**Redcliffs/Te Rae Kura Eco Village - WATER 02.04.21**

In April, the Redcliffs/Te Rae Kura Eco Village Group is focussing on **WATER**

**If you live on the hills and have a problem with water seepage and clay, you are not alone!**

The hills of Banks Peninsula have varying amounts of a clay material called loess on them. This came as wind-blown dust from the retreating glaciers in the various “Ice Ages”. It is comprised of tiny particles which become suspended in water, making it cloudy, like the waters of glacial lakes, e.g. Lake Tekapo.

When the hills were covered in native forest, rain water dripped lightly from the leaves and soaked slowly through the leaf litter into the soil. Much of it was absorbed by plant roots, but some emerged in streams keeping them flowing constantly throughout the year (with minor fluctuations). This clean water supported ecosystems including water plants, mussels, invertebrates, koura, inanga, kokopu and eels.

Since the removal of native forests from the hills, rainwater pounds the grass and soil, taking up chemical residues, some water running down on the surface, some soaking quickly into the soil. Some of this water triggers downhill soil creep, and some washes out loess underground, collapsing the soil above it as “under-runners”. This water quickly discharges into streams, depositing sediment, smothering water plants, degrading ecosystems, causing major fluctuations in stream water flows (from torrents to prolonged dry spells). The result is much faster erosion of the hills than before, and much more sedimentation of streams, rivers, estuaries, harbour beds and the ocean.

Many ecosystems across the Peninsula cannot adapt to such erosion, and many roads, houses or other buildings may also be at risk. Hill dwellers need to be vigilant: water gardens by timers or by hand (and no more than necessary); make sure downpipes discharge to roadsides, Council stormwater pipes or appropriate on-site storage tanks; wash cars in water-recycling “car-washes” or on lawns, but not on driveways; never allow water or soil to cross your boundaries; never excavate or fill land without appropriate advice or Council approval; never allow paint or other contaminants to enter stormwater; always check that taps are off and not leaking.