



Port of Wells Flood Risk Management

Wells Harbour Commissioners (WHC) wants to identify a frame work for mitigation for future flood risk to combat changing climate and sea rise in this area of the North Norfolk Coast. The initiative is to identify, plan and support decisions that could reduce the risks of flooding during tidal surges within the area of Wells-Next-The-Sea.

The aim is to combine local knowledge with state-of-the-art scientific knowledge and modelling techniques to arrive at a full understanding of how future floods may play out and what, if anything, can be done to change that. This will contain work already undertaken by WHC working with their marine advisors Royal Haskoning (RH). Before any final plan is finalised WHC wish to engage with the local community plus other interested stakeholders on their ideas, views and thoughts that may possibly mitigate the adverse impact as a result from future flooding.

With changing sea levels the harbour estate and town of Wells is becoming more vulnerable to the impacts of the North Sea surges and will become more reliant on flood management in the future.

To take no action on flooding now, is not an option, if we wish to leave a legacy for future generations!!

Where

The Port of Wells harbour and estate is on the North Norfolk Coast on the East coast of England and is exposed to the North Sea with nothing but 2,555.57 miles of open sea between the Norfolk coastline and the North Pole. The harbour is naturally formed behind an area of shallow sandbanks, by a myriad of channels, creeks, salt marsh, beaches, sand dunes.

The coast line and the natural harbour have been shaped over thousands of years by natural processes and by the way people have lived worked and shaped the land with the planting of pine plantations, building of sea defences, structures and waterfront buildings.



Who are Wells Harbour Commissioners

WHC originated under an Act of parliament in 1663 during the reign of Charles II, an act for repairing and better preserving the harbour, quay, creeks, channel and landing places of the Port of Wells. There are eleven serving commissioners from many different back grounds who are volunteers with one common interest, the protection and good of the Port now and for future generations. No commissioners receive any payments for their time. All revenue received from port dues or charges from services are used to finance the port management, maintenance and development on behalf of its stakeholders.

Why

Perusing the old Commissioners minutes books from the past, it's clear to see that flooding/tidal surges have often been a topic on the agenda for discussion. The subject has become more prevalent since the 1953 and 1978 floods especially as surges have become more frequent during the 90s onwards. The 2013 flood surge caused severe flooding to the harbour and town of Wells, resulting in devastation to people's homes and businesses in a way that many had not witnessed before. This was the catalyst that made the Commissioners realise that a strategic plan was needed for the Port that could help mitigate flooding and protect the town.

Initially the Commissioners concentrated on liaison and consultation where possible with government agencies/authorities and local and district councils, unfortunately as much as the Commissioners have good working relationships with these authorities, very little headway could be achieved, perhaps because the Commissioners had no scientific evidence to support their

plans/ideas and sea defences/flood protection works, as this can prove very costly , especially when considering the economics of small settlement such as Wells alongside larger towns and cities around the coast of the UK.

WHC decided in 2018 that being a competent harbour authority, they were best placed to take the lead and appointed a portfolio holder with an agreed budget to work with the Harbour Master and others in identifying possible flood mitigation measures and produce a clear plan that could be used by the Port when they are consulted in the future.



Port of Wells Surveys – Work done to date

WHC initially discussed flooding scenarios internally and considered which ideas to investigate further with their marine advisors Royal Haskoning (RH). After a workshop meeting between WHC and RH an agreement was made for some live 3D modelling to be carried on different ideas for flood prevention for Wells.

Over an eighteen month period several ideas were modelled and provided WHC with some useful information on what flood mitigation techniques might be worthwhile.

3D Modelling

One of the reasons that the commissioners chose RH was that they are expert at 3D modelling. This involves setting up a computer model with the profile of the sea bed and the features of the land and using computer modelling techniques to see how a flood develops and how this might be affected if flood mitigation measures are put in place. One of the live modelling scenarios was of the 2013 surge as it unfolded on the day, with all the data used being used coming from the EA tide recording stations for the North Norfolk Coast. This was carried out so WHC could gain better understanding on the 2013 surge. Following this another model was run with the same data as the 2013 surge, but with an extra one meter in height added to the modelling. 1M extra sea level rise is predicted for the North Norfolk Coast over the next 25yrs.

This 3D modelling proved interesting and concerning as many more areas of the quayside frontage were flooded and other areas of the town were susceptible to flooding.

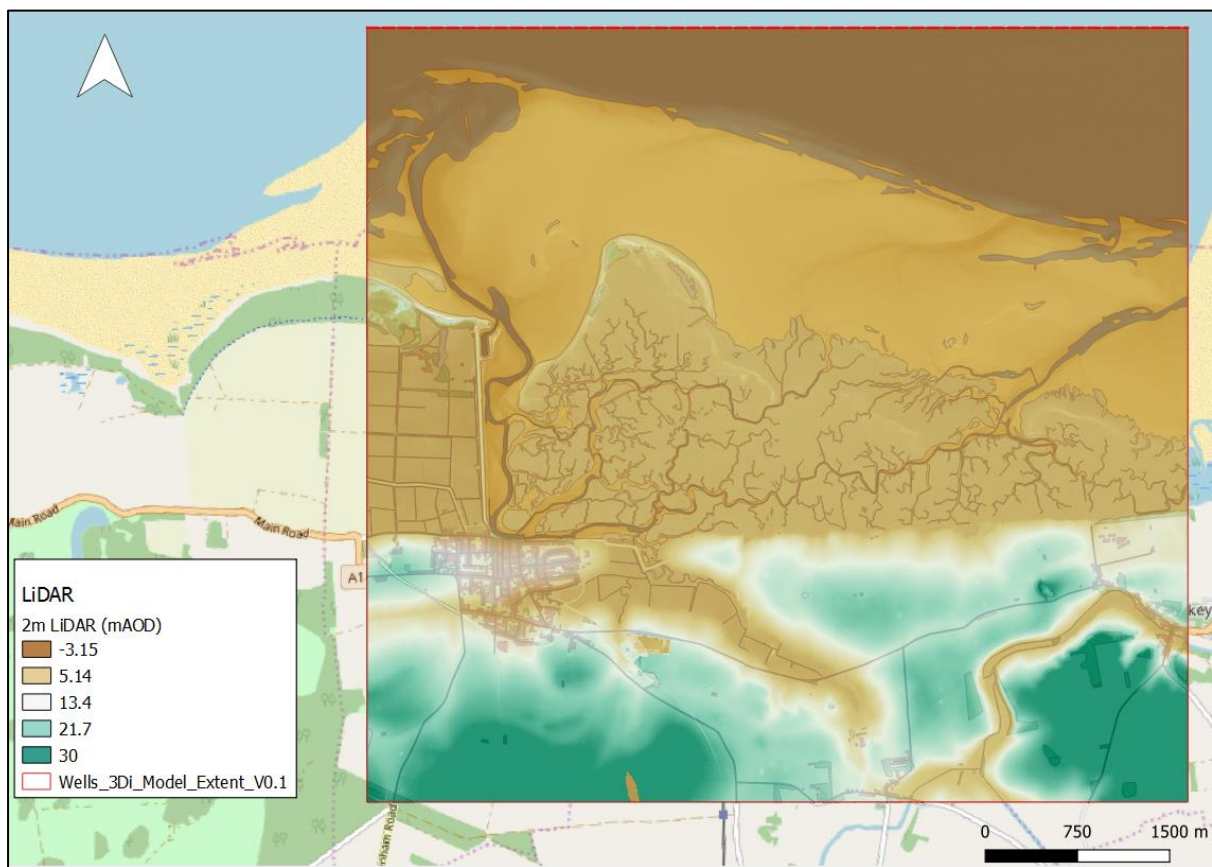


Figure 1: 3Di model extent, LiDAR and land use data.

How to get involved

Public Town Hall Meetings

If Covid 19 restrictions allow WHC will arrange a series of town hall type meetings to interact and consult with the community and any other stakeholders who are interested. Anyone will be welcome to attend and be informed of WHC's work carried out to date by listening to a presentation which allows the community to give their input and feedback.

Workshop/one to one Meetings

WHC will also, if Covid restrictions allow, invite and meet with individuals from the community who have a specific interest in flooding and sea level rise. These could be people with personal experience and knowledge of flooding who have ideas that could be considered. This could be from the fishing/maritime, tourism, farming, housing and business sector.

Possible online surveys for 2021

Because of the restrictions surrounding Covid 19 WHC are considering using an online survey process to hear as many views from the local community and stakeholders as possible. This virtual tool would allow WHC to press on with any future modelling on mitigation measures identified that could be useful in producing the final Port of Wells flood prevention plan.

Interact by email, post or telephone

We are inviting all our stakeholders the opportunity to book a slot by telephone with a member of the harbour team to ask questions and discuss the project. We will offer a limited number of sessions per week. To book a session or express your ideas and opinions please email:

harbouroffice@wellsharbour.co.uk

Wells Town Council (WTC)

WHC will be attending a Wells Town Council meeting to give a full presentation on the flood plan.

Holkham Estate Office (HEO)

WHC is working closely with Holkham estate on the Ports plan and have previously invited HEO to a update meeting between WHC and RH where all parties agreed to liaise and update on future flood prevention plans.

Norfolk Coastal Futures (NCF)

WHC supports the work of the Norfolk Coastal Futures group and is working closely with them. NCF is a community led group representing an area stretching along the coastline, from Holme in the west to Salthouse in the east. The Port of Wells Harbour Master, Robert Smith, is a member of the NCF core group representing WHC and the local community. Wells harbour commissioner, Josh Danziger, WHC portfolio holder for sea level rise and flooding, is also a member of the NCF core group representing the interests of the Burnhams.

The NCF aims to draft a Flood Resilience and Action Plan for public debate and discussion in mid-2021. The draft will be based on workshops and consultations with town and parish councils, formal and informal civic organisations and private citizens in five clusters of coastal communities in February-March. As in Wells, the workshops will focus on the views of local people who understand their problems best, are guided by decades of practical experience and who will live with the consequences of changes they can't control but can anticipate and, through informed, timely and appropriate action, accommodate.



Contact Details

Wells Harbour Commissioners
The Old Lifeboat House
West Quay
Wells-Next-The-Sea
Norfolk
NR23 1AT

Telephone 01328 711646

E-mail harbouroffice@wellsharbour.co.uk

www.portofwells.co.uk

Facebook Port of Wells

Twitter @RobertMbe