



# REALITIES OF RAIN

## THE CLIMATE IS CHANGING

We've all heard the term climate change. In fact, the climate has already changed – global temperatures are about one degree warmer now than pre-industrial times, and sea levels have risen about 20cm on average.

The climate is changing and will continue to change.

South East Queensland is getting hotter and as a result our weather will become more extreme. We've always had floods and drought - but we can expect more intense rain and more extensive droughts.

This will affect how we supply water.

## ADAPTING TO CLIMATE CHANGE

We're already thinking about how we will adapt to the effects of climate change.

### OUR DAMS, PLANTS AND PIPELINES

We're looking at our infrastructure and asking can they withstand bigger and more frequent floods? Can they cope with higher temperatures? We already have a project underway at our 125-year old pump station at Mount Crosby East Bank to improve its resilience to floods.

### WATER QUALITY

More intense rainfall events means the water in our catchments might be muddier or have higher levels of nutrients and algae.

In 2013, ex-Tropical Cyclone Oswald affected the region and the Mount Crosby water treatment plant could not treat the water in the Brisbane River because it was too muddy.

### WATER SUPPLY

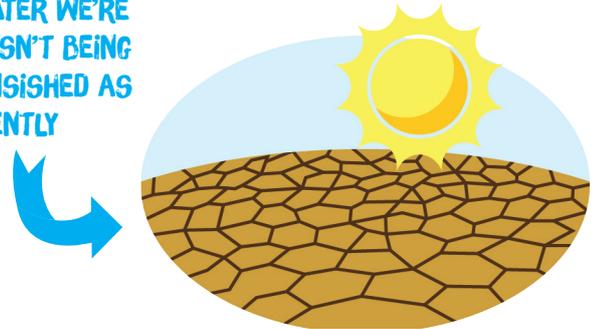
More extensive droughts mean we can't count on rain to fall when and where we need it.

South East Queensland has the Gold Coast Desalination Plant (to turn seawater into drinking water) and the Western Corridor Recycled Water Scheme (to recycle wastewater). These plants don't count on rain as much as our water treatment plants that are connected to dams. We are planning for a water future where we can't count on the rain like we always have done.

### WATER CONSUMPTION

As part of our plan, we also need to estimate how much water we think we'll need in the future - so we can make sure all South East Queensland communities have enough water to live, work and play - no matter what challenges our climate may throw at us.

**MORE SEVERE DROUGHTS MEAN THERE IS LONGER PERIODS WITH NO RAIN FALLING INTO OUR DAMS AND THE WATER WE'RE USING ISN'T BEING REPLENISHED AS FREQUENTLY**



**MORE INTENSE RAINFALL EVENTS MEANS THERE IS MORE SOIL AND SEDIMENT BEING WASHED INTO OUR DAMS, MAKING THE WATER HARDER TO TREAT**



**OUR HOT DAYS ARE GOING TO BE HOTTER AND MORE FREQUENT. THIS MEANS EVAPORATION FROM OUR DAMS WILL INCREASE**

