

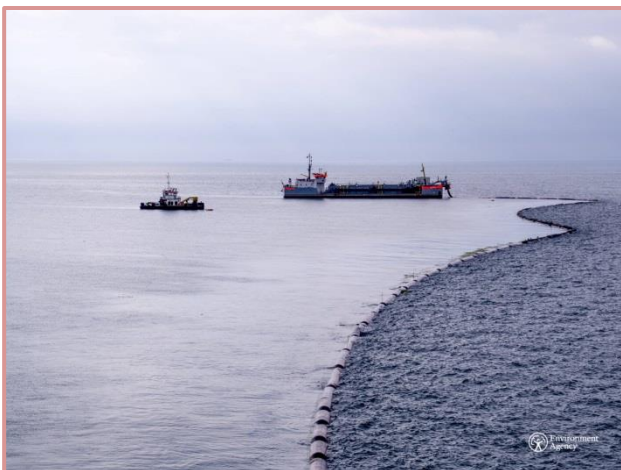
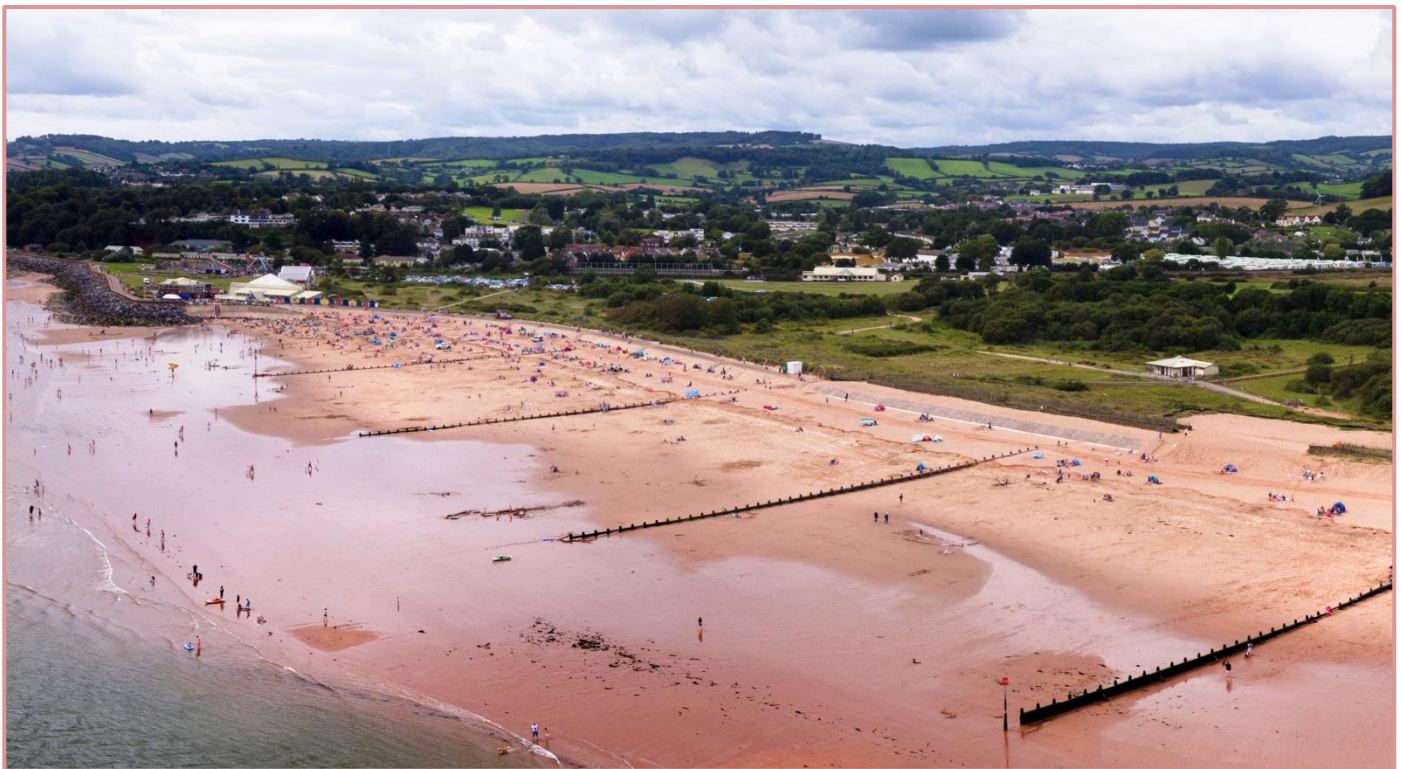
Dawlish Warren Beach Management Scheme

September 2017

Project update

Beach Management Scheme nears completion

The main works at Dawlish Warren are now complete, with only minor works ongoing in September and October. The project team would like to thank all residents, businesses, visitors and users of Dawlish Warren for their patience and cooperation during the works.



Dredging and Beach Recharge

The dredging and beach recharge operation was completed ahead of schedule in early July, with all equipment and pipework removed from site by early August.

The floating section of pipeline was towed by sea back to Zeebrugge, Belgium in July. The steel pipes were loaded onto barges at the far end of Dawlish Warren Spit and taken to Teignmouth Port.

Revetment construction completed

Works on the new revetment between groynes 2 and 3 was completed and the dunes reinstated in July ahead of the 2017 school summer holidays. The new revetment is made up of flexible mats of concrete blocks, forming a transition between the hard defences at the west of the beach and the natural dunes to the east. The structure works in conjunction with the flood wall previously installed across the Warren to prevent a flood route to Dawlish Warren village. As part of the new revetment works a new set of steps was installed past groyne 3.

During September new chestnut paling fencing is being installed in the area across the newly reinstated dunes. This fencing will help collect wind-blown sand and allow vegetation to re-establish for successful reinstatement of the sand dunes. Please respect these enclosures and stick to the fenced routes.



Installation of the GeoTube defence at the 'neck' completed

Works to the GeoTube defence buried in the dunes at the 'neck', the narrowest point of the Warren, were completed in August. Giant bags were pumped full of sand and water, which drained to create compacted sand bags up to 2.85m high. The bags have been buried in the back face of the dune, and are designed to remain buried even under storm conditions. During storms the defence will reduce the impact of waves entering the Exe Estuary and damaging important infrastructure and property.



A total length of 460m of GeoTube defence has been installed in the back face of the dunes. During October chestnut pale fencing will be installed over the freshly reinstated dunes to help catch windblown sand, allowing the dunes and vegetation to re-establish.

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Upcoming Works (September/October)

- Completion of fencing over the reinstated dunes between groyne 3 and 4
- Works to improve the steps at the tidal beach and near the RNLI hut
- Fencing works over the reinstated sand dunes from Groyne 10 to Groyne 14
- Concrete works to improve the slipway

Access and Plant Movements

Public access through the beach and dunes at Dawlish Warren is now fully open to the public, but small temporary exclusion zones may still be in place around work areas.

A note from the Environment Agency

Dawlish Warren Beach Management Scheme – What next?

As described the beach management scheme is now complete. It has been a fantastic team effort and, as Environment Agency Client, we wish to thank our partners Teignbridge District Council, contractors BMM, consultants VBA, internal teams and many more too numerous to mention who made this important project happen. A special thanks to the local community and holiday makers for their patience during these important works which will reduce flood risk locally and to the wider estuary and improve the amenity and environment of this special place.

Beach change

Since completion visitors will have seen the recharged beach change shape following the recent spring tides and storms early in September. Beach and sand dune movement is expected and we will see further change throughout the year and into the longer term with sand moving offshore, onshore and along the spit due to the impacts of tides and weather conditions that affect this exposed site.

How much change will be dependent on how severe future storms will be but, unfortunately, even with the new scheme we expect beach levels to be lower over time. The improved timber groyne field will maintain beach levels better than in the past, but we know that there will be an inevitable lowering along the main beach in the future as very little sand comes back naturally. It is estimated, depending on the severity of future storms, beach levels will be back to pre-scheme levels within 20 years.



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How will the beach be managed?

We will monitor beach levels on a regular basis and take action to ensure the timber groynes are managed and maintained and the 'GeoTubes' along the vulnerable neck section remain buried. We will continue to inspect the main concrete revetment defences also and do repair works when required. It is important to note, we will not recharge or re-profile the beach or do further works at the site unless there is a flood risk management requirement and hence financial justification to do so.

As the primary land owner, Teignbridge District Council will continue to manage the site, including for visitors to the beach and nature reserve, as before.

Longer Term

In the longer term, beyond 10 years, we expect the site to change as identified previously with the beach lowering and the dunes rolling back. It is also likely there will then be flooding behind the dunes at high tide. There may also be a requirement to do further beach management works at the site to manage future flood risk and to mitigate the environmental impact of the current scheme. This will be closely monitored and there will be communication with the local and wider Exe Estuary community prior to any further changes on site.

Martin Davies and Richard Cox, Environment Agency

Background to the project

The Exe Estuary Flood and Coastal Erosion Risk Management Strategy identified that the narrow part (or neck) of Dawlish Warren is at risk of being broken through (breached) as a result of sea level rise and storms. If this happened, it would increase the risk of flooding to the railway line and estuary communities such as Starcross, Lympstone and Exmouth.

The Strategy suggested that a range of works are needed at Dawlish Warren to allow the sand spit to continue to act as a barrier to storm waves. It will also improve the quality of the beach and allow the sand dunes to recover.

For further information about the Dawlish Warren Beach Management Scheme, your contacts are:

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