

# Stormwater Management On Site

## Rainwater harvesting

Auckland's rainfall is 1100 mm per annum, with the average rainfall event contributing about 25mm. With our rainwater harvesting system, we expect to collect about 33 m<sup>3</sup> during an average rainstorm.

The syphonic drainage system channels the roof water into a 25,000 litre main storage tank with two additional 25,000 litre tanks providing further detention capability. A small wind turbine provides sufficient energy to pump water back up to the header tank above the ethanol room.

The harvested rainwater is used for flushing ground floor toilets, urinals and for irrigating the glasshouses and gardens. (A mains backup is available for prolonged dry spells and for fire hydrants).



## Stormwater detention

During prolonged wet spells, any overflow from the detention tanks will flow into the raingarden area (still to be developed). The mix of soils and organic matter acts as a giant sponge absorbing considerable volumes of water preventing it from entering the municipal stormwater system.

The car park has a pervious surface allowing the rainwater to penetrate on the spot. Water in excess of what the soil can hold will flow through a treatment wall (to adsorb contaminants) then down to the raingarden.

Water in excess of what the raingarden and the 10 litres /sec soak pit can handle, will end up in the stormwater system but this is not expected to happen very often.

