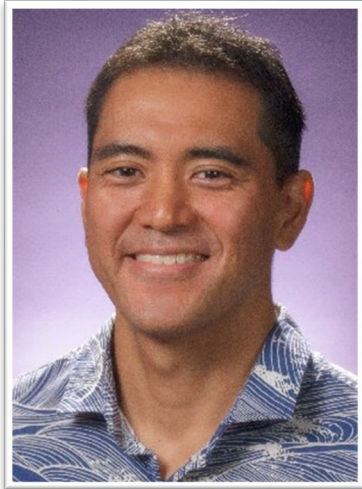


Public Safety Power Shutoff (PSPS), Health, and Emergency Management



Kurt Tsue
Hawaiian Electric
Company



Dr. Curtis Toma
Hawaii Department of
Human Services
MedQuest Division



Bryan Mick
Hawaii Department of
Health
Disability and
Communications Access
Board (DCAB)



Dr. Kevin Clarke
CDC
Hawaii Department of
Health
Office of Public Health
Preparedness



Hawaiian
Electric

Wildfire Safety Strategy – Public Safety Power Shutoff (PSPS) Program

Hawai'i State Department of Health
Climate Change and Health Conference
October 24, 2024

Wildfire Safety Measures

Proactively inspecting equipment in high risk areas by ground, drone or helicopter.

Blocking reclosing of circuits in wildfire risk areas.

Vegetation and hazard tree management.

Converting horizontal construction to vertical construction to reduce risk of conductors making contact with each other.

Future community resource centers: intended to support the communities with information and other resources during PSPS events.

More weather stations and installation of video cameras provide near real time situational awareness of fire hazards.

Undergrounding power lines in strategic at-risk areas.

System hardening: more resilient poles, advanced sensors, larger conductors, and fire-safe fuses.

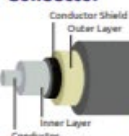
Installing stronger fire resistant wooden poles that are built to withstand higher wind speeds.

Hawaiian Electric's partners in planning: first responders, emergency management agencies, government, military, communities.

Public Safety Power Shutoff (PSPS): When high fire risk conditions pose an imminent threat to public safety, the utility may preemptively shut off power to avoid the potential of wildfires associated with electrical infrastructure. Once initiated, a PSPS would remain in place until the high fire risk weather conditions have passed. When possible, affected communities will be given advance notice of a PSPS event so they have time to prepare.

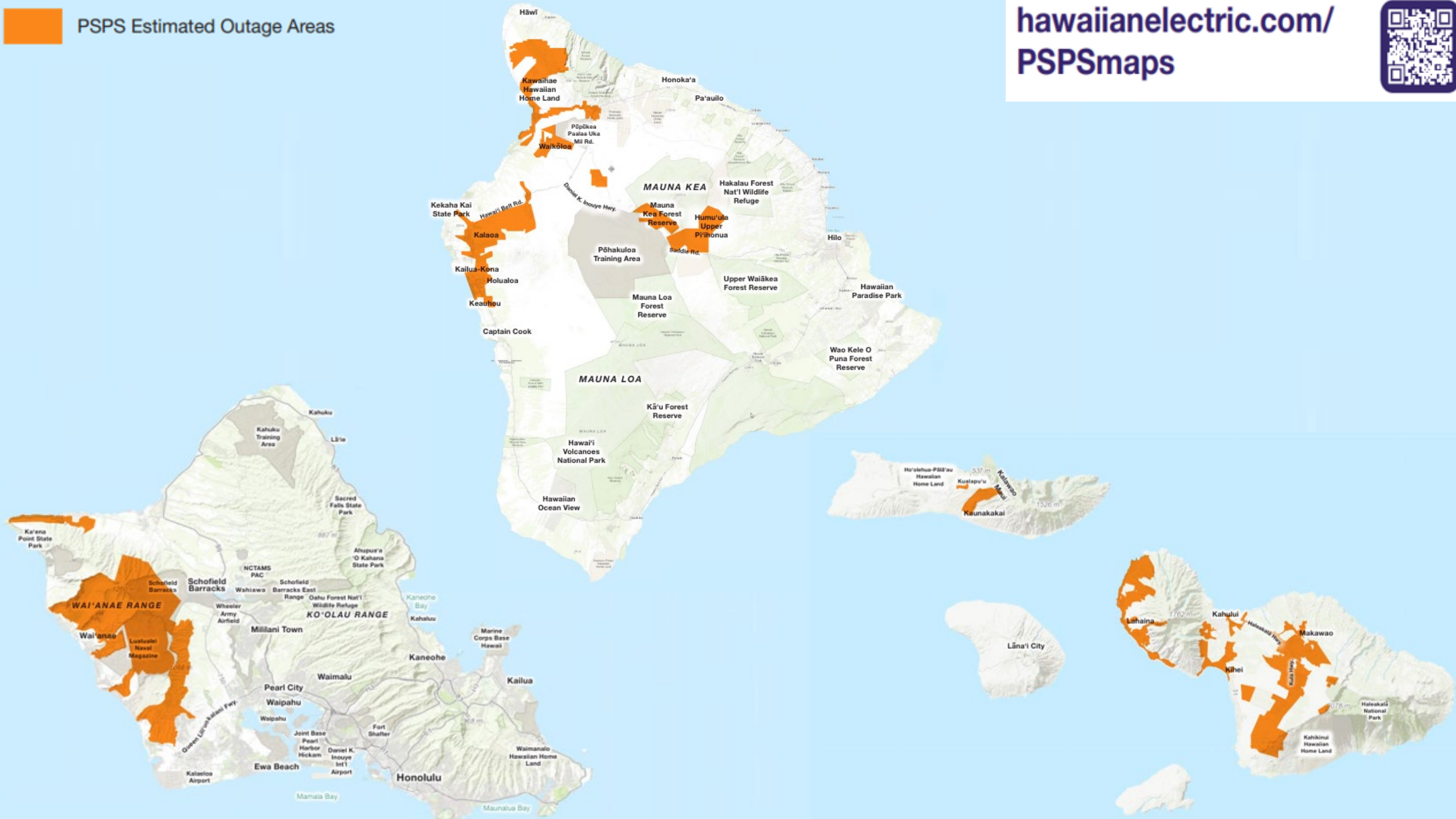
Spotters are deployed in high-risk areas during potentially hazardous conditions to alert system operators and emergency responders of any safety issues.

Replacing bare wire with protective layer conductors to prevent ignition from trees falling on lines or clashes during windy conditions.



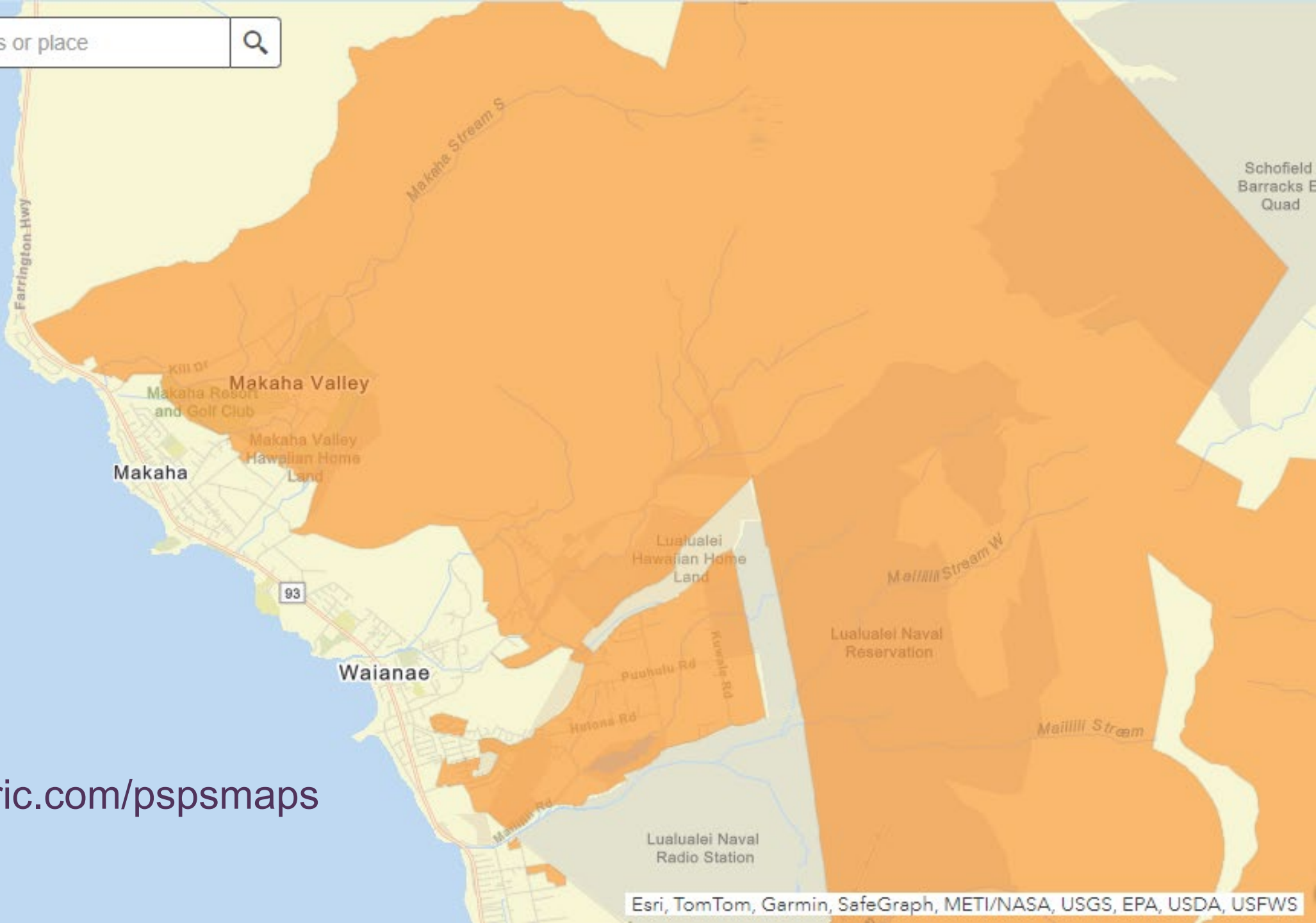
Visit our Wildfire Safety webpage to learn more →







Find address or place



hawaiianelectric.com/pspsmaps

1mi

loading...

Inputs and criteria for considering a PSPS

- ◆ Fire weather (NWS Red Flag Warning, Fire Weather Watch, High Wind Warning with low humidity, field observations and data) triggers Hawaiian Electric Incident Management Team to stand up to evaluate conditions to determine whether to call a PSPS
- ◆ **3 primary criteria for declaring PSPS**

Drought conditions
(Keetch-Byram Drought
Index – KBDI) ≥ 600

Wind gusts 45 mph
and higher





Relative humidity
below 45%

Important to know

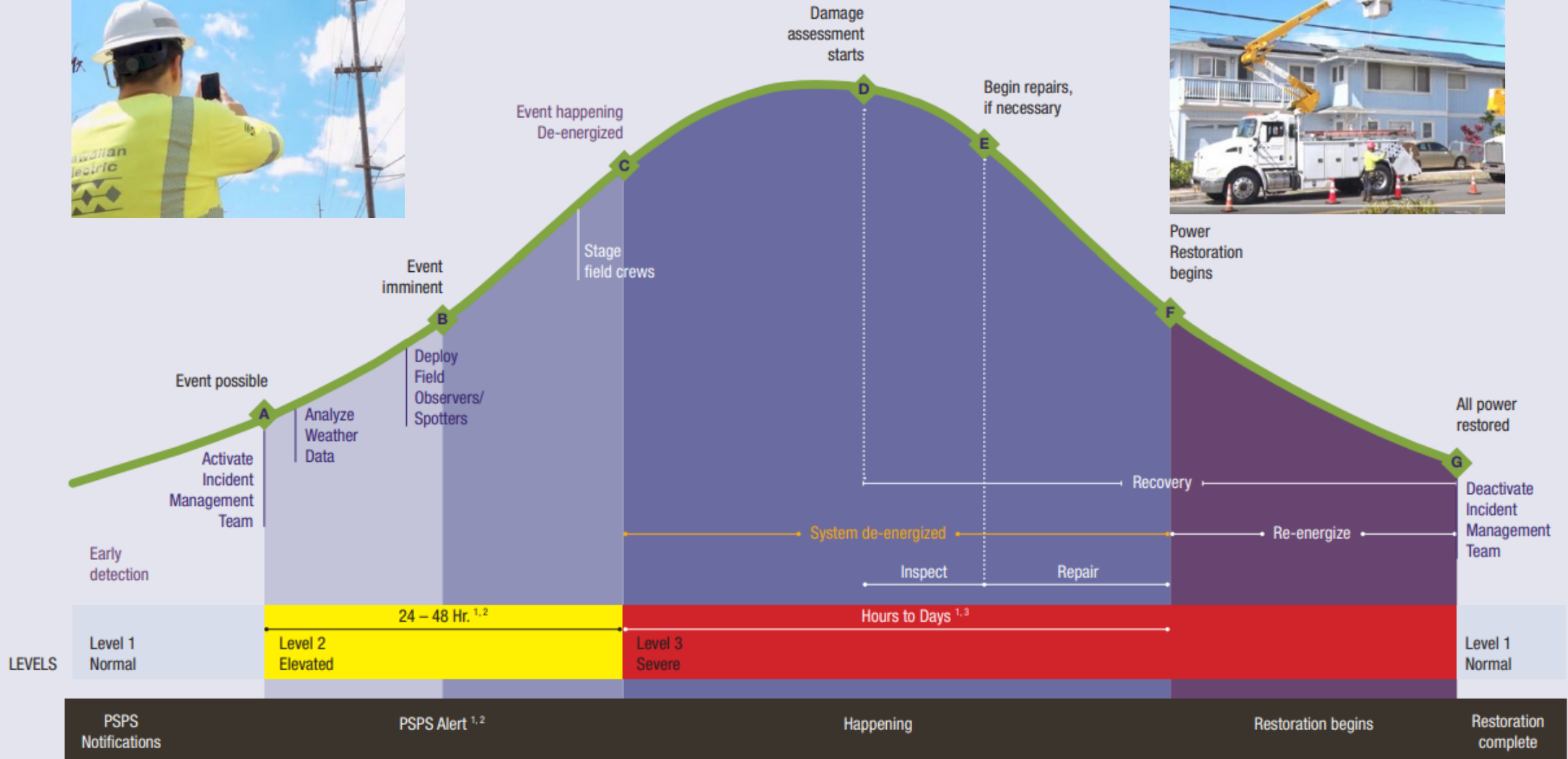
- ◆ NWS Red Flag Warning **DOES NOT** automatically trigger PSPS
- ◆ Red Flag Warnings have been issued in only 4 of the past 10 years
- ◆ Wind gusts above 45 mph are extremely rare in summer months



What happens before, during and after Public Safety Power Shutoff

	PSPS Alert	Happening	Restoration begins	Restoration complete
WHEN:	<p>24–48 hours before a possible PSPS</p> 	<p>During a PSPS</p> 	<p>When it's safe</p> 	<p>PSPS is over</p> 
WHAT:	<p>Weather data, including statements from the National Weather Service, indicate conditions for heightened wildfire risk, and we are considering a PSPS. We'll do our best to provide advance notice, but if conditions are suddenly hazardous we may have to shut off your power with little or no notice. Activate your emergency plan, keep your home survival kit handy and pay attention to notifications from Hawaiian Electric and its emergency partners.</p>	<p>Power is shut off only in high wildfire risk areas for the safety of the community. We'll do everything we can to provide regular updates across multiple media platforms during the event.</p>	<p>Once the fire weather threat has ended, crews will begin patrolling, looking for downed lines and other hazardous conditions. Crews will restore power once it's safe, which may take hours or even days depending on the location and extent of damage.</p>	<p>The immediate threat has passed and power has been restored. But we'll continue to monitor conditions so we can keep our customers and communities safe.</p>
HOW YOU MAY HEAR FROM US:	<p>Email, Text, Hawaiian Electric Mobile App, Public Safety Notification, Social Media, Hawaiian Electric Website, News Media (TV, radio, websites)</p>			

What happens during a PSPS event



1. Actual timeline dependent on severity of factors.
2. In this phase, we communicate status to all customers prior to the outage as necessary. Immediately before power is shut off, customer notifications may not be sent due to the nature of the event. Status updates will be provided afterwards.
3. In this phase Hawaiian Electric will provide status updates to customers at least every 12 hours (if available).

PSPS Website and Mobile App Launched



Billing & Payment

Electrical Services

Safety & Outages

Products & Services

Community & Education

Clean Energy Hawaii

About Us

Public Safety Power Shutoff

Starting July 1, we are launching our PSPS program to reduce the risk of wildfire. Learn more about PSPS.

Manage My Account

LOG ON

Register for Online Access



Billing & Payment Info



Start New Electric Service



View Current Rates



View/Report Power Outages

Lights out? Let us know, or check the map for updates!



FREE Mobile App Available

Get easy access to the information that you need.

Handbook For
Emergency Preparedness

Be prepared
Be informed



Scan
code



Learn how to prepare for a
Public Safety Power Shutoff

RESIDENTIAL CUSTOMERS

Hawaiian Electric

**PUBLIC SAFETY
POWER SHUT-OFF (PSPS)**

TIPS & PRECAUTIONS

BEFORE PSPS

- Turn "OFF" and unplug all sensitive equipment (e.g., computers, TVs, etc.).
- Have a contingency plan for any electrically powered equipment necessary for medical conditions, or for any medications that require refrigeration.
- Plan ahead for meals as your stove and microwave may not be available.
- Consult with your solar contractor for questions pertaining to rooftop solar and/or battery systems, and how to prepare for the temporary outage.
- Assess all safety systems and alarms with an electrical connection to determine the impact the outage may have on them.
- Invest in surge protection for your equipment.
- Never plug a portable generator's power into a household outlet because electricity may backflow into utility lines, creating a safety hazard for utility personnel. For tips on how to safely use a generator at home, visit hawaiianelectric.com/generatorsafety.
- If you have a refrigerator/freezer, take all necessary measures to protect any perishable items. Check the seals on appliance doors to ensure they are well insulated.
- Ensure that any Hawaiian Electric equipment at your premise (e.g., transformers, switchgear, meters, etc.) has level and unobstructed access. A minimum of 10 feet circumference clearance is required to ensure safety.
- Learn to manually open any electric security gates and garage doors (e.g., check openers for manual-release operation) or park your vehicle outside before the scheduled outage.
- To ensure that you receive timely notification and information about a potential PSPS outage, confirm your contact information via your online account at hawaiianelectric.com.

hawaiianelectric.com/PSPS

COMMERCIAL CUSTOMERS

Hawaiian Electric

**PUBLIC SAFETY
POWER SHUT-OFF (PSPS)**

TIPS & PRECAUTIONS

BEFORE PSPS

- Consult a licensed professional about whether you should turn off the main breaker or switch off the circuit-breaker/power supply box.
- Consult your elevator maintenance professional to determine whether to power down all elevators before power is turned off.
- Turn "OFF" and unplug all sensitive equipment (e.g., computers, TVs, etc.).
- Assess all safety systems and alarms with an electrical connection to determine the impact the outage may have on them.
- Invest in surge protection to protect your equipment.
- Please contact us at (808) 543-7777 if you plan to use backup generators, as precautions are needed to avoid electrical backfeed to the crews. Generators should never be connected directly to an outlet.
- If you have a refrigerator/freezer, take all necessary measures to protect any perishable items. Check the seals on appliance doors to ensure they are well insulated.
- Ensure that any Hawaiian Electric equipment at your premise (e.g., transformers, switchgear, etc.) has level and unobstructed access. A minimum of 10 feet circumference clearance is required to ensure safety.
- Learn to manually open any electric security gates and garage doors (e.g., check openers for manual-release operation).
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hawaiianelectric.com/PSPS

Hawaiian Electric

WHAT SHOULD I DO TO PREPARE FOR A POWER OUTAGE if I rely on an electric or battery dependent medical device?

Power outages may be serious for people who use electricity and battery dependent assistive technology and medical devices. These include customers who use respirators or ventilators, power wheelchairs, oxygen, or home dialysis machines.

Power outages may also be serious for customers who rely on medication that requires refrigeration.

- To prepare for a power outage:
 - Write down emergency phone numbers and keep them handy
 - Identify a backup location where you can go if necessary
 - Consider a safe backup power source, such as an electric generator or uninterruptible power supply
 - Regularly check that your backup or alternative power source is working properly
 - Teach family and friends how to operate your equipment and backup systems
 - Label your equipment with your name, contact information and clear instructions on how to operate the equipment
 - To the extent your device uses a rechargeable battery, maintain spare batteries and keep them fully charged.
- Here are some additional tips that may be helpful for customers:
 - If you or someone in your family uses a life-support device, contact Hawaiian Electric about signing up for the Special Medical Needs Program to receive additional advance notifications of a power outage when possible
 - If you use a ventilator, keep a hand-held resuscitation bag on hand
 - If you depend on dialysis or other medical service, check with your provider about their service plans during an emergency
 - If you use oxygen, check with your provider to determine if a reduced flow rate can be used to extend the life of the system. If possible, have backup canisters available.
 - If you use a motorized wheelchair or scooter, have a lightweight manual wheelchair available for emergency use
 - If you use a generator as a backup power source, follow all of the manufacturer's instructions to operate your generator safely

hawaiianelectric.com/psps



HAWAIIANELECTRIC.COM/PSPS



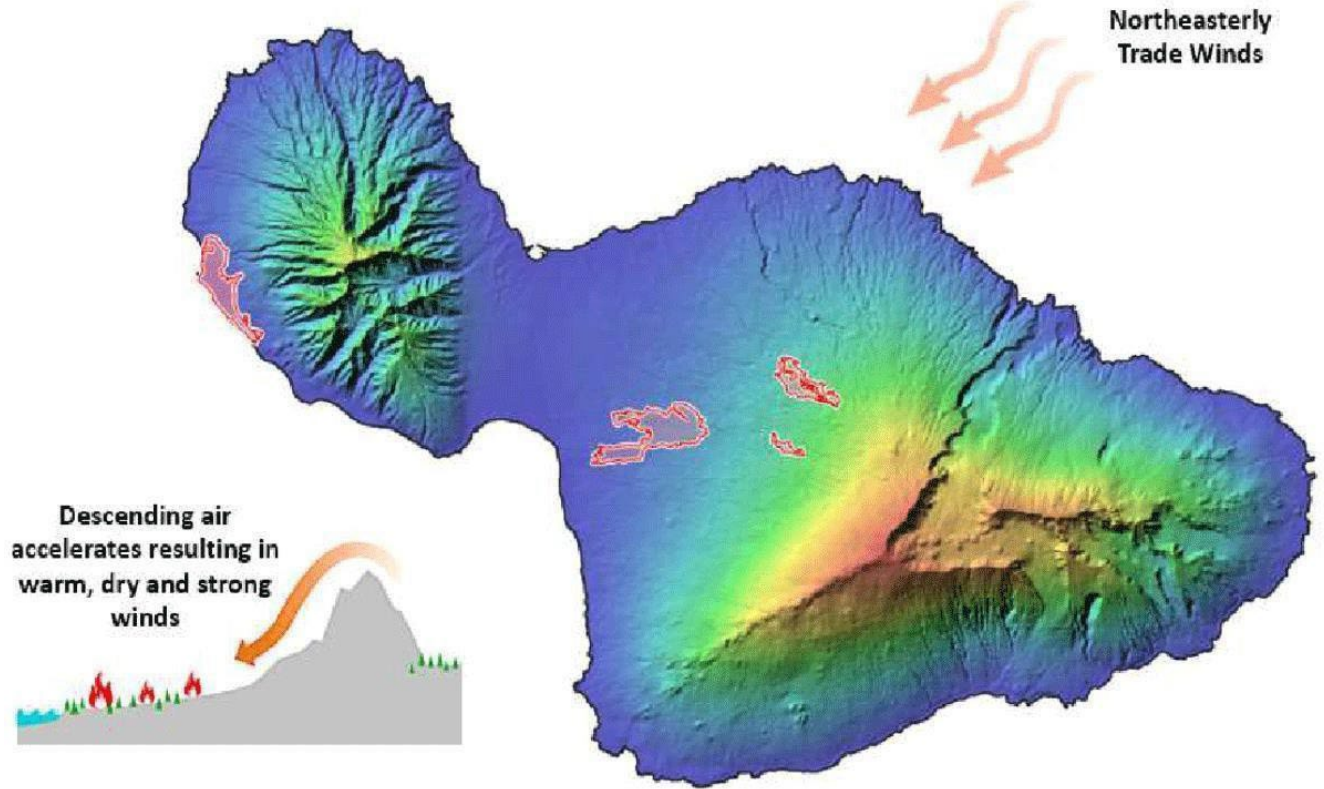
PSPPS Hotline (toll-free)
1-844-483-8666



**Hawaiian
Electric**

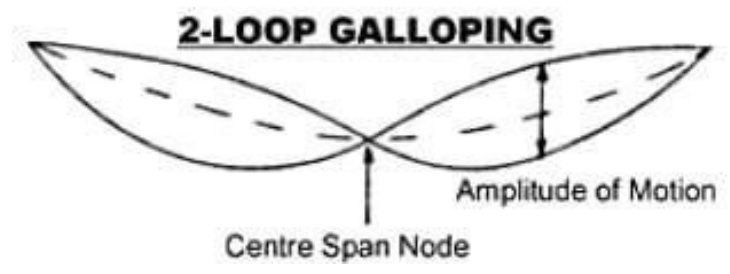
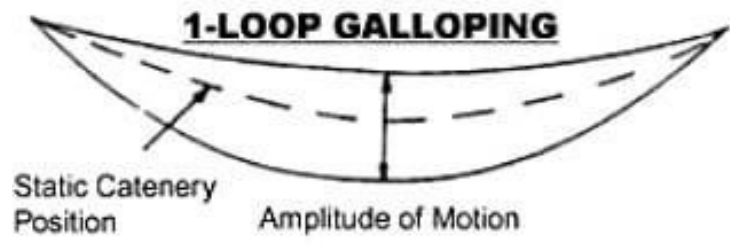
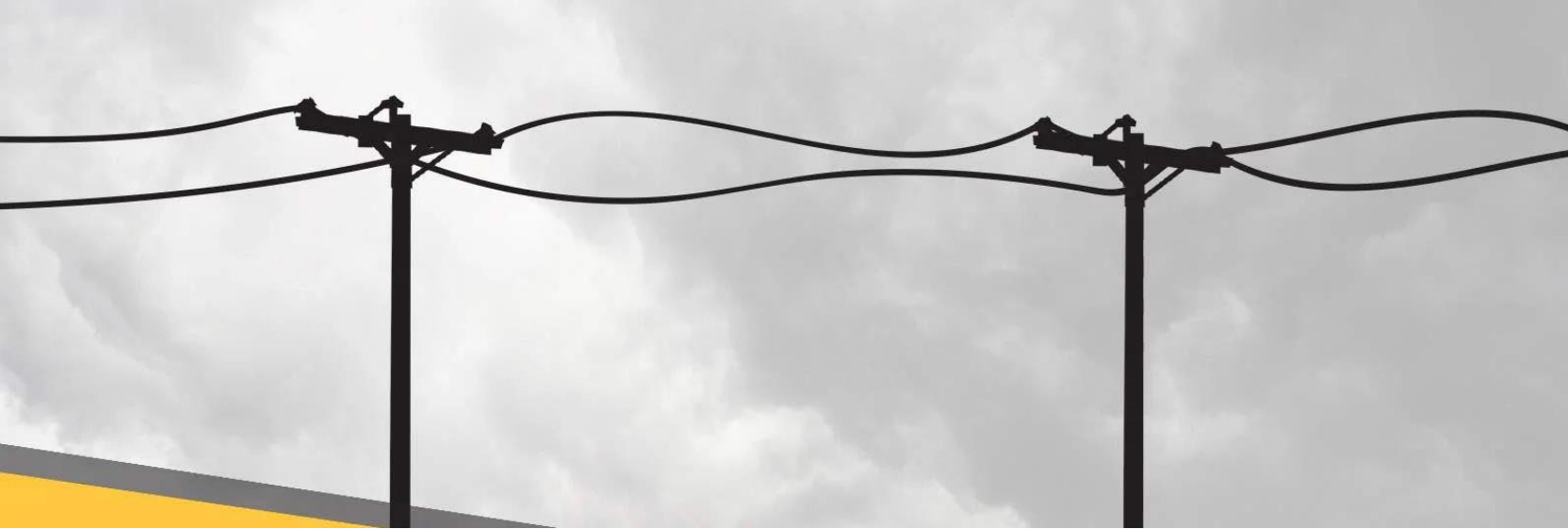
Q&A





Perfect Storm

Wind, West Maui Mountains,
Power Lines, Multiple Fires



Perfect Storm

Wind, Power Lines, Multiple Fires







Timeline: Rapid but Centuries

8/8/23: Fire

2023: Drought

2000: Sugar Passes

1960's: Birth of Hotel

1900's: Sugar is King

1860: Transition of Kings

1800's: Whaling is King

1831 Lahainaluna High

1800: Kamehameha is King

Very Rapid but also Centuries in making

Lahaina Sugar closes after 140 years

West Maui Hotels, Water

Sugar > 8000 acres above Lahaina by 1910

King Sugar Dethrones King Whaling

1820's Lahaina Whaling Capital of Pacific.

Oldest HS west of Mississippi

Lahaina capitol of Kingdom of Hawaii

For context 1860's Civil war and
President Lincoln in office.

Rich History of Lahaina runs deep for
centuries including pre western contact.
Cultural and Historical losses.



Maui Fires





Lessons Learned: Housing



Lessons Learned: Housing

- Thousands of displaced individuals
 - Children: 25 – 33 % depending on survey
 - Ethnicity: Minority is majority

- Displaced Individuals

80 %	Renter
20 %	Homeowner

ARC survey of displaced individuals



Lessons Learned: Housing

Priced Out of Paradise

Timeline: Longer than expected

5 Years Later: Paradise 1/3 pre fire pop

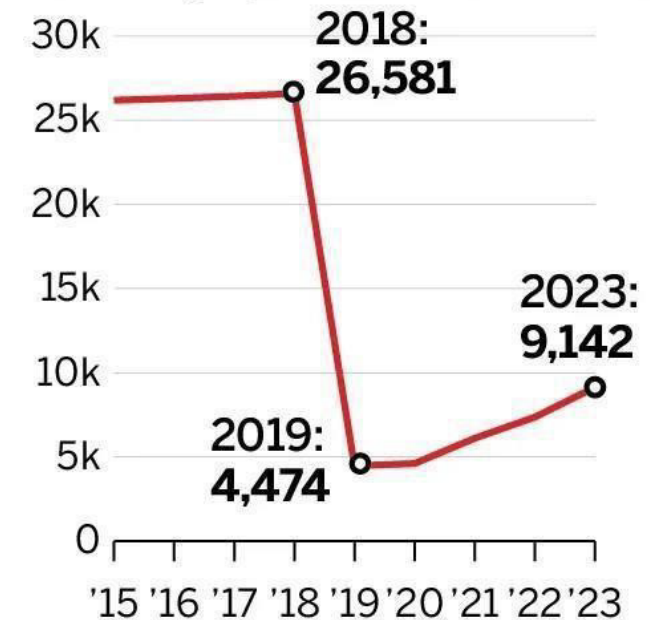
Cost to Rebuild: Higher than expected

<u>Paradise CA</u>	<u>2018</u>	<u>2023</u>
Median home price	\$ 236 K	\$440 K
Homeowners insurance	\$1.2 K/yr	\$10 K/yr

PARADISE RISING

The town's population plummeted 83% after the 2018 Camp Fire, but it has been growing since. There is optimism that the town will reach 10,000 residents by next year.

Annual population estimates



Source: Department of Finance

BAY AREA NEWS GROUP

Lahaina Displaced Residents: 80 % renters, 20 % homeowners

More than 1500 families left Maui since fire. Majority from outside of Lahaina.



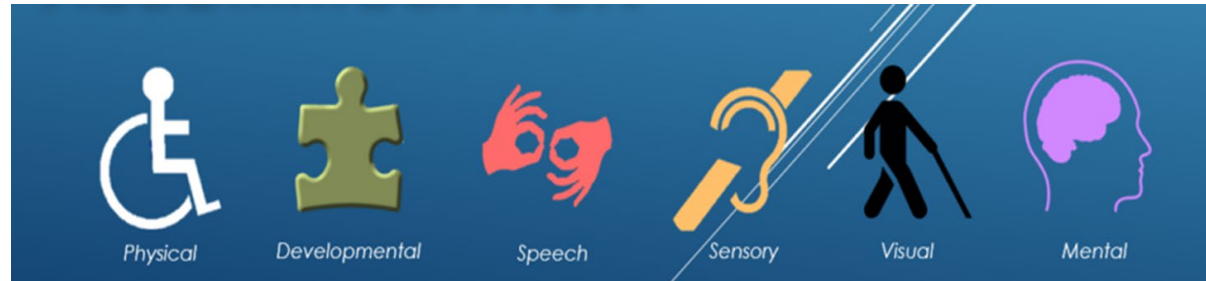


Woman helps saves toddler, grandmother, and dog from ravaging Lahaina fire



www.youtube.com/watch?v=bUynrGy2nyM

Persons with Disabilities - Emergency Preparedness



- **There is no absolute definition of the population of individuals with disabilities or special needs and therefore no homogenous population of persons with disabilities. However, most demographic studies estimate around 20 percent have a disability which would equal 291,000 Hawaii residents. About 100,000 residents have a disability parking permit, which is issued to someone with a mobility disability. For purposes of today's discussion, a few types of disabilities come to mind: (1) People who use electronic medical devices (2) People who take medication which needs to be refrigerated (3) People with mobility challenges, which may include use of electric mobility devices, (4) People on dialysis.**
- **Although the circumstances of individuals with disabilities or special health needs may be different from the general population at-large, with the assumption that their needs are 'greater,' the means to address those needs must be integrated into the overall, general plans for emergency readiness and evacuation for the general population.**

Communication Access



- **Public Education efforts such as encouraging people to develop a sheltering in place/evacuation plan, and specific documents like the Power Shut off Plan need to be available in accessible formats. These need to be communicated to the person with the disability and/or caregivers/family members.**
- **Emergency alerts and updates – must be in accessible formats and pushed out concurrently.**
- **Common concerns –is accurate captioning provided, are captions inadvertently overlaid with scrolls or crawls, are emergency alerts compatible with screen readers, are online documents accessible, are ASL interpreters provided for briefings? Any information that is provided visually should be accompanied by an audio description.**

Loss of Electrical Power



- **People who use electronic medical devices.**
 - (1) **Important to keep devices charged, ideally will have a back up source of power (extra battery, generator, etc.)**
 - (2) **If no back up power source, it may be advisable to preemptively evacuate to a location which does, including a shelter if open.**
- **People who use mobility aid devices.**
 - (1) **Important to keep devices charged, ideally will have a back up source of power (extra battery, generator, etc.)**
 - (2) **People that live in a unit accessed via an elevator need to factor that into their plans. May be advisable to preemptively evacuate to a grade level location or shelter if open. Even if they are capable of walking down the stairs, they would have to leave their mobility aid device behind.**
 - (3) **Are they able to use and have a non-electrical device (manual wheelchair, walker, etc.)**

Loss of Electrical Power



- **People who need to keep medicine refrigerated.**
 - (1) Ideally will have a back up source of power (extra battery, generator, etc.)**
 - (2) If no back up power source, it may be advisable to preemptively evacuate to a location which has backup power, including a shelter if open.**
 - (3) If a life depends on the refrigerated drug, but the medications have been at room temperature, use them only until a new supply is available.**
- **People who need dialysis.**
 - (1) Some people have a home dialysis machine. This can be run using a back up power source or in some cases, operated manually.**
 - (2) Important to communicate with the dialysis center.**
 - (3) Following an emergency diet can help reduce water and waste build up in the body.**

PSPS – Special Medical Needs Customers

PUBLIC SAFETY POWER SHUTOFF AND SPECIAL MEDICAL NEEDS CUSTOMERS

In the interest of safety, Hawaiian Electric may need to turn off power as a last line of defense to communities served by electric lines that are vulnerable to wildfires during high-risk weather conditions of warm temperatures, low humidity and strong winds. This is called a **Public Safety Power Shutoff**.



During a PSPS, **ALL** customers serviced by an affected power line will have their power shut off. This includes Special Medical Needs customers. The duration of a PSPS will depend on the duration of extreme weather conditions, which could last hours or even days.



For customers who are on life support and have medical needs, please provide us with your contact information to receive notifications in advance of a PSPS by submitting an online Medical Needs Communications Form at hawaiianelectric.com/medicalneedsalerts, or by calling 808-548-7311.



Though weather conditions can change quickly, Hawaiian Electric will aim to provide advance notifications for potentially affected customers beginning 48 hours before the power is turned off. In the future, additional outreach to Special Medical Needs customers may include extra phone calls or a door knock to ensure that you are aware that a PSPS is going to occur so you can make the necessary preparations to stay safe.

To learn more about the Public Safety Power Shutoff, visit hawaiianelectric.com/psps



Last update: July 12, 2024

Emergency Power Planning Checklist (ADA National Network)

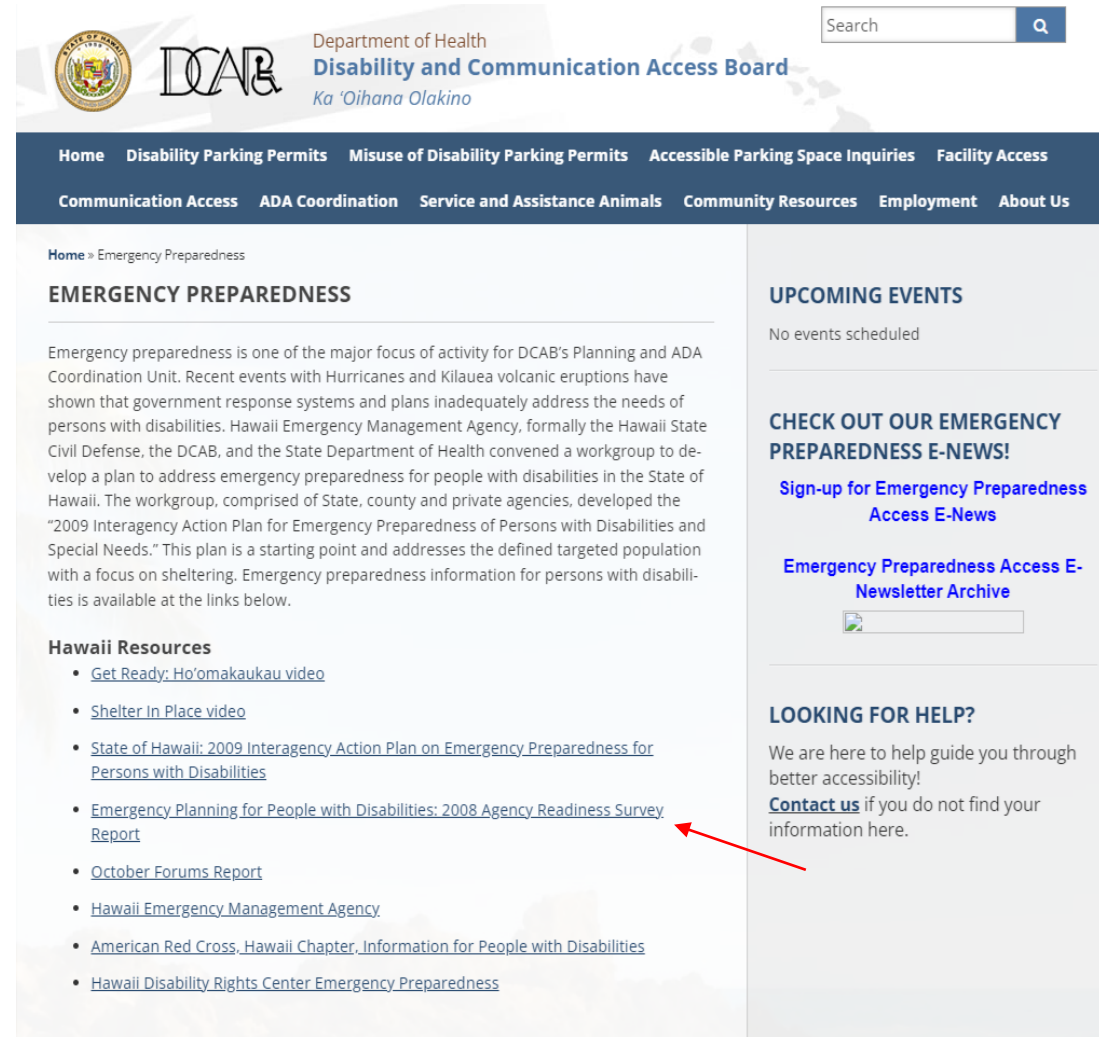


Emergency Power Planning Checklist

Date Complete	Does not Apply	Item
		Planning Basics
		Create a plan for alternative sources of power.
		Read equipment instructions and talk to equipment suppliers about your backup power options.
		Get advice from your power company regarding type of backup power you plan to use.
		Regularly check backup or alternative power equipment to ensure it will work during an emergency.
		Teach your neighbors and caregivers how to use your backup systems and operate your equipment.
		Keep a list of alternate power providers. <ul style="list-style-type: none"> • Ask your nearby police and fire departments and hospital if you could use them as a backup for your equipment power if your backup systems fail.
		Label all equipment with your name, address, and phone number. Attach simple and clear instruction cards to equipment and cover them with clear packing or mailing tape.
		Keep copies of instructions for each piece of equipment, along with serial and model numbers, in a waterproof container or in your emergency supply kits.
		Life-Support Device Users
		Contact your power and water companies about your needs for life- support devices (home dialysis, suction, breathing machines, etc.) in advance of a disaster. <ul style="list-style-type: none"> • Many utility companies keep a “priority reconnection service” list and map of the locations of power-dependent customers for use in an emergency. Ask the customer service department of your utility companies if this service is available. Note that even if you are on the “priority reconnection service” list, your power could still be out for many days following a disaster. It is vital that you have power backup options for your equipment.*
		Let your fire department know that you are dependent on life-support devices.
		All ventilator users should keep a resuscitation bag handy. The bag delivers air through a mask when squeezed.
		If you receive dialysis or other medical treatments, ask your health care provider for the plans in an emergency and where you should go for treatment if your usual clinic is not available after an emergency.

DCAB Emergency Preparedness Resource Page

<https://health.hawaii.gov/dcab/emergency/>



The screenshot shows the DCAB Emergency Preparedness Resource Page. At the top, there is a search bar and the DCAB logo. Below the logo is the text "Department of Health Disability and Communication Access Board Ka 'Oihana Olakino". A navigation menu is located below the logo, containing links for Home, Disability Parking Permits, Misuse of Disability Parking Permits, Accessible Parking Space Inquiries, Facility Access, Communication Access, ADA Coordination, Service and Assistance Animals, Community Resources, Employment, and About Us. The main content area is titled "EMERGENCY PREPAREDNESS" and contains a paragraph about emergency preparedness, a "Hawaii Resources" section with a list of links, and a "LOOKING FOR HELP?" section. A red arrow points to the link "Emergency Planning for People with Disabilities: 2008 Agency Readiness Survey Report" in the "Hawaii Resources" section.

Department of Health
Disability and Communication Access Board
Ka 'Oihana Olakino

Search

[Home](#) [Disability Parking Permits](#) [Misuse of Disability Parking Permits](#) [Accessible Parking Space Inquiries](#) [Facility Access](#)
[Communication Access](#) [ADA Coordination](#) [Service and Assistance Animals](#) [Community Resources](#) [Employment](#) [About Us](#)

[Home](#) » [Emergency Preparedness](#)

EMERGENCY PREPAREDNESS

Emergency preparedness is one of the major focus of activity for DCAB's Planning and ADA Coordination Unit. Recent events with Hurricanes and Kilauea volcanic eruptions have shown that government response systems and plans inadequately address the needs of persons with disabilities. Hawaii Emergency Management Agency, formally the Hawaii State Civil Defense, the DCAB, and the State Department of Health convened a workgroup to develop a plan to address emergency preparedness for people with disabilities in the State of Hawaii. The workgroup, comprised of State, county and private agencies, developed the "2009 Interagency Action Plan for Emergency Preparedness of Persons with Disabilities and Special Needs." This plan is a starting point and addresses the defined targeted population with a focus on sheltering. Emergency preparedness information for persons with disabilities is available at the links below.

Hawaii Resources

- [Get Ready: Ho'omakaukau video](#)
- [Shelter In Place video](#)
- [State of Hawaii: 2009 Interagency Action Plan on Emergency Preparedness for Persons with Disabilities](#)
- [Emergency Planning for People with Disabilities: 2008 Agency Readiness Survey Report](#)
- [October Forums Report](#)
- [Hawaii Emergency Management Agency](#)
- [American Red Cross Hawaii Chapter, Information for People with Disabilities](#)
- [Hawaii Disability Rights Center Emergency Preparedness](#)

UPCOMING EVENTS

No events scheduled

CHECK OUT OUR EMERGENCY PREPAREDNESS E-NEWS!

[Sign-up for Emergency Preparedness Access E-News](#)

[Emergency Preparedness Access E-Newsletter Archive](#)

LOOKING FOR HELP?

We are here to help guide you through better accessibility!
[Contact us](#) if you do not find your information here.