

Alverstoke Coastal Defence Scheme



Project Update: Construction Newsletter



GOSPORT
Borough Council



Alverstoke Coastal Defence Scheme

Project update: construction

Introduction

This booklet provides updates on the Alverstoke Coastal Defence Scheme.

The scheme is being delivered by Gosport Borough Council (GBC) through Coastal Partners. Coastal Partners carry out coastal management services within four local authorities, including Gosport.

When completed the new defences will offer protection to 130 properties against a 1 in 100 year flood event up to 2060. The Environment Agency are funding the majority of the scheme.

The scheme will cover approximately 100m of coastal frontage. This will protect against the current flood route, which is located at the western end of Stoke Lake (between Little Anglesey Road and Clayhall Road). The flood risk area extends 550m to Jellicoe Avenue.



Figure 1: location plan

The story so far

The 2010 North Solent Shoreline Management Plan provided the framework for management of the Gosport coastline. In 2015, GBC and the Environment Agency adopted The River Hamble to Portchester Strategy. The Strategy identified Alverstoke as a vulnerable area at significant risk of tidal flooding, which has been prioritised as the Alverstoke Coastal Defence Scheme.

Scheme timeline



What you told us

Following adoption of the River Hamble to Portchester Strategy in 2015, the Alverstoke scheme has been reviewed by councillors and the community. Local exhibitions were held in 2017 at the Outline Design Stage, with **76%** of respondents supporting the present scheme. In 2019, at the detailed design stage, **90%** of respondents completely or partially supported the scheme.

Alverstoke flood risk

The existing defences provide a 1 in **20** year standard of flood protection. They are not high enough to meet sea level rise predictions.

The new defences provide a 1 in **100** year standard of protection, taking into account climate change impacts and sea level rise up to 2060.

YEAR	RESIDENTIAL	COMMERCIAL	TOTAL
2015	99	9	108
2060	121	9	130

Number of properties at risk from a 1 in 100 year (1% annual) probability tidal flood event.

Properties & community assets at risk:

- Residential and commercial properties
- Critical infrastructure
- Allotments
- A cemetery
- Approximately 30 listed buildings

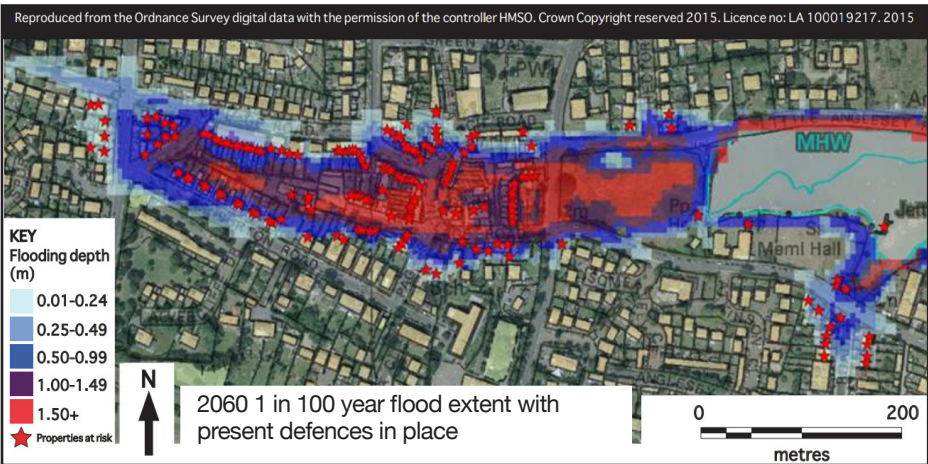
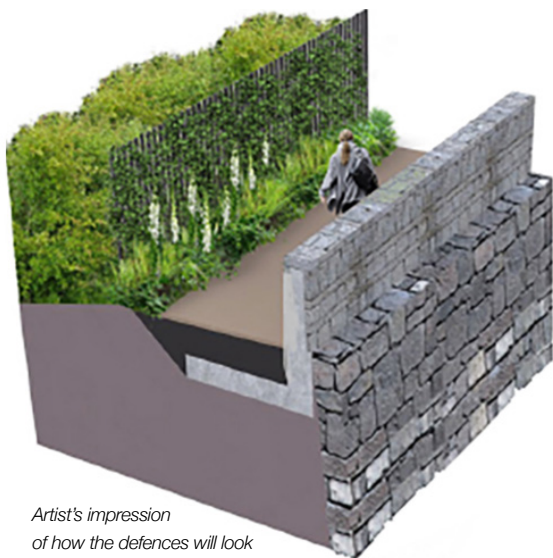


Figure 2: Flood Risk mapping for 1 in 100 year flood event in 2060

What will the defences look like?

The lake-facing side of the new wall will match the appearance of the existing wall. This was supported by the public and a conservation requirement.



*Artist's impression
of how the defences will look*

The new defences will consist of:

A new wall (see image) on top of the existing wall at the western end of Stoke Lake

Reinforced concrete to ensure robust defence against a flood event

The new 1m high wall will tie in with the higher ground

A flood gate across Little Anglesey Road which would be temporarily deployed during a flood event

Re-pointing of the existing seawall

Area of salt marsh established adjacent to the flood wall to increase biodiversity

The wall alignment will run parallel with the front face of the existing wall. This will reduce the impact on tree roots and buried utilities running along the existing path. The new wall will also ensure that the footpath is always accessible, even in times of flood.

The design alignment runs very close to the existing trees on Stokesmead. We will work around any roots, so that the trees can be retained where possible. An arboriculturist will advise on any impacts and decisions concerning the trees.

The design and construction of the proposed defence considers the strength of the causeway and ground conditions, based on comprehensive ground investigation works already completed.

Jackie Spencer Bridge

An option considered in 2017, as part of Outline Design for the project, was to construct a tidal gate at the Jackie Spencer Bridge. This option has been discounted because of the environmental impact on the saline lagoon; technical unsuitability; maintainance and construction costs. For these reasons, the option did not meet the appraisal targets and it was not taken forward.

GBC are not promoting a flood defence project at Jackie Spencer Bridge.

Floodgate

The floodgate at Alverstoke will be operated and maintained by GBC officers. A flood response system will be in place to ensure the effective operation of the floodgate in the event of a potential flood event.

It is likely that the floodgate will be in operation once a year for first 10 years with increasing frequency in the following years.

During flood events, diversions will be in place for the duration of high tide.

Coastal Partners has 15 years' experience deploying flood defence equipment in Portsmouth and Hayling Island. Maintenance checks and test closures will be undertaken to ensure effective procedures are in place.



Example of a floodgate

Conservation



Bird island at Stoke Lake

Alverstoke sits within the Portsmouth Harbour Special Protection Area (SPA) and Site of Special Scientific Interest (SSSI), therefore the Conservation of Habitats and Species Regulations 2010 (Habitat Regulations) applies to the work undertaken in this area.

Coastal Partners has worked hard to ensure the design complements and where possible, enhances the natural environment.



Brushwood bundles to aid establishment of saltmarsh habitat



Saltmarsh

When will the work take place?

Subject to final approval of all relevant licences and consents, construction is due to start in autumn 2021 and is expected to be completed by spring 2022.

Construction is planned to take place Monday to Friday between 7am and 7pm and Saturday mornings.

Site construction

A working area will be fenced off at the end of the footpath, alongside Little Anglesey Road for storage and welfare facilities.

A main site office and compound will be set-up in Pebble Beach car park.

Site access

The footpath at the western end of the lake between Clayhall Road and Little Anglesey Road will be closed to allow work to be undertaken in a safe manner. The pedestrian diversion route will be via Jackie Spencer Bridge.

Little Anglesey Road will remain open for vehicles and pedestrians as usual except for a limited period when the floodgate is installed. There will be advanced warning of any road closures.



Section of construction area



Example of preferred floodwall finish

Properties outside the scheme

The scheme protects the majority of Alverstoke from the tidal route at the western end of Stoke Lake. The risk to properties to the east of the defences and on the boundary of Stoke Lake has been reviewed. The outcomes of this were:

- The water held back by the new defences would be dissipated across the harbour and the Solent and would not affect the flood risk in Stoke Lake. The scheme does not increase flood risk to any properties outside of the protected area.
- Flood modelling and threshold surveys have confirmed properties along Little Anglesey Road are not at risk of flooding from a 1 in 100 year return period coastal flood event - the required standard of protection for the scheme.
- Some properties to the south of Stoke Lake remain at risk from a 1 in 100 year return period event. In some cases the flood depths are minimal and further investigation is needed to confirm property thresholds which may be above the flood level.

GBC plan to bid for a DEFRA grant for those properties at significant flood risk, which are not currently protected by a coastal defence scheme. An assessment will be needed to determine which properties and what level of support can be offered. There is no guarantee that funding will be available, and it is possible that property owners will need to contribute financially in some way toward any solution.



Example of property level protection in Wallington

Further Information

For more information and to sign up to the Alverstoke Defence Scheme newsletter visit: coastalpartners.org.uk or call 02392 446 332



GOSPORT
Borough Council



Coastal Partners

02392 446 332

gosport.coastal@havant.gov.uk

coastalpartners.org.uk



[@CoastalPartners.org](https://www.facebook.com/CoastalPartners.org)



[@CoastalP_UK](https://twitter.com/CoastalP_UK)



[@CoastalP_UK](https://www.instagram.com/CoastalP_UK)