

Defensible Space Explained

How to Create a Safer Zone Around Your Home

Wildfires do not usually arrive as a single wall of flames. In most cases, homes ignite because **embers land near the structure and start small fires that spread to the building.**

Defensible space is the area around your home where vegetation, materials, and landscaping are managed to **reduce the chance that fire can reach or ignite the structure.**

Creating defensible space does not mean removing all vegetation or turning your property into bare ground. Instead, it means **strategically managing fuels so fire has less opportunity to spread to your home.**

When combined with other protective measures—such as **fire-resistant materials and rooftop sprinkler systems**—**defensible space significantly improves a home's chances of surviving a wildfire.**

Why Defensible Space Matters

Wildfires spread through three main mechanisms:

Embers

Wind-driven embers can travel **kilometres ahead of the fire front** and land on roofs, decks, and surrounding vegetation.

Radiant Heat

A nearby fire can produce intense heat that **preheats and dries materials**, making them easier to ignite.

Direct Flame Contact

If flames reach the structure or nearby attachments, the building can ignite quickly.

Defensible space reduces these risks by **limiting the available fuel around the home** and creating separation between vegetation and structures.

The Three Zones of Defensible Space

Fire agencies typically divide defensible space into **three zones**, each with a different purpose.

Zone 1: Immediate Zone (0–1.5 metres / 0–5 feet)

This is the **most critical area for wildfire protection**.

Everything close to your home should be designed to **prevent ignition from embers**.

Key recommendations

- Remove leaves, pine needles, and debris from roofs and gutters
- Keep decks, patios, and stairs free of combustible materials
- Move firewood, lumber, and stored materials away from the home
- Use non-combustible landscaping materials like rock or gravel
- Avoid shrubs and plants directly against the structure
- Keep fences and attachments from acting as a fire bridge to the house

Even small items in this zone can become ignition points if embers accumulate.

Zone 2: Intermediate Zone (1.5–10 metres / 5–30 feet)

The goal of this zone is to **reduce fire intensity near the home**.

Vegetation should be maintained so fire cannot easily spread through continuous fuels.

Key recommendations

- Space trees and shrubs so they are not touching
- Remove dead branches and dry vegetation
- Prune tree branches at least **2 metres above the ground** where possible
- Keep grass cut short during fire season
- Avoid dense clusters of shrubs
- Maintain separation between tree crowns

This spacing helps slow fire spread and reduces radiant heat reaching the home.

Zone 3: Extended Zone (10–30+ metres / 30–100 feet or more)

This zone focuses on **reducing the overall fuel load on the property**.

The goal is to prevent a large fire from building intensity as it approaches the structure.

Key recommendations

- Thin dense tree stands
- Remove dead trees and fallen branches
- Break up continuous vegetation
- Maintain access for emergency vehicles
- Clear ladder fuels (shrubs or branches that allow fire to climb from ground to tree canopy)

Managing fuels in this area can significantly reduce fire behavior before it reaches the home.

Understanding Ladder Fuels

Ladder fuels are vegetation layers that allow fire to **climb from the ground into tree canopies**.

Examples include:

- Tall grasses beneath trees
- Shrubs growing under tree branches
- Low hanging branches
- Dense brush

Removing ladder fuels helps prevent **surface fires from becoming fast-moving crown fires**.

Defensible Space and Ember Protection

Even if flames never reach a home, embers can still ignite materials nearby.

Common ember ignition points include:

- Dry leaves in gutters
- Wood decks and patios
- Mulch or bark near walls
- Stored firewood
- Vents and openings

Maintaining defensible space reduces the chance that **embers will find something to ignite near the structure**.

Defensible Space Works Best with Other Fire Protection Measures

No single strategy can eliminate wildfire risk entirely.

The most effective protection comes from **layering multiple defenses together**, including:

- FireSmart landscaping
- Fire-resistant building materials
- Regular maintenance and debris removal
- Rooftop or exterior sprinkler systems
- Water supply and emergency preparedness

These combined measures improve the ability of a home to **withstand ember exposure and nearby fire activity**.

Common Misconceptions About Defensible Space

“Clearing everything around the home is best.”

Completely clearing vegetation can increase erosion and environmental damage. The goal is **fuel management, not total removal**.

“If my home isn’t right in the forest, I’m safe.”

Embers can travel long distances. Homes in **suburban areas near grasslands, parks, or forests** can still be exposed.

“Wildfires always come as large flames.”

Many homes ignite from **small ember-caused fires near the structure**, not the main fire front.

Maintaining Defensible Space

Defensible space is not a one-time project. It requires **regular maintenance**, especially before wildfire season.

Important tasks include:

- Cleaning gutters and roofs
- Removing dead vegetation
- Trimming shrubs and trees
- Clearing fallen branches
- Keeping grass short during dry periods

Small maintenance steps throughout the year can greatly reduce wildfire risk.

Learn More About Protecting Your Home

Defensible space is one of the most effective ways to reduce wildfire risk, but it works best when combined with other protective strategies.

Homeowners may also consider:

- Ember-resistant vents
- Fire-resistant roofing materials
- Exterior sprinkler systems
- Emergency water supplies

Understanding how wildfire behaves—and preparing for it—helps homeowners **protect structures, property, and communities**.