Norwegian Meteorological Institute

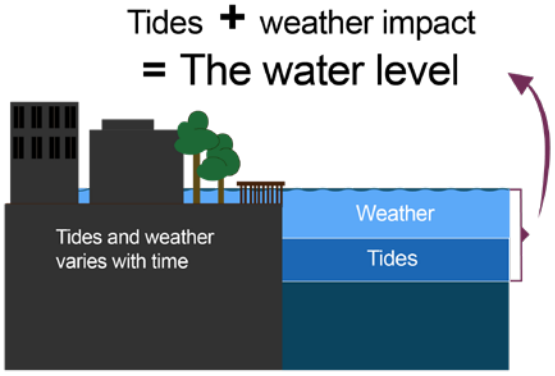
Water level along the coast and in the fjords

What is the water level?

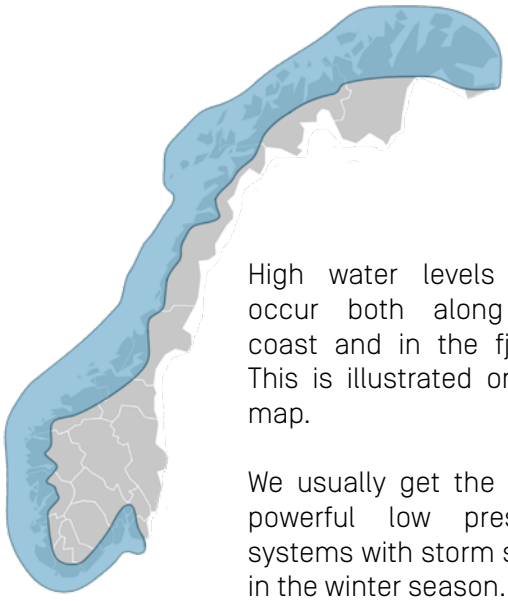
The water level is determined by the tide and the weather. Tides are caused by gravitational forces from the moon and the sun. This results in two high tides (floods) and two low tides (springs) during the day.

At new moon and full moon, the tide is at the highest level. This is called spring tides.

The weather contributes both through air pressure and wind. Strong winds and low pressure increase the water level. This is called storm surge. When storm surges occur together with spring tides, the water level will be extra high.



Where and when will high water levels occur?



High water levels may occur both along the coast and in the fjords. This is illustrated on the map.

We usually get the most powerful low pressure systems with storm surge in the winter season.

Consequences and alerts

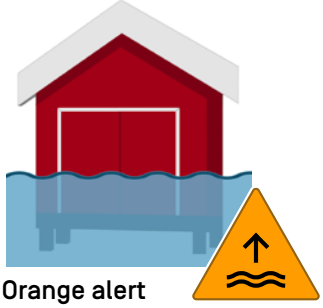
As a consequence of high water levels, areas in the beach zone can be put under water. This may lead to damage of buildings and other infrastructure. The general recommendation is to check boat moorings and secure loose objects in the beach zone.

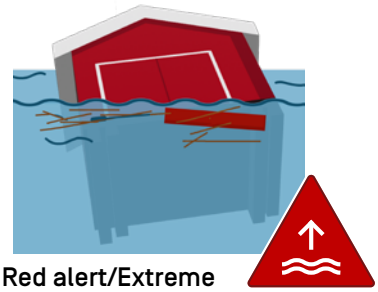
The Norwegian Meteorological Institute (MET) issues alerts when such conditions are expected. The alerts are based on observations and calculated tides supplied by the Norwegian Mapping Authority, and METs calculations of the contribution from the weather impact.

The alerts are color-coded according to the severity. The height of the expected water level and how much damage potential it has determines the severity. High waves in combination with high water level can result in increased damage. Especially in strong winds and waves, you should keep away from the beach zone.

Severity and consequences


Yellow alert


Orange alert


Red alert/Extreme

Warnings and related information on Yr, **met.no** og **sehavniva.no**