

Wildfire Preparedness Month Part 1: How to Protect Your Home

May is Wildfire Preparedness Month. Horseshoe Bay is within a Wildland-Urban Interface (WUI), an area where wildland vegetation meets or intermingles with development, including homes and businesses. This zone is susceptible to wildfires due to the increased risk of ignition from both natural and human-caused sources, as well as the potential for fires to spread from wildland to human structures and vice versa.

Forest Service research has determined that 80% of all structures lost in a wildfire are lost due to embers. Fire embers can travel over a mile away from the head of a wind-driven wildfire! This puts homes located within the WUI at risk.

However, there are precautions homeowners can take. “Hardening a home” is a term that describes the retrofitting process that reduces a home’s risk to wildfire. It involves using non-combustible building materials and keeping the area around your home free of debris.

Roof

The roof is a large surface, capable of catching burning embers. Embers may get lodged between shingles or ignite dead vegetation or leaf litter. A roof’s surface or the edge where gutters are connected can ignite, spreading flames to the attic. To prevent this, keep combustible fuels cleared from the roof and use ignition-resistant roofing materials.

Fire ratings for roofs are classified as either Class A, B, or C or are unrated if a covering cannot meet the requirements for these classifications. Class A offers the highest fire resistance, and includes concrete or clay roof tiles, fiberglass asphalt composition shingles and metal. An example of an unrated covering is an untreated wood shake roof.

- **Recommended materials:** Metal, tile (with bird stops), or Class A shingles.

Gutters

Vinyl gutters do not resist heat like metal gutters. The primary concern is at the roof edge. There may be an opening between the roof decking and fascia board (behind the gutter). Angle flashing should be placed over this to keep embers out. Debris in gutters can ignite and fire can spread to the eave. Vinyl gutters can melt and detach and expose this area.

- **Recommended materials:** Metal gutters, gutter guards, angle flashing for edge protection.
- **Recommended actions:** Install gutter guards to keep debris from accumulating, maintain the roof where the gutter connects to make sure debris does not accumulate between the guard and roof.

Eaves

When it comes to eaves, there are typically two types: open and boxed-in (with soffit vents). During wildfires, eaves are vulnerable to embers and direct flames. The goal is to prevent embers entering the attic through vents by attaching screening. Direct flames also can spread to the eaves and ignite combustible materials. Open eaves are especially vulnerable. If using a boxed-in eave, use non-combustible materials. Angle flashing also should be used.

- **Recommended materials:** Metal, cement board, stucco.
- **Recommended actions:** Box in eaves with non-combustible material.

Exterior Walls

The exterior of a home should be resistant to radiant heat and direct flames. Vinyl siding can melt if radiant heat from fire becomes too intense. This could expose crevices in a home, allowing embers to enter. Siding exposed to direct flames can ignite. Homes are at a higher risk if they have combustible siding and are surrounded by dense vegetation.

- **Recommended materials:** Cement board, masonry, stucco.
- **Recommended actions:** Use non-combustible siding and make sure there are no crevices or holes that could potentially catch embers.

Windows

Windows are vulnerable to radiant heat and direct flames. Plants placed below a window could ignite and release heat, causing a window to break. Wooden framing can ignite and vinyl framing can melt, exposing the home's interior to fire. The best preventative maintenance is to limit vegetation near a window by creating space between plants and the home. Window screens are also vital, as they absorb and redirect radiant heat, allowing the glass to absorb less. If the glass breaks, screens may prevent embers from entering.

- **Recommended materials:** Tempered-glass or double-pane window, metal framing or aluminum coverings for wood or vinyl.
- **Recommended actions:** Install double-pane or tempered-glass windows and use metal framing; use a fiberglass or metal screen.

Vents

Vents play a vital role by supplying openings for air flow. However, they can allow embers to enter a home during a fire. Vents should be non-combustible with 1/8-inch screening to prevent them from melting and exposing the home's interior. Screening protects the home from embers. However, a 1/8-inch screen may reduce the amount of air flow or become clogged with debris. Regular maintenance is needed to keep vents clean.

- **Recommended materials:** 1/8-inch metal screen, 1/8-inch fiberglass screen.
- **Recommended actions:** Install 1/8-inch screening; clean vents to keep them free of debris, allowing them to keep embers out while allowing air flow for ventilation.

Decks and fencing

Decks and fencing are vulnerable to wildfire. Fire can ignite and spread along a fence line, ultimately spreading to the home. Once fire burns fencing, it releases embers. A deck creates the same type of embers, but most likely will produce greater radiant heat. These attachments should be built with non-combustible materials or the section adjacent to the home should be separated from them by using fire-resistant materials to create a buffer.

- **Recommended materials:** Brick/masonry, cement board, metal, composite decking material.
- **Recommended actions:** Clear vegetation from under the deck, spread gravel or other non-combustible material under the deck, screen in the bottom of the deck with metal 1/8-inch screening.

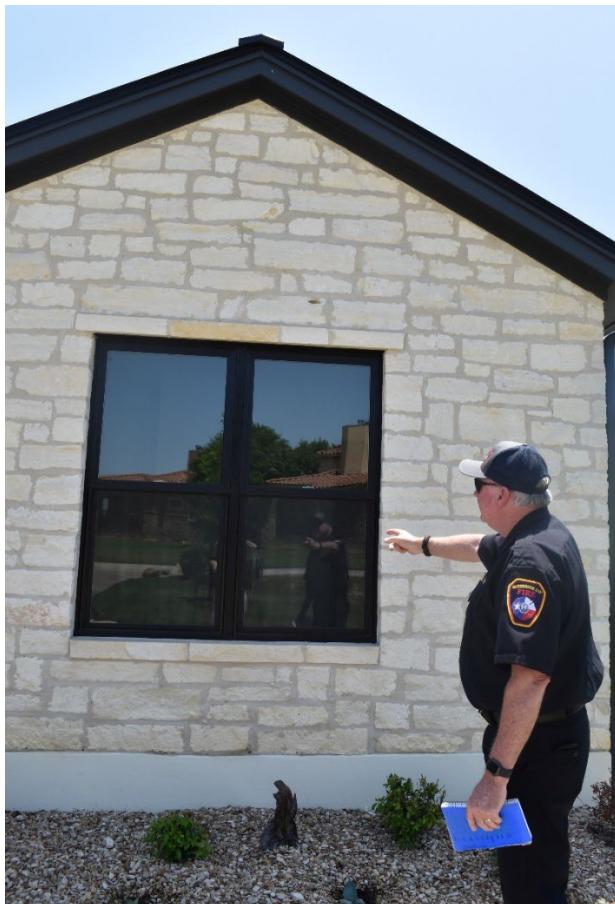
Skirting

Foundations should be enclosed with non-combustible skirting. Exposed foundations allow embers to travel underneath the home and ignite flammable material. However, the wrong type of skirting can ignite or melt, allowing embers and flames to get in.

- **Recommended materials:** Masonry, cement board, metal.

Retrofitting a home will not significantly reduce risk without creating defensible space. Defensible space combined with the use of non-combustible construction materials gives a home a better chance of surviving a wildfire. We recognize that many, if not most, residences in Horseshoe Bay are built with a high percentage of non-combustible materials. That makes hardening homes to lower the risk of wildfire much easier.

It is the mission of the Fire Department to educate the community about reducing wildfire risk through home hardening, creating defensible space, and monitoring severe fire weather. Next week, we will share information about creating defensible space around the home and firewise landscaping. To see more resources, including a home assessment form and photos of a local home with good defensible space, visit www.horseshoe-bay-tx.gov/wildfire.



This home features double-pane windows and a metal roof.



The home also has heat resistant masonry siding.