

carla@andrewcloverplanninganddesign.co.uk    **Our ref:**    CCN-2023-295648

**Date:**    16/02/2023

Dear Carla,

### **Provision of Flood Risk Information for Billings Gate, South Somercotes.**

Thank you for your request for our flood risk information for the above site. The information is set out below and attached. It is important you read any contextual notes on the maps provided.

If you are preparing a Flood Risk Assessment (FRA) for this site, please note this information may not be sufficient by itself to produce an adequate FRA to demonstrate the development is safe over its lifetime. Additional information may be required to carry out an appropriate assessment of all risk, such as consequence of a breach in defences.

We aim to review our information on a regular basis, so if you are using this data more than twelve months from the date of this letter, please contact us again to check it is still valid.

Please read the letter in full as the information covered has been updated in **January 2023**.

#### **1. Flood Map**

The attached map includes the current Flood Map for your area. The Flood Map indicates the area at risk of flooding, **assuming no flood defences exist**, for a flood with a 0.5% chance of occurring in any year for flooding from the sea, or a 1% chance of occurring for fluvial (river) flooding. It also shows the extent of the Extreme Flood Outline which represents the extent of a flood with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

In some locations, such as around the fens and the large coastal floodplains, showing the area at risk of flooding assuming no defences may give a slightly misleading picture in that if there were no flood defences, water would spread out across these large floodplains. This flooding could cover large areas of land but to relatively shallow depths and could leave pockets of locally slightly higher land as isolated dry islands. It is important to understand the actual risk of the flooding to these dry islands, particularly in the event of defence failure.

The Flood Map also shows the location of formal raised flood defences and flood storage reservoirs. It represents areas at risk of flooding for present day only and does not take account of climate change.

The Flood Map only indicates the extent and likelihood of flooding from rivers or the sea. It should also be remembered flooding may occur from other sources such as surface water sewers, road drainage, etc.

#### **2. Historic Flood Event Outlines**

With regards to the history of flooding I can advise we do not have any records of flooding in this area. It is possible recent flooding may have occurred which we are currently investigating, therefore this information may be subject to change. It is possible other flooding may have occurred which other risk management authorities, such as the Lead Local Flood Authority (ie top tier council) or Internal Drainage Board (where they exist) have responsibility.

### **3. Schemes in the area**

There are no ongoing capital projects to reduce or sustain the current flood risk to this site.

### **4. Fluvial Flood Risk Information**

The site may be at risk from main rivers in the form of residual risk due to the failure of flood management infrastructure such as a breach of a raised flood defence. You may need to undertake further assessment of this residual risk using the data provided.

The site may also be at risk from local ordinary watercourses for which other risk management authorities, such as the Lead Local Flood Authority (ie top tier council) or Internal Drainage Board (where they exist) have responsibility.

#### **4.1 Fluvial Defence Information**

The existing fluvial defences reducing the risk of flooding from main river to this site consist of earth embankments. They are generally in a fair condition apart from one stretch which is in a poor condition. This stretch is on a programme for repair with the view to undertake works in the next financial year. They are in fair condition and reduce the risk of flooding (at the defence) to a 10% (1 in 10) chance of occurring in any year. We inspect these defences routinely to ensure potential defects are identified.

Refer to paragraph 3 for details of any ongoing capital projects to reduce the flood risk to this site.

#### **4.2 Fluvial Modelled Levels and Flows**

Available modelled fluvial flood levels and flows for the model nodes shown on the attached map are set out in the data table attached. This data is taken from the model named on the data table, which is the most up-to-date model currently available.

Please note these levels are “in-channel” levels and therefore may not represent the flood level on the floodplain, particularly where the channel is embanked or has raised defences.

Our models may not have the most up to date climate change allowances. In time we will update our models for the latest allowances. You should refer to '[Flood risk assessments: climate change allowances](#)' to check if the allowances modelled are appropriate for the type of development you are proposing and its location. You may need to undertake further assessment of future flood risk using different allowances to ensure your assessment of future flood risk is based on best available evidence.

#### **4.3 Fluvial Modelled Flood Extents**

There may still be a residual risk of fluvial flooding to your site due to the failure of flood management infrastructure such as a breach of a raised flood defence. You may need to undertake further assessment of this residual risk using the data provided.

#### **4.4 Fluvial Hazard Mapping**

For certain locations we have carried out modelling to map the maximum values of flood depth, velocity and hazard rating (danger to people) resulting from overtopping and / or breaching of defences at specific locations for a number of scenarios.

At present this information is available for fluvial flood risk in Northampton, Lincoln, Wainfleet and some isolated rural locations.

The number of locations we have this information for is expected to increase in time.

At present this site is not covered by any fluvial hazard mapping.

## **5. Tidal Flood Risk Information**

This site is considered to be at risk from tidal flooding.

### **5.1 Tidal Defence Information**

The existing tidal defences protecting this site consist of earth embankments and natural sand dunes.

They are generally in a fair condition apart from one stretch which is in a poor condition. This stretch is on a programme for repair with the view to undertake works in the next financial year.

They reduce the risk of flooding (at the defence) to a 0.5% (1 in 200) chance of occurring in any year. We inspect these defences routinely to ensure potential defects are identified.

Refer to paragraph 3 for details of any ongoing capital projects to reduce the flood risk to this site.

### **5.2 Tidal Flood Levels**

The attached data sheets show our current best estimate for extreme tide levels.

Please read the information notes on the data sheets.

### **5.3 Tidal Hazard Mapping**

For certain locations we have carried out modelling to map the maximum values of flood depth, velocity and hazard rating (danger to people) resulting from overtopping and / or breaching of defences at specific locations for a number of scenarios.

At present this information is available along the full coastal / tidal floodplain, except the tidal Witham Haven in Boston (upstream of Hobhole) where only breaching and not overtopping has been modelled and the tidal River Welland upstream of Fosdyke Bridge where neither breaching nor overtopping are available.

The number of locations we have this information for is expected to increase in time.

The attached maps show the maximum values of flood depth, velocity and hazard rating (danger to people) resulting from breaching of the defences at specific locations for the scenarios below. For some locations the breach mapping also includes flooding from overtopping if this is expected in that scenario. The location of modelled tidal breaches is shown on a separate attached map.

#### **5.3.1 Tidal Hazard Mapping – Breaches**

- Year 2115 0.5% (1 in 200) chance
- Year 2115 0.1% (1 in 1000) chance

Your site is not affected by breaching of the tidal defences for the present day (2006) scenarios.

### **5.3.2 Tidal Hazard Mapping - Overtopping**

The attached maps show the maximum values of flood depth, velocity and hazard rating (danger to people) resulting from simulated overtopping of defences for the following scenarios:

- Year 2115 0.5% (1 in 200) chance
- Year 2115 0.1% (1 in 1000) chance

Your site is not affected by overtopping of the defences for the present day (2006) scenarios.

## **6. Development Planning**

If you would like local guidance on preparing a flood risk assessment for a planning application, please contact our Sustainable Places team at [LNplanning@environment-agency.gov.uk](mailto:LNplanning@environment-agency.gov.uk). It will help if you mention this data request and attach your site location plan.

We provide free preliminary advice; additional/detailed advice, review of draft FRAs and meetings are chargeable at a rate set to cover our costs, currently £100 (plus VAT) per hour of staff time. Further details are available on our website at <https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals>.

General advice on flood risk assessment for planning applications can be found on GOV.UK at <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications>

Climate change will increase flood risk due to overtopping of defences. Please note, unless specified otherwise, the climate change data included has an allowance for 20% increase in flow. Updated guidance on how climate change could affect flood risk to new development - 'Flood risk assessments: climate change allowances' was published on GOV.UK in **July 2021**. The appropriate updated climate change allowance should be applied in a Flood Risk Assessment.

You should also consult the Strategic Flood Risk Assessment produced by your local planning authority.

## **7. Data Licence and Other Supporting Information**

We respond to requests for recorded information we hold under the Freedom of Information Act 2000 (FOIA) and the associated Environmental Information Regulations 2004 (EIR).

This information is provided in accordance with the Open Government Licence which can be found here: <http://www.nationalarchives.gov.uk/doc/open-government-licence/version/3/>

Further information on flood risk can be found on the GOV.UK website at: <https://www.gov.uk/browse/environment-countryside/flooding-extreme-weather>

## **8. Other Flood Risk Management Authorities**

The information provided with this letter relates to flood risk from main river or the sea. Additional information may be available from other risk management authorities, such as the Lead Local Flood Authority (ie top tier council) or Internal Drainage Board (where they exist).

I hope we have correctly interpreted your request. If you have any queries or would like to discuss the content of this letter further please contact Emily Kent using the email address below and quoting our CCN reference number above.

Yours sincerely,

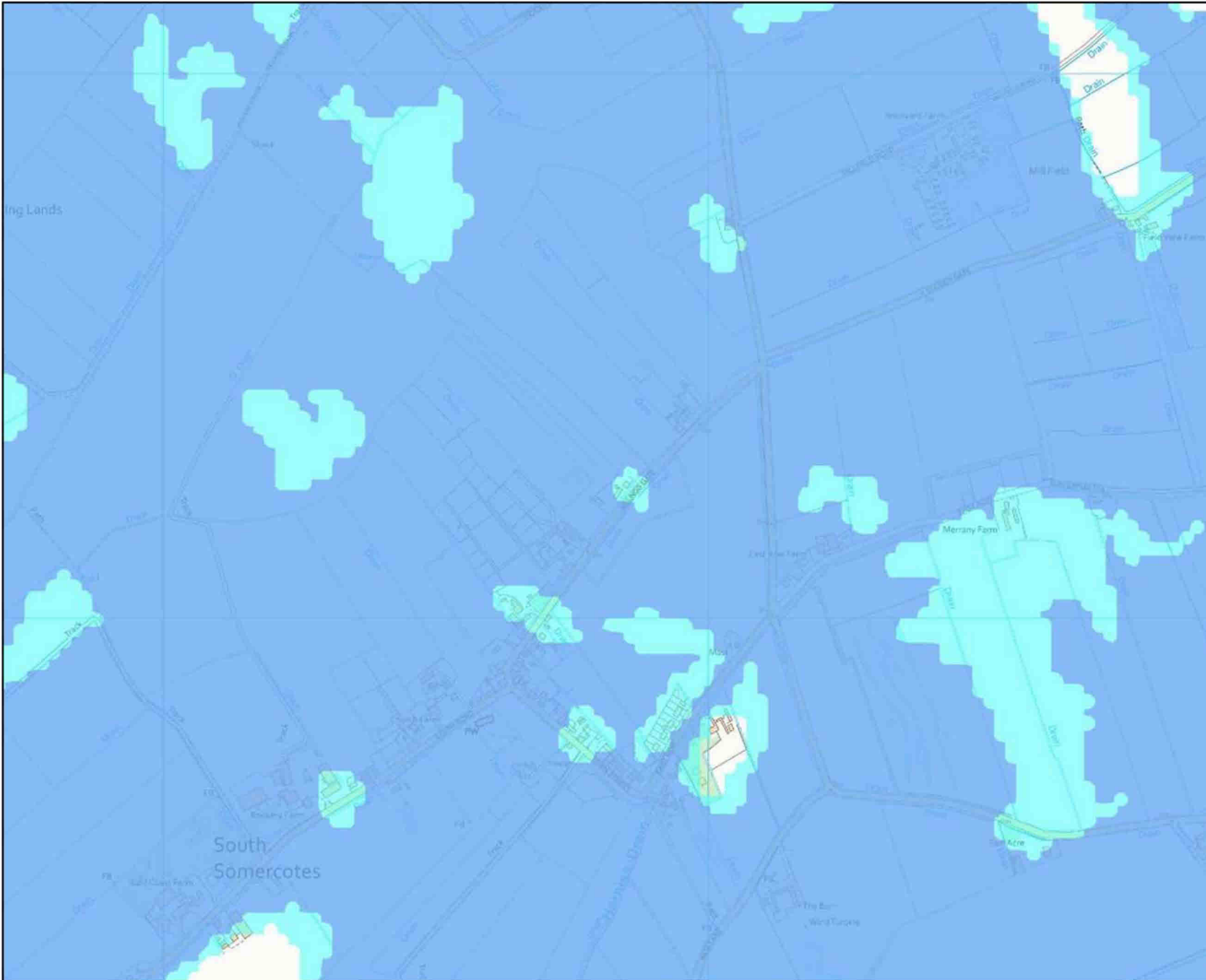


Flood Officer  
Mobile: +44 7464 491636

**for Paul Payne**  
**South Humber and East Coast Partnerships and Strategic Overview Team Leader**  
e-mail [PSO\\_Coastal@environment-agency.gov.uk](mailto:PSO_Coastal@environment-agency.gov.uk)

Enc.  
Flood Map  
Modelled Node Points Map  
Modelled Fluvial Levels and Flows Data Sheet  
Tidal Level Data Sheets - Map and Tables  
Tidal Breach Points – Locations Map  
Hazard Mapping – Breaching  
Hazard Mapping – Overtopping

# Flood Map centred on TF 41821 94230 - created February 2023 [Ref: CCN-2023-295648]



Scale 1:10,000



### Legend

- Main River
- Raised Defences
- Areas at Risk of Flooding from Rivers and Sea
- Extreme Flood Outline

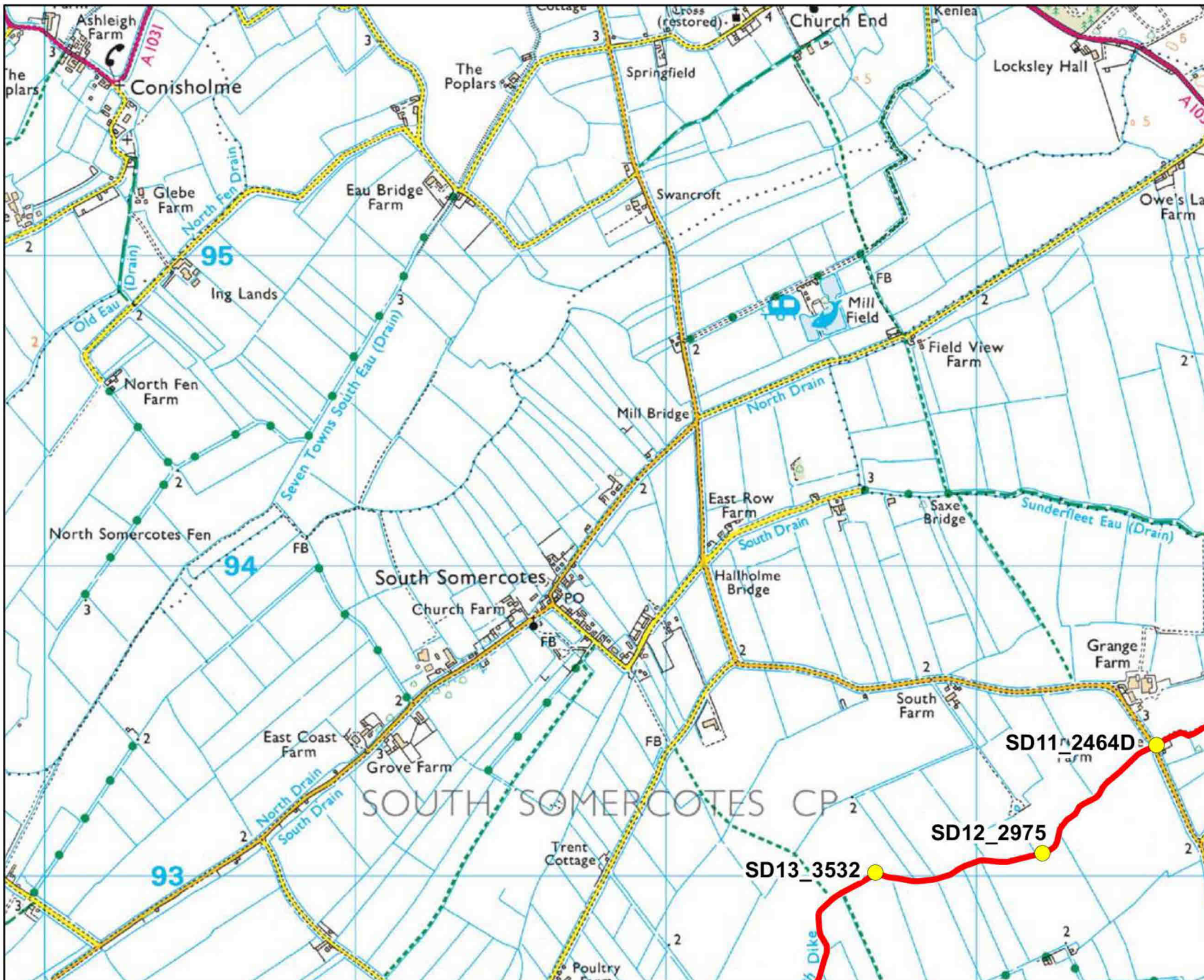
Dark blue shows the area that could be affected by flooding, either from rivers or the sea, if there were no flood defences. This area could be flooded:

- from the sea by a flood that has a 0.5% (1 in 200) or greater chance of happening each year.
- or from a river by a flood that has a 1% (1 in 100) or greater chance of happening each year.

Light blue shows the extent of the Extreme Flood Outline, which represents the extent of a flood event with a 0.1% chance of occurring in any year, or the highest recorded historic extent if greater.

These two colours show the extent of the natural floodplain if there were no flood defences or certain other manmade structures and channel improvements. Sites outside the two extents, but behind raised defences, may be affected by flooding if the defences are overtopped or fail.



# Modelled Node Flood Map centred on TF 41821 94230 - created February 2023 [Ref: CCN-2023-295648]



Scale 1:17,500



### Legend

-  Level and Flow Points
-  Main River

## Fluvial Flood Levels (mODN)

The fluvial flood levels for the model nodes shown on the attached map are set out in the table below. They are measured in metres above Ordnance Datum Newlyn (mODN).

Node Label	Easting	Northing	Annual Exceedance Probability - Maximum Water Levels (mODN)													
			50% (1 in 2)	20% (1 in 5)	10% (1 in 10)	5% (1 in 20)	4% (1 in 25)	3.33% (1 in 30)	2% (1 in 50)	1.33% (1 in 75)	1% (1 in 100)	1% (1 in 100) inc 20% Climate Change	1% (1 in 100) inc 25% Climate Change	1% (1 in 100) inc 35% Climate Change	1% (1 in 100) inc 65% Climate Change	
SD13_3532	542676	393012	2.45	2.70	2.81	2.84	2.84	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85
SD12_2975	543213	393074	2.45	2.69	2.81	2.84	2.85	2.84	2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85
SD11_2464D	543581	393423	2.45	2.69	2.81	2.85	2.85	2.85	2.85	2.85	2.86	2.85	2.85	2.86	2.86	2.86

0.5% (1 in 200)	0.5% (1 in 200) inc 20% Climate Change	0.5% (1 in 200) inc 25% Climate Change	0.5% (1 in 200) inc 35% Climate Change	0.5% (1 in 200) inc 65% Climate Change	0.1% (1 in 1000)	0.1% (1 in 1000) inc 20% Climate Change	0.1% (1 in 1000) inc 25% Climate Change
2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85
2.85	2.85	2.85	2.85	2.85	2.85	2.85	2.85
2.86	2.86	2.86	2.86	2.86	2.86	2.86	2.86



## Fluvial Flood Flows (m<sup>3</sup>/s)

The fluvial flood flows for the model nodes shown on the attached map are set out in the table below. They are measured in metres cubed per second (m<sup>3</sup>/s).

Node Label	Easting	Northing	Annual Exceedance Probability - Maximum Flows (m <sup>3</sup> /s)												
			50% (1 in 2)	20% (1 in 5)	10% (1 in 10)	5% (1 in 20)	4% (1 in 25)	3.33% (1 in 30)	2% (1 in 50)	1.33% (1 in 75)	1% (1 in 100)	1% (1 in 100) inc 20% Climate Change	1% (1 in 100) inc 25% Climate Change	1% (1 in 100) inc 35% Climate Change	1% (1 in 100) inc 65% Climate Change
SD13_3532	542676	393012	2.65	3.32	3.80	4.05	4.10	4.13	4.21	4.30	4.43	4.62	4.64	4.68	4.73
SD12_2975	543213	393074	2.76	3.45	3.94	4.17	4.21	4.23	4.29	4.33	4.36	4.58	4.61	4.65	4.72
SD11_2464D	543581	393423	2.86	3.56	4.06	4.27	4.30	4.32	4.37	4.40	4.42	4.54	4.57	4.63	4.71

0.5% (1 in 200)	0.5% (1 in 200) inc 20% Climate Change	0.5% (1 in 200) inc 25% Climate Change	0.5% (1 in 200) inc 35% Climate Change	0.5% (1 in 200) inc 65% Climate Change	0.1% (1 in 1000)	0.1% (1 in 1000) inc 20% Climate Change	0.1% (1 in 1000) inc 25% Climate Change
4.55	4.70	4.71	4.73	4.72	4.71	4.81	4.82
4.51	4.67	4.69	4.72	4.71	4.69	4.80	4.81
4.47	4.65	4.67	4.70	4.70	4.67	4.79	4.80

# East Coast and Wash - 2018 Coastal Flood Boundary [CFB] Dataset Key Node Points



Scale 1:550,000



▲ East Coast and Wash

See separate data sheet for predicted flood levels



Created by the Partnerships and Strategic Overview Team, Lincoln

# East Coast and Wash: Immingham to the West Lighthouse

## 2018 Coastal Flood Boundary Extreme Sea Levels

CFB REF	LOCATION	EASTING	NORTHING	ANNUAL CHANCE ( 1 IN X) OF TIDE LEVEL IN METRES ODN																							
				1			10			50			100			200			300			1000					
				Confidence Bound			Confidence Bound			Confidence Bound			Confidence Bound			Confidence Bound			Confidence Bound			Confidence Bound					
				2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%	2.5%	50%	97.5%
3888	Immingham	520440	417625	4.16	4.17	4.19	4.50	4.53	4.62	4.73	4.80	5.00	4.83	4.93	5.19	4.93	5.06	5.41	4.98	5.14	5.55	5.15	5.38	6.01			
3890	Haborough Marsh	522100	416512	4.14	4.15	4.17	4.48	4.51	4.60	4.70	4.77	4.97	4.80	4.90	5.16	4.90	5.03	5.38	4.94	5.10	5.51	5.11	5.34	5.97			
3898	Grimsby	529295	413162	3.98	3.99	4.01	4.31	4.34	4.43	4.53	4.60	4.80	4.61	4.71	4.97	4.71	4.84	5.19	4.74	4.90	5.31	4.88	5.11	5.74			
3906	Buck Beck	534709	407369	3.87	3.88	3.90	4.19	4.23	4.31	4.41	4.50	4.68	4.50	4.61	4.86	4.61	4.75	5.10	4.64	4.82	5.22	4.80	5.05	5.66			
3910	Tetney	538035	405537	3.85	3.86	3.89	4.17	4.22	4.30	4.40	4.50	4.67	4.49	4.61	4.86	4.60	4.75	5.10	4.63	4.82	5.21	4.80	5.06	5.66			
3918	Donna Nook	544641	401997	3.82	3.83	3.86	4.14	4.19	4.27	4.38	4.48	4.65	4.47	4.60	4.85	4.58	4.74	5.10	4.63	4.82	5.22	4.81	5.08	5.68			
3928	Saltfleet	549131	393360	3.78	3.79	3.82	4.11	4.16	4.26	4.36	4.46	4.64	4.47	4.59	4.86	4.57	4.74	5.11	4.63	4.83	5.25	4.83	5.11	5.74			
3942	Boygriff	555131	380860	3.72	3.74	3.77	4.06	4.11	4.22	4.33	4.43	4.65	4.43	4.57	4.87	4.56	4.73	5.13	4.62	4.83	5.28	4.85	5.15	5.82			
3968	Gibraltar Point	557652	356181	4.16	4.17	4.20	4.51	4.56	4.67	4.76	4.85	5.08	4.85	4.97	5.27	4.94	5.10	5.49	4.99	5.18	5.63	5.14	5.41	6.09			
3992_14	Hobhole	535990	340116	4.96	4.97	5.01	5.40	5.44	5.56	5.66	5.76	5.98	5.78	5.90	6.20	5.88	6.04	6.44	5.92	6.11	6.57	6.03	6.31	6.99			
	Grand Sluice*	532366	344510	4.93	4.94	4.98	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3			
3992_9	Boston Barrier	532754	342852	4.93	4.94	4.98	5.41	5.45	5.57	5.73	5.83	6.05	5.85	5.97	6.27	5.93	6.09	6.49	5.94	6.13	6.59	5.98	6.26	6.94			
3992_5	Fosdyke Bridge	531886	332234	4.87	4.88	4.92	5.31	5.35	5.47	5.58	5.68	5.90	5.71	5.83	6.13	5.82	5.98	6.38	5.87	6.06	6.52	6.01	6.29	6.97			
4008	West Lighthouse	550094	329971	4.87	4.88	4.91	5.21	5.26	5.37	5.46	5.56	5.78	5.56	5.68	5.98	5.66	5.82	6.21	5.71	5.90	6.35	5.86	6.14	6.81			
-	Marsh Road	525988	324065	-	5.04	-	-	5.44	-	-	5.73	-	-	5.85	-	-	5.98	-	-	-	-	-	-	-			
-	Wisbech	546110	309940	-	4.83	-	-	5.25	-	-	5.53	-	-	5.66	-	-	5.78	-	-	-	-	-	-	-			
-	Dog-in-a-Doublet	527200	299287	-	3.67	-	-	4.00	-	-	4.22	-	-	4.32	-	-	4.42	-	-	-	-	-	-	-			

See next page for notes

## 2018 Coastal Flood Boundary Extreme Sea Levels

### NOTES:

The following notes apply to all CFB sites (ie all on table excluding Marsh Road, Wisbech, Dog-in-a-Doublet)

- The base date for the data is 2017.
- The levels are still water levels. Depending on the use of the data it may be necessary to consider wave heights and / or joint probability analysis of water level and other variables.
- Levels for other annual chance probabilities are available if required.
- For additional information relating to the 2018 Coastal Flood Boundary Extreme Sea Levels or to access the full dataset for the above sites or intermediate locations refer to the Defra Metadata Catalogue at <https://deframetadata.com/geonetwork/srv/eng/catalog.search#/metadata/84a5c7c0-d465-11e4-b0bd-f0def148f590>

The following notes apply to all Marsh Road, Wisbech, Dog-in-a-Doublet

- The base date for the data is 2006
- The levels are still water levels. Depending on the use of the data it may be necessary to consider wave heights and / or joint probability analysis of water level and other variables.
- Levels for other annual chance probabilities are available if required.
- These levels will be updated as their respective tidal river models are updated.

The following notes apply to Grand Sluice

- The data is based on CFB 2018 data for Boston Barrier site, capped at 5.3mAOD to reflect use of the barrier.
- The base date for the data is 2017
- The levels are still water levels. Depending on the use of the data it may be necessary to consider wave heights and / or joint probability analysis of water level and other variables.
- For additional information relating to the 2018 Coastal Flood Boundary Extreme Sea Levels or to access the full dataset for the above sites or intermediate locations refer to the Defra Metadata Catalogue at <https://deframetadata.com/geonetwork/srv/eng/catalog.search#/metadata/84a5c7c0-d465-11e4-b0bd-f0def148f590>



★ **Modelled Breach Locations**

0 3.5 7 14  
Kilometers

This map indicates the location of where we have modelled the consequence of breaches in the defences along the coastline and tidal rivers. We have mapped the maximum values of Hazard Rating (Danger to People), Depth and Velocity.

We have not assumed that all breaches occur at the same time, but have modelled each breach individually and overlaid the results to find the maximum values.

Our modelling only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring. Our defences generally provide a good standard of flood defence but a risk of breaching remains.

Please contact the Environment Agency for information on how these maps are used in the management of flood risk.

General Enquiries No: 03708 506 506.

Weekday calls cost 5p plus up to 6ppm from BT Weekend Unlimited. Mobile and other providers charges may vary.

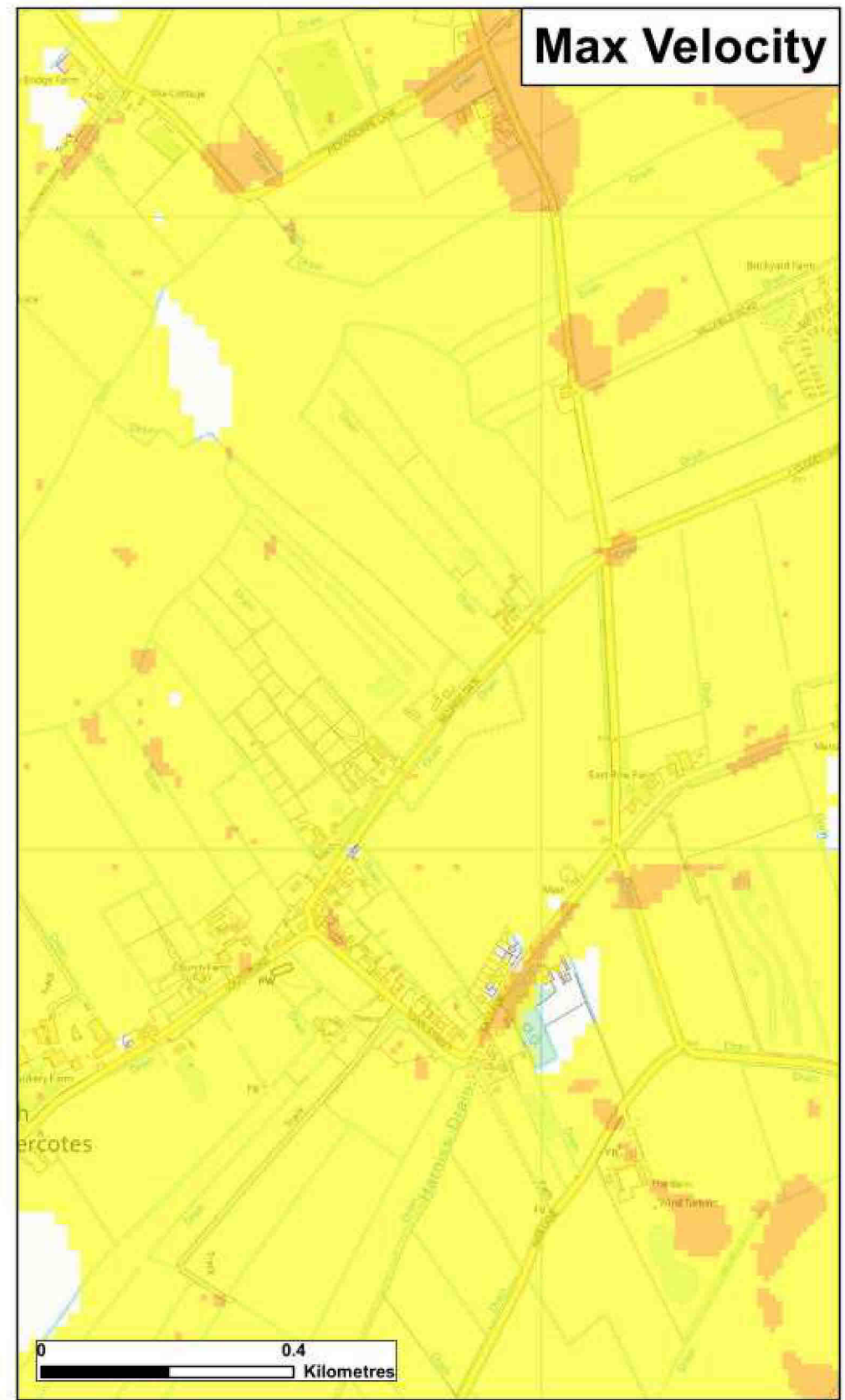
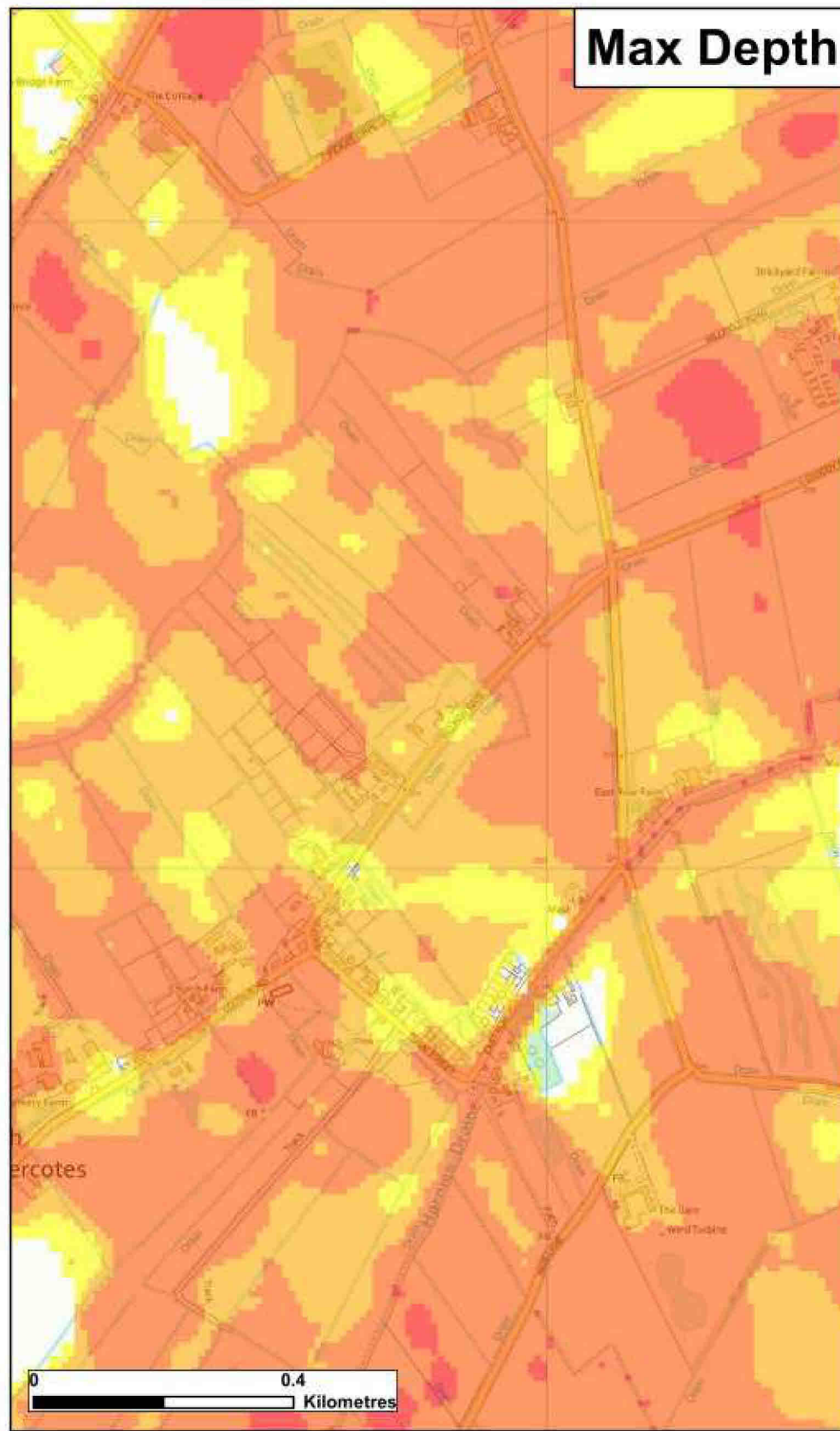
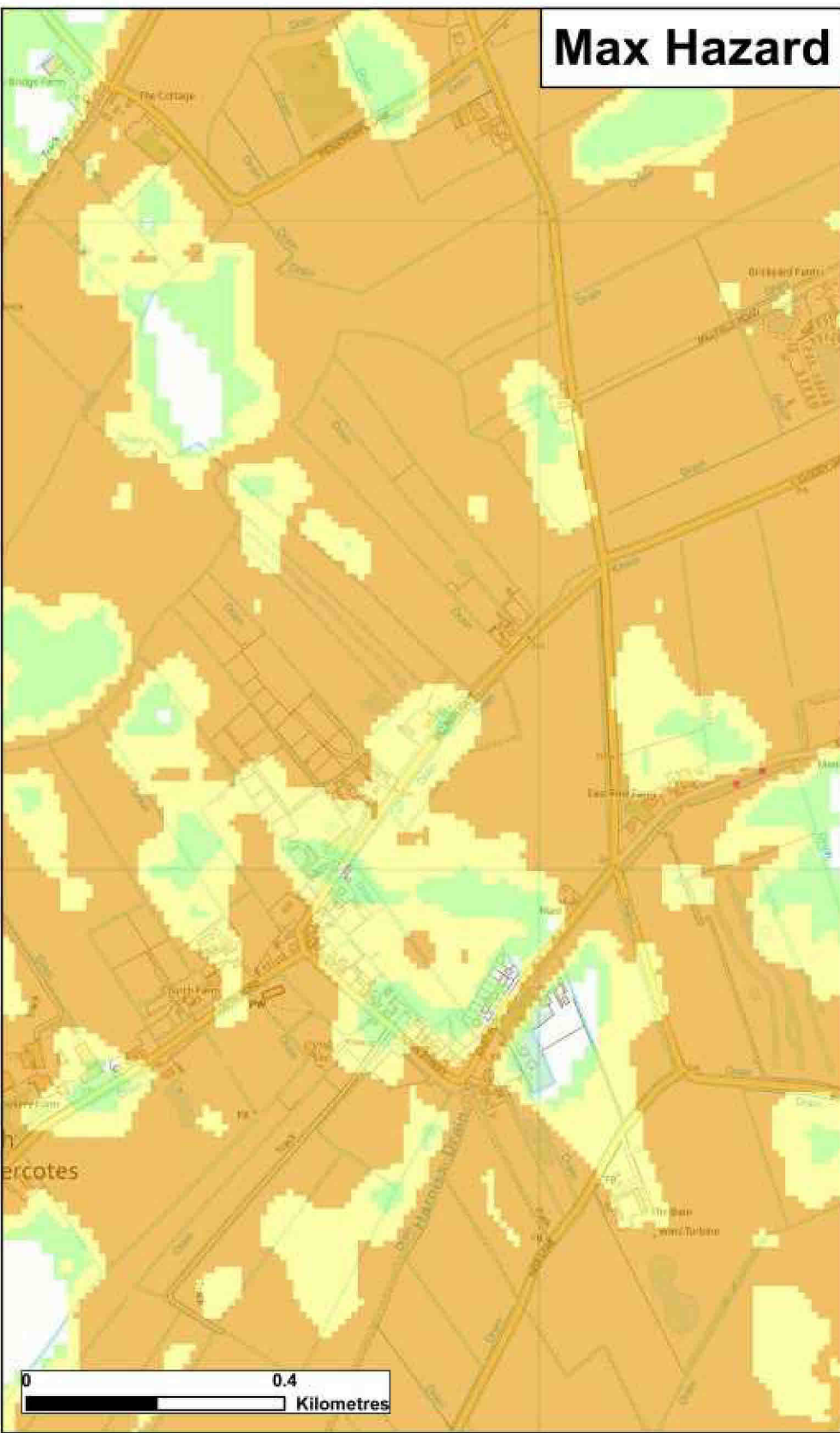


Produced by the Planning and Strategic Overview Team, Lincoln  
General Enquiries No: 03708 506 506

### Northern Area Tidal Hazard Mapping

#### Location of Modelled Breaches

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★ **Modelled Breach Locations** - see also the accompanying plan "Location of Modelled Breaches"

Max Hazard (Flood Risk to People : FD2320)	Max Depth (m)	Max Velocity (m/s)
Less than 0.75 (Low Hazard)	0 - 0.25	0 - 0.3
Between 0.75 and 1.25 (Danger for Some)	0.25 - 0.50	0.3 - 1.0
Between 1.25 and 2.0 (Danger for Most)	0.50 - 1.0	1.0 - 1.5
Greater than 2.0 (Danger for All)	1.0 - 1.6	1.5 - 2.5
	1.6 +	2.5 +

<b>Date Printed</b>	February 2023	<b>Scenario year</b>	2115	<b>Scenario Annual Chance</b>	0.5% (1 in 200)	<b>CCN Number</b>	CCN-2023-295648
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This map shows the level of flood hazard to people (called a hazard rating) if our flood defences are breached at certain locations, for a range of scenarios. The hazard rating depends on the depth and velocity of floodwater, and maximum values of these are also mapped.

The map is based on computer modelling of simulated breaches at specific locations. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, different sized tidal surges or flood flows may all give different results.

The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring. The likelihood of a breach occurring will depend on a number of different factors, including the construction and condition of the defences in the area. A breach is less likely where defences are of a good standard, but a risk of breaching remains.

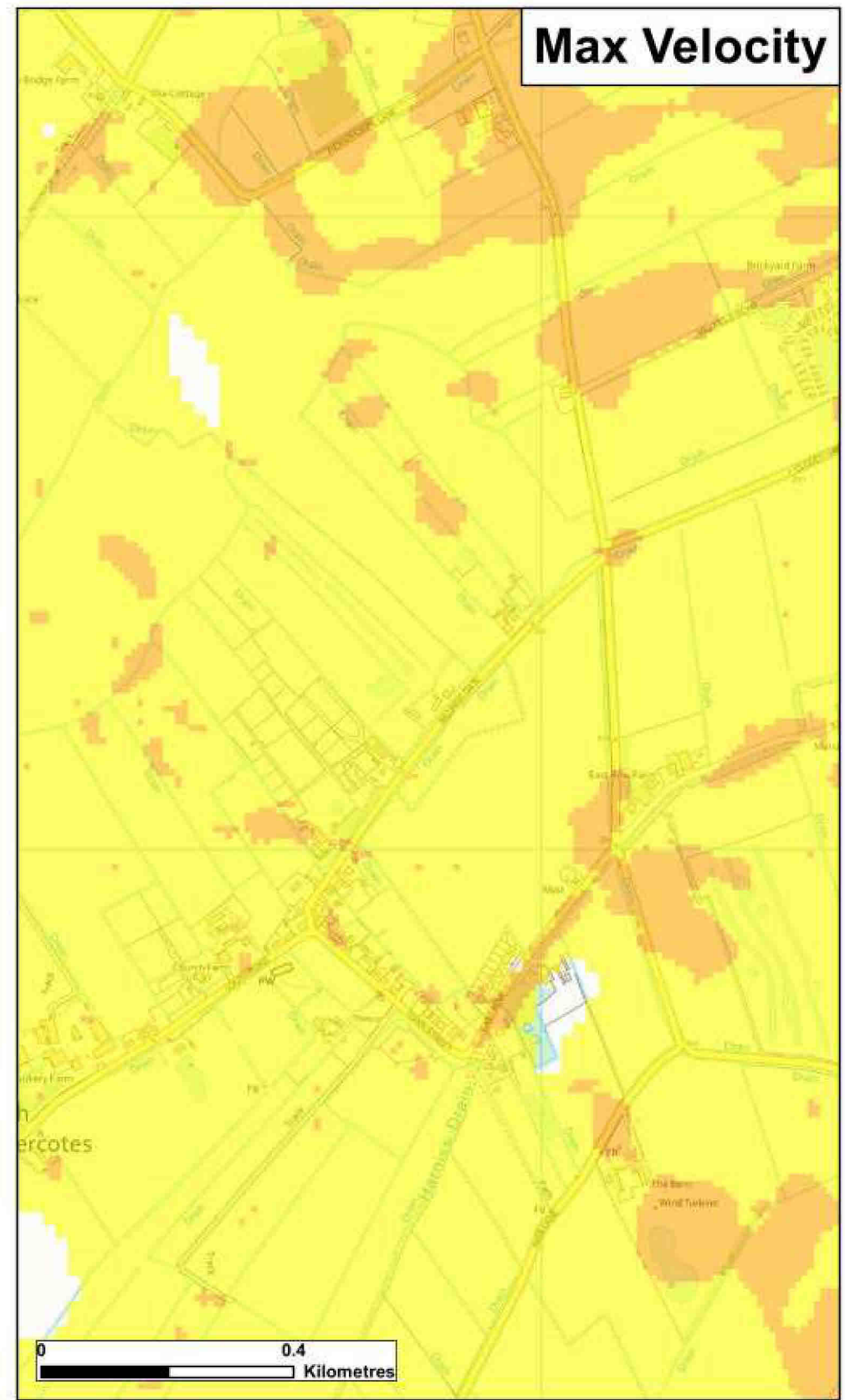
General Enquiries No: 03708 506 506. Weekday Daytime calls cost 5p plus up to 6p per minute from BT Weekend Unlimited. Mobile and other providers' charges may vary



**Lincolnshire and Northamptonshire Hazard Mapping**

Map Centred on TF 41821 94230

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★ **Modelled Breach Locations** - see also the accompanying plan "Location of Modelled Breaches"

Max Hazard (Flood Risk to People : FD2320)	Max Depth (m)	Max Velocity (m/s)
Less than 0.75 (Low Hazard)	0 - 0.25	0 - 0.3
Between 0.75 and 1.25 (Danger for Some)	0.25 - 0.50	0.3 - 1.0
Between 1.25 and 2.0 (Danger for Most)	0.50 - 1.0	1.0 - 1.5
Greater than 2.0 (Danger for All)	1.0 - 1.6	1.5 - 2.5
	1.6 +	2.5 +

<b>Date Printed</b>	February 2023	<b>Scenario year</b>	2115	<b>Scenario Annual Chance</b>	0.1% (1 in 1000)	<b>CCN Number</b>	CCN-2023-295648
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This map shows the level of flood hazard to people (called a hazard rating) if our flood defences are breached at certain locations, for a range of scenarios. The hazard rating depends on the depth and velocity of floodwater, and maximum values of these are also mapped.

The map is based on computer modelling of simulated breaches at specific locations. Each breach has been modelled individually and the results combined to create this map. Multiple breaches, other combinations of breaches, different sized tidal surges or flood flows may all give different results.

The map only considers the consequences of a breach, it does not make any assumption about the likelihood of a breach occurring. The likelihood of a breach occurring will depend on a number of different factors, including the construction and condition of the defences in the area. A breach is less likely where defences are of a good standard, but a risk of breaching remains.

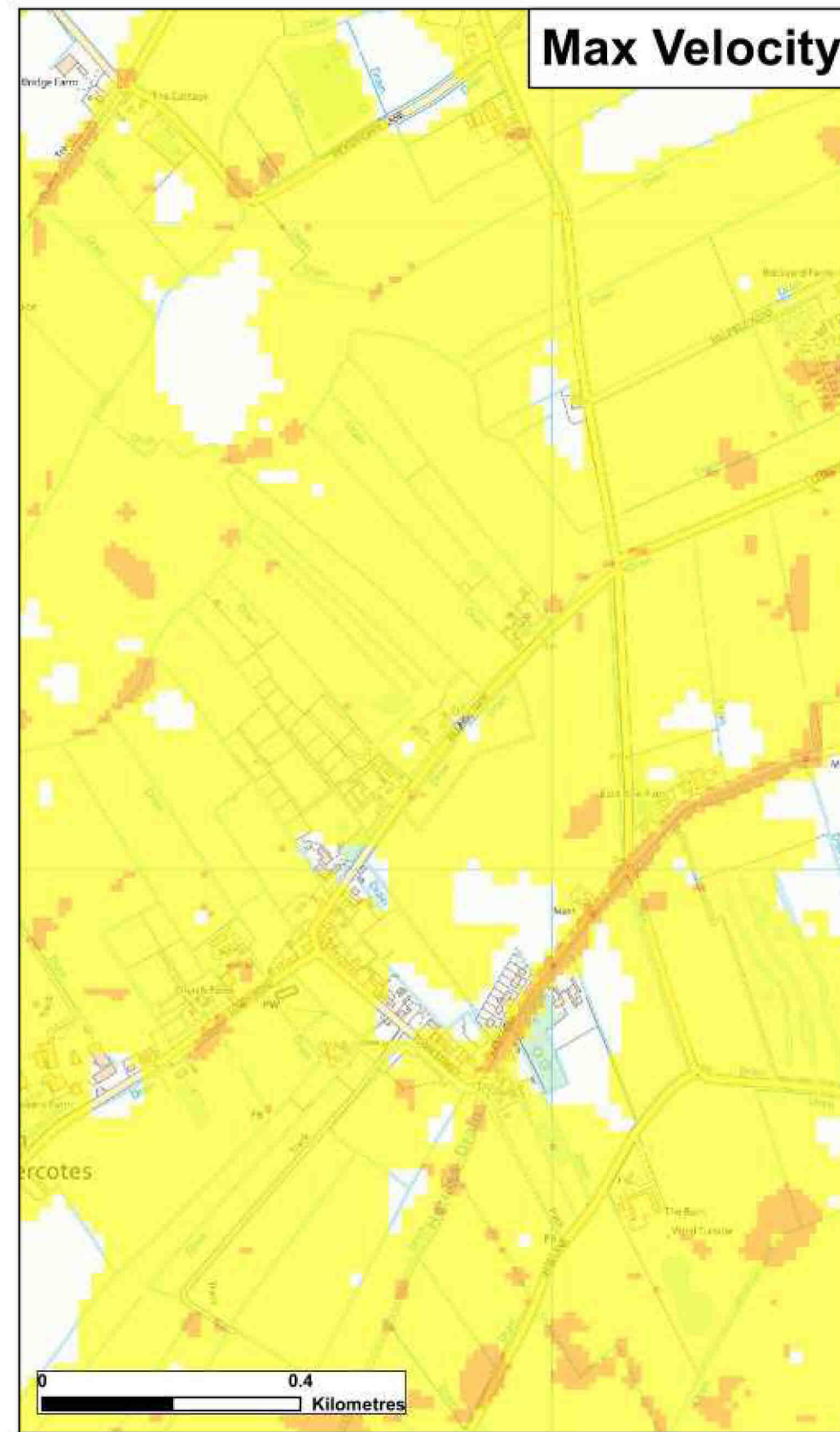
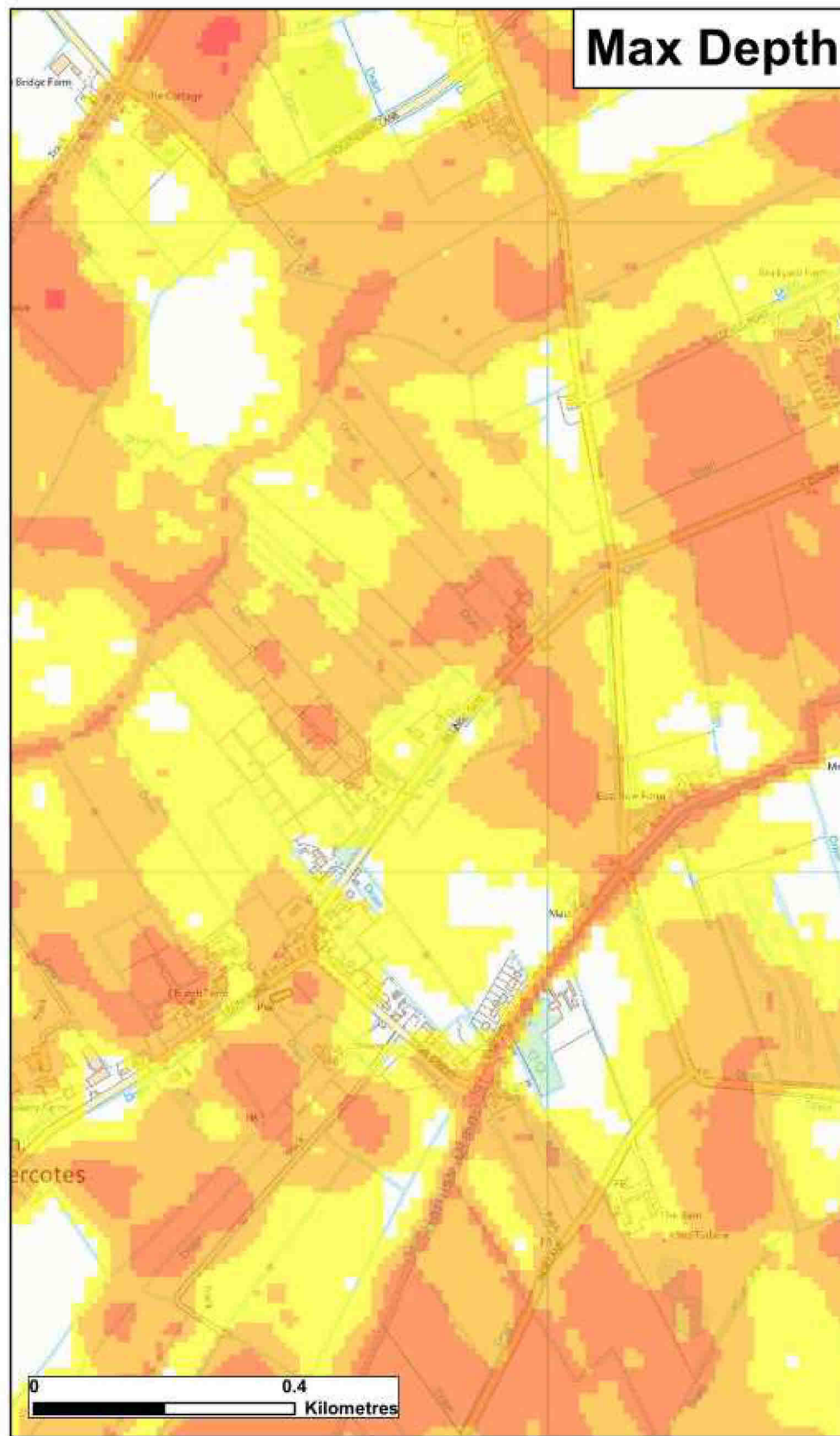
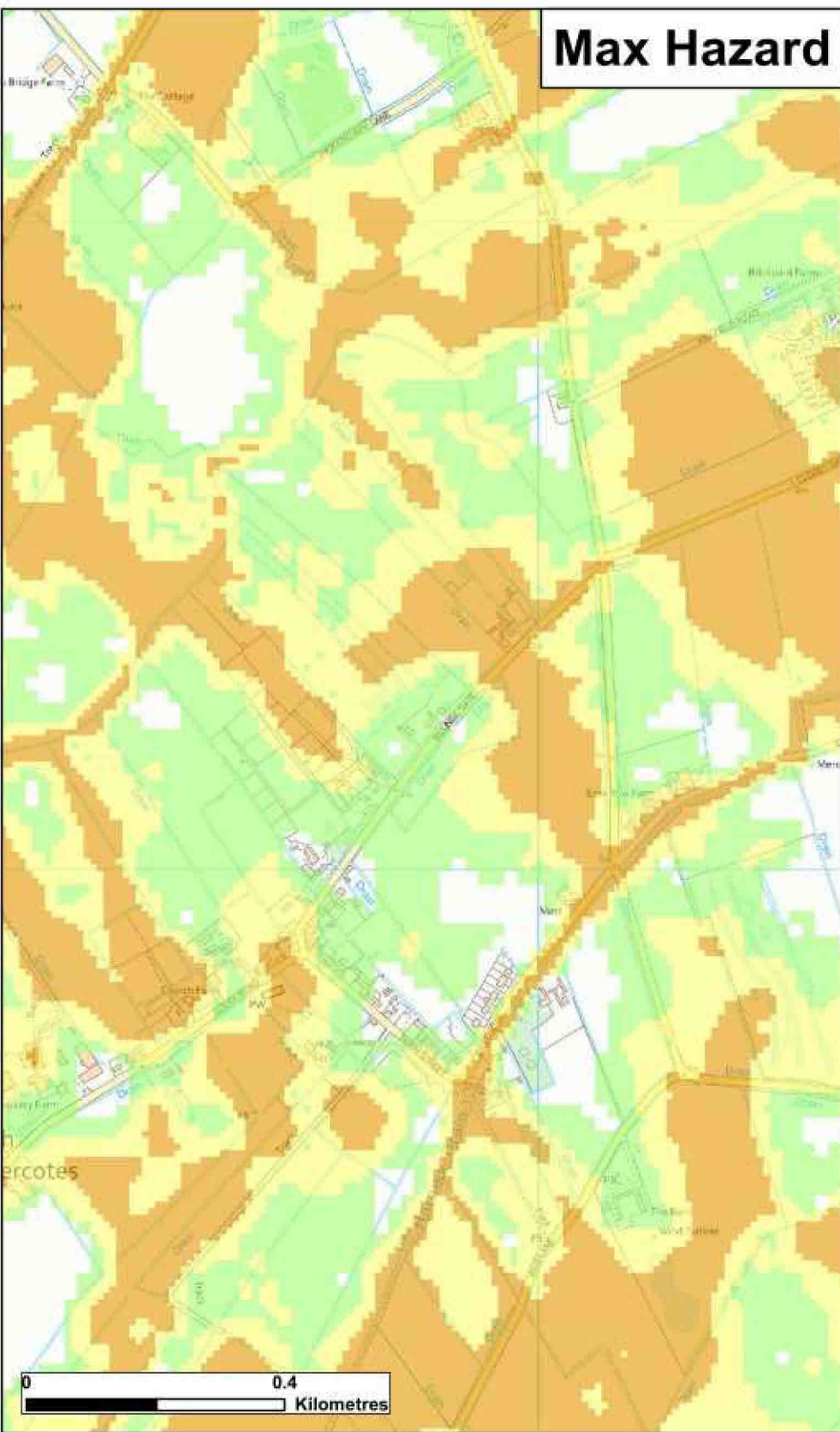
General Enquiries No: 03708 506 506. Weekday Daytime calls cost 5p plus up to 6p per minute from BT Weekend Unlimited. Mobile and other providers' charges may vary



**Lincolnshire and Northamptonshire  
Hazard Mapping**

Map Centred on TF 41821 94230

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Max Hazard (Flood Risk to People : FD2320)	
	Less than 0.75 (Low Hazard)
	Between 0.75 and 1.25 (Danger for Some)
	Between 1.25 and 2.0 (Danger for Most)
	Greater than 2.0 (Danger for All)

Max Depth (m)	
	0 - 0.25
	0.25 - 0.50
	0.50 - 1.0
	1.0 - 1.6
	1.6 +

Max Velocity (m/s)	
	0 - 0.3
	0.3 - 1.0
	1.0 - 1.5
	1.5 - 2.5
	2.5 +

The map is based on computer modelling of simulated overtopping of the main coastal defences for specific tidal scenarios. It does not include overtopping along the following tidal rivers which are currently being investigated: Witham Haven (upstream of Hobhole), and Welland (upstream of Fosdyke Bridge)

The map only considers the consequences of overtopping of the defences, and does not show the possible consequences of breaches of the tidal defences. Separate maps of the flood extent from just breaching of the defences are available.

For future climate change scenarios it is assumed that defences remain at 2006 heights.

These maps do not replace the flood zone maps used in the National Planning Policy Framework (NPPF)

General Enquiries No: 03708 506 506. Weekday Daytime calls cost 5p plus up to 6p per minute from BT Weekend Unlimited. Mobile and other providers' charges may vary



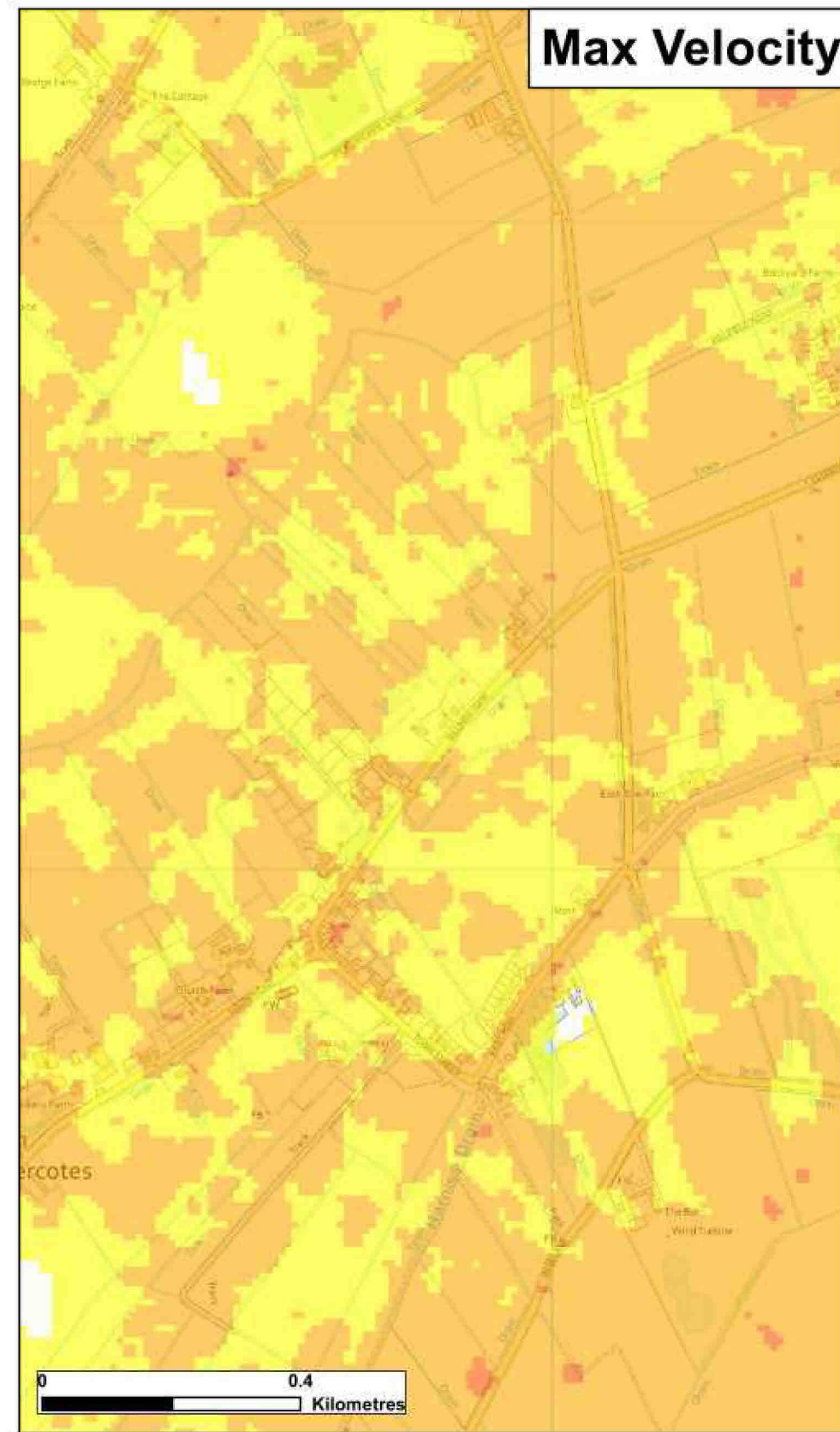
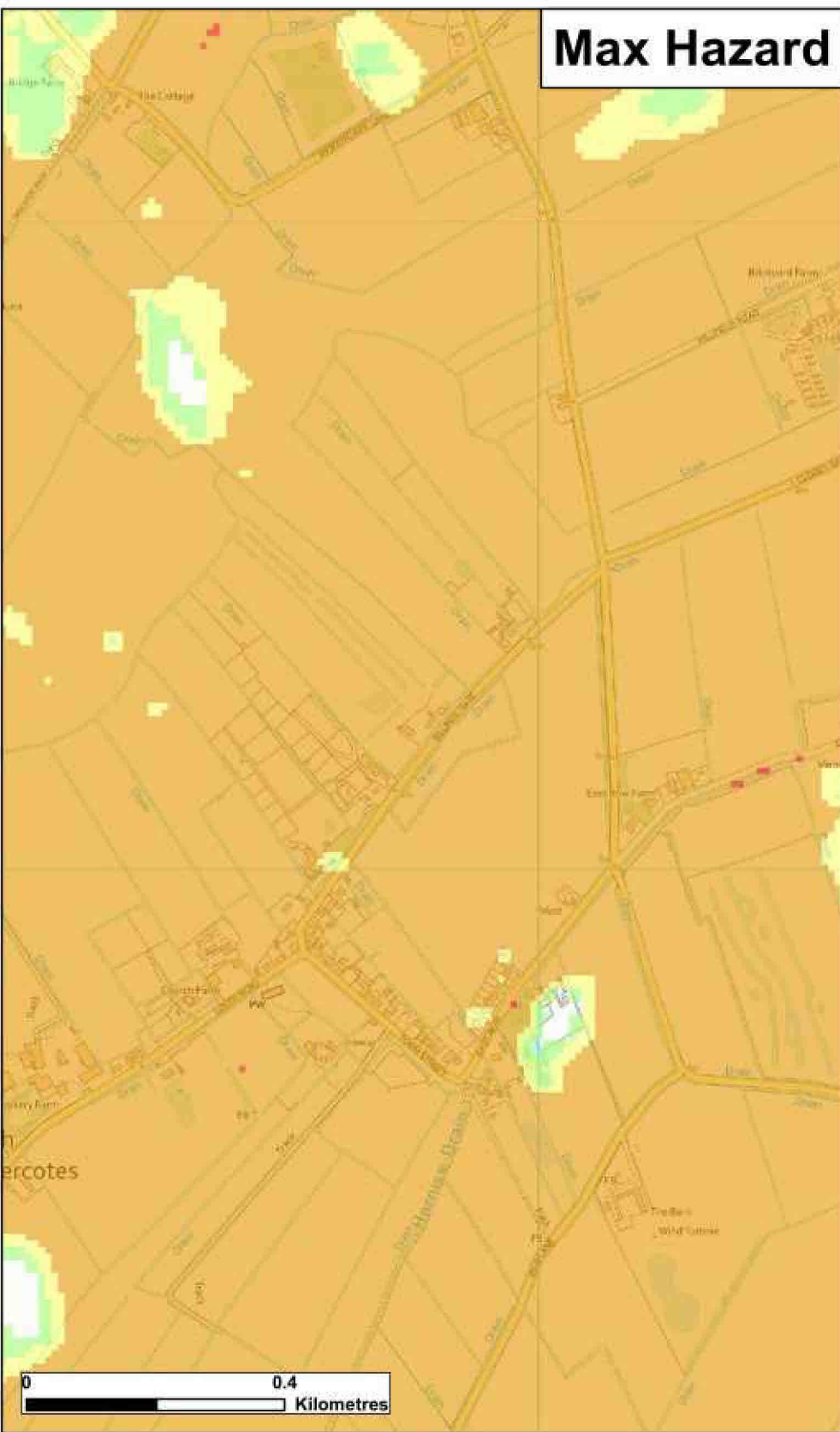
**Lincolnshire and Northamptonshire  
Overtopping Hazard Mapping**

Map Centred on TF 41821 94230

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<b>Date Printed</b>	February 2023	<b>Scenario year</b>	2115	<b>Scenario Annual Chance</b>	0.5% (1 in 200)	<b>CCN Number</b>	CCN-2023-295648
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Max Hazard (Flood Risk to People : FD2320)	
	Less than 0.75 (Low Hazard)
	Between 0.75 and 1.25 (Danger for Some)
	Between 1.25 and 2.0 (Danger for Most)
	Greater than 2.0 (Danger for All)

Max Depth (m)	
	0 - 0.25
	0.25 - 0.50
	0.50 - 1.0
	1.0 - 1.6
	1.6 +


Max Velocity (m/s)	
	0 - 0.3
	0.3 - 1.0
	1.0 - 1.5
	1.5 - 2.5
	2.5 +

The map is based on computer modelling of simulated overtopping of the main coastal defences for specific tidal scenarios. It does not include overtopping along the following tidal rivers which are currently being investigated: Witham Haven (upstream of Hobhole), and Welland (upstream of Fosdyke Bridge)

The map only considers the consequences of overtopping of the defences, and does not show the possible consequences of breaches of the tidal defences. Separate maps of the flood extent from just breaching of the defences are available.

For future climate change scenarios it is assumed that defences remain at 2006 heights.

These maps do not replace the flood zone maps used in the National Planning Policy Framework (NPPF)



**Lincolnshire and Northamptonshire  
Overtopping Hazard Mapping**

Map Centred on TF 41821 94230

<b>Date Printed</b>	February 2023	<b>Scenario year</b>	2115	<b>Scenario Annual Chance</b>	0.1% (1 in 1000)	<b>CCN Number</b>	CCN-2023 -295648
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