



REALITIES OF RAIN

HOW DAMS WORK

In South East Queensland, our drinking water is predominantly sourced from dams.

Dams are built to store water and are made by blocking (or 'damming') the flow of a river with earth, stacked rock or concrete. A body of water (called a reservoir or lake) forms behind the dam.

Water from the dam is released for drinking or irrigation, as well as keeping the downstream flow going in the river and nearby creeks. Dams also provide the community with recreation facilities, both on the water and in the areas around the lakes.

Dams also mitigate floods, by holding back some of the water that would otherwise have entered the river system during heavy rain.

We manage 26 dams across the region. Less than half of these supply drinking water. Some are used only for irrigation.

Wivenhoe Dam is our biggest drinking water dam. At full supply level, it holds 1.165 million megalitres of water - about 2,000 times the daily water consumption of Brisbane. It supplies water for Brisbane, Ipswich and Logan.

Other major drinking water dams include Baroon Pocket Dam (Sunshine Coast), Hinze Dam (Gold Coast) and North Pine Dam (north Brisbane).

Dams store water - but they can't make it. If it doesn't rain, the water level of a dam will drop as we use the water for drinking and irrigation.

Dams can only store so much water. Once they reach their Full Supply Level, the excess water will spill out of the dam into the downstream river it is built on, and eventually out to sea.

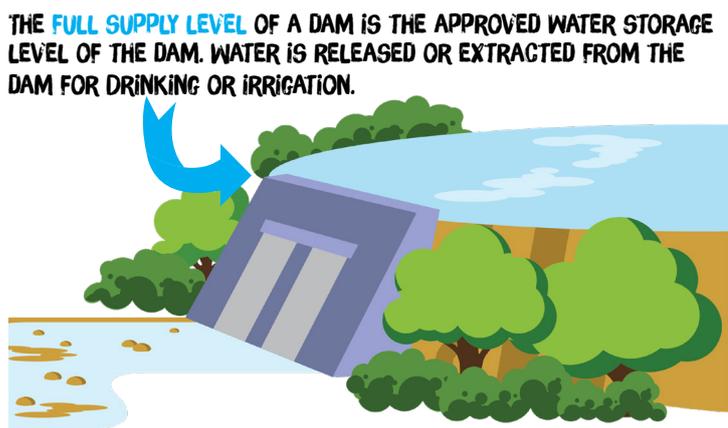
At our gated dams (Somerset, Wivenhoe and North Pine), we can control the release of water over the spillway using specially designed gates. Care must be taken not to hold back too much water and cause the dam itself to fail.

Many of our dams were built in the 1960s and 1970s (some even earlier). We regularly monitor and assess our dams and some have been identified for upgrades. Our Dam Improvement Program is all about making sure our dams operate as they should, now and into the future.

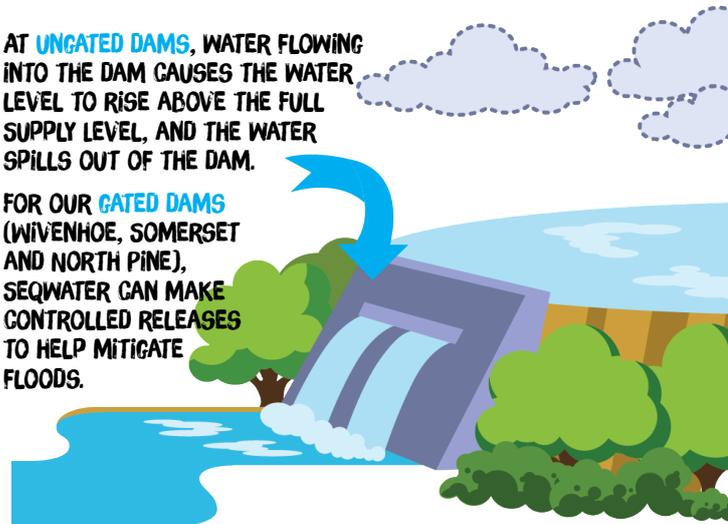
Dams have served us well in the past. But if we can't count on the rain to fall where and when we need it, how do we make sure we have enough water for the future? That's why we're starting a conversation about the reality of rain, and how we can have a secure water future.



RAIN FILLS OUR DAMS. THEY COLLECT RUN OFF RAINWATER FROM OUR CATCHMENTS (THE LAND SURROUNDING OUR DAMS) AND STORE IT.



THE FULL SUPPLY LEVEL OF A DAM IS THE APPROVED WATER STORAGE LEVEL OF THE DAM. WATER IS RELEASED OR EXTRACTED FROM THE DAM FOR DRINKING OR IRRIGATION.



AT UNGATED DAMS, WATER FLOWING INTO THE DAM CAUSES THE WATER LEVEL TO RISE ABOVE THE FULL SUPPLY LEVEL, AND THE WATER SPILLS OUT OF THE DAM.

FOR OUR GATED DAMS (WIVENHOE, SOMERSET AND NORTH PINE), SEQWATER CAN MAKE CONTROLLED RELEASES TO HELP MITIGATE FLOODS.