



**The Great Grid Upgrade**

Sea Link

# Sea Link

**Volume 9: Examination Submissions**

**Document 9.4 Supplementary Environmental Information – Flood Risk Assessment**

**Planning Inspectorate Reference: EN020026**

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**nationalgrid**

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# 1. Introduction

## 1.1 Background

- 1.1.1 Following acceptance of the Sea Link application (EN020026) on 23 April 2025, the Planning Inspectorate published their advice under Section 51 and Section 55 of the Planning Act 2008. In these documents, the Planning Inspectorate made some initial observations in relation to the application.
- 1.1.2 The following comments were raised with regards to **Application Document 6.8 Flood Risk Assessment [APP-292]**:
- “The Environment Agency (EA) released updated flood risk and coastal erosion data in March 2025, shortly before the application was submitted. The flood risk assessment (FRA) has therefore not been based on the most up to date EA data. The applicant is requested to review the latest EA flood risk data and confirm any implications for the FRA. An updated FRA should be submitted as soon as possible before commencement of the examination if necessary following this review.”*
- “The FRA states that localised areas of the proposed development are in Flood Zone 3 (shown on Figure 1 of Appendix A). It does not distinguish between Flood Zones 3(a) and 3(b). The applicant is requested to provide plans showing Flood Zones 3a and 3b differentiated or explain why this information is not required in respect of the proposed development.”*
- 1.1.3 This document provides information to address the Planning Inspectorate’s requests, linked to the publication of the new Environment Agency (EA) Flood Map for Planning (FMfP) data set in March 2025 (Environment Agency, 2025) and for clarification regarding the Proposed Project’s interactions with Flood Zone 3b.



## 2. Revised Environment Agency Data

### 2.1 Revised EA Flood Map for Planning

- 2.1.1 The Environment Agency's FMfP was updated on 25 March 2025 (Environment Agency, 2025)). The FMfP presents flood risk from rivers and the sea in three zones, representing high risk (Flood Zone 3), medium risk (Flood Zone 2) and low risk (Flood Zone 1).
- 2.1.2 The Flood Zones continue to represent undefended, present day flood risk from rivers and the sea, without accounting for flood defences. However, the updated dataset includes the latest findings from the 2024 National Assessment of Flood and Coastal Erosion Risk (NaFRA2) and areas classified as Flood Zones 2 and 3 have been updated to incorporate data from both local and nationally consistent NaFRA2 hydraulic modelling.
- 2.1.3 In some catchments the boundaries of each Flood Zone have changed. It is important therefore to consider the impact the new dataset may have on the assessment and conclusions presented in **Application Document 6.8 Flood Risk Assessment [APP-292]**.
- 2.1.4 The new dataset has been reviewed and compared with the previous fluvial/coastal flood zone mapping for land within the Order Limits as shown in Appendix A Figure 1A Suffolk Onshore Scheme (Construction), Figure 1B Suffolk Onshore Scheme (Operation), Figure 1C Kent Onshore Scheme (Construction) and Figure 1D Kent Onshore Scheme (Operation). Table 2.1 and Table 2.2 provide a summary of the findings for the Suffolk and Kent Onshore Schemes respectively.

**Table 2.1 Summary of Flood Zones 2 and 3 Comparison – Suffolk**

Catchment	Locations where there is an interaction between Proposed Project and Flood Zone 2 and/or 3 and Project stage.	Change to Flood Zone 3/2 Extents?	Implications
Coastal	Suffolk – transition from offshore to onshore scheme at landfall comprising a trenchless cabling installation method with no above ground works/infrastructure within the flood extents during construction or operation of the Proposed Project.	No change	No impact on assessment or change to the conclusions as presented in <b>Application Document 6.8 Flood Risk Assessment [APP-292]</b> .
Hundred River	School Road – temporary construction drainage outfall	No change	No impact on assessment or

	comprising a small diameter pipe and headwall.		change to the conclusions presented in <b>Application Document 6.8 Flood Risk Assessment [APP-292]</b> .
River Alde	Church Road Friston – temporary construction drainage outfall comprising a small diameter pipe and headwall.	No change	No impact on assessment or change to the conclusions presented in <b>Application Document 6.8 Flood Risk Assessment [APP-292]</b> .
	Church Road Friston – modification works to an existing pylon (operation)	No change	
	Permanent monitoring access route from the B1121 (Church Road) to the proposed substation.	No change	
	Acid grassland creation area off the A1049 Aldeburgh Road for mitigation of operational effects of the Project.	No change	
River Fromus	1 No. temporary construction phase drainage pond and outfall to a tributary of the River Fromus	Increase in the extent of Flood Zones 2 and 3.	No impact on assessment or change to the conclusions presented in <b>Application Document 6.8 Flood Risk Assessment [APP-292]</b> .
	Western extent of Order Limits – permanent access route, including new bridge and landscape/ecological mitigation and temporary construction drainage outfalls.	No change	

- 2.1.5 Within the Suffolk Onshore Scheme Order Limits there has only been one localised change to the extents of Flood Zones 2 and 3 in the new dataset. The update to the FMfP brings one temporary attenuation pond into Flood Zone 3. This pond would be designed to exclude flood water ingress, for example, with suitable bunding, and would provide additional storage capacity to allow for surface water runoff to be retained to discharge back into the watercourse once flood levels in the receiving watercourse had receded. The proposed pond is located at the head of the watercourse's catchment and

there are no vulnerable receptors located in the vicinity of the works. In the unlikely scenario of flooding in this location during the construction period, impacts on site and elsewhere would be negligible due to the small, temporary loss of storage.

**Table 2.2 Summary of Flood Zones 2 and 3 Comparison – Kent**

<b>Catchment</b>	<b>Location and Project Interaction</b>	<b>Change to Flood Zone 3/2 Extents?</b>	<b>Implications</b>
Coastal	Transition from offshore to onshore scheme at landfall comprising a trenchless cabling installation method with no above ground works/infrastructure within the flood extents during construction or operation of the Project.	No change	No impact on assessment or change to the conclusions presented in <b>Application Document 6.8 Flood Risk Assessment [APP-292]</b> .
	Temporary construction access routes off Sandwich Road, Ramsgate Road and Ebbsfleet Lane and 1 No. temporary construction drainage outfall comprising a small diameter pipe and headwall.	No change	
Minster Stream	Stonelees Golf Course temporary construction access track	No change	No impact on assessment or change to the conclusions presented in <b>Application Document 6.8 Flood Risk Assessment [APP-292]</b> .
River Stour	Land off Ramsgate Road – area for mitigation of operational effects of the Project.	No change	No impact on assessment or change to the conclusions presented in <b>Application Document 6.8 Flood Risk Assessment [APP-292]</b> .
	Pylons/overhead lines, including dismantling of existing pylons, modifications to existing pylons and construction of new pylons to	No change	

	serve the operational Project and temporary access tracks	
	Temporary bridge over the River Stour to facilitate construction access	No change

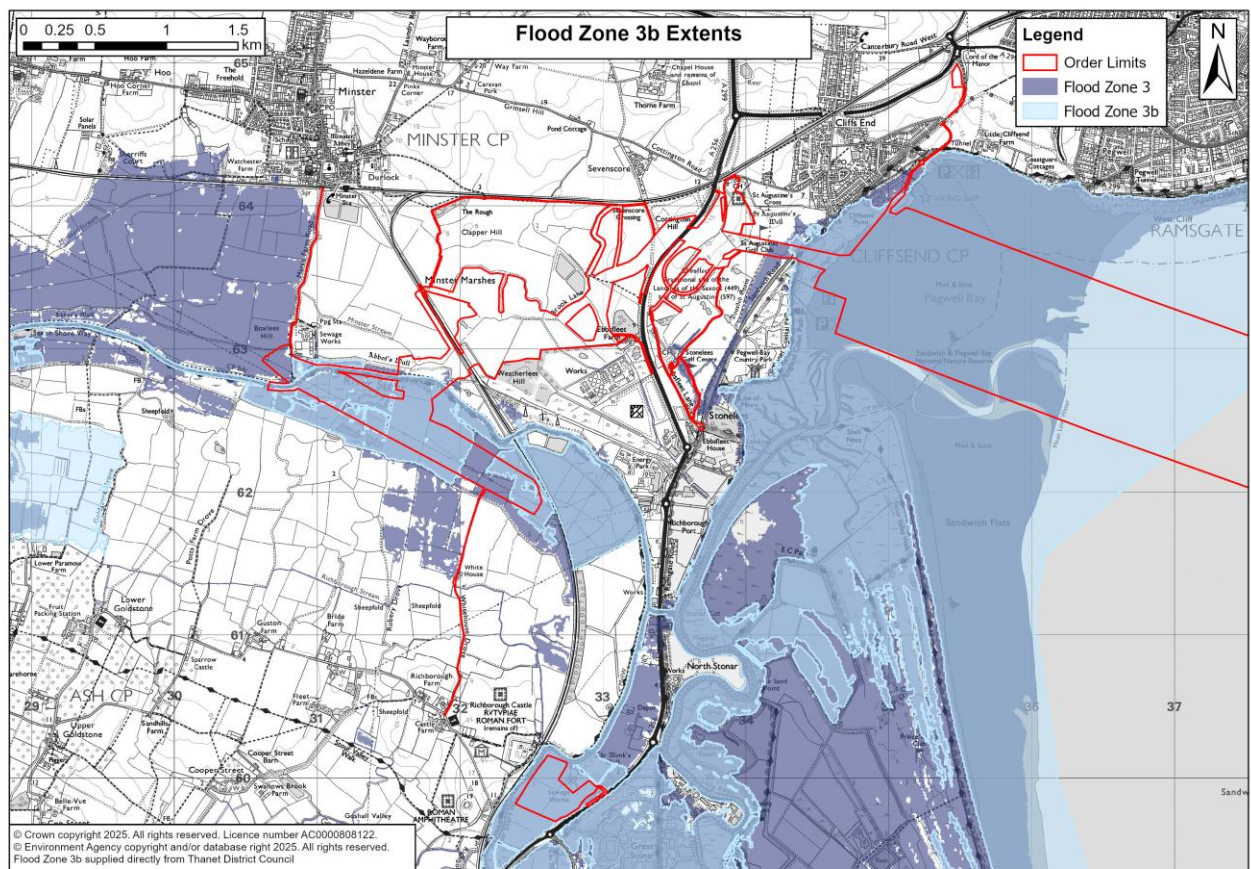
- 2.1.6 The comparison between the March 2025 FMfP and the previous version has confirmed that there have been no changes to the extents of Flood Zones 2 and 3 on land within the Order Limits of the Kent Onshore Scheme.
- 2.1.7 It is therefore concluded that the newly published March 2025 FMfP dataset does not impact on the assessment presented in **Application Document 6.8 Flood Risk Assessment [APP-292]** and that the conclusions of the FRA are still valid.
- 2.1.8 An update to **Application Document 6.8 Flood Risk Assessment [APP-292]** is therefore not considered necessary.

## 2.2 Difference between Flood Zones 3a and 3b

- 2.2.1 In the revised March 2025 FMfP dataset Flood Zone 3 is mapped, but does not distinguish between Zone 3a and 3b.
- 2.2.2 Flood Zone 3 is further separated into Flood Zone 3a and 3b. Flood Zone 3b is also referred to as the functional floodplain. The definitions of these zones, from the Flood Risk and Coastal Change Planning Practice Guidance, are as follows:
- Flood Zone 3a: land which has a  $\geq 1\%$  annual probability of river flooding, or a  $\geq 0.5\%$  or greater annual probability of sea flooding.
  - Flood Zone 3b: land where water must flow to be stored in times of flood, normally comprising:
    - Land having  $>3.3\%$  annual probability of flooding (with any existing flood risk management infrastructure operating effectively); or
    - Land that is designed to flood (such as a flood attenuation scheme), even if it would only flood in more extreme events (such as  $0.1\%$  annual probability of flooding).
- 2.2.3 The guidance states that identification of functional floodplain (Flood Zone 3b) should take account of local circumstances and not be solely defined on rigid probability parameters. The functional floodplain is identified by local authorities, county councils and district councils, as part of their Strategic Flood Risk Assessments.
- 2.2.4 The Proposed Project's interactions with Flood Zone 3 (based on mapping for 3a which includes, and is generally more extensive, than 3b) are summarised in Table 2.1 and Table 2.2 above. These tables confirm that the Proposed Project's interactions with this flood zone are relatively limited and largely concern temporary features such as construction access routes and temporary drainage outfalls.
- 2.2.5 Temporary drainage outfalls would have a very minimal footprint and would result in no perceptible impediment to in channel or floodplain flows and would not cause losses of floodplain storage volume. Likewise, the land proposed to provide ecological mitigation

within the floodplains of the River Alde and River Stour would have no impact on the existing characteristics of their floodplains.

- 2.2.6 In these three areas of interaction, it is therefore considered that information is not required to define Flood Zone 3b.
- 2.2.7 At the proposed landfall sites in Suffolk and Kent, the Proposed Project cables would be installed using a trenchless method and therefore there would be no interaction with Flood Zones 3a or 3b during construction, nor during operation of the Proposed Project.
- 2.2.8 In Suffolk, where a permanent crossing of the River Fromus is proposed, bespoke hydraulic modelling was undertaken to define the functional floodplain (Zone 3b) within the Order Limits. The result of the modelling (detailed in Appendix B of **Application Document 6.8 Flood Risk Assessment [APP-292]** confirmed that the Proposed Project does not interact with Flood Zones 3a or 3b in this location, in particular, noting that for the 3.3% annual probability flood event, flows would remain in channel.
- 2.2.9 Flood Zone 3b for the River Stour is presented in the Thanet District Council Strategic Flood Risk Assessment (SFRA) (Thanet District Council, 2022) Appendix A.6. As illustrated in Figure 1 in Appendix A, it lies south of the River Stour and includes some land within the Order Limits.



## Plate 2.1 Extract from Thanet SFRA – River Stour FZ3b

- 2.2.10 In this area the Proposed Project activities primarily include works to existing overhead lines and pylons, as well as construction of new pylons. Pylon bases are not vulnerable to inundation and due to their open lattice designs would not impede flow within the functional floodplain. As the River Stour is tidally influenced at this location, it has also



been established, in agreement with the Environment Agency, that compensation for the very minor losses of floodplain storage associated with these works are not required.

- 2.2.11 The proposed temporary crossing of the River Stour via a single span bridge would be similarly resilient to flooding and its design will be such that impacts on flows of water within Flood Zone 3b would be very localised and minor.

## 3. Conclusions

- 3.1.1 The comparison between the March 2025 FMfP and the previous version of this dataset has confirmed that there has been one very localised change to the extents of Flood Zones 2 and 3 on land within the Order Limits.
- 3.1.2 The update to the FMfP brings one temporary attenuation pond into Flood Zone 3. This pond would be designed for it to function under flood conditions. Due to its position adjacent to the upper reach of a minor watercourse, where there are no vulnerable receptors in the vicinity, in the unlikely scenario of flooding in this location during the construction period, impacts on site and elsewhere would be negligible due to the small, temporary loss of storage.
- 3.1.3 It is therefore concluded that the latest published dataset does not impact on the assessment presented in **Application Document 6.8 Flood Risk Assessment [APP-292]** and that the conclusions of the FRA are still valid.
- 3.1.4 Where there are minor interactions with Flood Zone 3, for example for temporary drainage outfalls, and for ecological mitigation land, due to the negligible effects of the Proposed Project on the conveyance and movement of flows within the floodplain, it is not necessary to distinguish between Flood Zones 3a and 3b. Similarly, at the Proposed Project's Suffolk and Kent landfalls it is not necessary to make this distinction because works will be below the ground surface.
- 3.1.5 Flood Zone 3b for the River Fromus has been defined through bespoke modelling that concludes that the Proposed Project would not interact with Flood Zone 3a or 3b. This is presented within Appendix B of **Application Document 6.8 Flood Risk Assessment [APP-292]**.
- 3.1.6 Flood Zone 3b for the River Stour has been defined in the Thanet SFRA (see Figure 1 above). The Proposed Project would have no significant effects on the flow or storage of water within Flood Zone 3b in this location due to the nature of the proposed works, which do not have a large footprint and would not create barriers to the movement of flows within the functional floodplain of the river.

# References

Environment Agency. (2025, March). *Get flood risk information for planning in England*. Retrieved from Gov.uk:  
<https://flood-map-for-planning.service.gov.uk/>  
Thanet District Council. (2022). *Strategic Flood Risk Assessment, Thanet District Council*.

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