

Resiliency for Land-Use and Community Planners



Wildfire-Ready Planning Saves Lives and Homes

Why care about wildfire in the first place?

Hawai'i has a devastating wildfire problem. Each year, about **0.5% of Hawaii's total land area burns**, which is equal to or greater than the proportion burned of any other state. The average area burned per year in Hawai'i has increased **17 times over the past century**. Wildfires destroy irreplaceable natural resources, damage economic and municipal infrastructure, and threaten lives, homes, and human health.

What is wildfire-ready resiliency?

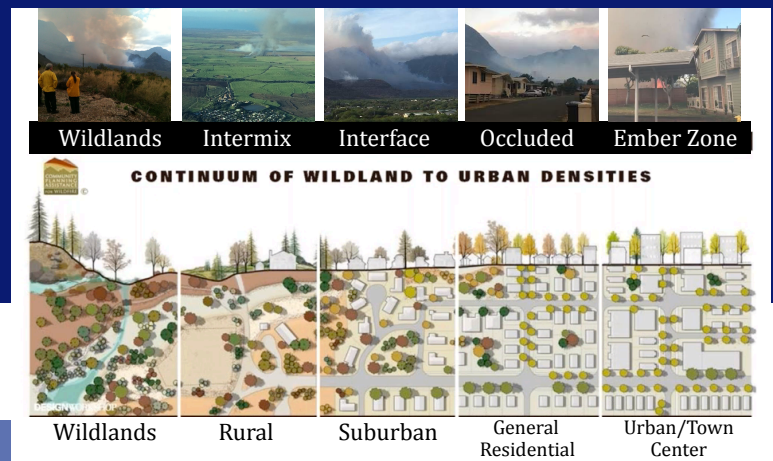
Planning ahead and integrating mitigation measures into development practices is a key function of creating a more resilient community — one that can withstand even the worst wildfires. Investment in the **long-term preparedness and safety** of a community **long before a disaster is the most cost-effective** way to reduce community risk and exposure to natural hazards like wildfire.

Why should I incorporate this into my work?

Planners are an important part of a **fire-adapted community** where informed and prepared citizens collaboratively plan and take action to safely co-exist with wildfire. You play a vital role in thinking about how space and place intersect and have tools at your disposal to influence **more comprehensive, strategic, and holistic** development decisions that can create safer communities from the start. This is a high priority since retroactive solutions such as increased ingress/egress, access, water resources, and defensible space are very expensive.

Consider Hawaii's WUI

The USDA Forest Service defines the Wildland-Urban Interface (WUI) as “the area where houses meet or intermingle with undeveloped wildland vegetation.” WUI areas are the fastest growing land use type in the contiguous U.S. and **essentially all of Hawaii's developments fall within this description**. Where there is a WUI, there is a potential for wildfire. The WUI is also a continuum that requires different strategies appropriate for varying levels of urban density. A wildland area would require better forest management practices, a town center would require stricter building codes, for example.



Keep Designs and Plans Grounded in Safety

- **Ability to integrate Comprehensive Plans with Natural Hazard Mitigation Plan and Community Wildfire Protection Plan (CWPP) priorities.** CWPPs are plans developed by local communities, large landowners, government entities, and other stakeholders to clarify and refine priorities for protection of life, property, and critical infrastructure in the WUI. Through Hawaii Wildfire Management Organization's (HWMO) coordination, much of the state is now covered by CWPPs, which are available at: hawaiiwildfire.org/hwmo-products.
- **Adopt WUI codes, standards, and ordinances** backed by the latest wildfire research that can be implemented through incremental steps and with local fire official support.



This fact sheet brought to you by:
Hawai'i Wildfire Management Organization,
 a 501(c)3 non-profit that has been providing the Hawaiian Islands
 with nationally recognized wildfire protection services since 2000.

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Things to Think About as a Planner



Focus On: The WUI



Create and analyze **WUI Spatial Assessments** that show the distribution of housing units and vegetation. You may also utilize HWMO's statewide **Wildfire Hazard Assessments** to guide planning efforts (available as PDFs on our website's "HWMO Products" page; GIS data available upon request).



Understand all elements of the **fire behavior triangle**: topography, weather, and fuel (flammable vegetation, in this case). These factors largely dictate how a fire spreads and how intensely it burns.

Focus On: Preventing and Warding Off Fire



Create **multi-purpose buffers** to protect developments along the WUI boundaries. These can include greenspaces, solar farms, gardens, parks, etc., that help a community achieve multiple goals simultaneously.



Transportation corridors are the main source of ignitions of wildfires. Consider strategies that create **wide buffers along road edges** (especially main thoroughfares) that can be maintained at a low cost.



Infrastructure/utilities can start wildfires, but they can also serve as protective features. For example, wide fuelbreaks under powerlines can help slow the spread of a fire and provide access for firefighters.

Focus On: First Response and Evacuation



Water access for firefighting is a limiting factor in most places in Hawai'i. Work with the local fire department to **co-develop strategies to improve water access** (water tanks and standpipes with proper fittings strategically placed, flat areas for "frog pond" deployment, etc.).



Create **safer access for first responders** with **more entry points** along WUI edges; **turnouts** every 200 feet; large, flat, and clear **areas for staging**; wider **turnarounds**; and clear, uniform road **signage**.



Have, at minimum, **two ways in and out** of any development to provide more evacuation options for communities during an emergency. This is one of the easier fixes that can go a long way in saving many lives.

Focus On: Neighborhood-Level Protection



Protection for homes can be built into neighborhood design by considering **structure density** (high density means higher hazard) and **setbacks** (homes should be away from property lines and slopes by at least 30 feet).



Undeveloped areas and vacant lots often go without maintenance and grow hazardous vegetation close to homes. Design lots for easy maintenance and access regardless of the development stage.

Focus On: Lot-Level Protection



Standards for **defensible space** around homes and structures can dramatically decrease ignitability. Also known as **Firewise** practices, these standards include, but are not limited to: **adequate spacing between vegetation**, vertically and horizontally; **safe storage of combustible materials**; and **general yard upkeep**.



Be ember aware! Most homes burn during wildfires from tiny embers that lodge themselves on or inside a structure. Firewise standards also include construction standards to **make structures as fire-proof as possible**, both from direct flames and ember showers. This includes attachments such as **fences** and **decks**.

Thank you for helping us protect communities from wildfire!

For more info:

Community Planning Assistance for Wildfire
planningforwildfire.org

WUI Codes and Standards Toolkit
usfa.fema.gov/wui_toolkit/wui_codes.html

Hawai'i-Related Wildfire Resources:

HawaiiWildfire.org

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