

FACT SHEET 2 – WIND REGIONS AND CLASSIFICATIONS

CYCLONE SEROJA RECOVERY AND RESILIENCE GRANTS PROGRAM INFORMATION FOR INSURED PROPERTY OWNERS

The Resilience Grant, of up to \$20,000, helps residents impacted by Severe Tropical Cyclone Seroja to improve the resilience of their insured residential property against future cyclonic events.

This fact sheet provides information to help you understand wind classifications and the effect of cyclonic wind on buildings. It outlines the four types of works you can undertake to make your home more resilient to cyclonic winds through the Recovery and Resilience Grant Program.

What is a wind classification?

Australia is divided into four wind regions. Wind Region A experiences the least severe winds, through to Wind Region D that experiences the most severe. Most of the towns impacted by Severe Tropical Cyclone Seroja are in Wind Region B. Wind Region A and B are classified as non-cyclonic (N) and Wind Region C and D are classified as cyclonic (C).



Figure 1. Wind Regions

Source: National Construction Code Figure 3.1(A)

The design requirements for buildings varies in cyclonic and non-cyclonic areas. Each property is assigned a wind classification which is based on the region, terrain, shielding effects and topography.

For example, houses surrounded by other houses and trees in a fairly flat rural town usually have a lower wind classification than houses on a farm, on an exposed hill or at the coast.

The wind classifications in Wind Region B are typically in the range of N2-N4. The wind classification for a site must be determined by a structural engineer.

For work to be eligible under the grant program, the existing non-cyclonic (N) wind classification must be converted to a recommended cyclonic (C) wind classification due to building upgrades undertaken to meet the C classification.

Current 'N' Wind Classification	Recommended 'C' Wind Classification
N2	C1
N3	C1
N4	C2

How does wind affect houses?

Severe winds from tropical cyclones exert huge forces on buildings with wind pushing on the windward wall and applying high suction pressures on the roof.

If a sudden opening occurs, for example a window breaks or door blows in, the windward wall pressure can enter the building and potentially double the load on the roof structure and cause the ceiling and roof to fail.

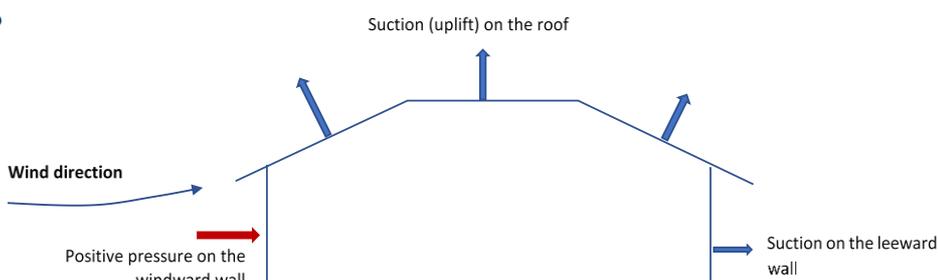


Figure 2. Cyclonic wind pressures on a fully closed house

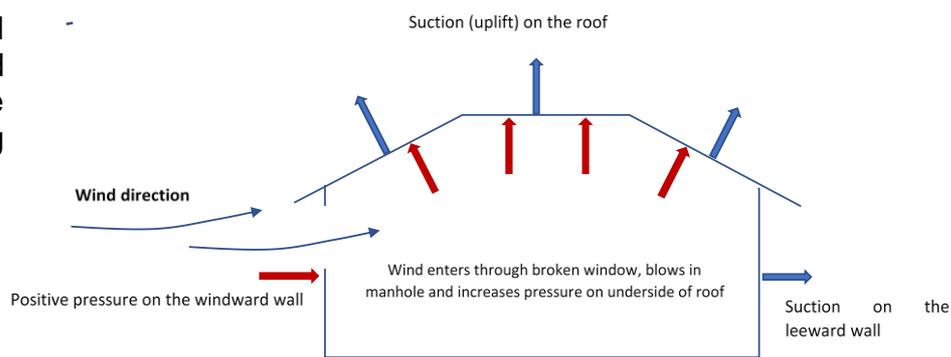


Figure 3. Cyclonic wind pressures on a house with openings

How can I make my home more resilient?

Cyclonic wind pressures can be resisted by upgrading the structural connections in the roof and walls and improving the strength of doors and windows to withstand wind and debris.

The Resilience Grant payments of up for \$20,000 help insured homeowners upgrade some parts of their homes to meet the design requirements for a cyclonic classification. The following upgrade works for homes impacted by Severe Tropical Cyclone Seroja are eligible for the Resilience Grant:

- Upgrading how the roof is tied down to reduce the risk of it lifting in severe winds.
- Replacing garage doors with wind rated garage doors that are less likely to blow in.
- Replacing external hollow core doors with solid doors and appropriate locks.
- Protecting windows from high winds and wind-borne debris to reduce the risk of breaking.

Grants Closing Date

The Recovery and Resilience Grants Program closes on 31 March 2023.

Further information

Read about the Recovery and Resilience Grants Program at <https://dfes.wa.gov.au/site/recoveryandresiliencegrants/>

Contact

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The Recovery and Resilience Grants Program is being administered by the Department of Fire and Emergency Services and jointly funded through the Commonwealth-State Disaster Recovery Funding Arrangements.