



Maui Fire Department

Community Risk Reduction Program for

Wildland Urban Interface

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Problem

Despite their concern about the impact of wildland fires, community leaders are often not aware of the many measures they can take to protect their communities from the effects of wildland fire, and need specific guidance and support in order to effect meaningful change.

Goals

1. Educate communities about how to prepare for Wildland Urban Interface (WUI) events and mitigate hazards in accordance with current fire codes.
2. Eliminate fire hazards by ensuring communities are in compliance with the fire code.
3. Provide proactive measures involving the community and the Maui Fire Department to improve mitigation and response to WUI events.

Process

1. MFD Community Risk Reduction Coordinator (CRRC) meets with the community.
 - a. Provides community leadership with the Hawaii Wildfire Management Organization (HWMO) *Ready, Set, Go! Wildland Fire Action Guide*.
 - b. Recommends that the community gets Firewise certified as referenced in the HWMO Action Guide. The HWMO will assist communities with Firewise certification.
 - c. Educates the community regarding MFD enforcement protocols and provides multiple documents to assist with compliance, including:
 - *MFD Guide to Brush Hazard Compliance*
 - Instructions for completing a Community Concern Site Plan (a site plan showing inspectors where and what to inspect in the given community). The CRRC should emphasize that identifying potential fire code violations and other hazards benefits them as well as the program. Not only does it help ensure hazards are abated but it provides valuable evidence that the program is working, thereby helping to secure funding for program's continuation.
 - (Optional) Brush Fire Preplan Site Plan for responding companies to use with their preplan. (Site plan can include: hydrants, standpipes, static water sources, swimming pools, fences, access roads, locked gates, fire breaks, LPG tanks, weather patterns, combustible piles of green waste and debris.)
2. Community Self-assessment

- a. Community leadership will provide the CRRC with their completed Community Concern Site Plan with the potential violations and owner-mediated concerns marked on the plan.
 - b. Community leadership may also, at their choosing, provide a completed Brush Fire Preplan Site Plan.
3. Code Enforcement by Fire Inspector
 - a. A fire Inspector will conduct an inspection of the entire community using the Community Concern Site Plan provided and enforce all remaining fire code violations.
 - b. Contact information for adjacent property owners may be shared (provided consent has been given) to assist in cooperatively maintaining code compliance.
 4. Preplan with In-district Company

In-district companies will conduct a preplan to address any operational concerns that they may have including access, water supply, etc. The department will make available a WUI Preplan Guide to assist.
 5. Conclusion
 - a. The Fire Prevention Bureau will complete a summary of findings and actions taken.
 - b. The Fire Prevention Bureau will track program effectiveness as described below.

Evaluating Effectiveness

Process Data:

The CRRC will collect data on the number of communities, number of properties reached, violations found, violations fixed by property owners and by fire inspectors during code enforcement. This data will be tracked using the “MFD WUI Program List” worksheet.

Impact Data: TBD

The Fire Prevention Bureau will attempt to quantify short-term impact data, such as knowledge increase, behavior change, legislation change, etc.

Outcome Data: TBD

The Fire Prevention Bureau will collect data to show the actual and desired long-term progress of the program. This effort will collect qualitative and quantitative data that shows how well the program is working in order to demonstrate whether it is worth the time, effort, and money being expended. This will include anecdotal and testimonial evidence as well.



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MFD WUI CRR program process for INSPECTOR and MFD CRR Coordinator

1. MFD CRR Coordinator meets with the community
 - a. Provide community with Hawaii Wildfire Management Organization (HWMO) “Ready, Set, Go Wildfire action guide”.
 - b. Recommend to get Firewise certified which is referenced in the HWMO action guide. HWMO will assist the communities with Firewise certification.
 - c. Educate community on MFD enforcement protocol and give them “MFD guide to brush hazard compliance” and “Community Concern Site Plan” (site plan showing inspector where and what to inspect) as well an optional “Brush Fire Preplan Site Plan” for responding companies to use with their preplan (Site plan can include: Hydrants, standpipes, static water sources, swimming pools, fences, access roads, locked gates, Fire breaks, LPG tanks, Weather patterns, combustible piles of green waste and debris.)
 - d. Explain to the community that finding violations is a good thing, not a bad thing and this information is vital for future funding and incentives for our program. All violations should be on “Community Concern Site Plan” so inspector can ensure compliance.
 - e. During this meeting the apparatus access and water supply used for fire suppression will be discussed and later confirmed with in-district companies.
2. Community self-assessment
 - a. Community will provide MFD CRR coordinator completed “Community Concern Site Plan” with the potential violations and owner mediated concerns marked on the “Community Concern Site Plan”.
 - b. They may also provide optional “Brush Fire Preplan Site Plan”.
3. Fire Inspector Code Enforcement
 - a. Fire Inspector will conduct an inspection of the entire community using the “Community Concern Site Plan” provided and enforce all remaining fire code violations.
 - b. Contact info of adjacent property owners may be shared with the community to maintain code compliance with consent of all parties. (Property owners can then communicate to become compliant and address hazards without the need for MFD involvement)
4. Preplan with in-district company
 - a. In-district companies will be given the “WUI Preplan guide” and will conduct a preplan to address any operational concerns that they may have including access, water supply, etc.
5. Conclusion
 - a. Summary of finding and actions.
 - b. Track effectiveness.
 - i. MFD CRR Coordinator inputs data into the “MFD WUI Program List” Excel worksheet.



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Community Risk Reduction Program

MFD Guide to Brush Hazard Compliance

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The following items summarize provisions of the fire code that pertain to brush abatement. These are the items that fire inspectors will look for as they enforce the fire code in an effort to reduce risk from brush fires in wildland-urban interface areas. Fire code sections are provided for reference.

16.04D.230 NFPA 1 – 2018 Section 10.13.10 amended of the Maui County Codes

10.13.10.1

Cut or uncut grass, weeds, or vines and other vegetation shall be removed when determined by the fire department to be a fire hazard.

10.13.10.2

When the fire department determines that the total removal of growth is impractical due to size or environmental factors, approved fuel breaks shall be established.

10.13.10.2.1

Persons owning, leasing, controlling, operating or maintaining buildings or structures in, upon, or adjoining hazardous fire areas, and persons owning, leasing or controlling land adjacent to such buildings or structures, shall at all times maintain an effective firebreak by **removing and clearing away flammable vegetation and combustible growth from areas within 30 feet of such buildings or structures**. Note the following exceptions and provisions:

- Single specimens of trees, ornamental shrubbery or similar plants used as ground covers need not be removed, provided that they do not form a means of rapidly transmitting fire from the native growth to any structure.
- The fire department may require a fire break of up to 100 feet because of extra hazardous conditions causing a firebreak of only 30 feet to be insufficient to provide reasonable fire safety.

- Even when a fire break greater than 30 feet is required, grass and other vegetation less than 18 inches in height above the ground need not be removed if it is necessary to stabilize the soil and prevent erosion.

Remove portions of trees which extend within 10 feet of the outlet of a chimney; maintain trees adjacent to or overhanging a building free of deadwood; and maintain the roof of a structure free of leaves, needles, or other dead vegetative growth.

10.13.10.3

Designated areas shall be cleared of combustible vegetation to establish fuel breaks.

Additional Explanation:

1. Within residential areas (where houses are bordered by other houses) — brush that is greater than 18" tall and within 30' of neighboring structures may be considered a fire hazard. This includes piles of rubbish and grass clippings.
2. Within large, vacant plots of land adjacent to structures—brush that is greater than 18" tall and within 50' of structures may be considered a fire hazard.
3. Trees – Any tree that is overhanging a roofline may be considered a fire hazard. Any tree that is growing over a property line that is not overhanging a roofline is not considered a fire hazard.
4. The fire inspector will use his/her judgment, taking into consideration fuel size, density and other factors, to determine whether a situation may be a fire hazard.

Community Concern Site Plan Instructions

1. The Fire Prevention Bureau will provide a map of your community.
2. Community representatives will do a community self-assessment by identifying any potential bush compliance violations or other areas of concern (refer to *MFD Guide to Brush Compliance* document for details).
3. Circle each area on the map individually in which a potential fire code violation or other concern is found.
4. Place a “checkmark” within the circle if the concern was mitigated by property owner before a formal fire inspection. The Fire inspector will inspect all areas of concern, including ones mediated by property owners.
5. Email your completed Community Concern Site Plan (as an attachment) to Fire.Education@co.maui.hi.us.

EXAMPLE:



Brush Fire Preplan Site Plan - Guidance

1. Obtain a map of your community from the Fire Prevention Bureau.
2. Please mark as many of the following as you can, using the corresponding letters shown in parentheses. These items are especially helpful for firefighters to be aware of as they respond to a fire threatening your community.
 - Hydrants (H)
 - Drafting hydrants (DH)
 - Standpipes (SP)
 - Homes with fire sprinklers (FS)
 - Static water sources (SW)
 - Swimming pools (SW)
 - Electrical Hazards (EH)
 - LPG Tanks (LPG)
3. Please draw in the fences, access roads and locked gates, including codes/keys and fire breaks.

EXAMPLE:

