

Product 4 (Detailed Flood Risk) for: Medway Bridge Marina
Requested by: Mike Simmonds – Kent Planning
Reference: KSL151008/LP29
Date: 23 October 2015

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The information provided is based on the best data available as of the date of this letter.

You may feel it is appropriate to contact our office at regular intervals, to check whether any amendments/ improvements have been made to the data for this location. Should you re-contact us after a period of time, please quote the above reference in order to help us deal with your query.

This information is provided subject to the enclosed notice which you should read.

Flood Map Confirmation

The Flood Map:

Our Flood Map shows the natural floodplain for areas at risk from river and tidal flooding. The floodplain is specifically mapped ignoring the presence and effect of defences. Although flood defences reduce the risk of flooding they cannot completely remove that risk as they may be over topped or breached during a flood event.

The Flood Map indicates areas with a 1% (0.5% in tidal areas), Annual Exceedance Probability (AEP) - the probability of a flood of a particular magnitude, or greater, occurring in any given year, and a 0.1% AEP of flooding from rivers and/or the sea in any given year. The map also shows the location of some flood defences and the areas that benefit from them.

The Flood Map is intended to act as a guide to indicate the potential risk of flooding. When producing it we use the best data available to us at the time, taking into account historic flooding and local knowledge. The Flood Map is updated on a quarterly basis to account for any amendments required. These amendments are then displayed on the internet at www.gov.uk/prepare-for-a-flood.

At this Site:

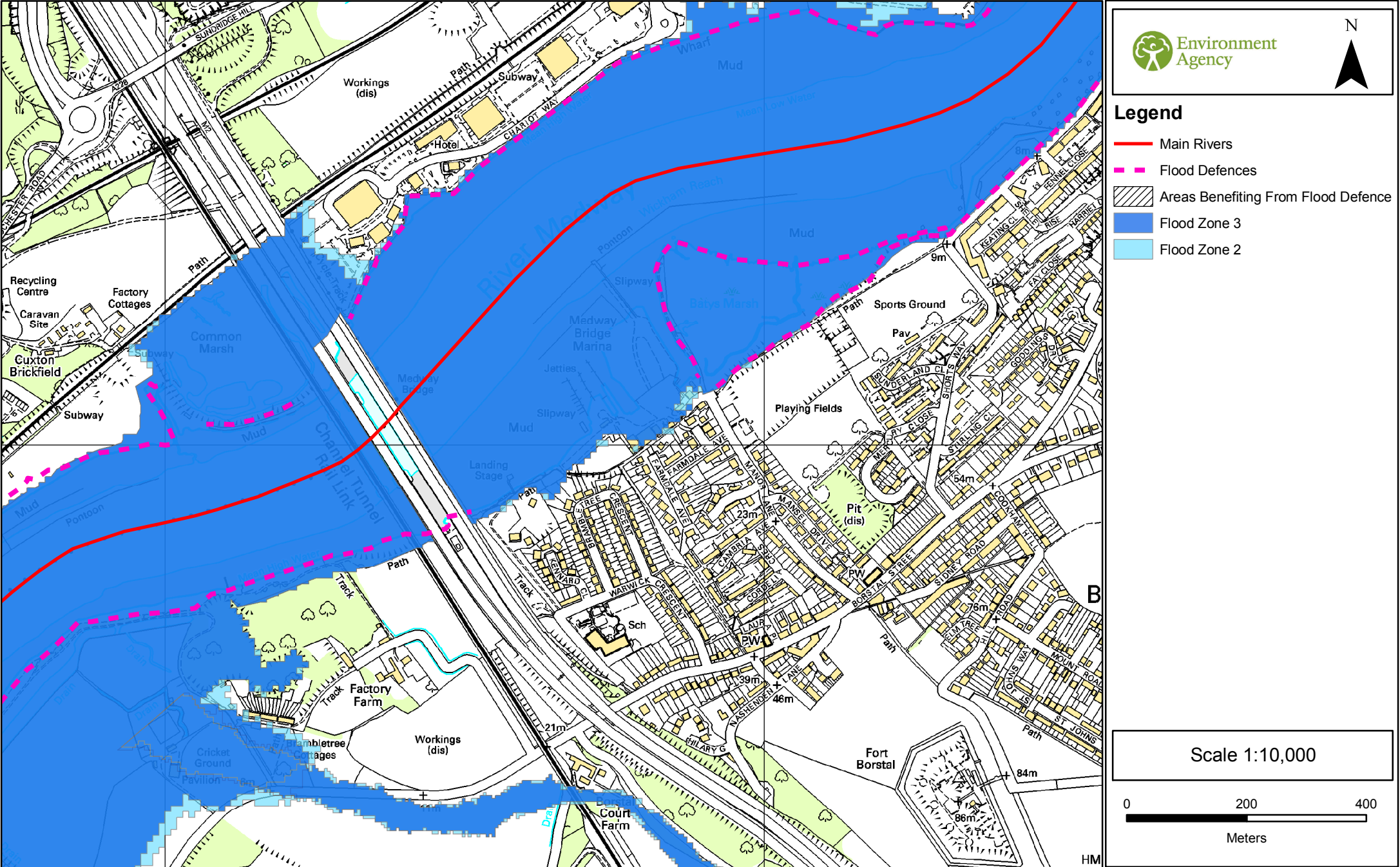
The Flood Map shows that this site lies partially within the outline of the 0.5% chance of flooding in any given year from the sea.

Enclosed is an extract of our Flood Map which shows this information for your area.

Method of production

The Flood Map at this location has been derived using detailed tidal modelling of the North Kent Coast, completed in August 2013.

Flood Map Centred on Medway Bridge Marina
Created 23 October 2015 (Ref KSL151008/LP29)



Model Output Data

You have requested flood levels for various return periods at this location.

The modelled flood levels for the closest most appropriate model grid cells, any additional information you may need to know about the modelling from which they are derived and/or any specific use or health warning for their use are set out below.

Using a 2D TuFLOW model the floodplain has been represented as a grid. The flood water levels have been calculated for each grid cell.

A map showing the location of the points from which the data is taken is enclosed. Please note you should read the notice enclosed for your specific use rights.

Table 1: Defended Modelled Tidal Flood levels for Annual Exceedance Probability shown in mAOD

Node Location ID	Modelled Tidal Flood levels for Annual Exceedance Probability shown in mAOD						
	National Grid Ref		Defended				
	Easting	Northing	5% AEP 2012	0.5% AEP 2012	0.5% AEP 2070	0.5% AEP 2115	0.1% AEP (2012)
1	572776	167184	4.61	5.03	5.45	5.99	5.40
2	572793	167113	4.61	5.03	5.46	5.99	5.40
3	572720	167058	4.61	5.03	5.46	5.99	5.40
4	572830	167069	4.61	5.03	5.46	5.99	5.40
5	572567	166878	0.00	0.00	0.00	0.00	0.00
6	572647	166907	0.00	0.00	0.00	5.99	0.00
7	572735	166973	0.00	0.00	0.00	0.00	0.00
8	572850	167018	0.00	0.00	0.00	0.00	0.00

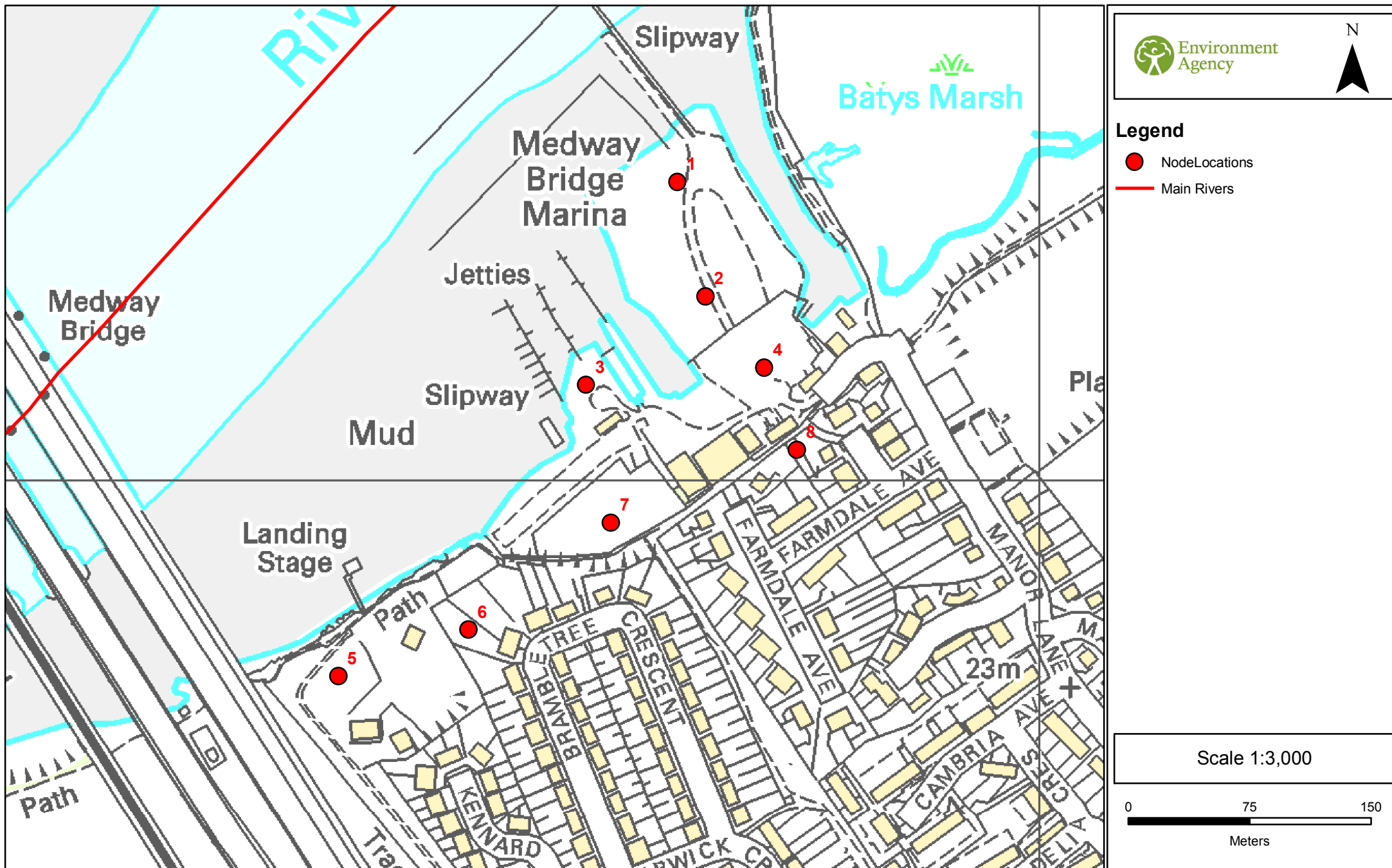
Table 2: Undefended Modelled Tidal Flood levels for Annual Exceedance Probability shown in mAOD

Node Location ID	Modelled Tidal Flood levels for Annual Exceedance Probability shown in mAOD						
	National Grid Ref		Undefended				
	Easting	Northing	5% AEP 2012	0.5% AEP 2012	0.5% AEP 2070	0.5% AEP 2115	0.1% AEP 2012
1	572776	167184	4.49	4.99	5.44	6.01	5.37
2	572793	167113	4.49	4.99	5.44	6.01	5.37
3	572720	167058	4.50	4.99	5.44	6.01	5.37
4	572830	167069	0.00	4.99	5.44	6.01	5.37
5	572567	166878	0.00	0.00	0.00	0.00	0.00
6	572647	166907	0.00	0.00	0.00	6.02	0.00
7	572735	166973	0.00	0.00	0.00	0.00	0.00
8	572850	167018	0.00	0.00	0.00	0.00	0.00

Data taken from North Kent Coast Modelling and Mapping Study, completed by JBA Consulting, in August 2013.

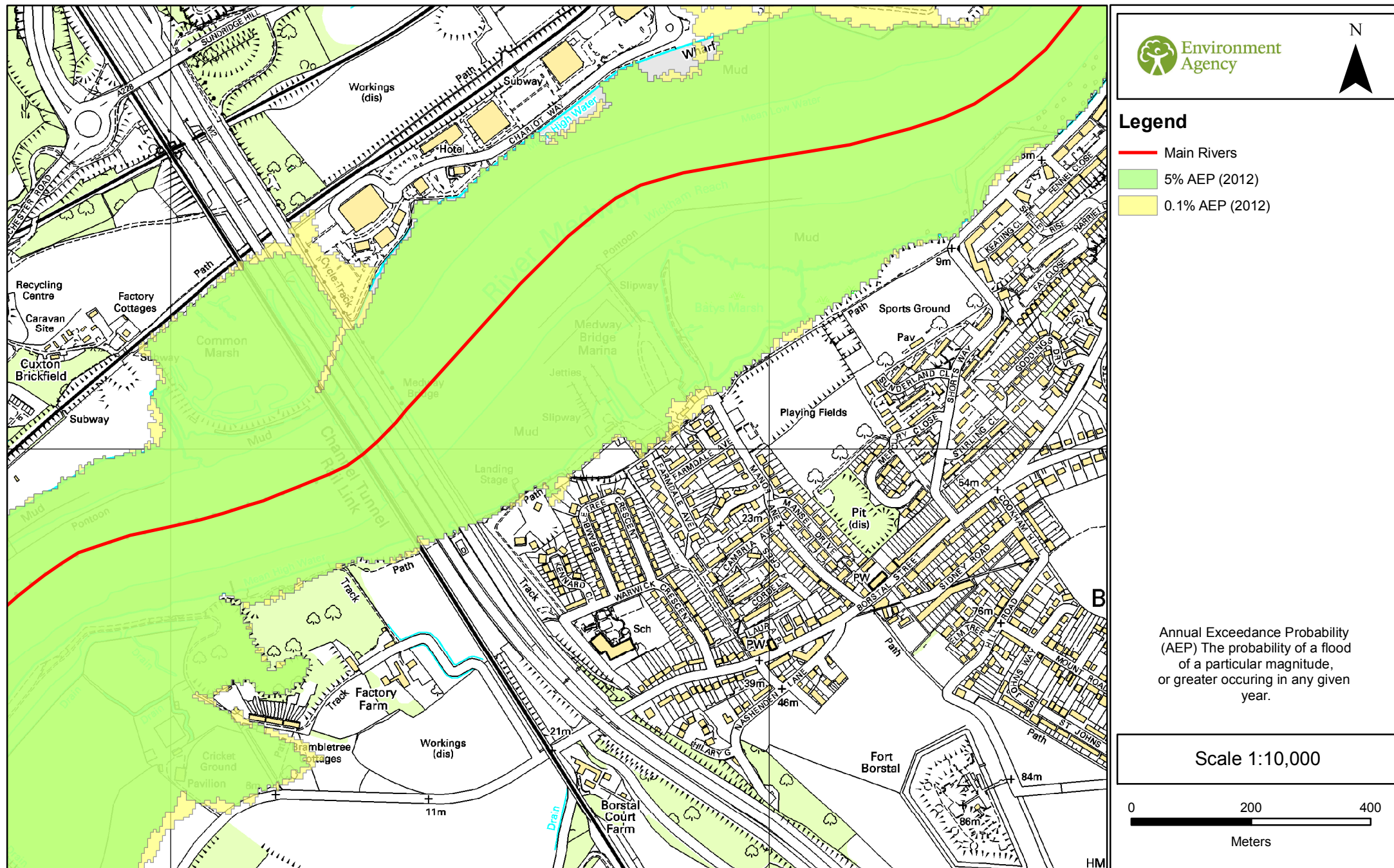
There are no health warnings or additional information for these levels or the model from which they were produced.

Modelled Node Locations Centred on Medway Bridge Marina
Created 23 October 2015 (Ref KSL151008/LP29)



Defended Modelled Tidal Flood Outlines Centred on Medway Bridge Marina

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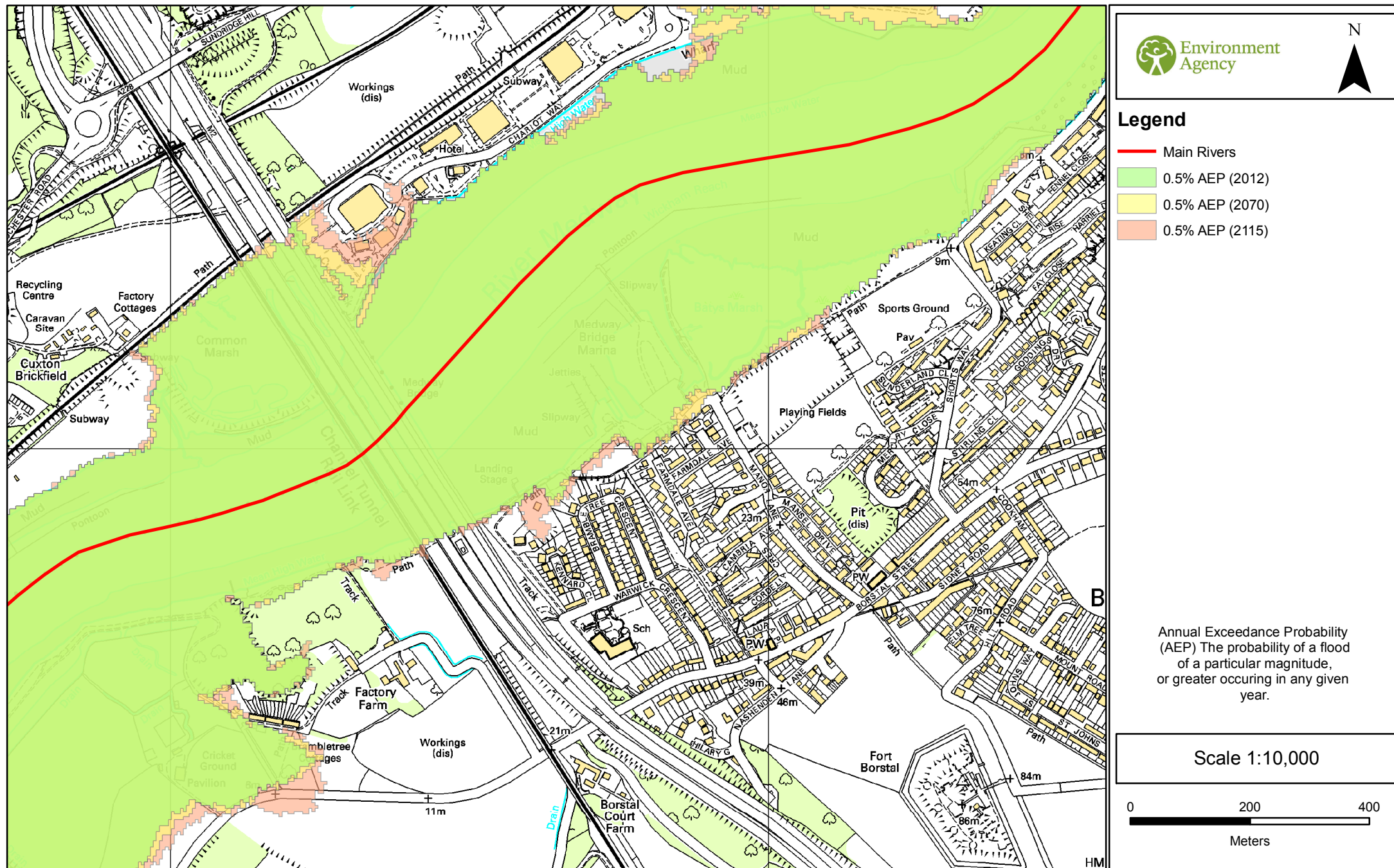
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Created 23 October 2015 (Ref KSL151008/LP29)



Undefended Modelled Tidal Flood Outlines Centred on Medway Bridge Marina Created 23 October 2015 (Ref KSL151008/LP29)



Defence Details

There are currently no formal flood defences in the area around Medway Bridge Marina. Areas of high ground indicate the limit of the flood zones on the attached modelled outputs.

The Environment Agency does not currently have any planned defences in this area.

Historic Flood Data

Flood Event Data

We do not hold records of historic flood events from rivers and/or the sea affecting the area local to this site. However, please be aware that this does not necessarily mean that flooding has not occurred here in the past, as our records are not comprehensive.

Please note that our records are not comprehensive. We would therefore advise that you make further enquiries locally with specific reference to flooding at this location. You should consider contacting the relevant Local Planning Authority and/or water/sewerage undertaker for the area.

We map flooding to land, not individual properties. Our historic flood event record outlines are an indication of the geographical extent of an observed flood event. Our historic flood event outlines do not give any indication of flood levels for individual properties. They also do not imply that any property within the outline has flooded internally.

Please be aware that flooding can come from different sources. Examples of these are:

- from rivers or the sea;
- surface water (i.e. rainwater flowing over or accumulating on the ground before it is able to enter rivers or the drainage system);
- overflowing or backing up of sewer or drainage systems which have been overwhelmed,
- groundwater rising up from underground aquifers

Currently the Environment Agency can only supply flood risk data relating to the chance of flooding from rivers or the sea. However you should be aware that in recent years, there has been an increase in flood damage caused by surface water flooding or drainage systems that have been overwhelmed.

Additional Information

Use of Environment Agency Information for Flood Risk / Flood Consequence Assessments

Depending on the enquiry, we may also provide advice on other issues related to our responsibilities including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

In **England**, you should refer to the Environment Agency's Flood Risk Standing Advice, the technical guidance to the National Planning Policy Framework and the existing PPS25 Practice Guide for information about what flood risk assessment is needed for new development in the different Flood Zones. These documents can be accessed via:

<https://www.gov.uk/government/publications/flood-risk-standing-advice-for-local-planning-authorities-frsa>
<http://planningguidance.planningportal.gov.uk/>

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

You should note that:

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk / Consequence Assessment (FRA / FCA) where one is required, but does not constitute such an assessment on its own.
2. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or overland runoff. The information produced by the local planning authority referred to above may assist here.
3. Where a planning application requires a FRA / FCA and this is not submitted or deficient, the Environment Agency may well raise an objection.
4. For more significant proposals in higher flood risk areas, we would be pleased to discuss details with you ahead of making any planning application, and you should also discuss the matter with your local planning authority.

Surface Water

We have provided two national Surface Water maps, under our Strategic Overview for flooding, to your Lead Local Flood Authority – Medway Council, who are responsible for local flood risk (i.e. surface runoff, ground water and ordinary watercourse), which alongside their existing local information will help them in determining what best represents surface water flood risk in your area.

Medway Council have reviewed these and determined what it believes best represents surface water flood risk. You should therefore contact this authority so they can provide you with the most up to date information about surface water flood risk in your area.

You may also wish to consider contacting the appropriate relevant Local Planning Authority and/or water/sewerage undertaker for the area. They may be able to provide some knowledge on the risk of flooding from other sources. We are working with these organisations to improve knowledge and understanding of surface water flooding.

Standard Notice [not for use with Special Data, Personal Data or unlicensed 3rd party rights]

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