

Middle Hope to Brean Down

Existing defences and probability of flooding

As a result of recent improvements to defences by the Local Authority (marked in purple on the map), the risk of tidal flooding to most properties at Weston-Super-Mare is 1 in 200 or less in any year. However the chance of wave disruption here is 1 in 5 or less in any year.

Some agricultural areas to the north of Weston-Super-Mare have a 1 in 20 chance of flooding in any year.

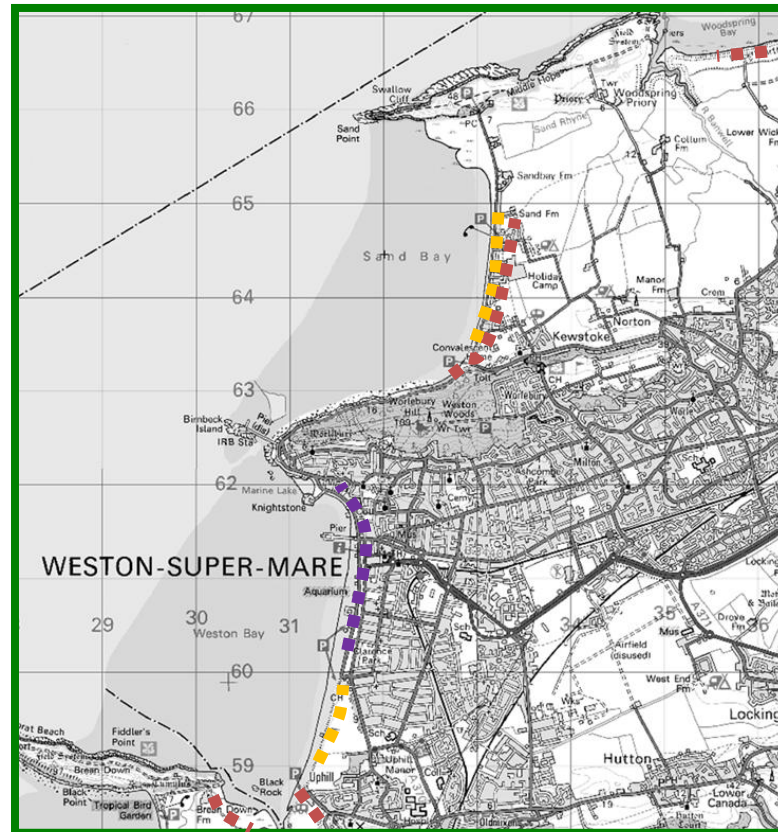
At Sand Bay, the sand dunes, salt marsh and beach, as well as the sea wall at the north of the bay provide a flood defence. There is a low risk of significant flooding; however the moveable nature of sand dunes means that the probability of flooding can change in a short space of time. The movement of the beach and dunes is being monitored.

With climate change, the chance of flooding to homes could increase to around 1 in 50 in any year by 2030, whilst the chance of flooding to agricultural land could also increase to around 1 in 10.

There are 37,000 properties benefiting from the existing defences.

We expect Sand Bay beach, dunes and wall to provide an effective defence for the next 20-40 years.

At Weston and Uphill, the existing defences can be maintained to provide an effective defence for 50-100 years, as funds allow. Improvements will need to be considered after this point.






Sea level rise note

The UKCP09 medium emissions scenario projects about 0.1m of sea level rise by 2030, about 0.3m by 2060, and about 0.7m by 2110.

Currently sea level is rising at about 2 to 2.5mm a year. If this rate were to continue, sea level rise would be less than what is projected by the UKCP09 medium emissions scenario.

Key

-  Defences maintained by the EA
-  Sand dunes
-  Other defences

What can be done?

Monitoring will continue at Sand Bay Beach and levels may need raising after 2040. The beach can provide a high level of protection up to 2110, with the probability of flooding being 1 in 200 in any year. We are currently producing a beach management plan for Sand Bay.

Maintenance and improvements will be carried out on the defences at Weston-Super-Mare and Uphill through working with other authorities. The sea wall at Weston-Super-Mare will provide a high level of protection up to 2110 but may need raising after 2060 to reduce wave overtopping. We are working with the Local Authority to create a beach management plan for Weston Bay.

Landowners can help to maximise the life of defences by ensuring their activities do not cause unnecessary damage.

How these options were reached

There is currently sufficient public benefit for the Environment Agency to continue maintenance of the current defences into the medium to long term future. Therefore we will continue to maintain the existing defences as funds allow.

Ongoing local discussions

There are ongoing local discussions concerning monitoring of the dunes and salt marsh, as well as progress with the Weston Bay and Sand Bay beach management plans.