

## Sandwich Town Tidal Defences

August 2016

### *Private and public funding working together for the local community*

#### Level of flood risk

Sandwich and Stonar Loop were at significant risk of flooding from the sea. Spring tides combined with low pressure in the North Sea would result in “surge tides” leading to very high water levels on the River Stour.

The old defences in and around Sandwich only provided a 1 in 20 year standard of protection. This meant that there was a 5 per cent chance in any one year that flooding would occur. At the Town Quay the standard of defence was lower still and flooding regularly occurred at this location.

Following the Pegwell Bay to Kingsdown Coastal Defence Strategy (2008), the Environment Agency developed a flood defence scheme to provide a 1 in 200 standard of protection to 488 homes and 94 commercial properties in Sandwich. This means that there will be a 0.5 per cent chance in any one year that flooding will occur.

The scheme also protects other key assets including Discovery Park, valuable infrastructure such as the main coastal access routes and key tourist and employment areas.

The scheme took 2½ years to complete and cost approximately £24.6 million, with contributions from Pfizer and Kent County Council (£23.5 million project cost, plus £1.1 million flood recovery works).

#### The scheme

The scheme consists of 16 sections of defence around the River Stour. Our works included:

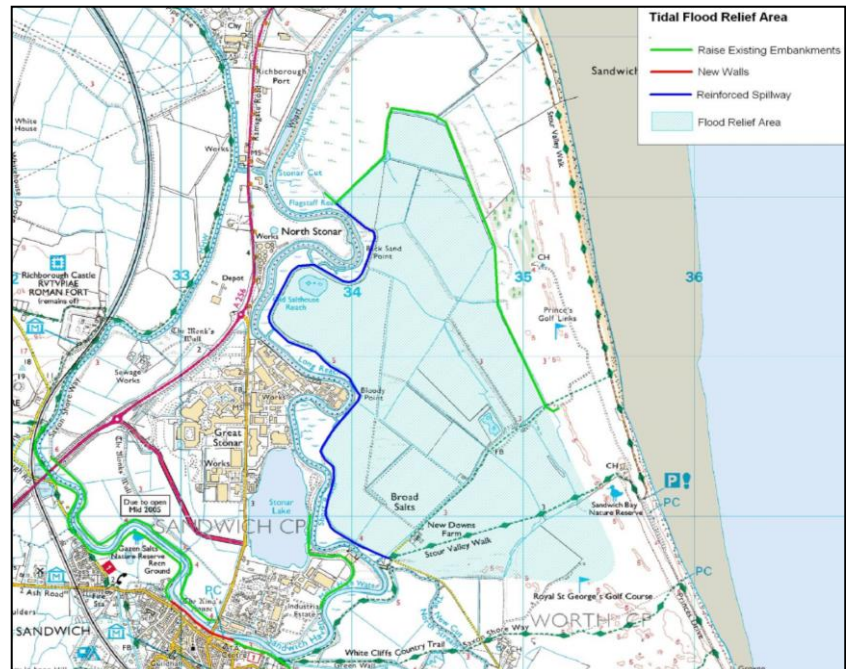
- construction of a new tidal flood storage area outside of the town at Broadsalts;
- construction of 14km of flood walls and embankments of varying heights (between 0.5 and 1.2m in town) on both banks of the River Stour;
- a 1m high flood wall at Sandwich Quay.

#### Funding

The Sandwich Economic Development Task Force was established in 2011 to secure the long term economic future of Discovery Park and to promote business opportunities that maintain and create employment in East Kent.

The Task Force identified that improving the standard of flood protection for Sandwich Town and Discovery Park was vital to local residents and businesses and the economic future of East Kent. In recognition of this, the Sandwich Town Tidal Defence Scheme is being delivered in partnership by the Environment Agency, Pfizer and Kent County Council.

Other successes of the Task Force include the Enterprise Zone designation for Discovery Park and the £35million Expansion East Kent Regional Growth Fund to support new and expanding local businesses.



## Key considerations

Sandwich is a well-loved tourist destination and in designing the scheme it was important that we took care to ensure that the new walls fit in with the surrounding environment of the medieval town.

The wall at Sandwich Quay was a key consideration during the design phase because access and views are important to local people but the wall needs to provide a 1 in 200 level of protection. We worked closely with Dover District Council and Sandwich Town Council to make sure the design of the wall provides as much access as possible and that the finish is in keeping with the nearby buildings and local setting.



The new town quay defences

## Tidal surge

The biggest tidal surge in 60 years hit the east coast on Friday 6 December 2013. Our teams were in the town on Thursday night and Friday day to monitor and respond to the tidal surge. Our contractors, Jackson Civil Engineering, did a brilliant job providing local residents with over 7,000 sandbags. We also put additional demountable defences on Strand Street which worked in combination with the partially constructed flood alleviation scheme to further reduce the impact of the storm on the town.



Setting up demountable defences before the Dec 2013 tidal surge

Although still in their early stages, the new Sandwich Town Tidal Flood Defence scheme played a major role in saving homes and property. The tidal relief area near the Princes Golf Course took the 'top' off the tidal surge and helped to protect 219 homes in Sandwich.

## Engagement

We worked closely with the local community throughout the development of the business case to make sure that the scheme met local aspirations for the town. In 2009 we set up the Sandwich Design Group which included representatives from Dover District Council, Sandwich Town Council, the Port & Haven Commissioners and the Sandwich Society.

On starting the detailed design phase we re-established this group to make sure that the final design provides the best solution for both flood defence and local amenity. After showing the initial designs to the Sandwich Design Group, we then presented them to the wider community at a two day drop in session in April 2012.

Over 100 people attended and we were glad to have the opportunity to discuss the design of the scheme, answer questions and gathered comments from the public. We received very encouraging feedback and the majority of the visitors were supportive of the scheme.

Construction works are often disruptive and we recognised the importance of continuing to work with the community to help minimise this.

We recruited an existing Environment Agency Communications Officer to the project team as a dedicated Public Liaison Officer to work with the community, answering questions and raising their concerns with the project team for resolution.

We kept the local community updated on our progress through regular newsletters, drop in sessions, press releases and web and social media updates.



Public drop in session at Sandwich Quay

In September 2014 we held a 'Quay Opening Ceremony' at Sandwich Quay to mark the completion of our tidal defence work in the town centre.

During our works we discovered a large anchor under the Quay, this was refurbished and was unveiled with a plaque as part of the opening ceremony by the local MP Laura Sandys.



Quay Opening Ceremony: Representatives from Environment Agency, Kent County Council, Pfizer, Councillors and Sandwich Port and Haven Commissioners



In September 2015 we held a final ceremony and photo competition at the Guildhall to celebrate the completion of the scheme.

### Before and afters



Left: Sandwich Quay: Before our tidal defence works. Our demountable defences used during high tides.



Right: Sandwich Quay: After our tidal defence works, our demountable defences no longer required.



Left: Aynsley Court, Sandwich: Before our tidal defence works.



Right: Aynsley Court, Sandwich: After our tidal defence works.

## Feedback

Feedback from the community has been very important in shaping the scheme and our engagement. We used a questionnaire to ask the local community for their feedback on our engagement at the end of each year of the construction programme. We used their responses to ensure that we continued to give them the information they needed, in the format they wanted. At the end of Year 1, 77% of responders said that our communications were Good or Excellent.

Feedback included:

- *“The Quay is beautiful – I have to remind myself it was done to prevent flooding and not just to enhance the beauty of our town.”*
- *“These flood defence works are absolutely superb in both structural integrity and visual impact. Likewise the construction team who have been so supportive of the local community.”*
- *“The Environment Agency have done an amazing job on Sandwich Quay. The design works so well in keeping with the historic town. Well Done!”*
- *“Praise for the great effort made to communicate the scope of the scheme.”*
- *“I’d like to repeat my thanks for the newsletters and other helpful information you regularly send to stakeholders and others about the [scheme]: the way in which you have been doing this throughout the project has been most impressive and informative.”*

Following the East Coast tidal surge in December 2013, we received letters of thanks from Laura Sandys MP and many residents:

*“I wanted to commend all of you at the Environment Agency for your excellent response to last week’s flooding, and let you know how well I think everyone did in reacting to the threat in a timely, organised and ultimately very effective manner.”* – Laura Sandys, MP

*“As a Strand Street, Sandwich resident I wish to thank you for all the work that prevented my home from being flooded during the recent surge. [...] Well done all.”* – Local resident



Talking to residents during the December 2013 east coast tidal surge

## Awards

Kent Design & Development Awards 2014 - Winner

Considerate Constructors Award 2014 - Silver

EA Field Services Awards 2015 - Winner

Living Waterways Awards 2015 - Winner

ICE South East England - South Coast Engineering Excellence Awards 2015 -Winner

CIPR PRide Awards 2015 (Chartered Institute of Public Relations) - Finalist

Considerate Constructors Award 2016 - Gold

RICS Awards 2016 - Winner