

KING TIDES



WHAT IS A KING TIDE?

The king tide is the highest predicted high tide of the year at a coastal location. It is above the highest water level reached at high tide on an average day.

WHEN IS A KING TIDE?

King tides are a normal occurrence once or twice every year in coastal areas. In the United States, they are predicted by the National Oceanic and Atmospheric Administration (NOAA).

WHAT MAKES KING TIDES PREDICTABLE?

King tides occur when the orbits and alignment of the Earth, moon, and sun combine to produce the greatest tidal effects of the year.

WHAT DO KING TIDES SHOW?

King tides bring unusually high water levels, and they can cause local tidal flooding.

Over time, sea level rise is raising the height of tidal systems. Average daily water levels are rising along with the oceans. As a result, high tides are reaching higher and extending further inland than in the past.

King tides preview how sea level rise will affect coastal places. As time goes by, the water level reached now during a king tide will be the water level reached at high tide on an average day.

Sea level rise will make today's king tides become the future's everyday tides.



Photographing very high tides is a way to communicate the potential impact of sea level rise on coastal communities. This photo shows tides flooding a street in coastal New Jersey.

WHY OBSERVE KING TIDES?

King tides provide a glimpse of future everyday water levels, and they are a way to communicate local sea level rise impacts over long time periods.

Low-lying shoreline development is at increased risk of flooding because of rising seas, and public investments in infrastructure, housing, and habitat restoration projects are often expected to last for decades.

Highlighting king tides in a community can raise awareness of potential sea level rise impacts and identify flood-prone locations. The increased understanding of how sea level rise will impact local resources is valuable information for community decision-makers.

For more information
www.epa.gov/cre

