

# GridLink Interconnector

## Flood Risk Assessment

GridLink Interconnector Ltd

October 2020

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# 1. Introduction

## 1.1 Overview

- 1.1.1 AECOM has been commissioned by GridLink Interconnector Ltd (the Applicant) to prepare an outline planning application and environmental reports including a Flood Risk Assessment (FRA) for the construction and operation of a converter station and associated underground electricity cables at Kingsnorth in Kent (hereafter referred to as the 'Proposed Development').
- 1.1.2 The Proposed Development forms part of the GridLink Interconnector Project (hereafter referred to as 'GridLink'). GridLink is a 1.4 Gigawatt (GW) electricity interconnector between the UK and France. In the UK, GridLink will comprise 108 kilometres (km) of submarine High Voltage Direct Current (HVDC) cable, less than 100 metres (m) of underground HVDC cable, a converter station and 1.5km of underground High Voltage Alternating Current (HVAC) cable from the converter station to the existing National Grid Kingsnorth substation.
- 1.1.3 The Proposed Development comprises the converter station building(s), outdoor equipment, internal roads, car parking and associated landscaping, and underground HVDC cable from the converter station to Mean High Water Springs (installed by Horizontal Directional Drilling). The submarine HVDC cable below Mean High Water Springs is subject to a Marine Licence granted by the Marine Management Organisation (MMO), therefore it is not included in the Proposed Development. In addition, the underground HVAC cable that will link the converter station to the National Grid Kingsnorth substation is considered to be permitted development and, therefore, it does not form part of the Proposed Development.
- 1.1.4 The Site is located immediately north of the Medway Estuary in Kent (grid reference TQ 81711 72312), within the former Kingsnorth coal-fired power station site (now demolished). The landscape comprises industrial developments associated with the former power station, such as the National Grid substation, as well as Kingsnorth industrial estate, London Medway Commercial Park and Damhead Creek gas-fired power station. The wider landscape includes arable land, coastal grassland and intertidal mudflats. The Site lies immediately north of the Medway Estuary and Marshes Special Protection Area (SPA), Ramsar and Site of Special Scientific Interest (SSSI).
- 1.1.5 This FRA has been prepared in accordance with the National Planning Policy Framework (NPPF)<sup>1</sup> and supporting Planning Practice Guidance (PPG)<sup>2</sup>.

## 1.2 The proposed development

- 1.2.1 The Proposed Development comprises a the converter station building(s), outdoor equipment, internal roads, car parking and associated landscaping, and underground HVDC cable from the converter station to Mean High Water Springs (installed by Horizontal Directional Drilling).
- 1.2.2 The Proposed Development include the installation of an interconnector cable beneath the existing tidal flood defence line. Such activity requires a Flood Risk Activity Permit from the Environment Agency.
- 1.2.3 The converter station will be connected to a subsea high voltage direct current (HVDC) interconnector cable (comprising 2 cables, bundled together) that will be laid under the seabed along the Medway Estuary, Thames Estuary and the southern North Sea to Dunkerque in France. The HVDC cable offers the most efficient means for long distance transport of electricity with the lowest losses of energy in transit. The converter station will then be connected to the National Grid sub-station at Kingsnorth by an underground high voltage alternating current (HVAC) cable to provide connection to the national grid for import/export of electricity, these onshore underground cables are considered as permitted

<sup>1</sup>'National Planning Policy Framework', available at [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/810197/NPPF\\_Feb\\_2019\\_revised.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/810197/NPPF_Feb_2019_revised.pdf), accessed February 2020

<sup>2</sup>'Planning Practice Guidance' available at <https://www.gov.uk/government/collections/planning-practice-guidance>, accessed February 2020

development under the Town and Country Planning (General Permitted Development) (England) Order 2015 (GPDO) and as such is not included within this application. The offshore HVDC cables will be assessed under a separate application to the Marine Management Organisation and are also not covered within this document. All electricity cables will be laid underground; there are no overhead transmission lines associated with the Proposed Development.

## 1.3 Objectives

1.3.1 The aim of this FRA is to assess the flood risk to and from the Proposed Development in accordance with the requirements of the NPPF and suggest measures to avoid and/ or reduce the risks. The following objectives have been achieved to fulfil this aim:

- Gather desktop information relating to geology, topography and local water features that may pose a risk of flooding to the Proposed Development;
- Obtain flood modelling outputs from the Environment Agency associated with tidal flooding from the Medway Estuary to determine the risk of tidal flooding to the site over its lifetime, allowing for the effects of climate change;
- Assess the risk of flooding from all sources (tidal, fluvial, surface water, groundwater, sewers and ordinary watercourses) to and from the Proposed Development allowing for the effects of climate change over the lifetime of the development;
- Identify the potential effects of the Proposed Development on the surface water flood risk to the site and surrounding area, including alterations to permeable surfacing and surface water flow paths;
- Identify mitigation measures required to avoid or reduce potential adverse impacts on flood risk to the Proposed Development or elsewhere, and where possible identify measures to reduce the level of flood risk overall;
- Identify measures to ensure the safe operation of the Proposed Development and safety of site personnel; and,
- Present the conclusions of the FRA in support of the application of the Exception Test for the Proposed Development in accordance with the NPPF<sup>1</sup>.

## 1.4 Data sources and consultation

1.4.1 AECOM has consulted with the Environment Agency to obtain flood risk information and modelling datasets of relevance to the Proposed Development (included in FRA Appendix A).

1.4.2 The following sources of information have been used to inform the FRA:

- LiDAR Topographic Survey (Defra Data Services Platform).
- Topographic Survey data (Socotec, February 2020).
- Environment Agency Flood Map for Planning: <https://flood-map-for-planning.service.gov.uk/>
- Environment Agency Long term flood risk information: <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>
- Kingsnorth Power Station Medway Kent, Flood Risk Assessment (SM Foster Associates Ltd, February 2017).
- GridLink, Kingsnorth Geotechnical Desk Study, G9081-19/1, Socotec, March 2020.

- Environment Agency ‘Product 4’ data<sup>3</sup> (FRA Appendix A). The Environment Agency has confirmed that they do not hold the modelling data for the Site in order to create ‘Product 8<sup>4</sup>’.
- Environment Agency, 2015, Kent Coastal Modelling Study.
- Consultation with North Kent Marshes Internal Drainage Board.
- Outline Surface Water Drainage Strategy (AECOM, March 2020).
- Medway Council Strategic Flood Risk Assessment (Mott MacDonald, August 2006).
- Medway Council Local Flood Risk Management Strategy (Capita Symonds URS, July 2014).

## 2. Site location and development proposals

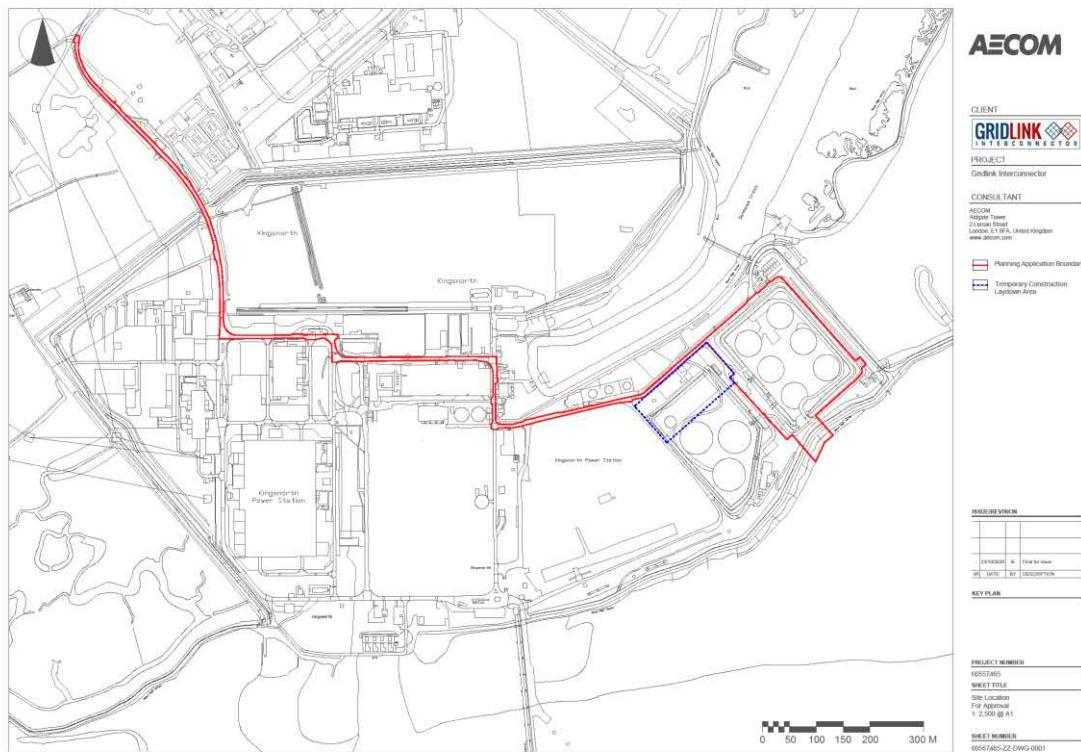
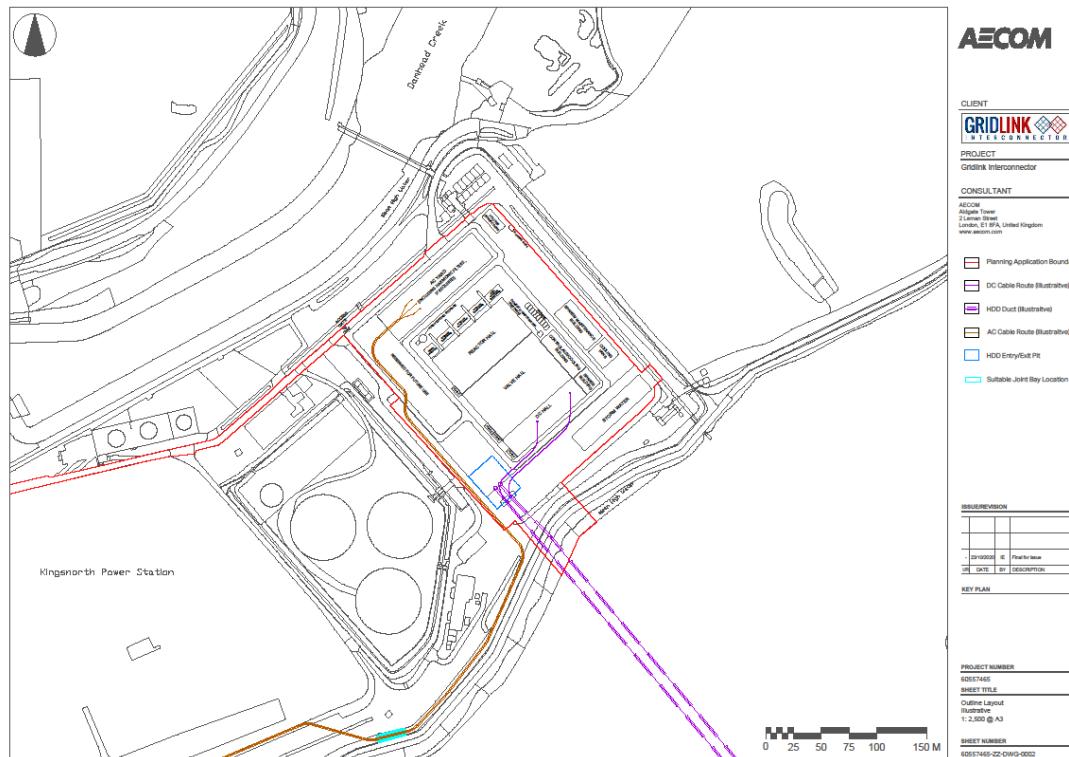
### 2.1 Site location and current use

- 2.1.1 The Application site ('the Site') comprises 6.2 hectares of land located within the former Kingsnorth Power Station (now demolished) on the northern bank of the Medway Estuary. The wider area of the Site is identified as an industrial zone also characterised by the Damhead Creek gas-fired power station, logistics and distribution warehouses and some mixed engineering uses.
- 2.1.2 The location of the Site and planning application boundary is shown in Figure 2-1. The Ordnance Survey grid reference for the Site is TQ 81711 72312. The outline layout for the Application Site is provided in Figure 2-2.
- 2.1.3 The Site, and surrounding area, comprise land which was reclaimed from the tidal mudflats of the Medway Estuary using dredged sediments and has a significant history of previous industrial uses.
- 2.1.4 The Site is located on a peninsular with Damhead Creek 175 m to the north and the Medway Estuary immediately to the south, where intertidal mudflats form part of the Medway Estuary and Marshes Site of Special Scientific Interest (SSSI), Special Protection Area (SPA) and Ramsar site.
- 2.1.5 Damhead Creek natural gas-fired power station is located approximately 460 m to the north of the Site. Future development plots of the MedwayOne commercial park are located immediately to the east (former ash lagoons) and west (former coal stockpile) of the Site.
- 2.1.6 The closest residential areas are approximately 3.0 km to the west of the Site at Hoo St Werburgh, together with the town of Gillingham located approximately 4.2 km to the south. A small number of residential properties are present on the edge of the Kingsnorth industrial area, with the nearest property at 1.8 km to the north of the Site.

<sup>3</sup> Product 4 is described as: Detailed Flood Risk Assessment Map, including flood zones, defences and storage areas, areas benefiting from defences, statutory main river designations, historic flood event outlines and more detailed information from our computer river models (including model extent, information on one or more specific points, flood levels, flood flows)

<https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#get-information-to-complete-an-assessment>

<sup>4</sup> Product 8 is described as: Flood Defence Breach Hazard Map including, maximum flood depth, maximum flood velocity, maximum flood hazard. <https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications#get-information-to-complete-an-assessment>

**Figure 2-1 Site Location Plan****Figure 2-2 Site Outline Layout**

## 2.2 Geology

- 2.2.1 BGS mapping available online<sup>5</sup> and reference to the Geotechnical Desk Study<sup>6</sup> identifies the superficial geology in the area to comprise Alluvium Deposits, comprising clay, silt, sand and peat. These superficial deposits are recorded to be underlain by the London Clay. This comprises blue-grey or grey-brown, slightly calcareous, silty to very silty clay, clayey silt, plus sometimes silts and layers of sandy clay.

## 2.3 Topography

- 2.3.1 The topographic survey for the Site (Socotec, February 2020) identifies ground levels across the centre of Site at approximately 2.5 m – 3.0 m AOD. There is an embankment running around the edge of the Site; the level at the toe of the bank varies from 2.2m – 2.8 m AOD. At the top of bank, the levels vary from 4.1 m – 4.6 m AOD.

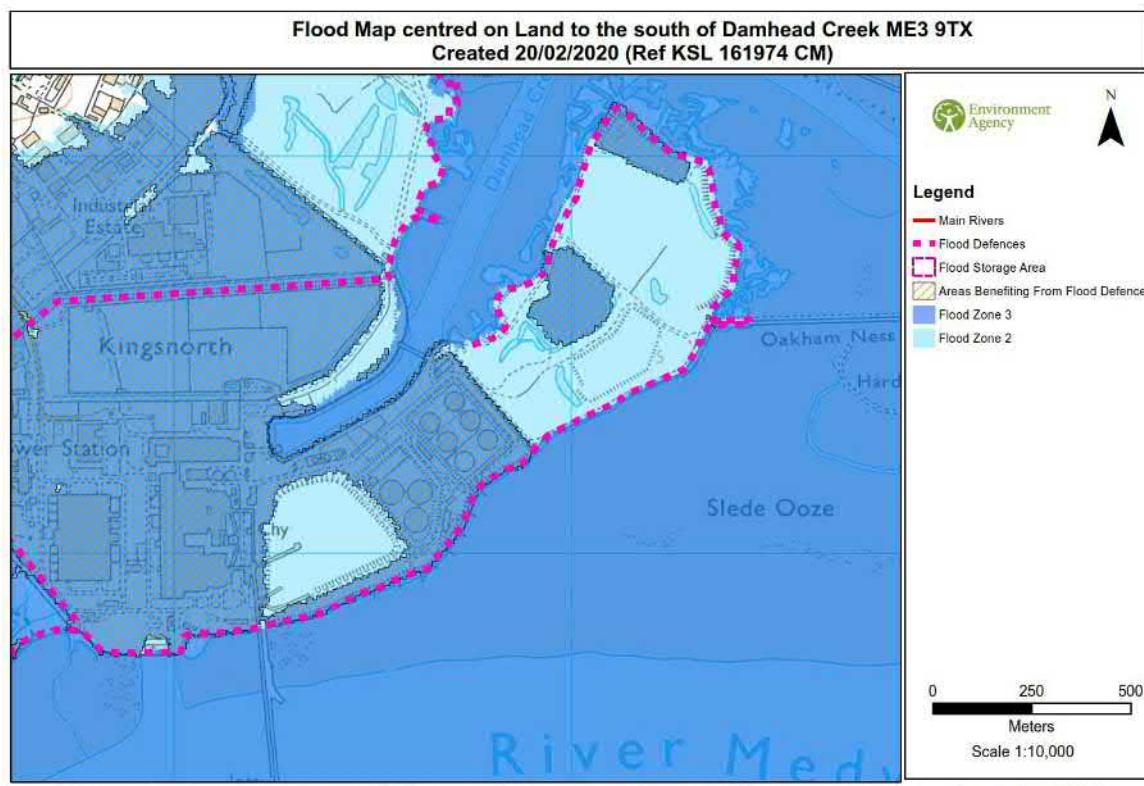
## 2.4 Flood Zone

- 2.4.1 The Environment Agency 'Flood Map for Planning'<sup>7</sup>, available online and mapped in Appendix A and Figure 2-3, shows that the Site is located within Flood Zone 3 which is defined as land assessed as having a 0.5% or greater annual exceedance probability (AEP) (1 in 200 year or greater annual probability) of flooding from the sea, excluding the presence of defences. This area is shown to benefit from flood defences, which are located along the frontage of the Medway Estuary.
- 2.4.2 As the Site is located within Flood Zone 3, the NPPF guidance states that a Flood Risk Assessment (FRA) is required.

<sup>5</sup> <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>, accessed 4<sup>th</sup> February

<sup>6</sup> Socotec, March 2020, GridLink, Kingsnorth, Geotechnical Desk Study

<sup>7</sup> <https://flood-map-for-planning.service.gov.uk/>

**Figure 2-3 Flood Map for Planning (Extracted from Appendix A)**

## 2.5 Development vulnerability classification

- 2.5.1 The Proposed Development comprises a converter station and associated infrastructure. In accordance with PPG Table 2<sup>2</sup>, this development is classified as 'Essential Infrastructure'.
- 2.5.2 Essential Infrastructure is permitted in Flood Zones 1 and 2. Where Essential Infrastructure is proposed in Flood Zone 3, it must be demonstrated that the Exception Test can be satisfied. The application of the Exception Test is further described in Section 5.

## 2.6 Lifetime of development

- 2.6.1 Subject to outline planning permission being granted it is anticipated that construction will start in late 2021 and it will last approximately three years.
- 2.6.2 The lifetime of the development is 40 years. The development is therefore anticipated to be in place until 2064.

## 2.7 Sequential Test

- 2.7.1 The Sequential Test is a decision-making tool designed to ensure that development is directed towards sites at lowest risk of flooding prior to the consideration of sites at greater risk. The PPG states that it is necessary to do a Sequential Test if both of the following apply:
- your development is in flood zone 2 or 3; and,
  - a sequential test hasn't already been done for a development of the type you plan to carry out on your proposed site.
- 2.7.2 The Site is located within Flood Zone 3. The Site has already been allocated in the Medway Local Plan (2003) as an industrial site including a gas-fired power station which is classified as Essential Infrastructure in accordance with PPG Table 2. The proposals for the site under this application are also for Essential Infrastructure. It is therefore considered that the proposed development passes the Sequential Test.

## 3. Site specific flood risk

### 3.1 Flooding from rivers and sea

#### Tidal flood risk

- 3.1.1 The Site is located on the northern bank of the River Medway at the upstream end of the tidal Medway Estuary. Data supplied by the Environment Agency identifies that the Site experienced tidal flooding of February 1953. A map of this historic flood extent is included in FRA Appendix A.
- 3.1.2 The Environment Agency 'Flood Map for Planning'<sup>7</sup> (included in Appendix A and Figure 2-3) shows that the Site is located within Flood Zone 3. Flood Zone 3 is defined as land assessed as having a 0.5% or greater annual exceedance probability (AEP) (1 in 200 year or greater annual probability) of flooding from the sea. The Flood Map for Planning shows that the Site benefits from the presence of defences.

#### Flood Defences

- 3.1.3 The Environment Agency Product 4 Data, included in Appendix A, provides information regarding the flood defences which is summarised in

**Table 3-1 Tidal flood defences (Appendix A, Environment Agency Product 4 Data)**

Location	Standard of Protection	Maintaining authority
Sea Walls to the south and south west of site along the Medway	Providing 1:1000 years standard of protection (0.1% AEP)	Maintained by Environment Agency
Embankments to the east and west of the site	Providing 1:1000 years standard of protection (0.1% AEP)	Maintained by Environment Agency
Sea walls to the north of the site, associated with the Damhead Creek	Providing 1:1000 years standard of protection (0.1% AEP)	Privately Maintained

#### Modelling Outputs

- 3.1.4 Hydraulic modelling data has been obtained from the Environment Agency to inform the understanding of the risk of tidal flooding in this location. Outputs are included in Appendix A and are from the North Kent Coast Modelling and Mapping Study, completed by JBA Consulting, in December 2018.
- 3.1.5 As part of this study, simulations were run with and without the defences in place for a range of AEP events and time horizons (to take account of the impact of climate change). The full suite of modelled flood levels are included in Appendix A Table 1 and Table 2 for 16 specific locations across the Site and surrounding area.
- 3.1.6 Table 3-2 provides a summary of the modelled flood levels on the Site itself (i.e. from Nodes 1-6 identified in the Node Map in Appendix A) as well as Node 9 which is located near Jacob's Lane along the access route to the Site.

**Table 3-2 Modelled flood levels (North Kent Coast Modelling, FRA - Appendix A)**

Modelled scenario	Maximum flood level (m AOD)	
	Main Site (Nodes 1-6) Approximate ground level 2.5 – 3 m AOD	Access Route (Node 9) Approximate ground level 4 m AOD
<b>Defended Scenarios</b>		
Defended Scenario, 0.5% AEP for Year 2016	0.00 (Site not shown to flood)	0.00 (Not shown to flood)
<b>Defended Scenario, 0.5% AEP incl. climate change for Year 2070</b>	<b>0.00 (Site not shown to flood)</b>	<b>5.39</b>
Defended Scenario, 0.5% AEP incl. climate change for Year 2115	4.21	6.02
<b>Undefended Scenarios</b>		
Undefended Scenario, 0.5% AEP for Year 2016	4.94	5.02
<b>Undefended Scenario, 0.5% AEP incl. climate change for Year 2070</b>	<b>5.40</b>	<b>5.43</b>
Undefended Scenario, 0.5% AEP incl. climate change for Year 2115	6.00	6.03

- 3.1.7 The year 2070 has been selected as most relevant to the Proposed Development due to the anticipated design life to 2064, as described in Section 2.6.
- 3.1.8 Table 3-2 shows that, when considering the defended scenario, the Site itself is not at risk of flooding over its lifetime to 2070. However, there may be a risk to the access route in the future in areas where ground levels fall below the flood level of 5.39 m AOD, i.e. potentially along sections of Jacob's Lane. Beyond the lifetime of the Proposed Development (i.e. to 2115), there may be a risk to the Site, if there are no changes to the existing defence level protecting the Site.
- 3.1.9 The access route to the Site is therefore potentially at actual risk of flooding in the future, as a result of climate change, but the Site itself is not at actual risk of flooding over the lifetime of the proposed development to 2070.
- 3.1.10 The Site and access route remain at 'residual risk' of tidal flooding, i.e. in the 'undefended' scenarios. Without the defences in place, the Site is at residual risk of flooding to a level of 5.4 m AOD over its lifetime to 2070, and the access route along Jacob's Lane is at residual risk of flooding to a level of 5.43 m AOD.

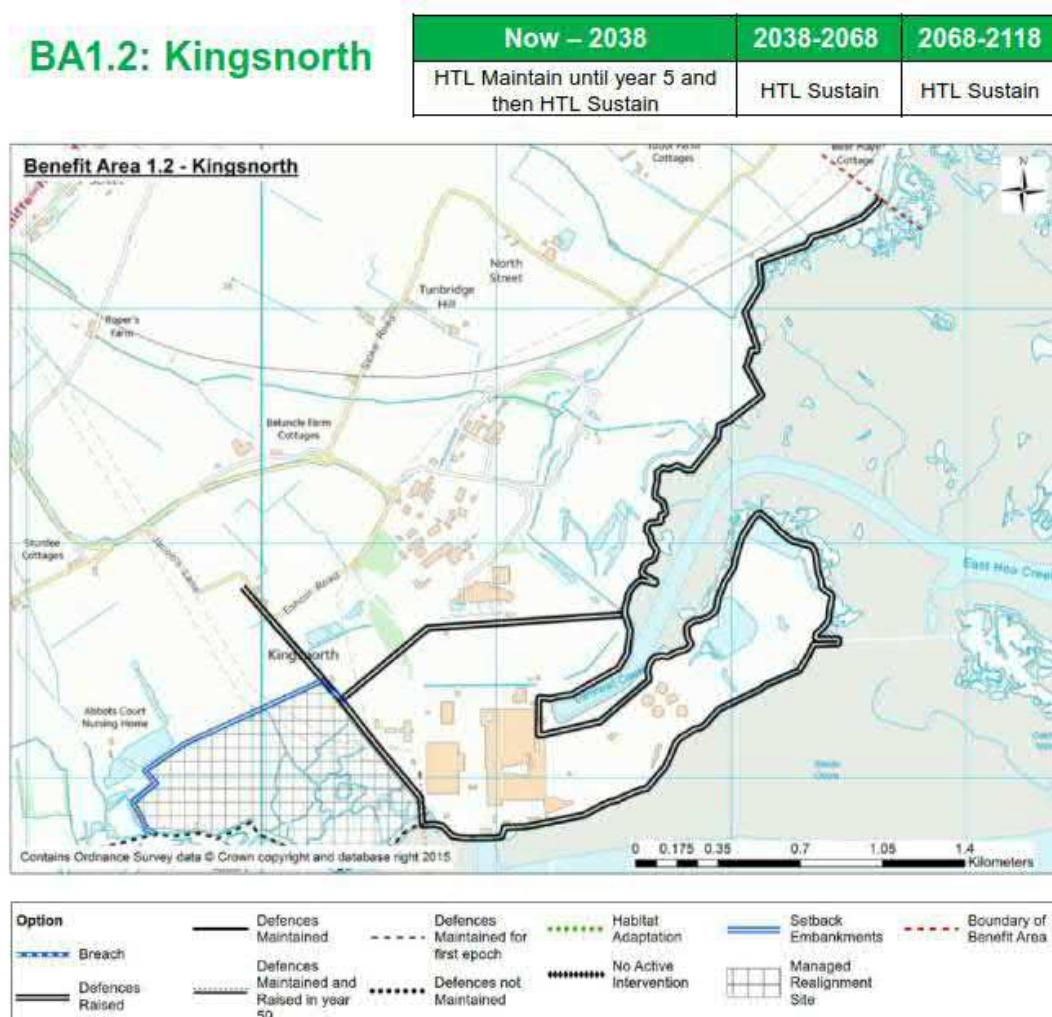
#### **Future Flood Defence Strategy**

- 3.1.11 The Medway Estuary and Swale Flood and Coastal Erosion Risk Management Strategy (MEASS), finalised by the Environment Agency in September 2019<sup>8</sup>, sets out the preferred options for future flood defence improvements in the area over the next 100 years. The Site is in Benefit Area 1.2 Kingsnorth, in which the preferred option is:

*"Maintenance of the current defences (embankment, seawall and rock revetment) for the first 8 years to the current SoP offered. Following this the defences will be raised to 5.3m AOD and then raised again in year 50 to 6.6m AOD to ensure a 0.1% SoP in 100 years taking account of sea level rise".*

- 3.1.12 Considering this preferred approach, it may be that the access route for the Site would become protected from tidal flooding (under the defended scenario) into the future, as a result of the anticipated flood defence improvements. However, it should be noted that the MEASS recommendations can only be implemented if sufficient funding can be found.

<sup>8</sup> <https://www.gov.uk/government/publications/medway-estuary-and-swale-flood-and-coastal-risk-management-strategy/medway-estuary-and-swale-flood-and-coastal-risk-management-strategy>

**Figure 3-1 Extract from Medway Estuary and Swale FERMS**

### Summary of tidal risk

- 3.1.13 The actual risk of tidal flooding to the Site is Low. For the access route along Jacob's Lane, the risk is potentially High into the future as a result of climate change. However, this may be reduced to Low, should the improvements to the flood defences set out in the MEASS be undertaken.
- 3.1.14 The Site and access route remain at residual risk of tidal flooding, in the event of a breach or failure of the flood defence embankments.

### **Smaller watercourses**

- 3.1.15 There are several land drains, ordinary watercourses and unnamed ponds adjacent to the north, east and south edge of the Site.
- 3.1.16 The Flood Zones shown on the Flood Map for Planning in this location are associated with the tidal Medway Estuary and therefore do not provide an indication of the risk of flooding from these smaller watercourses.
- 3.1.17 The topographic survey identifies the presence of an embankment around the edge of the Site, which will provide protection from localised flooding from these smaller watercourses. The risk of flooding from smaller watercourses and land drains and ponds is therefore considered Low.

## 3.2 Surface water flooding

- 3.2.1 The Environment Agency 'Risk of Flooding from Surface Water' mapping<sup>9</sup> does not identify any significant surface water flooding on the Site. The Site is relatively flat without any notable flow paths and is protected from overland flow from neighbouring areas by the presence of the raised embankment around the Site. There are some small patches of localised flooding within the Site, where the risk of surface water flooding is Low, potentially attributed to local topographic depressions adjacent to the raised embankment around the edge of the Site. The overall risk of surface water flooding to the Site is Low.
- 3.2.2 The mapping shows some potential for surface water flooding adjacent to the access route at Jacob's Lane and Eschol Road. The risk to these areas is Medium to High.
- 3.2.3 The risk of flooding to the Site and neighbouring areas arising *from* the development has the potential to be High, prior to mitigation through the implementation of the appropriate Surface Water Drainage Strategy for the construction and operational phases.

**Figure 3-2 Long term flood risk map: Surface Water Flooding (Environment Agency)**



## 3.3 Groundwater flooding

- 3.3.1 The Site is situated on Alluvium superficial deposits, which are classified as a 'Secondary undifferentiated' aquifer. The bedrock is the London Clay Formation, which is typically impermeable and has no aquifer classification/designation.
- 3.3.2 The Medway Council Local Flood Risk Management Strategy (LFRMS)<sup>10</sup> includes mapping from the BGS which shows an approximate guide to areas that may be susceptible to groundwater flooding. The mapping shows that the susceptibility to groundwater flooding within proximity to the Site is Low, as presented in Appendix B of this FRA. Additionally, the LFRMS illustrates that there are no groundwater flooding records within 1km of the Site. However, for all new developments, site investigation is required to confirm local groundwater levels and therefore risk of groundwater flooding.

<sup>9</sup> <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

<sup>10</sup> Capita Symonds / URS (2012) Medway Council Local Flood Risk Management Strategy Technical Appendix 2 – Groundwater assessment.

- 3.3.3 A Contaminated Land Investigation report was prepared for Kingsnorth Power station in 2003<sup>11</sup>. Borehole records showed that groundwater levels were found between 3.1m below ground level (bgl) and 10.3 m bgl. The report also states that the area around Kingsnorth Power Station is classified as Non-Aquifer. It also points out that groundwater within the Alluvium superficial deposits, is likely to be in hydraulic continuity with the Medway Estuary and that groundwater flow within the superficial deposits could be anticipated in a general southerly direction towards the Medway.
- 3.3.4 The BGS borehole records illustrate that the closest borehole to the Site, dated from 1962, shows that groundwater is found at approximately 3.0 m bgl. However, this data should be treated with caution due to the age of record.
- 3.3.5 Reference to the Geotechnical Desk Study Report<sup>12</sup> identifies that ‘the groundwater table is expected to be at a relatively shallow depth’. This has been concluded through reference to boreholes carried out at the eastern end of the proposed cable corridor adjacent to the converter station site. At this location ‘shallow perched groundwater, discontinuous with limited hydraulic continuity with the Medway Estuary’ was encountered at 1.8 m to 3.2 m bgl.
- 3.3.6 Based on the above information, the risk of groundwater flooding to the Site is Low.

## 3.4 Sewer flooding

- 3.4.1 There are no connections to the foul sewer network and no surface water sewers present on the Site. The risk of sewer flooding to the Site is Low.

## 3.5 Reservoir failure

- 3.5.1 The Environment Agency Flood Risk from Reservoirs mapping<sup>13</sup> does not identify the Site to be at risk of flooding in the event of uncontrolled release of water associated with the failure of a reservoir.
- 3.5.2 Ordnance Survey mapping identifies a water body 100m north east of the Site, which if it failed, could lead to flooding to the east and into the channel of the Damhead Creek. Due to the local topography, this would not be expected to impact the Site.
- 3.5.3 The Site is therefore not considered to be at residual risk of reservoir flooding.

## 3.6 Summary

- 3.6.1 Table 3-3 provides a summary of the risk of flooding to the Site from each source.

**Table 3-3 Summary of the risk of flooding to and from the Site**

Source of flooding	Risk to the Site
Tidal flooding, from the Medway Estuary and Damhead Creek	<ul style="list-style-type: none"> <li>Low actual risk of tidal flooding to the Site over its lifetime due to the presence of flood defences.</li> <li>Potential for high actual risk of flooding to the access route in the future, as a result of climate change. However, this risk may be mitigated through improvements to and raising of flood defences, in line with the preferred option for the Kingsnorth area (BA 1.2) within the Medway Estuary and Swale Flood and Erosion Risk Management Strategy.</li> <li>There remains a residual risk of tidal flooding to the Site and access route in the event of a breach or failure of tidal flood defences. Flood levels on the Site are modelled at 5.4 m AOD on the Site for the 0.5% AEP flood event for the year 2070.</li> </ul>
Land drains, small watercourses	<ul style="list-style-type: none"> <li>Low risk of flooding to the Site.</li> </ul>
Surface water	<ul style="list-style-type: none"> <li>Low risk of flooding to the Site.</li> <li>Potential for High risk of flooding to neighbouring areas, subject to the implementation of a suitable surface water management strategy.</li> </ul>
Groundwater	<ul style="list-style-type: none"> <li>Low risk of flooding to the Site.</li> </ul>

<sup>11</sup> Powergreen (2003) Kingsnorth power Station Phase II Contaminated Land Investigation

<sup>12</sup> Socotec, March 2020, GridLink Kingsnorth Geotechnical Desk Study Report.

<sup>13</sup> <https://flood-warning-information.service.gov.uk/long-term-flood-risk/map>

Sewers	<ul style="list-style-type: none"> <li>• Low risk of flooding to the Site.</li> </ul>
Reservoirs	<ul style="list-style-type: none"> <li>• Not at residual risk of reservoir flooding.</li> </ul>

## 4. Risk mitigation and management

### 4.1 Overview

- 4.1.1 This section provides a summary of the measures that will be implemented during the construction and operational phases of the Proposed Development to mitigate the risk of flooding to and from the Site.

### 4.2 Construction phase

#### Works adjacent to flood defences

- 4.2.1 The proposed works include the installation of an interconnector cable beneath the existing tidal flood defence line. Such activity requires a Flood Risk Activity Permit from the Environment Agency.
- 4.2.2 During construction the existing coastal flood defences will be avoided by using horizontal directional drilling (HDD) construction methods (as opposed to trenching or cut and cover techniques) to drill underneath the defences. The clearance depth of the HDD under the defences and appropriate standoff distances for the works will be determined in consultation with the Environment Agency prior to works being undertaken.

#### Surface water management

- 4.2.3 Suitable arrangements will be put in place to ensure no increase in surface water runoff from the site during the construction phase. Construction phasing will be planned such that sustainable drainage systems (SuDS) features described for the operational phase are constructed first, if reasonably practicable. This will ensure that any rainfall events during construction are captured and stored in the SuDS.
- 4.2.4 Groundwater and stormwater collected from construction excavations shall be only discharged to watercourses in accordance with the planning permission and discharge permits granted for the works; if discharge is not permitted, the water will be collected in a contained system and removed off-site for disposal at an appropriately licensed discharge point or site.

#### Flood warning

- 4.2.5 The Environment Agency issues flood warnings as notification of the potential risk of flooding during tidal surge conditions. Therefore, during the construction phase, the Contractor will subscribe to the Environment Agency's Flood Warning Service for the 'Tidal Medway, Medway Estuary and Isle of Grain Flood Warning Area'<sup>14</sup> as part of their emergency preparedness and response plan and incorporate the warnings into the emergency response procedures.

#### Flood warning and response plan

- 4.2.6 An emergency preparedness and response plan shall be prepared covering all reasonably foreseeable environmental incidents; the emergency preparedness and response plan shall include, as a minimum, the provisions made in case of an emergency, first responders assigned for emergency response and containment of incidents, emergency response procedures and contact details of public emergency services.
- 4.2.7 The plan will include details the planned response in the event of receiving a flood warning, and in the event of a breach or overtopping of the flood defences.

### 4.3 Operational phase

#### Surface water management

<sup>14</sup> <https://flood-warning-information.service.gov.uk/target-area/064WAT1MedEst>

4.3.1 In order to ensure that the Proposed Development does not increase the risk of surface water flooding to the Site and the surrounding area an Outline Surface Water Drainage Strategy<sup>15</sup> has been prepared as a standalone document.

4.3.2 The Kent County Council Drainage and Planning Policy Statement<sup>16</sup> states that:

*"the drainage system must be designed to operate without any flooding occurring during any rainfall event up to (and including) the critical 3.33% AEP storm (1 in 30 year). The system must also be able to accommodate the rainfall generated by events of varying durations and intensities up to (and including) the critical, climate change adjusted 1% AEP storm (1 in 100 year) without any on-site property flooding and without exacerbating the off-site flood-risk. Sufficient steps are to be taken to ensure that any surface flows between the 3.33% AEP and 1% AEP events are retained on site. The choice of where these volumes are accommodated may be within the drainage system itself or within other areas designated within the site for conveyance and storage".*

4.3.3 Consideration needs to be made for the impact of climate change on the risk of surface water flooding over the lifetime of the Proposed Development in accordance with the NPPF. Table 4-1 provides the range of climate change allowances that should be applied for different time horizons. A climate change allowance of 20% has been used based on a Project design life of 40 years with construction taking 3 years starting in 2021.

**Table 4-1 Peak rainfall intensity allowance in small and urban catchments (use 1961 to 1990 baseline) (Planning Practice Guidance<sup>17</sup>)**

Applies across all of England	Total potential change anticipated for the '2020s' (2015 to 2039)	Total potential change anticipated for the '2050s' (2040 to 2069)	Total potential change anticipated for the '2080s' (2070 to 2115)
Upper end	10%	20%	40%
Central	5%	10%	20%

4.3.4 The surface water drainage network will be designed to ensure that no part of the Site floods during the 1 in 30-year (3.33% AEP) storm event. Surface water runoff arising from events greater than the 1 in 30-year (3.33% AEP) storm event which cannot be accommodated by the drainage network will be contained within the boundary of the Site.

4.3.5 Reference to the Geotechnical Desk Study identifies that the made ground underlying the site will not be suitable for the discharge of large quantities of surface water run-off. In addition, alluvial clays underlying the site will have a low infiltration potential and will similarly be unsuitable for disposing of large volumes of surface water. These factors will be taken into account in the design of the surface water drainage network.

#### **Flood warning**

4.3.6 GridLink Interconnector Ltd will subscribe to the Environment Agency Flood Warning Service for the 'Tidal Medway, Medway Estuary and Isle of Grain Flood Warning Area' as part of their Flood Warning and Response Plan and incorporate the warnings into the Business Continuity Plan for the operation of the Proposed Development.

#### **Flood warning and response plan**

4.3.7 A Flood Warning and Response Plan will be prepared detailing the planned response in the event of receiving a flood warning, and in the event of a breach or overtopping of the flood defences. This plan will be a part of a wider business continuity and health and safety plan for the Proposed Development.

<sup>15</sup> AECOM (September 2020). GridLink Interconnector - Converter Station. Surface Water Management Strategy

<sup>16</sup> Kent County Council (June 2017) Drainage and Planning Policy Statement, Local flood risk management strategy guidance [https://www.kent.gov.uk/\\_data/assets/pdf\\_file/0003/49665/Drainage-and-Planning-policy-statement.pdf](https://www.kent.gov.uk/_data/assets/pdf_file/0003/49665/Drainage-and-Planning-policy-statement.pdf)

<sup>17</sup> <https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>

The Flood Warning and Response Plan will set out the planned egress route in the event of a flood event.

#### **Access and egress**

- 4.3.8 Access to the Site will be via new roads constructed in the former Kingsnorth Power Station site, accessed from Eschol Road. Under present day conditions, this route provides safe dry access to an area in Flood Zone 1 low probability of tidal flooding. However, there is potential that as a result of climate change in the future, the route across the former Kingsnorth Power Station site and Jacob's Lane could be at high risk of tidal flooding, unless improvements to the flood defences are made. Where safe escape from the Site is not possible, occupants of the Site will rely on a place of safe refuge.

#### **Safe refuge**

- 4.3.9 The Site is protected from tidal flooding by the presence of defences, however, there remains a residual tidal flood risk in the event of a breach or failure of the flood defences local to the Site. In order to manage this residual risk, a place of safe refuge will be designed within the Proposed Development, to enable occupants to wait safely for rescue by emergency services. The place of safe refuge shall be designed to be large enough for the number of occupants on the Site.
- 4.3.10 The safe refuge will be set above the flood level for the undefended 0.5% AEP flood event including an allowance for climate change over the lifetime of the development, i.e. above 5.40m AOD, including a suitable freeboard (of at least 600 mm), setting the proposed level to above 6.00 m AOD.

## 5. Applying the Exception Test

- 5.1.1 Given that the Proposed Development is located within Flood Zone 3, the NPPF requires the Exception Test to be applied.
- 5.1.2 The Exception Test includes two parts that require the Proposed Development to show that:
1. it will provide wider sustainability benefits to the community that outweigh flood risk, and,
  2. it will be safe for its lifetime, without increasing flood risk elsewhere and where possible reduce flood risk overall.
- 5.1.3 Information to inform part (1) can be found in the Planning, Design and Access Statement.
- 5.1.4 This FRA has demonstrated how part (2) can be achieved.

# 6. Summary and conclusions

## 6.1 Summary

- 6.1.1 The Site is at low risk of flooding from surface water, land drains and small watercourses, groundwater, the local sewer network and reservoirs.
- 6.1.2 The Site is at low actual risk of tidal flooding due to the presence of tidal flood defences along the Medway Estuary and Damhead Creek that protect the Site. However, there is potential that the access route to the site may be at high risk of tidal flooding in the future as a result of climate change, unless planned defence improvement works as part of the MEASS take place to mitigate the risk.
- 6.1.3 There also remains a residual risk of tidal flooding to the Site and the access route in the event of a breach or failure of the tidal flood defences along the Medway Estuary and/or Damhead Creek.

## 6.2 Recommendations

- 6.2.1 To manage these risks, the following measures will be implemented:
  - Flood warning and response planning during the construction and operational phases, including subscribing to the Environment Agency Flood Warning Service and appropriate plans and procedures for safe evacuation and/or refuge;
  - Provision of a safe place of refuge for operational site personnel. This will be set above the undefended 0.5% AEP flood level including an allowance for climate change over the lifetime of the development to 2070 (5.40 m AOD) including a freeboard of at least 600 mm, setting the proposed level to 6.00 m AOD.
  - Implementation of appropriate surface water drainage to manage and mitigate rainfall runoff, including on-site stormwater retention for a 1 in 30-year (3.33% AEP) storm event. Surface water runoff arising from events greater than the 1 in 30-year (3.33% AEP) storm event which cannot be accommodated by the drainage network will be contained within the boundary of the Site.

# Appendix A Environment Agency Product 4 Data



Product 4 (Detailed Flood Risk) for: Land to the south of Damhead Creek ME3 9TX

Requested by: Christina Bakopoulou / Aecom

Reference: KSL 161974 CM

Date: 20/02/2020

## Contents

- Flood Map Confirmation
- Flood Map Extract
- Model Output Data
- Data Point Location Map
- Modelled Flood Outlines Map
- Defence Details
- Historic Flood Data
- Historic Flood Event Map
- Additional Data
- Use of information for Flood Risk Assessment and Updated Climate Change Allowances (2016)

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.

Please refer to the [Open Government Licence](#) which explains the permitted use of this information.

## 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](http://www.gov.uk/prepare-for-a-flood).

### At this Site:

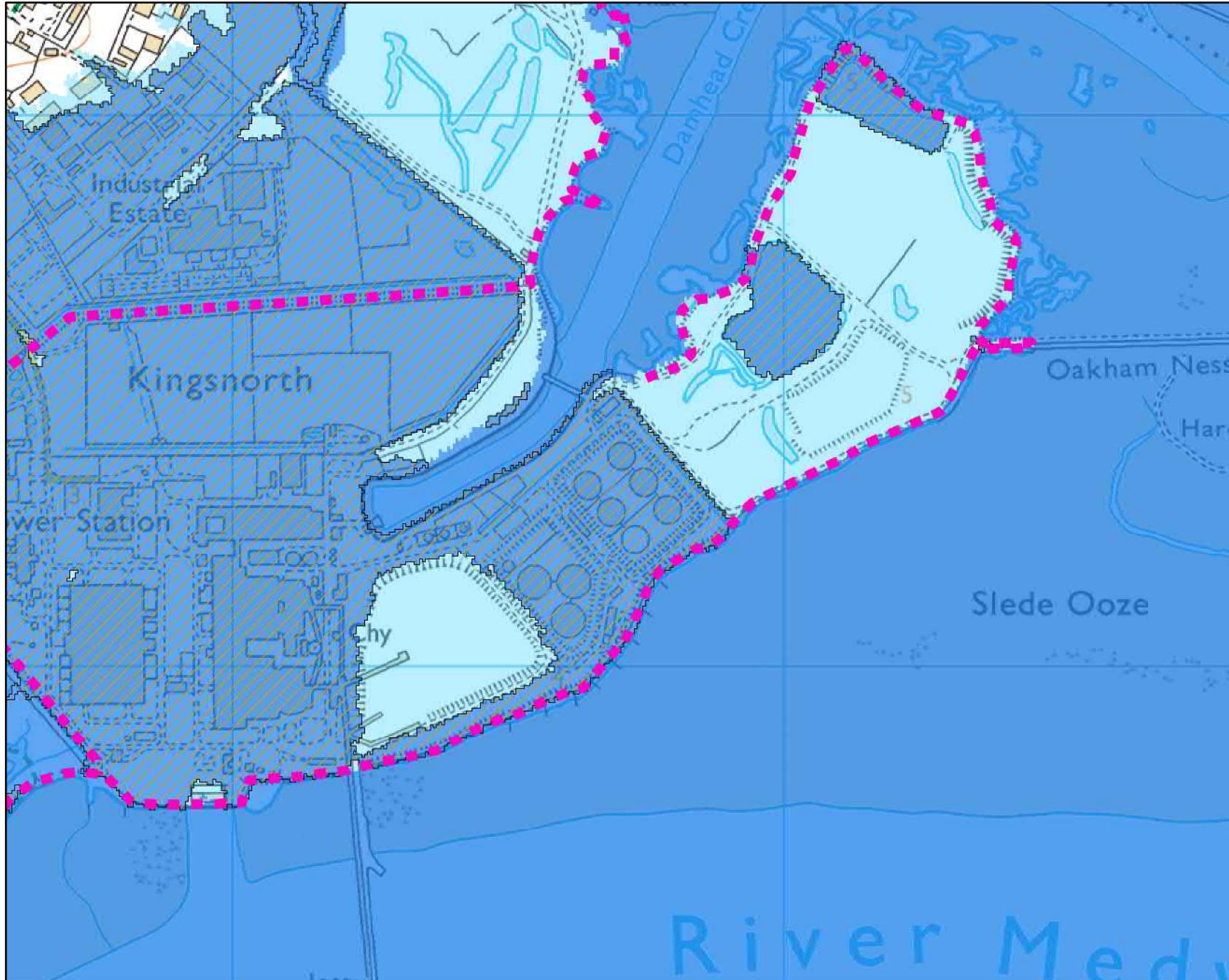
The Flood Map shows that this site lies within the outline of the 0.5% chance of flooding in any given year from the sea.

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 December 2018.

Flood Map centred on Land to the south of Damhead Creek ME3 9TX  
Created 20/02/2020 (Ref KSL 161974 CM)



Legend

- Main Rivers
- Flood Defences
- Flood Storage Area
- Areas Benefiting From Flood Defence
- Flood Zone 3
- Flood Zone 2

0 250 500

Meters

Scale 1:10,000

## 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 2016								Defended - Wave Overtopping				
	Easting	Northing	20% AEP 2016	5% AEP 2016	3.3% AEP 2016	2%AEP 2016	1.3%AE P 2016	0.5%AEP 2016	0.5%AEP CC2070	0.5%AEP CC2115	0.1% AEP2016	5%AEP_WO	1.3%AEP_WO	0.5%AEP_WO	0.1% AEP_WO
1	581814	172282	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21	0.00	0.00	0.00	0.00	
2	581731	172216	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21	0.00	0.00	0.00	0.00	
3	581769	172348	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21	0.00	0.00	0.00	0.00	
4	581672	172278	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21	0.00	0.00	0.00	0.00	
5	581717	172400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21	0.00	0.00	0.00	0.00	
6	581620	172330	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.21	0.00	0.00	0.00	0.00	
7	581378	172022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

8	580516	172015	0.00	0.00	0.00	0.00	0.00	5.40	6.03	5.25	0.00	0.00	0.00	5.25
9	580464	172635	0.00	0.00	0.00	0.00	0.00	5.39	6.02	5.25	0.00	0.00	0.00	5.25
10	581336	172680	0.00	0.00	0.00	0.00	0.00	5.05	5.80	4.75	0.00	0.00	0.00	4.75
11	581333	173158	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	580630	173179	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	581021	173521	0.00	0.00	0.00	0.00	0.00	0.00	6.01	0.00	0.00	0.00	0.00	0.00
14	581561	173539	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	582129	172465	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	582150	172947	0.00	0.00	0.00	0.00	0.00	0.00	5.98	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	20% AEP 2016	5% AEP 2016	3.3% AEP 2016	2%AEP 2016	1.3%AEP 2016	0.5%AEP 2016	0.5%AEP CC2070	0.5%AEP CC2115	0.1% AEP2016
1	581814	172282	4.16	4.43	4.51	4.63	4.72	4.93	5.40	6.00	5.34
2	581731	172216	4.15	4.43	4.51	4.63	4.72	4.93	5.40	6.00	5.34
3	581769	172348	4.16	4.43	4.51	4.63	4.72	4.94	5.40	6.00	5.34
4	581672	172278	4.16	4.43	4.51	4.64	4.72	4.94	5.40	6.00	5.34
5	581717	172400	4.16	4.43	4.51	4.64	4.72	4.94	5.40	6.00	5.34
6	581620	172330	4.16	4.43	4.51	4.64	4.73	4.94	5.40	6.00	5.34



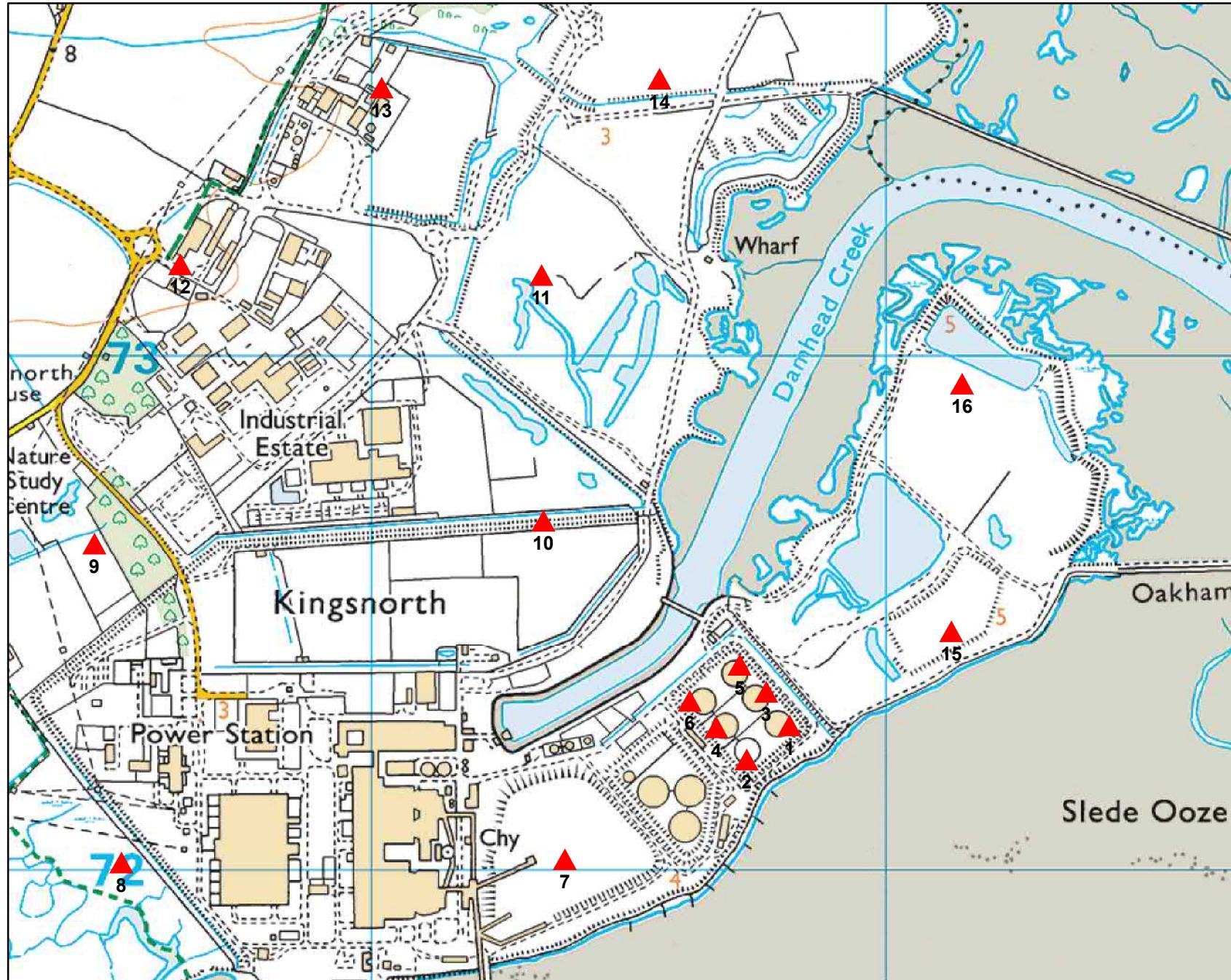
7	581378	172022	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	580516	172015	4.18	4.46	4.54	4.67	4.76	4.99	5.43	6.03	5.37	
9	580464	172635	4.10	4.47	4.56	4.69	4.78	5.02	5.43	6.03	5.37	
10	581336	172680	3.60	4.48	4.57	4.70	4.79	5.02	5.43	6.03	5.37	
11	581333	173158	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12	580630	173179	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
13	581021	173521	0.00	0.00	0.00	0.00	0.00	4.91	5.42	6.01	5.36	
14	581561	173539	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15	582129	172465	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
16	582150	172947	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.98	0.00	

Values of <0.00> indicate locations at which the selected points lie outside of a particular modelled flood extent.

Data taken from North Kent Coast Modelling and Mapping Study, completed by JBA Consulting, in December 2018.

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

**Node Map centred on Land to the south of Damhead Creek ME3 9TX**  
**Created 20/02/2020 (Ref KSL 161974 CM)**



### Legend

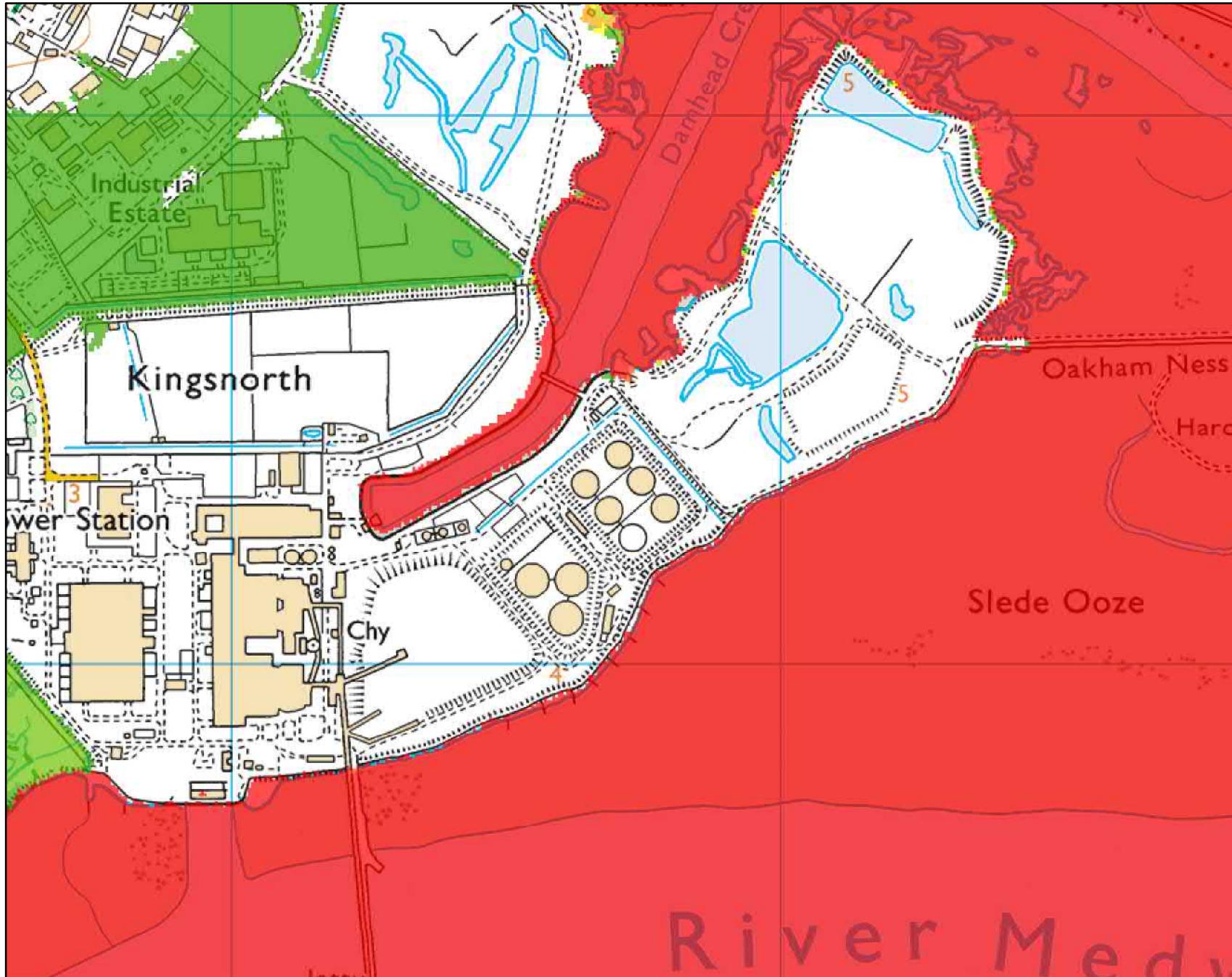
- ▲ Nodes
- Main Rivers



0 270 540  
Meters

Scale 1:10,700

**Modelled Maximum Defended Flood Extents Map centred on Land to the south of Damhead Creek ME3 9TX**  
**Created 20/02/2020 (Ref KSL 161974 CM)**



**Legend**

Main Rivers

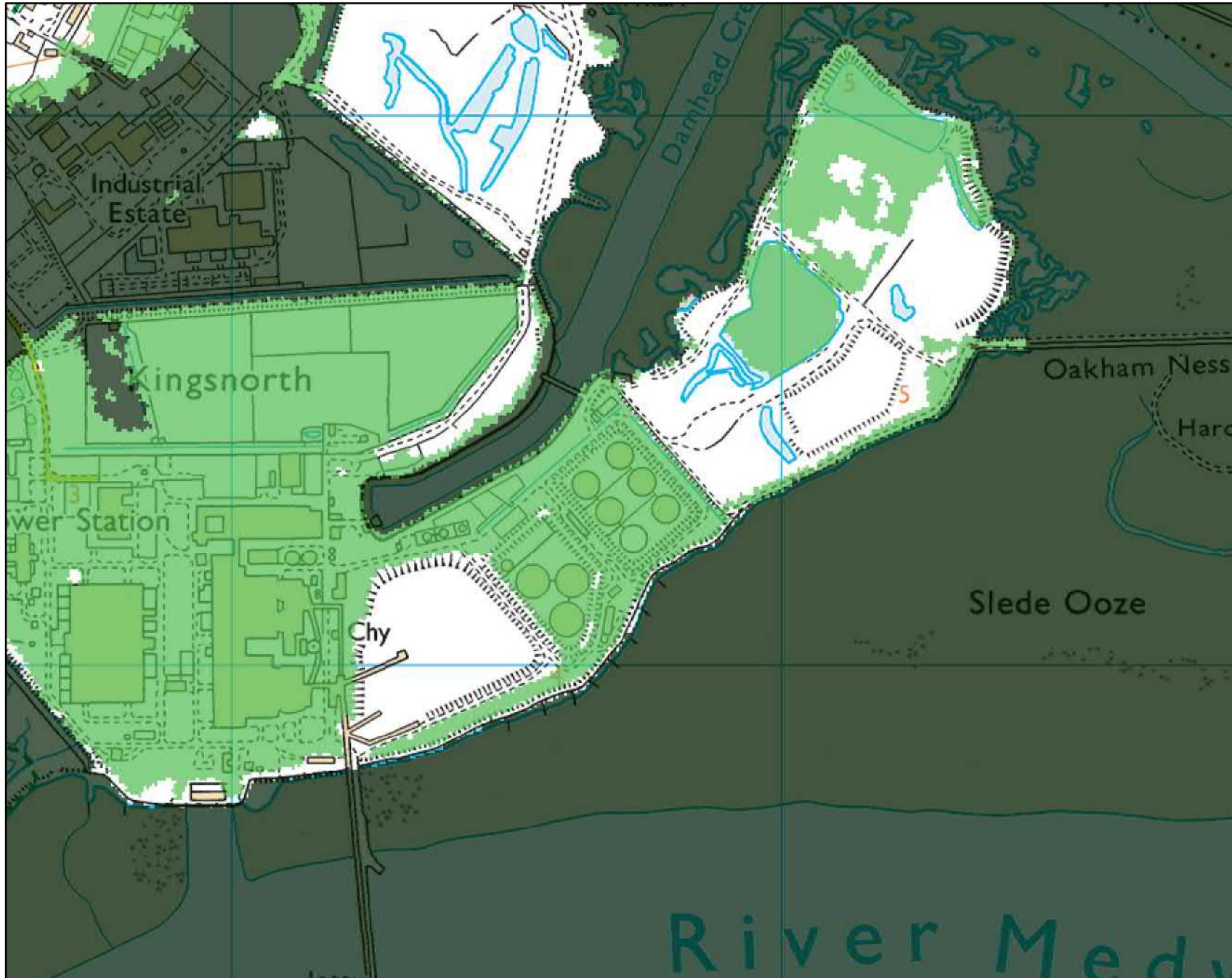
**Maximum Def 2016 Flood Extents**

**AEP (%)**

- 20% AEP extent
- 5% AEP extent
- 3.33% AEP extent
- 2% AEP extent
- 1.33% AEP extent
- 0.5% AEP extent
- 0.1% AEP extent

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

**Modelled Maximum Defended CC (NPPF) Flood Extents Map centred on Land to the south of Damhead Creek  
ME3 9TX Created 20/02/2020 (Ref KSL 161974 CM)**



**Legend**

**Main Rivers**

**Max Def CC (NPPF) Flood Extents**

**Epoch**

0.5% AEP 2070

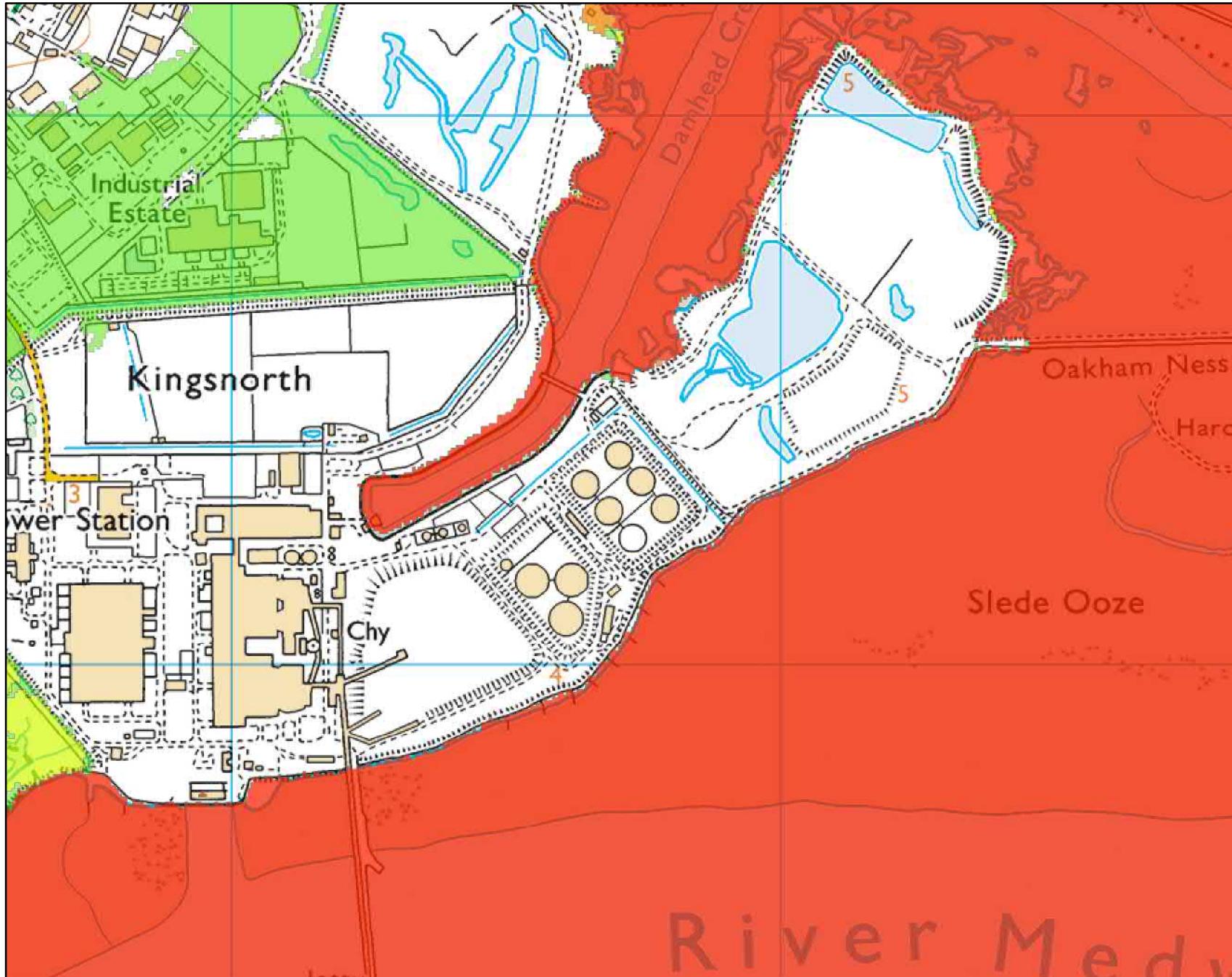
0.5% AEP 2115

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

0 250 500  
Meters

Scale 1:10,000

Modelled Maximum Defended Wave Overtopping Flood Extents Map centred on Land to the south of Damhead Creek ME3 9TX Created 20/02/2020 (Ref KSL 161974 CM)



N

Legend

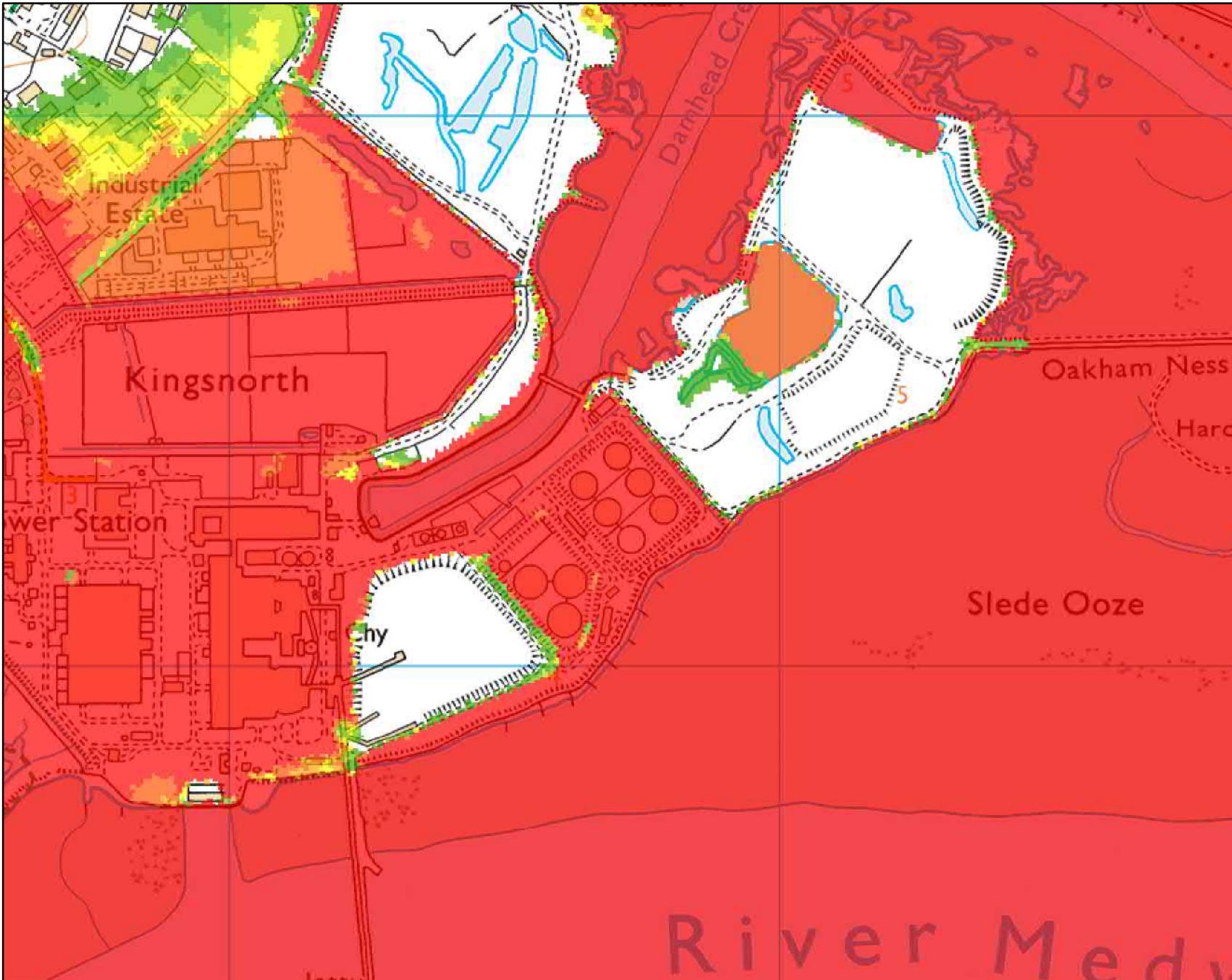
- Main Rivers
- Defended WO 5% AEP 2016
- Defended WO 1.33% AEP 2016
- Defended WO 0.5% AEP 2016
- Defended WO 0.1% AEP 2016

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

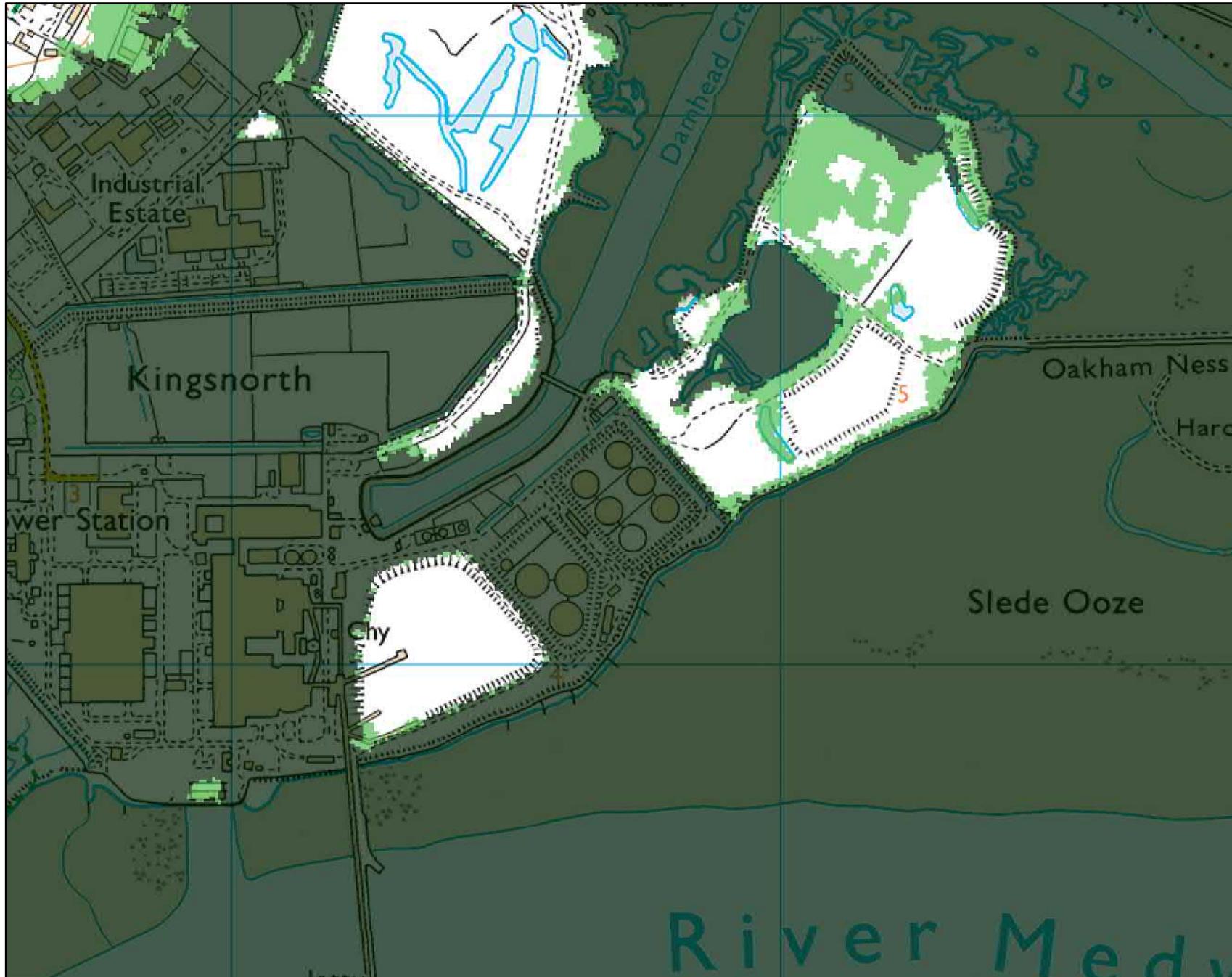
0 250 500  
Meters

Scale 1:10,000

**Modelled Maximum Undefended Flood Extents Map centred on Land to the south of Damhead Creek  
ME3 9TX Created 20/02/2020 (Ref KSL 161974 CM)**



Modelled Maximum Undefended CC (NPPF) Flood Extents Map centred on Land to the south of Damhead Creek ME3 9TX Created 20/02/2020 (Ref KSL 161974 CM)



Legend

Main Rivers

Max Undef CC (NPPF) Flood Extents

Epoch

0.5% AEP 2070

0.5% AEP 2115

Annual Exceedance Probability (AEP) The probability of a flood of a particular magnitude, or greater occurring in any given year.

0 250 500

Meters

Scale 1:10,000

## Defence Details

Sea Walls to the south and south west of site

Providing 1:1000 years standard of protection (0.1% AEP)

Maintained by Environment Agency

Embankments to the east and west of the site

Providing 1:1000 years standard of protection (0.1% AEP)

Maintained by Environment Agency

Sea walls to the north of the site

Providing 1:1000 years standard of protection (0.1% AEP)

Privately Maintained

## Areas Benefiting from Flood Defences

This site is within an area benefiting from flood defences, as shown on the enclosed extract of our Flood Map. Areas benefiting from flood defences are defined as those areas which benefit from formal flood defences specifically in the event of flooding from rivers with a 1% (1 in 100) chance in any given year, or flooding from the sea with a 0.5% (1 in 200) chance in any given year.

If the defences were not there, these areas would be flooded. An area of land may benefit from the presence of a flood defence even if the defence has overtopped, if the presence of the defence means that the flood water does not extend as far as it would if the defence were not there.

## Historic Flood Data

We hold records of historic flood events from rivers and the sea. Information on the floods that may have affected the area local to your site are provided below and in the enclosed map (if relevant).

### Flood Event Data

Dates of historic flood events in this area – **February 1953**

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.

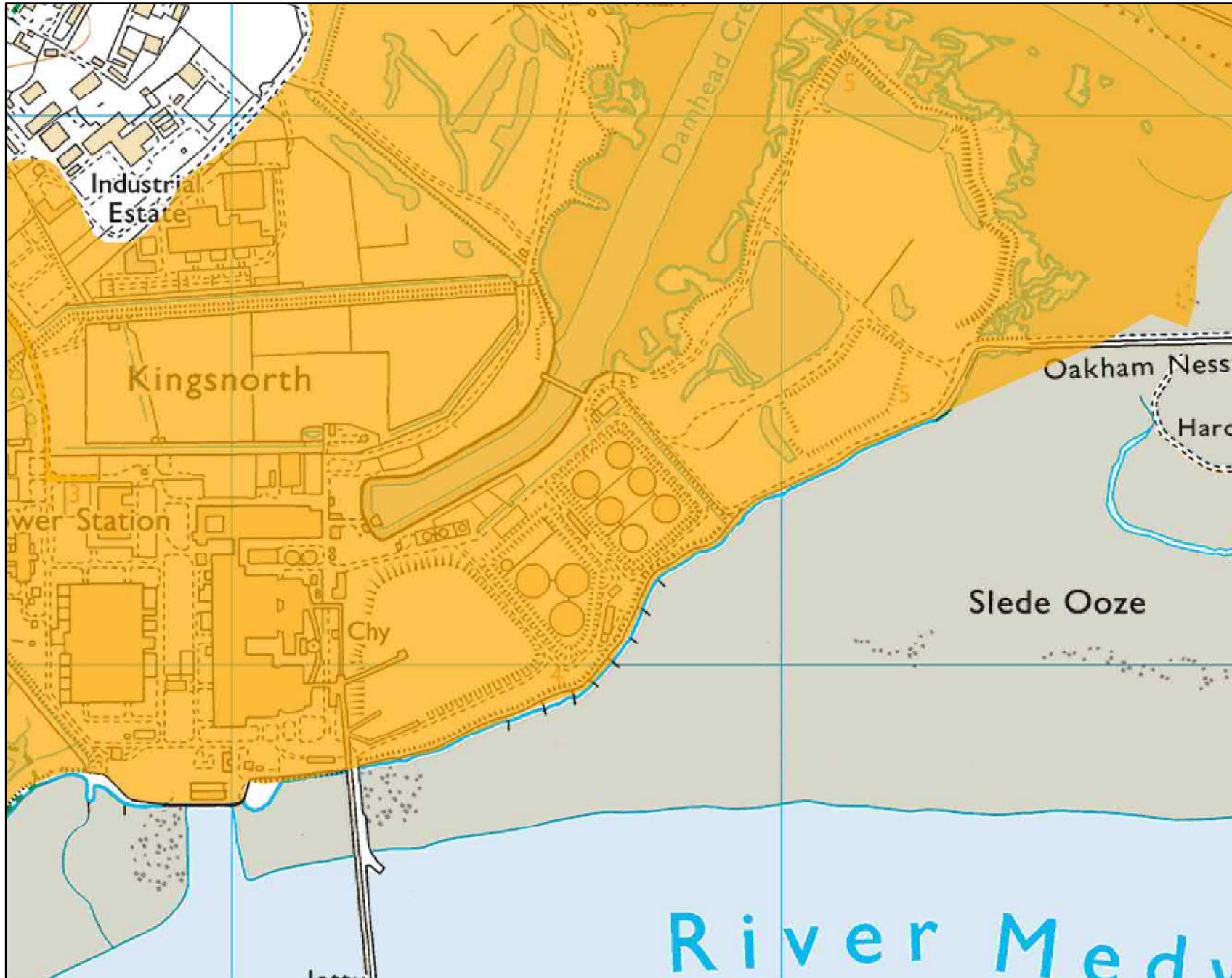
We map flooding to land, not individual properties. Our historic flood event record outlines are an indication of the geographical extent of an observed flood event. Our historic flood event outlines do not give any indication of flood levels for individual properties. They also do not imply that any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

**Historic Flood Extent Map centred on Land to the south of Damhead Creek ME3 9TX**  
**Created 20/02/2020 (Ref KSL 161974 CM)**



## Legend

- Main Rivers
- Feb 1953

0 250 500

Meters

Scale 1:10,000



## Additional Information

### Information Warning - OS background mapping

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### Planning advice and guidance

The Environment Agency are keen to work with partners to enable development which is resilient to flooding for its lifetime and provides wider benefits to communities. If you have requested this information to help inform a development proposal, then we recommend engaging with us as early as possible by using the pre-application form available from our website:

<https://www.gov.uk/government/publications/pre-planning-application-enquiry-form-preliminary-opinion>

Complete the form in the link and email back to [kslplanning@environment-agency.gov.uk](mailto:kslplanning@environment-agency.gov.uk)

We recognise the value of early engagement in development planning decisions. This allows complex issues to be discussed, innovative solutions to be developed that both enables new development and protects existing communities. Such engagement can often avoid delays in the planning process following planning application submission, by reaching agreements up-front. We offer a charged pre-application advice service for applicants who wish to discuss a development proposal.

We can also provide a preliminary opinion for free which will identify environmental constraints related to our responsibilities including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.



## Flood Risk Assessments guidance

### Flood risk standing advice for applicants

In preparing your planning application submission, you should refer to the Environment Agency's Flood Risk Standing Advice and the Planning Practice Guidance for information about what flood risk assessment is needed for new development in the different Flood Zones. This information can be accessed via:

<https://www.gov.uk/flood-risk-assessment-standing-advice>

<http://planningguidance.planningportal.gov.uk/>

<https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications>

<https://www.gov.uk/guidance/flood-risk-and-coastal-change>

You should also consult the Strategic Flood Risk Assessment and flood risk local plan policies 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 Assessment 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. You should discuss surface water management with your Lead Local Flood Authority.
3. Where a planning application requires a FRA and this is not submitted or deficient, the Environment Agency may well raise an objection due to insufficient information



## Surface Water

We have provided two national Surface Water maps, under our Strategic Overview for flooding, to your Lead Local Flood Authority – Medway / Kent County 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 / Kent County 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.

# **Appendix B Medway LFRMS: BGS Groundwater Flooding Susceptibility**

