

# FLOOD RECOVERY ADVICE – CLEAN UP

This Advice Sheet provides detailed information that needs to be considered by anyone whose building has sustained flood damage. It aims to assist in making decisions for the future in relation to repairing, rebuilding or relocating – particularly in view of the increased frequency of flood events.

## 1. ELECTRICAL SAFETY

Cleaning up after flooding is a challenging time and you may be faced with dangerous and hazardous situations. It's important to stay safe while you're cleaning up your property.

In all cases electrical installations must be independently checked and certified by a licensed electrician before any clean-up work commences.

## 2. INTERIOR

- Everything that is wet (furniture, bedding, carpets, clothing, appliances, books, papers etc) should be taken outside for cleaning and drying whenever weather permits or for disposal.
- Absorbent items that have been saturated by contaminated waters and cannot be cleaned must be disposed of. This will include wetted areas of plasterboard or other wall linings, loose fill or batt insulation and may also include mattresses, lounge furniture, carpets, etc.
- Leave nothing inside the building that can trap moisture and prevent or slow the drying out process. When clean, store in a dry area.
- Gaining access to pockets of trapped water and debris will necessitate:
  - removing skirtings, cupboard kick panels and front panels to inset showers and baths
  - removing internal wall linings sufficiently to allow the cleaning out of the wall cavity and the removal (and replacement) of wet insulation materials
  - drilling holes in, or removing, ceilings when water is trapped above them
  - removing the ground floor ceiling in two storey houses if water was above that level
  - removing electrical switch plates and fittings (ensuring power supply is disconnected).
- Remove the mud and silt trapped:
  - underneath the bath and shower tray, in and below the bottom shelf of cupboards
  - under stairs
  - under floorboards
  - in basements
  - in wall cavities between internal linings and claddings
  - in the fireplace, chimney or wood-burner above the ceiling or between the first floor and the ceiling in two-storey buildings in severe flooding and removal of all wet insulation
  - in electrical switchboards and wall sockets
  - in sanitary fittings such as toilets, bidets and cisterns
  - in masonry veneer cavities
- Remove mud and debris with shovels and squeegees. Then, if sufficient clean water is available, use a hose with a reasonable nozzle pressure to clean out the mud and dirt, starting from the top or upper limit of the flooding and working downwards to the floor or basement. Insert the hose into the concealed spaces to flush out dirt as work proceeds, making sure no water comes into contact with electrical wiring, fittings or appliances.
- After hosing down, surfaces should be wiped or washed down with a disinfectant to reduce the risk of flood-carried infections.
- Hard linings like wood panelling or wallboard can be scrubbed with a stiff bristle brush, plenty

of water and a detergent so that dirt is removed from cracks, corners and crevices. The surfaces should be well-rinsed with cold clean water.

- Gypsum plasterboard has a low tolerance to water and will almost always have to be removed and replaced if it has been immersed in water. Depending on the wall finishes being reinstated, it may be possible to remove a strip 300 mm higher than the flood damaged zone. However, for a high level of finish, a better result will be achieved if full sheets are removed and replaced after the framing has dried.
- Where plywood or similar porous material is used as a bracing component, it must be removed and complete sheets replaced. Removing bracing elements introduces the need for temporary bracing, particularly when the building requires an extended period for drying. This should be done in consultation with a structural engineer.
- Items made from composite wood materials like MDF (medium density fibreboard) or particleboard have a low tolerance to being immersed in water and will need replacing if the flood water has caused the fibres to swell. This may include such things as doors, skirtings, architraves, scotias, window jamb linings and joinery units.
- Untreated timber framing should be dried as quickly as possible, and if there is any sign of mould growth, this should be removed and the affected surfaces treated with mould retardant. Replace timber which has developed rot or significant mould growth.

### 3. EXTERIOR

- Remove, bury or burn driftwood, rubbish and decaying vegetation
- Keeping the cladding of the building in the best possible condition will help later drying by keeping out any rain.
- The outside of external walls should be cleaned with water and detergent as soon as possible as dirty surfaces will keep it damp. Use a stiff nylon or bristle brush for brickwork or blockwork and a soft brush or cloth for timber. Do not water-blast, as this is too aggressive and can do more harm than good.
- In buildings with masonry veneer cladding the cavity should be cleaned out by inserting a hose through the perpend drains or, in more extreme cases, by removing bricks or blocks in the

bottom course to make access ports to flush out the silt from behind them.

- Wedging out or removing the bottom two or three weatherboards will expose the bottom plates and sub-floor framing (particularly bearer and joist ends) and assist with the drying process. For sheet clad buildings, the sheets may span from top to bottom and might have to be removed completely.
- All monolithic claddings (stucco, texture finished styrene, render, flush stopped fibre cement sheet etc) should be closely inspected for damage. Some of these are quite absorbent. Fibre-cement sheet, for example, will need to be able to dry before linings are re-attached.

### 4. SUB-FLOOR

It is very important to clean out the space under a suspended floor of the building to prevent excess moisture remaining, and as a means of reducing the risk of future rot problems.

- Drain away the water under the floor by:
  - digging drainage channels to drain the water out
  - pumping water out
  - digging a pit to drain the water into, then pumping the collected water out.
- The water taken from under the building should be disposed of as far away from the building edge as is practicable. Where the subfloor is lower than most of the surrounding ground it may, because of natural water seepage, take some time for water to stop gathering under the house. Seek to correct this by excavating all round to levels lower than subfloor ground.
- Once the subfloor water has been drained, the dirt and debris which has been deposited under the house should be removed. An exception is where there are no foul odours present, the subfloor vents are not blocked and there is at least 400mm between the lowest timber and the ground. If it contains no organic matter, solid debris such as silt could be left, but experience shows that leaving the silts slows the drying process.
- Foil insulation, if soiled, is no longer effective and must be removed. Removing the foil releases any water trapped between the foil and the floor as well as allowing a wet floor to dry more quickly. The underfloor insulation should

be reinstated to the level required by the current Building Code after the subfloor is dry.

- The underfloor area, particularly around the perimeter, in all the nooks and crannies and the underside of the flooring, must be hosed down to remove dirt and debris. Dirt, if it is left, will hold dampness, slow the drying and may cause the onset of rot.
- Underfloor services such as drains, pipes, wiring and conduits should be checked for damage and repaired. Silt can be taken by the flood-water into the sewage and stormwater drains through vents and gully traps. This may necessitate flushing with clean water.
- The best way to dry the floor space is to maximise the airflow beneath the floor by:
  - clearing debris on the outside of the building which is blocking ventilation openings
  - knocking out the grilles to under-floor vents to increase the airflow
  - cutting back plants which are obstructing vents
  - removing items stored under the building
  - leaving access doors wide open
  - removing part of the sub-floor enclosure such as base boards or sheet linings, or
  - forming new ventilation openings (ensuring there is no structural compromise) to founding soils under footing systems – e.g. concrete slabs.

## 5. CLEANING

- A number of items within the building must be removed for cleaning if covered by floodwaters. Those items which must be carefully cleaned, decontaminated and checked before being reinstalled and/or reused include:
  - electrical outlets and fittings - it is probable that flooded electrical outlets and fittings will need to be replaced but the wiring may be usable
  - fixed electric and gas heaters
  - stoves and cookers
  - hot water cylinders
  - central heating systems
  - central vacuum systems
  - wood burners
  - toilet pans
  - the interior of stormwater and waste pipes
  - toilet cisterns
  - header tanks (even if not inundated they may have been filled with contaminated water during the flooding)
  - floor coverings

**If you would like to talk to an Archicentre Australia architect – a property assessment and design expert – about a particular matter, please call Archicentre Australia on **1300 13 45 13** or go to [www.archicentreaustralia.com.au](http://www.archicentreaustralia.com.au)**