

## Build Back Smarter Info Sheet

# Drainage

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### *The opportunity to build back smarter*

**Disaster repairs:** Removal of liquefaction or draining of flood water. Repairs to pathways, driveways and land damage. Foundation repairs.

**Opportunity to upgrade:** Connect your stormwater drainage to the public system if it isn't already connected. Relocate downpipes to drain roof water away from the house. Improve your drainage so that surface water doesn't drain to or pond underneath the house.

### *Why good drainage is important*

Poor drainage under and around houses can have a big impact on how warm and dry the home is, and how much maintenance it needs. Dampness underneath the floor can rise into the house (rising damp) and cause condensation and mould. Damper houses are also harder to heat.

Even prior to the earthquakes, Christchurch was known as an area with drainage issues. Many houses are not connected to a public stormwater system, with drainpipes discharging to the ground or to soakage pits. Because the Christchurch area has a high water table, this means the ground under houses is often damp in winter, and mould caused by dampness underneath homes is a common problem in Christchurch. Water ponding under a house can result in as much as 180 litres per day of water moving up into the house.

Liquefaction and ground movement from the earthquakes has often made existing problems worse. Water might be draining onto your property from neighbours during heavy rain, and drainage patterns may have changed.

High levels of moisture inside your house can be harmful to your health and make your home harder to heat. Moisture shows up in condensation, settling on windows, window sills, wall linings, ceilings, carpet and curtains. Condensation leads to mould growth. Even in the cleanest homes, there are always sufficient nutrients and viable spores for mould to grow. The only real way to slow or stop mould growth is to control the indoor moisture levels, including condensation.

High indoor moisture levels can cause a range of health problems, particularly respiratory problems, such as asthma, infections, bronchitis and allergic rhinitis.



## ***Build Back Smarter recommendations***

Ask an assessor, for example a certified Home Performance Advisor, to check under and in your house, looking for:

- Signs of dampness and mould
- Damage to framing and under-floor insulation
- Access issues to the under-floor area
- Possible causes of ground moisture which need to be fixed

If your under-floor is damp or there are signs of drainage issues, consider improving your stormwater management before insulation or a ground vapour barrier is added.

