

Tidal Hazard Mapping

Update July 2015

1 July 2015

The Environment Agency has undertaken a project to update the Tidal Hazard Mapping (THM) for the Tidal Great Ouse System and the data is now available upon request.

Introduction

The December 2013 storm surge identified the need for a greater understanding of the residual risks of flooding along the Wash East coast and the Tidal Great Ouse. The previous version of the Tidal Hazard Mapping (2009) illustrates the risk of a flooding for 21 breach locations. Given the length of the coast and tidal river (~36km within Kings Lynn and West Norfolk BC alone), there were significant gaps in our understanding of the flood risk in this area. The Tidal Breach Mapping project (2015) was commissioned to provide a wider understanding of the flood risk for the Tidal system.

Tidal Breach Mapping Project Details

- 88 breach locations were selected along the Tidal Great Ouse and Wash coastline
- Provides a breach roughly every 2km for most stretches of the watercourse as well as the a rerun of the original breach locations
- Climate Change Allowances has been maintained from the 2009 version
- The hydrology has been updated to take into account the storm events that have occurred since 2009
- A series of sensitivity model runs were undertaken to determine what physical factors of a breach influenced the extent and depth of flooding. i.e. when on the tidal cycle the breach occurs, the depth and width of the breach etc
- The Flood Map for Planning (rivers and Sea) will not be updated
- The River Nene Mapping has not been updated

Outputs

- Depth, Hazard and Velocity maps for 88 breach locations for;
 - 0.5% (present day) and 0.5% (2115) Annual Exceedance Probability (AEP) events
- Modelling Report detailing how the model was built and the outcomes of the sensitivity analysis

Caveats

- The Tidal Hazard Mapping is a strategic risk management tool and it is not designed to replace site specific Flood Risk Assessments (FRA). If there is no modelled breach near a potential site, a site specific breach model may be required to determine the flood risk.
- The maps are based on computer modelling of simulated breaches at specific locations. Multiple breaches has been modelled individually and the results combined to create these maps. Multiple other combinations of breaches; different sized tidal surges or flood flows may all be possible.
- The modelling only considers the consequences of a breach, it does not make any assumptions about the likelihood of a breach occurring.

Products

- Product 8 - PDF Maps showing the maximum breach depth, hazard and velocity for all breaches

- Product 4 - In channel flood levels, defence information, historic flood extents and modelled flood extents for non-tidal watercourses (where available)
- Product 5 - Model report
- Product 6 - GIS Layers from the model
- Product 7 - Model input files

Please note there is a cost associated with the commercial use of our data. The cost varies by the type of product, the required extent and the source model.

Obtaining the new data

The updated data can be obtained for free if you still have a valid copyright i.e. purchased a product 8 in the past 12 months. Please note that the copyright will only be valid for 12 months from the original purchase date. A new copyright will need to be purchased if you wish to use the data beyond this date.

Please contact ANC.Enquiries@environment-agency.gov.uk to place a request for the updated information.

We ask that you provide us with:

- Applicant/ Agent Name
- Applicant/ Agent Email Address
- Applicant/ Agent Correspondence Address
- Applicant/ Agent Telephone Number
- Site Address
- Site Location Plan

Future Updates

The Environment Agency has a rolling programme of modelling updates to ensure that our understanding of flood risk is as up to date as possible. A number of projects are currently ongoing that will be used to update the flood map in Kings Lynn and West Norfolk Borough Council. These include:

- Fenland Mapping Project - the modelling of the Fluvial Great Ouse and Ely Ouse System. This will include a series of breach scenarios on the defences along the South Level Barrier bank and the Ely Ouse. Due for release 2015
- Eastern Rivers Mapping Project - the modelling of the Ely Ouse tributaries (Little Ouse, Wissey, Lark, and Thet), the Cut off Channel and the River Nar. Due for release 2015