

Fire Prevention and Mitigation

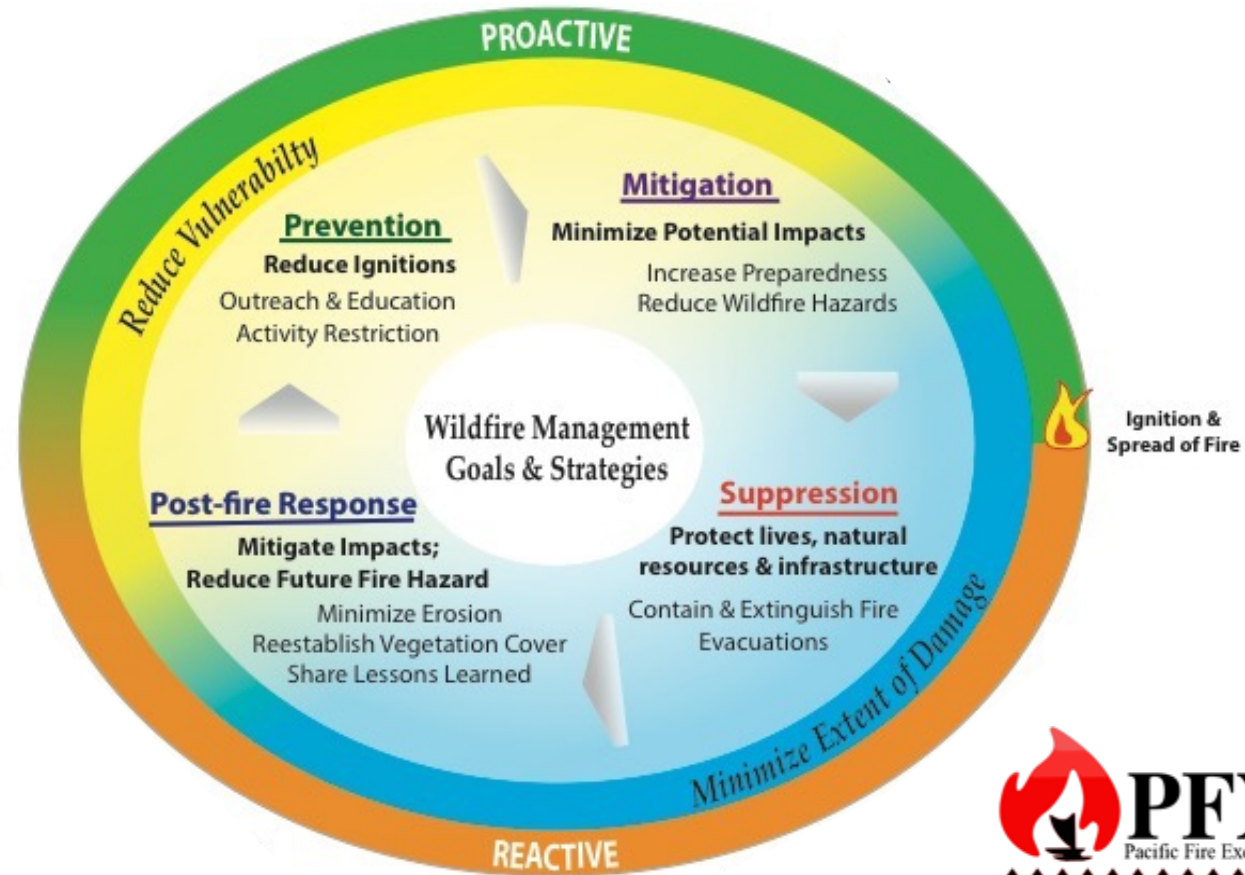


Clay Trauernicht, PhD
Extension Specialist, Wildland Fire
trauerni@hawaii.edu



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Fire Management

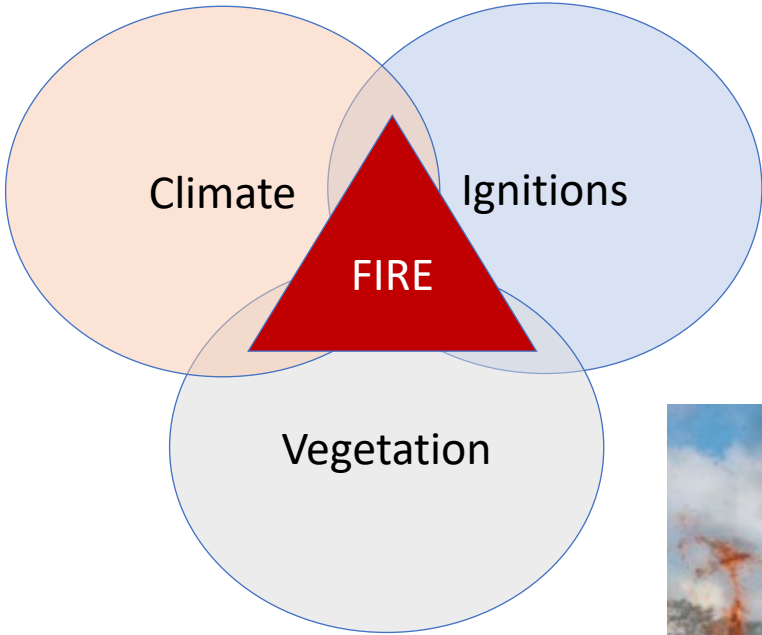


Values at Risk



What influences fire in Hawaii and what can we change?

Heavy rainfall and drought



Human-caused ignitions



Grassland/savanna expansion

Resources: HWMO homeowner guides



DROUGHT
--BE ALERT

- Dry conditions significantly increase wildfire risk
- Wildfires are a frequent, year-round occurrence
- Nearly all wildfires are started by humans
- Drought during past El Niños led to both windward and leeward side fires



- HELP DO YOUR PART**
-  Clear vegetation 10 feet and water nearby, and
 -  Be sure machinery (chainsaws, vehicles) have operating fuel
 -  Heat from vehicle exhaust areas that are paved or
 -  Fireworks are a common cause of fire and enjoy public fireworks

Avoid these activities when:

This message brought to you by:

- Hawaii Wildfire Management Organization
- University of Hawaii CTAHR Cooperative Extension
- Hawaii Department of Land and Natural Resources
- DNR Division of Forestry and Wildlife
- U.S. Fish and Wildlife Service
- NOAA National Weather Service
- Hawaii Community College
- U.S. Army Garrison-Hawaii
- Hawaii Fire Department
- Maui Fire Department
- Kauai Fire Department
- Niihau Fire Department
- Oahu Fire Department
- Waikiki Fire Department
- Waimanalo Fire Department
- Waikeolu Fire Department
- Waiheʻe Fire Department
- Waiholo Fire Department
- Waikeolu Fire Department
- Waikeolu Fire Department

Created by Hawaii Wildfire Management Organization on behalf of...



14 EASY Wildfire Preparedness Action Ideas

Harden Your Home

- Clear leaves and debris from gutters and roof
- Maintain 6 inches between siding and ground
- Cover eaves and vents with 1/8" mesh
- Clear combustible materials next to and under home and lanai
- Protect windows - clear vegetation, close them when the fire comes

Do your part and share! Submit photos and stories of your wildfire preparedness actions. #WildfireReadyHI

Lighten Your Landscape

- Create defensible space within 100 feet of home or up to boundary line
- Keep grass short
- Keep tree branches high off ground
- Clear brush and leaf piles

Plan Ahead

- Create and practice a family evacuation plan
- Include assisting neighbors with special needs in your evacuation plans
- Make sure fire vehicles and personnel can defend your home from all sides
- Make sure hydrants, pools, and water tanks are accessible
- Work with your neighbors or community association to become better prepared for wildfire. Examples: Gather a group of volunteers to clear weeds along subdivision boundaries or in communal areas, invite HWMO to offer a community Firewise workshop, or gather neighbors to discuss and address wildfire safety

<https://www.hwmo.org/get-prepared-materials>

Resources: PFX Fire Management Guides

Pre-Fire Planning Guide for Hawaii and Pacific Islands

Pacific Island Fuel Breaks and Management Guide



Search...



About ▾ Regions ▾ Events & Webinars Resources ▾ Get Involved ▾



Pacific Island Fuel Breaks & Management Strategies

ASSESS THE FIRE ENVIRONMENT



IGNITION SOURCES
Machinery/ Equipment Roads
Fuel Storage Electrical



FUEL
Tall Grass Slash Piles
Dense Vegetation



CLIMATE & WEATHER
High Winds Dry Conditions
Drought



TOPOGRAPHY
Steep Slopes Rough Terrain
Leeward & Southern Exposure

Pre-Fire Planning Guide for Hawaii and Pacific Islands

Local knowledge of resources like water, road access, and high priority landscape features (crops, endangered species) is critical to minimizing the impacts caused directly by the wildfire as well as the impacts caused by fire suppression operations. Good pre-fire plans identify valued resources, fire hazards, access, and water resources for responders and provide operational and evacuation procedures

Search "Guides" at www.PacificFireExchange.org

Fire Hazards

Where/how do they 'stack up' relative to your assets?
(and which ones to address first?)



The 'Fire Environment'

Problem fuels
Steep, inaccessible terrain
Dry, windy conditions



The Built Environment

High ignition risk
Limited access (roads/gates)
Limited water

Fire Planning



College of Tropical Agriculture
and Human Resources
University of Hawai'i at Mānoa

Forest and Natural Resource Management
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RM-20

Pre-Fire Planning Guide for Resource Managers and Landowners in Hawai'i and Pacific Islands

Clay Trauernicht¹ and Elizabeth Pickett²

¹University of Hawai'i Cooperative Extension Service, ²Hawaii Wildfire Management Organization

Search:
'Planning Guide' at
www.PacificFireExchange.org

APPENDIX: Pre-Fire Plan Template

Organize the information relevant to the site in both narrative form and, when possible, on maps.

- **Site Location:**
- **Site Access/Directions:** Identify and describe all entry/exit points
- **Site Description:** Land area, topography, vegetation types
- **Fire-Sensitive Resources and Property Assets:** Locations and details of livestock, homes, infrastructure, natural resources, etc.]
- **Procedure:** Narrative of the process to be followed in the event of a wildfire, including notification, evacuation, and suppression actions, as follows:
 - **Notification:**
 - **Fire response agency or agencies responsible for suppression in the area,** with phone numbers
 - **Emergency contacts:** list of staff, landowners, residents to be contacted in case of wildfire, with phone numbers
 - **Media response plan:** specific staff designated to interact with media, basic framework for response/communications with media, site fact sheet to be shared with media contacts
 - **Evacuation Plan:** escape route and protocol
 - **Suppression Action:**
 - **Sensitive areas to be avoided by suppression vehicles and efforts:** archaeological sites, threatened and endangered species, etc.
 - **Known hazards:** dense vegetation, flammable materials, hazardous materials storage, power/gas lines
 - **Access limitations or hazards:** wet, low-lying, narrow, steep, or rutted areas where response vehicles may be hindered
 - **Safety zones/firebreaks:** potential staging areas and existing mitigation efforts
 - **Water resources:** reservoirs, hydrants, water tanks and fittings
 - **Communication:** cellular reception issues and/or radio "dead zones" if known, radio frequencies of responding agencies
 - **Other resources and contacts:** nearby water sources, access from neighboring lands, private resources/equipment on property which may be available to firefighters, with contact info
 - **Information concerning any cooperative agreements with multiple landowners or agencies**

Fuels Reduction



Fuels Reduction

- Fire breaks and fuel breaks
 - “As wide as you can make ‘em”
 - **RULE OF THUMB – width = 3 x Vegetation height**



Fuels Reduction – existing infrastructure



Fuels Reduction – fuel breaks



Fuels Reduction - Grazing



Fuels Reduction – green firebreaks



Coastal Plants for Creating Green Breaks

Plant Hardiness for Green Firebreaks

After the destructive wildfires on Maui in 2023 and in response to a huge interest in transforming hazardous vegetation, PFX crowdsourced expert opinion on the hardiness of plants used in restoration and landscaping across Hawai'i. The purpose of this resource is to provide information and options for plant species that can replace fire-prone vegetation and thereby reduce fire risk. Known as "green strips" or "green firebreaks," zones such as these disrupt continuous fire-prone grasses, lower fire intensity, and slow the rate of wildfire spread. We identified and evaluated 30 native and non-native plants, focusing on two criteria: 1) species which are commercially available and/or could be propagated easily and 2) species which require less maintenance or care. These aspects were deemed more important than species flammability (which can be high for many weeds) because plant survival is key to ensuring green firebreaks do not become a fire hazard



Search "Green Breaks" at
www.PacificFireExchange.org

MAHALO



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