## What is a 100-year flood?

A '1-in-100-year flood' refers to a flood height that has a long-term likelihood of occurring once in every 100 years (also called a 100 year recurrence interval). Another way of describing this flood event is: a flood height that has a long-term average **1 per cent chance of happening in any given year**. Risk experts refer to this as a 0.01 Annual Exceedance Probability.

100 year flood height	Flood protection structure with a design level between a 5 and 100 year flood event		Recurrence	Probability of occurence	% chance	Annual exceedance
		100 years	interval	per year	in any year	probability (AEP)
5 year flood heigh	t↓	5 years		1 in 100	1%	0.01
Normal river/estuary height		river/estuary	5 years	1 in 5	20%	0.20

## The probability of a flood event is calculated using statistical techniques.



Time



## Thinking about flood probabilities can help you decide whether or not to take action.

Where the probability of an event occurring is higher than 50% within the lifespan of your asset, you should consider action to prepare for it. Where an event is less probable, you might undertake minimal preparation – depending on the value and purpose of your asset. Climate change is increasing the probability of floods in some places, so a 1-in-100year flood might become a 1-in-50-year flood.

Human activities can also affect flood probabilities in other ways, for example through land clearance and channel straightening.