

# **REALITIES OF RAIN**

# WHAT IS A FLOOD?

We can count on all types of rain - there's wedding day rain, long weekend rain, school holiday rain and just-polished-the-car rain.

The only rain we can't count on is rain when we need it, where we need - and sometimes, we can't count on it to stop falling.

A flood is when water covers land that is normally dry. Flooding can occur in South East Queensland when rivers flood following heavy rainfall. Flash flooding can occur from short bursts of rainfall, anywhere in South East Queensland, even far away from rivers, creeks and streams.

# WHAT DO I NEED TO KNOW ABOUT FLOODS?

### DAMS CAN MITIGATE FLOODS - BUT NOT PREVENT THEM

Flood mitigation is capturing water and then releasing it at a slower rate, with the aim of minimising river levels downstream of the dam. All dams mitigate floods to some extent, because some water is held back in the dam while the dam is spilling.

Gated dams can mitigate flood impacts by controlling the release of water. Care must be taken not to hold back too much water and cause the dam itself to fail.

Dam can only help mitigate floods if rain falls upstream of the dam. If rain falls below the dam wall, flooding can still occur in the rivers and creeks below the dam.

### FLOODS CAN CAUSE WATER SUPPLY ISSUES

More intense rainfall events means the water in our catchments might be muddier and harder to treat - or not be able to be treated at all.

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

It might seem strange that in a time when there is a lot of water around that there could be problems with water supply, but that's why we're planning to ahead to make sure we have the water we need, in all weather.

### BIGGER AND MORE FREQUENT FLOODS ARE LIKELY

We have to make sure our dams and water treatment plants can withstand and recover from more extreme floods than we ever thought possible. As some of our dams and water treatment plants were built more than 100 years ago, this means we have to upgrade them.

Just as we plan ahead for droughts, we plan ahead for times when we can count on it to rain... and rain... and rain.



## FLOODS HAVE ALWAYS BEEN A PART OF SOUTH EAST QUEENSLAND'S CLIMATE



WHEN DAMS FILL, THEY ARE DESIGNED TO PASS THE EXCESS WATER INTO THE CREEK OR RIVER SYSTEM THEY ARE BUILT ON.

ALL DAMS MITIGATE FLOODS TO SOME EXTENT, AS THEY HOLD WATER AND RELEASE IT AT A SLOWER RATE THAN WOULD OTHERWISE HAPPEN IF THE DAM WAS NOT THERE.