

King Tide **Fact sheet**

What is a King Tide?

'King Tides' is the term used to refer to uncommonly high tides. While this is not a scientific definition, the term 'King Tides' reflects the extreme nature of these tides compared to ordinary tidal fluctuations. The tidal regime along the New South Wales coast is semi-diurnal, meaning that there are two high tides and two low tides every day. Tidal fluctuations occur across the 'lunar nodal cycle' and are a result of the combined gravitational forces of the moon and the sun. King Tides are a predictable part of this cycle and can occur multiple times a year. The exact time of year they occur will depend on the location and particular year. King Tides can be further exacerbated by stormy or windy weather conditions, climate drivers such as La Niña, and rising sea levels.

What are the impacts?

King Tides affect low-lying areas where the ocean and the land meet. This includes estuaries, harbours, and other coastal areas. Low-lying areas may experience tidal inundation, with seawater reaching areas where it would not normally reach. This is sometimes referred to as 'nuisance flooding' or 'sunny day flooding' and describes inundation that causes short-term inconveniences. Nuisance flooding could restrict access for pedestrians and motorists or impact private and commercial property, roads, and other public infrastructure. Extreme tidal inundation events have the potential to cut off major roads and inundate parked cars. Erosion of beaches and foreshores of coastal lakes, lagoons and estuaries is another potential impact of King Tides, particularly when coupled with storm events.

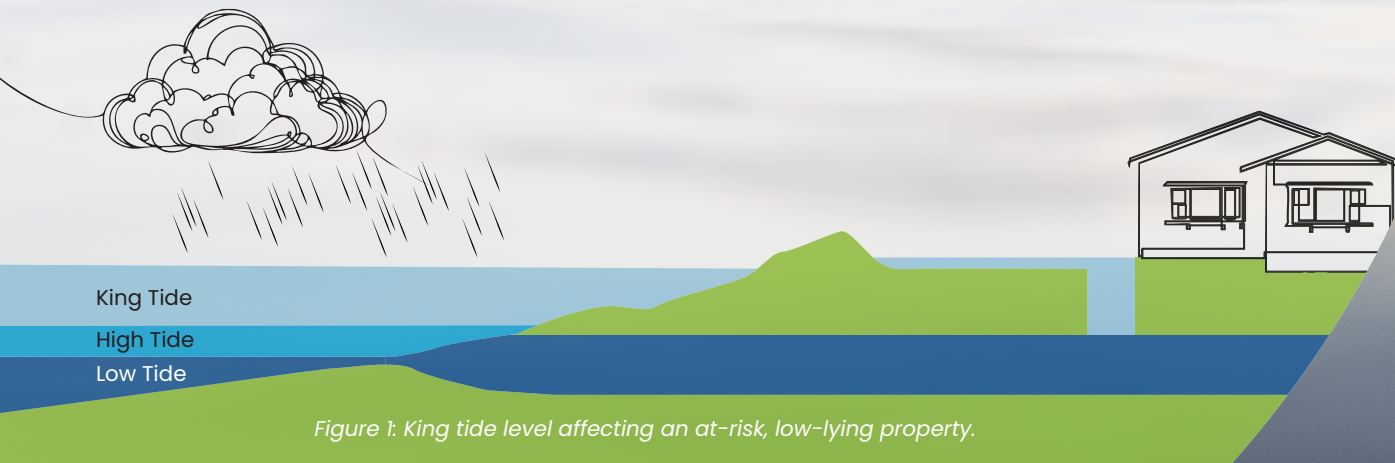


Figure 1: King tide level affecting an at-risk, low-lying property.

Areas affected by King Tides

There are several locations and communities in the Shoalhaven Local Government Area (LGA) that experience 'nuisance flooding' as a result of King Tide inundation. These locations are:

- Shoalhaven Heads (estuary foreshore)
- Comerong Island
- Greenwell Point (estuary foreshore)
- Orient Point (estuary foreshore)
- Currarong (Currarong Creek foreshore)
- Huskisson (including Moona Moona Creek reserve)
- Lake Conjola (e.g. part of caravan park)
- Dolphin Point (foreshore)
- Lake Tabourie (foreshore)
- Sussex Inlet (foreshore)
- St Georges Basin (including Basin View, Sanctuary Point, Erowal Bay and Wrights Beach).

How might king tides affect you?

There are several stakeholder groups in the Shoalhaven LGA that are particularly at-risk from high King Tides including:

- Rock fishers (rising tides may isolate fishers on rocks)
- Swimmers (high tides may exacerbate risks such as rips)
- Boat users (boat ramps and jetties may become unsafe or inaccessible)
- Farmers (high tides may inundate pumps and other infrastructure)
- Caravan parks (there are about 70 caravan parks in Shoalhaven LGA and many are in low lying coastal locations)



How to stay safe during King Tide events?

- Be aware of tide times and how this may impact on your activity so you can plan around this
- Avoid parking cars in low-lying tidal areas
- Never drive through floodwaters
- Where it is safe to drive, drive slowly and carefully for the safety of road users and pedestrians
- Adhere to any signage advising of road closures
- Avoid rock fishing or swimming during these times and be vigilant of changing tides if near the water
- Be aware that rocks and other hazards may be covered by water during King Tides

When are the next King Tides?

Council has developed 'Tide Alert Calendars' to identify the highest 1% and 5% high tides occurring within the year. Please visit Council's website to view the relevant calendar. If community members would like a printed version of the calendar, please get in contact with Council's Coastal Management Unit via email at Coastal.Management@shoalhaven.nsw.gov.au or via phone on 1300 293 111.

TideWatch – How can you help Council monitor King Tides?

To help Council collect valuable data on the impacts of King Tides, you can get involved in the 'TideWatch' citizen science program. This program encourages community members to send in photographs of the impacts of King Tides at areas within the Shoalhaven. The TideWatch photographs can help Council further understand potential tidal inundation 'pinch points' and inform management responses.

Please send in your photographs to coastal.management@shoalhaven.nsw.gov.au with the following details:

- location
- time
- date

If participating in TideWatch, please be aware of your surroundings and do not put yourself at risk while taking photographs!

Scan the QR code for more information.

