

Wildfire

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⇔ Status	Done
■ Due	@May 9, 2024
→ Parent-task	1. Natural Disasters:
Priority	Medium
Tags	

Wildfire Preparedness

Overview:

- A wildfire is an uncontrolled fire that spreads rapidly through vegetation, forests, and wildland areas, posing significant risks to life, property, and the environment.
- Wildfires can be ignited by natural causes such as lightning strikes or human activities including campfires, discarded cigarettes, and equipment sparks.

Causes:

- Natural Ignition: Lightning strikes, volcanic activity, and spontaneous combustion can ignite wildfires in forested and remote areas.
- Human Activities: Accidental or intentional ignition sources such as campfires, fireworks, power lines, and outdoor burning can start wildfires, particularly during dry, windy conditions.

Effects:

- Property Damage: Wildfires can destroy homes, buildings, infrastructure, and personal belongings in their path, leading to extensive property damage and economic losses.
- Evacuations: Residents may be forced to evacuate their homes and communities due to wildfire threats, smoke exposure, and evacuation orders issued by authorities.
- Environmental Impact: Wildfires can cause habitat loss, soil erosion, air pollution, and water contamination, affecting wildlife, ecosystems, and natural resources.

Preparedness:

1. Defensible Space:

- Create and maintain defensible space around your home by clearing flammable vegetation, debris, and combustible materials within a specified distance from structures.
- Maintain a "lean, clean, and green" zone by removing dead vegetation, pruning trees and shrubs, and keeping grass and landscaping wellwatered and maintained.

2. Fire-resistant Building Materials:

- Use fire-resistant building materials such as non-combustible roofing, siding, and decking materials to reduce the risk of ignition and spread of wildfire to structures.
- Install ember-resistant vents, screens, and closures to prevent ember intrusion into attics, crawl spaces, and eaves during wildfire events.

3. Emergency Access:

- Ensure clear and unobstructed access for emergency vehicles and personnel to reach your property, including driveways, roads, and access points.
- Trim overhanging branches, clear brush, and maintain vegetation along roadways to facilitate safe ingress and egress during wildfire emergencies.

4. Evacuation Planning:

- Develop a household evacuation plan that includes evacuation routes, meeting points, and communication protocols in the event of a wildfire or other emergencies.
- Pack an emergency kit containing essential supplies such as water, food, medications, clothing, important documents, and pet supplies for evacuation.

5. Community Engagement:

- Participate in community wildfire preparedness initiatives, workshops, and outreach programs organized by local fire departments, emergency management agencies, and community organizations.
- Form or join neighborhood firewise groups, community emergency response teams (CERTs), or homeowners associations to collaborate on wildfire mitigation and preparedness efforts.

Building Vulnerability During Wildfires:

Ember Intrusion:

- Ember showers from wildfires can ignite flammable materials such as leaves, pine needles, and debris near structures, leading to spot fires and structure ignition.
- Embers can enter buildings through vents, gaps, and openings in roofs, walls, windows, and doors, posing a significant fire risk to interior spaces.

Radiant Heat Exposure:

- High temperatures and radiant heat from wildfires can cause windows, siding, and other building materials to ignite and combust, leading to structure damage or loss.
- Homes located within close proximity to wildfire fronts or in areas with intense radiant heat exposure are at greater risk of ignition and fire spread.

Firebrand Propagation:

 Firebrands or burning embers can be carried by wind currents and updrafts over long distances, landing on roofs, decks, and landscaping, and igniting new fires. • Embers can accumulate in gutters, on roofs, and in other vulnerable areas, posing a persistent fire risk to buildings and surrounding vegetation.

Safe Areas Within a Home:

1. Interior Rooms:

- Seek shelter in interior rooms located away from windows, exterior walls, and doors, which are more vulnerable to radiant heat, ember intrusion, and direct flame contact.
- Choose rooms with multiple exits and access points for evacuation in case of emergency.

2. Fire-resistant Structures:

- Take cover in buildings constructed with fire-resistant materials and design features such as non-combustible roofing, siding, and window assemblies.
- Position yourself in areas with minimal combustible materials and fuel sources to reduce the risk of fire spread and structure ignition.

3. Sealed Enclosures:

- Seal windows, doors, vents, and other openings with fire-resistant materials such as metal screens, shutters, or plywood panels to prevent ember intrusion and flame penetration.
- Close all doors and windows to create a barrier against radiant heat, smoke, and airborne embers during wildfire events.

4. Evacuation Routes:

- Plan and maintain clear pathways for emergency evacuation from your home, ensuring unobstructed access to driveways, roads, and escape routes.
- Follow evacuation orders and instructions from authorities, and evacuate early if directed to do so to ensure your safety and well-being.

5. Post-Wildfire Safety:

 After the wildfire subsides, assess your home for signs of structural damage, ember intrusion, and fire retardant residue before re-entering the building. Monitor for residual fire activity, smoldering debris, and hazardous conditions in the surrounding area, and follow guidance from local authorities and emergency responders regarding re-entry and recovery efforts.

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