seqwater
WATER FOR LIFE

Autumn Water Outlook 2017
for South East Queensland

Getting drought ready

Summer recap

Summer in South East Queensland is the peak season for extreme weather - bushfires, storms, floods and cyclones. It is also when we generally receive substantial rainfall that tops up our dams. So what happened over summer, and what is our water position as we head into winter?

South East Queensland experienced a very hot, dry summer, with little to no inflows to our drinking water storages in what is normally our wet season.

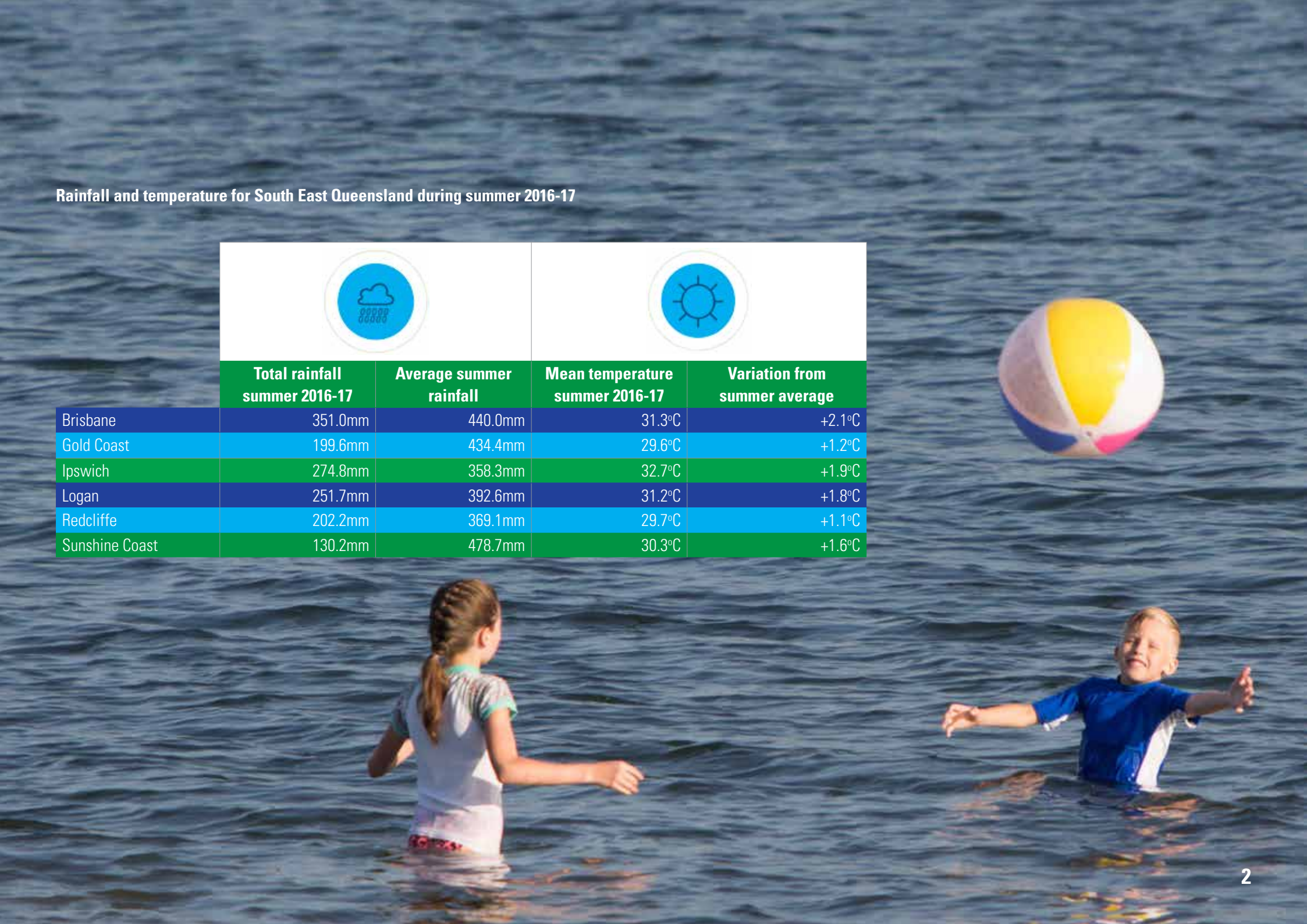
It was the second warmest summer on record for Queensland, with prolonged periods of above average temperatures.

This means soils have rapidly become drier than usual. In general, as the soil dries out, we need larger amounts of rain to fall and saturate the ground before run-off is generated.

While high intensity rainfall (a lot of rain in a short amount of time) has a greater chance of producing run-off, even in dry conditions, our dam catchments now require a substantial amount of rain before they will produce run-off into water storages.

Rainfall and temperature for South East Queensland during summer 2016-17

	Total rainfall summer 2016-17	Average summer rainfall	Mean temperature summer 2016-17	Variation from summer average
Brisbane	351.0mm	440.0mm	31.3°C	+2.1°C
Gold Coast	199.6mm	434.4mm	29.6°C	+1.2°C
Ipswich	274.8mm	358.3mm	32.7°C	+1.9°C
Logan	251.7mm	392.6mm	31.2°C	+1.8°C
Redcliffe	202.2mm	369.1mm	29.7°C	+1.1°C
Sunshine Coast	130.2mm	478.7mm	30.3°C	+1.6°C



How much water we used

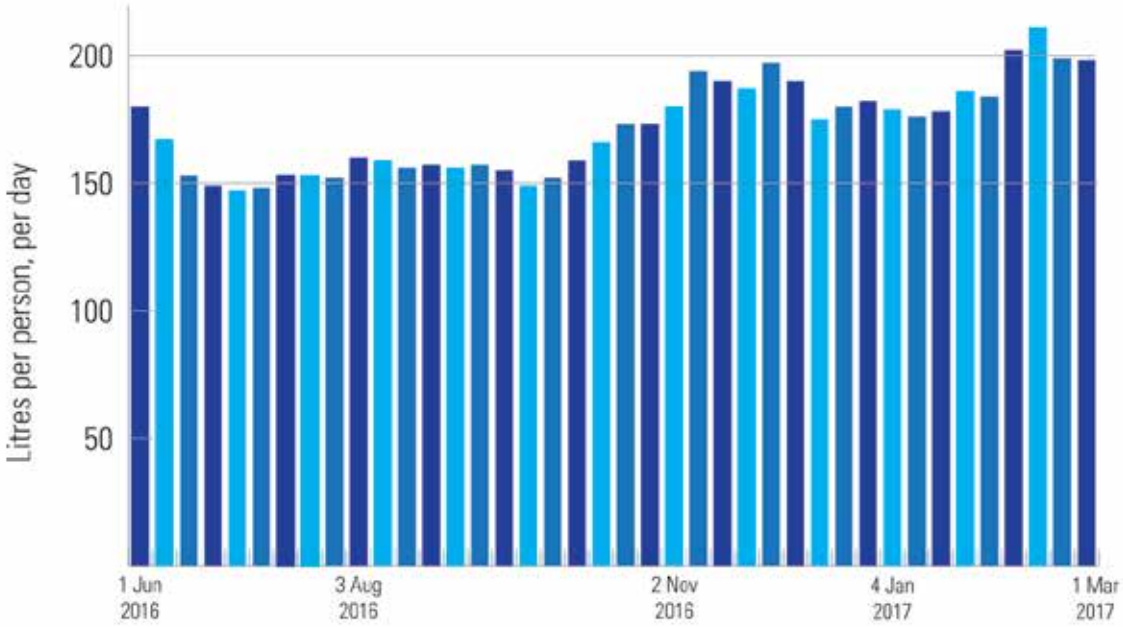
With the recent hot spell, we have seen water consumption spike. On average, South East Queenslanders used 187 litres per person per day over summer. This was an average increase of 10 litres per person per day.

There was a usage peak of 211 litres per person per day across South East Queensland between 1 February 2017 and 15 February 2017. This was the second highest recorded water use (on a 14 day rolling average basis) since 2009, following only a two week period in January 2013 when there was a recorded level of 212 litres per person per day.

This summer, in some parts of the region, daily consumption climbed as high as 240 litres per person per day.

These peak periods of water consumption corresponded with the exceptionally high temperatures in early February.

South East Queensland water consumption between June 2016 and March 2017



Grid dam storage levels

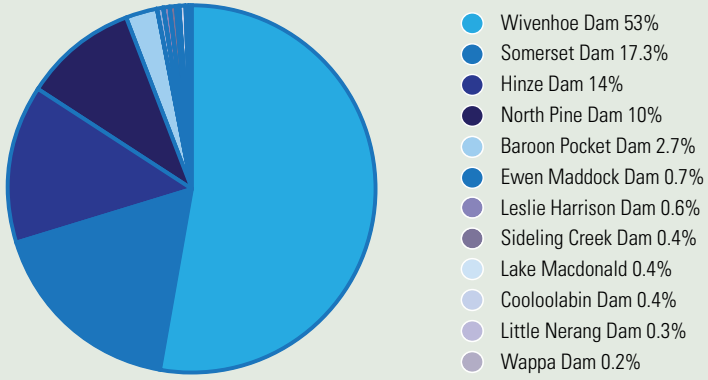
As at 21 March 2017, the combined storage level capacity of our drinking water dams was 71.6%, a decrease of 4.8% from 76.4% at the start of summer (1 December 2016).

Most of South East Queensland's drinking water comes from 12 dams. Our SEQ Water Grid means we can move water around the region, which is especially important if one part of the region is experiencing an unusual dry spell, while another has enjoyed good rainfall, as we have seen this summer.

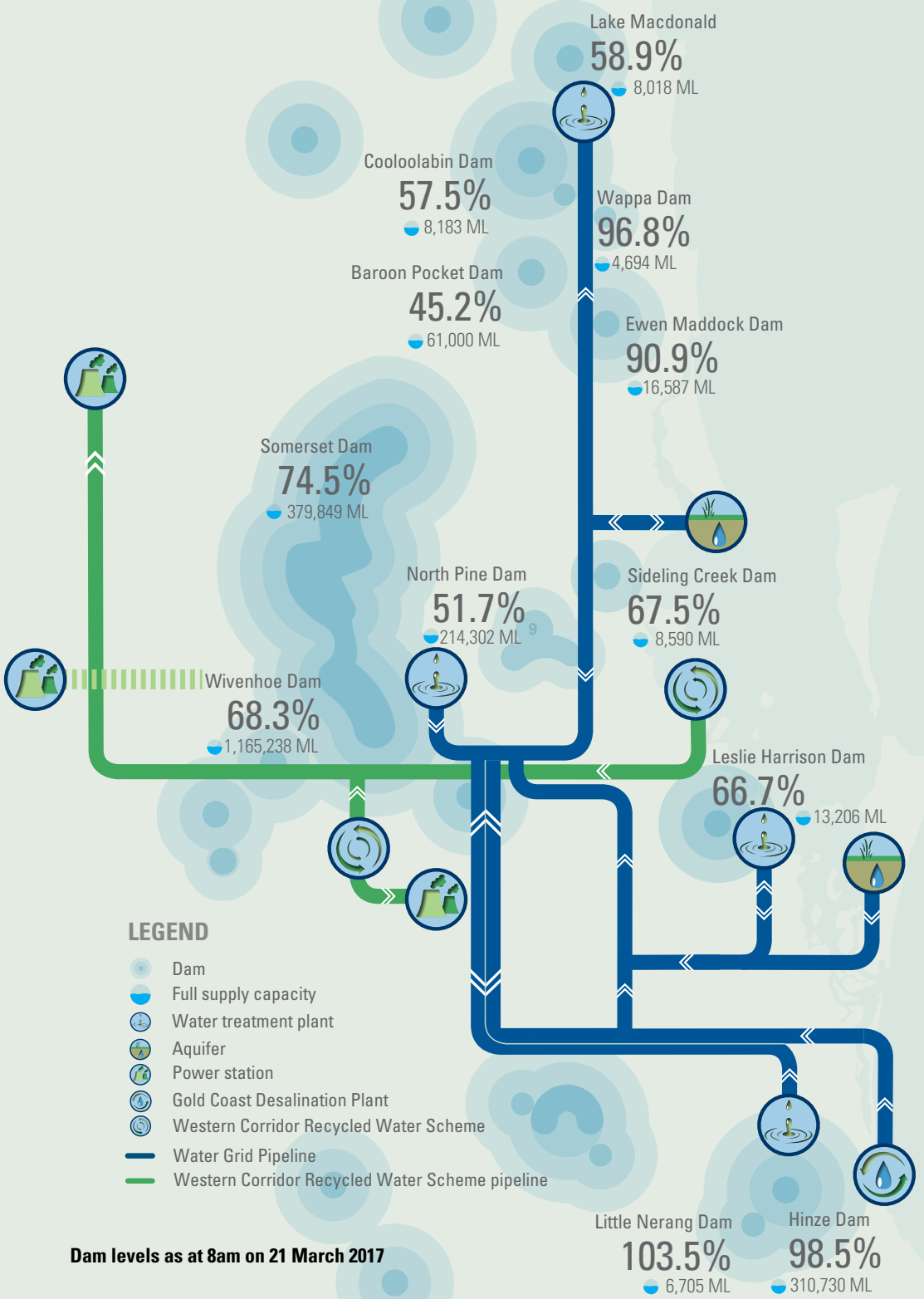
Low rainfall in the northeast of the region has left Baroon Pocket and North Pine dams at about half of their capacity, so the Sunshine Coast's supply is being supplemented with treated water from Brisbane. We have increased production at our largest water treatment plants at Mt Crosby to supplement drinking water supply on Brisbane's north-side.

Operating the water grid this way reduces the pressure on North Pine and Baroon Pocket dams. Seqwater will continue to operate the water grid as required to best manage the region's water supply.

SEQ Water Grid dam storage proportions



Other grid sources are the North Stradbroke Island borefields, the Gold Coast Desalination Plant and the Western Corridor Recycled Water Scheme



Dam levels as at 8am on 21 March 2017

Forecast

The Bureau of Meteorology has forecast below average rainfall for South East Queensland throughout autumn. Temperatures are also likely to be warmer than average, with the possibility of more heatwaves. The chance of an El Niño weather event in 2017 has risen to 50%.

El Niño is often associated with below average winter–spring rainfall over eastern Australia and warmer than average winter–spring maximum temperatures over the southern half of Australia.

This means that we may not receive substantial inflows to our dams to increase their levels, and the warm temperatures may affect soil moisture, requiring significant rainfall to trigger inflows.

However, based on our current modelling we are another summer (wet season) away from having to consider mandatory water restrictions.

While water restrictions are not currently required, everyone is encouraged to use water wisely. See page 9 for some easy ways to save water.

Dry periods and droughts are part of life in South East Queensland.

The Millennium Drought (2001-2009) was one of the longest recorded in the region and demonstrated the need to plan ahead to make sure we have enough water to see us through the dry times.

The forecast tells us that replenishing rainfall might not be on the way soon - so what can we do to prepare for a possible drought?

We're getting ready for drought

South East Queensland's Drought Response Plan has been updated and is ready to be enacted. You can find it on our website in our *Water Security Program 2016 – 2046,* which was released on 24 March 2017.

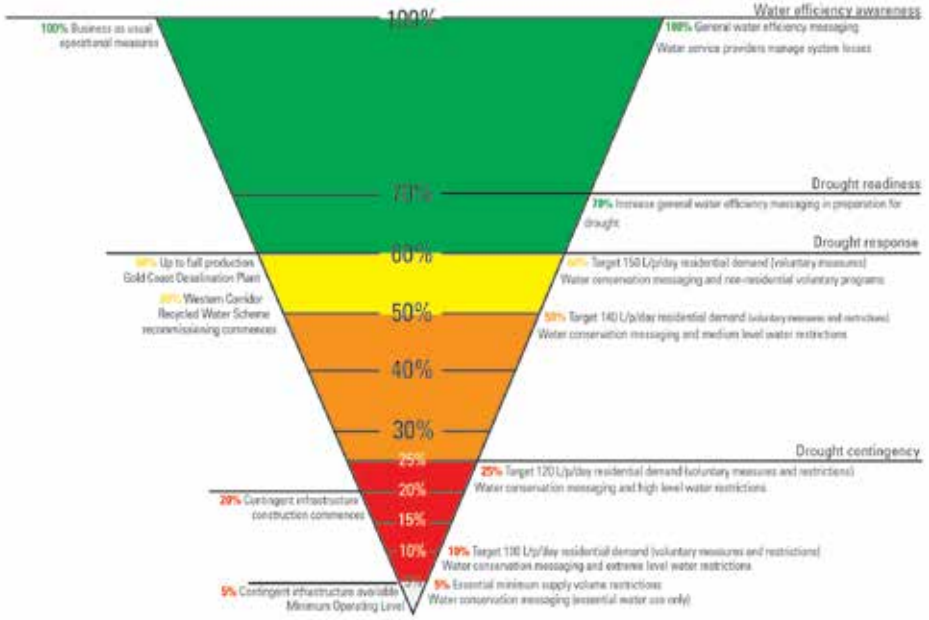
When water grid dam levels are between 70% and 100%, we encourage the South East Queensland community to use water wisely. While there are no voluntary water conservation measures or mandatory water restrictions in place, we continue to promote smart water use.

A key element of our new drought response plan is the drought readiness phase, to help better prepare the region for the prospect of drought.

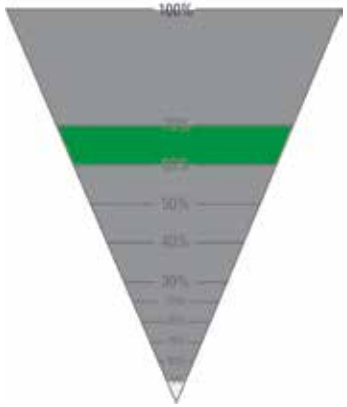
When water grid dam levels drop below 70%, we enter into the drought readiness phase. This is an addition to our drought preparations introduced following the Millennium Drought, to help ready the community. This drought readiness phase is vital to help individuals, businesses and industries plan effectively for a potential drought.

We're already working to make sure we're getting the most out of our water grid. We're maximising production at some of our water treatment plants, preparing our drought response infrastructure and making improvements, such as upgrading water quality management facilities, so we can be sure the water grid is performing at its best. Every drought is different and together with the community we can minimise the impacts of drought by using less water today.

Drought response plan

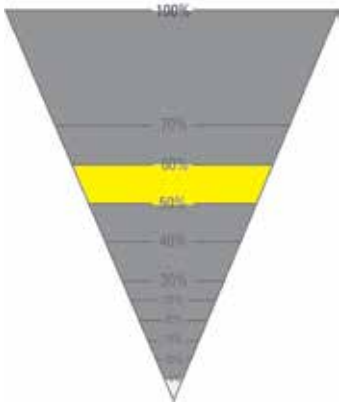


Here's how you can help



70% Drought readiness

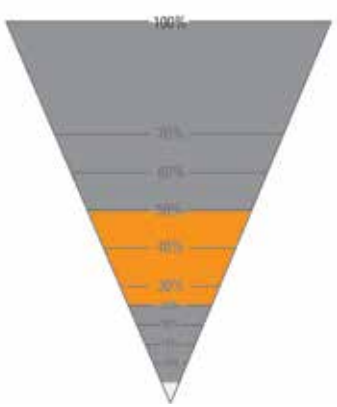
Our water grid combined dam levels have reached 70%, indicating drought might be on the horizon. That's why we're asking the community to be water wise.



60% Drought response

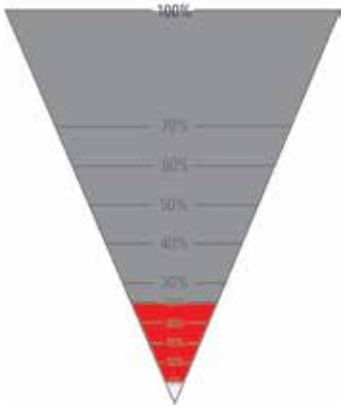
When our water grid combined dam levels reach 60%, we ask the community to target 150 litres of water use per person per day in their homes to reduce demand on water supply. This is a voluntary water conservation measure.

We will increase production at the Gold Coast Desalination Plant (supplying up to 125 million litres of water a day to the water grid) and start work to bring the Western Corridor Recycled Water Scheme online. The scheme has been in care and maintenance and it will take around two years before purified recycled water can be produced and piped into Wivenhoe Dam.



50% Drought response

If dam levels continue to drop, residents are asked to target 140 litres of water per person per day. We also make changes to the operation of our infrastructure, initiate industry and business voluntary programs and introduce mandatory water restrictions.



25% Drought contingency

When water grid dam levels drop to 25% (this could take years of no substantial inflows to our dams), we target 120 litres of water use per person per day in residential demand, with high level mandatory water restrictions.

At 10%, this target drops to 100 litres per person per day.

Easy ways to save water at home

The biggest water savings can be made outside the home.

- Avoid watering the garden in the heat of the day and use good quality mulch.
- Keep the pool cover on when the pool is not in use.
- Use tank water for watering the garden and topping up the pool.
- Check for concealed leaks on your property – your water service provider has guidelines on how best to do this.
- Wash your car on the lawn with a high pressure cleaner or hose with trigger nozzle.

You can save water inside too, by making some small changes.

- Take shorter showers.
- Do full loads in the washing machine and dishwasher.
- Turn off the tap when you brush your teeth
- Rinse fruit and vegetables in a sink or bowl, not under a running tap.
- Fix leaking taps and toilets.
- If you haven't already, install water efficient devices and appliances.

You can find more water saving tips from your local water service provider and other agencies online:

Queensland Urban Utilities	https://www.urbanutilities.com.au/residential/help-and-advice/water-efficiency
Unitywater	http://www.unitywater.com.au/Water-Checklist
City of Gold Coast	http://www.goldcoast.qld.gov.au/environment/water-wastewater-7844.html
Redland City Council	https://www.redland.qld.gov.au/info/20156/water_and_sewerage
Logan City Council	http://www.logan.qld.gov.au/environment-water-and-waste/water
Brisbane City Council	https://www.brisbane.qld.gov.au/environment-waste/water
Queensland Government	https://www.qld.gov.au/environment/water/use/


Water Saving
Mulch

Seqwater is closely monitoring weather forecasts, catchment conditions and dam levels, and operating the South East Queensland Water Grid to manage our water supply.

We live in a climate of extremes—from droughts to flooding rains—and we have plans in place to meet our water needs in all weather.

Every drop counts and you can play your part in managing this precious resource.

seqwater
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