

The Great Grid Upgrade

Weston Marsh Substation A

Flood Risk Assessment - Part 1 of 3

June 2026

nationalgrid

Weston Marsh Substation A

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1. Introduction

1.1 Overview

- 1.1.1 This Flood Risk Assessment (FRA) has been prepared WSP UK Ltd on behalf of National Grid Electricity Transmission plc (National Grid).
- 1.1.2 National Grid are proposing to undertake works to construct a new electricity substation, new sections of overhead line and modification of existing overhead lines west of the Spalding Tee-Point in the Weston Marsh area, within the administrative boundary of South Holland District Council (SHDC) in Lincolnshire.

1.2 Summary of the Scheme

- 1.2.1 In totality, the Scheme consists of four components, each planned to be progressed via separate consenting routes. These are summarised in **Table 1.1**.

Table 1.1 Components of the Scheme

| Works Required | Consenting Regime |
|--|--|
| Construction of the new Air Insulated Substation (AIS) – 400kV Weston Marsh Substation A, associated landscaping and environmental mitigation works, drainage, highways and other associated works | Town and Country Planning Act 1990 (TCPA) (Ref 1) Component referred to as ‘ Substation Works ’ |
| Construction of new sections of overhead line to connect the new substation into the existing 4ZM overhead line. Removal of a section of the existing 4ZM overhead line. Other associated works. | Section 37 of the Electricity Act 1989 (Ref 2) and deemed consent pursuant to section 90(2) of the Town and Country Planning Act 1990 Component referred to as ‘ 4ZM Overhead Line Works ’ |
| Construction of a new section of overhead line to connect the existing 2WS overhead line into the new substation. Removal of a section of the existing 2WS overhead line Other associated works | Section 37 of the Electricity Act 1989 and deemed consent pursuant to section 90(2) of the Town and Country Planning Act 1990 Component referred to as ‘ 2WS Overhead Line Works ’ |
| Reconductoring works required on the existing 4ZM overhead line Two spans of temporary overhead lines | The Town and Country Planning (General Permitted Development) (England) Order 2015 (Ref 3) and The Overhead Lines (Exemption) (England and Wales) Regulations 2009 (Ref 4) Component referred to as ‘ Exempt Overhead Line Works ’ |

- 1.2.2 The Substation Works will require consent from SHDC under the TCPA.
- 1.2.3 The S37 2WS Overhead Line Works and the S37 4ZM Overhead Line Works (collectively referred to as the "S37 Overhead Line Works") will require consent from the Secretary of State for Energy Security and Net Zero under Section 37 of the Electricity Act 1989 (Section 37).
- 1.2.4 The Exempt Overhead Line Works constitute permitted development under Part 15 Class B of the Town and Country Planning (General Permitted Development) (England) Order 2015 and The Overhead Lines (Exemption) (England and Wales) Regulations 2009.
- 1.2.5 The Scheme Site Boundary, which consists of the land required to construct and operate the Scheme in its entirety, is illustrated on **Figure 1**. The areas of land required to construct and operate each individual component described in **Table 1.1** are also illustrated on **Figure 1**.
- 1.2.6 The Scheme in its totality is a standalone development to enable connection of the Outer Dowsing Offshore Wind Farm to the national electricity transmission system. Each component stated in **Table 1.1** above is required for the Scheme to fully function as part of the national electricity transmission system.

1.3 Purpose and Scope of this Report

- 1.3.1 This FRA has been produced to support the planning application for the Substation Works. This FRA has been prepared in accordance with relevant local and national policy to assess all sources of flood risk (tidal, fluvial, surface water, groundwater, sewer, highway drainage, artificial and residual) posed to the Substation Works, and any flood risk arising from the Substation Works in the Operational Phase (post-construction) of the development, through the development lifetime.
- 1.3.2 The FRA focuses solely on the permanent elements of the Substation Works. Flood risk to temporary works in the Construction Phase would be mitigated through a Construction and Environmental Management Plan (CEMP).
- 1.3.3 The purpose of the FRA is to demonstrate that:
 - 1. Weston Marsh Substation A would be safe from flood risk throughout its lifetime and would not increase flood risk elsewhere, through proposed mitigation;
 - 2. The sequential and exception tests have been applied and considered to be passed; and
 - 3. Flood risk should not be a constraint to the Substation Works receiving planning consent.
- 1.3.4 As set out in **Table 1.1**, the Substation Works are a component of the wider Scheme, which includes installation of S37 Overhead Line Works and the Exempt Overhead Line Works.
- 1.3.5 The S37 Overhead Line works would include seven new pylons, resulting in a net increase of just three open lattice steel pylons (with four existing pylons to be dismantled) within a defended floodplain. There would be no new pylons in the functional floodplain, as illustrated on **Figure 10**. The Exempt Overhead Line Works relate to reconductoring of existing overhead line only. Given that the S37 Overhead Line Works and Exempt Overhead Line Works are not considered to introduce any

additional risks associated with flooding and are subject to separate consents to the Substation Works, these components are not considered further within this FRA.

1.3.6 A more detailed description of the Substation Works is provided in Section 3.

1.4 Assumptions and Limitations

1.4.1 WSP has prepared this report in accordance with the instructions of their Client, National Grid, for their sole and specific use relating solely to the above site. Any person who uses any information contained herein does so at their own risk and shall hold WSP harmless in any event.

1.4.2 Whilst this report was prepared using the reasonable skill and care ordinarily exercised by engineers practicing under similar circumstances and reasonable checks have been made on third party data sources and the accuracy of the data, WSP accepts no liability in relation to the report should any third-party data, information or condition be incorrect or have been concealed, withheld, misrepresented, or otherwise not fully disclosed to WSP.

1.4.3 This report makes partial use of third-party information and contains Environment Agency (EA) information copyright Environment Agency.

1.4.4 This study contains public sector information licensed under the Open Government Licence v3.0 (Ref 1).

2. Site Location and Setting

2.1 Site Location

- 2.1.1 The Substation Works Site Boundary (the Site) as illustrated on **Figure 1** is located in the South Holland District of Lincolnshire. The Site consists of the consolidated area of land required to construct and operate the Substation Works. In its totality, the Site covers an area of approximately 89 hectares (ha), extending from Weston in the south (approximate NGR TF 29358 25479) to the River Welland in the north (approximate NGR TF 29159 30316). The Site is located within a rural landscape, predominantly consisting of arable farmland.
- 2.1.2 A significant proportion of the Site is required temporarily to accommodate construction activities, including a temporary haul road from Stone Gate to the main working area and construction compounds.
- 2.1.3 The land required permanently for the Weston Marsh Substation A operational compound and associated ancillary works is referred to in this report as 'Weston Marsh Substation A'. Weston Marsh Substation A is centred on National Grid Reference (NGR) TF 29403 28560, approximately 3.5 km north of the village of Weston, 3 km north west of Moulton Seas End and approximately 1 km east of the eastern bank of the River Welland. Its footprint is approximately 8.5 ha. Proposed permanent access to Weston Marsh Substation A is via a new dedicated access road from Marsh Road to the north-west, as illustrated on **Figure 1**.
- 2.1.4 Mitigation measures also include landscape planting within the Site boundary. Land to the west of Marsh Road is included within the Site for the purposes of changes to land management, to deliver compensatory habitat. However, it is noted that this area would remain in agricultural use as per the baseline scenario.

2.2 Topography

- 2.2.1 An Ordnance Survey (OS Terrain 50) DTM indicates that ground levels around the proposed Weston Marsh Substation A are flat and level, ranging between approximately 3.5 and 3.7 metres above ordnance datum (m AOD). Within the wider Site boundary, levels are also flat and level with minor variations between approximately 5m AOD and 3m AOD. Topographic levels from the DTM illustrated on **Figure 2**.

2.3 Geology

- 2.3.1 The British Geological Survey (BGS) Geology of Britain Viewer (Ref 6) indicates that the Site is underlain by bedrock deposits of Oxford Clay Formation-Mudstone, with superficial deposits consisting of Tidal flat deposits-Clay and silt.
- 2.3.2 The closest publicly available BGS boreholes to the Site are TF22NE9 (Ref 7) and TF22 NE10 (Ref 7), approximately 515m east and 445m north east respectively of the Substation Works. Both borehole records show underlying silt and sand. In borehole

TF22NE9 groundwater was absent, in borehole TF22 NE10 groundwater was recorded at 3 feet (0.91m) below ground level. Both borehole records are from April 1963.

- 2.3.3 The Multi-Agency Geographic Information for the Countryside (Magic) Map, published by DEFRA indicates that the Substation Works are not located in a Source Protection Zone (SPZ) (Ref 9).
- 2.3.4 Ground investigation (GI) was undertaken between 28 January and 13 February 2025 by Geotechnical Engineering Limited (GEL) (Ref 10). A borehole sample for BH403 taken from 6 - 12 February 2026 encountered various deposits of clayey fine sand, followed by sandy clayey silt, then silty fine sand, gravelly fine to coarse sand, peat, clay, gravel, gravelly clay and fractured grey mudstone to a depth of 30m. Groundwater was struck at 1.2m below ground level (BGL).
- 2.3.5 A summary of the ground conditions encountered during the ground investigation is presented in **Table 2.1**.

Table 2.1 Summary of Ground Conditions

| Stratum | Top of Stratum (m BGL) [m AOD] | Base of Stratum (m BGL) [m AOD] | Thickness (m) | Typical Description(s) |
|----------------------------------|--------------------------------|---------------------------------|---------------|--|
| Topsoil | 0.00 [3.50] | 0.4 to 0.5 [3.05 to 3.15] | 0.4 to 0.5 | Firm greyish brown clayey silt with frequent rootlets |
| Made Ground | 0.00 [3.40] | 0.4 [3.00] | 0.4 | Slightly gravelly clayey fine sand with frequent rootlets. Gravel is subangular medium and coarse brick and flint |
| Tidal Flat Deposits | 0.35 to 0.9 [1.75 to 2.25] | 13.6 to 17.9 [-10.1 to -14.35] | 13.2 to 17.4 | Generally silty fine sand. Occasional peat lenses (0.2m thick). Frequent shell fragments and organic odour within lenses of dark silty sand. Where noted, gravel was described as 'fine to coarse flint' |
| Glacial Till | 13.6 to 17.9 [-10.1 to -14.35] | 24.9 to 26.8 [-21.4 to -23.25] | 8.9 to 11.3 | Slightly sandy slightly gravelly clay, with medium chalk and flint cobble content. Increasing in stiffness with increasing depth, from firm to very stiff. Occasional partially decomposed wood fragments were noted within the first 0.4m-0.8m of the top of this stratum |
| Mudstone (Oxford Clay Formation) | 24.9 to 26.8 [-21.4 to -23.25] | 29.5 to 31 [-25.95 to -27.5] | 2.7 to 6.1 | Extremely weak and very weak fractured dark grey mudstone with shell fragments and fracturing. Fractures are sub-horizontal very closely and closely rarely medium spaced and subvertical locally intersecting planar smooth and polished |

2.4 Hydrology

- 2.4.1 Weston Marsh Substation A is located approximately 1km east, and in the floodplain of, the River Welland, an EA designated main river. In places the Site extends to the banks of the River Welland, to accommodate proposals for environmental (ecological) mitigation areas.
- 2.4.2 The River Welland in this location is tidally dominated, as the Site is located downstream of sluice structures which control fluvial influences on the River Welland.
- 2.4.3 Approximately 1.4km north west of Weston Marsh Substation A (to the west of the River Welland) is Vernatt's Drain, managed by Welland and Deepings Internal Drainage Board (IDB), and the River Glen, an EA main river joining the River Welland. The River Welland then flows into the North Sea at the Wash, approximately 16km downstream of the Site.
- 2.4.4 There are a number of small watercourses and land drains within and adjacent to the Site, including a watercourse managed by South Holland IDB, Crowtree Drain, and R11 New Drain, which would be realigned as part of the works to enable construction of the proposed Weston Marsh Substation A.
- 2.4.5 The Lord's Drain, another South Holland IDB managed watercourse is approximately 700m east of the proposed Weston Marsh Substation A.
- 2.4.6 Consultation undertaken with the IDB (Ref 11) as part of the Grimsby-Walpole Development Consent Order pre-application stage, confirmed that the nearest IDB managed water level control structures are the Lord's Pumping Station, and Lord's Sluice approximately 2km north west of the Site.
- 2.4.7 The above watercourses are illustrated in relation to the Site on **Figure 3** and **Figure 4**.

2.5 Flood Defences

- 2.5.1 The Asset Information Management System (AIMS) (Ref 12) database of EA maintained flood defences downloaded from the DEFRA Data Services Platform indicates that there are tidal flood defences on the River Welland in the vicinity of the Site, formed of raised embankments, with a design Standard of Protection (SoP) varying between 1 in 100 years (1% annual probability) and 1 in 50 years (2% annual probability), as illustrated on **Figure 5**.
- 2.5.2 In the vicinity of the Site, the defences on the eastern bank of the River Welland have effective crest levels of between 7.54m AOD and 7.21m AOD.

2.6 Flood Warning Area

- 2.6.1 EA Flood Warning Areas (FWAs) downloaded from DEFRA (Ref 13) indicate that the Site lies within a number of FWAs.
- 2.6.2 The Site (including the proposed Weston Marsh Substation A) is located in FWA "Tidal flooding from the eastern bank of the River Welland near Spalding and Moulton Common", Flood Warning Service (FWS) Code 055FWTWELL3.
- 2.6.3 The southern extent of the Site is located in FWA "East of Spalding and surrounding areas", FWS Code 055FWTWELL4B.

- 2.6.4 The northern and northwestern extent of the Site and western end of the substation access road is in FWA “Tidal Welland between Fulney and Fosdyke Bridge”, FWS Code 055FWTWELL1.

3. Development Description

3.1 Characteristics of the Proposed Development (Substation Works)

Permanent Works Description

- 3.1.1 Weston Marsh Substation A would be located east of Marsh Road and is a necessary component of the network reinforcement provided by the Scheme, as it would enable the Outer Dowsing Offshore Wind Farm to connect to the electricity transmission system by 2030.
- 3.1.2 Weston Marsh Substation A would be an Air Insulated Switchgear (AIS) substation. AIS substations use air as the insulation medium for electrical equipment meaning that equipment is predominantly located outdoors. Weston Marsh Substation A would be located within a secured fenced compound. The total footprint of Weston Marsh Substation A would be approximately 8.4 ha including a 5 m buffer around the fence line, with dimensions for the main compound of approximately 419.5 m by 185 m, (approximately 7.8 ha). Extra areas of approximately 110 m by 50 m (approximately 0.6 ha) near the entrance for ancillary equipment and car parking and 50 m by 55 m (approximately 0.3 ha) along the southern fence line for an overhead line gantry and high voltage plant, would also be required. Within Weston Marsh Substation A there would be a range of specialist electrical equipment. The maximum height for High Voltage (HV) plant and buildings within the substation would be 12.5 m, and the maximum height for gantries, which connects the new overhead line to it, would be up to 15 m.

Buildings and Structures

Control Building

- 3.1.3 A 6.0m high principal control building would accommodate essential operational and monitoring systems, including:
 - 1. Relays and protection control systems;
 - 2. Telecommunication equipment;
 - 3. Low voltage Alternating Current (AC) supply equipment; and
 - 4. Battery Rooms.
- 3.1.4 Additional accommodation would be included within the control building for:
 - 1. Offices;
 - 2. Meeting rooms;
 - 3. Mess room;
 - 4. WCs;

5. Changing/locker rooms; and
6. Archive storage.

3.1.5 Some of the elements may be delivered as part of the main control building or delivered as separate structures on final design development.

Ancillary Buildings and Facilities

3.1.6 Additional required structures include:

1. Water tank;
2. Backup diesel generator;
3. Stores and workshop buildings;
4. Distribution Network Operator (DNO) substation/kiosk (final size and location subject to agreement with DNO); and
5. 11 Portable Relay Rooms (PRRs).

3.1.7 These facilities support operational resilience, technical monitoring and routine and emergency maintenance activities.

High-Voltage Gantry Structure

3.1.8 The new Weston Marsh Substation A includes a range of specialist electrical plant and operational structures with the following height parameters:

- 1) Maximum height of high-voltage plant of 12.5 m and buildings of 6 m; and
- 2) Maximum height of overhead line gantries: 15 m.

3.1.9 These components facilitate the connection between the substation and the incoming overhead transmission lines.

Drainage Diversion

3.1.10 Construction of the substation would require the permanent diversion of approximately 820m of the R11 New Drain IDB managed watercourse, as illustrated on **Figure 6**. Discussions with the Water Management Alliance (South Holland IDB) have informed the design of the watercourse realignment and remain ongoing with respect to the final detailed design.

Permanent Access

3.1.11 A permanent new access road approximately 390m in length would be constructed as part of the Scheme to provide operational access to the Weston Marsh Substation A. This would run from Marsh Road to the north-west of Weston Marsh Substation A. During operation, workers would enter the new permanent access road via the A151, Stone Gate and Marsh Road.

3.1.12 Construction of the access would make use of the proposed haul road (which extends from the village of Weston, northwards to the substation location), servicing the substation and overhead line installation. This would alleviate the need for construction traffic to use Marsh Road during the construction phase.

Permanent Operational Drainage

Surface Water Drainage

- 3.1.13 The proposed permanent surface water drainage would seek to discharge surface water to nearby watercourses via a pumped system, restricted to as close to the existing greenfield rate as possible. Attenuation would be provided in the form of above ground basins and a swale. The proposed car park would utilise permeable surfaces and the substation platform would be built with free draining gravel to intercept the first 5mm of rainfall. Further detail on permanent surface water drainage is provided in **Section 7.3**, and in the Surface Water Drainage Strategy Report submitted alongside this FRA [document number GWNC-WSP-SS50-XXXXXX-RPT-ES-000001].
- 3.1.14 Drainage for the permanent access road would be provided in the form of a filter drain to allow surface water from the access road to drain into the main substation drainage system.

Foul Drainage

- 3.1.15 The proposed foul drainage is as outlined below:
1. The site is normally unmanned and designed for very low maintenance;
 2. No public sewers are located close to the Scheme, based on Anglian Water sewer records;
 3. A gravity connection or pumping station is not practicable due to the lack of nearby sewer infrastructure;
 4. In line with National Grid Technical Standards (TS 2.10.09) Site Drainage, Section 3.2 Foul Drainage, a cesspool with a minimum capacity of 9000 L would be provided to store foul water from the Control Building;
 5. The cesspool would include a float switch and high level alarm to support safe operation and monitoring;
 6. Foul waste would be tankered away infrequently as part of routine maintenance; and
 7. If, during design development, a viable sewer connection point is later identified, or if the site becomes permanently manned, the drainage approach will be reviewed.

Pollution Control

- 3.1.16 The proposed pollution control is as outlined below
1. Pollution control measures are required for the diesel generator located within the welfare area;
 2. The generator would be placed inside a reinforced concrete bund, designed in line with National Grid TS 2.10.01 Oil Containment Section 5.10;
 3. The bund would include a water control system, using an intelligent sump pump (or similar bund water control unit) to pump clean rainwater into the surface water drainage network via a class 1 full retention oil separator;

4. The oil separator would be equipped with a high level alarm to detect potential contamination events;
5. The sump pump would have a two level alarm system:
 - a) A low level alarm to detect the presence of oil (e.g., from a small spill).
 - b) A high level alarm to shut the generator down in the event of a major oil release or system failure
6. In the event of contamination, water from the bund would be safely removed off site for proper disposal;
7. Penstocks and sampling chambers would be installed to allow manual isolation of flows and to enable water quality monitoring;
8. An oily water drainage system, including the bund and oil separator, is shown in the drainage drawings.

Landscaping/Mitigation

- 3.1.17 Landscaping would be installed along the northern, western and southern facades of the new Weston Marsh Substation A to screen views of the new Weston Marsh Substation A from the surrounding landscape. Additional areas of filtering vegetation would be planted to the northwest and south of the new Weston Marsh Substation A as well as alongside Marsh Road to further reduce visibility of the Scheme.
- 3.1.18 Several measures have also been proposed to protect protected and notable species impacted by the Substation Works:
1. Approximately 35 hectares of agricultural land near Crowtree Farm would be converted to a different cropping regime to benefit skylarks;
 2. One barn owl box would also be installed situated a suitable distance away from the Scheme; and
 3. One peregrine platform would be installed on a pylon a suitable distance away from the Scheme.
- 3.1.19 The landscaping and environmental mitigation elements of the permanent works are not sensitive to flood risk and would not impact flood risk.

Temporary Works

- 3.1.20 In addition to the permanent elements of the Substation Works described above, temporary works are proposed including:
1. A temporary haul road to provide access to the working area;
 2. Construction compounds; and
 3. Temporary surface water drainage systems (including SuDS).
- 3.1.21 Assessment of flood risk to temporary works in the Construction Phase is not included in this FRA and flood risk and mitigation in this phase would be managed by the information provided in the CEMP.
- 3.1.22 A schematic of the proposed Weston Marsh Substation A, permanent access and drainage diversion are illustrated on **Figure 6**.

4. Legislative and Policy Framework

4.1 Legislation and National Policy

National Planning Policy Framework (NPPF), December 2024 (amended February 2025)

- 4.1.1 This FRA has been completed in accordance with National Planning Policy Framework (NPPF) (Ref 14) and the associated Flood Risk and Coastal Change Planning Practice Guidance (PPG) (Ref 15). The NPPF is a material consideration for Local Planning Authorities (LPAs) when drawing up local development plans and determining individual planning applications.
- 4.1.2 NPPF and Flood Risk and Coastal Change PPG provide the definition of flood zones, flood risk vulnerability classifications, flood risk compatibility, the requirements for FRAs, the application of the sequential test and the exception test and appropriate allowances for the anticipated effects of climate change.
- 4.1.3 Paragraph 78 of the Flood Risk and Coastal Change PPG defines the flood zones given by the EA's Flood Map for Planning as presented in **Table 4.1**.

Table 4.1 Flood Zone definition

| Flood Zone | Definition |
|---|--|
| Flood Zone 1 (Low Probability) | Land having a less than 0.1% (1 in 1000yr) annual probability of river or sea flooding |
| Flood Zone 2 (Medium Probability) | Land having between a 1% (1 in 100yr) and 0.1% annual probability of river flooding; or land having between a 0.5% (1 in 200yr) and 0.1% annual probability of sea flooding |
| Flood Zone 3 (High Probability) | Land having a 1% or greater annual probability of river flooding; or Land having a 0.5% or greater annual probability of sea |
| Flood Zone 3b (The Functional Floodplain) | <p>This zone comprises land where water from rivers or the sea has to flow or be stored in times of flood. The identification of functional floodplain should take account of local circumstances and not be defined solely on rigid probability parameters. Functional floodplain will normally comprise:</p> <ul style="list-style-type: none"> • land having a 3.3% or greater 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). <p>The Local Planning Authority should identify in their Strategic Flood Risk Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the EA. (Not separately distinguished from Zone 3a on the Flood Map for Planning)</p> |

4.1.4 Annex 3 of the NPPF (Ref 16) details the classification of flood risk vulnerability by development type. Paragraph 79 of the Flood Risk and Coastal Change PPG summarises the incompatibility of developments and flood risk vulnerability, as shown in **Table 4.2**. The Substation Works component of the Scheme is considered to be essential infrastructure, defined as follows in NPPF Annex 3 : “*Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including infrastructure for electricity supply including generation, storage and distribution systems; and water treatment works that need to remain operational in times of flood*”.

Table 4.2 Flood risk vulnerability and development incompatibility

| Flood Zones | Flood Risk Vulnerability Classification | | | | |
|-------------|---|-------------------------|-------------------------|-----------------|------------------|
| | Essential infrastructure | Highly vulnerable | More vulnerable | Less vulnerable | Water compatible |
| Zone 1 | ✓ | ✓ | ✓ | ✓ | ✓ |
| Zone 2 | ✓ | Exception test required | ✓ | ✓ | ✓ |
| Zone 3a | Exception test required | | Exception test required | ✓ | ✓ |
| Zone 3b | Exception test required | x | x | x | ✓* |

✓ Exception test is not required

x Development should not be permitted

† In Flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.

* In Flood Zone 3b (functional floodplain) essential infrastructure that has passed the Exception Test, and water-compatible uses, should be designed and constructed to:

- remain operational and safe for users in times of flood;
- result in no net loss of floodplain storage; and
- not impede water flows and not increase flood risk elsewhere.

The Sequential Test

4.1.5 The sequential test is the mechanism within the NPPF that seeks to avoid flood risk where possible when proposing new development.

4.1.6 Paragraph 173 of the NPPF states that:

‘[A] sequential risk-based approach should also be taken to individual applications in areas known to be at risk now or in future from any form of flooding.’

4.1.7 Paragraph 174 of the NPPF states that:

‘[t]he aim of the sequential test is to steer new development to areas with the lowest risk of flooding from any source. Development should not be allocated or permitted

if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.'

4.1.8 Paragraph 175 of the NPPF states that:

'[t]he sequential test should be used in areas known to be at risk now or in the future from any form of flooding, except in situations where a site-specific flood risk assessment demonstrates that no built development within the site boundary, including access or escape routes, land raising or other potentially vulnerable elements, would be located on an area that would be at risk of flooding from any source, now and in the future (having regard to potential changes in flood risk).'

Exception Test

4.1.9 As shown in Table 4.2 if flood risk cannot be avoided, certain types of new development may be permitted in areas at medium and high risk of flooding, subject to passing the exception test.

4.1.10 Paragraph 177 of the NPPF states that:

'[h]aving applied the sequential test, if it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied. The need for the exception test will depend on the potential vulnerability of the site and of the development proposed, in line with the Flood Risk Vulnerability Classification set out in Annex 3.'

4.1.11 Paragraph 178 states that,

'[t]o pass the exception test it should be demonstrated that:

a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and

b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.'

4.1.12 Paragraph 181 of the NPPF requires that new development should not increase flood risk elsewhere, and that opportunities should be sought to reduce flood risk, where possible. It states that:

'[d]evelopment should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:

a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;

b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;

c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;

d) any residual risk can be safely managed; and

e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan.'

4.1.13 Paragraph 49 of the Flood Risk and Coastal Change PPG states that:

"[w]here flood storage from any source of flooding is to be lost as a result of development, on-site level-for-level compensatory storage, accounting for the predicted impacts of climate change over the lifetime of the development, should be provided.' Paragraph 49 also states that '[t]he loss of floodplain storage is less likely to be a concern in areas benefitting from appropriate flood risk management infrastructure or where the source of flood risk is solely tidal.'

Sustainable Drainage Systems (SuDS)

4.1.14 There is a presumption for the use of SuDS within any development, except in rare instances that it can be demonstrated that SuDS principles cannot be feasibly incorporated within a development, as agreed with the planning authority.

4.1.15 Paragraph 182 of the NPPF states that:

'[a]pplications which could affect drainage on or around the site should incorporate sustainable drainage systems to control flow rates and reduce volumes of runoff, and which are proportionate to the nature and scale of the proposal. These should provide multifunctional benefits wherever possible, through facilitating improvements in water quality and biodiversity, as well as benefits for amenity. Sustainable drainage systems provided as part of proposals for major development should:

a) take account of advice from the Lead Local Flood Authority;

b) have appropriate proposed minimum operational standards; and

c) have maintenance arrangements in place to ensure an acceptable standard of operation for the lifetime of the development'.

4.1.16 Paragraph 56 of the Flood Risk and Coastal Change PPG states that:

'[w]here possible, preference should be given to multi-functional sustainable drainage systems, and to solutions that allow surface water to be discharged according to the following hierarchy of drainage options:

into the ground (infiltration);

to a surface water body;

to a surface water sewer, highway drain, or another drainage system;

to a combined sewer.'

Climate Change

4.1.17 The EA Climate Change Allowances for Flood Risk Assessments guidance (Ref 17) is to be used to determine appropriate climate change allowances for the FRA. The guidance provides allowances for the projected increases in peak river flow, peak rainfall intensity, sea level rise, and offshore wind speed and extreme wave height.

4.1.18 The Substation Works are located in the Anglian river basin district, and the FRA uses the appropriate climate change allowances for this river basin district.

4.1.19 Further details on the climate change allowances applicable the FRA are outlined in **Section 6.1**.

Technical Specifications (TS) 2.10.13 Flood Defences for Electricity Substations, February 2016

4.1.20 TS 2.10.13 (Ref 18) details National Grid’s technical and procedural requirements for flood resilience of new and existing operational electricity substations.

4.1.21 Paragraph 1.1.5 states that if, after applying the NPPF sequential and exception tests it is still deemed appropriate to site a new substation in Flood Zone 2 or 3, then resilience should be provided up to a level including the 1 in 1000yr (0.1%) plus an allowance climate change and model uncertainty. The guidance notes that this is the flood level with a 50 year asset life projection, as opposed to the EA’s standard position of 100 years. Resilience could require bulk earthworks or localised raising of critical equipment.

4.1.22 Paragraph 1.1.6 states that where the method of providing flood resilience is localised raising of critical equipment, it will still generally be necessary to ensure that the height of the flood resilience level above the finished substation level is 300mm or less during the design flood event. This is to facilitate access on foot within the Substation to maintain ancillary equipment in the event of a prolonged flood situation. This requirement is limited to the areas of the site containing critical equipment which may need to be maintained during a flood and the access routes from a defined access/egress point of the site perimeter.

4.2 Regional and Local Policy

4.2.1 Local plans policies (Ref 19) relevant to this assessment are summarised in **Table 4.3. Section 8.2** details how these policy requirements have been addressed in the FRA.

Table 4.3 Regional and Local Plans or Policies relevant to the Flood Risk Assessment

| Policy Document | Reference | Title and Description |
|--|-----------|---|
| South East Lincolnshire Councils Partnership (Boston Borough Council, East Lindsey District Council and South Holland District Council) | | |
| South East Lincolnshire Local Plan 2011-2036 | 2 | Development Management - requires that development proposals meet sustainable development standards by considering factors such as design quality, environmental impact, infrastructure capacity, sustainable drainage and flood risk, and resource use |
| | 3 | Design of New Development - promotes high-quality, inclusive, and locally sensitive design in new developments, ensuring they enhance the area's character, accessibility, sustainability, and safety while integrating heritage, environmental, and community considerations |

| Policy Document | Reference | Title and Description |
|-----------------|-----------|---|
| | 4 | Approach to Flood Risk - ensures that development in flood-risk areas is carefully assessed, requiring site-specific flood risk evaluations, mitigation measures, and SuDS while restricting high-risk uses to protect people and infrastructure |
| | 30 | Pollution - ensures development does not cause unacceptable pollution or environmental harm, requiring assessments, mitigation, and suitability for safe use before approval |
| | 31 | Climate Change and Renewable and Low Carbon Energy - emphasizes addressing climate change through high-quality design, flood mitigation, water resource protection, biodiversity enhancement, and reduced travel needs, while also supporting renewable and low-carbon energy developments that avoid significant harm to visual, residential, natural, and heritage environments, ensuring sustainable development |

5. Consultation

5.1.1 The EA as a statutory consultee on TCPA planning applications have been consulted on three occasions (listed below) for pre-application advice, noting this engagement includes relevant discussions with the EA undertaken with respect to the Grimsby to Walpole Project, as clarified in **Table 5.1**.

Table 5.1 EA Consultations

| Event | Date | Summary of Key Points |
|---|--|---|
| Grimsby to Walpole Project - Flood Modelling Methodology Stakeholder Meeting | 20/10/2025 (Meeting) 22/12/2025 (EA response to key points received by email) | <ul style="list-style-type: none"> Hydraulic Modelling Methodology and re-use of Outer Dowsing model with updates Proposed Weston Marsh Substation A should be designed to remain operational for the 0.1% Annual Exceedance Probability (AEP) + climate change event |
| Statutory Consultation response to the Preliminary Environmental Information Report (PEIR) produced for the Grimsby to Walpole Development Consent Order (DCO), focussed on Route Section 5: New Weston Marsh Substations A and B | Response received 09/01/2026 | <ul style="list-style-type: none"> All infrastructure should be raised with 600mm freeboard above design level Development should be resilient to defence breach and H++ climate change |
| Hydraulic Modelling Package Discussions - Grimsby to Walpole DCO and Weston Marsh Substation A TCPA Application | 26/03/2026 (Meeting) | <ul style="list-style-type: none"> Proposed Weston Marsh Substation A is flood free in the design flood event Mitigation for residual breach and off site impacts are minor (as defined by the Design Manual for Roads and Bridges (DMRB) LA104 Guidance (Ref 20) and do not require additional mitigation) H++ climate change will not inform platform levels but could inform future resilience Longer duration (70hr and 120hr) of breach opening will be modelled, in addition to the 35hr breach opening duration used for the design event. |

6. Assessment of Flood Risk

6.1 Tidal Flood Risk

6.1.1 The River Welland in the vicinity of the Site, approximately 5km downstream of Spalding, is tidally influenced. The tidal limits of the River Welland are located in Spalding, with a sluice structure controlling fluvial influences by regulating fluvial flow and preventing ingress of tidal waters.

Recorded Flooding

6.1.2 The EA Recorded Flood Outlines dataset (Ref 21), downloaded from DEFRA indicates that no instances of tidal flooding have been recorded by the EA at the Site. However, this area may have been subject to flooding before the advent of flood incident recording, which began in 1946 when predecessor bodies to the EA started collecting detailed information about flooding incidents, although the EA also acknowledge that they may hold limited details about flood incidents prior to 1946.

Flood Map for Planning

6.1.3 The EA Flood Map for Planning, downloaded from the DEFRA Data Services Platform, indicates that the Site, including the proposed Weston Marsh Substation A and associated permanent access road are located in Flood Zone 3 (land with a greater than 1 in 200yr/0.5% annual probability of tidal flooding) and deemed to be at high risk of flooding, as illustrated on **Figure 7**.

6.1.4 However, the Flood Map for Planning and its associated Flood Zones do not consider the presence of flood defences, which as discussed in **Section 2.5** are predicted to provide protection to the surrounding area between the 1% annual probability (1 in 100yr) and 2% annual probability (1 in 50yr).

6.1.5 The Site is not located in Flood Zone 3b; functional floodplain.

Baseline Scenario Hydraulic Modelling

6.1.6 To support the FRA and inform required mitigation, site specific hydraulic modelling of the River Welland was undertaken by WSP. The hydraulic model report is included in **Appendix A** and provides a detailed insight into the modelling methodology and results.

6.1.7 The model is based primarily on the existing EA River Welland tidal model and is a two dimensional (2D) TUFLOW model developed in 2025 by SLR Consulting Limited to support the FRA for the Outer Dowsing Wind Onshore Substation at Surfleet Marsh and has been further updated by WSP for the purpose of the Substation Works planning application.

6.1.8 The design life of the proposed Weston Marsh Substation A is assumed to be 75 years from 2030, and it was agreed with the EA in consultation in October 2025 that the proposed Weston Marsh Substation A is essential infrastructure as defined by the

NPPF and should be designed to remain flood operational for the 0.1% annual probability event plus climate change.

6.1.9 As the assumed design life is 75 years from 2030, the 2105 climate change epoch sea level rise projection (Upper End) has been applied, based on current EA guidance. Sea level allowances for the Anglian river basin district for the epochs in mm for each year are shown below in **Table 6.1**. The total sea level rise for each epoch is shown, along with cumulative sea level rise from the year 2000, in brackets.

Table 6.1 EA climate change allowances for sea level rise in the Anglian river basin district

| Area of England | Allowance | 2000 to 2035 (mm) | 2036 to 2065 (mm) | 2066 to 2095 (mm) | 2096 to 2125 (mm) | Cumulative rise 2000 to 2125 (metres) |
|-----------------|-----------|-------------------|-------------------|-------------------|-------------------|---------------------------------------|
| Anglian | Upper end | 7 (245) | 11.3 (339) | 15.8 (474) | 18.1 (543) | 1.60 |

6.1.10 Modelling results predict that in the design flood event - the 0.1% annual probability event plus Upper End climate change (2105 epoch) - neither the proposed Weston Marsh Substation A nor the permanent access are at risk of flooding, as illustrated on **Figure 12**.

6.1.11 A defence breach scenario is considered to be a residual risk and is addressed in **Section 6.8**.

6.1.12 Based on the information presented above the direct flood risk posed to the proposed Weston Marsh Substation A from tidal sources is considered to be low.

6.2 Fluvial Flood Risk

6.2.1 As referenced in **Section 2.4**, in addition to the tidally influenced River Welland, a number of smaller IDB managed watercourses are within the vicinity of the Site. These include, the Lords Drain located approximately 500m to the east of the proposed Substation, Crowtree Drain, and R11 New Drain (see **Figure 4**), which currently intersects the footprint of the proposed Substation and would be diverted.

6.2.2 Water levels in these watercourses are controlled by the Lord’s Drain sluice and pumping station located approximately 1.5km to the north of the proposed Weston Marsh Substation A. The pumping station is equipped with two pumps, each with a capacity of 1.42 m³/s, and was refurbished in 2023.

6.2.3 Flood risk associated with the diverted R11 New Drain will be mitigated through design (detailed in **Section 7.2**).

6.2.4 Failure of the sluice and/or pumping station is considered to be a residual risk, due to the potential for water to back up and exceed the capacity of the watercourses, causing out of bank flow and is addressed in **Section 6.8**.

6.2.5 Fluvial flood risk to the Weston Marsh Substation A is considered to be low.

6.3 Surface Water Flood Risk

- 6.3.1 As discussed in **Section 2.2** the topography surrounding the Site is flat and level, which suggests a low probability of overland surface water flow paths being present.
- 6.3.2 The EA Flood Map for Planning categorises surface water flood risk as:
1. Very low: less than 0.1% annual probability/1 in 1000yr;
 2. Low: less than 1% annual probability/1 in 1000yr but greater than or equal to 0.1% annual probability;
 3. Medium: Between 1% annual probability and 3.33% annual probability/ 1 in 30yr); and
 4. High: greater than 3.33% annual probability.
- 6.3.3 The Risk of Flooding from Surface Water mapping (Ref 23), downloaded from the DEFRA Data Services Platform in February 2026 shows that the proposed Weston Marsh Substation A is predominantly at very low risk (less than 0.1% annual probability) of flooding from surface water, with some areas of high, medium and low risk associated with ponding rather than overland flow paths. The linear, low risk flow path cutting through the footprint of proposed Weston Marsh Substation A is the R11 New Drain watercourse, which would be diverted.
- 6.3.4 The permanent access road is predominantly at very low risk, with some areas of low and medium risk isolated ponding associated with localised topographical depressions. Marsh Road is shown to be at very low risk where the access road joins it.
- 6.3.5 The risk of flooding from surface water to the proposed Weston Marsh Substation A is shown on **Figure 8**.
- 6.3.6 The Flood Map for Planning also includes the risk of flooding from surface water plus an allowance for future climate change, using the Central estimate for the 2050s epoch (2040-2060). Central peak rainfall allowances for the Welland Management Catchment for the 3.3% and 1% AEP events are listed in **Table 6.2** below.

Table 6.2 Surface Water central peak rainfall allowances 2050s epoch for Welland Management Catchment

| 2050s Epoch Event | Central Allowance 2050s |
|------------------------------------|-------------------------|
| 3.3% Annual Exceedance Probability | 20% |
| 1% Annual Exceedance Probability | 20% |

- 6.3.7 The Flood Map for Planning indicates that with an allowance for climate change there is an increased risk, with greater areas of ponding shown to be at low to medium risk, with some small areas associated with high risk on the access road and in the eastern extent of the Substation footprint. However much of the proposed Weston Marsh Substation A and access road remain at very low risk, as illustrated on **Figure 9**.

- 6.3.8 Weston Marsh Substation A, including the permanent access road, has the potential to increase surface water flood risk by increasing impermeable area, increasing runoff rates and volumes. Mitigation against increased surface water flood risk is outlined in **Section 7.3**.
- 6.3.9 Landscaping and environmental mitigation would not increase surface water flood risk and no associated mitigation is proposed.
- 6.3.10 Risk of flooding to the proposed Weston Marsh Substation A from surface water before mitigation ranges from low to high, areas at high risk are predominantly concentrated in the eastern part of the substation footprint, immediately to the east of the proposed substation and to the east of the proposed substation, and within the existing R11 New drain, which would be diverted. Land to the west of the proposed substation is at medium to low risk.

6.4 Groundwater Flood Risk

- 6.4.1 As referenced in **Section 2.3** the underlying geology consists of bedrock deposits of mudstone, with superficial deposits of clay and silt, which suggests low permeability and thus a low risk of groundwater emergence.
- 6.4.2 Risk of flooding to the proposed Weston Marsh Substation A from groundwater emergence is considered to be low.

6.5 Sewer Flood Risk

- 6.5.1 As outlined in **Section 2** the Site is located on agricultural land and is therefore unlikely to have significant formal sewer infrastructure.
- 6.5.2 Foul drainage would be accommodated using a cesspool as outlined in **Section 3.1**.
- 6.5.3 Risk of flooding to the proposed Weston Marsh Substation A risk from sewers is considered to be low.

6.6 Highway Drainage Flood Risk

- 6.6.1 The proposed Weston Marsh Substation A is located approximately 360m east of Marsh Road. Google Streetview imagery indicates that Marsh Road does not appear to be served by highway drainage infrastructure such as drains or gullies where the permanent substation access road is proposed to tie-in.
- 6.6.2 Risk of flooding to the proposed Weston Marsh Substation A from highway drainage is considered to be low.

6.7 Flood Risk from Artificial Sources

- 6.7.1 There are no artificial watercourses or waterbodies such as canals, or lakes in the vicinity of the Site.
- 6.7.2 The EA Reservoir Flood Map, downloaded from the DEFRA Data Services Platform (Ref 24) shows that the Site is not at risk of flooding from a reservoir breach in either the wet day or dry day scenario.

- 6.7.3 Risk of flooding to the proposed Weston Marsh Substation A from artificial sources is considered to be **low**.

6.8 Residual Flood Risk

Defence Breach

- 6.8.1 There is a residual risk that flood defences on the River Welland could be breached in an extreme tidal event, causing a risk to the Substation Works. The modelled 0.1% annual probability event plus Upper End climate change (2105) defence breach was modelled, and three breach location scenarios were assessed.
- 6.8.2 Breach location 3 offered the “worst case” prediction of flood risk at the proposed Weston Marsh Substation A, predicting water levels of 4.12m AOD.
- 6.8.3 Predicted water levels in the baseline (present day) 0.1% annual probability event plus Upper End climate change (2105) defence breach scenario are illustrated on **Figure 11**.
- 6.8.4 Defence breach coincident with the 0.1% annual probability plus Upper End climate change (2105) event is considered to be a low probability residual risk, considering that flood defences are regularly inspected and maintained.
- 6.8.5 Mitigation against flood risk associated with a tidal breach event is outlined in **Section 7.1**.

IDB Watercourse Infrastructure Failure

- 6.8.6 There is a residual risk of fluvial flooding to the proposed Weston Marsh Substation A if the Lord’s Drain sluice and/or pumping station were to fail.
- 6.8.7 The IDB undertakes regular inspections and carries out regular maintenance and servicing of all assets under their care, including pumping stations. The likelihood of failure is considered to be low, and any failure would be immediately notified to the relevant IDB for inspection and repair. Furthermore, Lord’s Drain pumping station was refurbished in 2023.
- 6.8.8 In such an event, fluvial flooding may spread throughout the Site posing a risk to the proposed Weston Marsh Substation A and permanent access road. Mitigation is outlined in **Section 7.2**.
- 6.8.9 Other permanent elements of the Substation Works, such as landscaping and environmental mitigation would not increase flood risk, and no mitigation for these elements is recommended.

7. Flood Risk Mitigation and Management

7.1 Residual Tidal Breach

Weston Marsh Substation A Design

- 7.1.1 In order to mitigate the residual flood risk to the proposed Weston Marsh Substation A posed by a breach of the River Welland flood defences, it is proposed to place the substation and all sensitive infrastructure including the buildings and structures listed in **Section 3.1** on a raised platform, set at a minimum level of 4.42m AOD.
- 7.1.2 This will provide 300mm freeboard above the predicted water level in the 0.1% annual probability event plus Upper End climate change defence breach scenario. This complies with the requirement of the National Grid TS 2.10.13 guidance and EA standing advice that substations should be resilient and remain operational in the 0.1% annual probability event plus climate change event, noting that flooding is not predicted at the proposed Weston Marsh Substation A in the design flood event.
- 7.1.3 Residual off-site impacts within the wider floodplain caused as a result of raising the substation compound footprint have been assessed in detail in the hydraulic modelling report in **Appendix A**. The off-site impacts are considered to be mostly minor (as defined by DMRB LA104 Guidance, Environmental assessment and monitoring). Levels in the floodplain north of the proposed Weston Marsh Substation A are increased by approximately 10mm-50mm (0.01-0.05m) during this event in the post-development scenario.
- 7.1.4 There are some isolated areas in the floodplain north of the proposed Weston Marsh Substation A where level increases are moderate; 50mm-100mm (0.05m-0.1m) however these are predominantly confined to fields which are predicted to flood in a breach scenario without the presence of the proposed Weston Marsh Substation A.
- 7.1.5 There are two residential properties; one to the northeast of the proposed Weston Marsh Substation A (approximate NGR TF 30920 29610) and one to the southeast (approximate NGR TF 31042 27422) which are predicted to be at risk in the pre-development breach scenario, but where flood extent appears to be increased in the post-development breach scenario. At the property in the northeast, depths within the increased flood extent are predicted to increase by up to 6mm (0.006m). At the property to the south, depths within the increased extent are predicted to increase by up to 10mm (0.01m).
- 7.1.6 Comparison of flood hazard in the pre- and post-development scenarios indicates that there is very little difference in flood hazard between the two scenarios with only a small increase in hazard in the north of the floodplain in the post-development scenario, as shown in the hydraulic modelling report in **Appendix A**. At the residential properties described above, modelling predicts a “very low” hazard rating (<0.75), as defined by the DEFRA FD231/TR2 “Flood Risks to People” guidance (Ref 25).
- 7.1.7 As the above impacts are considered to be a low probability residual risk associated with a tidally dominated river, provision of mitigation for these off-site impacts is not proposed. This was agreed with the EA in consultation in March 2026.

70 and 120 Hour Breach Duration Runs

- 7.1.8 In the modelled breach event described above the defence breach occurs at 16 hours into the simulation and remains open for the remaining 35 hours of the 51 hour simulation
- 7.1.9 As referenced in **Section 5**, it was agreed in consultation with the EA that in addition to the 35 hour breach opening event for the 0.1% annual probability event plus Upper End climate change scenarios, 70 and 120 hour duration breach opening events would also be modelled as a sensitivity test.
- 7.1.10 Modelling predicts a maximum level of 4.16m AOD at the proposed Weston Marsh Substation A in both of these longer duration events. The proposed minimum platform level of 4.42m AOD will therefore still provide 260mm freeboard above this level.

H++ Climate Change

- 7.1.11 As also referenced in **Section 5**, it was also agreed in consultation with the EA that in addition to the Upper End climate change allowance, the H++ climate change allowance (1.9m sea level rise to the year 2100) would also be applied to the 0.1% annual probability event breach scenario, to assess resilience of the assumed design life of the proposed Weston Marsh Substation A.
- 7.1.12 Modelling predicts a maximum level of 4.23m AOD at the proposed Weston Marsh Substation A in this scenario. The proposed minimum platform level of 4.42m AOD will therefore still provide 190mm (0.19m) freeboard above this level, indicating that the proposed Weston Marsh Substation A would be resilient against residual defence breach risk over its lifetime.

7.2 Residual Fluvial

- 7.2.1 The diverted section of R11 New Drain will be designed to ensure that it has the same channel capacity as the existing alignment of the watercourse.
- 7.2.2 The mitigation provided for residual tidal flood risk, outlined in **Section 7.1** would also ensure that the Substation remains operational in the case of a flood event which exceeds the channel capacity of the diverted R11 New Drain, or a failure of the Lord's Drain sluice and/or pumping station.

7.3 Surface Water

- 7.3.1 The assessment of surface water flood risk in **Section 6.3** indicates that areas shown as high risk of surface water flooding are associated with topographic low points within the eastern part of the substation footprint, and immediately east of the substation rather than overland flow paths. There is also an area mapped as high risk associated with the existing R11 New Drain watercourse which would be diverted. Risk to the proposed Weston Marsh Substation A from surface water run-on would be mitigated by the raised platform, as outlined in **Section 7.1** which would remove these topographic low points and would not intercept or block overland flow paths.
- 7.3.2 A Surface Water Drainage Strategy (SWDS) has been developed which would manage surface water run-off using SuDS principles to ensure that the increased impermeable

area associated with the Substation and access road does not increase surface water flood risk.

- 7.3.3 The SWDS proposes to discharge surface water via a pumped system into the local waterbody network at a rate of 8.3l/s, which is as close as possible to the QBAR runoff rate of 7.97l/s. Restriction to this rate would be achieved through the provision of attenuation using above ground basins and a swale which would accommodate flows in the 1% annual probability (1 in 100yr) event plus a 40% allowance for climate change. In addition, the proposed car park would utilise permeable surfaces and the substation platform would be built with free draining gravel to intercept the first 5mm of rainfall.
- 7.3.4 A detailed drainage strategy building on these principles will be developed in the detailed design phase.

7.4 Foul Drainage

- 7.4.1 Risk of flooding from foul drainage would be mitigated by provision of a cesspool, including a float switch and high-level alarm. The system would also be subject to routine maintenance.

8. Justification of the Proposed Development

8.1 Sequential Test

8.1.1 As referenced in **Section 4.1**, the NPPF requires the sequential test to be applied to steer new development to areas at lowest risk of flooding from all sources, noting that the proposed Weston Marsh Substation A is classified by Annex 3 of the NPPF as essential infrastructure, which Paragraph 79 of the Flood Risk and Coastal Change PPG indicates is not incompatible with Flood Zone 3 subject to passing the exception test.

8.1.2 As demonstrated in **Section 6.1**, the location of the Site, including the proposed Weston Marsh Substation A is in Flood Zone 3, land at high risk of flooding from rivers and the sea (not taking into account the presence of defences). The Site is located in Flood Zone 3a, not Flood Zone 3b; functional floodplain.

Overarching Need for Reconfiguration of the Electricity Network

8.1.3 The need for the Weston Marsh Substation A is set out within Section 4 of the Planning Design and Access Statement (TCPA application) and the Section 37 Statement (S37 applications). UK Government policy clearly sets out the critical requirement for significant reinforcement of the transmission system to facilitate the connection of renewable energy sources and to transport electricity to where it is used. In particular, the British Energy Security Strategy (Ref 26) set targets for the connection of up to 50 GW of offshore wind by the 2030s as a key part of a strategy for secure, clean and affordable British energy for the long term. As a result, there continues to be a growth in the volume of renewable and zero carbon generation seeking to connect to the transmission system, particularly in the East Coast region.

8.1.4 The transmission network in the Humber/Trent and Lincolnshire regions was primarily constructed in the 1960s, at the same time as much of the rest of the transmission system. It was designed to connect the large inland coal-fired power stations in the region, with changes occurring in the later parts of the century connecting gas-fired power stations in the Humber region in particular. Little or no transmission infrastructure was constructed in some areas, so there is currently limited ability to support planned connections (to new generation) on the East Coast.

8.1.5 Substantial reinforcement is therefore required across the Midlands and East Anglia to handle the increased power flows from proposed new sources of electricity generation in locations where the existing electricity transmission network does not extend today. This includes offshore wind and interconnectors that are planned to come ashore on the east coast in the Lincolnshire region and are needed to meet the Government's target of connecting 50 GW of offshore wind by 2050.

8.1.6 Under its Transmission Licence, National Grid Electricity Transmission (NGET) is required to operate an efficient, economic and coordinated transmission system in England and Wales. The network must maintain an appropriate level of security of supply and be capable of adapting as customer and generation requirements change.

- 8.1.7 In support of the Government's 2050 targets, National Grid Energy System Operator (now the National Energy System Operator (NESO)) received a high volume of connection applications, many in locations remote from the existing transmission network or where available capacity is limited. This includes several generation projects that collectively form the East Coast Connection generation group.
- 8.1.8 In accordance with the National Electricity Transmission System Security and Quality of Supply Standard (NETS SQSS), these connection agreements define the starting points for identifying necessary network reinforcements. Sufficient transmission capacity must be provided to enable the full contracted generation to connect securely. These cumulative requirements drive reinforcement needs across the B8 and B9 system boundaries and are a key driver which explain why the Scheme and the related Grimsby to Walpole project is located within the Lincolnshire region.

Relationship with Grimsby to Walpole DCO

- 8.1.9 As referenced in **Section 1.2** the consenting route for the Weston Marsh Substation A is sought via planning permission pursuant to the TCPA 1990 from SHDC as the LPA. The TCPA route is however being progressed in parallel with other consenting routes for works to tie the new substation into the existing network including two Section 37 applications under the Electricity Act 1989.
- 8.1.10 The Grimsby to Walpole Project would include two substations at Weston Marsh - Weston Marsh Substation A and Weston Marsh Substation B. As the Grimsby to Walpole Project involves over 2 km of new electric line it is considered a Nationally Significant Infrastructure Project under the Planning Act 2008 and an application for development consent is currently being prepared. It is anticipated that this will be submitted in Summer 2027 and, subject to securing consent, the Project constructed between 2029 and 2033.
- 8.1.11 However, as the Weston Marsh Substation A is the connection point for several onshore and offshore renewable projects including Outer Dowsing Offshore Wind Farm (2030) (ODOW), the Scheme is being brought forward at an earlier stage than the Grimsby to Walpole Project. As such, the Scheme is a standalone development and would fully function as part of the transmission system independently of the outcome of the Grimsby to Walpole DCO application.
- 8.1.12 The ODOW is a 1.5GW wind farm comprising of 100 turbines approximately 54km from the Lincolnshire Coast with an electricity generation transmitted to shore via underground cabling from point at Wolla Bank. It is a joint venture developed by Corio (and its affiliates), TotalEnergies and Gulf Energy Development. Upon completion, it is anticipated to generate renewable electricity for over 1.6 million households, significantly contributing to the UK's target of 50 GW of renewable energy generation from offshore wind by 2030 (listed as one of the UK Government's '10 Point Plan', contributing to net zero carbon by 2050).
- 8.1.13 The ODOW was granted development consent on 10 February 2026 by the Secretary of State (SoS) for the Department of Energy Security and Net Zero (DESNZ). As such, Outer Dowsing is currently at a more advanced stage than the Scheme or the related Grimsby to Walpole Project.
- 8.1.14 Under Section 9(2) of the Electricity Act 1989, National Grid has a duty to develop and maintain an efficient, coordinated, and economical system of electricity transmission; and to facilitate competition in the supply and generation of electricity.

- 8.1.15 An evaluation of two possible grid connection options (the ‘Lincolnshire Node’ and Weston Marsh) was considered in the Outer Dowsing Preliminary Environmental Information (PEI) Report. Following the publication of the PEI Report, Outer Dowsing received confirmation from NESO in August 2023 that the confirmed grid connection for Outer Dowsing would be Weston Marsh. As part of the connection agreement between NESO and ODOW (and therefore the reciprocal contractual agreement between NESO and National Grid), a connection point onto the transmission system must be made available by 2030. A customer connection agreement has been made between the NESO and ODOW (and therefore a reciprocal contractual agreement between NESO and NGET), confirming that connection for the ODOW DCO will be made available by 2030.
- 8.1.16 Whilst the new Weston Marsh Substation A is included within the proposals for the Grimsby to Walpole DCO application, to accommodate the ODOW connection, Weston Marsh Substation A needs to be operational ahead of the Grimsby to Walpole DCO Project’s programmed completion date. Specifically, the Grimsby to Walpole DCO application is not anticipated to be submitted until 2027 with an estimated construction programme between 2029-2033. The anticipated date at which the Grimsby to Walpole Project would be fully operational is therefore too late to successfully connect Outer Dowsing in 2030. National Grid is therefore seeking to bring forward the Scheme, including the Substation Works, via separate consents to the Grimsby to Walpole Project DCO. This would facilitate earlier operation of the infrastructure required to connect Outer Dowsing to the transmission network.
- 8.1.17 As well as this TCPA Application for the Weston Marsh Substation A, two additional consents are being sought from the SoS under Section 37 of the Electricity Act 1989 to construct new sections of overhead line and re-align the existing ones and re-conductoring works to the existing 4ZM overhead line will also be undertaken via the Overhead Lines (Exemption) (England and Wales) Regulations 2009.

Strategic Options Appraisal

- 8.1.18 In determining the need for network reinforcement specifically in the Weston Marsh area, National Grid have previously undertaken a number of strategic studies. This initially consisted of a Strategic Options Report (SOR) (Ref 27) published in 2023 which established the Needs Case for reinforcement to the transmission system in the East Coast (Lincolnshire and Yorkshire) region.
- 8.1.19 The SOR was subsequently updated in 2025 (Ref 28) as part of the ongoing strategic options assessment and decision-making process involved in promoting new transmission projects. The SOR Update sets out the alternatives strategic options that were considered to address the capacity shortfall within the east coast area. This included the option referred to as ECO 6 – a new Grimsby West substation, new Lincolnshire Connection substation(s), new Weston Marsh substation(s) and new Walpole B Substation, connected via 140 km of new overhead line. As set out in the SOR, this was the preferred option, when balancing cost, technical performance and environmental and socio-economic effects. The SOR noted that ECO 6 (i.e. the Grimsby to Walpole Project) would require crossings of main rivers and due to the location of the required connections, Flood Zone 2 or 3 were expected to be unavoidable for the siting of new substation infrastructure at Weston Marsh.
- 8.1.20 Following publication of the SOR, the Corridor Preliminary Routing and Siting Study (CPRSS) (Ref 29) reported the process of options identification and selection to identify an emerging preferred corridor and substation siting zones for the preferred ECO 6

option. Section 5 of the CPRSS set out the Study Area considered for the siting of a new Weston Marsh substation. An initial search area of 5 km was considered likely to yield suitable locations for substation siting while addressing the key drivers. Increasing the search area further from the Spalding Tee-Point was discounted, as this would increase the distance of a new substation from existing overhead line infrastructure. Doing so would require greater reconfiguration of existing transmission lines and/or new sections of overhead line to connect a new substation to the system. This would be likely to increase the scale of environmental and socio economic impacts. Flood Zone 3 covers the majority of the initial search area and the wider area, with smaller pockets of Flood Zone 2.

- 8.1.21 As set out within the CPRSS, the siting of a new Weston Marsh substation north-west of and in close proximity to the existing Spalding Tee-Point overhead line junction, represents the greatest opportunity to limit the spread of environmental effects, overhead line deviations of the two existing overhead lines (4ZM and 2WS) and reduce technical complexity during construction and operation and was therefore taken forward as the preferred option.
- 8.1.22 Following publication of the CPRSS and the conclusion of further design work for the Grimsby to Walpole Project, the need for two substations in the Weston Marsh area as part of the Grimsby to Walpole Project was established. Given this conclusion, National Grid reviewed the findings of previous siting studies, including the CPRSS, as reported in the Weston Marsh Siting Study Report (Ref 30). The delivery of two substations in the Weston Marsh area did not alter the preferred location for Weston Marsh Substation A north-west of the existing Spalding Tee-Point.
- 8.1.23 Given the large extent of the Flood Zone in this area, as shown in **Section 6.1**, this poses a constraint on locating the proposed Weston Marsh Substation A in an alternative location at lower risk of flooding from rivers and the sea. The location of the proposed Weston Marsh Substation A is protected from tidal flooding by existing flood defences along the River Welland and has not been assessed to be at high risk from any other sources of flooding.
- 8.1.24 Having applied the sequential test, it has been demonstrated that it is not possible for Weston Marsh Substation A to be located in an area with a lower risk of flooding from rivers and the sea.

8.2 Exception Test

- 8.2.1 As referenced in **Section 4.1**, the NPPF states that having applied the sequential test, if it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied.
- 8.2.2 The proposed Weston Marsh Substation A is classified by Annexe 3 of the NPPF as essential infrastructure. Paragraph 79 of the Flood Risk and Coastal Change PPG indicates that essential infrastructure is not incompatible with Flood Zone 3, subject to passing the exception test. The exception test, as defined by Paragraph 31 of the PPG Flood risk and coastal change guidance requires that:

a) the development would provide wider sustainability benefits to the community that outweigh the flood risk; and

b) the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.'

- 8.2.3 In addition, essential infrastructure in Flood Zone 3a should be designed and constructed to remain safe and operational in times of flood.
- 8.2.4 In response to requirement (a), the wider sustainability benefits of the development are that the proposed Scheme would help to replace parts of the electricity transmission network which were developed in the 1960s and currently offer limited ability to support planned connections (to new generation) on the east coast.
- 8.2.5 Furthermore, the proposed Scheme would help National Grid meet its duty under Section 9 (2) of the Electricity Act to develop and maintain an efficient, coordinated and economical system of electricity transmission, and to facilitate competition in supply and generation of electricity.
- 8.2.6 In addition, as referenced in **Section 8.1** the proposed Scheme would provide reinforcement to the distribution network across the Midlands and East Anglia to handle the increased power flows from proposed new sources of electricity generation where the existing electricity transmission network does not extend today. This includes offshore wind and interconnectors that are planned to come ashore on the east coast in the Lincolnshire region and are needed to meet the Government's target of connecting 50 GW of offshore wind by 2050. In particular the proposed Scheme would provide the connection point connection point for the Outer Dowsing Offshore Wind Farm.
- 8.2.7 In response to requirement (b):
- hydraulic modelling predicts that the proposed Weston Marsh Substation A would not be at risk of flooding from tidal sources in the design flood event; the 0.1% annual probability plus Upper End climate change (2105 epoch) over its predicted 75 year design life.

There is a residual risk to the proposed Weston Marsh Substation A in the 0.1% annual probability plus Upper End climate change (2105 epoch) breach scenario, the proposed substation has been designed to remain operational and resilient in this scenario, by being set on a raised platform providing a minimum freeboard of 300mm above predicted flood levels in this scenario, in compliance with National Grid Technical Specifications (2.10.13) and the EA South East Lincolnshire flood risk standing advice. This would also provide mitigation and resilience against the residual risk of fluvial flooding from IDB managed watercourses in the event of infrastructure failure.
 - Residual off-site impacts associated with the raised platform have been assessed and are mostly minor in magnitude, with predicted increased levels of 10-50mm (0.01-0.05m) in the floodplain north of the proposed Weston Marsh Substation A. In some isolated areas increases are moderate; 50-100mm (0.05m-0.1m) but these increases are in areas of the floodplain without sensitive receptors. As described in **Section 7.1** there are potential increases in flood risk to two residential properties which are predicted to be at flood risk in the pre-development breach scenario, however the potential impact is considered to be minor in magnitude, and with negligible impact on flood hazard, as defined by the DMRB LA104 Guidance, environmental assessment and monitoring.

- 8.2.8 The above potential impacts are considered to be acceptable considering that this is a consequence of mitigation against a residual risk. Similarly, land where flood levels are predicted to increase would be inundated in a breach event without the presence of the proposed Weston Marsh Substation A. This conclusion, with regard to off-site impacts in the event of a defence breach, was agreed with the EA in consultation in March 2026.
- 8.2.9 The risk of flooding from surface water runoff as a potential result of the proposed substation would be mitigated through platform raising as described above and the development of a drainage strategy.
- 8.2.10 With reference to the provisions of paragraph 181 of the NPPF, which requires that *new development should not increase flood risk elsewhere, and that opportunities should be sought to reduce flood risk, where possible, and [d]evelopment should only be allowed in areas at risk of flooding where, in the light of this assessment (and the sequential and exception tests, as applicable) it can be demonstrated that:*
- *a) within the site, the most vulnerable development is located in areas of lowest flood risk, unless there are overriding reasons to prefer a different location;* The proposed Weston Marsh Substation A is set back approximately 1km from the bank of the River Welland, minimising risk of flooding in the case of a defence overtopping event. Modelling predicts that the proposed Weston Marsh Substation A is not at risk of flooding from the tidal River Welland in the design flood event, and while partially at medium and high risk of surface water flooding, the risk in this location does not appear to be significantly greater than in other areas in the Site Boundary.
 - *b) the development is appropriately flood resistant and resilient such that, in the event of a flood, it could be quickly brought back into use without significant refurbishment;* The proposed Weston Marsh Substation A has been designed to remain operational in the event of a 0.1% annual probability event and defence breach scenario, inclusive of the effects of predicted climate change.
 - *c) it incorporates sustainable drainage systems, unless there is clear evidence that this would be inappropriate;* A Surface Water Drainage Strategy has been developed which proposed the use of SuDS in the form of attenuation basins.
 - *d) any residual risk can be safely managed;* The residual risk of a defence breach, including the effects of future climate change has been mitigated by specifying a platform height of 4.42m AOD, which modelling predicts will provide freeboard above water levels in a defence breach scenario.
 - *e) safe access and escape routes are included where appropriate, as part of an agreed emergency plan;* The permanent access road to the proposed Weston Marsh Substation A is not predicted to be at risk of flooding in the design flood event and would be positively drained to mitigate surface water flood risk. South East Lincolnshire Local Plan policies relevant to flood risk are listed below, with the assessment's findings:
 - *2) Development Management - requires that development proposals meet sustainable development standards by considering factors such as design quality, environmental impact, infrastructure capacity, sustainable drainage and flood risk, and resource use;* SuDS and flood risk have been considered and have informed the design, including development of a Surface Water Drainage Strategy, and recommendation that the proposed Weston Marsh Substation A is placed on a

raised platform at a minimum elevation of 4.42m AOD to provide freeboard above a residual tidal defence breach event, as detailed in **Section 7**.

- 3) *Design of New Development - promotes high-quality, inclusive, and locally sensitive design in new developments, ensuring they enhance the area's character, accessibility, sustainability, and safety while integrating heritage, environmental, and community considerations*; Environmental considerations have been assessed, including demonstration that proposed mitigation would not cause increased flood risk, as detailed in **Section 7**.
- 4) *Approach to Flood Risk - ensures that development in flood-risk areas is carefully assessed, requiring site-specific flood risk evaluations, mitigation measures, and SuDS while restricting high-risk uses to protect people and infrastructure*; Flood risk to the proposed Weston Marsh Substation A has been assessed and suitable mitigation proposed, including recommendation of a raised platform to provide freeboard above a residual tidal defence breach event, and development of a Surface Water Drainage Strategy which utilises SuDS, as detailed in **Section 7**.
- 30) *Pollution - ensures development does not cause unacceptable pollution or environmental harm, requiring assessments, mitigation, and suitability for safe use before approval*; Proposed mitigation would reduce the risk of environmental harm, particularly proposed SuDS which would seek to provide surface water quality treatment.
- 31) *Climate Change and Renewable and Low Carbon Energy - emphasizes addressing climate change through high-quality design, flood mitigation, water resource protection, biodiversity enhancement, and reduced travel needs, while also supporting renewable and low-carbon energy developments that avoid significant harm to visual, residential, natural, and heritage environments, ensuring sustainable development*; Climate change has been used to inform mitigation requirements, the proposed Scheme is intended to reinforce the distribution network across the Midlands and East Anglia to handle the increased power flows from proposed new sources of electricity generation where the existing electricity transmission network does not extend today, and will provide offshore wind and interconnectors that are planned to come ashore on the east coast in the Lincolnshire region and are needed to meet the Government's target of connecting 50 GW of offshore wind by 2050. In particular the proposed Scheme would provide the connection point for the Outer Dowsing Offshore Wind Farm. This would help meet net-zero requirements and reduce dependence on imported fossil fuels.

8.2.11 It is considered that the community benefits presented in response to requirement (a) of the exception test outweigh the residual flood risks presented above in response to requirement (b).

8.2.12 Therefore, the information presented above demonstrates that the exception test has been passed.

8.3 Conclusion

- 8.3.1 This FRA has been prepared by WSP UK Ltd on behalf of National Grid to support the planning application for works to construct a new electricity substation, south west of the Spalding Tee-Point, in the administrative boundary of SHDC in Lincolnshire.
- 8.3.2 The FRA has reviewed the requirements of policy and legislation relating to development and flood risk, assessed risk of flooding from all sources; tidal, fluvial, groundwater, sewer, highway, artificial and residual.
- 8.3.3 Modelling predicts that the proposed Weston Marsh Substation A is not at risk in the design flood event; the 0.1% annual probability event plus Upper End climate change (2105 epoch).
- 8.3.4 The greatest flood risk posed to the proposed Weston Marsh Substation A is from a tidal defence breach, which is a residual risk. There is also a residual risk from fluvial sources in the event that failure of pumping and sluice infrastructure which controls levels in IDB watercourses causes water to exceed the channels of these watercourses and flow overland.
- 8.3.5 The proposed Weston Marsh Substation A is predominately at low to high risk of surface water flooding, with high risk areas associated with topographic low points in the eastern part of the substation footprint, immediately east of the proposed substation, and the existing R11 New Drain watercourse.
- 8.3.6 All other sources of flood risk are assessed to be low.
- 8.3.7 Mitigation has been identified; it is proposed to mitigate tidal and fluvial residual risk by placing the proposed Weston Marsh Substation A and sensitive infrastructure on a raised platform, at a minimum level of 4.42mAOD, which would provide 300mm freeboard above the modelled water level 0.1% annual probability event plus Upper End climate change (2105 epoch) breach scenario. The platform level would also provide 260mm freeboard above the modelled water level in the 70 and 120 hour duration breach events, and 199mm freeboard in the 0.1% annual probability event H++ breach scenario.
- 8.3.8 Fluvial flood risk would be mitigated by ensuring that diverted IDB watercourse will be designed to have the same channel capacity as the existing watercourses.
- 8.3.9 Surface water flood risk to the proposed Weston Marsh Substation A would be mitigated by the raised platform which the substation would be situated on, which would eliminate topographic low points within its current footprint, and by diversion of the existing R11 New Drain watercourse. Risk of flooding from surface water runoff associated with the substation and access road through the development of a Surface Water Drainage Strategy, submitted alongside this FRA.
- 8.3.10 Foul drainage would be managed by provision of a cesspool, which would be monitored and routinely maintained.
- 8.3.11 The FRA has demonstrated that risks can be mitigated, that the proposed Weston Marsh Substation A can be made safe for its design lifetime, would not increase flood risk elsewhere, up to and including the design flood event and is considered to have passed the sequential and exception tests required by the NPPF.

8.4 Commitments

- 8.4.1 The proposed Weston Marsh Substation A and all sensitive infrastructure would be placed on a raised platform set a minimum level of 4.42m AOD, which would provide a minimum freeboard of 300mm above the predicted flood level in 0.1% annual probability tidal defence breach plus an allowance for climate change.
- 8.4.2 Based on the findings of this FRA it is recommended that flood risk should not be a constraint on securing planning consent for the Substation Works.

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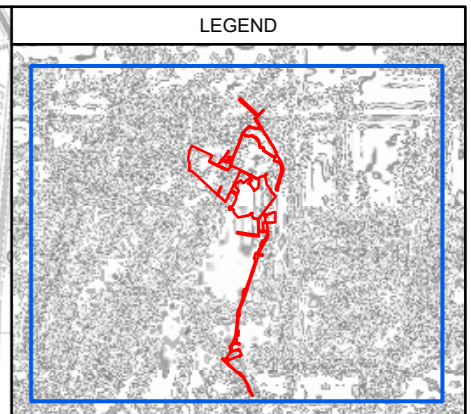
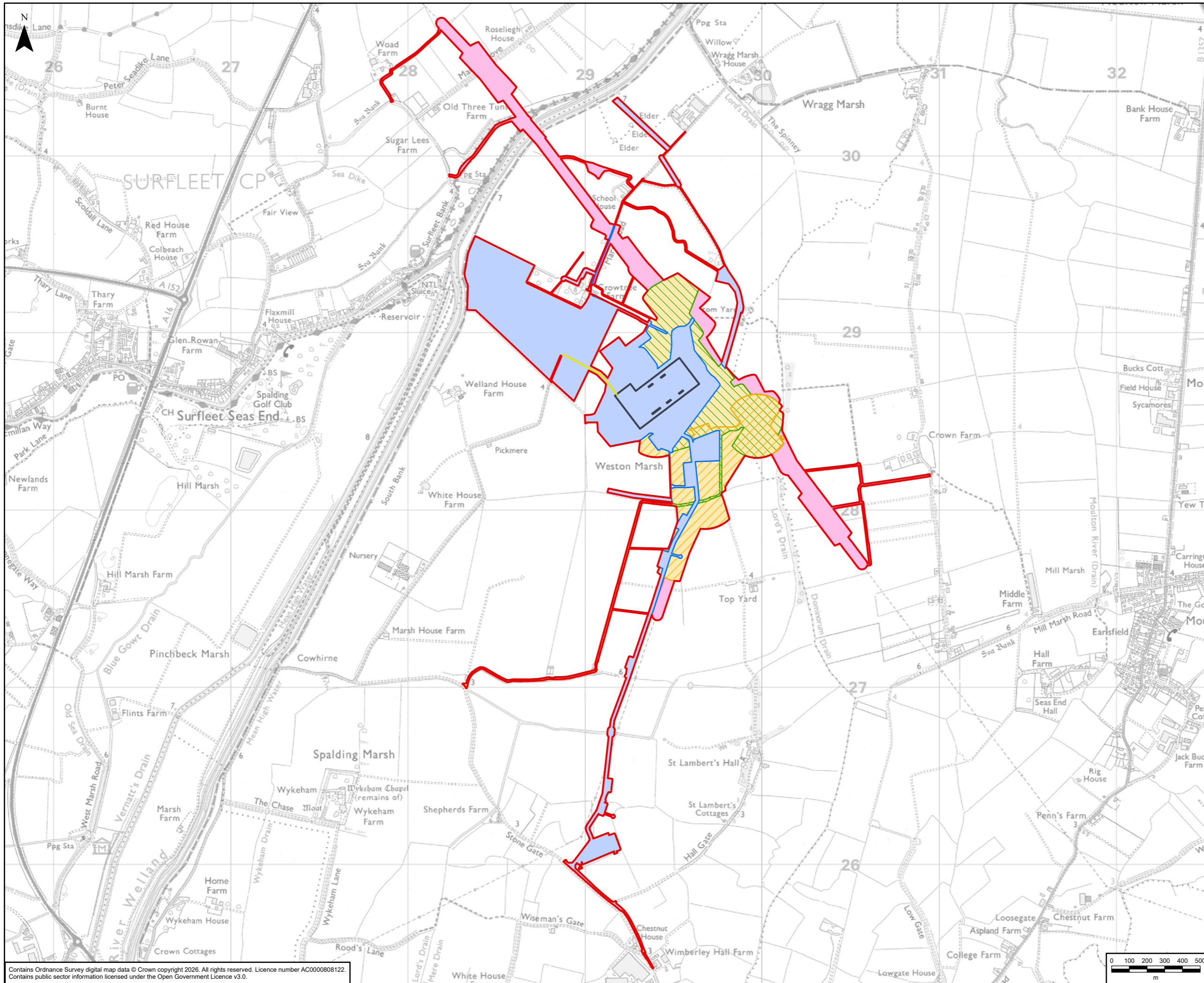
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Figures

Figure 1 Site Location



- LEGEND**
- Scheme Site Boundary
 - Substation Works Site Boundary
 - Exempt Overhead Line Works Site Boundary
 - S37 OHL Works Site Boundary
 - S37 - 4ZM - OHL Works Site Boundary
 - S37 - 2WS - OHL Works Site Boundary
 - Substation
 - Substation Access

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| Purpose: WATER ENVIRONMENT | | | | | |
| Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH | | | | | |
| Document Title: FIGURE 1 SITE LOCATION | | | | | |
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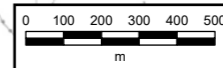
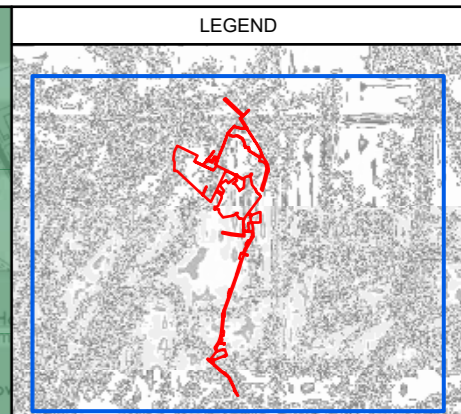
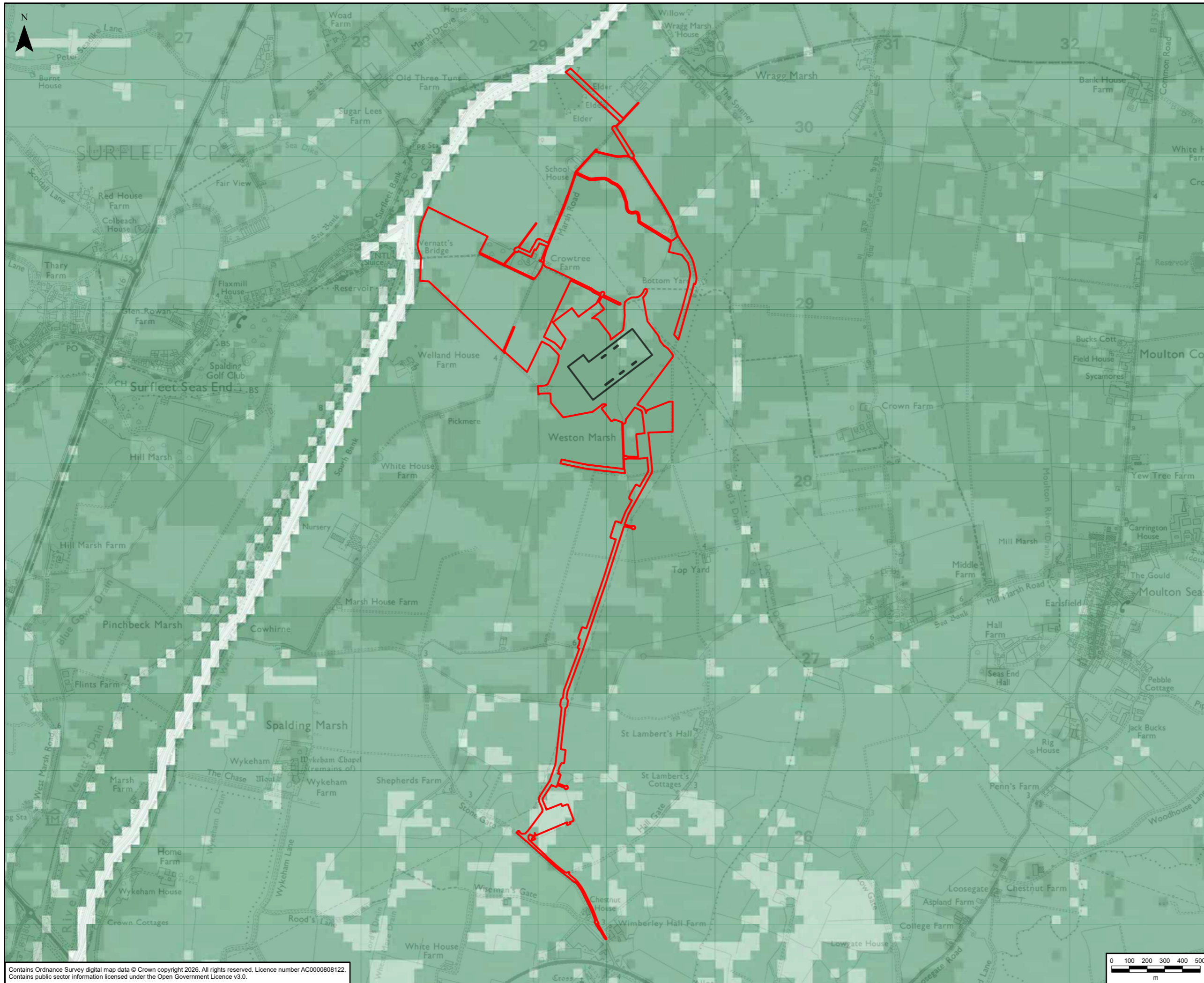


Figure 2 Topography



LEGEND

- Substation Works Site Boundary
- Substation

OS Terrain 50

- < -0.125
- 0.124 - 1.25
- 1.251 - 2.5
- 2.501 - 3.75
- 3.751 - 5.125

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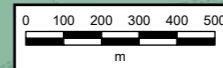
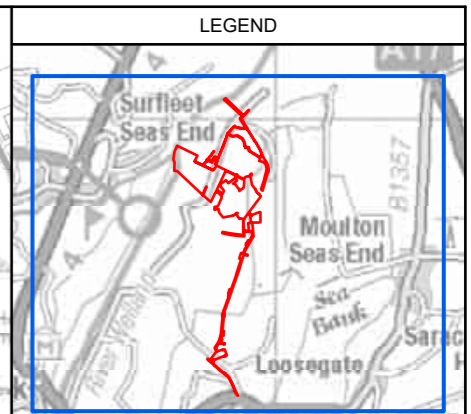
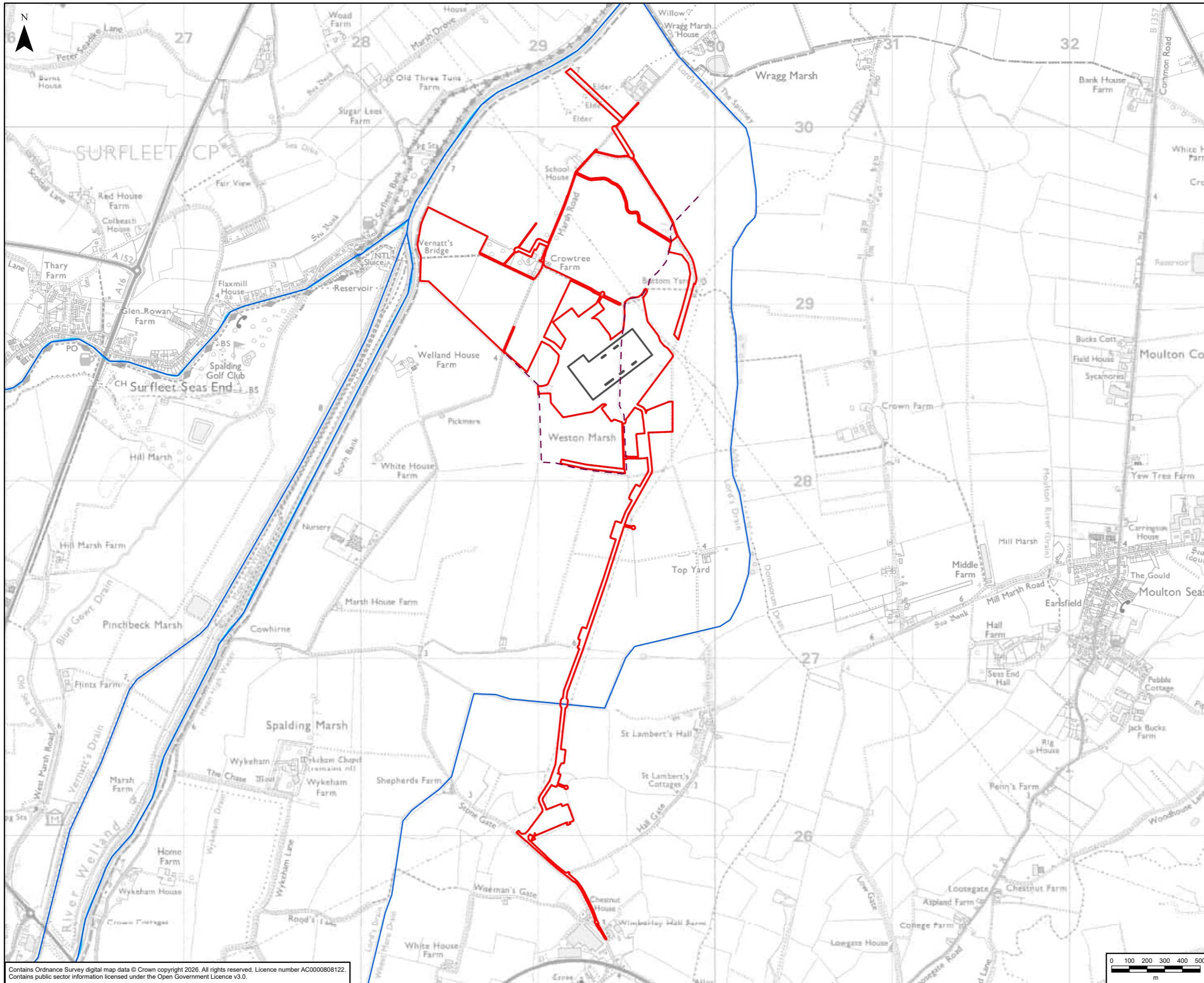


Figure 3 Flood Risk Assessment – Watercourses



- LEGEND**
- Substation Works Site Boundary
 - Substation
 - Statutory Main River Map
 - Ordinary Watercourses and Drains
 - Crowtree and New Drain

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Purpose: WATER ENVIRONMENT

Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH

Document Title: FIGURE 3 FLOOD RISK ASSESSMENT - WATERCOURSES

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|----------------|------------|----------|------------|-----------|------------|
| Creator: | Date: | Checker: | Date: | Approver: | Date: |
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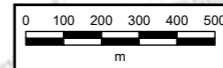
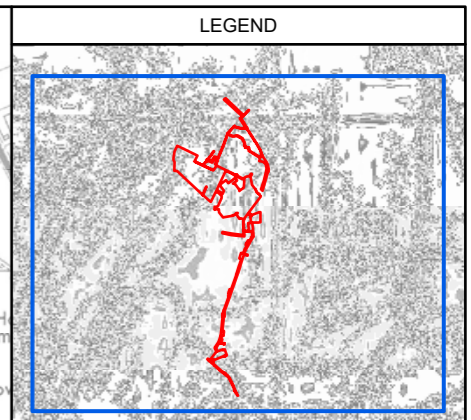
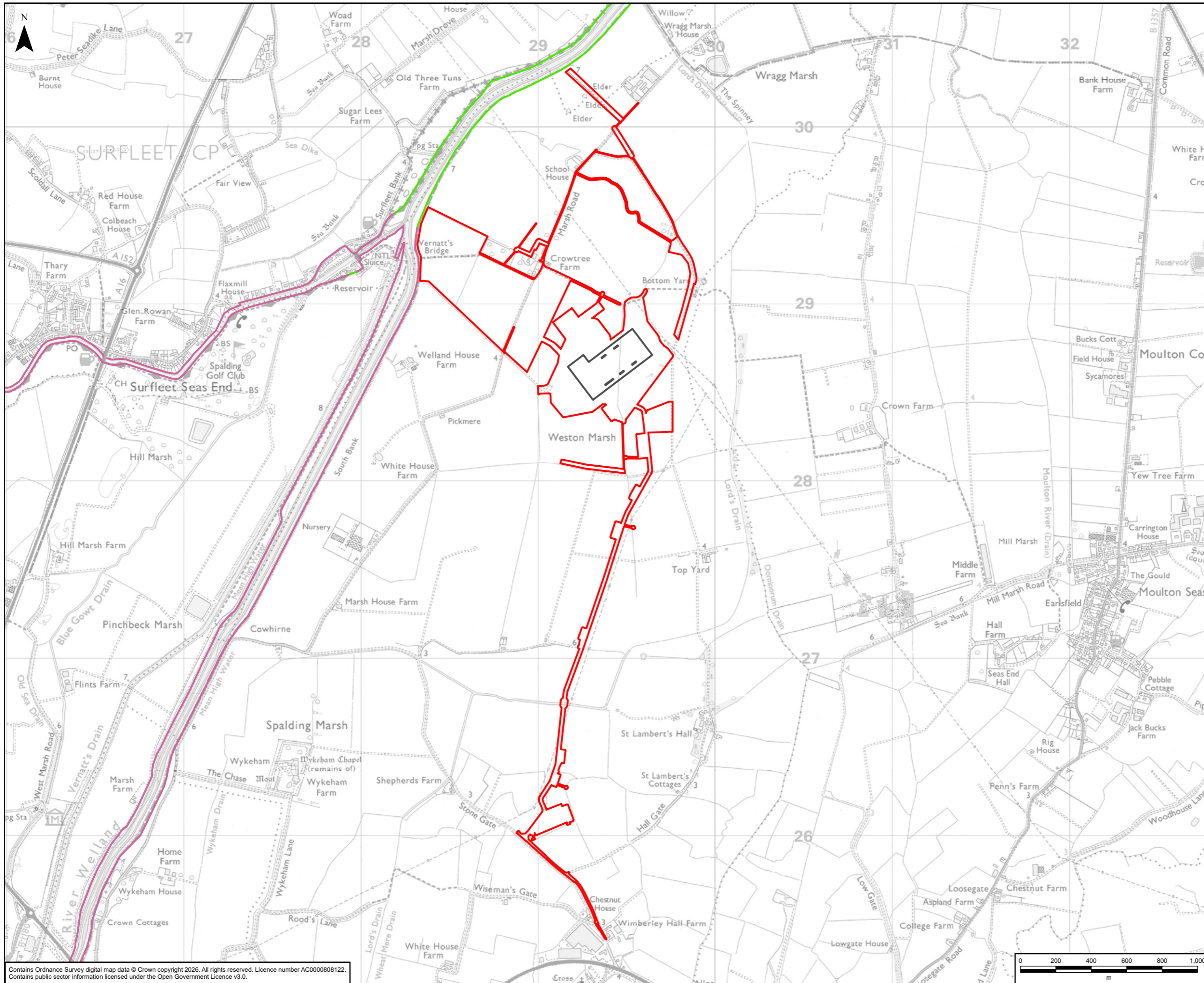


Figure 4 Flood Risk Assessment - Watercourses Scaled

Figure 5 Flood Defences



LEGEND

- Substation Works Site Boundary
- Substation
- AIMS Flood Defences SoP
 - 50
 - 100

| | | | | | |
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Purpose: WATER ENVIRONMENT

Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH

Document Title: FIGURE 5 FLOOD DEFENCES

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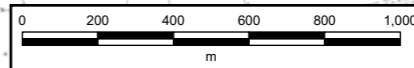
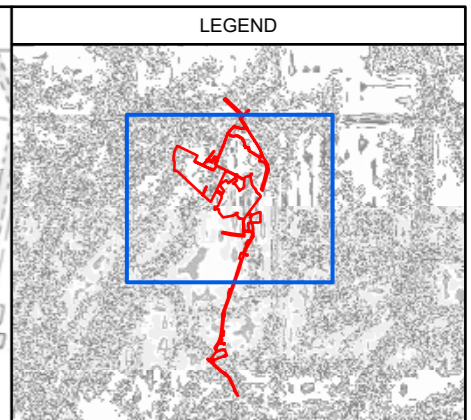
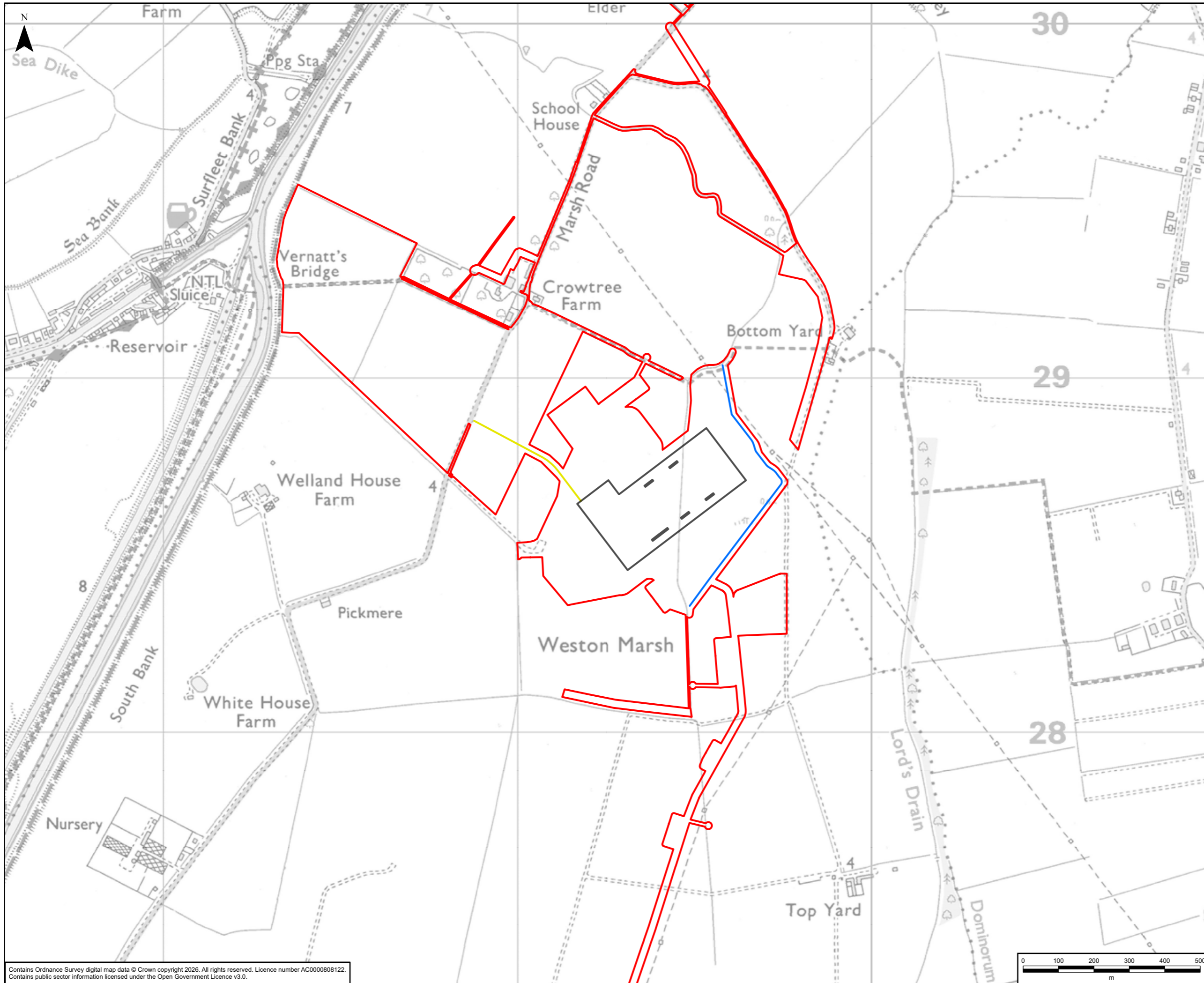


Figure 6 Substation Permanent Access and Drainage Diversion



- LEGEND**
- Substation Works Site Boundary
 - Substation Footprint
 - Substation Access
 - Permanent Drainage Diversion

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| Scheme: PROPOSED ELECTRICITY SUBSTATION AND OVERHEAD LINE WORKS AT WESTON MARSH | | | | | |
| Document Title: FIGURE 6 SUBSTATION PERMANENT ACCESS AND DRAINAGE DIVERSION | | | | | |
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