FACT SHEET

Subsidence - what homeowners need to know

WHAT IS SUBSIDENCE?

Subsidence is movement of the ground supporting a house that causes damage to the house. The movement can be down, up or sideways.

CAUSES OF SUBSIDENCE

The most common causes of subsidence in Queensland are reactive soil movement and settlement of earth fill. In some localised areas serious ground movement can be caused by mining subsidence or landslip.

Reactive soils are clay soils that change volume with changes in moisture content. When they dry out they shrink, and as they get wet they swell. Highly reactive soils can be found in most parts of Queensland. A simple indicator of these soils is that they typically display surface cracking during dry periods. Although it is often difficult to see, the surface of the ground in very reactive areas may move up and down by as much as 120 mm between wet and dry periods.

The most common forms of fill encountered on house sites are bulk earth fill used to form the subdivision, fill used to form the building platform for the house, and trench backfill of sewer and stormwater drains. Instability of fill occurs when the soil is inadequately compacted or when the moisture content of the fill adjusts to long-term equilibrium following the earthworks. A less common but more serious form of instability occurs when the weight of the fill causes long-term (often over many years) consolidation of the natural ground under the fill.

Landslip and mining subsidence can cause extreme damage to houses, but fortunately these events are generally restricted to well-known and localised areas. In South East Queensland known landslip areas include Tamborine and Buderim, while mining subsidence may occur in the Ipswich and Gympie areas. If consumers have concerns about mining activity in an area in which they are considering purchasing land they should check with the Department of Natural Resources and Mines (ph.07 3237 1435) before committing to the purchase.

OTHER FACTORS