

House Re-supported and Re-levelled

INDUSTRY

Residential

STRUCTURE

House

PROBLEM

Weak ground

LOCATION

Gold Coast, Australia

DURATION / YEAR

3 days / 2012

TECHNOLOGY

Uretek Deep Injection &
Uretek Slab Lifting

BUSINESS UNIT

Mainmark Australia



Summary

Unprecedented summer rain, of more than 300mm a week, caused extreme saturation of the soil under this large, new Queensland house set on concrete strip footings. The house had subsided by an average 45 mm!

Uretek Deep-Injection was able to compact the soil and the Slab-Lifting method brought it back to exact level in just three days.

Objectives

To compact the sodden sub-base ground and re-level the strip footings of the house in as economical and expeditious a manner as possible.

The house had been built on a cut-and-fill site. Even though the strip footings incorporated piers, they were no longer able to support the house, because the ground had been weakened so much.

Solution

After an initial drying out period, we injected expanding structural resins into the foundation ground.

Uretek Deep-Injection was used to compact and strengthen the ground. This brought support back onto the sub-base for the dwelling to be lifted and re supported.

Then 42m of strip footings were brought up to correct levels; with an average lift of 45mm being required. This unique method involved no excavation or mess to affect the beautiful home and manicured surroundings.

In only three days the exact, desired result was achieved: complete re-support of all the strip footings and precise re-levelling of the whole structure.

Above, top: This home in the Queensland Gold Coast Hinterland had suffered major subsidence due to exceptionally heavy and sustained rainfall. Above, bottom: Uretek fully self-contained Operations rig.