

Rebuilding after a flood

Water resilient products and building techniques

This fact sheet provides advice on repairing your home after a flood. It gives you information about the types of building materials and techniques to use during the repair stage to make sure your home is more flood resilient in the future.

Starting your repairs

Repair work should only be undertaken when your house is clean of all mud, silt and debris, and is completely dry.

Water damage

Contact with water can be damaging to some building materials. Depending on the type of building products, damage may occur immediately or as a result of prolonged exposure to water.

Before you start work on repairing or remodelling your home, think about choosing building materials that have a higher water resistant rating. This may help to minimise damage from floods and may also make it quicker and easier for you to clean up if you are affected by floods in the future.

Water resistant products

There are a number of building products available that have higher water resistance ratings which are cost effective and easy to install.

Some suggested ways of using water resistant products include—

- replacing kitchen plasterboard wall linings with fibre cement sheeting then tiling over the sheeting using waterproof adhesive
- replacing kitchen bench tops with stone or reconstituted stone products
- using hardwood framing as it's more likely to withstand water inundation—better than materials such as particleboard or pine
- using water resistant products such as glass blocks to create a feature wall
- replacing insulation batts in your wall cavities with plastic or polystyrene insulation boards.

Table 1 provides more examples of water resistant materials to use in place of less or non-water resistant products.

Product standards

Ensure products and materials used in repairing your home are suitable for their intended use and comply with the relevant product standards.

Look for the following symbols on the product or packaging or check with the manufacturer directly. Alternatively, your builder or building certifier may also be able to assist you in choosing the right products for your home.



Other things to consider

There are other things that you can do to make your property more flood resilient, including:

Meter boxes—if replacing wiring, think about the location of meter boxes and/or electrical switches. Locating items higher up on walls may reduce the likelihood of having to replace wiring in the future.

Helpful hint: make sure you get a licensed electrician to perform all electrical work.

Walls—if the water partly damaged the lower level of walls in your home, consider using water resistant materials on lower parts of the walls. Hardwood timber panelling or ceramic wall tiles used partway up the walls may reduce damage and costs associated with rebuilding in the future.

Water tanks—anchoring your water tank to the ground will help protect your property and other properties during a flood event.

Garage walls—constructing a bench along your garage walls may reduce the impact force of your car against the walls during a flood.

Be aware

Check that tradespeople approaching you for flood repairs are licensed for the work that they intend to undertake.

You can check if a builder or carpenter is licensed by the Queensland Building Services Authority at www.bsa.qld.gov.au

To check if your plumber or drainer is licensed call the Plumbing Industry Council on 1800 682 021.

Only licensed tradespeople should be used to ensure repairs meet building, electrical and plumbing standards.

You also need to check if you need a building approval before undertaking extensive repair work on your property, particularly if the work affects structural components of the house. For more information, contact your local council or a building certifier.

If you have insurance please check first with your insurance provider before entering the property or making any changes.

Useful resources

Building Codes Queensland
Tel 1800 534 972
buildingcodes@qld.gov.au
www.hpw.qld.gov.au

Building Services Authority
Homeowner Guide to Rebuilding After a Flood
www.bsa.qld.gov.au

CSIRO
Repairing flood damaged building—how to clean and dry out your home
www.csiro.org.au

Department of Environment and Climate Change—NSW
Reducing vulnerability of buildings to flood damage
www.ses.nsw.gov.au

Housing Industry Association
Some guidance on things to consider when returning to flood affected areas
www.hia.com.au

Timber Queensland
Guide to Assessment and Repair of Flood Damaged Timber and Timber Framed Houses
www.timberqueensland.com.au

Queensland Master Builders Association
Guidelines for working on flood damaged premises
www.masterbuilders.asn.au

Workplace Health and Safety Queensland
www.whs.qld.gov.au/

Table 1—Building materials that may help improve the performances of your house both during and after a flood event		
Area	Higher water resistance	Lower or no water resistance
Wall and ceiling linings	<ul style="list-style-type: none"> concrete fibre cement sheet brick or blockwork cement render ceramic wall tiles galvanised steel sheet glass and glass blocks stone plastic sheeting or tiles with waterproof adhesive common bricks solid wood, fully sealed – durable timbers (e.g. hardwood) exterior grade plywood, fully sealed non ferrous metals 	<ul style="list-style-type: none"> particleboard hardboard non-durable solid wood (e.g. some soft woods) interior grade plywood plasterboard particleboard fibreboard or strawboard wallpaper cloth wall coverings gypsum plaster
Doors	<ul style="list-style-type: none"> solid panel with waterproof adhesive flush marine ply with closed cell foam aluminium or galvanised steel frame flush or single panel marine ply with waterproof adhesive painted metal construction timber frame, full epoxy sealed before assembly <p>Note: even though some water resistant doors may not deteriorate, they can warp or twist, making them unusable</p>	<ul style="list-style-type: none"> standard timber frame standard flush hollow core with PVA adhesives and honeycomb paper core <p>Note: these products are generally inexpensive to replace</p>
Bolts, hinges, nails and fittings	<ul style="list-style-type: none"> brass, nylon/ stainless steel, removable pin hinges galvanised steel, aluminium 	<ul style="list-style-type: none"> mild steel (Note: should still be usable if not immersed for prolonged periods)
Windows	<ul style="list-style-type: none"> aluminium frame with stainless steel or brass rollers timber frame, full epoxy sealed before assembly with stainless steel or brass fittings 	<ul style="list-style-type: none"> timber with PVA glues mild steel fittings
Insulation	<ul style="list-style-type: none"> plastic/polystyrene boards closed cell solid insulation reflective foil on external walls 	<ul style="list-style-type: none"> materials which absorb water and delay drying, e.g. loose fill open celled insulation (e.g. batts)
Floor covering	<ul style="list-style-type: none"> clay/concrete tiles epoxy or cement like floor toppings on concrete rubber sheets with chemically set adhesive vinyl sheet with chemically set adhesive terrazzo rubber tiles with chemically set adhesive vinyl tiles with chemically set adhesive polished floors & loose rugs ceramic tiles 	<ul style="list-style-type: none"> loose fit nylon or acrylic carpet, closed cell rubber underlay wall to wall carpet wall to wall seagrass matting cork linoleum floating timber floors

Table adapted with permission from the Department of Environment and Climate Change, NSW Government, *Reducing vulnerability of buildings to flood damage*, April 2007.