya for MG Hara’s number. Shortly thereafter, he received a call directly from MG Hara and got immediate assistance, “like WD-40.”

Mayor Bissen “worked to get resources to people who needed them—not to decide what resources were needed.”

Setting Up Shelters

Mayor Bissen reported that, over the course of August 8 and 9, 2023, “we were opening shelters left and right, 6 or 7.” Due to changing conditions like fire impingement, loss of power, loss of water, etc., shelters were opened, closed, or relocated throughout the incident.

TIMELINE OF EVENTS

Maui County and Mayor's Office employees worked with many community volunteers and partners to open, staff, and provide resources for shelters across Maui in both Kula and, later, Lahaina.

The Maui Mayor's Office has one (1) satellite phone, and it was given to the Lahaina Civic Center shelter facility so evacuated families could reach their loved ones.

Mayor Bissen called the state Department of Education to have the principal come in and open Maui High School as a shelter.

Mayoral Press Briefings

On August 8, 2023, Mayor Bissen canceled all scheduled meetings and felt like he spent the day in the EOC doing radio and television interviews from his office or the EOC conference room.

At 10:00 on August 9, 2023, Lt. Governor (LG) Luke, MG Hara, and others held a press conference where Mayor Bissen made an initial report of six (6) fatalities on Maui.

Mayoral Emergency Proclamation

Around 20:00 on August 8, 2023, Mayor Bissen signed a local emergency proclamation. See Appendix 6.9 for full text of the mayoral emergency proclamation.

Governor Josh Green, M.D.

On July 30, 2023, Governor Josh Green flew from Honolulu to the continental United States for a family reunion.

From July 30, 2023 through August 7, 2023, Governor Green was in contact with his staff on O'ahu who were watching the approach of Hurricane Dora and assessing his potential return to Honolulu ahead of the storm. When it became apparent that Dora would pass far south without directly impacting the State of Hawai'i, Governor Green continued his planned two (2)-week visit with family.

On August 8, 2023, Governor Green became aware of a fire on the Big Island of Hawai'i, after receiving a call from his aunt and uncle in Waikoloa.

Around 21:00 EDT on August 8, 2023, (approximately 16:00 HST), Governor Green was notified about the Maui fires by his chief of staff. At that time, very little information was available about the extent of the fires on Maui, and he became increasingly concerned about the situation.

On August 9, 2023, in the morning, approximately 08:00 EDT/03:00 HST, Governor Green received an informal call relaying the information that multiple casualties were being treated on Maui, with patient transfers to hospitals on O'ahu. With that call, Governor Green decided to return home immediately and booked the soonest available flights from the East Coast: Logan International Airport in Boston, to Seattle-Tacoma, then back to Honolulu.

As Governor Green began his transit back home, he told his staff on O'ahu to begin preparing a major disaster declaration (MDD). Over the next couple hours, it became evident that the Lahaina fire was a terrible tragedy, although the ultimate scale was still unknown.

Gubernatorial Press Conferences

On the night of August 9, 2023, during a brief layover in Seattle, Governor Green did a television interview before boarding his final flight to Honolulu. At that point, the extent of the tragedy in Lahaina was still not clear.

Gubernatorial Emergency Proclamation

After landing in Honolulu, Governor Green signed the MDD, and it was transmitted to the White House just before midnight (HST) on August 9, 2023. See the Appendix 6.10 for the emergency proclamation.

On August 10, 2023, first thing in the morning, Governor Green flew to Maui and went directly to the Maui County Emergency Operations Center.

Lieutenant Governor Sylvia Luke

Prior to Governor Green's planned vacation, the state of Hawai'i had arranged for Lieutenant (Lt.) Governor Sylvia Luke to act in the capacity of the state's governor during the governor's absence.

With the impending passage of Hurricane Dora, Acting Governor Luke, HI-EMA, and the Governor's Office were briefed by the National Weather Service (NWS) on wind and weather conditions, with a Red Flag Warning issued on August 7, 2023.

In the early morning hours of August 8, 2023, Lt. Governor Luke awoke to windy conditions like she had never experienced during her many years in Honolulu. Although scheduled to attend a conference that day, Acting Governor Luke canceled her travel plans and began communicating regularly with various state officials, including Major General (MG) Hara.

080721AUG23: Text message from MG Hara to Governor, Lt Governor, Chief of Staff (CofS), Makana, Luis Salaveria, Mayor Roth, and Dawn Chang. Subj: HING Staffing a mission for CH-47 and crew support to Hawai'i County.

At 09:00 that morning, Acting Governor Luke received the first situation report (SITREP) from HI-EMA.

080930AUG23: MG Hara directed administrator Barros to schedule a statewide coordination meeting at 11:00 with Acting Governor Lt. Gov. Sylvia Luke, Counties, FEMA, HING, and other Emergency Management stakeholders.

Later that morning on August 8, 2023, at 11:00, Acting Governor Luke received her first briefing during a HI-EMA virtual coordination meeting that included all counties across the State of Hawai'i.

TIMELINE OF EVENTS

At that time, the primary concern expressed by participants was for wildfires on the Big Island of Hawai'i; she noted that Hawai'i County was actively "making requests for help" from HI-EMA for Hawai'i National Guard (HING) air support. It appeared the Maui County EOC was not fully activated, and she did not get the impression there was a significant concern on Maui.

At 14:00 on August 8, 2023, the next SITREP issued by HI-EMA indicated that the EOC in Hilo, Hawai'i (on the Big Island) was fully activated. Indications from Maui were that the Upcountry fire in Kula was their major concern, with only a partial EOC activation.

At about 21:00 on the evening of August 8, 2023, the Lt. Governor's Office began receiving numerous media inquiries about the situation on Maui. These outlets reported they could not get a response from Maui County and also stated that people were "jumping in the water." Acting Governor Luke conveyed these inquiries to staff in the Governor's Office, while her own staff monitored social media in an attempt to gain a picture of what was happening on Maui.

Approximately one (1) hour later, Lt. Governor Luke's staff began finding accounts of "Lahaina on fire" through social media and also their personal networks. Acting Governor Luke remembers calling MG Hara and confirming that both of them were not getting accurate information from Maui. They discussed the differences between the information contained in the SITREPs and what they were now learning from social media and other sources.

Around 23:00, Acting Governor Luke recalls telling HI-EMA Administrator Colonel Barros that he needed to be "more proactive" in getting information from Maui, and he advised that HI-EMA was preparing another SITREP.

Lt. Governor Luke and her staff worked through the overnight hours from August 8, 2023, into August 9, 2023, trying to develop a sense of the situation in Maui.

090415AUG23: Acting Governor Sylvia Luke called MG Hara on work phone twice within the hour.

Only after daylight on August 9, 2023, did the magnitude of the tragedy start to become apparent.

At 10:00 on August 9, 2023, Acting Governor Luke, MG Hara, and others held a press conference where Mayor Bissen reported six (6) fatalities on Maui.

091000AUG23: Acting Governor Sylvia Luke Maui Fires & Hurricane Dora Press Conference. I [MG Hara] briefed NGCS support efforts. Mayor Bissen made initial notification of 6 fatalities during his brief.

Another press conference was held at 21:00 on August 9, 2023, with Lt. Governor Luke presiding in her role as Acting Governor.

092100AUG23: Acting Governor Luke Press Conference at Hawai'i Convention Center, attendees/speakers:

- Lieutenant Governor Sylvia Luke (serving as Acting Governor)
- Major General Kenneth S. Hara, Adjutant General, Hawai'i State Department of Defense
- Bob Fenton, Region Administrator, Federal Emergency Management Agency
- Senator Mazie Hirono
- Senator Brian Schatz
- James Tokioka, Director, Department of Business, Economic Development & Tourism

Governor Green arrived back on O'ahu the night of August 9, 2023, and resumed his responsibilities.

Lt. Governor Emergency Proclamations

Lt. Governor Luke signed a state-level emergency proclamation at 15:21 on August 8, 2023, allowing the HING to provide counties with assistance and giving access to state emergency funds.¹¹²

081521AUG23: Acting Governor issued Emergency Proclamation for Hurricane Dora and Wildfires.

Also on August 8, 2023, Lt. Governor Luke spoke with representatives from the White House about the Presidential Disaster Declaration process.

A second emergency proclamation was issued at 07:54 the morning of August 9, 2023, in an attempt to divert people from flying into Maui unless they were part of the emergency response.

090754AUG23: Second Proclamation Relating to Wildfires (discouraging nonessential travel to the Island of Maui).

A third emergency proclamation for the wildfires was issued at 13:57 on August 9, 2023.¹¹³

091357AUG23: Third Proclamation Relating to Wildfires

Hawai'i Emergency Management Agency (HI-EMA)

With the approach of Hurricane Dora, HI-EMA conducted a virtual statewide coordination meeting for state agencies, county officials, and federal partners on August 4, 2023, at 13:00. This meeting included a briefing from the NWS HFO on the impending high winds, surf, and potential fire danger arising from Dora's passage.

041300AUG23: Tropical Cyclone Dora Statewide Coordination Meeting (Virtual) NWS brief on high winds, possible red flag warning, and high surf.

****Note:** Italicized text is quoted directly from the "HI-EMA Administrator Timeline" document provided to FSRI. See Appendix 6.11.**

¹¹² Emergency Declaration <https://dod.hawaii.gov/hiema/governor-issues-emergency-proclamation-relating-to-wildfires/>

¹¹³ Emergence Declaration <https://dod.hawaii.gov/hiema/governor-issues-third-proclamation-relating-to-wildfires/>

TIMELINE OF EVENTS

The NWS HFO subsequently issued a statewide Red Flag Warning on August 7, 2023, at 03:15.

070315AUG23: National Weather Service (NWS) issues Red Flag Warning.

At 09:00 on August 7, 2023, MG Hara convened a division meeting with HING and HI-EMA leadership, the state homeland security administrator, and all key staff.

070900AUG23: The Adjutant General (TAG) Division Meeting—TAG initial guidance to Hawai'i National Guard (HING): be prepared to (BPT) execute National Guard Civil Support (NGCS) operations due to possible impacts from Hurricane Dora and the High-pressure system north of the state (Pressure gradient). Anticipated missions: Aerial Fire Suppression, Security, Incident Awareness and Assessment, Emergency Evacuation.

In the morning hours of August 8, 2023, at approximately 04:00 and 04:20, the HI-EMA State Warning Point (SWP) received two (2) "flash reports" from the Hawai'i County EOC in Hilo, with information about two (2) fires of concern.

Later that morning, at 06:38, Hawai'i County Mayor Roth notified state officials about two (2) fires on the Big Island.

080638AUG23: Mayor Roth notifies Governor, MG Hara, etc. that 2 major fires active. (Hawai'i County) Emergency Operations Center (EOC) is activated. Kohala Ranch is evacuated and may need helicopters.

Shortly thereafter, the Hawai'i County EOC made a formal RFA with aerial firefighting assets to the HING's joint operations center (JOC) through HI-EMA's WebEOC system.

In response to this request, at 07:15 on August 8, 2023, MG Hara directed that HING helicopters be placed on alert to support Hawai'i County, and mission planning was started by the appropriate personnel.

At 07:48, the Hawai'i Army National Guard (HIARNG) state aviation action officer (SAAO) advised the HING joint staff that "helicopters [were] unable to launch due to wind speeds."

Also around this time, HI-EMA became aware that fires were being reported on Maui and, at the direction of MG Hara, the HING joint operations chief (J3) emailed HI-EMA Operations at 08:50 and then followed up directly with MEMA to get more information.

080852WAUG23: HING/J3 responded to TAG's text RFI on 080831WAUG2023. "HI-EMA is calling Hawai'i County for an update and they haven't received anything from Maui. I'll call MEMA direct"

HI-EMA released its first situation report (SITREP) at 09:00 on August 8, 2023. This report included information about two (2) "brush fires" on Maui; "Upper Kula," and "Lahaina: in the area of Lahainaluna Road."

At 09:09, the HING/J3 sent a direct email to MEMA Administrator Herman Andaya:

"Good Morning Herman, We are currently working an RFA for Hawai'i County regarding their ongoing fire(s) and I'm just reaching out to you for any update with your ongoing brush fire(s)."

No response to this email was received.

At 09:22 and 09:27, the HING/J3 texted MEMA Administrator Andaya directly:

"Aloha Herman, This is COL Udani with the Hawai'i National Guard. Checking in with you for any updates on the current brush fire. We are working an RFA for Hawai'i County's ongoing brush fire."

"Sorry, just found out you're at the Pacific Partnership Meeting."

And received a (text) response at 09:30:

"No worries. There are two fires on Maui, Kula and Lahaina. Seems that Maui Fire Department (MFD) has a handle on Lahaina. Kula is a different story. Spoke to Gen Hara and he mentioned that Big Island is requesting assistance and if Maui needed State assistance. Spoke to Mayor and Chief, and they indicated that they are able to fight this fire with the assets they have ... for now. Thank you for asking. I'll keep you posted."

Also at 09:30 on August 8, 2023, MG Hara directed HI-EMA Administrator Barros to schedule a statewide (virtual) coordination meeting at 11:00 that day. In advance of this meeting, MG Hara recalls speaking with the state's acting attorney general to confirm the RFA process, as well as Acting Governor Luke to request an emergency declaration (issued August 8, 2023, at 15:21) allowing access to the state's major disaster fund (MDF) to deploy HING and other state resources.

A virtual statewide coordination meeting was held at 11:00 on August 8, 2023. Several of the principals participating in this event were already attending the Pacific Partnership Meeting on O'ahu and joined together via Microsoft Teams from that location.

081100AUG23: Statewide coordination meeting held virtually. Present at the 'Alohilani Resort were MG Hara, Administrator Barros, HI-EMA Executive Officer (XO) Don Aweau, FEMA Rep, MEMA Herman Andaya, KEMA Elton Ushio, American Red Cross (ARC) Diane Peters-Nguyen, and Defense Coordinating Officer (DCO) COL Brian Watkins.

MG Hara left the Pacific Partnership Meeting at 13:00 on August 8, 2023, and returned to HING Headquarters (HQ) at Fort Ruger, where he met with key staff and then "spent an hour" with HI-EMA leadership.

At 13:45, in response to Hawai'i County's RFAs, the HING tasked Hawai'i Army National Guard (HIARNG) and Hawai'i Air National Guard (HIANG) personnel with providing support to the Hawai'i County Civil Defense Agency.

TIMELINE OF EVENTS

HI-EMA's second SITREP was disseminated at 14:00 on August 8, 2023, and reflected that both Hawai'i and Maui Counties were dealing with brushfires. This SITREP contained the following information regarding Maui County:

Maui County

- Maui EOC is partially activated.
- Maui Fire department reports two brush fires:
 - Upper Kula: near Haleakala Highway and Kula Highway.
 - Evacuations underway for Haleakala 377 area of MM2, Kula 200 subdivision: Aulii Drive, Hanamu Road, Hoopalua Drive, and Kealaloo and Meha to the Y.
 - Open shelters at Hannibal Tavares Community Center and King Kekaulike High School. Oskie Rice Arena opened for evacuation, staging, and large animal evacuation.
 - Approximately 675 acres.
 - Containment unknown.
 - Impacts: 2 residential structures lost. No injuries or loss of life.
 - Lahaina: in the area of Lahainaluna Road.
 - Open shelter at the Lahaina Civic Center
 - Approximate 3 acres burned.
 - 100% Contained.
 - Impacts: No structures lost. No injuries or loss of life.

Figure 4.3.7.1 Source: Excerpt from HI-EMA Situation Update Number 2 document from August 8, 2023 at 14:00.

HI-EMA sent a staffing email to five personnel at 14:47 on August 8, 2023, advising that, "HI-EMA will be activating the SEOC tomorrow [8/9/23] morning in support of the counties' brushfires response."

At 15:30, HI-EMA/HING became aware that the situation on Maui was changing.

081530AUG23: A Lahaina fire flareup prompts evacuations, a road closure, and Shelter-In-Place (SIP) advisory on W. Maui.

On August 8, 2023, at 16:00, MG Hara convened a meeting with senior HING leadership to provide an update that the "situation [was] dynamic" and to reorient HIARNG aviation support toward Maui County (by this time, Hawai'i

County was working directly with the Pōhakuloa Training Area to obtain support from active army helicopters available at that location on the Big Island).

At 16:28 on August 8, 2023, HING Lieutenant Colonel (LTC) Curtright—located on Maui—received a call from MEMA requesting a HING representative in the Maui EOC; he immediately responded to that location and arrived approximately 17:00–17:20.

The first formal RFA from Maui County was received by HING via WebEOC at 17:45 on August 8, 2023.

081745AUG23: MEMA Maui County Support RFA #102259 to HING for immediate assistance with the Maui Fire Department and Maui Police Department for the Kula fire.

At 18:25, MG Hara held a meeting in his office and approved the HING's initial plan to support Maui County's RFA. By 20:00 that night, the HING had staffed the aviation and traffic control point missions requested by Maui County, starting the morning of August 9, 2023—weather permitting (for the helicopters slated to perform aerial firefighting).

HI-EMA Administrator Barros recalled speaking with MEMA Administrator Andaya "several times" on August 8, 2023, and hearing from him about the fire in Lahaina. Barros stated, "We have it contained," and indicated they were "worried about Kula and damaged structures."

During a meeting at HING headquarters, between 20:00 and 20:45 that night, MG Hara was notified by MEMA Administrator Andaya that Maui Mayor Bissen wanted to talk with him directly; MG Hara called Mayor Bissen at 20:48 and gave LTC Curtright immediate authority to deploy 16 HING members on Maui to help support the MPD with traffic control. During this call, MG Hara did not receive "any further details as to the severity of the fires in Lahaina" and recollected that the "focus was on the Kula fire threatening homes and property."

During the late evening hours of August 8, 2023, HI-EMA Administrator Barros got a call from the USCG in Honolulu advising, "They were launching cutters from O'ahu because of reports of people in the water on Maui." Administrator Barros reached out to MEMA for confirmation and received no additional information. Shortly thereafter, he received a call from the Hawai'i Tourism Authority "asking what they are supposed to do on Maui." At that point, Administrator Barros "started trying to bring in HI-EMA people as soon as they could get [to the SEOC]."

At 00:41 on August 9, 2023, another RFA was received from Maui County for SAR support.

On August 9, 2023, at 00:56, MG Hara approved the launch of up to two (2) HING helicopters for Maui County at 07:00 that day.

TIMELINE OF EVENTS

The HI-EMA SWP alerted multiple state agencies at 01:17 that the SEOC would be activating at 06:00 on August 9, 2023, with state emergency support functions (SESFs) for:

- Transportation (SESF1)
- Communications (SESF2)
- Firefighting (SESF4)
- Mass Care, Housing, and Human Services (SESF6)
- Energy (SESF12)
- Military Support (SESF20)

At 01:20 on August 9, 2023, MG Hara approved HING personnel to provide SAR support for Maui County effective immediately, using a 12-person team already on Maui, with additional personnel from O’ahu deploying at 07:00 via military aircraft.

MG Hara received two (2) calls from Acting Governor Luke at 04:00 and 04:15 the morning of August 9, 2023. He recalled, “That was the first time I knew Lahaina [Town] burned; we still didn’t know how many died.”

At 06:00 on August 9, 2023, the HI-EMA SEOC began moving into a full activation status, including staffing a “Maui desk” to provide direct/continual communication with MEMA and the Maui County EOC.

At 06:28, HI-EMA sent an invitation for a state-county (virtual) coordination meeting about the fires in Hawai’i and Maui Counties; this meeting occurred at 08:00 on August 9, 2023.

MG Hara departed HING HQ for the Hawai’i state capitol at 09:00.

During a 10:00 press conference with Acting Governor Luke at the state capitol, “Mayor Bissen made initial notification of 6 fatalities during his [virtual] brief.”

At 11:00 on August 9, 2023, a HIARNG CH-47 Chinook helicopter made its first aerial firefighting water drop on Maui at the Kula fire.

During the balance of the day on August 9, 2023, HI-EMA continued to bring additional personnel into the SEOC, and the HING sent additional resources to Maui, including a KC-135 aircraft with 30 personnel at 18:23.

On August 9, 2023, at 18:28, HIARNG helicopters Imua 833 and Imua 835 (both CH-47 Chinooks) completed 13 flight hours and 58 total water drops over Maui.

Another press conference was held at 21:00 that night at the Hawai’i Convention Center in Honolulu.

At 7:05 on August 10, 2023, MG Hara departed for an initial aerial survey of Lahaina with Governor Green and FEMA Regional Administrator Fenton.

4.3.8 American Medical Response (AMR)

On a typical day, American Medical Response (AMR) staffs nine (9) Advanced Life Support transport units (ALS) and one (1) ALS Special Response Vehicle (SRV). Usually, three (3) ALS units are based on West Maui (one (1) in Lahaina and two (2) in Nāpili). In response to the most acute phase of the incident (from the time EMS was activated around 15:40 on August 8 through first light on August 9), AMR deployed one (1) SRV paramedic unit to establish Medical Command and three (3) additional ALS units for a total of six (6) line ambulances in West Maui. One (1) of the ambulances established triage, treatment, and transport areas for Command. A mini-clinic/triage was set up in a MFD truck bay at Medic Station 5 in Nāpili, and ambulances responded to calls from this site.

Additionally, three (3) back-up ambulances and additional on- and off-duty personnel who responded to the scene were placed into varying functional roles. AMR worked closely with MFD and MPD and activated Coast Guard assets who played a valuable role from the water. During those first few hours, the EMS system triaged and treated over 60 patients and transported over 30 patients by ambulance.

Communication was difficult, especially in the early hours of the event. Many people came directly to the Nāpili Fire Station because there was no phone (911) service. Cell phone and pager service was also interrupted. Medical communications were maintained with Central Dispatch via the ultra high frequency (UHF) and 800 megahertz (MHz) radios.

AMR Transport Data as provided by Hawai’i State Department of Health:

- 31 responses for patient care
- 27 patient transports
- Three (3) patients refused transport
- One (1) patient has no record of transport
- Nine (9) patients (three (3) females and six (6) males) were transported shortly after 15:40 on August 8, 2023 from Lahaina Bypass and Lahainaluna Road. These patients did not have their ages recorded.
- Eight (8) additional patients were transported on August 8, 2023
- 13 patients were transported on August 9, 2023
- 17 males
- 13 females
- One (1) gender not reported
- Ages ranged from 30–92
- Ten (10) smoke inhalations
- Six (6) burns
- Two (2) burns with smoke inhalation

TIMELINE OF EVENTS

4.3.9 U.S. Coast Guard Operations (USCG)

The following information was provided by the USCG Sector Honolulu (USA) via three (3) emails to FSRI personnel on January 23, 24, and 26, 2024.

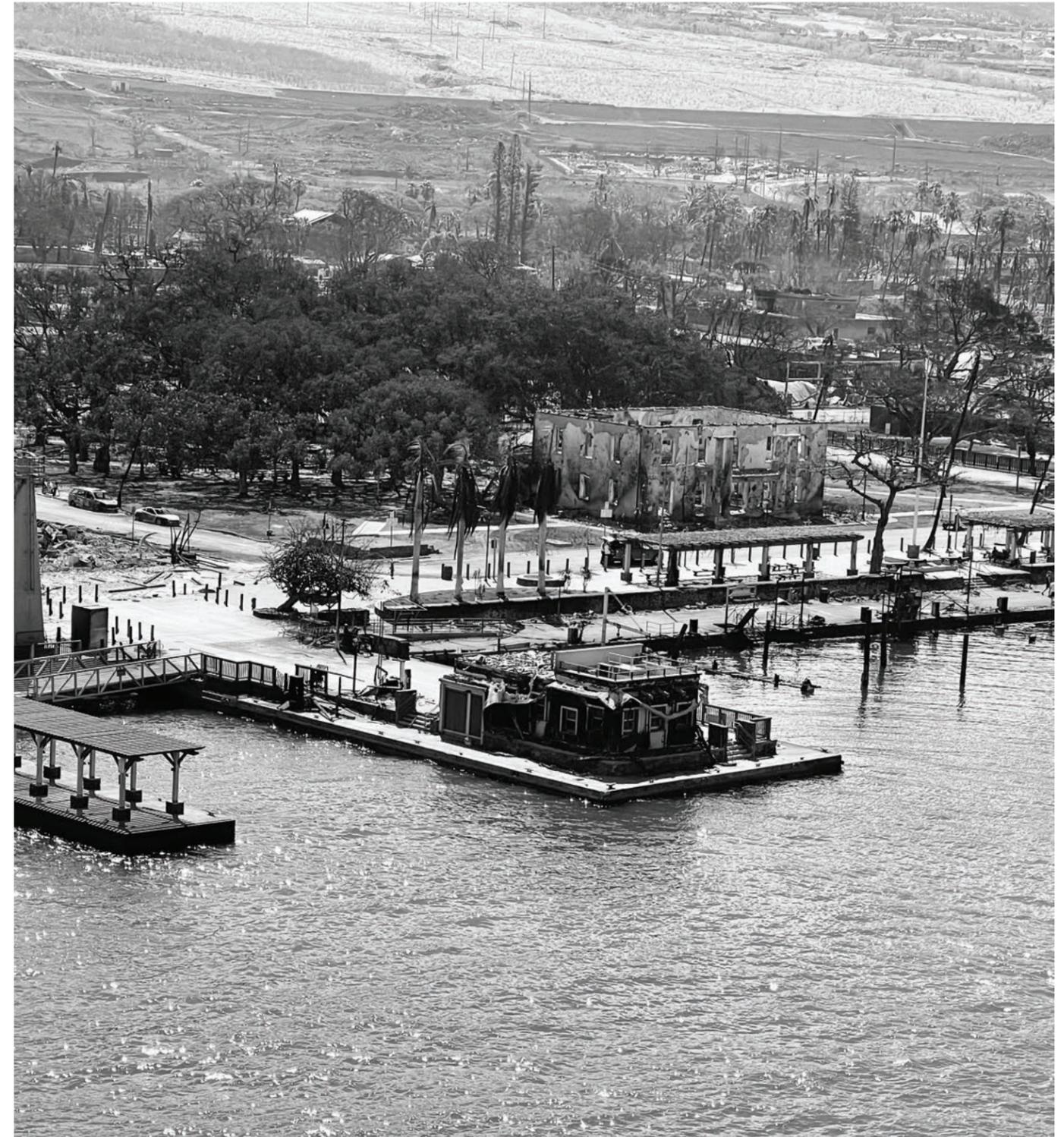
At 17:53 on August 8, 2023, USCG received a request from MPD dispatch for USCG assistance for an EMS transfer in response to a report of people in the water at Lahaina break-wall. O'ahu USCG headquarters coordinated the SAR effort, treating the incident as a mass rescue. One (1) Response Boat–Medium (RBM) from Ma'alaea Harbor responded. The RBM arrived at Lahaina harbor at approximately 19:00. The RBM vessel reported sustained winds of 35 knots (40 mph), with gusts up to 50 kts (57 mph) and initial visibility of eight (8) nautical miles (NM); this visibility was reduced to less than ten (10) feet as they entered the dense plume of black smoke emanating from Lahaina. In addition, airborne embers were landing on and around the crew members. A still image shows the fire and smoke, while the RBM moved toward the Lahaina shoreline (shown in Figures 7 through 9).

A USCG helicopter rescue swimmer was transported by ground to the harbor, but helicopters were grounded due to high winds. The rescue swimmer assisted with shore-based rescues. A USCG C-130 plane was requested for SAR, but aircraft were ineffective due to poor visibility from smoke. Although precise rescue longitude and latitude coordinates are not available, rescue operations were performed in the vicinity of the Lahaina Harbor break-wall. USCG recovered one (1) deceased female, approximately 40 years of age. The saved/rescued individuals were transported via the RBM to Ma'alaea Harbor where they were then transported via ground ambulance to the hospital.

Seventeen people, ranging from five (5) to 60 years of age, were rescued from the water, and 40 were assisted from ashore. Patients suffered various burns and cuts. Most of the patients were suffering from the side effects of smoke inhalation. One (1) individual suffered fractures to both ankles. A certified emergency medical technician (EMT) was on board and completed assessments of all patients. Patient care information was then passed to the Emergency Medical Services (EMS) while patients were being offloaded. The patients who were taken ashore were received by local EMS. The Emergency Operations Center (EOC), part of the Emergency Management Center (EMC), tasked the National Park Service's EMTs with assessing and treating all patients prior to boarding a city bus, which transported victims to shelters for additional care.

An O'ahu-based USCG Cutter and U.S. Navy resources were requested to provide assistance. The USCG Cutter positioned itself within ten (10) miles of the Lahaina coastline. The USCG served as a maritime SAR coordinator, coordinating search efforts with those of Good Samaritan vessels and other partner agencies. A cutter small boat spotted a body on the Lahaina shoreline (time could not be confirmed). The Hawai'i Department of Land and Natural Resources (DLNR) was advised for body recovery.

USCG SAR operations in Lahaina were conducted from August 8, 2023, through August 11, 2023.



TIMELINE OF EVENTS

4.3.10 Aircraft Rescue and Firefighting (ARFF) Units

Fire 4 (F4) reported he had a face-to-face conversation with Chief Colby Handly (Airport Fire), who came to the EOC at one point on the evening of August 8, 2023 (does not recall the time). Chief Handly asked how the airport could assist. The airport has specific protocols in place regarding what apparatus, if any, can leave the airport. Those protocols were unknown to F4.

Per dispatch, F4 relayed to command that two (2) ARFF units would be responding to assist (i.e., designator Airport Fire and Kapalua ARFF or K-ARFF). Airport Fire was assigned to Structure Group and K-ARFF was assigned to Support Group.

At 21:26, Command assigned Airport Fire to Structure Group.

At 22:07, Command from Kapalua ARFF: “We have one (1) utility vehicle if you need support moving the abandoned at the Civic Center. We also have 60 at the airport seeking refuge.”

Command disbanded Support Group at 23:54 as all units relocated from the Highway and Hawaiian Homes to Kā’anapali.

At 00:35, Command re-established Support Group. Command assigns Kapalua ARFF to Support Group, reporting to U3B. Command advised Support Group is to provide support function and prepare for evacuation for the next neighborhood north.

Table 4.3.10.1 Aircraft Rescue and Firefighting (ARFF) Units on August 8, 2023, and August 9, 2023.

Date / Time	ARFF UNITS
August 8, 2023	
06:00 – 08:00	
08:00 – 10:00	
10:00 – 12:00	
12:00 – 14:00	
14:00 – 16:00	
16:00 – 18:00	
18:00 – 20:00	20:16 Fire 4 (F4) advised the EOC that they were arranging for an ARFF truck (three (3)-person crew) to respond from Kahului. Command acknowledged and said they were looking forward to the help.

continued

Date / Time	ARFF UNITS
20:00 – 22:00	<p>21:18 Airport Fire reported that they were at Lahainaluna and the Bypass waiting for assignment.</p> <p>21:26 Command asked Structure Group if they needed additional resources and that two (2) engines were available. Structure Group advised there were no viable hydrants, but the engines could still be used. Command assigned Airport Fire to report to Structure Group.</p> <p>21:37 Airport Fire advised they were at Wialea (unreadable—likely Leialii) Parkway ready for assignment. Structure Group assigned Airport Fire to stage at the top of Hawaiian Homes and monitor.</p> <p>22:07 Kapalua ARFF (K-ARFF) reported they had one (1) utility vehicle to support evacuation of the Civic Center to Maui Prep if needed and advised that there were 60 civilians seeking refuge at the airport. Command advised K-ARFF to report to Support Group for assignment.</p> <p>22:09 All Support Group units were assigned to report to Fire Station 3 (FS3) to help shuttle from Civic Center to Maui Prep.</p> <p>22:18 Structure Group assigned Airport Fire to extinguish spot fires between Wahikuli neighborhood and Front Street. Airport Fire acknowledged.</p> <p>22:23 Structure Group advised Airport Fire that the fire had already reached Front Street and they could abandon that assignment.</p>
22:00 – 00:00	23:46 ARFF reports staging on Highway north of Canoe Beach with other Structure Group units.
August 9, 2023	
00:00 – 02:00	00:35 Command advised there were two (2) ARFF units working: K-ARFF was assigned to Support Group, and Airport Fire was assigned to Structure Group.
02:00 – 04:00	03:16 Facebook post stated close to 100 firefighters had been on duty, including 11 from state airport rescue personnel.
04:00 – 06:00	<p>05:09 Airport Fire reported they were pulling up to FS3 and ready for assignment. Support Group advised them to stage at the post office off Leialii Parkway, and if water supply was sufficient, they would be called.</p> <p>05:13 Support assigned Airport Fire to attack fire ... the railroad tracks west (makai) of Hawaiian Homes and assist the engine with its main line off Leialii Parkway.</p> <p>05:22 Airport Fire advised they were heading to Canoe Beach to refill. Upon refilling, Support Group assigned Airport Fire to extinguish telephone poles along the Highway to maintain ingress and egress access.</p> <p>05:32 Airport Fire advised they had finished refilling and were staging at the post office off Leialii Parkway. Support advised Airport Fire to extinguish burning power poles.</p> <p>05:52 Airport Fire advised they were ready for reassignment. Support Group assigned them to respond to the top of Leialii Parkway to provide structure protection and prevent the grass fire from wrapping around the homes and vehicles.</p>
06:00 – 08:00	<p>06:16 Airport Fire advised they needed to refuel. Airport Fire was instructed by Support Group to refuel at fire station [number unknown] where a generator was still operating the fuel pumps.</p> <p>07:03 Airport Fire reported they had refueled and were ready for reassignment. Support advised Airport Fire that the current conditions looked good and they should remain in staging to see if they were needed elsewhere.</p> <p>07:07 Command advised Airport Fire to remain available in staging with Relief Engine 1 (RE1) and that both assets would be used for contingencies.</p>

TIMELINE OF EVENTS

4.3.11 Hawai'i Division of Forestry and Wildlife (DOFAW) Fire Response Units

On August 8, 2023, DOFAW units responded to the Maui wildfires upon request of MFD. Due to the Olinda Fire igniting after normal working hours, DOFAW personnel were paged to report to headquarters to prepare for response. Information provided by DOFAW Maui Unit Leader. DOFAW's response includes their own equipment (Table 4.3.11.1) and private contractors' equipment (Table 4.3.11.2).

Table 4.3.11.1 Hawai'i Division of Forestry and Wildlife (DOFAW) Units Staffing and Equipment on August 8, 2023, and August 9, 2023.

Hawai'i Division of Forestry and Wildlife (DOFAW) Units Staffing and Equipment August 8, 2023 and August 9, 2023			
Department	Date	Staffing	Equipment
Olinda Fire (24-hour shift coverage)	August 8, 2023	27 (25 online/2 overhead personnel + logistical support staff)	<ul style="list-style-type: none"> Type 1 (4,000 gallons; 6x6) Three (3) Type VI (F450/F550) Two (2) Type IV M62s Two (2) Type VI w/ 300-gallon slip-on units
Olinda Fire (24-hour shift coverage)	August 9, 2023	28 (26 online/2 overhead personnel + logistical support staff)	<ul style="list-style-type: none"> Type 1 (4,000 gallons; 6x6) Three (3) Type VI (F450/F550) Two (2) Type IV M62s Two (2) Type VI w/ 300-gallon slip-on units
Kula Fire (Provided assistance to MFD upon request)	August 8, 2023	Four (4) fire personnel with one (1) M62 reassigned to Kula fire to assist with initial attack	
Lahaina Fire	DOFAW resources not requested		

Table 4.3.11.2 Private Heavy Equipment Contractors and Equipment Utilized on August 8, 2023, and August 9, 2023.

Private Heavy Equipment Contractors working with DOFAW August 8, 2023 and August 9, 2023			
Department	Date	Contractor	Equipment
Olinda Fire (24-hour shift coverage)	August 8, 2023 (*too windy for helicopter resources)	Akau Construction LLC	1 x D6 dozer 1 x 4,000-gallon water tender
Olinda Fire (24-hour shift coverage)	August 9, 2023	Kiawe Express LLC	1 x excavator + chainsaw operator
		Akau Construction LLC	1 x D6 dozer 1 x 4,000-gallon water tender
		Hawaiian Dredging Construction Company, Inc.	1 x 4,000-gallon water tender
Olinda Fire (24-hour shift coverage)	August 10, 2023	Paradise Helicopters	1 x Type II helicopter
		Windward Aviation Inc.	1 x Type III helicopter
		Akau Construction LLC	1 x D6 dozer 1 x 4,000-gallon water tender
		Hawaiian Dredging Construction Company, Inc.	1 x 4,000-gallon water tender
Kula Fire (Provided assistance to MFD upon request)	August 8, 2023	Akau Construction LLC	1 x 4,000-gallon water tender reassigned to assist DOFAW engine crew with initial attack
Lahaina Fire	DOFAW resources not requested		

SUMMARY

5.0 Summary

The Lahaina Fire Comprehensive Timeline Report (Phase 1) describes the events and timing of August 8-9, 2023, in the Lahaina region. FSRI conducted an extensive data collection effort to establish a comprehensive timeline and fact base around the Lahaina fire. This report pieces together a detailed timeline of preparedness efforts, fire progression, evacuation activities, emergency response, and fire suppression actions based on a comprehensive array of data sources including radio communications, and radio transcripts, video, images (still images or image capture from digital videos), emergency logs, technical discussions (TDs) with authorities and residents, witness statements, text and phone logs, email records, automatic vehicle location applications, social media posts, witness accounts, and corroborated personal experiences. Mapping and analysis illustrate how the fires moved from the wildland into Lahaina's neighborhoods, rapidly transforming from a grassland fire into a catastrophic urban conflagration.

An Incident Analysis Report (Phase 2), outlining FSRI's independent analysis of these events, will follow to provide detail on conditions influencing preparedness efforts and the original fire situation, attempts to stop its rapid progression through Lahaina Town, and evacuation efforts. The analysis will include a review of county and state emergency response management policies and procedures to determine where changes are necessary to make them more effective in responding to future events. Incident analysis will incorporate science and evidence-based analyses with information from FSRI's fire dynamics research, local subject matter experts, industry standards and best practices, and the collective experiences of FSRI's team.

The Forward-Looking Report (Phase 3) of this comprehensive independent analysis will help answer critical questions about, "How do we prevent this from happening again?" The final report will have several discrete and interrelated components including a standards of cover analysis to assess the capabilities of the Maui County Fire Department, a community risk assessment to analyze natural and human caused risks to Maui, community risk reduction planning to help mitigate risk, and a review of fire and building codes.



APPENDIX

6.0 Appendix

6.1 Subpoena Requests and Statuses

Subpoena Requests and Status					
Subpoena No.	Service Date	Description (Summary)	Response Deadline	*Email Requests	Actual Response Date
2023-084 Maui Emergency Management Agency	November 27, 2023	(1) Current editions, as of August 2023, for all emergency management-related plans for Maui County. Including, but not limited to: (a) the Maui County Emergency Operations Plan (EOP); (b) the West Maui Emergency Plan; and (c) any operational and/or tactical plans addressing wildfire, wind, tsunami, evacuation, emergency notification, alert/warning, and other related planning documents. (Note: We have the May 2021 EOP, and the May 2018 West Maui Emergency Plan. We are mostly interested in specific operational and/or tactical plans addressing specific emergencies, and more specifically wildland or WUI fires.);	December 11, 2023	September 24, 2023	October 13, 2023 & November 21, 2023
		(2) All drafts, updates, and/or revisions to the West Maui Emergency Plan draft document dated May 14, 2018;		October 20, 2023	
		(3) All drafts, updates, and/or revisions to the Maui County Emergency Operations Plan, May 2021 edition ("Basic Plan");		October 20, 2023	
		(4) All "Functional and Hazard Annexes" included/referenced in Sections III and IV of the Basic Plan, May 2021 edition;		October 20, 2023	
		(5) All draft and completed "Functional and Hazard Annexes," to the Basic Plan, for wildfire-related activities and/or WUI fires;		October 20, 2023	
		(6) All after-action reviews (AARs) and records of any Maui County exercises (table-top, functional, full-scale) conducted for wildfire and/or WUI fires from 2013–2023;		October 20, 2023	
		(7) All Maui County departmental strategic plans, policies, or procedures that support the Maui County Emergency Operations Plan;		October 20, 2023	
		(8) Records of daily Maui County Emergency Operations Center (EOC) activation status for the period 1–15 August 2023;		October 20, 2023	
		(9) Identification and contact information for the Maui County officials listed in Figure 5 "Lines of Succession" of the Maui County EOP, May 2021 edition, from 7–10 August 2023;		October 20, 2023	

continued

Subpoena Requests and Status

Subpoena No.	Service Date	Description (Summary)	Response Deadline	*Email Requests	Actual Response Date
		(10) Daily EOC organizational chart(s), by National Incident Management System Incident Command System (NIMS-ICS) role(s) and/or emergency support function(s) (ESF) for the period August 7-10, 2023;		October 20, 2023	As of December 13, 2023, Maui Dept. of Corp Counsel confirmed no further responsive record exists
		(11) Rosters, sign-in sheets, logs, and documents, physical or electronic, listing all personnel that staffed the EOC from 8:00 p.m. on August 7, 2023, through 8:00 p.m. on August 10, 2023, as well as an accounting of the time(s) that each person was present in the EOC;		August 31, 2023, September 24, 2023, October 20, 2023	November 27, 2023 partial production. December 6, 2023 additional production. As of December 13, 2023, Maui Dept. of Corp Counsel confirmed no further responsive record exists
		(12) All documents, physical or electronic, that were developed in the EOC during the time period from 8:00 p.m. on August 7, 2023, through 8:00 p.m. on August 10, 2023;		October 20, 2023	December 12, 2023. As of February 12, 2024, letter from Jordan Inafuku (Maui outside counsel) states that additional responsive documents will be produced.
		(13) Records of all communications made to or by the MEMA Administrator from 8:00 p.m. on August 7, 2023, through 8:00 p.m. on August 10, 2023. These records may include but are not limited to: texts, phone calls, and emails;		October 20, 2023	December 13, 2023.
		(14) Transcripts and records maintained by any electronic emergency management system, such as WebEOC, from 8:00 p.m. on August 7, 2023, through 8:00 p.m. on August 10, 2023;		October 20, 2023	December 13, 2023 partial production. March 1, 2024 HI-EMA extracted additional data from WebEOC responsive to this request
		(15) Copies of all incident action plans (IAPs) for the fire events that occurred in Maui County on August 7–10, 2023 (Maui Fires™) that were developed from 8:00 p.m. on August 7, 2023, through 8:00 p.m. on August 10, 2023;		October 20, 2023	December 6, 2023. As of December 13, 2023, Maui Dept. of Corp Counsel confirmed no further responsive record exists
(16) Recordings of all EOC operations and of images from cameras located in the community that were viewed in the EOC from 8:00 p.m. on August 7, 2023, through 8:00 p.m. on August 10, 2023;	October 20, 2023	December 6, 2023			

continued

APPENDIX

Subpoena Requests and Status

Subpoena No.	Service Date	Description (Summary)	Response Deadline	*Email Requests	Actual Response Date
		(17) Training/certification and exercise records for MEMA and MEMA employees for the past two (2) years (NIMS and other), including individual qualifications, local exercises, statewide exercises, and coordinated exercises with Federal and NGO partners;		October 20, 2023	December 13, 2023
		(18) Information on all preparedness messaging addressing the August 2023 wind event that may have been distributed by MEMA and/or Maui County prior to the Maui Fires. This includes, by way of illustration and not limitation, media releases, outreach campaigns, social media, Integrated Public Alert and Warning System (IPAWS), Wireless Emergency Alerts (WEA), and/or directives;		October 20, 2023	November 30, 2023
		(19) All maintenance and testing logs for the statewide alert and warning siren system in Maui County.		October 20, 2023	December 13, 2023
2023-084 Maui Emergency Management Agency	November 27, 2023	(1) Maui County DPW or Hawai'i Department of Transportation Brush Clearance Standard Operating Guidelines (SOG);	December 11, 2023	September 24, 2023t	October 23, 2023. As of December 13, 2023, Maio Dept. of Corp Counsel confirmed no further responsive record exists
		(2) Maui County DPW Brush Clearance Records in Lahaina are from January 1, 2020 to August 8, 2023.		September 24, 2023t	November 24, 2023
2023-086 Maui Department of Water Supply	November 27, 2023	(1) All records describing (size, location, permitted and operating capacity, etc.) the drinking water production facilities feeding the storage and distribution	December 11, 2023	October 25, 2023	December 13, 2023
		(2) The typical operating methodology for the drinking water treatment, storage, and distribution system in Maui County;		October 25, 2023	December 13, 2023
		(3) Documentation giving a general description of the water storage and distribution system components;		October 25, 2023	Discussed during site visit January 22–23, 2023
		(4) All records showing the water levels in the storage tanks under normal operating conditions, just before the fire event and during the fire event;		October 25, 2023	December 13, 2023
		(5) Design and operating information for the storage system including locations of the storage tanks and distribution system pumps;		October 25, 2023	Discussed during site visit January 22–23, 2023
		(6) Available fire storage capacity in the system under normal operating conditions;		October 25, 2023	Discussed during site visit January 22–23, 2023

continued

Subpoena Requests and Status

Subpoena No.	Service Date	Description (Summary)	Response Deadline	*Email Requests	Actual Response Date
		(7) All documentation showing distribution system connections between the East and West sides of Maui;		October 25, 2023	Discussed during site visit January 22–23, 2023
		(8) Documentation showing the size of the distribution system pipes connected to the fire hydrants in the primary area of the Lahaina fire; system;		October 25, 2023	Discussed during site visit January 22–23, 2023
		(9) Documentation showing the types of pipe materials used in the distribution		October 25, 2023	December 13, 2023
		(10) Documentation showing the typical depth of the pipes in the distribution system;		October 25, 2023	December 13, 2023.
		(11) The emergency operating plan, if any, for a major water usage event;		October 25, 2023	Discussed during site visit January 22–23, 2023
		(12) All records of how the storage and distribution system was brought back online assuming a loss of pressure during the fire event;		October 25, 2023	As of December 13, 2023, Maui Dept. of Corp Counsel confirmed no further responsive record exists
		*Unless stated otherwise, all requests pertaining to regularly updated plans, procedures, or other documents, are for the version that was in use on August 7–9, 2023.		October 25, 2023	N/A
2023-101 Maui Police Department	December 29, 2023	(1) Automated Vehicle Location data for August 8, 2023;	January 4, 2024	September 24, 2023	All items: January 18, 2024
		(2) Computer Aided Dispatch record for August 8–10, 2023.		August 31, 2023 & October 24, 2023	
		(2) Computer Aided Dispatch record for August 8–10, 2023.		August 31, 2023 & October 24, 2023	(2) January 18, 2024
2023-103 Maui Police Department	December 29, 2023	(1) Definitions of MPD dispatch codes and identifiers, including abbreviations found in MPD Event Chronologies and Dispatch Reports for August 8–10;	January 12, 2024	November 16, 2023	(1) January 14, 2024

continued

APPENDIX

Subpoena Requests and Status

Subpoena No.	Service Date	Description (Summary)	Response Deadline	*Email Requests	Actual Response Date
		(2) Documents describing unit codes;		November 16, 2023	(2) January 18, 2024
		(3) Policies for assigning "UDTH" event types;		(3) January 18, 2024	(3) January 18, 2024
		(4) Documents defining UDTH event types;		November 16, 2023	(4) January 18, 2024
		(5) All recorded MPD radio comms for August 8, 2023–August 10, 2023		August 31, 2023	(5) January 17, 2024
		(6) Staffing rosters for August 7–9, 2023		August 31, 2023	(6) January 24, 2024
		(7) Training records for MPD personnel from date of hire to August 8, 2023		Subpoena only	(7) January 24, 2024 (not in proper format)
		(8) Records of mandatory/recommended educational and training requirements for each MPD position;		Subpoena only	(8) January 24, 2024
		(9) Personnel deployment assignments, 2018–2023;		Subpoena only	(9) January 24, 2024 (produced general travel records only)
		(10) Policies and procedures for responding to wildfire or WUI events;		Subpoena only	(10) January 18, 2024 (partial, and records are not responsive)
		(11) Evacuation plans and analyses;		Subpoena only	(11) None to date
		(12) After Action Reports related to any and all wildfire incidents, WUI incidents, or mass evacuations;		Subpoena only	(12) None to date. As of January 30, 2024, Maui Dept. Corp Counsel confirmed no responsive documents.
		(13) Powerpoint presentation shared by Sgt. Chase Bell during Maui Police Commission meeting, September 20, 2023.		Subpoena only	(13) January 24, 2023
2023-104 Maui Fire Department	December 29, 2023	(1a) Current Fire and Rescue Operations Division personnel training/certification records for wildland firefighting, WUI firefighting, structural firefighting, incident management/command/organization, emergency medical care and/or first aid, and radio operations;		Subpoena only	(1a) January 24, 2024 (training completion records produced in .pdf) January 30, 2024, (XML and CSV provided)

continued

Subpoena Requests and Status

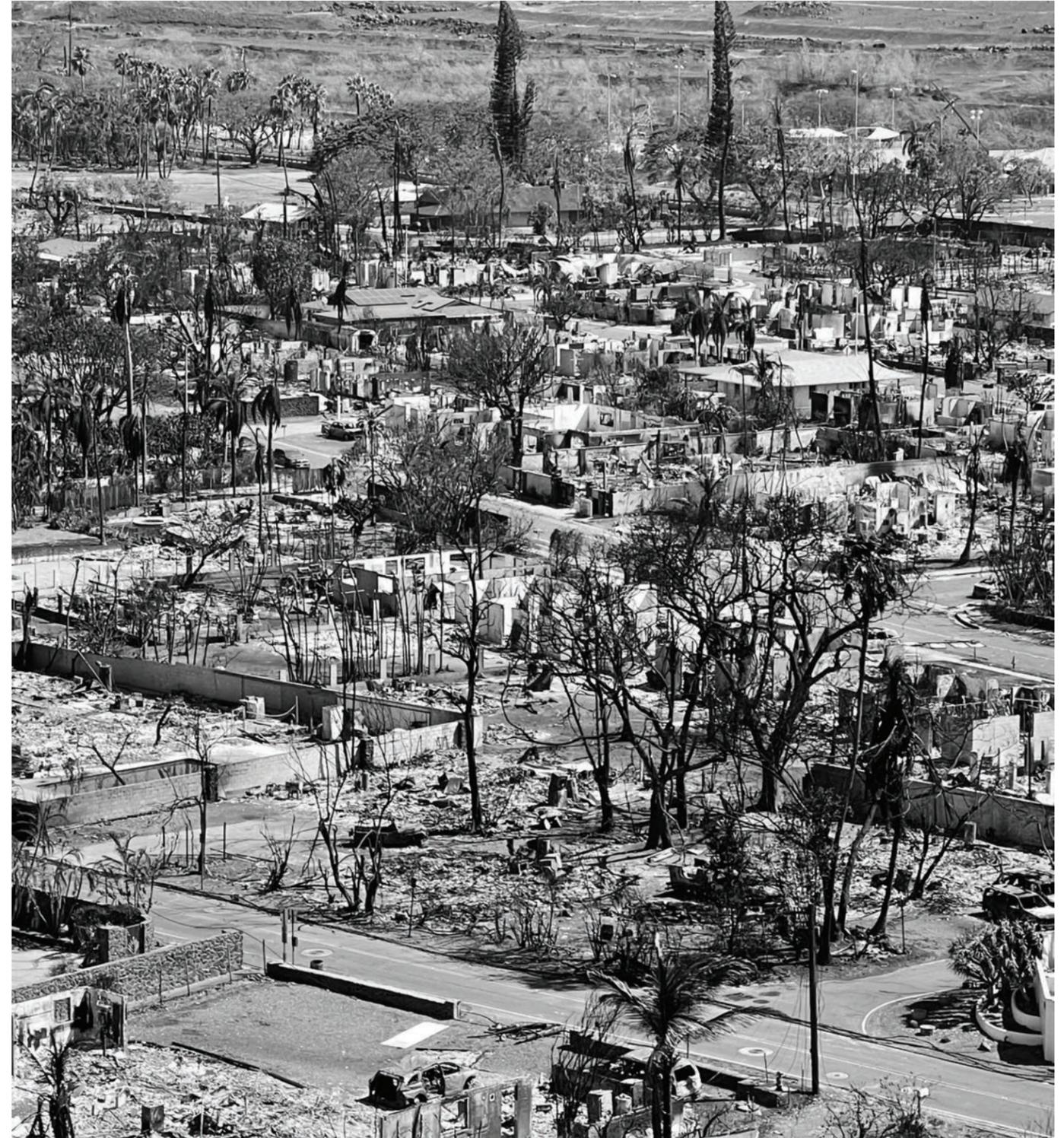
Subpoena No.	Service Date	Description (Summary)	Response Deadline	*Email Requests	Actual Response Date
		(1b) Current Fire and Rescue Operations Division personnel qualifications pertaining to wildfire, WUI, and All Hazard incidents;		Subpoena only	(1b) January 24, 2024, (partial–training records provided; unclear what qualifications achieved by personnel)
		(2) Mandatory and/or recommended educational and training requirements for each position within Fire and Rescue Operations Division;		Subpoena only	(2) January 17, 2024 (partial- course sign in sheets provided). As of February 12, 2024, per Jordan Inafuku (outside counsel), there is no required training for each position within MFD's fire rescue operations division beyond the minimum qualifications of each position.
		(3) Records of personnel deployment for all Fire and Rescue Operations Division personnel from 2018–2023;		Subpoena only	(3) January 17, 2024
		(4) Evacuation plans and analyses;		Subpoena only	(4) None to date
		(5) After Action Reports related to any and all wildfire incidents, WUI incidents, or mass evacuations;		Subpoena only	(5) January 17, 2024
		(6) Draft or completed fire incident reports for the Lahaina, Kula, Kihei, and Olinda fires.		Subpoena only	(6) January 17, 2024
2023-105 County of Maui	December 29, 2023	(1) Information regarding the wildfire damage assessment map posted on the County of Maui website on August 12, 2023;		Subpoena only	(1) January 24, 2024. Confirmed via email January 30, 2024, from Maui Dept. of Corp Counsel, no responsive documents.
		(2) Documents regarding multi-agency training exercises, drills, and other multi-agency training		Subpoena only	(2) None to date
2023-106 County of Maui Department of Finance	December 29, 2023	(1) As of August 8, 2023, the most current and highest definition aerial imagery of all areas impacted by the Lahaina fire;		Subpoena only	(1) January 30, 2024 (provided access to EagleView)

continued

APPENDIX

Subpoena Requests and Status

Subpoena No.	Service Date	Description (Summary)	Response Deadline	*Email Requests	Actual Response Date
		(2) Documents regarding multi-agency training exercises, drills, and other multi-agency training		Subpoena only	(2) None to date
2023-106 County of Maui Department of Finance	December 29, 2023	(1) As of August 8, 2023, the most current and highest definition aerial imagery of all areas impacted by the Lahaina fire;		Subpoena only	(1) January 30, 2024 (provided access to EagleView)
		(2) All information on improved properties within the areas of Olinda, Kula, Kihei, and Lahaina that were destroyed or damaged by the Maui fires on August 8, 2023, including date each structure built and modified.		Subpoena only	(2) February 9, 2024
2023-107 County of Maui Department of Water Supply	December 29, 2023	(1) Operational records for water supply and distribution systems for the island of Maui from August 7–10, 2023;		Subpoena only	(1) January 17, 2024
		(2) Records of water production rates for all treatment plans within the water supply and distribution systems for the island of Maui from August 7–10, 2023;		Subpoena only	(2) February 9, 2024
		(3) System information obtained during the wildfires, including but not limited to t(a) loss of system pressure;		Subpoena only	(3a) None to date. Confirmed via email January 26, 2024, from Maui Dept. of Corp Counsel, no responsive documents.
		3(b) empty water storage tanks;		Subpoena only	(3b) None to date. Confirmed via email January 26, 2024, from Maui Dept. of Corp Counsel, no responsive documents.
		3(c) lack of power at the treatment plant resulting in loss of water production.		Subpoena only	(3c) None to date. Confirmed via email January 26, 2024, from Maui Dept. of Corp Counsel, no responsive documents.



APPENDIX

6.2 National Weather Service (NWS) Products Released (Communications)

NWS Products Released* Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
8/1/2023	Area Forecast Discussion	8:22PM	Latest forecast from the National Hurricane Center in Miami, Florida indicates that Hurricane Dora will cross 140W in the central Pacific late this weekend. Thereafter, Dora is expected to move on a path that would generally keep it well south of the islands early next week. This scenario would bring an increase in trade wind speeds Monday and Tuesday. As a deep-layer high to the northeast builds westward, winds could become strong as the trade wind flow becomes quite dry. With Keetch-Byram Drought Index (KBDI) values potentially exceeding 600 for the first time this summer by that time, Red Flag conditions could be met.	NWS–Area Forecast
8/2/2023	Area Forecast Discussion	3:43AM	Hurricane Dora located about 2,800 miles away.	NWS–Area Forecast
8/2/2023	Fire Weather Planning	4:21AM	DISCUSSION KBDI values are likely to exceed 600 in about a week, bringing increased potential for Red Flag conditions as the trade wind flow becomes strong and dry.	NWS–Fire Weather Planning Forecast
8/2/2023	Area Forecast Discussion	10:00AM	DISCUSSION Hurricane Dora is located about 2,600 miles away and is also tracking west at near 15 mph. The latest forecast from the National Hurricane Center in Miami, Florida indicates that Hurricane Dora will cross 140W and into the Central Pacific Basin late this weekend. Thereafter, Dora is expected to move on a path that would generally keep it well south of the islands early next week. This scenario will strengthen trade winds Monday and Tuesday. As a deep layer high north of Dora moves in from the northeast, winds could become strong and trade flow could dry out. With KBDI values potentially exceeding 600 for the first time this summer, Red Flag fire weather conditions could be met.	NWS–Area Forecast
8/2/2023	Area Forecast Discussion	3:57PM	DISCUSSION Hurricane Dora is located about 2,600 miles away and is also tracking west at near 15 mph. The latest forecast from the National Hurricane Center in Miami, Florida indicates that Hurricane Dora will cross 140W and into the Central Pacific Basin on Sunday. Thereafter, Dora is expected to move on a path that would generally keep it well south of the islands early next week. This scenario will strengthen trade winds Monday and Tuesday. As a deep layer high north of Dora moves in from the northeast, winds could become strong and trade flow could dry out. With KBDI values potentially exceeding 600 for the first time this summer, Red Flag fire weather conditions could be met.	NWS–Area Forecast
8/3/2023	Fire Weather Planning Forecast	4:25AM	DISCUSSION A return of very dry conditions and strong easterly trade winds is expected early next week.	NWS–Fire Weather Planning Forecast
8/3/2023	Fire Weather Planning Forecast	3:17PM	DISCUSSION Trades will ramp up early next week, and windy, very gusty, and dry weather with critical fire conditions are possible late Monday into Wednesday.	NWS–Fire Weather Planning Forecast

* Does not include products unrelated to Hurricane Dora.

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
8/3/2023	Area Forecast Discussion	9:01PM	DISCUSSION Expect windy and very gusty trade winds early next week, along with a period of stable and rather dry conditions. While it should continue to be monitored, guidance shows Dora passing south of the islands with deep high pressure moving in tandem to the north of Hawaii. Confidence is rising that we will experience a strong and rather dry trade wind flow with an unusually low inversion. This points toward limited showers with trade winds becoming strong and very gusty over and downwind of terrain. At the very least, a Wind Advisory will be needed for Tuesday and possibly as early as late Monday. FIRE WEATHER Breezy and rather dry weather produced near critical fire weather conditions today and a couple of fires have started on Oahu. Trade winds will ease this evening and hold at moderate strength Friday through the weekend. The potential is rising for critical fire weather conditions early next week. Dry, stable, and breezy to locally windy trades are looking increasingly likely as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass south of the islands. The KBDI is expected to reach the critical 600 mark by Tuesday, and models show leeward relative humidity may fall below 45 percent on Tuesday and Wednesday. We will also have to monitor conditions for Monday as drier conditions move in with building trades.	NWS–Area Forecast
8/4/2023	Area Forecast Discussion	3:45AM	SYNOPSIS Trades will increase early next week, with very gusty and dry conditions possible late Monday into Wednesday. DISCUSSION Expect windy and very gusty trade winds early next week, along with a period of stable and rather dry conditions. While it should continue to be monitored, guidance shows Dora passing south of the islands with deep high pressure moving in tandem to the north of Hawaii. Confidence is rising that we will experience a strong and rather dry trade wind flow with an unusually low inversion. This points toward limited showers with trade winds becoming strong and very gusty over and downwind of terrain. At the very least, a Wind Advisory will be needed for Tuesday and possibly as early as late Monday. FIRE WEATHER The potential is rising for critical fire weather conditions early next week. Dry, stable, and breezy to locally windy trades are looking increasingly likely as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass south of the islands. The KBDI is expected to reach the critical 600 mark by Tuesday, and models show leeward relative humidity may fall below 45 percent on Tuesday and Wednesday. We will also have to monitor conditions for Monday as drier conditions move in with building trades.	NWS–Area Forecast
8/4/2023	Fire Weather Planning Forecast	3:45AM	DISCUSSION Trades will increase early next week, with very gusty and dry conditions possible late Monday into Wednesday.	NWS–Fire Weather Planning Forecast

continued

APPENDIX

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
8/3/2023	NWS-Honolulu Forecaster Email to Hawaii fire contacts	12:40PM	NWS Honolulu expects Hurricane Dora to pass south of Hawaii early next week. There is higher than normal confidence in the forecast track, and although no direct impacts are anticipated, there is significant concern that strong trade winds will develop sometime on Monday and peak Tuesday. These strong and gusty winds will be accompanied by a very stable and rather dry atmosphere that will likely produce critical fire weather conditions on Tuesday, and possibly as early as late Monday. NWS Honolulu will likely issue a Fire Weather Watch Saturday or Sunday. Confidence in the development of critical fire weather conditions this many days away is quite rare, and we believe that this warrants a heads up to you. If you have any questions about the forecast, please contact the NWS Honolulu operations floor at 808-973-5280. Also, the latest information brief from NWS Honolulu is attached for your reference.	NWS-Honolulu Forecaster email
8/4/2023	TC Dora State-County Coordination Meeting	1:00PM	HI-EMA will be hosting a TC Dora State-County Coordination Meeting tomorrow, August 4, at 1:00 PM HST. Your attendance and participation are appreciated. NWS-Honolulu Forecaster explains Hurricane Dora's impact on weather using PPT.	
8/4/2023	Fire Weather Planning Forecast	3:30PM	Trades will ramp up early next week, and windy, very gusty, and dry weather with critical fire conditions are expected late Monday into Wednesday.	NWS-Fire Weather Planning Forecast
8/4/2023	Area Forecast Discussion	8:40PM	<p>SYNOPSIS Expect windy, very gusty, and dry conditions late Monday into Wednesday.</p> <p>DISCUSSION Expect windy and very gusty trade winds early next week, along with a period of stable and dry conditions. While it should continue to be monitored, guidance continues to show Dora passing south of the islands with deep high pressure moving in tandem to the north of Hawaii. This will result in a strong and rather dry trade wind flow with scant showers. Models show a very low and strong subsidence inversion developing as early as late Monday, along with winds of 40 to 50 kt around the inversion level. Under this stable and strong flow, winds over and downwind of terrain should exceed the Wind Advisory threshold, and localized damaging wind gusts to High Wind Warning levels are a real possibility. Trade winds will gradually decline on Wednesday.</p> <p>FIRE WEATHER There are no significant fire weather concerns through the weekend, but critical fire weather conditions are looking highly likely early next week. Dry, stable, and breezy to windy trades are expected as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass south of the islands. Conditions could develop as early as late Monday, but Tuesday has the greatest potential as the KBDI is expected to reach the critical 600 mark and models show leeward relative humidity falling below 45 percent. A Fire Weather Watch will be issued sometime this weekend to highlight this threat.</p>	NWS-Area Forecast

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
8/5/2023	Area Forecast Discussion	3:35AM	<p>SYNOPSIS Expect windy, very gusty, and dry conditions late Monday into Wednesday.</p> <p>DISCUSSION Expect windy and very gusty trade winds early next week, along with a period of stable and dry conditions. While it should continue to be monitored, models show Dora passing south of the islands with deep high pressure moving in tandem to the north of Hawaii. This will result in a strong and rather dry trade wind flow with scant showers. Models show a very low and strong subsidence inversion developing as early as late Monday, along with winds of 40 to 50 kt around the inversion level. Under this stable and strong flow, winds over and downwind of terrain should exceed the Wind Advisory threshold, and localized damaging wind gusts to High Wind Warning levels are a real possibility. Trade winds will gradually decline on Wednesday.</p> <p>FIRE WEATHER There are no significant fire weather concerns through the weekend, but critical fire weather conditions are looking highly likely early next week. Dry, stable, and breezy to windy trades are expected as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass south of the islands. Conditions could develop as early as late Monday, but Tuesday has the greatest potential as the KBDI is expected to reach the critical 600 mark and models show leeward relative humidity falling below 45 percent. A Fire Weather Watch will be issued sometime later this weekend to highlight this threat.</p>	NWS-Area Forecast
8/5/2023	Fire Weather Planning Forecast	3:36AM	<p>DISCUSSION Moderate trade winds will prevail through Sunday. An upper trough moving near the islands may trigger a modest increase in shower activity, with the highest rainfall chances remaining over windward areas. Expect windy, very gusty, and dry conditions late Monday into Wednesday.</p>	NWS-Fire Weather Planning Forecast
8/5/2023	NWS Social Media	8:00AM	<p>#HurricaneDora tracking south of #Hawaii & is forecast to stay well south, indirect impacts are possible especially Mon into Wed: Higher surf along east-facing shores Strong and gusty trade winds Dry weather & high fire danger We'll continue to monitor #HurricaneDora</p>	NWS-Social Media
8/5/2023	Area Forecast Discussion	9:46AM	<p>SYNOPSIS Expect windy, very gusty, and dry conditions late Monday into Wednesday.</p> <p>DISCUSSION The main decision today will be whether or not to issue the Fire Weather Watch on this shift.</p> <p>We are expecting a significant change in our winds Monday through Wednesday. The fronts to the north will weaken, allowing the high to build to our north. At the same time, Hurricane Dora, currently about 1500 miles southeast of Hilo, will have moved to be about 500 miles south of the islands.</p>	NWS-Area Forecast

continued

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>The resultant tightening of the pressure gradient over the islands, combined with a drier air mass over the islands, strongly suggests a strong and gusty wind pattern setting up. Models show a very low and strong subsidence inversion developing as early as late Monday, along with winds of 40 to 50 kt around the inversion level. Under this stable and strong flow, winds over and downwind of terrain should exceed the Wind Advisory threshold, and localized damaging wind gusts to High Wind Warning levels are a real possibility. Trade winds will gradually decline on Wednesday.</p> <p>FIRE WEATHER There are no significant fire weather concerns through the remainder of the weekend, but critical fire weather conditions are looking highly likely early next week. Dry, stable, and breezy to windy trades are expected as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass south of the islands. Conditions could develop as early as late Monday, but Tuesday has the greatest potential as the KBDI is expected to reach the critical 600 mark and models show leeward relative humidity falling below 45 percent. A Fire Weather Watch will be issued sometime later this weekend to highlight this threat.</p>	
8/5/2023	Area Forecast Discussion	3:40PM	<p>SYNOPSIS Expect windy, very gusty, and dry conditions late Monday into Wednesday.</p> <p>DISCUSSION That would bring winds to advisory levels on the summits Monday morning, and possibly to some adjacent lower elevations. Warning level winds would be possible by Monday afternoon for the summits, with additional lower elevation areas reaching advisory levels. While no watches or advisories have been issued yet, they are likely to be issued overnight or tomorrow morning.</p> <p>We are expecting a significant change in our winds Monday through Wednesday. The fronts to the north will weaken, allowing the high to build to our north. At the same time, Hurricane Dora, currently about 1,400 miles southeast of Hilo, will have moved to be about 500 miles south of the islands. The resultant tightening of the pressure gradient over the islands, combined with a drier air mass over the islands, strongly suggests a strong and gusty wind pattern setting up. Models show a very low and strong subsidence inversion developing as early as late Monday, along with winds of 40 to 50 kt around the inversion level. Under this stable and strong flow, winds over and downwind of terrain should exceed the Wind Advisory threshold, and localized damaging wind gusts to High Wind Warning levels are a real possibility. Trade winds will gradually decline on Wednesday.</p> <p>FIRE WEATHER There are no significant fire weather concerns through the remainder of the weekend, but critical fire weather conditions are looking highly likely early next week. Dry, stable, and breezy to windy trades are expected as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass south of the islands.</p>	NWS–Fire Weather Planning Forecast

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>Conditions could develop as early as late Monday, but Tuesday has the greatest potential as the KBDI is expected to reach the critical 600 mark and models show leeward relative humidity falling below 45 percent. A Fire Weather Watch will be issued sometime later this weekend to highlight this threat.</p> <p>HFO WATCHES/WARNINGS/ADVISORIES Gale Watch from Monday evening through late Tuesday night for Maalaea Bay-Pailolo Channel-Alenuihaha Channel-Big Island Leeward Waters-Big Island Southeast Waters.</p>	
8/5/2023	Area Forecast Discussion	6:56PM	<p>SYNOPSIS Expect windy, very gusty, and dry conditions late Monday into Wednesday.</p> <p>DISCUSSION Expect a significant change in our winds Monday through Wednesday. High pressure will build to our north as Hurricane Dora, currently about 1,400 miles southeast of Hilo, passes westward about 500 miles south of the islands. The resultant tightening of the pressure gradient over the islands, combined with a drier air mass over the islands, strongly suggests a strong and gusty wind pattern setting up. Models show a very low and strong subsidence inversion developing as early as late Monday, along with winds of 40 to 50 kt around the inversion level. Under this stable and strong flow, winds over and downwind of terrain should exceed the Wind Advisory threshold, and localized damaging wind gusts to High Wind Warning levels are a real possibility. Expect advisory level winds on the summits of Maui and the Big Island Monday morning, and possibly across adjacent lower elevations. Warning level winds would be possible by Monday afternoon for the summits, with additional lower elevation areas reaching advisory levels. While no watches or advisories have been issued yet, they are likely to be issued overnight or tomorrow morning. Trade winds will gradually decline on Wednesday.</p> <p>FIRE WEATHER There are no significant fire weather concerns through the remainder of the weekend, but critical fire weather conditions are looking highly likely early next week. Dry, stable, and breezy to windy trades are expected as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass south of the islands. Conditions could develop as early as late Monday, but Tuesday has the greatest potential, as the KBDI is expected to reach the critical 600 mark and models show leeward relative humidity falling below 45 percent. A Fire Weather Watch will be issued sometime later this weekend to highlight this threat.</p> <p>HFO WATCHES/WARNINGS/ADVISORIES Gale Watch from Monday evening through late Tuesday night for Maalaea Bay-Pailolo Channel-Alenuihaha Channel-Big Island Leeward Waters-Big Island Southeast Waters.</p>	NWS–Fire Weather Planning Forecast

continued

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
8/5/2023	NWS Social Media		Moderate trade winds through Sunday, but then expect very gusty conditions Mon-Wed. Now would be a good time to secure loose items for the workweek! #Hlwx	NWS–Social Media
8/6/2023	Area Forecast Discussion	3:33AM	<p>SYNOPSIS Expect windy, very gusty, and dry conditions Monday into Wednesday.</p> <p>DISCUSSION Expect a significant change in our winds Monday through Wednesday. High pressure will build to our north as Hurricane Dora, currently about 1,150 miles southeast of Hilo, passes westward about 500 miles south of the islands. The resultant tightening of the pressure gradient over the islands, combined with a drier airmass, will drive a strong and gusty wind pattern. Models show a very low and strong subsidence inversion developing as early as Monday, along with winds of 40 to 50 kt around the inversion level. Under this stable and strong flow, winds over and downwind of terrain should exceed the Wind Advisory threshold, and localized damaging wind gusts to High Wind Warning levels are a real possibility. Expect advisory level winds on the summits of Maui and the Big Island Monday morning, and possibly across adjacent lower elevations. Warning level winds would be possible by Monday afternoon for the summits, with additional lower elevation areas reaching advisory levels. A High Wind Watch is in effect from Monday morning through late Tuesday night.</p> <p>FIRE WEATHER There are no significant fire weather concerns today and tonight, but critical fire weather conditions are looking highly likely beginning Monday. Dry, stable, and breezy to windy trades are expected as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass south of the islands. Conditions could develop as early as Monday, but Tuesday has the greatest potential, as the KBDI is expected to reach the critical 600 mark and models show leeward relative humidity falling below 45 percent. A Fire Weather Watch is now in effect from Monday morning through late Tuesday night for leeward portions of the islands, where critical fire conditions are most likely to develop.</p> <p>HFO WATCHES/WARNINGS/ADVISORIES Fire Weather Watch from Monday morning through late Tuesday night for Kauai Leeward - Oahu South Shore - Wai'anae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lanai Makai - Lanai Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala.</p> <p>High Wind Watch from Monday morning through late Tuesday night for i Mauka - Haleakala Summit - Big Island Interior - Big Island Summits - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry.</p> <p>Gale Watch from Monday morning through late Tuesday night for Maalaea Bay - Pailolo Channel - Alenuihaha Channel - Big Island Leeward Waters - Big Island Southeast Waters.</p>	NWS–Area Forecast

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
8/6/2023	High Wind Watches	3:33AM	<p>STRONG AND GUSTY WINDS POSSIBLE MONDAY MORNING THROUGH LATE TUESDAY NIGHT The gradient between high pressure north of the main Hawaiian Islands and Hurricane Dora passing safely south of the islands may drive very strong and gusty easterly winds across the area in the coming days. A stable air mass and low inversion will amplify this effect, especially over and lee of terrain across the eastern islands. This watch may be extended or modified later today or tonight.</p> <p>HIGH WIND WATCH IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT</p> <ul style="list-style-type: none"> WHAT: East winds 20 to 50 mph with localized gusts over 60 mph possible. WHERE: Portions of Lanai, Maui and the Big Island. WHEN: From Monday morning through late Tuesday night. IMPACTS: Damaging winds could blow down trees and power lines. Widespread power outages are possible. Travel could be difficult, especially for high profile vehicles. <p>PRECAUTIONARY/PREPAREDNESS ACTIONS Take precautions now to protect property. Tie down loose objects or move them to a sheltered location.</p>	NWS–High Wind Watches
8/6/2023	Red Flag Warnings	3:33AM	<p>CRITICAL FIRE WEATHER CONDITIONS POSSIBLE MONDAY MORNING THROUGH LATE TUESDAY NIGHT ACROSS LEEWARD AREAS. Strong and gusty winds, combined with low humidities and KBDI values possibly exceeding 600, may lead to critical fire conditions across leeward areas over the coming days. This watch may be extended or modified later today or tonight.</p> <p>FIRE WEATHER WATCH IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT FOR LEEWARD AREAS DUE TO STRONG AND GUSTY WINDS WITH LOW HUMIDITY... The National Weather Service in Honolulu has issued a Fire Weather Watch, which is in effect from Monday morning through late Tuesday night.</p> <p>* AFFECTED AREA: Leeward portions of all Hawaiian Islands.</p> <p>* WIND: East winds 20 to 30 kt with higher gusts.</p> <p>* HUMIDITY: 40 to 45 percent during afternoon and evening.</p> <p>* IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS A Fire Weather Watch means that critical fire weather conditions are forecast to occur. Listen for later forecasts and possible Red Flag Warnings.</p>	NWS–Red Flag Warnings

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
8/6/2023	Fire Weather Planning Forecast	3:34AM	<p>FIRE WEATHER WATCH IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT.</p> <p>DISCUSSION Moderate trade winds will prevail through today. Showers may increase later today, with the highest rainfall chances remaining over windward areas. Expect windy, very gusty, and dry conditions Monday into Wednesday.</p> <p>HIZ218-070300- Maui Leeward West - Including Lahaina, Kaanapali 3:34 AM HST Sunday, August 6, 2023 FIRE WEATHER WATCH IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT.</p>	NWS–Fire Weather Planning Forecast
8/6/2023	Red Flag Warnings	4:01AM	<p>CRITICAL FIRE WEATHER CONDITIONS POSSIBLE MONDAY MORNING THROUGH LATE TUESDAY NIGHT ACROSS LEEWARD AREAS. Strong and gusty winds, combined with low humidities and KBDI values possibly exceeding 600, may lead to critical fire conditions across leeward areas over the coming days. This watch may be extended or modified later today or tonight. Updated to state winds in mph versus knots.</p> <p>FIRE WEATHER WATCH REMAINS IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT FOR LEEWARD AREAS DUE TO STRONG AND GUSTY WINDS WITH LOW HUMIDITY</p> <p>* AFFECTED AREA: Leeward portions of all Hawaiian Islands.</p> <p>* WIND :East winds 20 to 30 mph with higher gusts.</p> <p>* HUMIDITY: 40 to 45 percent during afternoon and evening.</p> <p>* IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS A Fire Weather Watch means that critical fire weather conditions are forecast to occur. Listen for later forecasts and possible Red Flag Warnings.</p>	NWS–Red Flag Warnings
8/6/2023	Area Forecast Discussion	10:02AM	<p>SYNOPSIS Moderate trade winds will prevail through today. However, significant changes are expected Monday through Wednesday as dry air and strong winds with potentially damaging wind gusts move into the region. During the latter half of the week, a return to more seasonable trade wind weather is expected.</p> <p>DISCUSSION Expect a significant change in our winds Monday through Wednesday. High pressure will build to our north as Hurricane Dora, currently just over 1,000 miles southeast of Hilo, passes westward about 500 miles south of the islands. The resultant tightening of the pressure gradient over the islands, combined with a drier air mass, will drive a strong and gusty wind pattern.</p>	NWS–Red Flag Warnings

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>Models show a very low and strong subsidence inversion developing as early as Monday, along with winds of 40 to 50 kt around the inversion level. Under this stable and strong flow, winds over and downwind of terrain should easily exceed the Wind Advisory threshold, and localized damaging wind gusts to High Wind Warning levels are possible. For timing, winds will begin to increase significantly on Monday, peak on Tuesday, and gradually decline on Wednesday. The High Wind Watch has been expanded to include the Kohala and North Big Island zones as well as Kaho'olawe with this morning's updates, and further changes to the High Wind Watch are possible later today. Very dry air will also accompany the strong winds, creating significant fire weather concerns as well. See the Fire Weather section below for additional details.</p> <p>SYNOPSIS Expect windy, very gusty, and dry conditions Monday into Wednesday.</p> <p>HFO WATCHES/WARNINGS/ADVISORIES Fire Weather Watch from Monday morning through late Tuesday night for Kauai Leeward - Oahu South Shore - Waianae Coast-Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lanai Makai - Lanai Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona-South Big Island - Kohala.</p> <p>High Wind Watch from Monday morning through late Tuesday night for Lanai Mauka - Kahoolawe - Haleakala Summit - Kohala - Big Island Interior - Big Island Summits - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - Big Island North.</p> <p>Gale Watch from Monday morning through late Tuesday night for Maalaea Bay - Pailolo Channel - Alenuihaha Channel - Big Island Leeward Waters - Big Island Southeast Waters.</p>	
8/6/2023	High Wind Watches	10:05AM	<p>STRONG AND GUSTY WINDS POSSIBLE MONDAY MORNING THROUGH LATE TUESDAY NIGHT.</p> <p>The gradient between high pressure north of the main Hawaiian Islands and Hurricane Dora passing safely south of the islands may drive very strong and gusty easterly winds across the area in the coming days. A stable air mass and low inversion will amplify this effect, especially over and lee of terrain across the eastern islands. This watch may be extended or modified later today or tonight.</p>	NWS–Red Flag Warnings

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>HIGH WIND WATCH REMAINS IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT.</p> <p>* WHAT: East winds 25 to 45 mph with localized gusts over 65 mph possible.</p> <p>* WHERE: Portions of Lanai, the central valley of Maui, and lower elevations of the Big Island interior.</p> <p>* WHEN: From Monday morning through late Tuesday night.</p> <p>* IMPACTS: Damaging winds could blow down trees and power lines. Widespread power outages are possible. Travel could be difficult, especially for high profile vehicles.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS Take precautions now to protect property. Tie down loose objects or move them to a sheltered location.</p>	
8/6/2023	High Wind Watches	3:24PM	<p>STRONG AND GUSTY WINDS POSSIBLE MONDAY MORNING THROUGH LATE TUESDAY NIGHT.</p> <p>The gradient between high pressure north of the main Hawaiian Islands and Hurricane Dora passing safely south of the islands will drive very strong and gusty easterly winds across the area from Monday through Wednesday. A stable air mass and low inversion will amplify this effect, especially over island terrain and across leeward areas. This watch may be modified or upgraded later tonight or early Monday.</p> <p>HIGH WIND WATCH IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT.</p> <p>* WHAT: Northeast winds 25 to 45 mph with localized gusts over 60mph possible.</p> <p>* WHERE: Portions of Kauai, Lanai, Maui, Molokai, Oahu and the Big Island.</p> <p>* WHEN: From Monday morning through late Tuesday night.</p> <p>* IMPACTS: Damaging winds could blow down trees and power lines. Widespread power outages are possible. Travel could be difficult, especially for high profile vehicles.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS Take precautions now to protect property. Tie down loose objects or move them to a sheltered location.</p>	NWS–High Wind Watches

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
8/6/2023	Red Flag Warnings	3:33PM	<p>CRITICAL FIRE WEATHER CONDITIONS POSSIBLE MONDAY MORNING THROUGH LATE TUESDAY NIGHT ACROSS LEEWARD AREAS Strong and gusty winds, combined with low humidities and KBDI values nearing or exceeding 600, may lead to critical fire conditions across leeward areas Monday through late Tuesday night. This watch may be modified or upgraded later tonight or early Monday.</p> <p>FIRE WEATHER WATCH REMAINS IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT FOR LEEWARD AREAS DUE TO...</p> <p>* AFFECTED AREA: Leeward portions of all Hawaiian Islands.</p> <p>* WIND: East winds 20 to 30 mph with higher gusts.</p> <p>* HUMIDITY: 40 to 45 percent during afternoon and evening.</p> <p>* IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS. A Fire Weather Watch means that critical fire weather conditions are forecast to occur. Listen for later forecasts and possible Red Flag Warnings.</p>	NWS–Red Flag Warnings
8/6/2023	Area Forecast Discussion	3:48PM	<p>SYNOPSIS Moderate trade winds will prevail through today. However, significant changes are expected Monday through Wednesday as dry air with strong winds with potentially damaging wind gusts move into the region. During the latter half of the week, a return to more seasonable trade wind weather is expected.</p> <p>DISCUSSION Expect a significant change in our winds on Monday. High pressure will build to our north as Hurricane Dora, currently about 925 miles southeast of Hilo, passes westward about 500 miles south of the Big Island. The resultant tightening of the pressure gradient over the islands, combined with a much drier air mass, will drive strong, gusty winds into the region. Models show a very low and strong subsidence inversion developing during the day on Monday, with speeds of 40 to 50 kt around the inversion level.</p> <p>Under this stable and strong flow, winds will begin to increase significantly on Monday, peak on Tuesday, and gradually decline on Wednesday. Winds over and downwind of terrain should easily exceed the Wind Advisory threshold (sustained speeds of 30-39 mph for an hour or more and/or gusts of 50-57 mph). In some places, damaging wind gusts to High Wind Warning levels (sustained speeds of 40 mph or greater for an hour or more and/or gusts of 66 mph or higher) will be possible.</p> <p>With this afternoon's forecast updates, some changes have been made to the wind forecast to increase speeds across the western islands as well. The High Wind Watch has also been expanded to include additional zones and islands with this afternoon's updates. This watch may need to be converted to warnings and/or advisories tonight or early tomorrow morning, so continue to monitor for changes.</p>	NWS–Area Forecast

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>Along with the strong winds, very dry air will also be moving into the region, creating significant fire weather concerns as well. See the Fire Weather section below for additional details.</p> <p>FIRE WEATHER Critical fire weather conditions are highly likely beginning Monday. Dry, stable, and breezy to windy trades are expected as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass well south of the islands. Conditions could develop as early as Monday, but Tuesday has the greatest potential, as the KBDI is expected to reach near or just above the 600 mark. Additionally, models show leeward relative humidity falling below 45 percent. A Fire Weather Watch is now in effect from Monday morning through late Tuesday night for leeward portions of the islands, where critical fire conditions are most likely to develop.</p> <p>HFO WATCHES/WARNINGS/ADVISORIES Fire Weather Watch from Monday morning through late Tuesday night for Kauai Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lanai Makai - Lanai Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala.</p> <p>High Wind Watch from Monday morning through late Tuesday night for Kauai Leeward - Kauai Mountains - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Lanai Mauka - Kahoolawe - Maui Windward West - Maui Leeward West - Haleakala Summit - Kohala - Big Island Interior - Big Island Summits - Kauai North - Kauai South - East Honolulu - Honolulu Metro - Ewa Plain - Koolau Leeward-Molokai - Lanai Windward - Lanai Leeward - Lanai South - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - South Haleakala - Big Island South - Big Island Southeast - Big Island North.</p> <p>Gale Warning from 6 AM Monday to 6 AM HST Wednesday for Ma'alaea Bay - Pailolo Channel - Alenuihaha Channel - Big Island Leeward Waters - Big Island Southeast Waters.</p> <p>Small Craft Advisory from 6:00 AM Monday to 6:00 AM HST Wednesday for all remaining Hawaiian waters.</p>	
8/6/2023	Area Forecast Discussion	9:13PM	<p>FIRE WEATHER Critical fire weather conditions are highly likely beginning Monday. Dry, stable, and strong and gusty trades are expected as deep high pressure to the north moves in tandem with Hurricane Dora, which is forecast to pass well south of the islands. Conditions could develop as early as Monday, but Tuesday has the greatest potential, as the KBDI is expected to reach near or just above the 600 mark. Additionally, models show leeward relative humidity falling below 45 percent. A Fire Weather Watch is now in effect from Monday morning through late Tuesday night for leeward portions of the islands, where critical fire conditions are most likely to develop.</p>	NWS--Area Forecast

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>HFO WATCHES/WARNINGS/ADVISORIES Fire Weather Watch from Monday morning through late Tuesday night for Kauai Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lanai Makai - Lanai Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala.</p> <p>High Wind Watch from Monday morning through late Tuesday night for Kauai Leeward - Kauai Mountains - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Lanai Mauka - Kahoolawe - Maui Windward West - Maui Leeward West - Haleakala Summit - Kohala - Big Island Interior - Big Island Summits - Kauai North - Kauai South - East Honolulu - Honolulu Metro - Ewa Plain - Koolau Leeward - Molokai - Lanai Windward - Lanai Leeward - Lanai South - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - South Haleakala - Big Island South - Big Island Southeast - Big Island North.</p> <p>Gale Warning from 6:00 AM Monday to 6:00 AM HST Wednesday for Maalaea Bay - Pailolo Channel - Alenuihaha Channel - Big Island Leeward Waters - Big Island Southeast Waters.</p> <p>Small Craft Advisory from 6:00 AM Monday to 6:00 AM HST Wednesday for all remaining Hawaiian waters.</p>	
8/6/2023	NWS Social Media		<p>While Hurricane Dora passes well south with no direct impacts here, the strong pressure gradient between it & the high pressure to the north creates a threat of damaging winds & fire weather(duo to ongoing dry conditions) from early Mon to Wed. Strong winds in yellows & oranges on map result from significant pressure differences between high '7 low-pressures. Combined w/ dry conditions, these winds pose a serious fire & damaging wind threat. Stay Alert!</p>	NWS--Social Media
8/7/2023	High Wind Watches	3:15AM	Almost the same as 8/8/2023 at 3:18	NWS--High Wind Watches
8/7/2023	Red Flag Warnings	3:15AM	<p>RED FLAG WARNING FOR LEEWARD AREAS DUE TO GUSTY WINDS AND LOW HUMIDITY. Very dry fuels combined with strong and gusty easterly winds and low humidities below 45 percent will produce critical fire weather conditions through Tuesday night.</p> <p>RED FLAG WARNING IN EFFECT FROM 6 AM THIS MORNING TO 6 AM HST WEDNESDAY FOR GUSTY WINDS AND LOW HUMIDITY... The National Weather Service in Honolulu has issued a Red Flag Warning, which is in effect through 6:00 AM HST Wednesday.</p>	NWS--Red Flag Warnings

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>* AFFECTED AREA: Leeward portions of all Hawaiian Islands.</p> <p>* WIND: East winds 30 to 45 mph with gusts over 65 mph expected.</p> <p>* HUMIDITY: 40 to 45 percent during afternoons and evenings.</p> <p>* IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS A Red Flag Warning means that critical fire weather conditions are either occurring now or will shortly. A combination of strong winds, low relative humidity, and warm temperatures can contribute to extreme fire behavior. A Red Flag Warning does not predict new fire starts.</p>	
8/7/2023	Fire Weather Planning Forecast	3:30AM	<p>RED FLAG WARNING IN EFFECT UNTIL 6 AM HST WEDNESDAY</p> <p>DISCUSSION Very dry fuels (KDBI around 600) combined with strong and gusty easterly winds and low humidities below 45 percent will produce critical fire weather conditions this afternoon through Tuesday night. See the Red Flag Warning for more information. A return of a more typical trade wind pattern is anticipated later in the week through the weekend.</p> <p>HIZ218-080215- Maui Leeward West- Including Lahaina, Kaanapali 3:30 AM HST Monday, August 7, 2023 RED FLAG WARNING IN EFFECT UNTIL 6 AM HST WEDNESDAY</p> <p>TODAY Sky/weather.....Mostly sunny. Isolated showers until noon. LAL.....1. Max temperature.....82 to 88. Min humidity.....45 percent. 20-foot winds.....Windy. East 15 to 30 mph until noon, then 25 to 35 mph. Mixing height.....3,000 ft. AGL. Transport winds.....East 15 to 20 mph.</p> <p>TONIGHT Sky/weather.....Partly cloudy. LAL.....1. Min temperature.....Around 70. Max humidity.....85 percent. 20-foot winds.....Very windy. Northeast 30 to 45 mph. Mixing height.....3,000 ft. AGL. Transport winds.....East around 25 mph.</p>	NWS–Fire Weather Planning Forecast

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>TUESDAY Sky/weather.....Mostly sunny. LAL.....1. Max temperature.....82 to 88. Min humidity.....40 percent. 20-foot winds.....Very windy. Northeast 35 to 45 mph. Mixing height.....4,500 ft. AGL. Transport winds.....East around 30 mph.</p> <p>HIZ219-080215- Maui Central Valley- Including Kahului 3:30 AM HST Monday, August, 7 2023 RED FLAG WARNING IN EFFECT UNTIL 6:00 AM HST WEDNESDAY</p> <p>TODAY Sky/weather.....Mostly sunny. Isolated showers until noon. LAL.....1. Max temperature.....86 to 91. Min humidity.....45 percent. 20-foot winds.....Windy. Northeast 10 to 15 mph until 9 AM. 25 to 30 mph after 3 PM. Mixing height.....3,500 ft. AGL. Transport winds.....East 10 to 15 mph.</p> <p>TONIGHT Sky/weather.....Partly cloudy. LAL.....1. Min temperature.....67 to 72. Max humidity.....90 percent. 20-foot winds.....Windy. Northeast 25 to 35 mph. Mixing height.....3,000 ft. AGL. Transport winds.....East around 20 mph.</p> <p>TUESDAY Sky/weather.....Mostly sunny. LAL.....1. Max temperature.....86 to 91. Min humidity.....20 percent. 20-foot winds.....Very windy. Northeast 25 to 40 mph. Mixing height.....5,000 ft. AGL. Transport winds.....East around 25 mph.</p>	

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
8/7/2023	Area Forecast Discussion	3:30AM	<p>SYNOPSIS Breezy easterly trade winds are forecast to become strong and gusty later today through midweek as Hurricane Dora passes far to the south. Outside of a few windward showers this morning, very dry air arriving from the east will limit rainfall chances through Wednesday. A return of a more typical trade wind pattern is anticipated later in the week through the weekend.</p> <p>DISCUSSION An upper low nearby to the northwest combined with a mid-level trough and a sufficient amount of low-level moisture will support a few light showers favoring windward and mountain locations this morning. Satellite imagery showed the leading edge of a very suppressed and dry air mass approaching from the east, which also marks the leading edge of the easterly wind surge. This drier air (PWs dipping well below normal) combined with a strong pressure gradient between Dora passing to the south and high pressure to the north will support strong and gusty winds later today through midweek. The subsidence inversion is forecast to dip to around 3,000 ft., which is well below normal. This stable/dry air and low inversion combined with the strong pressure gradient (50 kt winds shown around the inversion to 850 mb) will generate advisory to warning-level wind speeds this afternoon through Wednesday.</p> <p>For the second half of the week through the weekend, expect a return of a more typical trade wind pattern, with windward and mountain shower coverage increasing.</p> <p>FIRE WEATHER Very dry fuels (KDBI around 600) combined with strong and gusty easterly winds and low humidities below 45 percent will produce critical fire weather conditions this afternoon through Tuesday night. See the Red Flag Warning for more information.</p> <p>HFO WATCHES/WARNINGS/ADVISORIES Wind Advisory from 6:00 AM this morning to 6:00 AM HST Wednesday for Niihau - Olomana - Kauai East - Ko'olau Windward - Windward Haleakala - Kipahulu - Big Island East.</p> <p>Red Flag Warning from 6:00 AM this morning to 6:00 AM HST Wednesday for Kauai Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lanai Makai - Lanai Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala - Big Island Interior.</p>	NWS–Fire Weather Planning Forecast

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>High Wind Warning from 6:00 AM this morning to 6:00 AM HST Wednesday for Kauai Leeward - Kauai Mountains - Waianae Coast - Oahu North Shore - Central Oahu - Waianae Mountains - Lanai Mauka - Kaho'olawe - Maui Windward West - Maui Leeward West - Haleakala Summit - Kohala - Big Island Interior - Big Island Summits - Kauai North - Kauai South - East Honolulu - Honolulu Metro - Ewa Plain - Koolau Leeward - Molokai - Lanai Windward - Lanai Leeward - Lanai South - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - South Haleakala - Big Island South - Big Island Southeast - Big Island North.</p> <p>Gale Warning from 6:00 AM this morning to 6:00 AM HST Wednesday for Maalaea Bay - Pailolo Channel - Alenuihaha Channel - Big Island Leeward Waters - Big Island Southeast Waters.</p>	
8/7/2023	Red Flag Warnings	4:42AM	<p>RED FLAG WARNING FOR LEEWARD AREAS DUE TO STRONG WINDS AND LOW HUMIDITY Very dry fuels combined with strong and gusty easterly winds and low humidities below 45 percent will produce critical fire weather conditions through Tuesday night. RED FLAG WARNING REMAINS IN EFFECT UNTIL 6:00 AM HST WEDNESDAY FOR STRONG WINDS AND LOW HUMIDITY.</p> <p>* AFFECTED AREA: Leeward portions of all Hawaiian Islands.</p> <p>* WIND: East winds 30 to 45 mph with gusts over 60 mph expected.</p> <p>* HUMIDITY: 35 to 45 percent during afternoons and evenings.</p> <p>* IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS A Red Flag Warning means that critical fire weather conditions are either occurring now or will shortly. A combination of strong winds, low relative humidity, and warm temperatures can contribute to extreme fire behavior. A Red Flag Warning does not predict new fire starts.</p> <p>SYNOPSIS Breezy easterly trade winds will strengthen and become strong and potentially damaging this evening and continue through Tuesday as Hurricane Dora passes far south of the state. Outside of lingering showers over Kauai and O'ahu today, very dry air arriving from the east will limit rainfall chances through Wednesday. A return of a more typical trade wind pattern is anticipated later in the week through the weekend.</p>	NWS–Red Flag Warnings

continued

APPENDIX

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>DISCUSSION The combination of strong winds (40-50 kt near inversion height) and strengthening/lowering inversion to compress/accelerate the winds between inversion and terrain will lead to the potential for damaging trade winds tonight into Tuesday. The strongest winds are expected over mountain terrain and downslope into leeward areas, where a High Wind Warning is in effect. Elsewhere, exposed windward areas will also see strong winds and are covered by a Wind Advisory. Wind speeds are expected to ramp up this afternoon/evening from east to west across the state, with the window for strongest winds after midnight tonight through the day on Tuesday.</p> <p>FIRE WEATHER Critical fire weather conditions are expected for the next few days as strong winds and a very dry air mass affects the state. The KBDI is expected to break 600 tomorrow, with afternoon relative humidities dropping below 45 percent. Combined with strong winds over 20 mph, the potential for extreme fire behavior is possible with any wildfires that develop and a Red Flag Warning is currently in effect.</p> <p>HFO WATCHES/WARNINGS/ADVISORIES Wind Advisory until 6:00 AM HST Wednesday for Niihau - Olomana - Kauai East - Koolau Windward - Windward Haleakala - Kipahulu - Big Island East.</p> <p>Red Flag Warning until 6:00 AM HST Wednesday for Kauai Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lanai Makai - Lanai Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala - Big Island Interior.</p> <p>High Wind Warning until 6:00 AM HST Wednesday for Kauai Leeward - Kauai Mountains - Waianae Coast - Oahu North Shore - Central Oahu - Waianae Mountains - Lanai Mauka - Kaho'olawe - Maui Windward West - Maui Leeward West - Haleakala Summit - Kohala - Big Island Interior - Big Island Summits - Kauai North - Kauai South - East Honolulu - Honolulu Metro - Ewa Plain - Koolau Leeward - Molokai - Lanai Windward - Lanai Leeward - Lanai South - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - South Haleakala - Big Island South - Big Island Southeast - Big Island North.</p> <p>Gale Warning until 6 AM HST Wednesday for Maalaea Bay - Pailolo Channel - Alenuihaha Channel - Big Island Leeward Waters - Big Island Southeast Waters.</p>	
8/7/2023	High Wind Watches	3:40PM	STRONG AND GUSTY WINDS THROUGH TUESDAY NIGHT	NWS—High Wind Watches

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire

Date	NWS Communication or Product Type	Time	Product Content	Source
8/7/2023	Area Forecast Discussion	3:53PM	<p>SYNOPSIS Building trade winds will become strong and potentially damaging this evening and continue through Tuesday as Hurricane Dora passes far south of the state. Dry air arriving from the east will limit rainfall chances through Wednesday. A return of a more typical trade wind pattern is anticipated later in the week through the weekend.</p> <p>DISCUSSION Water vapor imagery shows an upper level low northwest of the state, with heights building over the islands associated with an upper high far to the northeast. Surface analysis shows high pressure northeast of the state, with a strengthening gradient over the islands between it and Dora far to our south. The change in air mass was particularly notable with the 00 z sounding from Hilo, which now shows a strong inversion near 4 kft. Precipitable water also dropped from 1.9 to 1.2 inches over the past 12 hours. The subsidence inversion is also starting to lower in Lihue, which is closer to the band of moisture that is just shifting west of the state.</p> <p>Late afternoon visible satellite imagery shows a much more stable cloud field just upstream of the state, with the previous showery clouds now west of Kauai. Wind speeds have picked up through the day and have generally been in the wind advisory range across multiple islands. Model forecast soundings/cross sections show the inversion even lower, down below 3 kft. The combination of strong winds (40-50 kt near inversion height) and strengthening/lowering inversion to compress/accelerate the winds between inversion and terrain will lead to the potential for damaging trade winds tonight into Tuesday. The strongest winds are expected over mountain terrain and downslope into leeward areas, where a High Wind Warning is in effect. Elsewhere, exposed windward areas will also see strong winds and are covered by a Wind Advisory. Wind speeds are expected to ramp up from east to west across the state, with the window for strongest winds after midnight tonight through the day on Tuesday. In addition to the winds, precipitable waters are expected to drop to less than one (1) inch (or more than a standard deviation below normal for this time of year). This will lead to little if any rainfall over the next few days.</p> <p>For the second half of the week, more seasonable breezy trade winds will return to the state as pressure gradient relaxes. More typical moisture levels will return to the state as well, with showers mainly focusing along windward and mauka areas, particularly during the overnight through morning hours each day.</p> <p>FIRE WEATHER Critical fire weather conditions are expected for Tuesday and a Red Flag Warning remains in effect. Fuels are dry, as indicated by the KBDI expected to break 600 tomorrow. Despite the drying air mass, surface dew points have lingered near 70 F today, which have kept relative humidity from dropping below 50%. RH is expected to drop below the 45% threshold red flag conditions tomorrow. Combined with winds that will be stronger than today, the potential exists for extreme fire behavior with any wildfires that ignite.</p>	NWS—Area Forecast

continued

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>HFO WATCHES/WARNINGS/ADVISORIES Wind Advisory until 6:00 AM HST Wednesday for Niihau - Olomana - Kauai East - Koolau Windward - Windward Haleakala - Kipahulu - Big Island East.</p> <p>Red Flag Warning until 6:00 AM HST Wednesday for Kauai Leeward - Oahu South Shore - Waianae Coast -Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lanai Makai - Lanai Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala - Big Island Interior.</p> <p>High Wind Warning until 6:00 AM HST Wednesday for Kauai Leeward - Kauai Mountains - Waianae Coast - Oahu North Shore - Central Oahu - Waianae Mountains - Lanai Mauka - Kaho'olawe - Maui Windward West - Maui Leeward West - Haleakala Summit - Kohala - Big Island Interior - Big Island Summits - Kauai North - Kauai South - East Honolulu - Honolulu Metro - Ewa Plain - Koolau Leeward - Molokai - Lanai Windward - Lanai Leeward - Lanai South - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - South Haleakala - Big Island South - Big Island Southeast - Big Island North.</p> <p>High Surf Advisory until 6:00 PM HST Tuesday for Olomana - Kauai East - East Honolulu - Koolau Windward.</p> <p>High Surf Warning until 6:00 PM HST Tuesday for Maui Windward West - Molokai Windward - Molokai Southeast - Windward Haleakala - Kipahulu - Big Island Southeast -Big Island East - Big Island North.</p> <p>Small Craft Advisory until 6:00 AM HST Wednesday for Kauai Northwest Waters - Kauai Windward Waters - Kauai Leeward Waters - Kauai Channel - Oahu Windward Waters - Oahu Leeward Waters - Kaiwi Channel - Maui County Windward Waters - Maui County Leeward Waters - Big Island Windward Waters.</p> <p>Gale Warning until 6:00 AM HST Wednesday for Maalaea Bay - Pailolo Channel - Alenuihaha Channel - Big Island Leeward Waters - Big Island Southeast Waters.</p>	
8/7/2023	Red Flag Warnings	3:55PM	<p>RED FLAG WARNING FOR LEEWARD AREAS DUE TO STRONG WINDS AND LOW HUMIDITY</p> <p>Very dry fuels combined with strong and gusty easterly winds and low humidities will produce critical fire weather conditions through Tuesday night.</p> <p>RED FLAG WARNING REMAINS IN EFFECT UNTIL 6 AM HST WEDNESDAY FOR STRONG WINDS AND LOW HUMIDITY</p> <p>* AFFECTED AREA: Leeward portions of all Hawaiian Islands.</p> <p>* WIND: East winds 30 to 45 mph with gusts over 60 mph.</p>	NWS-Red Flag Warnings

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>* HUMIDITY: 35 to 45 percent through the afternoon hours.</p> <p>* IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS A Red Flag Warning means that critical fire weather conditions are either occurring now or will shortly. A combination of strong winds, low relative humidity, and warm temperatures can contribute to extreme fire behavior. A Red Flag Warning does not predict new fire starts.</p>	
8/7/2023	Area Forecast Discussion	8:55PM	<p>DISCUSSION Deep layer ridging combined with an anomalously strong pressure gradient over the area between Hurricane Dora passing well to the south and the surface ridge to the north will support very strong easterly winds and dry conditions into midweek. Guidance depicts the winds steadily trending up overnight, with a peak expected through the day Tuesday. Peak wind gust observations through this evening have already surged into the 45 to 55 MPH range across the state in the windier locations. Humidities dipped into the mid 40s this afternoon, which is well below normal. The upper air sounding at Hilo and Lihue supported this with very dry profiles along with a lowering inversion height (<5,000 ft). The inversion height may dip toward the 3,000 ft mark Tuesday, which will only drive stronger accelerations after accounting for the island terrain and peak mixing hours. For potential impacts regarding the dry conditions and strong/potentially damaging winds, see the latest High Wind and Red Flag Warnings.</p>	NWS-Area Forecast
8/7/2023	NWS Social Media	9:20PM	<p>Breezy easterly trade winds will strengthen and become strong and potentially damaging this evening, and will continue through Tuesday. Dry Air from the east will limit rainfall through Wednesday. Hurricane Dora will continue moving westward far south of the Hawaiian Islands.</p>	NWS-Social Media
8/8/2023	Red Flag Warnings	3:17AM	<p>RED FLAG WARNING FOR LEEWARD AREAS DUE TO STRONG WINDS AND LOW HUMIDITY</p> <p>Very dry fuels combined with strong and gusty easterly winds and low humidities will produce critical fire weather conditions through tonight. RED FLAG WARNING REMAINS IN EFFECT UNTIL 6 AM HST WEDNESDAY FOR STRONG WINDS AND LOW HUMIDITY</p> <p>* AFFECTED AREA: Leeward portions of all Hawaiian Islands.</p> <p>* WIND: East winds 30 to 45 mph with gusts to around 60 mph.</p> <p>* HUMIDITY: 35 to 45 percent through the afternoon hours.</p> <p>* IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.</p>	NWS-Red Flag Warnings

continued

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>PRECAUTIONARY/PREPAREDNESS ACTIONS...</p> <p>A Red Flag Warning means that critical fire weather conditions are either occurring now or will shortly. A combination of strong winds, low relative humidity, and warm temperatures can contribute to extreme fire behavior. A Red Flag Warning does not predict new fire starts.</p>	
8/8/2023	High Wind Watches	3:18AM	<p>STRONG AND GUSTY WINDS THROUGH EARLY WEDNESDAY</p> <p>HIGH WIND WARNING REMAINS IN EFFECT UNTIL 6:00 AM HST WEDNESDAY</p> <p>* WHAT: East winds 30 to 45 mph with localized gusts to around 60 mph.</p> <p>* WHERE: Across mountain terrain and downslope into leeward sections of Kauai, Oahu, Molokai, Lanai, Kaho'olawe, Maui, and the Big Island.</p> <p>* WHEN: Through 6:00 AM HST Wednesday.</p> <p>* IMPACTS: Damaging winds may blow down trees and power lines and damage roofs. Power outages are possible. Travel will be difficult, especially for high profile vehicles.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS</p> <p>Strong winds may lead to property damage. Hazardous driving conditions due to powerful cross winds will pose a serious risk for drivers, especially for light weight and high profile vehicles. Loose outdoor items should be brought inside or secured properly.</p>	NWS–High Wind Watches
8/8/2023	Fire Weather Planning Forecast	4:00AM	<p>RED FLAG WARNING IN EFFECT UNTIL 6 AM HST WEDNESDAY</p> <p>DISCUSSION</p> <p>Very dry fuels (KDBI around 600) combined with strong and gusty easterly winds and low humidities below 45 percent will produce critical fire weather conditions through tonight. See the Red Flag Warning for more information. A return of a more typical trade wind pattern is anticipated later in the week through the weekend.</p> <p>HIZ218-090215- Maui Leeward West- Including Lahaina, Kaanapali 4:00 AM HST Tuesday, August 8, 2023 ...RED FLAG WARNING IN EFFECT UNTIL 6:00 AM HST WEDNESDAY...</p> <p>TODAY</p> <p>Sky/weather.....Sunny. LAL.....1. Max temperature.....81 to 90. Min humidity.....40 percent. 20-foot winds.....Very windy. Northeast 35 to 45 mph. Mixing height.....4,500 ft. AGL. Transport winds.....East around 30 mph.</p>	NWS–Fire Weather Planning Forecast

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>TONIGHT</p> <p>Sky/weather.....Partly cloudy. LAL.....1. Min temperature.....69 to 74. Max humidity.....85 percent. 20-foot winds.....Very windy. Northeast 35 to 45 mph. Mixing height.....4,000 ft. AGL. Transport winds.....East around 30 mph.</p> <p>WEDNESDAY</p> <p>Sky/weather.....Mostly sunny. LAL.....1. Max temperature.....81 to 89. Min humidity.....40 percent. 20-foot winds.....Windy. Northeast 25 to 30 mph until noon, then 15 to 30 mph. Mixing height.....4,500 ft. AGL. Transport winds.....East around 25 mph.</p> <p>HIZ219-090215- Maui Central Valley- Including Kahului 4:00 AM HST Tuesday, August 8, 2023 ...RED FLAG WARNING IN EFFECT UNTIL 6:00 AM HST WEDNESDAY...</p> <p>TODAY</p> <p>Sky/weather.....Sunny. LAL.....1. Max temperature.....86 to 92. Min humidity.....25 percent. 20-foot winds.....Very windy. Northeast 25 to 40 mph. Mixing height.....5000 ft AGL. Transport winds.....East around 25 mph.</p> <p>TONIGHT</p> <p>Sky/weather.....Mostly clear. LAL.....1. Min temperature.....68 to 73. Max humidity.....80 percent. 20-foot winds.....Windy. Northeast 25 to 35 mph. Mixing height.....4,000 ft. AGL. Transport winds.....East around 25 mph.</p> <p>WEDNESDAY</p> <p>Sky/weather.....Sunny. LAL.....1. Max temperature.....Around 88. Min humidity.....35 percent. 20-foot winds.....Windy. Northeast 15 to 30 mph. Mixing height.....5,000 ft. AGL. Transport winds.....East around 20 mph</p>	

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
8/8/2023	NWS Social Media	9:26AM	UPDATE: High Wind & Fire Weather Alerts High Wind: 30-45 mph winds, gusts up to 60 mph. Secure property, expect outages & difficult travel.	NWS-Social Media
8/8/2023	NWS Social Media	9:27AM	UPDATE: High Wind & Fire Weather Alerts High Wind: 30-45 mph winds, gusts up to 60 mph. Secure property, expect outages & difficult travel. Red Flag: High fire danger with rapid spread. NO outdoor burning. Stay safe & cautious #HawaiiWeather	NWS-Social Media
8/8/2023	Area Forecast Discussion	9:40AM	HFO WATCHES/WARNINGS/ADVISORIES Wind Advisory until 6:00 AM HST Wednesday for Niihau - Olomana - Kauai East - Koolau Windward - Windward Haleakala - Kipahulu - Big Island East. Red Flag Warning until 6:00 AM HST Wednesday for Kauai Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lanai Makai - Lanai Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala - Big Island Interior. High Wind Warning until 6:00 AM HST Wednesday for Kauai Leeward - Kauai Mountains - Waianae Coast - Oahu North Shore - Central Oahu - Waianae Mountains - Lanai Mauka - Kaho'olawe - Maui Windward West - Maui Leeward West - Haleakala Summit - Kohala - Big Island Interior - Big Island Summits - Kauai North - Kauai South - East Honolulu - Honolulu Metro - Ewa Plain - Koolau Leeward - Molokai - Lanai Windward - Lanai Leeward - Lanai South - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - South Haleakala - Big Island South - Big Island Southeast - Big Island North. Gale Warning until 6:00 PM HST Wednesday for Ma'alaea Bay - Pailolo Channel - Alenuihaha Channel - Big Island Leeward Waters - Big Island Southeast Waters.	NWS-Area Forecast
8/8/2023	Area Forecast Discussion	3:38PM	SYNOPSIS Strong and potentially damaging easterly winds along with very dry conditions will persist tonight and Wednesday as Hurricane Dora passes far to the south. Dangerous fire weather conditions will persist through Wednesday afternoon. A return of a more typical trade wind pattern is anticipated later in the week through the weekend. DISCUSSION The overall weather picture and afternoon forecast philosophy have changed very little since this morning.	NWS-Area Forecast

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			The strong pressure gradient between Hurricane Dora passing well to our south and a surface ridge to our north will drive damaging easterly winds and dry conditions across the main Hawaiian Islands through Wednesday afternoon. While models show winds peaking into this evening, they will remain strong tonight, then slowly ease tomorrow. Peak wind gusts in the 50 to 60 mph range are not uncommon this afternoon across the state in the windier locations. In addition, very dry conditions will continue, triggering a dangerous fire weather scenario. Afternoon soundings support this, with very dry profiles noted along with low inversion heights of less than 5,000 ft. This will continue to drive stronger wind speed accelerations due to a combination of island terrain and the peak mixing hours. For potential impacts regarding the dry conditions and winds, see the latest High Wind and Red Flag Warnings. The Red Flag Warning has been extended through Wednesday afternoon. Existing Wind Advisories have been extended through Wednesday afternoon as well. High Wind Warnings will continue through tonight, then be downgraded to Wind Advisories through Wednesday afternoon. FIRE WEATHER Very dry fuels (KDBI around 600) combined with strong and gusty easterly winds and low humidities below 45 percent will produce critical fire weather conditions through Wednesday afternoon. See the extended Red Flag Warning for more information. HFO WATCHES/WARNINGS/ADVISORIES Wind Advisory until 6:00 PM HST Wednesday for Niihau - Olomana - Kauai East - Koolau Windward - Windward Haleakala - Kipahulu - Big Island East. Red Flag Warning until 6:00 PM HST Wednesday for Kauai Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lanai Makai - Lanai Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala - Big Island Interior. High Wind Warning until 6:00 AM HST Wednesday for Kauai Leeward - Kauai Mountains - Waianae Coast - Oahu North Shore - Central Oahu - Waianae Mountains - Lanai Mauka - Kaho'olawe - Maui Windward West - Maui Leeward West - Haleakala Summit - Kohala-Big Island Interior - Big Island Summits - Kauai North - Kauai South - East Honolulu - Honolulu Metro - Ewa Plain - Koolau Leeward - Molokai - Lanai Windward - Lanai Leeward - Lanai South - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - South Haleakala - Big Island South - Big Island Southeast - Big Island North. High Surf Advisory until 6:00 AM HST Wednesday for Olomana - Kauai East - East Honolulu - Koolau Windward. High Surf Warning until 6:00 AM HST Wednesday for Maui Windward West - Molokai Windward - Molokai Southeast - Windward Haleakala - Kipahulu - Big Island Southeast - Big Island East - Big Island North.	

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NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>Wind Advisory from 6:00 AM to 6:00 PM HST Wednesday for .</p> <p>Small Craft Advisory until 6:00 PM HST Wednesday for Kauai Northwest Waters - Kauai Windward Waters - Kauai Leeward Waters - Kauai Channel - Oahu Windward Waters - Oahu Leeward Waters - Kaiwi Channel - Maui County Windward Waters - Maui County Leeward Waters - Big Island Windward Waters.</p> <p>Gale Warning until 6:00 PM HST Wednesday for Maalaea Bay - Pailolo Channel - Alenuihaha Channel - Big Island Leeward Waters - Big Island Southeast Waters.</p>	
8/8/2023	High Wind Watches	3:39PM`	<p>STRONG AND GUSTY WINDS THROUGH WEDNESDAY AFTERNOON</p> <p>Wind Advisories are extended through Wednesday afternoon while High Wind Warnings will be downgraded to Wind Advisories after 6:00 AM HST Wednesday morning.</p> <p>HIGH WIND WARNING REMAINS IN EFFECT UNTIL 6:00 AM HST WEDNESDAY</p> <p>* WHAT: East winds 30 to 45 mph with localized gusts to around 60 mph.</p> <p>* WHERE: Across mountain terrain and downslope into leeward sections of Kauai, Oahu, Molokai, Lanai, Kaho'olawe, Maui, and the Big Island.</p> <p>* WHEN: Through 6:00 AM HST Wednesday.</p> <p>* IMPACTS: Damaging winds may blow down trees and power lines and damage roofs. Power outages are possible. Travel will be difficult, especially for high profile vehicles.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS Strong winds may lead to property damage. Hazardous driving conditions due to powerful cross winds will pose a serious risk for drivers, especially for light weight and high profile vehicles. Loose outdoor items should be brought inside or secured properly.</p>	NWS–High Wind Watches
8/8/2023	Red Flag Warnings	3:39PM`	<p>RED FLAG WARNING FOR LEEWARD AREAS DUE TO STRONG WINDS AND LOW HUMIDITY</p> <p>Very dry fuels combined with strong and gusty easterly winds and low humidities will produce critical fire weather conditions through Wednesday afternoon.</p> <p>RED FLAG WARNING NOW IN EFFECT UNTIL 6:00 PM HST WEDNESDAY FOR STRONG WINDS AND LOW HUMIDITY</p> <p>* AFFECTED AREA: Leeward portions of all Hawaiian Islands.</p> <p>* WIND: East winds 30 to 45 mph with gusts to around 60 mph.</p> <p>* HUMIDITY: 35 to 45 percent through the afternoon hours.</p>	NWS–Red Flag Warnings

continued

NWS Products Released Prior to the August 8, 2023 Lahaina PM Fire				
Date	NWS Communication or Product Type	Time	Product Content	Source
			<p>* IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS... A Red Flag Warning means that critical fire weather conditions are either occurring now or will shortly. A combination of strong winds, low relative humidity, and warm temperatures can contribute to extreme fire behavior. A Red Flag Warning does not predict new fire starts.</p>	
8/8/2023	Fire Weather Planning Forecast	3:41PM	<p>RED FLAG WARNING IN EFFECT UNTIL 6 PM HST WEDNESDAY</p> <p>DISCUSSION Strong and potentially damaging easterly winds along with very dry conditions will persist tonight and Wednesday as Hurricane Dora passes far to the south. Dangerous fire weather conditions will persist through Wednesday afternoon. A return of a more typical trade wind pattern is anticipated later in the week through the weekend.</p> <p>HIZ218-091415- Maui Leeward West- Including Lahaina, Kaanapali 3:41 PM HST Tuesday, August 8, 2023 ...RED FLAG WARNING IN EFFECT UNTIL 6:00 PM HST WEDNESDAY...</p> <p>TONIGHT Sky/weather.....Partly cloudy. LAL.....1. Min temperature.....69 to 74. Max humidity.....85 percent. 20-foot winds.....Very windy. Northeast 35 to 45 mph. Mixing height.....4,000 ft. AGL. Transport winds.....East around 30 mph.</p> <p>WEDNESDAY Sky/weather.....Mostly sunny. LAL.....1. Max temperature.....81 to 89. Min humidity.....40 percent. 20-foot winds.....Windy. Northeast 25 to 30 mph until noon, then 15 to 30 mph. Mixing height.....4,500 ft. AGL. Transport winds.....East around 25 mph.</p> <p>WEDNESDAY NIGHT Sky/weather.....Partly cloudy. LAL.....1. Min temperature.....68 to 74. Max humidity.....85 percent. 20-foot winds.....Breezy. Northeast 10 to 25 mph. Mixing height.....4,500 ft. AGL. Transport winds.....East around 20 mph.</p>	NWS–Social Media

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6.3 PreFire Social Media Posts

Pre-Fire Social Media Posts August 4, 2023 through August 8, 2023				
Date	Agency/ Organization	Time	Platform	Message
August 4, 2023	Maui Emergency Management Agency	17:00	Instagram	Hurricane Dora is continuing to track well South of the Hawaiian Islands. MEMA will continue to monitor this system as it passes Hawai'i.
August 6, 2023	Maui County	03:33	Twitter/X	High Wind Watch until August 9, 2023 at 06:00.
August 6, 2023	Maui Emergency Management Agency	03:33	Facebook	High wind warning. Event extended (area): Kaho'olawe and northern portions of the Big Island. East winds 25 to 45 mph with localized gusts over 65 mph possible. NWS issued on August 6, 2023 at 10:05. Remains in effect from Monday morning through late Tuesday night.
August 6, 2023	Maui Emergency Management Agency	03:33	Instagram	High Wind Watch portions of Lāna'i, Maui and the Big Island. Remains in effect: From Monday morning through late Tuesday night. What: East winds 20 to 50 mph with localized gusts over 60 mph possible. Impacts: Damaging winds could blow down trees and power lines. Widespread power outages are possible. Travel could be difficult, especially for high profile vehicles. Event extended (area): Kaho'olawe and northern portions of the Big Island. East winds 25 to 45 mph with localized gusts over 65 mph possible. NWS issued on 08/06/23 at 10:05 AM HST
August 6, 2023	Maui Emergency Management Agency	06:35	Twitter/X	High Wind Watch issued August 6 at 3:33AM HST until August 9 at 6:00 AM HST by NWS Honolulu, HI * WHAT: East winds 20 to 50 mph with localized gusts over 60 mph possible. * WHERE: Portions of Lāna'i, Maui and the Big Island. * WHEN: From Monday morning through late Tuesday night.
August 6, 2023	Maui Emergency Management Agency	15:24	Facebook	High wind watch in effect from Monday Morning through late Tuesday night. Northeast winds 25 to 45 mph with localized gusts over 60 mph possible. Portions of Kauai, Lanai, Maui, Molokai, Oahu and the Big Island. Damaging winds could blow down trees and power lines. Widespread power outages are possible. Travel could be difficult, especially for high profile vehicles. Take precautions to protect property. Tie down loose objects or move them to a sheltered location.
August 6, 2023	Maui Emergency Management Agency	15:24	Instagram	High Wind Watch in effect from Monday morning through late Tuesday night... <ul style="list-style-type: none"> • What: Northeast winds 25 to 45 mph with localized gusts over 60 mph possible. • Where: Portions of Kauai, i, Maui, Molokai, Oahu, and the Big Island. • When: From Monday morning through late Tuesday night. • Impacts: Damaging winds could blow down trees and power lines. Widespread power outages are possible. Travel could be difficult, especially for high profile vehicles. <p>NWS issued an extended area on August 6, 2023 at 15:24 HST.</p>

continued

Pre-Fire Social Media Posts August 4, 2023 through August 8, 2023				
Date	Agency/ Organization	Time	Platform	Message
August 6, 2023	Maui 24/7	None	Facebook	HIGH WIND WATCH: STRONG AND GUSTY WINDS POSSIBLE MONDAY MORNING THROUGH LATE TUESDAY NIGHT: The gradient between high pressure north of the main Hawaiian Islands and Hurricane Dora passing safely south of the islands may drive very strong and gusty easterly winds across the area in the coming days. A stable air mass and low inversion will amplify this effect, especially over and lee of terrain across the eastern islands. This watch may be extended or modified later today or tonight. Lāna'i Mauka - Haleakala Summit - Big Island Interior - Big Island Summits - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - 03:33 HST Sunday August 6, 2023 ...HIGH WIND WATCH IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT... * WHAT: East winds 20 to 50 mph with localized gusts over 60 mph possible. * WHERE: Portions of Lāna'i, Maui and the Big Island. * WHEN: From Monday morning through late Tuesday night. * IMPACTS: Damaging winds could blow down trees and power lines. Widespread power outages are possible. Travel could be difficult, especially for high profile vehicles. PRECAUTIONARY/PREPAREDNESS ACTIONS... Take precautions now to protect property. Tie down loose objects or move them to a sheltered location.
August 6, 2023	Maui 24/7	None	Facebook	FIRE WEATHER WATCH: ...CRITICAL FIRE WEATHER CONDITIONS POSSIBLE MONDAY MORNING THROUGH LATE TUESDAY NIGHT ACROSS LEEWARD AREAS... Strong and gusty winds, combined with low humidities and KBDI values possibly exceeding 600, may lead to critical fire conditions across leeward areas over the coming days. This watch may be extended or modified later today or tonight. Updated to state winds in mph versus kts. Kauai Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lāna'i Makai - Lāna'i Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala ...FIRE WEATHER WATCH REMAINS IN EFFECT FROM MONDAY MORNING THROUGH LATE TUESDAY NIGHT FOR LEEWARD AREAS DUE TO STRONG AND GUSTY WINDS WITH LOW HUMIDITY... * AFFECTED AREA: Leeward portions of all Hawaiian Islands. * WIND: East winds 20 to 30 mph with higher gusts. * HUMIDITY: 40 to 45 percent during afternoon and evening. * IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended.

continued

APPENDIX

Pre-Fire Social Media Posts August 4, 2023 through August 8, 2023

Date	Agency/ Organization	Time	Platform	Message
				PRECAUTIONARY/PREPAREDNESS ACTIONS... A Fire Weather Watch means that critical fire weather conditions are forecast to occur. Listen for later forecasts and possible Red Flag Warnings.
August 6, 2023	Maui Emergency Management Agency	None	Facebook	U.S. National Weather Service Honolulu & Central Pacific Hurricane Center: While Hurricane Dora passes well south with no direct impacts here, the strong pressure gradient between it & the high pressure to the north creates a threat of damaging winds & fire weather (due to ongoing dry conditions) from early Mon to Wed. Strongest winds in yellow & oranges on map result from significant pressure differences between high & low pressures. Combined w/dry conditions, these winds pose a serious fire & damaging wind threat. Stay Alert!
August 6, 2023	Maui Emergency Management Agency	None	Facebook	Wind Advisory
August 6, 2023	Maui Fire Department	None	Facebook	U.S. National Weather Service Honolulu & Central Pacific Hurricane Center: Moderate winds through Sunday, but then expect very gusty conditions Mon-Wed. Now would be a good time to secure loose items for the workweek!
August 7, 2023	Maui Emergency Management Agency	03:36	Instagram	Wind Advisory portions of the Ni'ihau, Kaua'i, Oahu, Maui and the Big Island. When: Through 6:00 AM HST Wednesday What: Northeast winds 20 to 35 mph with gusts over 50 mph Impacts: Winds this strong can tear off shingles, knock down tree branches, blow away tents and awnings and make it difficult to steer, especially for drivers of high profile vehicles.
August 7, 2023	Maui County	None	Twitter/X	Red flag warning issued August 7, 2023 at 15:55 until August 9 at 06:00 by NWS Honolulu, HI
August 7, 2023	Maui County	None	Facebook	National Weather service issued a high wind warning for portions of Maui County that extends from 06:00 August 7, 2023 until 06:00 August 8, 2023 (Wednesday).
August 7, 2023	Maui 24/7	None	Facebook	YOUR MAUI WEATHER FORECAST FOR TODAY: Isolated showers before noon. Mostly sunny, with a high near 90 degrees. Heat index values as high as 96. Very windy, with an east northeast wind 17 to 22 mph increasing to 27 to 32 mph in the morning. Winds could gust as high as 47 mph. TONIGHT: Partly cloudy, with a low around 72 degrees. Very windy, with an east northeast wind 30 to 32 mph, with gusts as high as 47 mph.
August 7, 2023	Maui 24/7	None	Facebook	RED FLAG WARNING: RED FLAG WARNING FOR LEEWARD AREAS DUE TO STRONG WINDS AND LOW HUMIDITY: Very dry fuels combined with strong and gusty easterly winds and low humidities below 45 percent will produce critical fire weather conditions through Tuesday night.

continued

Pre-Fire Social Media Posts August 4, 2023 through August 8, 2023

Date	Agency/ Organization	Time	Platform	Message
				Kaua'i Leeward - Oahu South Shore - Waianae Coast - Oahu North Shore - Olomana - Central Oahu - Waianae Mountains - Molokai Leeward - Lāna'i Makai - Lāna'i Mauka - Maui Leeward West - Maui Central Valley - Leeward Haleakala - Kona - South Big Island - Kohala - Big Island Interior- 4:42 AM HST Monday, August 7, 2023 ...RED FLAG WARNING REMAINS IN EFFECT UNTIL 6:00 AM HST WEDNESDAY FOR STRONG WINDS AND LOW HUMIDITY... * AFFECTED AREA: Leeward portions of all Hawaiian Islands. * WIND: East winds 30 to 45 mph with gusts over 60 mph expected. * HUMIDITY: 35 to 45 percent during afternoons and evenings. * IMPACTS: Any fires that develop will likely spread rapidly. Outdoor burning is not recommended. PRECAUTIONARY/PREPAREDNESS ACTIONS... A Red Flag Warning means that critical fire weather conditions are either occurring now or will shortly. A combination of strong winds, low relative humidity, and warm temperatures can contribute to extreme fire behavior. A Red Flag Warning does not predict a new fire starts.
August 7, 2023	Maui 24/7	None	Facebook	HIGH WIND WARNING: ...STRONG AND GUSTY WINDS THROUGH TUESDAY NIGHT... Kaua'i Southwest - Kauai Mountains - Waianae Coast - Oahu North Shore - Central Oahu - Waianae Mountains - Lāna'i Mauka - Kaho'olawe - Maui Windward West - Maui Leeward West - Kohala - Big Island Interior- Kauai North - Kaua'i South - East Honolulu - Honolulu Metro - Ewa Plain - Koolau Leeward - Molokai Windward - Molokai Southeast - Molokai North - Molokai West - Molokai Leeward South - Lanai Windward - Leeward - Lanai South - Maui Central Valley North - Maui Central Valley South - South Maui/Upcountry - South Haleakala - Big Island South - Big Island Southeast - Big Island North 3:15 AM HST Monday, August 7, 2023 ...HIGH WIND WARNING IN EFFECT FROM 6 AM THIS MORNING TO 6:00 AM HST WEDNESDAY... * WHAT: East winds 30 to 45 mph with gusts over 65 mph expected. * WHERE: Portions of Kauai, Oahu, Molokai,, Kaho'olawe, Maui, and the Big Island.

continued

APPENDIX

Pre-Fire Social Media Posts August 4, 2023 through August 8, 2023

Date	Agency/ Organization	Time	Platform	Message
August 7, 2023	Maui 24/7	None	Facebook	<p>* WHEN: Through 6:00 AM HST Wednesday.</p> <p>* IMPACTS: Damaging winds may blow down trees and power lines and damage roofs. Power outages are possible. Travel will be difficult, especially for high profile vehicles.</p> <p>PRECAUTIONARY/PREPAREDNESS ACTIONS... Strong winds may lead to property damage. Hazardous driving conditions due to powerful cross winds will pose a serious risk for drivers, especially for light weight and high profile vehicles. Loose outdoor items should be brought inside or secured properly.</p>
August 7, 2023	Maui 24/7	None	Facebook	<p>WINDY FORECAST: The National Weather Service in Honolulu said based on the current forecasts, Hurricane Dora is expected to move on a path about 500 miles south of Hawai'i, which will increase trade wind speeds starting Monday, with very strong and gusty winds Tuesday.</p> <p>A high wind warning has been issued for most of the state Monday morning through Wednesday morning for the expected strong winds.</p> <p>A short-lived southeast swell is expected to fill in Tuesday through midweek as Dora passes far to the south, with rough and dangerous waves. A high surf warning has been issued for the east shores of Hawai'i, Maui and Molokai for waves of 10 to 15 feet.</p>
August 7, 2023	Maui Emergency Management Agency	None	Twitter/X	<p>Red Flag Warning issued August 7 at 3:15AM HST until August 9 at 6:00AM HST by NWS Honolulu, HI The National Weather Service in Honolulu has issued a Red Flag Warning, which is in effect through 6:00 AM HST Wednesday. * AFFECTED AREA: Leeward portions of all Hawaiian Islands.</p>
August 7, 2023	Maui Emergency Management Agency	None	Twitter/X	<p>High Wind Warning issued August 7 at 3:40 PM HST until August 9 at 6:00 AM HST by NWS Honolulu, HI. * WHAT: East winds 45 to 60 mph with gusts in excess of 80 mph. * WHERE: Summits of Haleakala, Mauna Kea, and Mauna Loa. * WHEN: Through 6:00 AM HST Wednesday.</p>
August 7, 2023	Maui Fire Department	None	Facebook	<p>A number of weather threats affecting Maui County to begin the week: Large surf on east facing shores. Strong winds, with especially high wind speeds at higher elevations. A red flag fire weather watch in leeward areas as dry conditions are impacted by gusty winds.</p>
August 8, 2023	Maui County	05:32	Twitter/X	<p>ROAD CLOSURE UPDATE: Kamehameha V Hwy (Molokai) is now OPEN.</p>
August 8, 2023	Maui County	06:27	Twitter/X	<p>ROAD CLOSURE:Haleakala Hwy 377 between Kula Hwy and L. Kimo Drive / Kealahoa Road closed from Hanamu to 37.</p>

continued

Pre-Fire Social Media Posts August 4, 2023 through August 8, 2023

Date	Agency/ Organization	Time	Platform	Message
August 8, 2023	Maui Emergency Management Agency	07:19	Twitter/X	<p>MEMA Alert: EVACUATION ORDER on Maui for Kula 200 subdivision off Aulii Dr due to a Brushfire. Grab your "go kits" and evacuate your family and pets now!</p>
August 8, 2023	Maui County	07:41	Twitter/X	<p>MEMA Alert: Evacuation Notification</p>
August 8, 2023	Maui Emergency Management Agency	08:32	Twitter/X	<p>MEMA Alert: EVACUATION ORDER for multiple streets in area of King Kekaulike High School evacuated due to dangerous brushfire; evacuate from Aulii Drive, Ho'opalu Drive, Hanamu Road, and Kealahoa Avenue. Grab your "go kits" and evacuate your family and pets now! Shelter open at Hannibal Tavares Center.</p>
August 8, 2023	Maui County	09:38	Twitter/X	<p>ROAD CLOSURE: Honoapi'ilani Highway between Front Street and Hōkiokio Road due to down Meco* poles on the road.</p>
August 8, 2023	Maui County	09:55	Facebook	<p>Lahaina Fire update #2 at 9:55 AM: Maui Fire Department declared the Lahaina brush fire 100% contained shortly before 9:00 AM today. Power outages are impacting the ability to pump water, and the public is asked to conserve water in West Maui. Lahainaluna Road remains closed while Hawaiian Electric responds to downed power lines</p>

*Now known as Hawaiian Electric.

APPENDIX

6.4 Wind Conditions Reported by Remote Automatic Weather Stations (RAWS)

#STATION: KHRH1						
#STATION NAME: KOHALA RANCH						
#LATITUDE: 20.089900						
#LONGITUDE: -155.826290						
#ELEVATION [ft]: 1326						
STATE: HI	DATE / TIME	Wind Speed	Wind Direction	Wind Cardinal Direction	Wind Gust	Peak Wind Direction
		Miles / Hour	Degrees	Code	Miles / Hour	Degrees
KHRH1	08/07/2023 20:35 HST	4	102	ESE	9	144
KHRH1	08/07/2023 21:31 HST	12	129	SE	31	147
KHRH1	08/07/2023 22:35 HST	13	128	SE	31	99
KHRH1	08/07/2023 23:35 HST	13	111	ESE	32	96
KHRH1	08/08/2023 00:35 HST	13	114	ESE	44	66
KHRH1	08/08/2023 01:35 HST	19	68	ENE	47	69
KHRH1	08/08/2023 02:35 HST	24	45	NE	47	66
KHRH1	08/08/2023 03:35 HST	16	104	ESE	55	135
KHRH1	08/08/2023 04:35 HST	28	54	NE	56	70
KHRH1	08/08/2023 05:35 HST	32	49	NE	62	60
KHRH1	08/08/2023 06:35 HST	34	47	NE	62	51
KHRH1	08/08/2023 07:35 HST	37	54	NE	60	65
KHRH1	08/08/2023 08:35 HST	34	52	NE	67	53
KHRH1	08/08/2023 09:35 HST	35	56	NE	74	48
KHRH1	08/08/2023 10:35 HST	36	52	NE	63	67
KHRH1	08/08/2023 11:35 HST	41	49	NE	64	58
KHRH1	08/08/2023 12:35 HST	39	51	NE	64	54
KHRH1	08/08/2023 13:35 HST	42	52	NE	64	65
KHRH1	08/08/2023 14:35 HST	42	55	NE	66	59
KHRH1	08/08/2023 15:35 HST	38	55	NE	81	51
KHRH1	08/08/2023 16:35 HST	36	53	NE	82	38
KHRH1	08/08/2023 17:35 HST	31	60	ENE	69	54
KHRH1	08/08/2023 18:35 HST	34	53	NE	69	66
KHRH1	08/08/2023 19:35 HST	35	59	ENE	66	61
KHRH1	08/08/2023 20:35 HST	29	56	NE	61	55

continued

KHRH1	08/08/2023 21:35 HST	29	64	ENE	61	70
KHRH1	08/08/2023 22:35 HST	31	61	ENE	64	64
KHRH1	08/08/2023 23:35 HST	33	56	NE	61	55
KHRH1	08/08/2023 23:35 HST	27	70	ENE	61	45
KHRH1	08/09/2023 01:35 HST	20	82	E	57	52
KHRH1	08/09/2023 02:35 HST	16	99	E	46	50
KHRH1	08/09/2023 03:35 HST	11	125	SE	42	144
KHRH1	08/09/2023 04:35 HST	11	75	ENE	47	128
KHRH1	08/09/2023 05:35 HST	11	90	E	40	116
KHRH1	08/09/2023 06:35 HST	12	72	ENE	35	26
KHRH1	08/09/2023 07:35 HST	16	183	S	37	246
KHRH1	08/09/2023 08:35 HST	16	168	SSE	42	122
KHRH1	08/09/2023 09:35 HST	11	233	SW	41	180
KHRH1	08/09/2023 10:35 HST	18	187	S	44	181
KHRH1	08/09/2023 11:35 HST	10	246	WSW	32	230
KHRH1	08/09/2023 12:35 HST	21	66	ENE	33	39

APPENDIX

6.5 Maui Emergency Management Agency (MEMA) Emergency Operations Center (EOC) Sign-Ins August 7, 2023 to August 9, 2023

2023-08-07 Severe Weather 08-07-2023

Event Name Date

MEMA Staff

Print Name	Signature	Organization	Time In	Time Out
Paul Coe		OPS Section Chief		
Gaye Gabuat		EOC Administrative Assistant	0630	2200
Rocky Keohuhu-Bolor		Planning Section Chief	0715	0001
Colleen Hauptman		Recovery Section Chief	8:20pm	10:00am / 7/24
Everett Balmores		Situational Awareness Chief	0620	
Gina Albanese				
Darryl Takeda		Logistics Section Chief	0640 0540	0313
Joshua Aquinde				

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FIRE-MAUICOUNTY-00016301

2023-08-07 Severe Weather 08-07-23

Event Name Date

Infrastructure

Print Name	Signature	Organization	Time In	Time Out
Shayne Agawa		DEM - Director		
Robert Schmidt		DEM - Deputy Director		
		DEM		
		DEM		
Jordan Molina		DPW - Director		
Wendy Taomoto		DPW - Deputy Director	6:55 pm	
		DPW		
		DPW		
John Stufflebean		Dept. of Water - Director		
James Landgraf		Dept. of Water - Deputy Director	8:20 AM	
		Dept. of Water		
		Dept. of Water		
Kuheia Asiu		HECO	5:15 AM	
Matthew Nishimura		HEM	1300	2100

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FIRE-MAUICOUNTY-00016285

2023-08-08 SEVERE WEATHER EVENT

Event Name Date

Command

Print Name	Signature	Organization	Time In	Time Out
Richard Bissen Jr.		Mayor	6:40	
Herman Andaya		EOC Director		
Leo Cairns		Chief of Staff	8:00 AM	
Kekuhaupio Akana		Managing Director	0630 AM	
Josiah Nishita		Deputy Managing Director		
Scott Teruya		Finance Director		
Steve Tesoro		Finance Deputy Director		
Mark Middleton		Safety Officer - Risk Management	0652	0710
David Duarte		ITSD	3m	
Jon Gushiken		ITSD		
		ITSD		
Victoria Takayasu			0750	1600
Mia Ai		PIO	6:15pm	
Kathleen Wicks		DOT A	4:30 PM	0730 PM
ZEIG KAUA		OFFICE OF THE MGR	6:59 AM	

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FIRE-MAUICOUNTY-00016281

APPENDIX

2023-08-07 Sun 2308 08

Event Name: Human Services Date: 2308 08

Print Name	Signature	Organization	Time In	Time Out
Lori Tshako	<i>Lori Tshako</i>	DHHC - Director	5:40pm	
Saumalu Mataafa		DHHC - Deputy Director		
<i>Doreen Moore</i>	<i>Doreen Moore</i>	DHHC DOE	9:00am	
		DHHC		
Pat McCall		DPR - Director		
Shane Dudoit		DPR - Deputy Director		
		DPR		
		DPR		
Kevin Drake		DOE		
Desiree Sides	<i>Desiree Sides</i>	DOE	4:30	
Rebecca Winkie	<i>Rebecca Winkie</i>	DOE	8:19 9:00 AM 3:00 PM ✓	
		DOE	6:30 PM	
		American Red Cross		
		American Red Cross	0541	
		American Red Cross	1200	

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FIRE-MAUICOUNTY-00016282

8 AUG 2023

Event Name: Public Safety Date: 8 AUG 2023

Print Name	Signature	Organization	Time In	Time Out
		National State Park		
		National State Park		
		National State Park		
Howard Rodrigues		DLNR		
Ronald Cahill		DLNR		
<i>Jesus Yamamoto</i>	<i>Jesus Yamamoto</i>	DLNR	2230	
		DLNR		
Andrew Martin		Prosecuting Attorney		
Shelly DeMattos		Prosecuting Attorney 1st Deputy		
		Prosecuting Attorney		
		Prosecuting Attorney		
<i>CHO ANDREW WALL</i>	<i>CHO ANDREW WALL</i>	US Coast Guard	8:30 AM	
		US Coast Guard		
		US Coast Guard		
		US Coast Guard		

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FIRE-MAUICOUNTY-00016284

8 Aug 23

Event Name: Public Safety Date: 8 Aug 23

Print Name	Signature	Organization	Time In	Time Out
Bradford Ventura		MFD - Fire Chief		
Gavin Fujioka		MFD - Deputy Chief		
Jeff Giese	<i>Jeff Giese</i>	MFD - Chief	0445	
Rylan Yatsushiro	<i>Rylan Yatsushiro</i>	MFD - Fire Services Officer	0730	
<i>Ryan Okubo</i>	<i>Ryan Okubo</i>	MFD - Battalion Chief	1615	8/2130
<i>Colby Hasler</i>	<i>Colby Hasler</i>	MPD ARFF	1845	0700
John Pelletier		MPD - Chief of Police		
Wade Maeda		MPD - Deputy Chief		
Reid Pursley		MPD		
<i>Kenny Okamoto</i>	<i>Kenny Okamoto</i>	MPD	1720	
<i>Wick Angali</i>	<i>Wick Angali</i>	MPD	0448	0650
<i>GORDON SIKOU</i>	<i>GORDON SIKOU</i>	MPD		
Nic Krau		MPD - Hana		
Kim Massey		MPD - Lana'i		
Nathaniel Hubbard		MPD - Moloka'i		
Ari Wong	<i>Ari Wong</i>	National State Park	1853	

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Todd Curtright HI National Guard 1720 08

FIRE-MAUICOUNTY-00016283

8/8/23

Event Name: Infrastructure Date: 8/8/23

Print Name	Signature	Organization	Time In	Time Out
Sayble Bissen	<i>Sayble Bissen</i>	HECO	6:45p	
		HECO		
Ty Fukuroku		DOT Highways		
		DOT Highways		
		DOT Highways		
Kathy Wade		State DOT Airports		
Marvin Moniz		State DOT Airports		
		State DOT Airports		
Duane Kim		DOT Harbors		
		DOT Harbors		
Walter Pacheco		MPD - Communications		
Jason Takayama		MPD - Communications		
		MPD - Communications		

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SHARON DAGUER MPD - CIV 2200 PM

FIRE-MAUICOUNTY-00016286

APPENDIX

Level 1 Activism Fire 8/8 8/9
 Event Name Date

Human Services

Print Name	Signature	Organization	Time In	Time Out
[Redacted]	[Redacted]	VOAD		
[Redacted]	[Redacted]	VOAD	3:28pm	5:20pm
Dr. Pang	[Signature]	DOH	7:47	
Bridget Velaso	[Signature]	DOH	7:00 A	2:00
		DOH		
		DOH		
Rogerene "Kali" Arce	[Signature]	Dept of Ag - Director	8/9/23 8:20AM	8/9/23 11:00AM
Koa Hewahewa	[Signature]	Dept of Ag - Deputy Director	8:00pm	9:15am
		Dept of Ag		
		Dept of Ag		
Layne Silva		Dept of Liquor - Director		
Jarrett Kahoohanahano		Dept of Liquor - Deputy Director		
		Dept of Liquor		
		Dept of Liquor		
Pat McCall	[Signature]	Parks & Recreation - Director	8:30am	7

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FIRE-MAUICOUNTY-00016277

8/9
 Event Name Date

MEMA Staff

Print Name	Signature	Organization	Time In	Time Out
Paul Coe	[Signature]	OPS Section Chief	0700	[Redacted]
Gaye Gabuat	[Signature]	EOC Administrative Assistant	0845	2:00
Rocky Keohuhu-Bolor		Planning Section Chief	0001	0001
Colleen Hauptman		Recovery Section Chief		
Everett Balmores		Situational Awareness Chief		
Gina Albanese				
Darryl Takeda	[Signature]	Logistics Section Chief	0650	2:52
Joshua Aquinde				
Liana Matti	[Signature]	OED / call support	4:46pm	8:50pm
[Redacted]		AMR	0800	2000
Prima Landgraf	[Signature]	Office of the Mayor	2:30 P	10 P

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FIRE-MAUICOUNTY-00016300

8/9
 Event Name Date

MEMA Staff

Print Name	Signature	Organization	Time In	Time Out
Paul Coe	[Signature]	OPS Section Chief	0700	[Redacted]
Gaye Gabuat	[Signature]	EOC Administrative Assistant	0845	2:00
Rocky Keohuhu-Bolor		Planning Section Chief	0001	0001
Colleen Hauptman		Recovery Section Chief		
Everett Balmores		Situational Awareness Chief		
Gina Albanese				
Darryl Takeda	[Signature]	Logistics Section Chief	0650	2:52
Joshua Aquinde				
Liana Matti	[Signature]	OED / call support	4:46pm	8:50pm
[Redacted]		AMR	0800	2000
Prima Landgraf	[Signature]	Office of the Mayor	2:30 P	10 P

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FIRE-MAUICOUNTY-00016310

8/10/2023
 Brushfire
 Event Name Date

Command

Print Name	Signature	Organization	Time In	Time Out
Richard Bissen Jr.	[Signature]	Mayor		
Herman Andaya		EOC Director		
Leo Caires	[Signature]	Chief of Staff	6:45 AM	
Kekuhapio Akana	[Signature]	Managing Director	0640	
Josiah Nishita		Deputy Managing Director		
Scott Teruya	[Signature]	Finance Director	7:00	
Steve Tesoro		Finance Deputy Director		
Mark Middleton	[Signature]	Safety Officer - Risk Management	0630	
David Duarte	[Signature]	ITSD		
Jon Gushiken		ITSD		
		ITSD		
Cynthia Lallo		Senior EA		
Victoria Takigawa	[Signature]	Corp Comm D	7:00	

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FIRE-MAUICOUNTY-00016270

APPENDIX

MAUI FIRES

8/9

Event Name Date

Public Safety

Print Name	Signature	Organization	Time In	Time Out
Bradford Ventura		MFD - Fire Chief		
Gavin Fujioka		MFD - Deputy Chief		
Jeff Giese		MFD - Chief		
Rylan Yatsushiro		MFD - Fire Services Officer		
		MFD		
		MFD		
John Pelletier		MPD - Chief of Police		
Wade Maeda		MPD - Deputy Chief		
Reid Pursley		MPD		
Nick Angell		MPD		
		MPD		
Nic Krau		MPD - Hana		
Kim Massey		MPD - Lana'i		
Nathaniel Hubbard		MPD - Moloka'i		
Ari Wong	<i>[Signature]</i>	National State Park	0630	

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FIRE-MAUICOUNTY-00016271

Event Name Date

Infrastructure

Print Name	Signature	Organization	Time In	Time Out
Shayne Agawa		DEM - Director		
Robert Schmidt	<i>[Signature]</i>	DEM - Deputy Director	7:05 7:30	8:10 8:50
		DEM	7:40	8:10
		DEM		
Jordan Molina		DPW - Director		
Wendy Taomoto	<i>[Signature]</i>	DPW - Deputy Director	7:00 AM	2:00 PM
		DPW		
		DPW		
John Stufflebean		Dept. of Water - Director		
James Landgraf		Dept. of Water - Deputy Director		
		Dept. of Water		
		Dept. of Water		
		HECO	4:00 AM	8:30 PM

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BOB-260-
TY FUKUROKU BOB-281-

HAWAIIAN TELCOM
DOT HWYS

32

FIRE-MAUICOUNTY-00016273

Maui Fires

8/9

Event Name Date

Public Safety

Print Name	Signature	Organization	Time In	Time Out
		National State Park		
		National State Park		
		National State Park		
Howard Rodrigues		DLNR		
Ronald Cahill		DLNR		
JOHN YAMAMOTO	<i>[Signature]</i>	DLNR	1800	
		DLNR		
Andrew Martin		Prosecuting Attorney		
Shelly DeMattos		Prosecuting Attorney 1st Deputy		
		Prosecuting Attorney		
		Prosecuting Attorney		
Jesse Harris	<i>[Signature]</i>	US Coast Guard	1900	2200
MARK THAYER	<i>[Signature]</i>	US Coast Guard	2000	2400
CLAUDE LIAI	<i>[Signature]</i>	US Coast Guard	0800	
CLAUDE LIAI	<i>[Signature]</i>	US Coast Guard	2400	

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FIRE-MAUICOUNTY-00016272

Event Name Date

Infrastructure

Print Name	Signature	Organization	Time In	Time Out
		HECO	5:00 PM	3:00 AM
		HECO		
Ty Fukuroku		DOT Highways		
Derek Takahashi	<i>[Signature]</i>	DOT Highways	7:10	
		DOT Highways		
Kathy Wade	<i>[Signature]</i>	State DOT Airports	1650	2130
Marvin Moniz		State DOT Airports		
		State DOT Airports		
Duane Kim		DOT Harbors		
		DOT Harbors		
Walter Pacheco	<i>[Signature]</i>	MPD - Communications	0630	2200
Jason Takayama		MPD - Communications		
		MPD - Communications		

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FIRE-MAUICOUNTY-00016274

APPENDIX

8/9 ^{VIGOROUS}

Event Name _____ Date _____

Human Services

Print Name	Signature	Organization	Time In	Time Out
Lori Tshako		DHHC - Director		
Saumalu Mataafa		DHHC - Deputy Director		
Christopher Kish	<i>CK</i>	DHHC	7:15 pm	8:00 am
Christopher Kish		DHHC		
Pat McCall	<i>Pat</i>	DPR - Director	8:44 pm	10:42 am
Shane Dudoit		DPR - Deputy Director		
		DPR		
		DPR		
X Kevin Drake		DOE		
Desiree Sides	<i>DS</i>	DOE	5:20 pm	8:15 pm
Rebecca Winkie		DOE		
		DOE		
		American Red Cross		
		American Red Cross		
		American Red Cross		

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FIRE-MAUICOUNTY-00016275

8/9/23

Event Name _____ Date _____

Human Services

Print Name	Signature	Organization	Time In	Time Out
Shane Dudoit	<i>SD</i>	Parks & Recreation - Deputy Director	6:30	
		Parks & Recreation		
		Parks & Recreation		
David Underwood	retired	Personnel - Director		
Cynthia Razo-Porter	<i>CRP</i>	Personnel - Deputy Director	7:20	8:20
		Personnel		
		Personnel		
LESDO ANDERSON	<i>LA</i>	STARRA = Transportation	12:00	
X Man Takammi	<i>MT</i>	Maui Health System	8:30 pm	8:30 am
Saumalu Mataafa	<i>SM</i>	DHHC	6:40 am	8:05
Kaunaloa Bateman	<i>KB</i>	Transportation	6:55 am	6:57 pm
Man Takammi	<i>MT</i>	Transportation	6:30 pm	

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FIRE-MAUICOUNTY-00016276

8/9

Event Name _____ Date _____

Human Services

Print Name	Signature	Organization	Time In	Time Out
X [Redacted]		VOAD		
X [Redacted]		VOAD / The Salvation Army	7:10 am	
Dr. Pang		DOH		
Bridget Veloso		DOH		
Marie Nishimoto	<i>MN</i>	DOH	6:40 pm	10:40 pm
		DOH		
Rogerene "Kali" Arce	<i>RA</i>	Dept of Ag - Director	8:00 am	11:00 pm
Koa Hewahewa	<i>KH</i>	Dept of Ag - Deputy Director	8 am	
		Dept of Ag		
		Dept of Ag		
Layne Silva		Dept of Liquor - Director		
Jarrett Kahoonahano		Dept of Liquor - Deputy Director		
		Dept of Liquor		
		Dept of Liquor		
X Pat McCall		Parks & Recreation - Director		

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FIRE-MAUICOUNTY-00016278

8/9

Event Name _____ Date _____

Human Services

Print Name	Signature	Organization	Time In	Time Out
Shane Dudoit		Parks & Recreation - Deputy Director		
		Parks & Recreation		
		Parks & Recreation		
David Underwood		Personnel - Director		
Cynthia Razo-Porter	<i>CRP</i>	Personnel - Deputy Director	10:00	
		Personnel		
		Personnel		
X [Redacted]		MHLA	1:30 pm	9:00 pm
		MHLA	8 am	5:30 pm
		MVCB	7 pm	8:30 am
		HITEM	1:30	2:00

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FIRE-MAUICOUNTY-00016279

APPENDIX

8/9

Event Name: Planning Date: 8/9

Print Name	Signature	Organization	Time In	Time Out
Kathleen Aoki		Dept. of Planning - Director		
Garrett Smith		Dept. of Planning - Deputy Director		
James Buika	<i>Jan. A. Buika rep for Planning Dept.</i>	Dept. of Planning	8:45	
Lila Lawrence		Communications Officer	6:50	
Regenerati Arce	<i>Regenerati Arce</i>	Dir. of Ag. County	8:00 AM	

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FIRE-MAUICOUNTY-00016280

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APPENDIX

6.6 Hawaiian Electric Emergency Operations Center (EOC) Update August 8, 2023

EXEMPT FROM DISCLOSURE UNDER FOIA, UIPA, AND RELATED LAWS

From: [REDACTED]
Sent: 8/8/2023 5:58:27 AM
To: [REDACTED]
Subject: EOC Update #1 - Wind Event and Upcountry Fire

Good morning, [REDACTED] –

Sending you two a more detailed update, a general one will be sent to the LNO team and [REDACTED] to follow.

MEMA has partially activated the Emergency Operating Center (EOC) due to a large brush fire happening Upcountry that started at 12:22 a.m. I reported to the EOC at 5:15 a.m.
 At this time an evacuation order is in place for multiple streets near King Kekaulike High School, but the fire is not a threat to the school at this time.

- The evacuation covers those from Auli'i Drive, Ho'opalu Drive, Hanamu Road and Kealaloa Avenue.
- An admin day has been called, so no school for Upcountry students today. A shelter has been opened at Pukalani Community Center/Hannibal Tavares Community Center. Awaiting an approximate count of people currently there.
- One house was burned down, but no one was inside.
- MFD has warned me that it looks like the brush fire may have started near our downed power lines. This is pending an investigation, of course. I have asked MFD and MPD to please refrain from saying this publicly and also not to refer to this on their radios, as there are community folks who listen in to police scanners and such and then report on social media. They have both acknowledged and agreed. Nothing has been mentioned on the police/fire radio so far.
- Proactively asking MPD/MFD where their crews are and to be sure that they assume all downed lines are energized. MPD is checking to see if they need to request lines to be de-energized.

Will keep you posted.

Thanks,
 [REDACTED]

CONFIDENTIAL TREATMENT REQUESTED
 SUBJECT TO CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

MECO-FSRI-0000001480

6.7 Maui Emergency Management Agency (MEMA) Emergency Operations Center (EOC) Situation Report No. 1: August 8, 2023

Incident Name: 230807 Severe Weather **EOC Partial Activation 8/7 @ 2100**

2 FIRES as of 8/8 @ 1047

KULA FIRE (reported 8/8 @ 1222 AM)

- 1100 Acres (rough estimate)/Containment: 0%
- South DIVS (Devlin): E10, WL10, WL10a, E14, DOFAW engine-keep fire E/Makua of Kula Hwy
- East DIVS (Vanderpoel): E13, Mn13, DOFAW tankers-working basckside to contain gulch East of Kul 200 neighborhood.
- Structure GP (Gaddis, Teroka): RE2 at Kananoe, E5 at 1330s Haleakala-protect structures from further exposures
- HE Goup (BC6): Honoulu Tanker, Kaupo Ranch Tanker (D6), GF Tankers x2 (d6,d9) - keep fire east of Kula Hwy, working Mauka
- Air-1 completed morning reconnaissance then return to base due to winds (80 mph gusts)
- 2 residential structures lost. No injuries or loss of life
- Shift change. Change Incident Commander
- Investigators deployed

LAHAINALUNA FIRE (near Lahaina Intermediate). (reported at 8/8 @ 0637)

- MFD dispatched (Lahaina, Napili). 3 acres (rough estimate)
- Air-2 return to base due to winds. Investigators deployed
- **Reported at 100% contained at 0904**

Infrastructure as of 8/8 @ 819

- Power Outages: West Maui and Upcountry (Crews working on restoration)
- Pole down Honoapiilani Road between Front Street and Hokiokio (Crews responding)
- West Maui 2628 HECO customers affected
- Water impacted: Residential Upcountry. Request for conservation. Water foe MFD not impacted
- Closed: Pukalani DMV (due to smoke), Lahaina DMV (due to power)

EVACUATIONS as of 8/8 @ 0819

- Evacuated Haleakala 377 area of MM2
- Kula 200: Aulii and Hoopalua and Hanamu as well as all side streets.
- Kealaloa and Meha to the Y

ROAD CLOSURES as of 8/8 @ 0819

- Road closed on Honoapiilani from Front Street to Hokiokio
- Road closed on Wainee from Dickenson to Lahainaluna
- Road partially closed and blocked off from Honoapiilani / Keawe. Right hand turn lane from Honoapiilani to Keawe blocked with cones
- Road closed on Lahainaluna from Kelawea to Kuaialua

SHELTERS as of 8/8 @ 0640

- Open: Hannibal Taveres Community Center. Pukalani
 - Some evacuees staying in cars (approx. 20) in parking lot
 - 54 people, 17 dogs, 7 cats
 - Humane Society on scene for small animals
- Kaonoulu Ranch (Kula) opened up Oskie Rice Arena for evacuation, staging and (large) animal evacuation
- Open: Lahaina Civic Center-Downstairs (Power Out)
 - 2 people

SCHOOL CLOSURES as of 8/8 @ 0640

- Closed: Kamehameha Schools
- Closed King Kekaulike High
- Makawao Intermediate-Only 6th grade scheduled
- Closed: Lahainaluna Intermediate, High School and Princess Nāhi'ena'ena Elementary School (due to power outage)

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FIRE-MAUICOUNTY-00020163

APPENDIX

6.8 Maui Emergency Management Agency (MEMA) Emergency Operations Center (EOC) Situation Report: No. 2: August 8, 2023

Incident Name: 230807 Severe Weather **EOC Full Activation 8/8 @ 1630**

3 FIRES as of 8/8 @ 2131

KULA FIRE (reported 8/8 @ 1222 AM)

- 1100 Acres (rough estimate)/Containment: 0%
- South DIVS (Devlin): E10, WL10, WL10a, E14, DOFAW engine-keep fire E/Makua of Kula Hwy
- East DIVS (Vanderpool): E13, Mn13, DOFAW tankers-working basckside to contain gulch East of Kula 200 neighborhood.
- Structure GP (Gaddis, Teroka): RE2 at Kananoe, ES at 1330s Haleakala-protect structures from further exposures
- HE Goup (BC6): Honoulu Tanker, Kaupo Ranch Tanker (D6), GF Tankers x2 (d6,d9) - keep fire east of Kula Hwy, working Mauka
- Air-1 completed morning reconnaissance then return to base due to winds (80 mph gusts)
- 2 residential structures and 1 greenhouse lost. No injuries or loss of life

LAHAINALUNA FIRE (near Lahaina Intermediate), (reported at 8/8 @ 0637)

- MFD dispatched (Lahaina, Napili).
- Lahaina Flare up. Hoohaha Place @ 1500
- Fire within 2 miles of Civic Center shelter @ 2135

KIHEI FIRE (near Pulehu Road), 8/8 @ 2131

Infrastructure as of 8/8 @ 1505

- Power Outages: West Maui and Upcountry (Crews working on restoration)
- Pole down Honoapiilani Road between Front Street and Hokiokio (Crews responding)
- West Maui 2628 HECO customers affected
- Water impacted: Residential Upcountry. Request for conservation. Water foe MFD not impacted
- Closed: Pukalani DMV (due to smoke), Lahaina DMV (due to power)
- 30 Poles down (29 in Lahaina). Strong wind restricts climbing poles

EVACUATIONS as of 8/8 @ 2322

- Evacuated Haleakala 377 area of MM2
- Kula 200: Aulii and Hoopalua and Hanamu as well as all side streets.
- Kealahou and Meha to the Y
- Area above Makanae Place being recommended for evacuation @ 1410
- Kulalani subdivision @ 1533. EAS/WEA sent @ 1608
- Lahaina Kelawea Mauka Subdivision near bypass @ 1533. EAS/WEA sent @1615
- Wahikuli subdivision (Lahaina) emergency evacuation @ 2035
- Kihei - North of Ohukai Road emergency evacuation @ 2245
- Pulehu Area (Kula)- Holopuni Road to Calasa Road @ 2229
- Kihei - Mauka of Piilani Hwy up to and including Maui Meadows @ 2334
- Kula - Upper Kimo Road area emergency evacuation @ 8/9 0040
- Lahaina - Kaanapali Golf Estates area including Kaulapa Loop, PuuAnoano St, Hakui Loop, Wekio Pl @ 8/9 0129.

SHELTERS as of 8/9 @ 0142

- Open: Hannibal Taveres Community Center, Pukalani
 - 250 people, 17 dogs, 7 cats
 - Humane Society on scene for small animals
- Kaonoulu Ranch (Kula) opened up Oskie Rice Arena for evacuation, staging and (large) animal evacuation
- Maui Prep (transfer from civic center). 600 people (more on the way)
- Maui High School open with DOE and Parks emps. 1200 people
- War Memorial Auditorium open 8/9 @ 65 people
- Transferring people from Maui High to War Memorial

ROAD CLOSURES as of 8/8 @ 1930

•Honoapiilani Hwy-Lahaina	•Honoapiilani/Fleming
•Front Street	•Kaheki Hwy/Waihee school
•Honoapiilani S-Bound	•Kulumanu Circle
•Keawe/Fleming	•Haleakala Hwy/Kulalani
•Hokiokio/Launiopoko	•Kekaulike
•Lahaina bypass	•Lower Kimo/Haleakala Hwy
•Leialii Hwy-Southbound	•Haleakala Hwy/Kealahou
•Aholo-Liholiho	•Haleakala Hwy/Crater Road

SCHOOL CLOSURES as of 8/8 @ 1500

- Closed: Kamehameha Schools
- Closed King Kekaulike High
- Makawao Intermediate-Only 8th grade scheduled
- Closed: Lahainaluna Intermediate, High School and Princess Nāhi'ena'ena Elementary School (due to power outage)
- Schools listed above will also be closed on 8/9
- Closed: Seabury Hall
- Closed: Haleakala Waldorf Middle & High School

This information is for Emergency Management use only and can not be distributed without permission from Maui Emergency Management Agency

FIRE-MAUICOUNTY-00045827

6.9 Emergency Proclamation: Mayor of Maui

RICHARD T. BISSEN, JR.
Mayor

KEKUHAPIO R. AKANA
Managing Director



OFFICE OF THE MAYOR
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.mauicounty.gov



EMERGENCY PROCLAMATION

By the authority vested in me as Mayor of the County of Maui, by the Revised Charter of the County of Maui (1983), as amended, and the Constitution and laws of the State of Hawaii, I, RICHARD T. BISSEN, JR., Mayor of the County of Maui of the State of Hawaii, hereby determine, designate, and proclaim as follows:

WHEREAS, Chapter 127A Hawai'i Revised Statutes, provides for the establishment of County Organizations for emergency management and disaster relief with the Mayor having direct responsibility and authority over emergency management within the County; and

WHEREAS, as of August 8, 2023 several large wildfires are burning in the County of Maui, including in the Kula and Lahaina areas;

WHEREAS, these fires have burned homes, burned hundreds of acres and forced closure of roads and schools, and evacuations in the Kula and Lahaina areas;

WHEREAS, very dry conditions and strong and potentially damaging easterly winds caused by the passage of Hurricane Dora to the south of the State are contributing to the wildfire danger;

WHEREAS, these fires threaten to cause damages, losses, and suffering of such character and magnitude to affect the health, welfare, and living conditions of a substantial number of persons, and to affect the economy of the County, and has the potential to be of such a nature as to warrant rehabilitative assistance from the County;

WHEREAS, due to the possibility of imminent disaster due to property damage and/or bodily injury to residents of Maui County, and the need for government agencies and representatives from the

6.9 Emergency Proclamation: Mayor of Maui (continued)

August 8, 2023
Page 2

private sector to mobilize and provide immediate services to outer island residents, a Civil Defense state of emergency is authorized pursuant to Chapters 127A, Hawai'i Revised Statutes, as amended.

WHEREAS, the anticipated occurrence of a severe, sudden, and extraordinary event of damaging high winds and very dry conditions threatens to cause damage, loss, and suffering of such character and magnitude to affect the health, welfare, and living conditions of a substantial number of persons, and to affect the economy of Maui County, and is expected to be of such a nature as to warrant rehabilitative assistance from the County and the State; and

WHEREAS, there is need for government agencies and representatives from the private sector to mobilize and provide immediate services to County residents and to mitigate hazardous situations in advance of the weather effects from Hurricane Dora; and

WHEREAS, pursuant to sections 127A-14(b), Hawaii Revised Statutes ("Haw. Rev. Stat.") the Mayor is authorized to declare by proclamation whether an emergency or disaster has occurred, or there is an imminent danger or threat of an emergency or disaster and authorize actions under chapter 127A, Haw. Rev. Stat., and the expenditure of funds thereunder; and

WHEREAS, pursuant to §127A-13(b)(2), Haw. Rev. Stat., the Mayor may suspend any County law that impedes or tends to impede, or that may be detrimental to, the expeditious and efficient execution of, or conflict with, emergency functions; and

WHEREAS, Haw. Rev. Stat. §127A-13(b)(4) further provides that the Mayor may direct and control mandatory evacuation of the civilian population; and

WHEREAS, Haw. Rev. Stat. §127A-13(b)(5) further provides that the Mayor may exercise any additional emergency functions to the extent necessary to prevent hoarding, waste, destruction of materials, supplies, commodities, accommodations, facilities, and services to effectuate equitable distributions as the public welfare may require; and

WHEREAS, Haw. Rev. Stat. §127A-12(a)(5), the Mayor may direct or control, as may be necessary for emergency management, alerts, warnings, notifications, and activations; warnings and signals for alerts and any type of warning device, system, or method to be used

August 8, 2023
Page 3

in connection therewith; partial or full mobilization of personnel in advance of or in response to an actual emergency or disaster; the conduct of civilians and the movement and cessation of movement of pedestrians and vehicular traffic during, before, and after alerts, emergencies, or disasters; and

WHEREAS, pursuant to Haw. Rev. Stat. §127A-12(c)(17), the Mayor may take any and all steps necessary or appropriate to carry out the purposes of chapter 127A, Haw. Rev. Stat., notwithstanding that powers in Haw. Rev. Stat. §127A-13(b) may only be exercised during an emergency period; and

NOW, THEREFORE, I, RICHARD T. BISSEN, JR., Mayor of the County of Maui, pursuant to the authority vested in me as the Mayor of the County of Maui as set forth above, in order to promote and protect the public health, safety, and welfare of the residents and visitors of the County of Maui, do hereby proclaim, determine, declare, and find that:

1. There is imminent danger of a state of emergency in all or any portion of the County of Maui, as of the date and time of this Proclamation; and
2. Any public property of the County, real or personal, may be possessed, used, managed, controlled, or reallocated as I require for the purposes of emergency management functions under Haw. Rev. Stat. Chapter 127A, including parks, playgrounds, and other public or private buildings; and
3. The provisions, in whole or in part, of Haw. Rev. Stat. Chapter 103D and Haw. Rev. Stat. §§ 103-50, 103-53, 103-55, 105-1 to 105-10, and 464-4 that impede or tend to impede the expeditious discharge of the functions of emergency management, or that compliance therewith is impracticable due to existing conditions and, therefore, such provisions shall not apply to any such emergency management functions; and
4. Without regard to Haw. Rev. Stat. Chapters 76, 78, and 88, agencies, officials, officers, employees of the County and other persons may be ordered and directed as I deem necessary to carry out emergency management functions under Haw. Rev. Stat. Chapter 127A; and
5. The provisions of the Maui County Code, in whole or in part, shall be suspended including, but not limited to, Chapter 2.20 (intergovernmental agreements), §§3.12.060 and 3.12.070

6.9 Emergency Proclamation: Mayor of Maui (continued)

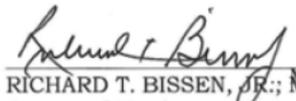
August 8, 2023
Page 4

(purchasing procedures), Chapter 3.56 (gifts and donations), to the extent that they impede the expeditious discharge of the functions of emergency management or the compliance therewith is impracticable due to existing conditions; and

6. All County officers and employees shall be required to take all steps requested by the State of Hawaii Director of Department of Health to qualify the County of Maui for reimbursement from the Federal Emergency Management Agency and for other state and federal relief as may be available to reimburse the County of Maui for the expenses it incurs in addressing this emergency.
7. Sections 127A-12(a)(5), 127A-13(b)(3), and 127A-13(b)(4), Haw. Rev. Stat., and the Director of the Maui Emergency Management Agency is directed to take appropriate actions to direct or control, as may be necessary for emergency management:
 - a. Alerts, warnings, notifications, and activations;
 - b. Warnings and signals for alerts and any type or warning device, system, or method to be used in connection therewith;
 - c. Partial or full mobilization of personnel in advance of or in response to an actual emergency or disaster;
 - d. The conduct of civilians and the movement and cessation of movement of pedestrians and vehicular traffic during, before, and after alerts, emergencies, or disasters;
 - e. Shut off water mains, gas mains, electric power connections, or suspension of other services; and
 - f. Mandatory evacuation of the civilian population.
8. Section 127A-12(c), Haw. Rev. Stat., in order to provide emergency disaster relief, I hereby direct all County agencies and officers to cooperate with and extend their services, materials, and facilities as may be required to assist in all efforts to eliminate the danger.

August 8, 2023
Page 5

This Proclamation of Emergency is effective August 8, 2023, and shall terminate on the first to occur of (1) sixty (60) days after the date of this Proclamation, or (2) issuance of a Declaration of Termination of Emergency issued by the undersigned, whichever occurs first. Pursuant to this Proclamation, I hereby exercise any and all powers listed in Haw. Rev. Stat. Chapter 127A.


RICHARD T. BISSEN, JR.; Mayor
County of Maui
August 8, 2023

APPROVED AS TO FORM AND LEGALITY:


VICTORIA J. TAKAYESU, Corporation Counsel
Department of the Corporation Counsel

6.10 Emergency Proclamation: Office of the Governor State of Hawai'i

OFFICE OF THE GOVERNOR
STATE OF HAWAI'I

**PROCLAMATION
RELATING TO WILDFIRES**

By the authority vested in me by the Constitution and laws of the State of Hawai'i, in order to provide relief for disaster damages, losses, and suffering, and to protect the health, safety, and welfare of the people, I, SYLVIA LUKE, Acting Governor of the State of Hawai'i, hereby determine, designate and proclaim as follows:

WHEREAS, as of August 8, 2023 several large wildfires are burning in the counties of Hawaii and Maui, including in the North Kohala, South Kohala, Kula, and Lahaina areas;

WHEREAS, these fires have burned hundreds of acres and forced closure of roads and schools, and evacuations in the Kohala Ranch, Kula, and Lahaina areas;

WHEREAS, very dry conditions and strong and potentially damaging easterly winds caused by the passage of Hurricane Dora to the south of the State are contributing to the wildfire danger;

WHEREAS, these fires threaten to cause damages, losses, and suffering of such character and magnitude to affect the health, welfare, and living conditions of a substantial number of persons, and to affect the economy of the State, and has the potential to be of such a nature as to warrant rehabilitative assistance from the State;

WHEREAS, the Legislature of the State of Hawai'i has appropriated from the general revenues of the State monies as may be necessary for expenditure by or under the direction of the Governor for the immediate relief of the conditions created by the emergency;

WHEREAS, in expending such monies, the Governor may allot any portion to any agency, office, or employee of the state or to any county for the most expeditious and efficient relief of the conditions created by the emergency;

WHEREAS, pursuant to sections 127A-14 and 127A-16, Hawaii Revised Statutes, the Governor may determine whether an emergency or disaster has occurred, or whether there is an imminent danger or threat of an emergency or disaster and authorize actions under chapter 127A, Hawaii Revised Statutes, and the expenditure of

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funds thereunder;

WHEREAS, pursuant to section 127A-13(a)(3), Hawaii Revised Statutes, the Governor may suspend any law that impedes or tends to impede or is detrimental to the expeditious and efficient execution of, or that conflicts with, emergency functions, including laws specifically made applicable to emergency personnel;

WHEREAS, pursuant to section 127A-13(a)(2), Hawaii Revised Statutes, the Governor may relieve hardships and inequities, or obstructions to the public health, safety, and welfare found by the Governor to exist in the laws and to result from the operation of federal programs or measures taken under chapter 127A, Hawaii Revised Statutes, by suspending laws, in whole or in part, or by alleviating the provisions of laws on such terms and conditions as the Governor may impose; and

NOW, THEREFORE, I, Sylvia Luke, Acting Governor of the State of Hawai'i, hereby determine that an emergency or disaster contemplated by section 127A-14, HRS, is occurring in the Counties of Maui and Hawai'i, State of Hawai'i, and do hereby authorize and invoke the following emergency provisions which are expressly invoked, if not already in effect upon this declaration of an emergency:

I. Invocation of Laws

Section 121-30, HRS, and I hereby authorize the Adjutant General to activate such units of the Hawai'i National Guard as may be necessary to assist and aid civilian authorities in disaster relief and in averting any imminent public danger and threat and to ensure the compliance with the civil laws of the State of Hawai'i.

Sections 127A-12 and 127A-13, HRS, in order for county and state agencies to provide emergency relief and engage in emergency management functions as defined in section 127A-2, HRS, as a result of and in response to this event.

Sections 127A-3, 127A-12(a)(5), 127A-13(a)(5), and 127A-13(a)(6), HRS, and the Director of Hawai'i Emergency Management and the Administrator of Emergency Management are directed to take appropriate actions to direct or control, as may be necessary for emergency management:

- a. Alerts, warnings, notifications, and activations;
- b. Warnings and signals for alerts and any type or warning device, system, or method to be used in connection therewith;

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6.10 Emergency Proclamation: Office of the Governor State of Hawai'i (continued)

- c. Partial or full mobilization of state personnel in advance of or in response to an actual emergency or disaster;
- d. The conduct of civilians and the movement and cessation of movement of pedestrians and vehicular traffic during, before, and after alerts, emergencies, or disasters;
- e. Shut off water mains, gas mains, electric power connections, or suspension of other services; and
- f. Mandatory evacuation of the civilian population.

Section 127A-12(b)(13), HRS, requiring each public utility, or any person owning, controlling, or operating a critical infrastructure, to protect and safeguard its or the person's property, or to provide for the protection and safeguarding thereof, and provide for the protection and safeguarding of all critical infrastructure and key resources; provided that without prejudice to the generality of the foregoing two clauses, the protecting or safeguarding may include the regulation or prohibition of public entry thereon, or the permission of the entry upon terms and conditions as I may prescribe.

Section 127A-12(b)(16), HRS, directing all state agencies and officers to cooperate and extend their services, materials, and facilities as may be required to assist in emergency response efforts.

Section 127A-16, HRS, by activating the Major Disaster Fund.

II. Suspension of Laws

The following specific provisions of law are suspended, as allowed by federal law, pursuant to sections 127A-12(b)(8) and 127A-13(a)(3), HRS, to the extent that the law impedes or tends to impede or be detrimental to the expeditious and efficient execution of, or to conflict with, emergency functions, including laws which by this chapter specifically are made applicable to emergency personnel:

Section 37-41, HRS, **appropriations to revert to state treasury; exceptions**, to the extent that appropriations lapse at the end of the fiscal year prior to completion of the emergency actions.

Section 37-74(d), HRS, **program execution**, except for sub-sections 37-74(d)(2) and 37-74(d)(3), HRS, and any such transfers or changes considered to be authorized transfers or changes for purposes of section 34-74(d)(1) for legislative reporting

requirements, to the extent that legislative authorization would likely delay appropriation transfers or changes between programs to provide necessary funding to complete the emergency actions.

Section 40-66, HRS, **lapsing of appropriations**, to the extent that the timing of the procurement of the construction of the emergency permanent repairs may occur the fiscal year following the original emergency proclamation.

Chapter 89, HRS, **collective bargaining in public employment**, to the extent that compliance with this chapter requires additional time detrimental to the expeditious and efficient execution of emergency actions.

Chapter 89C, HRS, **public officers and employees excluded from collective bargaining**, to the extent that compliance with this chapter requires additional time detrimental to the expeditious and efficient execution of emergency actions.

Section 103-2, HRS, **general fund**, to the extent that compliance results in any additional delays.

Section 103-53, HRS, **contracts with the State or counties; tax clearances, assignments**, only to the extent necessary to waive the Internal Revenue Service (IRS) tax clearance requirement.

Section 103-55, HRS, **wages, hours, and working conditions of employees of contractors performing services**, to the extent that compliance results in any additional delays.

Chapter 103D, HRS, **Hawaii public procurement code**, to the extent that compliance results in any additional delays involved in meeting procurement requirements for selecting contractors in a timely manner to respond to emergency situations.

Chapter 104, HRS, **wages and hours of employees on public works**, to the extent that compliance with this chapter requires additional time detrimental to the expeditious and efficient execution of emergency actions.

Sections 105-1 to 105-10, HRS, **use of government vehicles, limitations**, to the extent that compliance with this chapter requires additional time detrimental to the expeditious and efficient execution of emergency actions.

Section 127A-30, HRS, **rental or sale of essential commodities during a state**

6.10 Emergency Proclamation: Office of the Governor State of Hawai'i (continued)

of emergency; prohibition against price increases, because the automatic invocation of this provision is not needed for this emergency.

III. Severability

If any provision of this Proclamation is rendered or declared illegal for any reason, or shall be invalid or unenforceable, such provision shall be modified or deleted, and the remainder of this Proclamation and the application of such provision to other persons or circumstances shall not be affected thereby but shall be enforced to the greatest extent permitted by applicable law.

IV. Enforcement

No provision of this Proclamation, or any rule or regulation hereunder, shall be construed as authorizing any private right of action to enforce any requirement of this Proclamation, or of any rule or regulation. Unless the Governor, Director of Emergency Management, or their designee issues an express order to a non-judicial public officer, no provision of this Proclamation, or any rule or regulation hereunder, shall be construed as imposing any ministerial duty upon any non-judicial public officer and shall not bind the officer to any specific course of action or planning in response to the emergency or interfere with the officer's authority to utilize his or her discretion.

I FURTHER DECLARE that the disaster emergency relief period shall commence immediately and continue through August 15, 2023 unless terminated or superseded by separate proclamation, whichever shall occur first.

Done at the State Capitol, this 8th day of August 2023



SYLVIA LUKE,
Acting Governor of the State of Hawai'i

APPROVED:



Matthew S. Dvonch
Acting Attorney General, State of Hawai'i

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APPENDIX

6.11 HI-EMA Administrator Timeline of Events

HI-EMA Administrator Timeline of Events August 4, 2023 through August 12, 2023	
August 4, 2023 13:00 041300AUG23	Tropical Cyclone Dora Statewide Coordination Meeting (Virtual) – NWS brief on high winds, possible red flag warning, and high surf.
August 7, 2023 03:15	National Weather Service (NWS) issues Red Flag Warning
August 7, 2023 09:00	The Adjutant General (TAG) Division Meeting – TAG initial guidance to Hawaii National Guard (HING): be prepared to (BPT) execute National Guard Civil Support (NGCS) operations due to possible impacts from Hurricane Dora and the High-pressure system north of the state (Pressure gradient). Anticipated missions: Aerial Fire Suppression, Security, Incident Awareness and Assessment, Emergency Evacuation. NWS forecasts high winds, fire weather, Red Flag Warning, and high surf, etc.). a. NWS issues Red Flag Warning b. MEMA issues warnings
August 8, 2023 06:38	Mayor Roth notifies Governor, MG Hara, etc. that 2 major fires are active. (Hawaii County) Emergency Operations Center (EOC) is activated. Kohala Ranch is evacuated and may need helicopters.
<i>First notification of fire on Hawaii Island</i>	
August 8, 2023 06:55	HING/J3 (Operations) texted TAG and Deputy Adjutant General (DAG) about Joint Operations Center (JOC) receiving a Request for Assistance (RFA) via WEBEOC for a fire bucket mission on the Big Island. Also informed TAG and DAG that Hawaii Army National Guard (HIARNG) and State Army Aviation Officer (SAAO) were notified and prepared to respond as needed.
August 8, 2023 07:15	TAG called HING/J3 (COL Udani) about the 080655AUG23 text message. TAG directed placement of CH-47s on alert and discussed Commanders Critical Information Requirements. Planning priority for aerial suppression support to the Island of Hawaii.
August 8, 2023 07:17	Texted info from Mayor Roth to J3 and DAG, ref: 080638AUG23 notification from Mayor Roth
August 8, 2023 07:20	HING/J3 confirmed TAG's text message above (080717AUG23) while informing TAG and DAG that aviation support would come from O'ahu (CH-47) and depending on the wind, it might not be able to fly. SAAO will have a better answer by 08:00. Provided a quick cost estimate of \$13,000 just to deploy the aircraft (A/C) there and back.
August 8, 2023 07:21	Text Message from MG Hara to Governor, Lt. Governor, Chief of Staff (CofS), Makana, Luis Salaveria, Mayor Roth, and Dawn Chang. Subj: HING Staffing a mission for CH-47 and crew support to Hawaii County Maui Wildfire Timeline of Events 041300AUG23 to 121120AUG23
August 8, 2023 07:30	MG Hara departed Fort Ruger for 'Alohilani Resort Waikiki for Pacific Partnership Meeting Day 1; arrived at 07:45.
August 8, 2023 07:33	TAG inquired to HING DOJS and J3 about his previous guidance via text to HING/J3. "I gave guidance yesterday to anticipate RFA for wildfire support (water bucket, traffic control points [TCPs]). Was any staffing done prior to the Request for Assistance (RFA) received this morning?"
August 8, 2023 07:48	HING J3 sends the HING JOC the Initial Hawaii Water Bucket Support Concept of Operation (CONOP). HING JOC prepares cost estimates and monitors WebEOC for potential RFAs. HIARNG SAAO informs J Staff that helicopters are unable to launch due to wind speeds
August 8, 2023 07:51	HING J3 responded to TAG's text Request for Information (RFI) on 080733WAUG23 with: "Sir, Byron and I discussed possible response to brush fires and availability of resources but not TCPs."
August 8, 2023 08:00	HING JOC begins working on TCP CONOP and cost estimates for Hawaii County support. Submits Tasking T23080801 to HING J3 for review.
August 8, 2023 08:25	HING J3 issues verbal Warning Order to HIARNG G3 and HIANG DOS of potential TCP mission. Component commands begin contacting service members for availability.

continued

HI-EMA Administrator Timeline of Events August 4, 2023 through August 12, 2023	
August 8, 2023 08:31	TAG provided guidance via text with DAG and HING J3. "Check with HIEMA for current status of the fire and if Hawaii County needs the CH47. Need to know if Fire 1 can fly. We need to determine if we should stage on Hawaii Island. Also, need update for Maui fires. I think if only one fire on Hawaii needs support then we keep the second crew on standby."
August 8, 2023 08:50	HING JOC emailed HI-EMA Operations requesting current status of fires on Hawaii and Maui. CSM Brandon Kumalae followed up with a phone call to HI-EMA Operations Branch Chief Matthew Wall.
August 8, 2023 08:52	HING/J3 responded to TAG's text RFI on 080831WAUG2023. "HIEMA is calling Hawaii County for an update and they haven't received anything from Maui. I'll call MEMA direct"
August 8, 2023 09:00	Situation Update #1 received from HI-EMA Hurricane Dora is passing south of the state, bringing high winds, fire weather, and high surf to the state. The incident "2023-21 Counties Brushfires" is active in WebEOC
Hawaii County	
<ul style="list-style-type: none"> • Hawaii Fire department reports two (2) brush fires: • Maui Wildfire Timeline of Events 041300AUG23 to 121120AUG23 <ul style="list-style-type: none"> ▪ North Kohala: Off Akoni Pule Highway (Highway 270) near Kohala Ranch <ul style="list-style-type: none"> ◦ All of Kohala Ranch being evacuated. ◦ Open shelters at Hisaoka Gym and Waimea Community Center. ◦ Approximate acreage burned unknown. ◦ Containment unknown. ▪ South Kohala: Near Lalamilo <ul style="list-style-type: none"> ◦ No evacuations ordered at this time. ◦ Open shelters at Hisaoka Gym and Waimea Community Center. ◦ Approximate acreage burned unknown. ◦ Containment unknown. 	
Maui County	
<ul style="list-style-type: none"> • Maui Fire department reports two (2) brush fires: <ul style="list-style-type: none"> ▪ Upper Kula: near Haleakala Highway and Kula Highway <ul style="list-style-type: none"> ◦ Evacuation orders issued for Kula 200 subdivision area off 'Auli'i Drive, Hanamu Road, Hoopalua Drive, 'Auli'i Drive. ◦ Open shelters at Hannibal Tavares Community Center and King Kekaulike High School. ◦ Approximately 675 acres burned. ◦ Containment unknown. ▪ Lahaina: in the area of Lahainaluna Road. <ul style="list-style-type: none"> ◦ Evacuation order issued for the area surrounding Lahaina Intermediate School. ◦ Open shelter at the Lahaina Civic Center ◦ Approximate acreage burned unknown. ◦ Containment unknown. 	
August 8, 2023 09:09	HING/J3 sent an email to Mr. Herman Andaya and cc'd HING JOC: "Good Morning Herman, We are currently working an RFA for Hawaii County regarding their ongoing fire(s) and I'm just reaching out to you for any update with your ongoing brush fire(s)." - No response was received at HING JOC.
August 8, 2023 09:10	H-IEMA Situation Update #1 sent out to Administrator Barros, Don Aweau, Matthew Hall, State Warning Point, and Jeff Wong – shared to me later by Administrator Barros at Pacific Partnership Meeting (PPM), received by JS at 081008AUG23.
August 8, 2023 09:16	Texted DAG and HING/J3 asking for any updates. J3 responded with "Sir, from Asst Fire Chief Okinaka: Their Hawaii Fire Department (HFD) aircraft can't fly due to winds. Fire is at north boundary of Kohala ranch and may threaten homes on the south side. Their ground assets are there now. They have contacted Pōhakuloa Training Area (PTA) to see if their birds can fly yet."
August 8, 2023 09:22	THING J3 texted Herman Andaya. "Aloha Herman, This is COL Udani with the Hawaii National Guard. Checking in with you for any updates on the current brush fire. We are working an RFA for Hawaii County's ongoing brush fire." Maui Wildfire Timeline of Events 041300AUG23 to 121120AUG23

continued

APPENDIX

HI-EMA Administrator Timeline of Events August 4, 2023 through August 12, 2023

August 8, 2023 09:25	HING J3 texted TAG and DAG re: 080916AUG23 text "MG Hara – tracking going through HI-EMA first...we did Sir, and we are still waiting from them too...so we went direct"
August 8, 2023 09:27	HING/J3 texted Herman Andaya. "Sorry, just found out you're at the Pacific Partnership Meeting." (J3)
August 8, 2023 09:30	Herman Andaya replied to HING/J3's text messages. "No worries. There are two (2) fires on Maui, Kula and Lahaina. Seems that Maui Fire Department (MFD) has a handle on Lahaina. Kula is a different story. Spoke to Gen Hara and he mentioned that Big Island is requesting assistance and if Maui needed State assistance. Spoke to Mayor and Chief and they indicated that they are able to fight this fire with the assets they have...for now. Thank you for asking. I'll keep you posted." J3 replied with "Mahalo Herman." [No other text messages between J3 and Andaya]
August 8, 2023 09:30	MG Hara directed administrator Barros to schedule a statewide coordination meeting at 11:00 with Acting Governor Lt. Gov. Sylvia Luke, Counties, FEMA, HING, and other Emergency Management stakeholders.
August 8, 2023 10:49	TAG informed Chief, National Guard Bureau (CNGB) via email: <i>"There are four fires, two on Hawaii Island and two on Maui. High winds from indirect impacts of Hurricane Dora, a high-pressure system north of the state, and dry conditions has the state in a Red Flag warning for the next few days. The fire in Kohala (north Hawaii) is threatening homes. The winds are prohibiting rotary wing startup and shut down - excess of 45 knots and poor visibility. Hawaii County requested Immediate Response Authority support from active duty Blackhawks at Pōhakuloa Training Area. Still not sure on the status of this request. I scheduled a coordination meeting at 11:00 HST and will have better situational awareness following. I also have a CH47 and crew (O'ahu) on standby for support."</i>
August 8, 2023 11:00	Statewide coordination meeting held virtually. Present at the 'Alohilani Resort were MG Hara, Administrator Barros, HI-EMA Executive Officer (XO) Don Aweau, FEMA Rep, MEMA Herman Andaya, KEMA Elton Ushio, American Red Cross (ARC) Diane Peters-Nguyen, and Defense Coordinating Officer (DCO) COL Brian Watkins.
August 8, 2023 12:00	The Maui News via AP reports a brush fire emitting heavy smoke in Maui's Upcountry region and at least 50 people sheltering at an emergency center. https://www.cnn.com/interactive/2023/08/hawaii-wildfires-timeline-maui-lahaina-dg/index.html Maui Wildfire Timeline of Events 041300AUG23 to 121120AUG23
August 8, 2023 13:00	MG Hara departed Pacific Partnership Meeting for Fort Ruger, Bldg. 306; arrived at 13:15 (ref: vehicle log).
August 8, 2023 13:00	Liaison Officer (LNO) established at Hawai'i County Civil Defense – MSgt Alexander Chai (291 CBCS). An email from Col Wrazien at 12:34 stated SM was "en-route to HCDA". Purpose: Coordinate HING response to wildfires in Hawaii County (helo fire bucket, pax for traffic control/security), daylight hours only, initiated in Technician status with State Active Duty (SAD) Request for Orders (RFO) following.
August 8, 2023 13:20	DJS, CoJS & J3 recalled to TAG Conference Room
August 8, 2023 13:45	HING Tasking T23080801 Brush Fire Support to Hawai'i County

WHO: HIARNG / HIANG

WHAT: Provide Support to Hawaii County Civil Defense Agency

WHERE: Hawai'i County, Kohala / Waimea

WHEN: 08 - 11 August 2023

WHY: to provide HING NGCS to Hawaii County's efforts in controlling ongoing brush fires.

COORDINATING INSTRUCTIONS:

1. Please acknowledge the JOC at jochi@hawaii.gov upon receipt of this message

2. DIRLAUTH WITH POC only when mobilized to support: Mr. Thomas Olson, 808-935-0031 or at thomas.oldson@hawaiicounty.gov

3. ADDITIONAL INSTRUCTIONS:

continued

HI-EMA Administrator Timeline of Events August 4, 2023 through August 12, 2023

a. Current Situation

(1) Strong easterly gusts and low humidity have set the conditions for wild brush fires in dry areas of the state. Hawai'i County is currently experiencing two uncontrolled wildfires in the Kohala and Waimea areas.

(2) Hawaii County has entered an RFA for Aviation Support and could possibly request additional HING support as the situation develops.

b. HIARNG provide the following:

(1) Aviation support: On Order, provide Aircraft, Water Bucket(s), Aircrew (RFA 102239)

(2) Query personnel available on Hawai'i island to provide Law Enforcement Support (TCP) (RFA 102252).

(3) Query personnel available to augment the Joint Operations Center for Night Shift

(4) Populate and return Attachment 1 Wildfire Cost estimate to HING JOC, NLT COB 08 August 2023

c. HIANG Provide the following:

(1) Query personnel available on Hawaii island to provide Law Enforcement Support (TCP) (RFA 102252).

(2) Provide LNO to HCCDA

(3) Populate and return Attachment 1 Wildfire Cost estimate to HING JOC, NLT COB 08 August 2023

continued

APPENDIX

6.12 Lahaina Fire Staffing Matrix

Lahaina Fire Staffing Matrix			
Assignment	Time in Service (Approximate)	Name(s)	Notes
Engine 1 (E1)	August 8, 2023 08:00 - August 8, 2023 17:00	Capt. Jay Fujita FFIII Christian "Kawika" Casco FFI Nathanael Ham FFI Rhys Buen	<ul style="list-style-type: none"> E1 burned over at approximately 16:30 E1 crew evacuates with E6 crew in PD SUV driven by Mosher (used Mini1 to get it)
Engine 1 (E1) in Mini1 (M1)	August 8, 2023 17:02 - August 9, 2023 09:00	Captain Jay Fujita FFIII Christian "Kawika" Casco FFI Nathanael Ham FFI Rhys Buen FFIII Tyler Pascual FFI Bryan Pali FFI Tanner Mosher	<ul style="list-style-type: none"> E1 was destroyed and E6 broke down during LL burn over Remaining E6 crew members Pascual, Pali, and Mosher move to recovered Mini1 with E1 members (crew of 7) Pascual, Pali, and Mosher (E6 crew) move to a BC SUV at approximately 20:10 and resume the designator E6 E1 crew remains in Mini1 using the designator E1 for the remainder of the incident
Relief Engine 1 (RE1)	August 8, 2023 14:30 - August 9, 2023 09:00	FFIII Matthew Mann* FFIII Bronson Pocock FFI Alakai Akana FFI Kainalu Cadman	
Wildland 3 (WL3)	August 8, 2023 06:30 - August 8, 2023 16:30	FFIII Dana Anderson (AM) FFI Matthew Wilburn (PM)	<ul style="list-style-type: none"> WL3 Dana Anderson (B-Watch T3 operator) took WL3 in response to the AM Lahaina fire and staffed Relief Engine 3 (RE3) which responded to the Kula fire on 8/8. WL3 was used to run district calls staffed by A-Watch personnel. Matt Wilburn (E3 crew) drove WL3 to the second Lahaina fire. 16:29 E3 crew abandons WL due to pole blocking egress near Ka'akolu Street. WL3 was later found in the same location destroyed by fire.
Engine 3 (E3)	August 8, 2023 07:30 - August 8, 2023 20:00	Capt. Peter Gand FFI Aina Kohler FFI Matthew Wilburn (driving WL3) FFI Kapa Palakiko	<ul style="list-style-type: none"> Crew swap after 20:00 at 'Ainakea and Kapunakea. Gand, Kohler, Wilburn, and Palakiko relieved by Azman's crew They swap into a lifeguard utility and use designator E3A
Engine 3 (E3)	August 8, 2023 20:00 - August 9, 2023 07:30	Capt. Reza Azman FFIII Michah Palmerton FFI Richard Sato Capt. Chad Sambrano FFI Travis Texiera	<ul style="list-style-type: none"> Azman (B-Watch) was on 1st Lahainaluna fire At 20:00, Azman, Palmerton, Sato, and Sambrano report on callback and relieve E3 crew. Gand's crew transfers to lifeguard vehicle using designator E3A Sambrano returns after leaving RE11 earlier for family matter Sato returns after working assigned shift on August 7 - August 8 on L3B Watch
Engine 3 (E3)	August 8, 2023 20:00 - August 9, 2023 18:30	Capt. Peter Gand FFI Aina Kohler FFI Matthew Wilburn (WL3 Driver) FFI Kapa Palakiko	<ul style="list-style-type: none"> 20:00 Azman's crew staffs E3 to give Gand's crew a break. Gand, Kohler, Wilburn, and Palakiko utilize a lifeguard vehicle and use designator E3A E3A is assigned South division on August 9 06:33 Assisted with evacs in E3A and Kohler's POV Kohler leaves at shift change Palakiko ends assists T3 on August 9 Gand and Wilburn remain in lifeguard vehicle until August 9 18:00

A-Watch | B-Watch | C-Watch

*Not Interviewed

continued

Lahaina Fire Staffing Matrix

Assignment	Time in Service (Approximate)	Name(s)	Notes
Ladder 3 (L3)	August 7, 2023 07:30 - August 8, 2023 08:00	FFIII Aaron Kahaloa FFI Richard Sato FFI Kenny Puaa Capt. George Dagan*	<ul style="list-style-type: none"> L3 B-Watch crew responded to first morning Lahainaluna fire. They were relieved on scene by oncoming A-Watch Sato returns to staff E3 on August 8 20:00; Kahaloa and Puaa return to staff U3B on August 8 18:00; Puaa moves to U3 on August 8 18:40
Ladder 3 (L3)	August 8, 2023 07:30 - August 9, 2023 08:00	FFIII Keahi Ho - Acting Officer (AO) FFI Koa Bonnell FFI Chayce Tancayo FFI Justin Aubrey	<ul style="list-style-type: none"> Captain Herrick (L3 A Watch Capt.) was on annual leave. He reported for duty at 14:00 and was assigned to U3B Ho was AO of L3 L3 A-Watch relieved L3 B-Watch on scene of first Lahainaluna fire Early AM on August 9, L3 driver shuttled water to L3 firefighters attacking fire above Civic Center
Ladder 3 (L3)	August 9, 2023 07:30 - August 10, 2023 07:30	Capt. Matthew Akiona FFIII Jonathon Duncan FFI Ryan Dickson FFI Aaron Griffith FFI Jonathan Varona	<ul style="list-style-type: none"> Akiona staffed RE14 at approximately 17:00 on August 8 Griffith staffed U3B/U3 on August 8 Jonathan Varona went to FS3 with his children on August 8 but was not involved in the incident until August 9. His wife (Aina Kohler E3/E3A) was already working the incident as E3 driver. August 9: All were on regular duty day
Tanker 3 (T3)	August 8, 2023 07:00 - August 9, 2023 17:30	FFIII Cody Cordeiro FFIII Dana Anderson*	<ul style="list-style-type: none"> Cordeiro is part of a Wildland Cadre and received texts about Olinda Fire and reported to work early He is A-Watch T3 driver He relieved B-Watch driver Dana Anderson on scene at approximately 07:00 Cordeiro responded to both Lahainaluna fires on T3
Tanker 3 (T3)	August 9, 2023 17:30 - August 10, 2023 19:30	FFIII Cody Cordeiro FFI Chad Tokunaga	<ul style="list-style-type: none"> Tokunaga moved to T3 on August 9 to relieve Cordeiro
Utility 3 (U3)	August 8, 2023 18:00 - August 9, 2023 09:00	Capt. Mike Howe FFI Aaron Griffith (moves from U3B) FFI Kenneth Puaa (moves from U3B)	<ul style="list-style-type: none"> Capt. Howe was delivering SCBA bottles and water to field personnel, riding alone initially At approximately 18:40 on August 8, U3 meets up with U3B and Griffith and Puaa transfer to U3
Utility 3B (U3B)	August 8, 2023 18:00 - August 9, 2023 09:00	Capt. Tim Herrick FFIII Aaron Kahaloa FFI Aaron Griffith (moves to U3) FFI Kaikane Beam FFI Kenneth Puaa (moves to U3) FFI Peter Kaina	<ul style="list-style-type: none"> Herrick calls crew members and they respond at approximately 18:30 on August 8 Griffith and Puaa move over to U3 at approximately 18:40 to assist Capt. Howe, who was riding alone U3B was assigned Support Group on August 8 at 20:56; reinstated as Support Group on August 9 at 00:35; and assigned North Division on August 9 at 05:35
Utility 5 (U5)	August 8, 2023 18:00 - August 9, 2023 07:00	Capt. Alma Aiwohi FFIII Dane Pacheco FFI Ross Bisera FFI Connor Kihune FFII Eli Ferreira (moves to RE14)	<ul style="list-style-type: none"> August 8: Aiwohi worked on E14 at the Olinda Fire. Went home. Returned to duty at approximately 17:30 On August 8 at 20:43, U5 was assigned Structure Group

A-Watch | B-Watch | C-Watch

*Not Interviewed

continued

APPENDIX

Lahaina Fire Staffing Matrix

Assignment	Time in Service (Approximate)	Name(s)	Notes
Utility 5 (U5)	August 9, 2023 07:00 - August 9, 2023 17:00	Capt. George Dagan* FFIII Nikolai Reuss FFI Shaun Walsh FFI Wangdu Hovey FFI Keoki Nakoa (moves to Mini 1 on August 9)	<ul style="list-style-type: none"> Worked on E10 at the Olina Fire on August 8 Released from duty on August 9 at 08:00 but stayed to staff U5 At 17:00 (approaching 36 hours), relieved by Aiwohi and crew
Engine 6 (E6)	August 8, 2023 06:35 - August 8, 2023 07:45	Capt. Garren Oura FFIII Ian Pascua FFI Rocky Keawekane FFI James Case Capt. Mike Mullalley	<ul style="list-style-type: none"> E6 was dispatched to first Lahainaluna fire. Capt. Mike Mullalley jumps on E6 early with on duty B-Watch crew (5-member engine). Crew was relieved on scene by oncoming A-Watch shift After a break, B-Watch Oura, Pascua, and Keawekane return on August 8 at 18:00 to staff RE11
Engine 6 (E6)	August 8, 2023 07:00 - August 8, 2023 16:30	Capt. Mike Mullalley FFIII Tyler Pascual FFI Bryan Pali FFI Tanner Mosher (driving WL6)	<ul style="list-style-type: none"> E6 is assigned South Division on August 8 15:56 E6 experiences burn over with Engine 1 at approximately 16:30. Mayday called at 17:02 for Mullalley. Mosher rescues Engine 1 and Engine 6 crew using Mini 1 and an MPD SUV WL6 was abandoned when a pole came down on it at 16:29 in Lahainaluna neighborhood E1 and E6 crew remain in Mini 1 using the designator E1 until 19:00 E6 crew separate from E1 crew at 19:00 and resume E6 designator in BC SUV. Mini 1 remains E1.
Engine 6 (E6) in BC Vehicle	August 8, 2023 19:00 - August 9, 2023 07:30	FFIII Tyler Pascual FFI Bryan Pali FFI Tanner Mosher	<ul style="list-style-type: none"> Remaining E6 crew are reassigned to the BC vehicle driven to, and left at Safeway, by Pagdilao and Lawson. They separate from E1/Mini 1 and designate the SUV as E6 with a crew of 3 around 19:00
Wildland 6 (WL6)	August 8, 2023 06:50 - August 8 12:30	FFI Tanner Mosher (Driving WL6)	<ul style="list-style-type: none"> WL6 was abandoned when a pole came down on it at 16:29 in Lahainaluna neighborhood
Engine 11 (E11)	August 8, 2023 07:00 - August 9, 2023 07:00	Capt. Joseph "Ikaika" Blackburn FFIII Tyler Perdido FFI Jordan Dunn FFI Kainalu Kealoha FFI Kaaikai Rowland (moves to RE11) FFI Tashsa Pagdilao FFI Nicholas Lawson	<ul style="list-style-type: none"> A-Watch crew coming on duty saw E11 responding to fire. Crew takes RE11 and Mini 11 and swaps with crew on scene. Off-going B-Watch returns RE11 to the station Rowland moves to RE11 at 14:30 to relieve Sambrano Pagdilao and Lawson drive BC vehicle to Safeway and add to E11 crew at approximately 17:30
Relief Engine 11 (RE11)	August 8, 2023 08:00 - August 8, 2023 18:00	Capt. Chad Sambrano (leaves at 14:30) FFIII Steven Graver (AO) FFI Robert "Bubba" Kukahiko FFI Dane Rogers FFT Ka'aukai Rowland (moves from E11)	<ul style="list-style-type: none"> E11 crew was coming on duty, went to relieve B-Watch in RE11 on scene crews swap apparatus Sambrano, Graver, Kukahiko, and Rowland (A-Shift detail) take RE11 At around 14:30 Sambrano leaves for family matter and Graver becomes AO Graver, Kukahiko, and Rogers are relieved at 18:00 at Emerald Plaza because they were at 36 hours
Relief Engine 11 (RE11)	August 8, 2023 18:00 - August 9, 2023 07:00	Capt. Garren Oura FFIII Ian Pascua FFI Rocky Keawekane FFT Ka'aukai Rowland FFI Cory Palmeira	

A-Watch | B-Watch | C-Watch

*Not Interviewed

continued

Lahaina Fire Staffing Matrix

Assignment	Time in Service (Approximate)	Name(s)	Notes
Relief Engine 14 (RE14)	August 8, 2023 17:00 - August 9, 2023 17:00	Capt. Kanoa Shannon FFIII Ryan Watanabe FFIII Dennis Swain Capt. Matthew Akiona	<ul style="list-style-type: none"> Akiona moves to L3 at 07:00 on August 9 to be with own crew Ferreira moved from upstaffed U5

APPENDIX

6.13 Fire Progression Map Data

Fire Progression Map Data					
Lat/Long	Date	Time	Unit	Description	Source
20.883860364738297, -156.66401638910472	8/8/23	14:55		Numerous callers. At the end of the cul-de-sac of Ku'ialua. Caller said the fire was spreading fast.	Event Chronology Report
20.884342048197535, -156.66255405110235	8/8/23	14:58		Driver approaches the area of fire origin from the east on Lahainaluna Road. Smoke seen traveling from the ravine, west, behind 8 Ho'okahua Street.	Civilian Video
20.884018250679546, -156.6641491651476	8/8/23	15:00	E11	E11: E11 on scene, right now we have approximately 20 by 100 on the north flank near the houses. We will be pulling an attack line and extinguishing this flank heading west down toward the bypass.	Dispatch Audio FD1
20.883570, -156.665079	8/8/23	15:05		Fire next to shed at 7 Ho'okahua Street	MPD Body Cam
20.884764726305747, -156.66303488332733	8/8/23	15:06		Smoke moving from east of 8 Ho'okahua Street toward the west	Civilian Video
20.883570, -156.665079	8/8/23	15:06	4B30	Shed on fire at 7 Ho'okahua Street	MPD Audio
20.883653670823666, -156.66518042894995	8/8/23	15:12	RE11	Command to RE11: The plan is you guys come up Lahainaluna and go to 7 Ho'okahua, there is a shed that some police have some water city lines on it now, I need you to address that as soon as you get here.	Dispatch Audio FD2
20.88171683655705, -156.6655354659209	8/8/23	15:20	RE11	Civilian video from a distance (1 Shaw Street) showing grass fire in the area of the bypass, south of Lahainaluna Rd.	Civilian Video
20.88482811612651, -156.66213942050342	8/8/23	15:20	T3	T3: We are on the top and it is backing up kind of like where you are passing right now. It's in this ravine and the fire is on the other side, the redline can't get to that side of it but it's backing slowly up that hill.	Dispatch Audio FD2
20.882754073783563, -156.66598470756716	8/8/23	15:21	E11	E11 to Command: E11 to Dispatch: Have PD shut down the overpass, to Lahainaluna Road, it's jumped the road and headed toward the cars. E11 to Dispatch: The fires hit the road. E11 to Command: The fire has jumped the road, it is now over to the bypass, heading toward Lahainaluna Road, heading west, west toward the shore	Dispatch Audio FD2
20.883042271353748, -156.6681083363771	8/8/23	15:23	L3	Command to L3: Can you come back to mauka Park, the fire has jumped over Lahainaluna and burned right up to the cars in this park area, I need you to address this grassy area ASAP.	Dispatch Audio FD2
20.882709, -156.669819	8/8/23	15:24	4B30	We're at Ka'akolu making checks and the back of the house is burning	MPD Audio
20.883498, -156.666688	8/8/23	15:25	418	Visibility right at the overpass of the bypass is about 5 feet at this point.	MPD Audio
20.88155139708477, -156.67035060362676	8/8/23	15:28	L3	L3 to Command: We got a structure involved at the bottom of that fire at the top of Dickenson Street of the side of Lahainaluna here.	Dispatch Audio FD2
20.881678870182043, -156.6702497609155	8/8/23	15:29	RE11	RE11 to Command: Priority traffic, we've got a structure with the roof involved, on the corner of the top houses and another structure that is potentially involved, we have a hydrant and are right behind L3, we're stretching lines.	Dispatch Audio FD2

continued

Fire Progression Map Data

Lat/Long	Date	Time	Unit	Description	Source
20.882476960173356, -156.66991757317015	8/8/23	15:31	RE11	RE11 to Command: We have possible involvement up Ka'akolu Street. on the back side of Lahainaluna Road.	Dispatch Audio FD2
20.881400723861002, -156.67075433899385	8/8/23	15:34	E11, L3	Dispatch to Command: We've got someone trapped at 5 Lahainaluna Road, an 88 year old male that is handicapped. Command to E11: Can you address that? E11: Copy 5 Lahainaluna, L3 pull up a little so we can get past you.	Dispatch Audio FD2
20.881645292831827, -156.67048778906138	8/8/23	15:35	L3, E11	L3: We can use another unit here, we have E11 behind us, we are trying to secure a water supply, we have one structure to the left of us that's gone and we have another one to the right with suspected 2 people inside.	Dispatch Audio FD2
20.881894335216835, -156.67062984261847	8/8/23	15:35	L3, E3	L3 to Command: 5 Lahainaluna Road, the 2-story house in front of E3, E3 will be alpha side accountability.	Dispatch Audio FD2
20.882650867032638, -156.66967775726312	8/8/23	15:37	RE11, E3	Command: There is one house on Lahainaluna that is fully going now. We need to stop it where you are, that has to be the cutoff there, that road back there RE11: Copy that Chief, I did move positions, we took that road Ka'akolu and took a right into a cul-de-sac and we have some houses threatened on the backside, we are stretching attack lines. Command to Dispatch: I am going to need medics up here. E3 to Command: We got a structure fire at 5 Ka'akolu, we are going to need an engine company over here, all we have is our wildland. Command: Copy, is that on the corner there. E3: It's up from the corner, just behind the park, it might be multiple structures, right now we have 5 Ka'akolu that we are going to lose. Command: Yea, there are multiple structures going.	Dispatch Audio FD2
20.879885, -156.671546	8/8/23	15:38		4 Pā'u'ū Place, Fire right by their house	MPD Event Chronology
20.879483, -156.671673	8/8/23	15:39		44 Pā'u'ū Place, Shed on fire	MPD Event Chronology
20.877437912029897, -156.6773923954953	8/8/23	15:39		Video shot from the corner of Lahainaluna Road and Honopiilani Hwy showing the smoke moving past the Smokestack and makai.	Civilian Video
20.881787, -156.673198	8/8/23	15:40	419	Fire in the brush at the end of Kauhi St, near 4 Kauhi St near the residence	MPD Audio
20.883596, -156.668297	8/8/23	15:41	419	Palm tree on fire next to 6 Kaalo Pl and behind Kelawea Mauka Makai Park	Civilian Photo
20.8812484952052, -156.67113127094348	8/8/23	15:41	L3	Command to L3: You have to move further down Lahainaluna, there are houses 3-4 down from you that are lighting up.	Dispatch Audio FD2
20.878215574859116, -156.67334282927422	8/8/23	15:48		4 Pauwala, her yard is on fire	Dispatch Audio FD2
20.881318, -156.670632	8/8/23	15:50	4B10	That address at 5 the visibility is zero and fire is blocking the way there.	MPD Audio
20.874887, -156.678253	8/8/23	15:56		Fire approaching north of harbor, edge of smoke plume	Civilian Video

continued

APPENDIX

Fire Progression Map Data

Lat/Long	Date	Time	Unit	Description	Source
20.878769, -156.675142	8/8/23	15:56	S40	Right by the transformer place, fire starting	MPD Audio
20.878777799855573, -156.67535938852657	8/8/23	15:57		Another caller saying fire is starting up on Lahainaluna near Kuhua	MPD Event Chronology
20.883598274605774, -156.67219304807804	8/8/23	15:58		8█ Lu'i Street fully engulfed--doesn't believe anyone is there	MPD Event Chronology
20.877777, -156.675987	8/8/23	16:02	T22	The fires jumped right here at Robertsons, bypass side of Mill	MPD Audio
20.883489501444217, -156.6685644596109	8/8/23	16:04	None	County Water Works truck on fire	Event Chronology Report
20.88127417467844, -156.67163558891232	8/8/23	16:04		Central to Command: They are evacuating Hale Mahaolu now, we have a vehicle fire, one of the county water trucks by Kelawe and an elderly female trapped at 3█ Pauwala Place.	Dispatch Audio FD2
20.8831648274424, -156.67410474872977	8/8/23	16:06		Edge of smoke plume traveling over this location, 3█ Komo Mai Street.	Civilian Video
20.883443, -156.667992	8/8/23	16:07		Video shot from Lahainaluna Rd, over 7█ Ku'ialua St and toward the smokestack, showing thick black smoke moving west/northwest toward the ocean	Civilian Video
20.882609, -156.676047	8/8/23	16:07	VOP8	We need to push traffic out Komo Mai, the flames are coming out.	MPD Audio
20.881130, -156.671808	8/8/23	16:08	419	Most Hale Mahaolu has been evacuated, fires right there.	MPD Audio
20.8785895818247, -156.67435628711166	8/8/23	16:08	E6, RE1	E6 from RE1: Your location, we are coming up Lahainaluna, heavy smoke. E6: On Pauoa, were protection the structures impacting the electrical transformer station, if you can get around us you can effect the structures that are in front of us, if you can't you will have to work off our engine, let me know.	Dispatch Audio FD2
20.876199, -156.674978	8/8/23	16:09	401	It looks like the fire is reaching Mill St.	MPD Audio
20.876465196357778, -156.67526833101027	8/8/23	16:09		Smoke plume along ground running just to the north of the Aloha Gas Station property	Civilian Video
20.877996, -156.675716	8/8/23	16:13	T22	The fire is in the the food truck area, Real Mexican Grindz	MPD Audio
20.877062, -156.676570	8/8/23	16:14	4SA2	Fire in the median on the highway between Lahainaluna and Dickenson.	MPD Audio
20.877427, -156.677015	8/8/23	16:15	4SA2	I'm about to leave Lahainaluna and the highway, I can't do it anymore.	MPD Audio
20.877511, -156.676929	8/8/23	16:17	415	The fire jumped the highway at Lahainaluna	MPD Audio
20.877217, -156.677294	8/8/23	16:19	4SA2	We got another fire right by the 76	MPD Audio
20.881869118763078, -156.68142530551302	8/8/23	16:21	None	Behind the apartment complex. Grass in the backyard on fire.	Event Chronology Report
20.877045, -156.677325	8/8/23	16:22	T22	The fire is on the town side of Lahainaluna that grass field makai side of 76.	MPD Audio

continued

Fire Progression Map Data

Lat/Long	Date	Time	Unit	Description	Source
20.878221636177663, -156.67408569410333	8/8/23	16:22	E3, E11, WL6	Command from SD: We are stuck on Pauoa off of Lahainaluna and can't get out, and there are residents right in the path of the fire.	Dispatch Audio FD2
20.880248956493183, -156.67937504261303	8/8/23	16:22		Command from Central: I know there are no units, we are getting reports of the sugar cane train off of the Mohana on fire with propane tanks, they are trying to evacuate.	Dispatch Audio FD2
20.871886342672596, -156.67767068800987	8/8/23	16:24		By the big banyan tree is on fire	MPD Event Chronology
20.877065, -156.675570	8/8/23	16:24	401	We might have 1 fatality, homes rear of Mill St.	MPD Audio
20.881000968310072, -156.67592328701204	8/8/23	16:25		Behind 3█ house on Aki St on fire	MPD Event Chronology
20.876558, -156.678114	8/8/23	16:26	415	We've got poles on fire, houses catching all of Waine'e	MPD Audio
20.87515102776966, -156.67953659746044	8/8/23	16:31		Parking lot behind the Lahaina inn -- off Lahainaluna Road near Front Street, brush on fire near the building	MPD Event Chronology
20.882944605010696, -156.67025994990962	8/8/23	16:32		Multiple houses on fire on Kaakepa Street, from the vantage point of 8█ Kanua Street.	Civilian Video
20.88179091952925, -156.6813416518505	8/8/23	16:34		Another caller..saying fire in backyard of Kenui	MPD Event Chronology
20.88179091952925, -156.6813416518505	8/8/23	16:35		This caller saying 1█ Kenui ...backyard on fire at 1█ Kenui	MPD Event Chronology
20.874891, -156.676765	8/8/23	16:36	415	Wainee's on fire, engulfed next to [Maria] kila Church	MPD Audio
20.88015135530013, -156.68022940747042	8/8/23	16:36		10█ Wainee Street / pavillion in the middle of property on fire	MPD Event Chronology
20.873289, -156.673983	8/8/23	16:37	4SA2	I need help at Weinberg Apartments for female with burns to her body	MPD Audio
20.881866267738683, -156.68151727364162	8/8/23	16:42	None	Trees of fire. Building is on fire. Evacuating the building. Fully engulfed. Hale Ohana Apartments and Kenui, fully engulfed. Hale Ohana Apartments and Kenui, fully engaged.	Event Chronology Report
20.884329665692302, -156.68006087218765	8/8/23	16:42	RE11	Command from RE11: We fell out and we are at Foodland Farms, the new Komo Mai Hokohoma subdivision, that I think is unpassable, multiple structure fires involved, that subdivision is lost for the most part.	Dispatch Audio FD2
20.883883598224852, -156.67504514135229	8/8/23	16:42	E11	E11 from Command: Come up to Tamuras, there is a vacant lot that is on fire, I need you to hit that before it gets into some of these warehouses.	Dispatch Audio FD2
20.881590529049777, -156.67860794538817	8/8/23	16:43	E11	Showing to the water flow 2 activations. 9█ Honoapi'ilani	Event Chronology Report
20.881897, -156.681800	8/8/23	16:44	499	Hale Ohana Apartments, below the highway and Kenui Street is fully engulfed.	MPD Audio
20.87994265941814, -156.6818481895669	8/8/23	16:46		16:46 House fully engulfed. 1█ Baker Street at Hale Mahaolu	Event Chronology Report

continued

APPENDIX

Fire Progression Map Data

Lat/Long	Date	Time	Unit	Description	Source
20.88327632706056, -156.66857850184186	8/8/23	16:46		6 Kaalo Place on fire	MPD Body Cam
20.882966860425213, -156.68038546073106	8/8/23	16:49	RE11	RE11 from Command: Are you by Opukea? That's a good spot. RE11: Negative, I'm at...across from Kahoma Stream, I've got a view of Opukea. It's being impacted on the cars on the outside extending to the building, it needs to get evacuated.	Dispatch Audio FD2
20.882079, -156.681481	8/8/23	16:52	4Z20	Fire looks like it jumped riverside, and it's headed toward the apartment building behind Taco Bell	MPD Audio
20.874551203877946, -156.67554834908873	8/8/23	16:53		Advised large fire, 6 Waine'e @ Aina Nalu	Event Chronology Report
20.881223, -156.681126	8/8/23	16:53	S40	The Hale Ohana Apartments right off the highway is engulfed in flames, it's about to jump over to the Lahaina Apartments across the street.	MPD Audio
20.869371, -156.668955	8/8/23	16:58	UKN	The fire's coming by the homeless shelter, I'm trying to clear this out.	MPD Audio
20.87818151046653, -156.682016193533	8/8/23	16:59		9 Front Street on fire--elderly female within	MPD Event Chronology
20.883383204572592, -156.66907340516693	8/8/23	17:09		Multiple houses and cars on fire in the area of Kanua Street and Kaalo Place spreading west.	Civilian Video
20.885489, -156.684347	8/8/23	17:10	4A30	It's getting close to the Cannery Mall, the fire.	MPD Audio
20.87812113442809, -156.6819806453883	8/8/23	17:11	None	House on fire. Everyone is out of the house, 9 Front & 9 Front	Event Chronology Report
20.873751, -156.677617	8/8/23	17:11	415	Kobe's is on fire, all of this Waine'e	MPD Audio
20.88299376812532, -156.68605484515462	8/8/23	17:12	None	Palm trees on fire in the area, Ala Moana (in the area)	Event Chronology Report
20.885200, -156.686909	8/8/23	17:15	4B31	Māla Wharf's on fire.	MPD Audio
20.884157, -156.678222	8/8/23	17:21	4SA2	The Island Grocery Depot, the very rear of it's starting to catch on fire and it's spreading toward Minit Stop gas station. And there's a Kupuohi St. truck fully engulfed.	MPD Audio
20.885502, -156.684221	8/8/23	17:24	4A30	It's starting to spread through Cannery Mall.	MPD Audio
20.8762289149416, -156.68071977404833	8/8/23	17:25	None	Sprinkler water flow RP pending, 8 Front St Unit	Event Chronology Report
20.885100, -156.662253	8/8/23	17:26	VOP8	Flare up, 10x10 right across from the middle school, If fire can contain this, it won't jump over. If not it's just gonna take down the whole school.	MPD Audio
20.883498, -156.677386	8/8/23	17:30	4K14	I'm evacuating people out of Emerald Plaza. We have a couple structures on fire and vehicles up here as well.	MPD Audio
20.882405762598335, -156.68199129090485	8/8/23	17:31	E11, T3	E11: Copy, we have a structure fire in Kahoma Village, 1 single structure, roof is involved. Command: Copy is that the apartments in there, are they sprinklered? E11: It's a residence on the Kenui Street side, T3 has to go get water, we just need somebody to put some water on it.	Dispatch Audio FD2

continued

Fire Progression Map Data

Lat/Long	Date	Time	Unit	Description	Source
20.884298, -156.668485	8/8/23	17:34		Homes on fire in the area of 6 Ka'akolu Street. Water Tender flowing water to save 6 Ka'akolu and surrounding structures	Civilian Video
20.875791, -156.675379	8/8/23	17:34	418	The fire looks like it is jumping right at Dickenson and the highway. It is headed Southbound. We need to bleed traffic out.	MPD Audio
20.881128, -156.682236	8/8/23	17:35	4A30	The Front Street Apartments starting to catch fire. I am trying to evacuate everyone nearby.	MPD Audio
20.881356531686055, -156.68671603222438	8/8/23	17:38		Fire at Pu'unoa Baby beach	MPD Event Chronology
20.881094, -156.682343	8/8/23	17:39	T34	Multiple Units in Front St Apartments are fully engulfed.	MPD Audio
20.882607, -156.682403	8/8/23	17:39	T34	Kahoma Village has a couple homes on fire too. I'll go there.	MPD Audio
20.881346, -156.686688	8/8/23	17:40	Central	A fire's starting at Baby Beach	MPD Audio
20.881449428696296, -156.68200152398117t	8/8/23	17:40		Dispatch to Command: Front Street apartment fully engulfed, Kahoma Village, I know they are working on that and a fire starting at Baby Beach.	Dispatch Audio FD2
20.882057184786756, -156.6874853268697	8/8/23	17:40		Dispatch to Command: Front Street apartment fully engulfed, Kahoma Village, I know they are working on that and a fire starting at Baby Beach.	Dispatch Audio FD2
20.882413184183413, -156.68198781652774	8/8/23	17:41		Roof of a house on fire at Kahoma Village Loop, house back to Kenui Street, 2 in from the corner with the highway.	MPD Body Cam
20.882427, -156.682522	8/8/23	17:41	T34	I got a couple units, uh fully engulfed on Kahoma Village. Right next to Hale Place.	MPD Audio
20.884076, -156.675568	8/8/23	17:41	4SA2	I got a vehicle fully engulfed in the parking lot of Kupuohi Street.	MPD Audio
20.883218, -156.685320	8/8/23	17:42	UKN	We have a home on Front and Ala Moana Fully engulfed.	MPD Audio
20.882922, -156.682603	8/8/23	17:43	4B10	Kahoma Village has definitely been evacuated. Visibility is getting poor so we're getting out.	MPD Audio
20.877308779158295, -156.68048387700108	8/8/23	17:44		Post office on fire, Outlets of Maui on fire, cars too.	MPD Event Chronology
20.872662, -156.677738	8/8/23	17:44	418	Stop directing traffic down Front Street it's on fire all the way down to Market Street, Baldwin House is on fire there, It's not passable.	
20.87362870989807, -156.67768493333605	8/8/23	17:46	418	Dispatch from Command: Command we have Baldwin House on fire and the outlets.	Dispatch Audio FD2
20.869172, -156.671240	8/8/23	17:47	415	Lahaina Pool and across the street and Lahaina Aquatics [Center] are catching fire.	MPD Audio
20.869639365949354, -156.6745515867243	8/8/23	17:52		Video shot from Shaw Street of a spot fire (tree on fire) in the Malu 'Ulu o Lele Park.	Civilian Video
20.868368, -156.673769	8/8/23	17:54	415	Just double checking fire's aware of this. We're engulfed from Honoapi'ilani down to Front Street by Shaw Street. Both sides.	MPD Audio
20.881431, -156.684687	8/8/23	17:55	4A20	By the Cannery headed Southbound, You cannot go that way, the fire blocks off at Kenui.	MPD Audio

continued

APPENDIX

Fire Progression Map Data

Lat/Long	Date	Time	Unit	Description	Source
20.880985, -156.684551	8/8/23	17:58	T34	There's also a structure fire at Kai Pali and Front Street.	MPD Audio
20.881039, -156.684467	8/8/23	17:59	4A20	Anybody on Front Street and Kenui? There's multiple buildings fully engulfed, stay out of that area.	MPD Audio
20.871862, -156.674366	8/8/23	18:00		Fire progressing from Waine'e to Front Street. along Prison Street. Also shows edge of fire plume.	Civilian Video
20.882420, -156.681696	8/8/23	18:01	T34	The house, in the corner, Kahoma Village, by Taco Bell is on fire, fully engulfed.	MPD Audio
20.884730, -156.684084	8/8/23	18:02	4A20	Fire is encroaching on the Cannery. The grass on side of the Cannery is starting to burn and move into it.	MPD Audio
20.88445863207333, -156.674919732332	8/8/23	18:05		Spot fire by road near 2 █ Kupuohi St., additional fires to the rear of the structure and adjacent to the Kahoma Stream.	Civilian Photo
20.88293711828858, -156.68175120471196	8/8/23	18:10		Spot fires on both side of the highway in the grass and trees. 1 █ Limahana Place on fire.	Civilian Video
20.881796923405787, -156.68230896593153	8/8/23	18:12		Several buildings in the Front Street Apartments on fire, House fire in area of Kenui and Front Street.	Civilian Video
20.883803, -156.672884	8/8/23	18:14		Entire Street of Komo Mai involved with structure fires. Additional structures on fire off in a distance all the way to the ocean. Strong winds in the area of the bypass and Keawe Street.	Civilian Video
20.8845200747805, -156.67250143776104	8/8/23	18:18		Houses at top of Komo Mai fully involved in fire.	Civilian Photo
20.880865155997324, -156.6843476415273	8/8/23	18:18		Houses at the intersection of Front Street. and Kai Pali Pl on fire █ (Kai Pali Place.) Also Front Street Apartments on fire. Intersection is just out of the smoke plume.	Civilian Video
20.88384610176639, -156.6756599269747	8/8/23	18:18		Materials and vehicles on fire between 1 █ and 1 █ Kupuohi Street.	Civilian Photo
20.88474585534066, -156.67354183715415	8/8/23	18:18	RE1	Command: RE1 come over by Tamuras, those new apartment buildings, there is fire getting close to it, take a look at that. RE1, copy Tamuras, checking on fire. Command: New apartment building on top of Tamuras, I can't tell if the fire is on the other side of the stream or not.	Dispatch Audio FD2
20.860353415125513, -156.6687218720292	8/8/23	18:28		Video from Pualei Drive and Puailima Place showing dense smoke north of that location moving east to west.	Civilian Video
20.868632, -156.674248	8/8/23	18:47		1 █ Shaw well involved in fire. Structure on fire Just north of Shaw and Front Street.	Civilian Video
20.882937, -156.681694	8/8/23	18:48	T34	The fire is gonna jump the highway from Opukea onto the other side down the roadway.	MPD Audio
20.88682026715046, -156.67679027686208	8/8/23	18:57		Wind shifted the plume overtop of the complex, Ulupono Street. and the Church.	Civilian Video
20.867989, -156.675079	8/8/23	19:00	4B10	Shaw and Front to Māla and Front is all engulfed in flames. You can't see, so don't drive down there.	MPD Audio
20.884496019640324, -156.67899893480282	8/8/23	19:00		Spot fire in the trees along Oil Road, behind 4 █ Kupuohi Street.	Civilian Video

continued

Fire Progression Map Data

Lat/Long	Date	Time	Unit	Description	Source
20.883953388636105, -156.67312629437004	8/8/23	19:09		Houses along Komo Mai on fire across from Kaialu Apartment building.	Civilian Video
20.868944, -156.671235	8/8/23	19:10	4B10	This fire is about to jump into Lahaina Rec Center.	MPD Audio
20.867670, -156.674904	8/8/23	19:11	6B40	There's zero visibility by the Front 505 Shops [Shops at 505] .	MPD Audio
20.865968, -156.673639	8/8/23	19:14	6B40	400 Block of Front Street, you can not come down Shaw. You cannot see anymore.	MPD Audio
20.883391, -156.681818	8/8/23	19:20	4K15	Just advising the highway between Keawe and at least Hinau is unpassable. There's flames and wires down.	MPD Audio
20.883383924434256, -156.67768305004944	8/8/23	19:23	E11, RE1	E11 to Command: RE1 is trying to do a quick hit on that Emerald Plaza commercial right now with no effect, you want us to stand by at Island Grocery, it is protected by a masonry fire wall, we can standby here with a hydrant or do you have another assignment for us?	Dispatch Audio FD2
20.885183179860835, -156.6634673157302	8/8/23	19:26		Embers and spot fires right in front of this location, line of fire off in a distance all along the highway south of Lahainaluna to Puamana.	Civilian Video
20.868979, -156.671737	8/8/23	19:38	4Z20	The fire went jump over from Shaw Street into the neighborhood across the highway, first house is up in flames.	MPD Audio
20.881591, -156.684306	8/8/23	19:42	T34	Fire also jumped Kenui Street now onto Kahoma Village now.	MPD Audio
20.884246, -156.664368	8/8/23	19:48	4SA2	Ku'ialua had another flare up and I am transporting once (1) female to the Civic Center	MPD Audio
20.883241, -156.685288	8/8/23	19:49	T34	I am going to close down Front Street southbound from Ala Moana, there's multiple houses on fire and there's propane tanks in the area. Fire went into to check	MPD Audio
20.882903, -156.685262	8/8/23	19:51	T34	The back of 11 █ Front Street is on fire, coming from Māla Wharf, guess it jumped Ala Moana from the back.	MPD Audio
20.888063578148735, -156.6730001488292	8/8/23	19:57	T3, E3	T3 from E3: If you couldn't make access, reposition to the bypass and when it burns up there you can knock it down there.	Dispatch Audio FD2
20.885316, -156.678594	8/8/23	20:00	S40	Brush fire started right at the bottom by the bypass right by Minit Stop, visibility is pretty bad, Fire is right on it now.	MPD Audio
20.88822724205045, -156.67560508767806	8/8/23	20:01	RE14	Command from Central: Medics are saying, fire Keawe and the bypass, moving quickly toward structures. Command from RE14: We are coming Olowalu, do you have an assignment for us? Command: Confirm with Dispatch and check in that area. Dispatch to RE14: Keawe and the bypass.	Dispatch Audio FD2
20.888204, -156.675743	8/8/23	20:01	4B30	Fire is slowly creeping towards Wahikuli, we might have to start evacuating that neighborhood.	MPD Audio
20.883198, -156.685291	8/8/23	20:05	T34	I'm at Front and Ala Moana, everything's blocked. Southbound behind me. There's multiple fires, no visibility.	MPD Audio

continued

APPENDIX

Fire Progression Map Data					
Lat/Long	Date	Time	Unit	Description	Source
20.889101821054805, -156.67409948082047	8/8/23	20:06	E3, RE14, RE11	Command from E3: This last brush fire has jumped the bypass and its above Wahikuli and is headed north Command: RE14 and RE11 head to that. RE11: Copy, rerouting. E3: This is going to be right behind Foodland Farms on Oil Road on the mauka side, it is unrealistic to put this out but we need to keep it on the mauka side of Oil Road which is Old Cane Road that runs behind Foodland Farms, we need to keep it from jumping the road.	Dispatch Audio FD2
20.87420337914371, -156.67692943090836	8/8/23	20:07		1 █ Dickenson, Lahaina Coolers well involved in fire.	Civilian Video
20.887531312570943, -156.67668072864734	8/8/23	20:11	RE14	Command from RE14: We just turned down Keawe, the fire has jumped the road from south to north, we are headed to the new apartments they are building.	Dispatch Audio FD2
20.8859853266448, -156.6784913312274	8/8/23	20:21	RE11	Command from RE11: We are about to lose the corner on Oil Road by Kula and Mauka, could use a Tanker, we are out of water.	Dispatch Audio FD2
20.861434, -156.668691	8/8/23	20:29		Fire impacts homes at Honoapi'ilani & 'Aholo Streets.	Civilian Photo
20.861434, -156.668691	8/8/23	20:29		Fire impacts homes at Honoapi'ilani & 'Aholo Streets.	Civilian Photo
20.890712856838366, -156.67658480269543	8/8/23	20:29	E11, RE14	E11 to RE14: What I am thinking is, standby here ready to peel out in any direction. Once it hits this corner and starts darkening down then go pay attention to the north side. RE14: It already jumped. Command from E11: The fire has jumped the road at Keawe, it is now north of Oil Road, making its way into Wahikuli, evacuate Wahikuli.	Dispatch Audio FD2
20.888901, -156.675465	8/8/23	20:30	499	4 █ from 4 █ there's fire going across Keawe Street at the top of the Bypass.	MPD Audio
20.874192, -156.664248	8/8/23	20:31	6B41	The fires almost up here to the topside of the Bypass, it's creeping up by mile marker 3.	MPD Audio
20.885142, -156.682311	8/8/23	20:36	4K15	The area around the Highway and Keawe intersection is bad. I am going to pull the guys back to the Highway and Fleming for now.	MPD Audio
20.865356, -156.669248	8/8/23	20:37	UKN	The fire's starting to cross over into Aulike.	MPD Audio
20.884952, -156.682136	8/8/23	20:39	415	There's fire over the road, somebody needs to be down here but this looks like this is going to jump Honoapi'ilani here also at Keawe.	MPD Audio
20.865690, -156.669263	8/8/23	20:46	4A40	There a few houses on Aulike that's starting to come engulfed, Aulike and Leoleo.	MPD Audio
20.865690, -156.669263	8/8/23	20:46	4A40	There a few houses on Aulike that's starting to come engulfed, Aulike and Leoleo.	MPD Audio
20.858885, -156.665792	8/8/23	20:53	UNK	Hökiokio Highway, fire is approaching fast.	MPD Audio
20.885422, -156.676200	8/8/23	20:59	4SA2	The LDS church on Ulupono St is right in the fire.	MPD Audio
20.858744, -156.665852	8/8/23	21:01	4B30	The fire is 200 yards north of Hökiokio and the highway, we gotta push them back further.	MPD Audio

continued

Fire Progression Map Data					
Lat/Long	Date	Time	Unit	Description	Source
20.887565, -156.682956	8/8/23	21:24	4B10	Central, looks like this fire is creeping out into the north side of Kapunakea neighborhood and we have to push back to Fleming.	MPD Audio
20.89303578669163, -156.68092904731523	8/8/23	21:25	RE1	RE1 from Structure Group: RE1: Structure Group, be aware fast moving, fast moving. RE1 from Structure Group: Looks like the fire is coming down Akeke St off of Kahoma. Make a run through there and see if anyone wants to get out and make sure they are out of the area.	Dispatch Audio FD2
20.89112902796683, -156.6818607821767	8/8/23	21:28	RE1	Structure Group from RE1: We have a fast moving fire impacting Kahoma Street mauka.	Dispatch Audio FD2
20.891974, -156.681924	8/8/23	21:28	4Z20	Just advising back in Wahikuli, making another sweep, the fires right behind these houses.	MPD Audio
20.888826610580878, -156.68137781649023	8/8/23	21:29		Fire working its way around Keawe Street. ext / Lahaina Bypass and the back of the construction lot into Wahikuli homes.	Civilian Video
20.890329343842517, -156.68138410396762	8/8/23	21:31		Vehicle on fire on Oil Road and spreading into Kahoma Street homes.	Civilian Video
20.892211, -156.681554	8/8/23	21:32	4B10	Kahoma Street is pretty bad, you can't even see. The flames are in the backyard of a lot of topside houses on Kahoma Street.	MPD Audio
20.894107, -156.680668	8/8/23	21:34	4Z20	Behind 1 █ Fleming, they're coming pretty quick.	MPD Audio
20.893836423663483, -156.68074279140495	8/8/23	21:34	SG	Command from Central: Report of flames behind 1 █ Fleming. SG from Command: Is that near your area? SG: We are at the top of Fleming right now and it looks more toward Kahoma by Akeke Street.	Dispatch Audio FD2
20.890331340146567, -156.68138164506865	8/8/23	21:36	T3, SG	SG from Water Supply: There is a car on fire on Oil Road that's causing all the problems on Kahoma and Akeke, if T3 can make it up here he can make a huge impact. T3: Heading up Kahoma now, need to access off of Oil Road.	Dispatch Audio FD2
20.89114260654522, -156.68188620154987	8/8/23	21:39	RE1	Structure Group from RE1: Kahoma Street is heavily impacted mauka, we are having to abandon our position.	Dispatch Audio FD2
20.88473633660011, -156.67430517581886	8/8/23	21:42	E11	Command from E11: Be advised the 4-story apartment building in the industrial area is fully involved.	Dispatch Audio FD2
20.895594, -156.680137	8/8/23	21:45	415	So there's this fire that is behind Wahikuli headed toward the Civic Center.	MPD Audio
20.892666, -156.681517	8/8/23	21:46	4Z20	It's right at Akeke and Kahoma we stay looking at em right now. It looks like something went up. I think one house just caught. We stay on Fleming watching from this side.	MPD Audio
20.89082532065457, -156.68171379666114	8/8/23	21:46	WS	Water Supply to Command: Be advised we have 6 homes fully involved off of Kahoma. WS from Command: You were breaking up WS: We have 6 buildings fully involved, triage, (wind breaking up transmission)	Dispatch Audio FD2
20.892534929490978, -156.67722567474178	8/8/23	21:51	E11	E11: It's just moving north back into the road we are on, we are working to access Oil Road. Fire is moving between these two (2) roads.	Dispatch Audio FD2

continued

APPENDIX

Fire Progression Map Data

Lat/Long	Date	Time	Unit	Description	Source
20.894114, -156.680831	8/8/23	21:51	4Z20	Just advising the flames are coming up to the top part of Fleming.	MPD Audio
20.894062, -156.684933	8/8/23	22:08	415	Chief, the Wahikuli fire is coming up on Honoapi'ilani.	MPD Audio
20.890355879531384, -156.68222736516154	8/8/23	22:09		Fire Spreading west from 13█ Kahoma Street, Video taken from 12█ Nahale Street.	Civilian Video
20.896207, -156.683240	8/8/23	22:10	S40	Running through this Ainikea Park area again. The fire is moving pretty quick this way, and then we're gonna head towards Hawaiian Homes.	MPD Audio
20.89366285340213, -156.68505617077807	8/8/23	22:14	RE11, RE1	RE11 from Structure Group: Can you head to the beginning of Front Street where it's branched off at Fleming? It looks to be some trees on fire on one of the properties, see if you can hit it from the Front Street side. Command: RE1 can you head to Front Street, trees on fire off Front Street, can you handle that. Command: Head down Front Street to Fleming and you will see trees on fire there on the left hand side.	Dispatch Audio FD2
20.896745224879467, -156.67957849050927	8/8/23	22:16	RE14	Command from RE14: We just made it from above mauka of Oil Road, we made it down the second road north of Fleming and fire is impacting the top side of that road.	Dispatch Audio FD2
20.889634, -156.681801	8/8/23	22:18	RE14	Fire Reaches 3 doors down from 12█ Nahale, fire is spreading south to the intersection of Kahoma Street and 'Ainakea Road.	Civilian Video
20.896217, -156.682998	8/8/23	22:18	4Z20	Just advising, I'm at the intersection of 'Ainakea and Mai, monitoring the fire, looks like it's coming up on Wahikuli, which is the next intersection over.	MPD Audio
20.893514, -156.684811	8/8/23	22:24	T34	The fire jumped the Highway just south of Fleming. There's multiple spots.	MPD Audio
20.893209066256517, -156.6850178911858	8/8/23	22:25		Command from Central: From PD, the fire has jumped Honoapi'ilani south of Fleming in multiple spots, fire's up to Wahikuli now.	Dispatch Audio FD2
20.895542, -156.682968	8/8/23	22:25	4Z20	The fire's up to Wahikuli, in that neighborhood right now.	MPD Audio
20.858293, -156.665470	8/8/23	22:29	W2	Central, fire jumped Hōkiokio.	MPD Audio
20.893931, -156.681878	8/8/23	22:29		Fire is moving from east to west down Fleming Road. Behind 1█ Wahikuli Road.	Civilian Video
20.893347, -156.684875	8/8/23	22:29	Central	That old Five Palms is now involved.	MPD Audio
20.89311647165839, -156.6850274170399	8/8/23	22:29		Command: You said everything south of Five Palms is unpassable and units should go north. MPD said the old Five Palms is on fire so they are advising all MPD units to go north.	Dispatch Audio FD2
20.859714630543213, -156.66454064545584	8/8/23	22:25		Command: Also Hōkiokio, the fire has jumped Hōkiokio. Central: Correct per MPD the fire has jumped Hōkiokio.	Dispatch Audio FD2
20.88956582649156, -156.68200651120364	8/8/23	22:40		Fire has spread south to 12█ Kahoma Street.	Civilian Video
20.895285, -156.682952	8/8/23	22:40	4Z20	Just advising the fire is still south of Wahikuli Street and 'Ainakea.	MPD Audio

continued

Fire Progression Map Data

Lat/Long	Date	Time	Unit	Description	Source
220.858120178980396, -156.66493440264927	8/8/23	22:41	E11	Command from E11: The fire has jumped Hōkiokio, it is now south of Hōkiokio, making its way makai towards Puamana.	Dispatch Audio FD2
20.889597950503408, -156.6825572487891	8/8/23	22:44		Fire is spreading from structure to structure from 12█ Kahoma to 12█ to 12█ to 1█ Hiki Pl to 1█ to 1█2.	Civilian Video
20.901624, -156.679816	8/8/23	22:49	415	The fire's coming up Leiali'i.	MPD Audio
20.895164, -156.682937	8/8/23	22:54	4Z20	It looks like the fire crossed over Wahikuli, 'Ainakea side, it's coming over.	MPD Audio
20.883549, -156.666587	8/8/23	22:55	4A20	Luna and Bypass, heavy, heavy black smoke.	MPD Audio
20.894884, -156.684913	8/8/23	22:56	418	Medics aren't going to make it past Fleming Rd. It looks like it may even be jumping over the road at this point.	MPD Audio
20.861004, -156.668546	8/8/23	23:01	4B30	The fire is moving. It's slow, moving slowly to the south. It didn't even - It's just getting up to near Puamana.	MPD Audio
20.860592, -156.661379	8/8/23	23:12	6B41	Fire's posted on the top side of Hōkiokio and Bypass. The fire's almost up here.	MPD Audio
20.88944244032484, -156.68180368237216	8/8/23	23:14		13█ Kahoma Street is on fire.	Civilian Video
20.89792544864109, -156.6796634916685	8/8/23	23:39		Support from Command: Be advised we abandoned Station 3, I'll ask you guys to make your way to Highway 30 north of Station 3. Support: This thing is, the brush is on fire above Malanai making its way to Kaniau, impacting some of these top homes again.	Dispatch Audio FD2
20.88925438771646, -156.68192601749166	8/8/23	23:59		12█ and 12█ Nahale St. catch fire.	Civilian Video
20.904846, -156.682892	8/9/23	0:18	401	The fire is slowly creeping toward the station.	MPD Audio
20.89664727086807, -156.67948849261754	8/9/23	0:20	Mini1	The fire is at Malanai Street so if you are not out of there, it's time to go. Mini1: Only a couple left. We are on the way.	Dispatch Audio FD2
20.888801419849596, -156.6820504158711	8/9/23	0:33		12█ Nahale Street on fire.	Civilian Video
20.883450, -156.666587	8/9/23	0:49	4A20	You can advise Fire, that Lahainaluna and the bypass, the fire is beginning to go Mauka.	MPD Audio
20.90170046826648, -156.67975894569625	8/9/23	0:53		Command from Central: Per MPD, they have embers flying near Leiali'i Parkway.	Dispatch Audio FD2
20.888700097901186, -156.6823327045035	8/9/23	1:17		Homes on fire in the area of 12█ 'Ainakea Road.	Civilian Video
20.901908, -156.682571	8/9/23	1:46	418	Flame's probably about 100 yards south of Leiali'i at this point in time.	MPD Audio
20.901394, -156.682671	8/9/23	1:54	401	Fire is slowly surrounding Leiali'i Village.	MPD Audio
20.888626341442098, -156.6820217085678	8/9/23	1:56		12█ Nahale Street catches fire.	Civilian Video

continued

APPENDIX

Fire Progression Map Data					
Lat/Long	Date	Time	Unit	Description	Source
20.861661, -156.662138	8/9/23	2:02	W2	The fire jumped mauka of the bypass on Hōkiokio, going upwards.	MPD Audio
20.888419559402834, -156.68197058273282	8/9/23	2:30		Fire burning the fence of 12█ Nahale Street, but it did not ignite the home.	Civilian Video
20.892758, -156.684684	8/9/23	2:51	401	The flames are still mauka of the highway except for the area of Fleming, like it crossed over.home.	MPD Audio
20.904611, -156.683897	8/9/23	4:23	401	Central, smoke is engulfing the Civic Center and the Police Station already.	MPD Audio
20.905234, -156.683230	8/9/23	5:23	401	At the moment it appears the fire went around the other buildings by the Civic Complex.	MPD Audio
20.899615002963426, -156.67386377651735	8/9/23	5:35		Video showing grass fire line east of Wahikuli from Wahikuli Road toward the Civic Center.	Civilian Video
20.88495099044418, -156.67436540404947	8/9/23	5:35		Kaiaulu o Kupuohi apartment building on fire (2█ Kupuohi St) and numerous structures on fire in the Wahikuli area.	Civilian Video
20.905052, -156.684495	8/9/23	5:39	401	It appears the fire and police station were not affected. It's just smoky right now in the area. The fire is moving up the mountain.	MPD Audio
20.88495099044418, -156.67436540404947	8/9/23	5:59		Kaiaulu o Kupuohi apartment building on fire (2█ Kupuohi St) and grass fire backing upslope from Wahikuli Road.	Civilian Video
20.895643930595885, -156.67348845628254	8/9/23	6:07		Fire spreads in the grass to the south of Wahikuli Rd, adjacent to the water tank.	Civilian Photo
20.850123130664887, -156.6465060904346	8/9/23	6:29	S2	Flames about 200 yards from █ Haniu. Uh, checked the residence.	MPD Audio

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6.14 FSRI Research Team Biographies

Steve Kerber*Vice President and Executive Director, FSRI*

Steve Kerber is Vice President and Executive Director of UL's Fire Safety Research Institute (FSRI). He leads a fire safety research team dedicated to addressing the world's unresolved fire safety risks and emerging dangers to reduce death, injury and loss from fire. Steve has led research in the areas of fire safety engineering, firefighter safety, fire forensics, and fire science. He received his bachelor's and master's degrees in fire protection engineering from the University of Maryland and completed his doctorate at Lund University in Sweden after defending his thesis titled, "Utilizing Research to Enhance Fire Service Knowledge." Steve is also a 13-year veteran of the fire service, with most of his service at the College Park Fire Department in Prince George's County Maryland where he served at ranks up through Deputy Chief. Steve has also been appointed to the rank of Honorary Battalion Chief by the Fire Department of New York, was named the 2014 ISFSI and Fire Engineering George D. Post Instructor of the Year and was awarded the 2019 Metropolitan Fire Chiefs President's Award of Distinction.

Derek Alkonis*Research Program Manager, FSRI*

Derek Alkonis is a Research Program Manager for UL's Fire Safety Research Institute. In this role, Derek manages the implementation of organizational initiatives related to firefighter health and safety and spearhead FSRI's efforts in addressing wildland urban interface, a priority expansion area for our research. Prior to joining FSRI, Derek served 31 years with the Los Angeles County Fire Department, most recently as Assistant Fire Chief in charge of the Air and Wildland Fire Division. During his tenure with LA County, he helped establish the department as a leader in fire ground safety and fire service wellness-fitness. As a firm proponent of training, he has developed and implemented innovative programs supporting fire ground tactics, survival, and firefighter health. He is a member of the IAFF/IAFC Fire Service Joint Labor Management Wellness-Fitness Initiative Technical Committee and holds a bachelor's degree in biology from the University of California San Diego.

Darus Ane

Eighteen years concentrated in the WUI environment in Los Angeles County and throughout the State of California. Represented Los Angeles County Fire Department as Agency Representative on major conflagrations throughout the State of California. Collaborated with Federal, State, and Local agencies under the California Disaster and Civil Defense "Master Mutual Aid Agreement". Ane held the positions of Incident Commander, Operations Section Chief, Branch Director, or Division/Group Supervisor on multiple WUI Incidents. Coordinate with multiple public and private agencies to meet incident objectives. Ane has 33 years of experience with the Los Angeles County Fire Department as a firefighter, paramedic, engineer, camp foreman, captain, camp superintendent, battalion chief in structure operations, and a battalion chief in the Air and Wildland Division. He has served in the following positions: Fire Academy Wildland Instructor, Foreman Training Instructor, and Wildland Command Instructor.

James Barnes

James Barnes is currently the Chief Investigator for the Solano County District Attorney's Office. Prior to Solano County, James Barnes worked for the Sacramento County Sheriff's Office for approximately 25 years. Barnes worked assignments in corrections, patrol, investigations, and ascended through the ranks prior to retiring as the Undersheriff. Barnes was responsible for 2300 employees and directed operational and administrative functions for the Sheriff's Office. Barnes has always had a passion for investigations and worked as a Sexual and Elder Abuse detective and in the Homicide Bureau as a detective and supervisor. Barnes was awarded Centralized Investigations Division Employee of the Year as a Homicide detective and supervisor.

Leonard Casson

Leonard Casson is an Associate Professor of Environmental Engineering in the Department of Civil and Environmental Engineering at the University of Pittsburgh. Dr. Casson received B.E. and M.S. degrees from Vanderbilt University in 1980 and 1982, respectively. He received

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6.14 FSRI Research Team Biographies

his Ph.D. in Civil Engineering from The University of Texas at Austin in 1987. Dr. Casson is a registered Professional Engineer in Florida and Pennsylvania. Dr. Casson is also a Board Certified Environmental Engineer (BCEE) in the specialty of Water Supply and Wastewater by the American Academy of Environmental Engineers. He is also credentialed as an Envision Sustainability Professional by the Institute for Sustainable Infrastructure. His research interests include the adsorption, fate, transport and transformation of chemicals, particles and environmental pathogens in unit operations and the natural environment. Previous research includes investigating the presence and viability of HIV and Ebola in wastewater systems. His ongoing research has focused on novel disinfection technologies, sustainability and resilience applied to water treatment/distribution systems and wastewater collection/treatment systems.

Timothy Hagel

Chief of Police (Ret) for Ventura County Sheriff with 38 years of law enforcement and emergency operations management experience including numerous mass casualty disasters, airplane and commercial airline crashes, active shooters, mass shootings, homicides, earthquakes, floods, landslide fatalities, and train derailments. Law Branch management, part of the Statton schedule incident command system, on the Thomas Fire (the largest fire in California to as of 2017) emergency evacuation, and similar roles for the Woosley Fire, Spring Fire, Day Fire, Simi Fire, and numerous 100-acre to 70,000 acre fires also requiring large scale evacuations.

Todd Harms

Retired Fire Chief for Sacramento Metropolitan Fire District. In 2016, Harms was appointed as the 5th Fire Chief for the Sacramento Metropolitan Fire District. The Sacramento Metropolitan Fire District, "Metro Fire," serves a population of over 720,000 covering 359 square mile service area. Metro Fire is the 7th largest fire agency in the State of California with a current budget of \$290 million. From 2017 to 2021, Metro Fire supported nine of the ten largest wildland fires

in California history. Due to the magnitude of these incidents, unprecedented resources were required. Metro Fire sent personnel including firefighters, command officers, and specialty personnel in addition to fire apparatus and air support. Harms was chair of the Sacramento County Fire Chief Association in 2017 and 2021 and the California Fire Chief Association Metro Fire Chief Section from 2020 to 2022. Harms was also a member of the Emergency Medical Services Authority advisory council and the California Homeland Security Committee. He holds a Secret-level clearance through the FBI. During his time at Metro Fire a Community Risk assessment funded by Assistance to Firefighters Fire Prevention and Safety Grant program was completed. Harms was a Public Safety lead for the Cap-to-Cap Program, for the Sacramento Metro Chamber. A delegation of hundreds of area officials and business leaders who travel to Washington, D.C., and meet with federal representatives. The Capitol-to-Capitol program is meant to secure funding and resources for high-priority projects in the region and raise local concerns to officials at the national level. Harms was a member of the Phoenix Fire Department in Phoenix, Arizona for 30 years prior to his position with Metro Fire.

Garrett Kim

Garrett Kim has over 20 years of experience establishing, leading, training, educating, and testing off/for various health and safety programs and projects, including serving as the Hawai'i County's COVID-19 Response Lead; Training, Education and Testing efforts for Hawai'i County's CoVID-19 response March – December 2020; Firefighter Cancer Support Network 2012 – Present; State Director for Hawai'i Region of the FCSN; FireGround Survival Program Coordinator 2013 – Present; Applied for and was awarded an AFG grant to fund training and equipment to create HFD's Fire Ground Survival program; Planned and delivered the largest fire-based training in the history of the department; HFD Fire Behavior Lead Instructor 2012 -Present; Teaching Science based fire dynamics, fire service strategies and tactics; Special Operations Chief, overseeing HFD's Rescue, HazMat and Ocean Safety Programs 2018-2020; Wellness Fitness Program Coordinator 2008 – Present; Applied for and was awarded a half-million

continued

6.14 FSRI Research Team Biographies

dollar grant to fund HFD's Wellness- Fitness Program. Developed and oversees all aspects of the program; One of 15 FIT2THRIVE Master instructors for the IAFF F2T program, delivering industry leading training in the United States and Canada 2013 – Present.

Timothy Martin

Timothy "T.J." Martin graduated from Northern Arizona University with a degree in Criminal Justice studies in 1982. He joined the Phoenix Police Department and graduated from the Police Academy in December of that year. During a 35-year career he worked a variety of assignments at various ranks starting in Patrol. As a Sergeant he worked in Patrol, Organized Crime and Gang Enforcement. After being promoted to Lieutenant his assignments included Patrol, Patrol Administration, and the Homeland Defense Bureau. Upon being promoted to Commander, he worked in the Homeland Defense Bureau which he developed in coordination with the Phoenix Fire Department, City Emergency Managers Office, and the City's Public Health Manager. Martin also Commanded a Patrol Precinct, the Tactical Services Bureau, the Drug Enforcement Bureau, and the City Manager's Office. As an Assistant Police Chief, Martin oversaw the Strategic and Tactical Services Bureau. Martin received various awards over his career to include the Nobility of Policing Award and the Distinguished Service Award. During his career he achieved a certification as a Certified Public Manager from Arizona State University and was a General Instructor. Martin was in charge of the Emergency Operations Center in unified command with the Phoenix Fire Department for Super Bowl XLIX in 2015 and the NCAA Final Four basketball tournament in 2017.

Kevin Roche

Kevin Roche is a FACETS partner. He retired in 2014 as Assistant to the Fire Chief for the Phoenix Fire Department in Arizona. Roche has over 40 years of fire service management and consulting experience. Roche has experience as a leader and member of a number of management consulting projects in large fire departments. During his career in Phoenix, Kevin managed the fire department's planning, fire prevention, and logistics operations. Kevin earned a B.S. degree in

Fire Protection and Safety Engineering Technology from Oklahoma State University and a Master's degree in Political Science with a Certificate in Public Administration from the University of Florida.

Elizabeth Pickett

Elizabeth Pickett is Co-Executive Director of Hawaii Wildfire Management Organization. Since 2008, she has worked with staff and partners across Hawaii and the Western Pacific to lead and implement multi-partner wildfire mitigation, education, and planning projects. She is a Co-PI of the Pacific Fire Exchange science communication project, co-led by University of Hawaii, and serves as Vice Chair of the Big Island Wildfire Coordinating Group. Elizabeth has developed the majority of Hawaii's Community Wildfire Protection Plans, and serves as director of HWMO's technical, mitigation, and collaborative action programs. Pickett completed her undergraduate degree at UC Berkeley and a Masters of Environmental Science at Yale School of Forestry and Environmental Studies.

Jessica Pickett

Jessica Pickett has worked in settings from the firehouse to the White House. She is a FACETS associate, founder/CEO of RPM Solutions Group, Inc., and also serves as executive director for the Fire Industry Education Resource Organization (F.I.E.R.O.). Pickett was a deputy emergency manager for the Montgomery County (PA) Department of Public Safety where she coordinated public health initiatives and training for EMS, fire, and law enforcement agencies serving a population of over 820,000 residents. She participated in multiple EOC activations, developed plans/exercises, and was a member of several county- and state-level EMS and 911 dispatch-related committees/initiatives. Prior to joining MCDPS, Pickett was a decorated all-hazards fire/paramedic lieutenant with the Fairfax County (VA) Fire & Rescue Department, a Technical Information Specialist for US&R VATF1, a Fire Rescue Academy instructor, and an active member of IAFF Local 2068 where she served as Chair of the EMS Committee. Jessica graduated with honors from George Washington University (Environmental Science/Biology), was awarded a Marshall Scholarship for study at Oxford University

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6.14 FSRI Research Team Biographies

University (Human Sciences) and has completed graduate-level coursework in public health/biostatistics/epidemiology at Drexel University.

Adam Thiel

Adam Thiel co-founded FACETS Consulting in 2006. His public service career spans 33 years, across five states (MD, NC, VA, AZ, and PA), as a city/county manager fire chief, emergency manager, state-level deputy cabinet secretary, state agency head, company officer, fire and emergency services instructor, incident commander, hazardous materials team leader, paramedic, technical rescuer, structural/wildland firefighter, swiftwater rescuer, and rescue SCUBA diver. Thiel has directly participated in planning, response, and recovery efforts for multiple Presidentially-declared disasters and National Special Security Events (NSSEs),

including the 9/11 tragedy, hurricanes, tropical storms, floods, an earthquake, major blizzards, pandemics, and political/sporting events. He is an Eisenhower USA fellow, an Aspen Institute health innovation fellow, and a Leadership Philadelphia alumnus. A lifelong learner, Thiel has attended the University of Pennsylvania, the London School of Economics and Political Science, Arizona State University, George Mason University, the University of Maryland Global Campus, and the University of North Carolina at Chapel Hill; he is an adjunct faculty member at Georgetown University and George Mason University.

GLOSSARY

7.0 Glossary

TERM	DEFINITION
1015	Firefighter mayday signal
Central	911 Center
Conflagration	An extensive fire which destroys a great deal of land or property.
Ember	A small piece of burning or glowing coal or wood
Egress	Path of travel or means of exiting
El Niño	Long-term weather events that greatly exacerbate dry/wet season patterns, often increasing rainfall at the start of the event followed by severe, region-wide drought
Gated wye	A type of firefighting hose valve with gateable valves on each outlet, which gives the firefighter maximum control over the water flow
Handline	A firefighting hose that is operated and maneuvered by firefighters (usually a 1 3/4" in diameter)
Headloss	The pressure, or energy lost by water flowing in a pipe or channel as a result of turbulence caused by the velocity of the flowing water and the roughness of the pipe
Ho'oilō	Native Hawaiian for winter season
Kau	Native Hawaiian for summer season
Kaua'ula winds	A strong wind from the mountains, occasioned by the breaking over of the trade winds; often destructive at Lahaina
Ku'ialua fire	See "Lahaina PM fire" in the glossary
Lahaina AM fire	Fire that occurred in Lahaina August 8, 2023 between 06:34 and 14:17 HST.

TERM	DEFINITION
Lahaina PM fire	Fire that occurred in Lahaina on August 8—9, 2023, between 14:55 and 06:00 HST. Also referred to as the Ku'ialua fire in some dispatch reports
Makai	Directional queue meaning "toward the ocean"
Maui Nui	The islands that make up Maui County: Maui, Moloka'i, Lāna'i, and Kaho'olawe (and the islet of Molokini)
Mauka	Directional queue meaning "toward the mountain"
Med Comm	Emergency medical services for American Medical Response
Orographic effect	Also known as the "rain shadow" effect, this term refers to the drier southern and western sides of Maui caused by the mountain shielding of those leeward sides
Red Flag Warning	Used to warn of an impending or occurring Red Flag event. Its issuance denotes a high degree of confidence that weather and fuel conditions consistent with Red Flag event criteria are occurring or will occur in 48 hours or less
WebEOC	Portal for resource tracking and incident communication that is maintained/monitored by HI-EMA and available to all county-level emergency management agencies across the State of Hawai'i
Wildland Urban Interface	The wildland–urban interface is a zone of transition between wilderness and land developed by human activity—an area where a built environment meets or intermingles with a natural environment

GLOSSARY

8.0 Acronyms and Abbreviations

ACRONYM	MEANING	ACRONYM	MEANING
AAR	After Action Report	DLNR-DOFAW	State Department of Land and Natural Resources- Division of Forestry and Wildlife
AG	Hawai'i Attorney General	DOAG	Hawai'i Department of the Attorney General
ALS	Advanced Life Support	DOFAW	Hawai'i Division of Forestry and Wildlife
AMR	American Medical Response	DOI	United States Department of Interior
ARFF	Aircraft Rescue and Firefighting	EAS	Emergency Alert System
ATF	Bureau of Alcohol, Tobacco, Firearms and Explosives	EMC	Emergency Management Center
AVL	Automatic Vehicle Location	EMS	Emergency Medical Services
CAD	Computer Aided Dispatch	EMT	Emergency Medical Technician
CAP	Civil Air Patrol	EOC	Maui County Emergency Operations Center
CAT	Crisis Action Team	ERT	Emergency Response Teams
CERT	Community Emergency Response Team	ETA	Estimated Time of Arrival
CGSB	Coast Guard Honolulu Small Boat	EVOC	Emergency Vehicle Operations Course
Corp Counsel	Maui County Department of Corporation Counsel	FEMA	Federal Emergency Management Agency
CPR	Cardiopulmonary Resuscitation	FMAG	Fire Management Assistance Grant
CRA	Community Risk Assessment	FSRI	Fire Safety Research Institute
DLNR	Department of Land and Natural Resources		

ACRONYM	MEANING	ACRONYM	MEANING
GPS	Global Positioning System	IMT	Incident Management Team, HI-EMA
HAWAS	Hawai'i Warning System	IPAWS	Integrated Public Alert and Warning System
HC&S	Hawaiian Commercial & Sugar Company	JOC	Joint Operations Center
HECO	Hawaiian Electric Company Although Maui Electric and Hawai'i Electric Light brands were formally changed to Hawaiian Electric, the acronyms "HECO" and "MECO" are still used locally to refer to this organization	KBDI	Keetch-Byram Drought Index
HFO	Honolulu Field Office, National Weather Service	LG	Lieutenant Governor
HIANG	Hawai'i Air National Guard	LPG	Liquid Propane Gas
HIARNG	Hawai'i Army National Guard	MDD	Major Disaster Declaration
HI-EMA	Hawai'i Emergency Management Agency	MDF	State's Major Disaster Fund
HIG	Hawai'i Institute for Geophysics	MECO	Hawaiian Electric Company Although Maui Electric and Hawai'i Electric Light brands were formally changed to Hawaiian Electric, the acronyms "HECO" and "MECO" are still
HING	Hawai'i National Guard	MEMA	Maui Emergency Management Agency
HWMO	Hawai'i Wildfire Management Organization	MFD	Maui Fire Department
ICC	International Code Council	MG	Major General
IDLH	Immediately Dangerous to Life and Health	MG	Million Gallons
		MGD	Million Gallons Per Day
		MPD	Maui Police Department

GLOSSARY

8.0 Acronyms and Abbreviations

ACRONYM	MEANING	ACRONYM	MEANING
NOAA	National Oceanic and Atmospheric Administration	SESF	State Emergency Support Function
NRT	National Response Team	SITREP	Situation Report
NWS	United States National Weather Service	SOC	Standards of Cover
PA	Public Address	SRV	Special response paramedic unit
PAR	Personnel Accountability Report	SWP	State Warning Point, a state emergency communications center operated by HI-EMA and staffed 24 hours, 7 days a week
PFX	Pacific Fire Exchange	TAG	The Adjutant General
PHNL	Honolulu International Airport	TD	Technical Discussions
PIO	Public Information Officer	UHM-CTAHR	University of Hawai'i at Mānoa College of Tropical Agricultural and Human Resources
POV	Privately-owned Vehicle	UL	Underwriters Laboratories
RAWS	Remote Automatic Weather Stations	ULRI	UL Research Institutes
RBM	Response Boat - Medium	USAR	Urban Search and Rescue
RFA	Request for Assistance	USCG	United States Coast Guard
RH	Relative Humidity	USDA	United States Department of Agriculture
SAAO	State Aviation Action Officer	VTC	Video Teleconference
SAR	Search and Rescue	WAS	Weather Alert System
SCBA	Self-Contained Breathing Apparatus		
SEOC	State Emergency Operations Center		

ACRONYM	MEANING
WEA	Wireless Emergency Alert
WebEOC	Data management system used to manage EOC staffing and operations
WTP	Water Treatment Plant
WUI	Wildland Urban Interface (see Glossary)

As this report deals with topics related to Hawaiian culture, geography, environment, and language, FSRI chose to include Hawaiian diacritical marks, the 'okina (‘) and kahakō (macron) over vowels, throughout this report when writing Hawaiian words. These markings are essential features of modern, written Hawaiian language, serving to represent the proper pronunciation and meaning. While we have made our best effort to use these marks properly, we acknowledge there may be unintentional errors. We did not include diacritical markings where we were unable to identify the proper spelling of a particular Hawaiian word (e.g., Aa Street) or in instances where the information is from a third party's direct record (e.g., social media posts). By including these marks, we aim to honor the Hawaiian language and show respect for its linguistic traditions — and for the people of Maui.

Lahaina Fire Comprehensive Timeline Report



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