

FACT SHEET

Retaining Wall Repairs

COMMUNITY
RESILIENCE

June 2016

Background

A significant number of retaining walls in Wye River and Separation Creek were destroyed or damaged during the Christmas Day bushfire. The replacement or repair of retaining walls is important to ensure land stability. This Fact Sheet provides guidance on the identification of risks and the obligations on property owners to replace or repair retaining walls.

What is a retaining wall and why are they important?

A retaining wall is a structure erected to support an excavated or filled slope or embankment to prevent soil from collapsing, damaging property and potentially injuring people. Such structures should be of a design “fit for purpose”, be properly constructed of quality materials and be provided with adequate subsoil drainage.

A retaining wall includes any wall constructed of bricks, stone, reinforced concrete, concrete blocks, wood or concrete cribs, timber logs or any other materials designed to retain any excavation, earth fill or garden.

Retaining walls may be constructed as sleeper walls (timber or concrete), crib walls (timber or concrete), reinforced walls (concrete or shotcrete) or weight walls (boulder or mass concrete or masonry).

Many types of retaining walls and retention systems have been used in Wye River & Separation Creek over the years - including a wide range of walls of varying quality and effectiveness. Many have been constructed of treated pine timber sleepers which contributed to house loss in the fires and caused soil contamination from arsenic when burnt

What is the responsibility of land owners for retaining wall on private property?

Where retaining walls have been destroyed on private land, owners have a responsibility to repair them at the earliest opportunity. Doing so will minimise the potential for slope instability to occur.

In many cases, access to properties has been restricted since the fires due to the safety risk associated with bushfire debris and the clean-up operations underway, however the clean-up has occurred for most properties, enabling access to sites by owners to undertake repairs and stabilization works.

Council's Bushfire Recovery Building Surveyor and Geotechnical Engineer have identified damaged retaining walls on private land and have contacted owners to give directions for them to be repaired. For many sites, the degree of damage has been difficult to identify due to the presence of bushfire debris – land owners have been contacted as sites are cleaned and new hazards are identified.

Where a retaining wall hazard is identified on private land, Council is issuing Building Notices/Orders under the *Building Act 1993* to specify what needs to be repaired, and is working proactively with the owner to support them with any information or assistance they need. Grocon has been engaged by the State Government to repair those rated as a high public safety risk due to the urgency of the repairs.

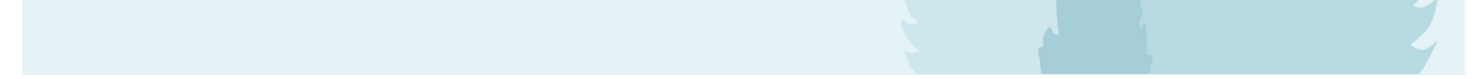
What happens if land owners do not repair burnt retaining walls within the time frame given?

Land owners will usually be given between 14 and 30 days to respond to a Building Notice/Order. If an owner does not respond appropriately in this time frame, Council will consider the need to engage a contractor to undertake the works where a risk to public safety exists.

Where Council needs to undertake works on private land, due to lack of cooperation from a land owner, it will recover the cost of the works from the owner in accordance with the *Building Act 1993*.

Council officers will work with owners to assist them in overcoming any logistical issues which may make it difficult to undertake required works, and will only step in to undertake the works itself where it is considered necessary for public safety.

Do I need Council approval prior to replacing a retaining wall structure?



A *planning permit* is not required to repair an existing retaining wall that has been damaged by the fires. A planning permit would only be required for new retaining structures.

A *building permit* is required to construct walls higher than 1m, however these requirements do not apply when Council has issued a Building Notice/Order provided the owner complies with the direction of the Notice/Order.

Owners are not to construct retaining walls greater than 1m without a Notice/Order given or building permit in place. The reason for this is that inspections are required to be undertaken by Council throughout the construction process to ensure walls are built as per the specified engineers design. Owners who construct walls without the above process in place may be issued a 'show cause' notice as to why the structure should not be removed.

A person will usually need to engage a structural engineer to assess a damaged retaining wall, even if the steel 'H' beam posts appear to have survived, as the heat from the fire may have compromised the strength of the posts or may have removed the protective galvanised coating. The engineer will provide direction on what works need to occur to ensure the structure will safely support the earthworks behind it.

Council's Bushfire Building Surveyor can clarify whether any permits are required, and provide advice on what professionals you need to engage.

What materials can I use in repairing a retaining wall?

Land owners are encouraged to use more fire resilient materials when repairing retaining walls. Treated pine burns easily as evidenced in the Christmas Day bushfire and contaminates the area with arsenic. Burning treated pine retaining walls contributed to the loss of many houses in the fires.

Use of treated pine timber should therefore be avoided where possible. There is a range of other materials, such as concrete or masonry, which would be far more resilient in a future fire, and these should be considered. Other more fire resilient timbers such as red gum may be appropriate if used away from buildings. Non-combustible materials should be utilized in close proximity to buildings.

Who is responsible for repair of roadside retaining walls?

Whilst some retaining structures in road reserves are the responsibility of Council, many that support private driveway access are the responsibility of the benefitting land owner.

The repair of damaged retaining structures in road reserves for access to private properties is therefore the responsibility of the benefitting land owner, and these works must be to the satisfaction of the Council. Council staff will contact owners to indicate where roadside structures not being repaired by Grocon should be repaired by the owner.

Responsibility for maintenance of roadside retaining walls

Council will issue "works on road" permits to land owners for roadside retaining walls repaired during the bushfire response, which will contain conditions that require the land owner to maintain them into the future.