

Habitats Regulations Assessment: Stage 1 Screening

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Glossary of Project Terminology

This Glossary has been provided to define terms used across a number of the LionLink Proposed Scheme documents. Abbreviations contained herein are provided at the end of the document in the **Topic Glossary and Abbreviations.**

Term	Description
Amendment to Kiln Lane Substation Scenario	The scenario where the Proposed Scheme will comprise the amendments to Kiln Lane Substation that would be required if Kiln Lane Substation was built out pursuant to the EA1N/EA2 DCOs.
Applicant, the	National Grid LionLink Limited (NGLLL)
Bellmouth	A flared vehicular access/egress point connecting permanent route to the public highway.
Converter Station	A converter station changes electricity between High Voltage Alternating Current (HVAC), which power our homes, and High Voltage Direct Current (HVDC) which is more efficient for transporting electricity over long distances and vice versa. The proposed Converter Station is located to the east of Saxmundham.
Converter Station Site	The Converter Station Site as a whole, allowing for the co-location of the Converter Station with the Converter Station being separately consented as part of the Sea Link project.
Co-ordination	The process of people or entities working together.
Co-location	Where different elements of a project, or various projects, are located in one place.
Construction Compound	Temporary compounds installed during the construction phase of the Proposed Scheme. Each compound is likely to contain storage areas such as laydown areas, soils storage, and areas for equipment and fuel, drainage, generators, car parking and offices and welfare areas (portacabins).
Development Consent Order (DCO)	An order made by the Secretary of State pursuant to the Planning Act 2008 (as amended) granting development consent for a Nationally Significant Infrastructure Project. It grants consent to develop the approved project and may include (among other things) powers to compulsorily acquire land and rights where required and deemed marine licences for any offshore works.
Draft Order Limits	The area of land identified as being subject to the DCO application. The Draft Order Limits are made up of the land required both temporarily and permanently to allow for the construction, operation and maintenance, and decommissioning of the Proposed Scheme. All onshore parts of the Proposed Onshore Scheme are located within England and offshore parts of the Proposed Offshore Scheme are located within English territorial waters to 12 Nautical Miles and then up to the United Kingdom (UK) Exclusive Economic Zone (EEZ) boundary at sea.

Term	Description
Dutch Offshore Components	Is the term used when referring to the offshore elements of the Project within Dutch waters.
Eastern Route Option	As part of the Underground HVDC cable corridor, the Eastern Route Option would facilitate a degree of co-location with the Sizewell Link Road (SLR) scheme.
Environmental Impact Assessment (EIA)	The EIA is a systematic regulatory process that assesses the potential likely significant effects of a proposed project or development on the environment.
EIA Scoping Report	An EIA scoping report defines the proposed scope and methodology of the EIA process for a particular project or development. The EIA Scoping Report for the Proposed Scheme was submitted to the Planning Inspectorate with a request for the Secretary of State to adopt a scoping opinion in relation to the Proposed Scheme on 6 March 2024.
Environmental Statement (ES)	The ES is a document that sets out the likely significant effects of the project on the environment. The ES is the main output from the EIA process. The ES is published as part of the DCO application.
Exclusive Economic Zone (EEZ)	The zone in which the coastal state exercises the rights under Part V of the United Nations Convention on the Law of the Sea. These rights relate principally to the water column and may extend to 200 nautical miles from baselines. This is distinct from territorial waters, which for the UK extend 12 nautical miles from the coast.
Full Build Out of Kiln Lane Substation Scenario	The scenario if the Proposed Scheme was brought forward first, then it would be responsible for developing Kiln Lane Substation for the Proposed Scheme, with sufficient additional capacity for other projects.
Joint Bay	Underground structures constructed at regular intervals along the onshore cable route to join sections of cable and facilitate installation of the cables into the buried ducts.
Kiln Lane Substation	The proposed connection point for the Project to the British National Electricity Transmission System, located to the north of Friston. Formerly known as Friston Substation. The new name has recently been adopted by NGET. The substation is of the same footprint and in the same location. Friston Substation will, hereafter, be referred to as Kiln Lane Substation.
Landfall	The proposed Landfall is where the proposed offshore HVDC Submarine Cables are brought ashore and meets with the onshore proposed Underground HVDC Cables. This includes the Transition Joint Bay (TJB). The proposed Landfall will be located at Walberswick, and there will be no permanent above ground infrastructure at the proposed Landfall.
Landfall Site	The area where the Landfall may be located.
Limit of Deviation	A maximum distance or measurement of variation within which the works must be constructed. These are lateral (i.e. on the ground) and vertical limits (in relation to height).

Term	Description
Link Box Chamber	Link boxes are used at joint bays to facilitate grounding connections to ensure safety and enable maintenance. Link boxes can either be installed below ground, in a link box chamber, or in an above ground link pillar
Multi-purpose interconnector (MPI)	A project where GB interconnection is combined with transmission of offshore generation within GB (and optionally within a connecting state).
National Grid Electricity Distribution (NGED)	The local distribution network operator for the Midlands, the southwest of England and south Wales.
National Grid Electricity Transmission (NGET)	Operators of the national electricity transmission network across Great Britain and own and maintain the network in England and Wales, providing electricity supplies from generating stations to local distribution companies. National Grid does not distribute electricity to individual premises, but its role in the wholesale market is vital to ensuring a reliable, secure and quality supply to all.
National Grid LionLink Limited (NGLLL)	The Applicant, a joint venture between National Grid Ventures and TenneT. NGLLL is a business within the wider National Grid Ventures portfolio.
National Grid Strategic Infrastructure (NGSI)	Part of NGET and responsible for delivering major strategic UK electricity transmission projects, focussed on connecting more clean, low-carbon power to England and Wales.
National Grid Ventures (NGV)	Operates and invests in energy projects, technologies and partnerships to accelerate the development of a clean energy future. This includes interconnectors (such as the LionLink Project), allowing trade between energy markets and the efficient use of renewable energy resources.
Nationally Significant Infrastructure Projects (NSIP)	Major infrastructure developments in England and Wales for which development consent is required, as defined within Section 14 of the Planning Act 2008 (as amended). This includes any development which is subject to a direction by the relevant Secretary of State pursuant to Section 35 of the Planning Act 2008.
Non-standard interconnector (NSI)	A project where GB interconnection is combined with transmission of offshore generation outside of GB.
Northern Route Option	A northern cable corridor option that would allow Underground HVAC Cable delivery for Proposed Scheme only.
Offshore Hybrid Asset (OHA)	A project that combines cross-border interconnection with the transmission of offshore generation, this is an overarching term which covers both multi-purpose interconnectors (MPI) and non-standard interconnectors (NSI).
Order Limits	The maximum extent of land within which the Proposed Scheme may take place, as consented.
Outline Offshore Construction	Describes the control measures and standards proposed to be implemented to provide a consistent approach to the environmental

Term	Description
Environmental Management Plan (Outline Offshore CEMP)	management of the construction activities of the Proposed Offshore Scheme.
Outline Onshore Code of Construction Practice (Outline Onshore CoCP)	Describes the control measures and standards proposed to be implemented to provide a consistent approach to the environmental management of the construction activities of the Proposed Onshore Scheme.
Overhead Lines (OHL)	Conductors (wires) carrying electric current, strung from Tower to Tower.
Planning Act 2008	The Planning Act 2008 being the relevant primary legislation for national infrastructure planning.
Planning Inspectorate (PINS)	The Planning inspectorate review DCO applications and make a recommendation to the Secretary of State, who will then decide whether to approve the DCO.
Preliminary Environmental Information Report (PEIR)	The PEIR is a document, compiled by the Applicant, which presents preliminary environmental information, as part of the statutory consultation process. This is defined by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 as containing information which "is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the development (and of any associated development)" (Section 12 2. (b)). This PEIR describes the Proposed Scheme, sets out preliminary findings of the EIA undertaken to date, and the mitigation measures proposed to reduce effects. The PEIR is published at Statutory Consultation stage for information and feedback.
Project (the)	The LionLink Project (hereafter referred to as the 'Project') is a proposal by National Grid LionLink Limited (NGLLL) and TenneT. The Project is a proposed electricity link between Great Britain (GB) and the Netherlands with a capacity of up to 2.0 gigawatts (GW) of electricity and will connect to Dutch offshore wind via an offshore platform in Dutch waters. The Project is the collective term used to refer to the proposal for all aspects (onshore and offshore) of the proposed interconnector between GB and the Netherlands.
Proposed Offshore Scheme	The term used when referring to the offshore elements of the Proposed Scheme, seaward of the mean high-water springs to the EEZ boundary at sea.
Proposed Onshore Scheme	The term used when referring to the onshore elements of the Proposed Scheme, landward of the mean low water springs. Proposed Onshore Scheme components include: a) Kiln Lane Substation. b) Underground High Voltage Alternating Current (HVAC) Cables; c) Converter Station.

Term	Description
	d) Underground High Voltage Direct Current (HVDC) Cables; and e) Landfall.
Proposed Scheme	Used when referring to the GB scheme components of the Project, not including Dutch components. This includes both the onshore and offshore scheme components which are within UK territorial waters and up to the UK EEZ boundary at sea.
Rochdale Envelope	The Rochdale Envelope or Design Envelope approach is employed where the nature of a proposed development means that some details of a project are not available in advance of, or at the time of submitting the DCO application. The Rochdale Envelope approach defines a design envelope and parameters within which the final design will sit and ensures a robust and reliable EIA can be undertaken.
Scoping Opinion	A scoping opinion is requested from the Planning Inspectorate on behalf of the Secretary of State, to inform the requirements of EIA process and ultimately the ES which will be submitted as part of the application for development consent. Through the scoping process, the views of the statutory consultees and other relevant organisations on the proposed scope of the EIA are sought. A Scoping Opinion for the Proposed Scheme was issued by the Planning Inspectorate (on behalf of the Secretary of State) on 16 April 2024. The Applicant received a separate EIA Scoping Opinion from the Marine Management Organisation (MMO) (Reference DCO/2024/00005, dated 04 September 2024) as the MMO were unable to provide opinion to the Planning Inspectorate in time for the April 2024 deadline.
Scottish Power Renewables (SPR) East Anglia One North (EA1N) and East Anglia 2 (EA2) Consents (SPR EA1N and EA2 Consents)	The Orders made following the Scottish Power Renewables applications for development consent for the following projects: a) The East Anglia ONE North Offshore Wind Farm Order 2022; and b) East Anglia TWO Offshore Wind Farm Order 2022
Southern Route Option	A southern cable corridor option that would allow: a) Underground HVAC Cable delivery for Proposed Scheme only, or b) Underground HVAC Cable delivery for Proposed Scheme and ducting for Sea Links Underground HVAC and HVDC cables in that section.
Statutory Consultation	Consultation undertaken with the community and stakeholders in advance of the application for development consent being submitted to the Planning Inspectorate, on behalf of the Secretary of state, in accordance with the PA 2008.
Substation	Substations are used to control the flow of power through the electricity system. They are also used to change (or transform) the

Term	Description
	voltage from a higher to lower voltage to allow it to be transmitted to local homes and businesses.
TenneT	Operator of the electricity transmission network across the Netherlands.
Tower	A structure used to carry overhead electrical conductors, insulators, and fittings. Often described as a pylon.
Transition Joint Bay (TJB)	An underground structure at the Landfall Site that house the joints between the offshore cables and the onshore cables.
Underground Cable Corridors	Collective term for the corridors within which HVAC and HVDC cables are planned.
Underground High Voltage Alternating Current (HVAC) Cable Corridor	A corridor in which the underground HVAC cables are planned to be installed.
Underground High Voltage Alternating Current (HVAC) Cables	Transmission cables which connect between the Converter Station and Substation. HVAC cables are designed to manage fluctuating flow of current.
Underground High Voltage Direct Current (HVDC) Cable Corridor	A corridor in which the underground HVDC cables are planned to be installed.
Underground High Voltage Direct Current (HVDC) Cables	Transmission cables which connect the Converter Station to the Landfall Site and then offshore. HVDC cables are designed to manage current flowing in one direction.
Visibility Splay	An area of land at a road junction that ensures drivers have an unobstructed view of oncoming traffic allowing them to safely join or cross the road.
Western Route Option	As part of the Underground HVDC cable corridor, the Western Route Option would deliver the Scheme within its own corridor with no co-location with the Sizewell Link Road (SLR) scheme.

1 Introduction

1.1 Background to the Project

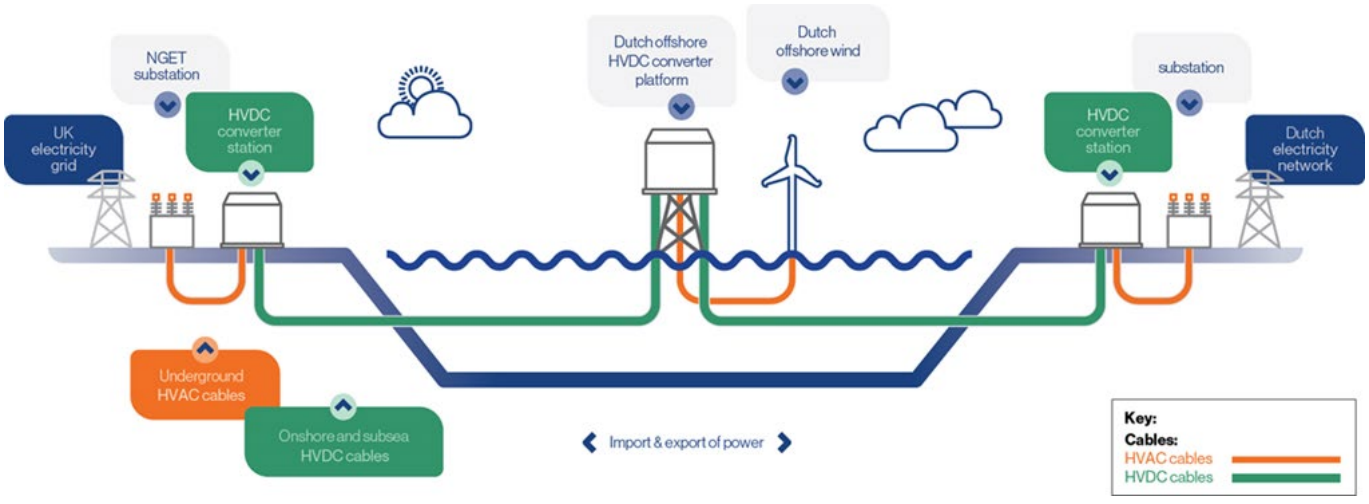
1.1.1 LionLink is a proposed electricity interconnector between Great Britain (GB) and the Netherlands that will supply up to 2 gigawatts (GW) of electricity and will connect to Dutch offshore wind via an offshore converter platform in Dutch waters (hereafter the Project).

1.1.2 The Proposed Scheme (defined as the part of the Project within the British jurisdiction) would involve the installation of offshore and onshore Underground High Voltage Direct Current (HVDC) Cables to a proposed onshore Converter Station, and the installation of Underground High Voltage Alternating Current (HVAC) Cables between the proposed Converter Station and Kiln Lane Substation. The Proposed Scheme consists of the GB components (onshore and offshore) only.

1.1.3 Ref 1The Proposed Offshore Scheme comprises elements seaward of the mean high water springs and the Proposed Onshore Scheme the elements landward of the mean low water springs as shown in **Appendix A Proposed Scheme Draft Order Limits.**

1.1.4 A visual representation of the key infrastructure of the Proposed Scheme is provided in **Inset 1.1**.

Inset 1.1: The Proposed Scheme



1.1.5 The key components of the Proposed Scheme comprise (refer also to **Appendix B Proposed Offshore Scheme** and **Appendix C Proposed Onshore Scheme)**:

a. Kiln Lane Substation, located to the north of Friston, Suffolk;
b. Proposed Underground HVAC Cables between Kiln Lane Substation and the proposed Converter Station;
c. Proposed Converter Station, east of Saxmundham;

d. Proposed Underground HVDC Cables between the proposed Converter Station, and a proposed Landfall Site;
e. Landfall Site at Walberswick; and
f. Proposed Offshore HVDC Cables from the proposed Landfall Site at the United Kingdom (UK) coast to the edge of the UK Exclusive Economic Zone (EEZ).

1.1.6 As a Nationally Significant Infrastructure Project (NSIP), the Proposed Scheme will be the subject of an application for development consent under The Planning Act 2008 (as amended) (Ref 2) which sets out the process through which DCO applications are made for NSIPs.

1.1.7 The Proposed Scheme is required to be subject to the Habitats Regulations Assessment (HRA) process in accordance with The Conservation of Habitats and Species Regulations 2017 (as amended) (Ref 3) and the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) (Ref 4), collectively the 'Habitats Regulations'. Refer to **Section 1.3** which contains the legislative context.

1.1.8 The Proposed Scheme does not comprise works that are connected with, or necessary to, the management of any European site (a site of European ecological importance, designated for protected species and/or habitats, refer to **Section 1.3** for further context). This HRA Stage 1 Screening report does not include mitigation measures that are introduced to avoid or reduce harm to the European site or to avoid Likely Significant Effects (LSEs). Features that are integral to the design or physical characteristics of the Proposed Scheme, for example, the layout, timing and location, have been considered at the Screening stage.

1.2 Purpose of this report

1.2.1 The purpose of this report is to identify relevant European sites that could potentially be impacted by the Proposed Scheme and to consider whether there could be a LSE upon the qualifying features of any of these sites as a result of the Proposed Scheme, either alone or in-combination with other plans or projects. Where LSE cannot be ruled out, a separate Report to Inform Appropriate Assessment (RIAA) will be produced to provide the required information to the Competent Authority (The Secretary of State for Energy Security and Net Zero).

1.2.2 The aim of this report is to present the Applicant's findings and record the reasoning and conclusions in relation to their Screening of the Proposed Scheme. An Evidence Plan process has been adopted by the Applicant to ensure that key stakeholders continue to be consulted on a regular and formalised basis as the HRA process progresses. The Evidence Plan process is a voluntary process that iteratively provides a record of points of agreement and disagreements between the Applicant and key stakeholders.

1.2.3 The remainder of the report includes:

a. **Section 2 Proposed Scheme Description;**
b. **Section 3 Assessment Methodology;**
c. **Section 4 Relevant European sites;**
d. **Section 5 Screening Assessment;** and
e. **Section 6 Conclusions.**

1.2.4 And is supported by:

a. **Appendix A Proposed Scheme Draft Order Limits;**
b. **Appendix B Proposed Offshore Scheme Draft Order Limits;**
c. **Appendix C Proposed Onshore Scheme;**
d. **Appendix D Proposed Offshore Scheme Search Areas for SACs and SPAs;**
e. **Appendix E Natura 2000 Standard Data Forms and Conservation Objectives;**
f. **Appendix F Proposed Onshore Scheme Relevant European sites;** and
g. **Appendix G Relevant Bird Survey Results.**

1.3 Legislative context

1.3.1 The 'Habitats Directive' (Council Directive 92/43/EEC (Ref 7) on the conservation of natural habitats and of wild fauna and flora) protects habitats and species of European nature conservation importance. Together with the 'Birds Directive' (Council Directive 2009/147/EC (Ref 8) on the conservation of wild birds), the Habitats Directive establishes a network of internationally important sites (i.e., 'Natura 2000 Sites') designated for their ecological status. This includes Special Areas of Conservation (SACs) and Sites of Community Importance (SCI) which are designated under the Habitats Directive and promote the protection of flora, fauna, and habitats, as well as Special Protection Areas (SPAs) designated under the Birds Directive to protect rare, vulnerable, and migratory birds. Collectively SACs and SPAs are referred to as European sites in UK legislation.

1.3.2 The Habitats and Birds Directives are transposed into UK law in territorial waters (<12 nautical miles (NM) from the coast) by The Conservation of Habitats and Species Regulations 2017 (as amended) (Ref 3) and in the offshore area (>12 NM from the coast) by The Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) (Ref 4). These regulations together with the Wildlife and Countryside Act 1981 (Ref 9) cover both terrestrial and marine areas with the exception of within Scottish territorial waters, where The Conservation (Natural Habitats, &c.) Regulations 1994 continue to apply.

1.3.3 The Conservation of Habitats and Species Regulations 2019 make changes to the 2017 Habitats Regulations so that they continue to operate following the UK's exit from the European Union (EU) on 31st January 2020. While the basic legal framework for HRA is maintained, the EU Exit Regulations transfer functions previously undertaken by the European Commission (EC) to UK Ministers. Furthermore, where the Habitats Regulations continue to use the term European

sites, those sites on land and sea, including inshore and offshore marine areas in the UK now form part of a "national site network" and are no longer part of the EU's "Natura 2000" site network.

1.3.4 The Conservation of Habitats and Species Regulations 2017, the Conservation of Offshore Marine Habitats and Species Regulations 2017, and the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 are collectively referred to as the Habitats Regulations.

1.3.5 Under the Habitats Regulations, the Competent Authority is required to undertake an HRA to determine whether there is potential for a plan or project to have an adverse effect on a European site, alone or in-combination with other plans or projects. The HRA process comprises three key stages, as follows:

a. **Screening for LSE:** The process of identifying potentially relevant European sites, and whether the project is likely to have a significant effect on the site either alone or in-combination with other plans and projects. If it is concluded at this stage that there is no potential for LSE, there is no requirement to carry out subsequent stages of the HRA;
b. **Appropriate Assessment – the 'Integrity Test':** Where an LSE for a European site cannot be ruled out, either alone or in-combination with other plans and projects, it is necessary to provide further information to enable the Competent Authority to carry out an Appropriate Assessment (AA) of the implications of the project on the integrity of the site(s), either alone or in-combination with other plans and projects, in view of the site's conservation objectives. Where it is not possible to rule out an Adverse Effect on site Integrity (AEoI) (integrity test), the HRA must progress to Stage 3; and
c. **Derogation:** This stage is to consider whether proposals which could have an adverse effect on the integrity of a European site qualify for an exemption, subject to three legal tests being satisfied. First an assessment of alternative solutions to identify and examine alternative ways of achieving the objectives of the project to establish whether there are solutions that would avoid or have a lesser effect on the site(s). Where no alternative solution exists and where an AEoI remains, the next test is the consideration of Imperative Reasons of Overriding Public Interest (IROPI). If it has been shown that there are IROPI, the third test must identify and ensure that any compensatory measures needed to protect the overall coherence of the designated site network are taken.

1.3.6 An important aspect of the process is that the outcome at each successive stage determines whether the next stage in the process is required.

1.3.7 When undertaking an HRA, it is also necessary to consider potential effects on Sites of Community Importance (SCIs), proposed SPAs (pSPAs), candidate SACs (cSACs), sites identified to provide compensatory measures as part of another projects Derogation Case, and Ramsar sites (where these are contiguous with SPAs). Ramsar sites are designated under the Convention on Wetlands (Ramsar, Iran, 1971), known as the "Ramsar Convention" to protect wetlands of international importance. The vast majority of Ramsar sites are also classified as SPAs.

1.3.8 The methodology for this Stage 1 Screening also has regard of recent UK and European Case law on the Habitats Directive.

1.4 Competent experts

1.4.1 This HRA Stage 1 Screening has been prepared by competent experts, on behalf of the Applicant.

1.4.2 The technical reviewer for the offshore aspects of this report holds a First-class BSc (Hons) degree in Marine Geography from the University of Cardiff and has a marine consultancy career spanning 20 years+. They have undertaken multiple environmental assessments in the UK and Ireland under the Habitats and Environmental Impact Assessment Directives for marine cable and offshore wind projects.

1.4.3 The technical reviewer for the onshore aspects of this report is a Chartered Ecologist (CEcol) and Full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM). They have a First-Class BSc (Hons) degree in Zoology from the University of Sheffield (2004). They have worked as a professional ecologist continuously since 2005, with particular focus on the assessment and mitigation of the ecological impacts of development across a wide range of sectors.

2 Proposed Scheme description

2.1 Proposed Scheme

2.1.1 This section provides a summary of the proposed components of the Proposed Offshore Scheme, the Proposed Onshore Scheme and a short description of construction, operation and maintenance, and decommissioning activities which have informed the HRA presented in this document.

2.1.2 **Chapter 2 Description of the Proposed Scheme, Section 2.3 Proposed Onshore Scheme** and **Section 2.4 Proposed Offshore Scheme** of the Preliminary Environmental Information Report (PEIR) provides a more detailed description of the Proposed Scheme. **Chapter 5 EIA Approach and Methodology** of the PEIR, provides an overview of the Proposed Scheme's approach to the temporal scope (the time scales over which impacts may occur) and further information on the assessment scenarios and options for the Proposed Onshore Scheme. At this stage of design development, the spatial scope of the HRA Stage 1 Screening assessment is based upon Draft Order Limits (DOL) as shown in **Appendix A Proposed Scheme Draft Order Limits**, which allows for flexibility for further scheme design and development. The DOL for both the Proposed Offshore Scheme and the Proposed Onshore Scheme includes the intertidal area which is also indicated in **Appendix A Proposed Scheme Draft Order Limits**.

2.2 Proposed Offshore Scheme

2.2.1 The Proposed Offshore Scheme is illustrated in **Appendix B Proposed Offshore Scheme Draft Order Limits**, and the key elements comprise:

a. Two Offshore HVDC Cables;
b. One dedicated metallic return (DMR) cable;
c. One fibre optic cable; and
d. Associated external cable protection (e.g., rock berm, concrete mattresses) necessary where the required burial into the seabed cannot be achieved or where the Proposed Offshore Scheme crosses existing infrastructure such as in service cables or pipelines.

2.2.2 The Proposed Offshore Scheme would route from the proposed Landfall Site at Walberswick on the Suffolk coast across the Southern North Sea to the boundary between the UK and Netherlands Exclusive Economic Zones (EEZ). The Offshore HVDC Cable Coute is approximately 182 km in length.

Proposed Offshore Scheme physical land take

2.2.3 The temporary footprint caused by the cable installation technique could be a maximum of 5.46km^2 based on the length of the route being up to 182km and a width of the installation footprint of 0.03km (30m).

2.2.4 Where the pre-sweeping of sand waves is required, there would be a removal of sand from its original location. The estimated total cut volume of sand is 170,000m^3 from an area covering a maximum of 0.29km^2. This has been calculated by the Applicant's Technical Engineers based on the number of sand waves that would require pre-sweeping to ensure that the cables are buried to the beneath the level at which the sandwaves are mobile.

2.2.5 Where external cable protection is required, this would also cause a worst case scenario, permanent footprint of up to 0.014km (14m) in width. Lengths would vary depending on the reason for the deposit. For example, at infrastructure crossings the maximum design length would be 0.15km (150m). Crossing designs would be produced for all third-party infrastructure crossings which give an accurate footprint. There are 18 infrastructure crossings required. The total area of seabed covering by infrastructure crossings would be 0.0399km^2.

2.2.6 The location and extent of remedial cable protection is uncertain at this stage (pre-application) but would be available to inform the final HRA Screening to be submitted with the application for development consent.

Proposed Offshore Scheme construction phase

2.2.7 A full description of the proposed approach to the Proposed Offshore Scheme construction can be found in **Chapter 2 Description of the Proposed Scheme** of the PEIR. The following section is a summary of the activities and proposed construction methods.

Construction programme and methods

2.2.8 Following the confirmation of development consent, construction works would be expected to begin in 2028, with completion expected in 2032.

2.2.9 There are a number of pre-lay activities which would be undertaken to prepare the route. These activities would include:

a. pre-installation surveys;
b. unexploded ordnance (UXO) identification;
c. boulder clearance;
d. sandwave clearance (pre-sweeping);
e. pre-lay grapnel run (PLGR);
f. out of service (OOS) cable clearance; and
g. preparation of infrastructure crossings.

2.2.10 A marine survey campaign would be undertaken prior to the cable and burial. The objective of the surveys is to establish the seabed conditions and identify changes since the route characterisation surveys, to determine any seabed mobility and confirm the current level of the seabed. The survey would be conducted over a 50m wide corridor.

2.2.11 The survey would be used to determine the position of any potential UXO and support micro-routing of cables by identifying features such as boulders, sand waves and environmentally sensitive features such as biogenic reef.

2.2.12 The marine survey campaign would consist of three types of surveys:

a. geophysical – techniques such as side scan sonar, multi-beam echosounder, sub-bottom profiler, magnetometer;
b. geotechnical – may be used to inform engineering designs using techniques such as vibrocores, cone penetrometer test and geotechnical boreholes (if required); and
c. environmental – additional environmental surveys may be required depending on the Deemed Marine Licence conditions which could include techniques such as drop-down cameras and/or grab samples (if required).

2.2.13 Data acquired by the pre-lay magnetometer survey would be analysed to identify any potential UXO. The potential UXO would be ranked and investigated using remotely operated vehicles (ROV) and/or divers. A decision would then be made on whether the UXO can be avoided by micro-routing, cleared safely (e.g., lift and shift) or would need to be detonated in situ, which would be the worst-case scenario. It should be noted that UXO clearance (e.g., low order detonation and high order detonation) is not being sought under the application for development consent and Deemed Marine Licence. If clearance is identified as necessary, a separate Marine Licence would be sought and assessment would be carried out in support of that Marine Licence application. As such UXO clearance has not been assessed in the Stage 1 Screening.

2.2.14 It is essential to ensure that the proposed Offshore HVDC Cable Corridor is clear of any obstruction that could cause difficulties during the installation works. These obstructions could include boulders, out of service cables (OOS) third party subsea assets, and small debris such as fishing nets or wires.

2.2.15 Boulder clearance would be undertaken using either a plough towed across the seabed or a position grab deployed from a vessel.

2.2.16 Pre-lay grapnel run (PLGR) would be undertaken by towing a wire with a string of hooks or grapnels along the centreline of the proposed Offshore HVDC Cable Corridor. This snags debris, penetrating into the seabed by between 0.5 and 1m. Debris is recovered by the vessel and disposed of appropriately onshore.

2.2.17 To avoid potential cable exposures in areas of mobile sediments, the proposed Offshore HVDC Cable may need to be buried below the non-mobile reference level (NMRL), which is the depth below the sand waves at which the seabed is stable. The pre-sweeping of sandwaves reduces the size of the sandwave along the proposed Offshore HVDC Cable Corridor allowing the cable to be buried below the NMRL. This is undertaken using either a hopper dredger (TSHD) or a controlled flow excavator (CFE). Disposal of dredged material would be within the DOL.

2.2.18 Permission would be sought from the cable owners to cut OOS cables which cross the DOL. The OOS cable would be snagged using a grapnel and then cut. An approximately 100m section of cable would be removed from the seabed. The cut ends would be tied to a weight and placed back on the seabed.

2.2.19 Following pre-lay activities, the proposed Offshore HVDC Cable lay construction activities would begin. The cables would need to be installed over a series of multiple campaigns. Cable joints would be required between each section. The cables would be buried in one trench.

2.2.20 Depending on the method of installation the following burials tools could be used:

a. jet-trenching – uses a powerful water jetting tool to fluidise the seabed allowing pre-laid cables to sink to the required burial depth;
b. conventional cable plough – as the plough is pulled through the seabed it cuts and lifts a wedge of soil. The cable is then fed into the plough and guided down through the share to the base of the trench and the soil wedge is placed back in;
c. advanced cable ploughs (vertical injectors) – deep burial ploughs using water jets fitted within the plough share to fluidise material at the leading edge of the share. Can achieve deeper burial depths (i.e., 3-6m); and
d. cutting – used in hard sediments such as clay and weak bedrock or gravelly sediments to pre-cut a trench.

2.2.21 The duration of proposed Offshore HVDC Cable burial operations will vary but are expected to be between 100m to 500m per hour depending on the conditions and equipment.

2.2.22 External cable protection such as rock, gravel or sand, concrete mattressing, nature inclusive or frond mattresses or rock bags would be required where the cables cannot be buried into the seabed. This would be the case where there are any infrastructure crossings and at areas where the required target depth of burial is unachievable due to ground conditions. Crossing agreements and designs would be in place with the asset owners prior to installation.

Proposed Offshore Scheme operational phase

2.2.23 The Proposed Offshore Scheme would be designed to minimise any maintenance requirements. Following installation, routine maintenance of the HVDC Submarine Cables is not anticipated. However, the following activities may be required during the operational phase:

a. periodical inspection surveys using geophysical techniques such as multibeam echosounder, sidescan sonar, sub-bottom profiler, magnetometer;
b. cable repair (if required);
c. reburial, remedial protection, or maintenance and reinstatement of external cable protection features.

2.2.24 During operation the emissions that would occur are electric and magnetic field and thermal attenuation from the power cables. These emissions have been

calculated and can be seen in **Appendix 2.3 Electromagnetic Field Assessment** and **Appendix 2.4 Offshore Thermal Emissions Technical Note** of the PEIR.

Proposed Offshore Scheme decommissioning phase

2.2.25 The Proposed Offshore Scheme would be licensed for 40 years. At this point, either an extension to the licence would be requested, supported by the necessary environmental assessment, or decommissioning would take place. If decommissioning is required, then activities and effects associated with the decommissioning phase are expected to be of a similar level to those during the construction phase works, with the removal of visible infrastructure.

2.3 Proposed Onshore Scheme

2.3.1 The Proposed Onshore Scheme is illustrated in **Appendix C Proposed Onshore Scheme** and the key components comprise:

a. Kiln Lane Substation;
b. proposed Underground HVAC Cables;
c. proposed Converter Station;
d. proposed Underground HVDC Cables; and
e. proposed Landfall.

Onshore consenting scenarios and optionality

2.3.2 At this time, there are a number of ways that Kiln Lane Substation, the proposed Underground HVAC Cable Corridor, and the proposed Underground HVDC Corridor may be delivered due to ongoing coordination with third party projects which are being brought forward within the same locale. Therefore, this HRA Stage 1 Screening (and PEIR) has considered possible alternative consenting scenarios, and potential optionality within some of these scenarios, to retain the necessary flexibility at this stage. For the avoidance of doubt, there are not multiple consenting scenarios, or any optionality, in relation to the proposed Converter Station or the proposed Landfall.

2.3.3 There are two potential consenting scenarios for Kiln Lane Substation considered within this HRA Stage 1 Screening, comprising:

a. Amendment to Kiln Lane Substation Scenario – which will comprise the amendments to Kiln Lane Substation that would be required if Kiln Lane Substation was first built out by a third party project; and
b. Proposed Full Build Out of Kiln Lane Substation Scenario – if the Proposed Scheme was brought forward first, then it would be responsible for developing Kiln Lane Substation for the Proposed Scheme, with sufficient additional capacity for other projects.

2.3.4 There are two consenting scenarios which are being progressed as part of the Proposed Onshore Scheme for the proposed Underground HVAC Cable Corridor:

a. Proposed Scheme only – the Proposed Onshore Scheme would consent and install Underground HVAC Cables for this Proposed Scheme only.
b. Proposed Scheme in coordination with Sea Link – the Proposed Onshore Scheme would install the ducting and cabling for the Proposed Onshore Scheme and would also install ducting for Sea Link's HVAC and HVDC cabling. This would allow for coordination and colocation of the Proposed Onshore Scheme with Sea Link project.

2.3.5 There are two potential route options for the proposed Underground HVAC Cable Corridor – a Southern Route Option and a Northern Route Option.

2.3.6 For the purposes of the HRA Stage 1 Screening for the Proposed Onshore Scheme, all scenarios and options have been considered and are included in **Appendix C Proposed Onshore Scheme**.

2.3.7 Under the Amendment to Kiln Lane Substation Scenario, no new buildings or overhead power line works would be required. For the Full Build Out of Kiln Lane Substation Scenario, one main building and approximately eight associated buildings and modification works to existing overhead lines would be required.

2.3.8 **Appendix C Proposed Onshore Scheme** also indicates proposed permanent access routes within the Proposed Onshore Scheme DOL and temporary areas including construction compound locations. Due to the stage of design development, the wider Affected Road Network (ARN) (Ref 10) for air quality assessment has not yet been defined.

Proposed Onshore Scheme physical land take

2.3.9 Kiln Lane Substation in the Full Build Out of Kiln Lane Substation Scenario would require a permanent footprint of up to 2.1ha within Kiln Lane Substation Limits of Deviation (LoD). In the Amended to Kiln Lane Substation Scenario, the building footprint extension would be up to 0.4ha within Kiln Lane Substation LoD.

2.3.10 The proposed Converter Station would require a permanent footprint of up to 8.1ha from within the proposed Converter Station LoD.

2.3.11 Other permanent above ground infrastructure would include permanent access roads to the proposed Converter Station and Kiln Lane Substation, and cable marker posts along the proposed Underground HVAC and HVDC Cable Corridor at field boundaries, crossings and other locations as appropriate.

2.3.12 Temporary working areas from within the Proposed Onshore Scheme DOL would be required for the construction of the proposed Converter Station, proposed Underground HVAC Cables, Kiln Lane Substation, proposed Underground HVDC Cables and proposed Landfall. Refer to **Appendix C Proposed Onshore Scheme.**

2.3.13 A construction working width of up to 46m would be required for delivery of the proposed Underground HVDC Cables with each trench width x depth of up to 2.45m x 1.5m and with a permanent easement of up to 15m. A construction working width of up to 94m would be required for delivery of the Underground

proposed HVAC Cables with each trench width x depth of up to 2.45m x 1.5m and with a permanent easement of up to 21m.

2.3.14 Temporary working areas required for construction compounds would vary in accordance with the type of compound required however the maximum footprint would be a primary compound of 200m x 200m at the proposed Converter Station.

Proposed Onshore Scheme construction phase

2.3.15 A full description of the proposed approach to the Proposed Onshore Scheme construction can be found in **Chapter 2 Description of the Proposed Scheme** of the PEIR. The following section is a summary of the activities and proposed construction methods.

Construction programme and methods

2.3.16 Following the decision to approve development consent for the Proposed Scheme, enabling works would be expected to begin in 2028, with completion expected in 2032. The anticipated duration of the construction is therefore up to five years.

2.3.17 Indicative duration periods for the enabling, construction and reinstatement of each of the components of the Proposed Onshore Scheme are as follows:

a. Kiln Lane Substation:
   i. Amendments to Kiln Lane Substation: approximately 18 months.
   ii. Proposed Full Build Out of Kiln Lane Substation: approximately three years.
b. Proposed Underground HVAC Cables: approximately three years.
c. Proposed Converter Station: approximately five years.
d. Proposed Underground HVDC Cables: approximately two years and three months.
e. Installation of the proposed Landfall: approximately 18 months. Exact timing would be influenced by the installation approach of the Proposed Offshore Scheme.

2.3.18 Enabling works will be required prior to the commencement of the construction of the Proposed Scheme. These temporary enabling works may include:

a. Erection of temporary or permanent fences around works and compound areas with suitable gated access.
b. Vegetation clearance and soil removal.
c. Installation of bellmouths where new accesses or widening of existing accesses from the public highway are required.
d. Construction of internal haul roads.
e. Stoppage and or diversions of Public Rights of Way.
   installation of temporary water control measures including:
f. Installation of temporary construction compounds and facilities.

g. Earthworks, including land re-profiling to establish a level platform for construction of the proposed Converter Station and temporary platform for the proposed Landfall construction activities.
h. Delivery of plant/site vehicles and materials – sequence and quantity will be defined by the construction programme and associated bill of quantities.

2.3.19 The proposed Underground HVAC Cables would be laid in sections up to 1km in length and the proposed Underground HVDC Cables would be laid in sections up to 1.5km. These would be connected at joint bays which for the proposed Underground HVAC Cables would be below ground earthing link boxes or above ground earthing link pillars. No below ground earthing link boxes or above ground earthing link pillars are required for the proposed Underground HVDC Cables.

2.3.20 The proposed Underground Cable Corridor installation techniques under consideration for the Proposed Onshore Scheme are:

a. open cut trench and ducting. This is the preferred method of cable installation due to enhanced physical protection of cables and ease of cable pulling;
b. open cut trench and direct burial (no ducting). There may be areas where a direct buried solution may be more economical which will be explored as the design develops; and,
c. trenchless method: Typically horizontal directional drilling (HDD), although pipe jacking (horizontal auger boring) and micro boring may be required. Trenchless methods would be used in situations where open cut trench methods are not viable such as at railway crossings.

2.3.21 The proposed Underground Cable installation would require temporary construction facilities and access. These temporary construction facilities would consist of haul roads, laybys and/or passing places to allow movement of construction traffic. As required, there may be the need for temporary dewatering and drainage.

2.3.22 A typical sequence for the construction of works to amend Kiln Lane Substation, would involve:

a. pre-construction site investigations and surveys;
b. enabling works and site establishment;
c. civil and building works including construction of building foundations, outdoor electrical equipment foundations, permanent drainage systems and internal roads and parking, construction of all building units, erection of steel frames and cladding;
d. mechanical and electrical works;
e. modifications to existing permanent services;
f. outage works to connect to the existing substation;
g. commissioning;
h. energisation; and
i. site reinstatement and landscape works, including removal of site offices and temporary facilities, land reinstatement and landscape works.

2.3.23 Should the Full Build Out construction of Kiln Lane Substation be required, the construction sequence above would require OHL reconfiguration works under

outages including temporary towers/masts, to be undertaken prior to Kiln Lane Substation building works, following the same sequence thereafter.

2.3.24 Typical construction methodologies for a converter station of this scale may include but not limited to:

a. pre-construction investigations and enabling works;
b. foundation construction including foundations for buildings, transformers, and other heavy equipment;
c. erection of steel frames for the main buildings;
d. construction of underground cable trenches, duct banks, and utility tunnels for HV cables, control wiring, and cooling systems;
e. installation of civil infrastructure including internal roads, drainage systems for surface water, foul water and oily water, and fencing;
f. installation of any permanent services;
g. mechanical and electrical works;
h. internal fit-out of the buildings;
i. commissioning; and
j. site reinstatement and proposed landscaping.

2.3.25 Typical construction methodologies for a landfall may include but are not limited to:

a. enabling works, including the creation site access and of a temporary platform;
b. installation of temporary drainage for the platform, including a possible attenuation basin. An additional basin may be required for drilling fluid returns;
c. construction/installation of a launch pit for the HDD;
d. construction/installation of reinforced concrete thrust blocks for the HDD rig; and
e. construction of the duct strings and associated supporting infrastructure.

2.3.26 Temporary Construction Compounds (TCC) are areas which will be utilised for the storage of plant and machinery and stockpiling materials, as well as the provision of site management offices, welfare facilities for staff (kitchen facilities, store rooms, toilet facilities), parking for construction vehicles, staff cars, and delivery trucks. TCCs would be established across the Proposed Scheme and the locations of these are set out in **Appendix C Proposed Onshore Scheme**.

2.3.27 Embedded control measures will be employed for the Proposed Scheme, for example adherence to current Guidance for Pollution Prevention (Ref 5) and CIRIA best practice construction guidance (Ref 6). These will be implemented in accordance with the Outline Onshore Code of Construction Practice (CoCP) for the Proposed Scheme.

2.3.28 It is forecasted that the average daily number of site personnel for the peak month across the whole of the Proposed Onshore Scheme would reach approximately 669 (Full Build Out of Kiln Lane Substation Scenario), or approximately 501 (Amendment to Kiln Lane Substation).

2.3.29 The construction working hours, unless otherwise approved by the Local Planning Authority, are proposed as:

a. Monday – Friday 07:00hrs–19:00hrs;
b. Saturday, Sundays and Bank Holidays: 07:00hrs–17:00hrs

2.3.30 The proposed working hours are subject to exclusions and the Applicant is continuing to work with third parties and Local Planning Authorities where possible to schedule works to minimise impacts to local communities and receptors.

2.3.31 Temporary construction lighting would be required at Kiln Lane Substation, the proposed Converter Station, and proposed Underground HVAC and HVDC Cable Corridors, during construction activities, in line with safety requirements during working hours with no 24-hour lighting expected to be required. Temporary construction lighting including 24-hour working (during cable and duct pulling operations) would be required at the proposed Landfall Site. In most cases, continuous 24-hour construction activities at the proposed Landfall Site are expected to be limited to a maximum of 10 consecutive days per HDD. However, longer periods may be necessary in exceptional circumstances, such as unforeseen delays or emergencies.

Proposed Onshore Scheme operational phase

2.3.32 Operational activities will primarily revolve around periodic monitoring and maintenance of each component of the Proposed Onshore Scheme, as well as daily staffed operational activities associated with the proposed Converter Station.

2.3.33 Maintenance activities related to the proposed Underground HVAC and HVDC Cables would involve cable corridor inspections from locations where the route is close to or intersects the existing road network, and/or non-intrusive surveys (such as drone surveys) scheduled at monthly intervals to monitor the easements and potential third party activities that could impact on the buried cables.

2.3.34 It is anticipated that monitoring activities will be generally limited to small numbers of individuals undertaking non-intrusive works and using established access routes which are subject to existing agricultural usage. However, in the very unlikely event that an underground cable fault occurs (i.e., a cable strike), cable repairs may be required. The activities involved would be similar to installation, typically limited to the location of the repair. Depending on the severity of the fault, repairs could range from use of specialised sheath repair similar in nature to a joint bay unit, to full replacement of the cable section between joint bays.

Proposed Onshore Scheme decommissioning phase

2.3.35 There are no plans to decommission the Proposed Onshore Scheme. Most components have a design life of 40 years; however, the lifespan of components

may be extended with regular maintenance and refurbishment. In the event of decommissioning of the Proposed Onshore Scheme, it is proposed that underground components of the Proposed Onshore Scheme (namely Underground HVAC and HVDC Cables and associated infrastructure) would be left in situ. However, dependent on specific requirements the redundant cables could either be left in-situ, or all or parts of the proposed Underground Cable could be removed for recycling. Overground components (proposed Kiln Lane Substation and the proposed Converter Station) would be reused or recycled where reasonably practicable or disposed of in accordance with relevant waste disposal requirements at that time. All above ground assets would be removed to foundation level and foundations capped, and permanent access roads would be left in situ to allow for site reuse by another developer.

2.3.36 It is anticipated that no additional land outside of the DOL would be required for decommissioning of the Proposed Onshore Scheme.

2.3.37 Temporary site compounds and other enabling works would be required during decommissioning similar to that needed during construction. It is anticipated that the temporary site compounds required for decommissioning of Kiln Lane Substation and proposed Converter Station sites would be located in the same location as required during construction. The working hours for decommissioning activities would be similar to those for construction with a total estimated duration of decommissioning of two years. The workforce required for decommissioning of the assets would be lower than the number required during construction.

2.3.38 The impact of decommissioning the Proposed Onshore Scheme would be assessed at the time of decommissioning. However for the purposes of this HRA Stage 1 Screening for the Proposed Onshore Scheme, the decommissioning phase is included in the assessment and is not anticipated to present any greater environmental risk than any assessed impacts from the construction phase.

3 Assessment methodology

3.1.1 This Screening report considers all phases of the Proposed Scheme; construction, operation (including repair and maintenance) and decommissioning. All assumptions made with respect to the Proposed Scheme are clearly outlined, and where engineering details are uncertain, maximum design parameters have been used to provide a worst-case assessment.

3.2 Standards and guidance

3.2.1 This HRA Stage 1 Screening has been carried out in accordance with the principles set out in **Inset 3-1** taken from the Planning Inspectorate (Ref 11), and with consideration of the guidance detailed below of relevance to the Proposed Scheme.

Guidance relevant to the Proposed Offshore Scheme

3.2.2 Key Guidance for the Proposed Offshore Scheme:

a. Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (EC 2021). (Ref 12);
b. Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC 2018). (Ref 13);
c. The European Commission Guidance - Article 6 of the Habitats Directive - "Rulings of the European Court of Justice. Final Draft", September 2014 (Ref 14
d. EU Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC (Ref 15);
e. Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (Ref 15); and
f. Nationally Significant Infrastructure Projects: Advice on Habitats Regulations Assessment (Ref 11).

3.2.3 In relation to guidance from Statutory Nature Conservation Bodies (SNCBs) this includes:

a. Joint SNCB Guidance for assessing the significance of noise disturbance against Conservation Objectives of Harbour Porpoise SACs (Ref 17);
b. Joint SNCB Interim Displacement Advice Note (Ref 18); and
c. MIG-Bird - Joint SNCB Interim Advice on the Treatment of Displacement for Red-Throated Diver (Ref 19).

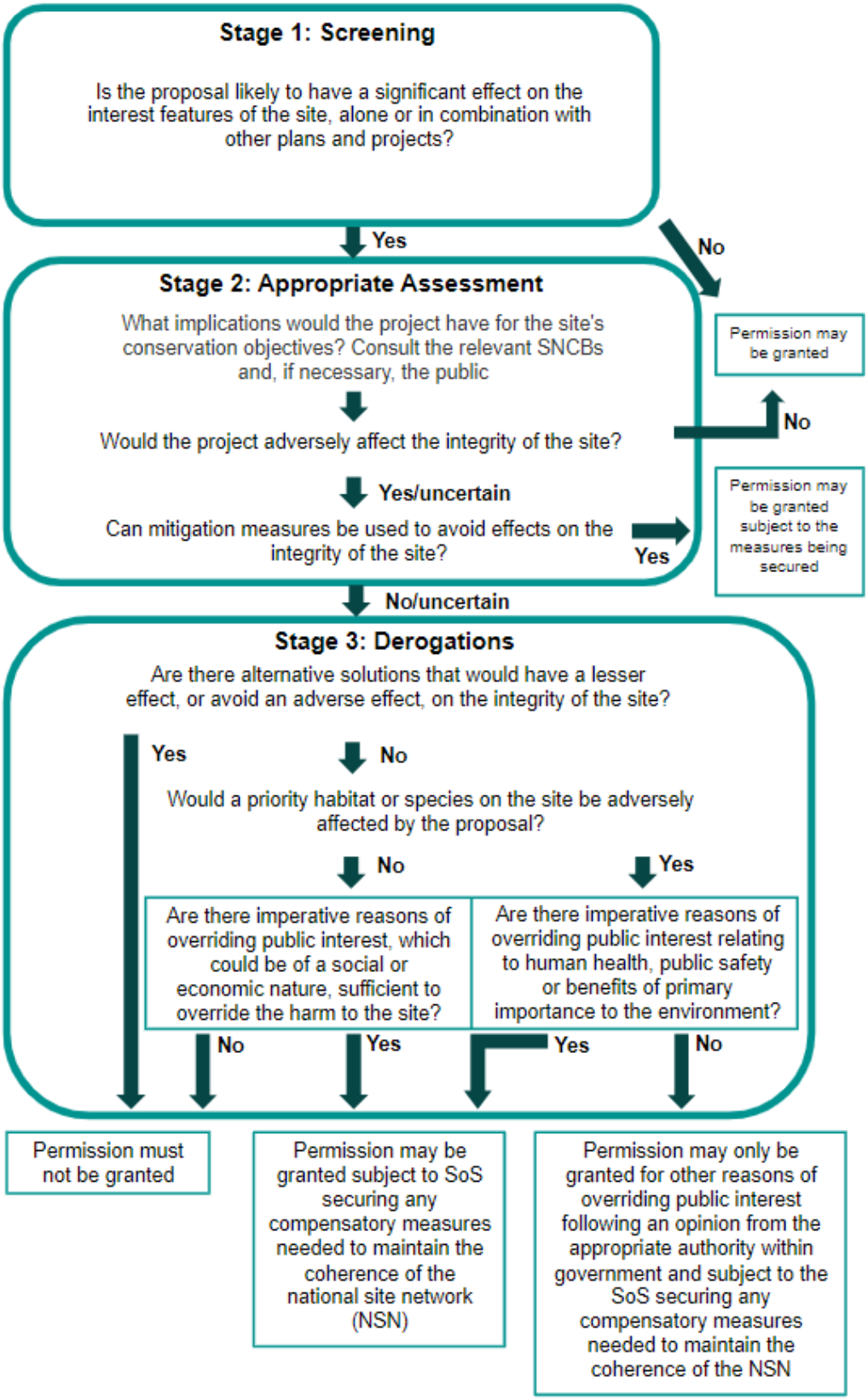
Guidance relevant to the Proposed Onshore Scheme

3.2.4 Key Guidance for the Proposed Onshore Scheme:

a. UK Government guidance on HRA (Ref 20);

b. UK Government guidance for Nationally Significant Infrastructure Projects. (Ref 11);
c. The Habitats Regulations Handbook (Ref 21);
d. Natural England Commissioned Report (NECR207) on Functional Linkage (Ref 22);
e. Natural England Impact Risk Zones Guidance Summary for birds (Ref 23)
f. The Waterbird Mitigation Toolkit (Ref 24); and
g. NatureScot Research Report 1283 - An updated literature review of disturbance distances of selected bird species (Ref 25).

Inset 3.1: The HRA Process (Ref 11)



3.3 Consultation

3.3.1 An Evidence Plan process has been adopted by the Applicant to ensure that key stakeholders have been consulted on a regular and formalised basis on the HRA. The primary objective of the Evidence Plan process is to seek agreement with key stakeholders on the data and information to be included in the HRA.

3.3.2 The Evidence Plan process has also been used to communicate key project information to stakeholders. The Evidence Plan has been a voluntary process that has provided a record of agreements and disagreements between the Applicant and key stakeholders. This is intended to help inform the Statements of Common Ground (SoCGs) between the Applicant and those stakeholders.

3.3.3 Natural England (NE) and the Joint Nature Conservation Committee (JNCC) are engaged under the Discretionary Advice Service (DAS) for the Proposed Scheme and have been subject to regular consultation as part of the pre-application process since June 2023 (JNCC) and July 2024 (NE). A record of consultation undertaken is included within Appendix A of the Evidence Plan, which has been submitted to accompany this document.

3.4 Screening approach

3.4.1 This section describes how the HRA Stage 1 Screening has been undertaken. Screening confirms whether the plan or project itself or in-combination with other plans or projects, will result in an LSE. Screening considers the characteristics of the Proposed Scheme and whether there are any potential pathways that could lead to adverse effects on a European site. The Competent Authority will need to be satisfied that it agrees with the applicant's conclusions. If the risk of the proposal alone having an LSE cannot be ruled out on the basis of objective scientific evidence, an appropriate assessment will be required.

3.4.2 If the effect from a proposal alone is not significant, the Applicant must still consider the combined effects of other plans or projects affecting the same European site or sites and qualifying feature or features. If, in-combination with other plans or projects, the proposal could have LSE, an appropriate assessment will be required.

Source-pathway-receptor model

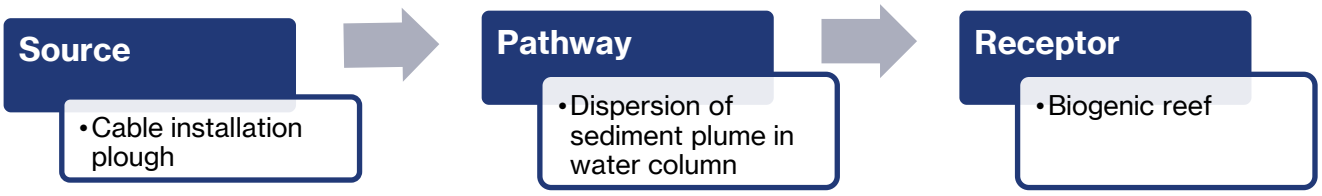
3.4.3 The potential for LSE has been assessed using a source-pathway-receptor model. This approach identifies likely environmental effects resulting from the construction, operation and maintenance of the Proposed Scheme. The parameters are defined as follows:

a. Source – the origin of a potential effect (noting that one source may have several pathways and receptors);
   i. Example: cable installation plough.
b. Pathway – the means by which the effect of the activity could impact a receptor; and

i. Example: dispersion of sediment plume in water column and subsequent deposition.

c. Receptor – the element of the receiving environment that is impacted.
   i. Example: presence of a receptor such as biogenic reef within the direct footprint of physical effect or within range of effect (e.g., suspended sediment deposition).

Inset 3.2: Source-Pathway-Receptor model example



Criteria used to identify relevant sites for the Proposed Scheme

3.4.4 The selection of relevant European sites for the Proposed Scheme follow Screening criteria informed by guidance from The Planning Inspectorate (Ref 11), which recommends that the distance (i.e. from the site to the Project) should be evaluated on a case-by-case basis; that the precautionary principle should be adopted; and that the following should be included:

a. any European site within or adjacent to the Proposed Scheme which, using the Source-Pathway-Receptor model, may be affected by the proposed activities;
b. any European site within the likely zone of influence (ZoI) of the Proposed Scheme following the Source-Pathway-Receptor model; and
c. any European site that is designated for mobile Annex II species that have the potential to occur within the Proposed Scheme or the likely ZoI of the Proposed Scheme.

Proposed Offshore Scheme Screening criteria

3.4.5 The offshore search areas for Annex I habitats and species and Annex II species which are qualifying features of a European site were developed based on either the maximum ZoI of a potential impact on a designated feature (i.e., the maximum spatial extent over which potential impacts could affect receptors), or for mobile Annex II species, the spatial extent over which the impacts of anthropogenic activities should be taken into consideration. The principles outlined above (refer to **Paragraph 2.2.8**) have been used in this HRA Stage 1 Screening to identify relevant European sites. **Table 3.1** presents the search areas used in the assessment and the justification for the extent of the areas from the DOL. **Appendix D Proposed Offshore Scheme Search Areas for SACs and SPAs** illustrates the search areas applied.

3.4.6 The scope of the Proposed Offshore Scheme is from mean high-water springs (MHWS) at the proposed Landfall at Walberswick to the UK/NL EEZ boundary.

Table 3.1: Offshore search areas for qualifying features of European sites

Qualifying features	Search Area	Justification
Annex I Habitat/Annex II Benthic Species	15km from the DOL	There is the potential for impacts from the suspension and deposition of finer sediments to occur outside of the immediate area of the activities. Sediment dispersion modelling was carried out for the Proposed Offshore Scheme by Port and Coastal Solutions and concluded that the furthest extent of sediment dispersion would be 15km. A search area of 15km has therefore been used to identify relevant European sites.
Annex II Migratory Fish	40km from the DOL	A precautionary approach to the identification of relevant sites has been adopted which considers all European sites with Annex II migratory fish as a designated feature, within a 40km buffer either side of the DOL. It should be noted that this buffer is considered to be over precautionary with respect to capturing the ZoI from impacts (e.g., underwater noise) associated with the Proposed Offshore Scheme, however, it allows for the possibility that migratory fish such as Atlantic salmon (*Salmo salar*), allis shad (*Alosa alosa*), twaite shad (*Alosa fallax*), sea lamprey (*Petromyzon marinus*) or river lamprey *Lampetra fluviatilis*) from nearby SACs may be passing through the DOL. The largest ZoI for Annex II migratory fish is likely to be from underwater noise as a result of the Proposed Offshore Scheme vessels using pre-installation geophysical surveys and vessels using dynamic positioning (DP) systems would be utilised during the installation and maintenance phases of the Project. Behavioural disturbance is observed in fish as a result of DP vessels at a distance of up to 1,359m (Ref 27). Further to this, there is potential for underwater noise as a result of vessel activity to impede fish migration within estuarine catchments. Although vessels will be restricted to the DOL during these activities, Annex II migratory fish are mobile receptors which can travel within range to be impacted by vessel noise, therefore the search area of 40km albeit precautionary, is considered appropriate to screen in sites which could be impacted by the Proposed Offshore Scheme. There are no UK sites designated for Atlantic salmon, allis shad, twaite shad, river lamprey, or sea lamprey along the Suffolk coastline or within the Southern North Sea (Ref 28). There are no Source-Pathway-Receptor links which may have implications for the conservation objectives of the European sites beyond this range (e.g., ability of migratory fish to reach these sites).

Qualifying features	Search Area	Justification
Annex II Eurasian otter (*Lutra Lutra*)	32km along the coast in either direction from the proposed Landfall Site	The Eurasian otter is a semi-aquatic mammal which occurs in a wide variety of aquatic habitats such as rivers, streams, lakes, estuaries and on the coast. In freshwater habitats, otters are largely (but not exclusively) nocturnal and occupy very large home ranges (around 32km for males and 20km for females). Coastal-dwelling otters require a ready supply of fresh water to wash the salt out of their fur, which would otherwise rapidly lose its insulative properties (Ref 29). It has been suggested that the otter's range is approximately 80m seaward from the coast (Ref 30).
Annex II Cetaceans	UK Relevant Marine Mammal Management Unit 250km from the DOL for transboundary European sites	In the UK the only cetacean species currently afforded protection through the designation of an SAC are the bottlenose dolphin (*Tursiops truncates*) and harbour porpoise (*Phocoena phocoena*). Both species are wide-ranging, and individuals encountered within UK waters form part of a much larger biological population whose range extends into adjacent jurisdictions. As a result, management units (MUs) have been outlined for the species (Ref 31). These provide an indication of the spatial scales at which impacts of anthropogenic activities should be taken into consideration. The Proposed Scheme lies within the North Sea (NS) MU for harbour porpoise and the Greater North Sea (GNS) MU for bottlenose dolphin. The MUs cross international boundaries and therefore European sites have also been considered by the assessment. A distance of 250km has been used to screen for relevant transboundary European sites. In UK waters harbour porpoise are observed to have seasonal grounds which stretch longitudinally approximately 250km. Therefore, 250km is considered to be an appropriate distance to screen sites for mobile marine mammal species. Given that the zone of influence for underwater noise impacts is 5km for cable projects this is a precautionary and conservative value.
Annex II Grey Seal (*Haliochoerus gryphus*)	100km from the DOL	The zone of influence for pinnipeds has been established based on information presented in Offshore Energy Strategic Environmental Assessment 4 that grey seals are estimated to forage up to 100km from haul-out sites on the coast, whilst harbour seal take shorter trips up to 50km (Ref 32).
Annex II Harbour/Common Seal (*Phoca vitulina*)	50km from the DOL	
Annex I bird species & regularly occurring migratory species	Based on mean max foraging ranges ± 1 Standard Deviation (SD)	All direct impacts would be spatially limited and confined to the DOL. There is the possibility that species from distant SPAs may be foraging within or passing through the DOL. Thaxter et al., (Ref 33) and Woodward et al., (Ref 34) reported on representative mean maximum foraging ranges ± 1SD for a range of species from a

Qualifying features	Search Area	Justification
	for priority species as identified in **Table 3.2**. 4 km from the DOL for seaducks, geese and swans. Waders – sites overlapping the DOL Transboundary European sites Based on mean max foraging ranges for priority species (as identified in **Table 3.2**) from the DOL	breeding colony to a foraging area. Whilst applying mean maximum foraging radius ± 1SD would encompass the majority of a population's home-range area, the overall size of the predicted foraging areas around the colony would potentially make it too large to be a useful management tool (Ref 35). Similarly, the assumption that seabirds are uniformly distributed out to some threshold distance from their colonies, such as their putative maximum foraging range, is unrealistic (Ref 36) Therefore, given the scale of the Proposed Offshore Scheme, it is considered disproportionate to identify relevant SPAs on the basis of maximum foraging ranges of their protected features, as there is no evidence to support an impact pathway given the scale and nature of the Proposed Offshore Scheme. As such a refined list of seabird SPAs has been included. This is based on the Statutory Nature Conservation Bodies (SNCB) Joint Interim Advice (Ref 19) which identifies that the priority species for assessment of displacement effects are typically diver and sea duck species, common guillemot (*Uria aalge),* razorbill (*Alca torda*), Atlantic puffin (*Fratercula arctica*) and northern gannet (*Morus bassinus*). It is noted that this guidance relates specifically to offshore wind farm (OWF) developments (in relation to the wind farm arrays). However, it is recognised that these species are also likely to be sensitive to vessel presence and noise, leading to disturbance and displacement. For example, it is advised by Natural England that there is potential for red-throated divers (*Gavia stellata*) to be displaced from up to 2km from vessels. Razorbill and Atlantic puffin are also identified as being susceptible to displacement due to vessel traffic (Ref 37). SPAs have been considered relevant if designated for priority seabird (common guillemot, razorbill and Atlantic puffin), diver and sea duck species identified as being sensitive to disturbance/displacement (Ref 18) or a species which is identified as having a high habitat specialisation, which could potentially be present within the DOL based on their mean maximum foraging range. The exception is northern gannet, which scores 2 (low sensitivity) under 'Disturbance Sensitivity' and 'Habitat Specialization' scores from Bradbury et al., (Ref 39) (expanded from Furness et al., Ref 38) but have had scores revised by Wade et al., (Ref 37) based on empirical studies demonstrating they are sensitive to displacement and barrier effects from OWFs (Ref 40; Ref 41). However, sensitivity to displacement from vessels remains low (score 2). Northern gannet therefore has been discounted from the Screening. Although not included in the Joint

Qualifying features	Search Area	Justification
		Interim Advice (Ref 18), common tern (*Sterna hirundo*) are also considered in the Screening. Tern species are not typically sensitive to disturbance however, other tern species have a habitat specialisation score of 3 or more and therefore, it can be assumed that common tern would be similar. Most species of seaduck, geese and swans are sensitive to noise and visual disturbance from vessel traffic (Ref 42; Ref 43), therefore if the Proposed Scheme is within 4km of a designated site which has a species of seaduck, geese or swan as a qualifying feature, this assessment considers it relevant. Waders and harriers use the intertidal area for foraging and may use coastal habitats for roosting. These groups are sensitive to visual and noise disturbance which disturbs the intertidal habitat. SPAs and Ramsar sites which overlap with the DOL have been screened in the assessment.

3.4.7 The offshore search areas for Annex I bird species and regularly occurring migratory bird species are based on the mean maximum foraging ranges ± 1SD for priority species or those with a high disturbance susceptibility or habitat specialisation score. Where the sample size was too small for a SD to be calculated by Woodward et al. (Ref 34) for a species, the mean max foraging range has been used. As described in **Table 3.2,** this assessment has used the mean-maximum foraging ranges ± 1SD for a number of priority bird species, including those which are particularly sensitive to disturbance or which are habitat specialists, to identify the SPAs within the relevant ranges which have the potential to interact with the DOL. Where a SPA has been identified within the foraging range of a particular bird species, that species will be screened in for further assessment. It should be noted that the assessments undertaken by Woodward et al. (Ref 34) considered potential impacts on bird populations arising from the Round 4 offshore wind farm developments. The Proposed Offshore Scheme considered by this HRA Stage 1 Screening is an interconnector cable project, and as such will not adversely affect bird populations at the same scale as an offshore wind farm.

Table 3.2: Offshore breeding foraging ranges used to screen relevant SPAs and Ramsar sites

Common Name	Disturbance Susceptibility (Ref 18; Ref 39)	Habitat Specialisation (Ref 18; Ref 39)	Foraging ranges (km) ± 1SD (Ref 44)	Confidence (Ref 44)
Priority Seabirds				
Common guillemot	3	3	55.5±39.7	Highest
Razorbill	3	3	73.8±48.4	Good
Atlantic puffin	2	3	137.1±128.3	Good
Divers, grebes and mergansers				
Black-throated diver (*Gavia arctica*)	5	4	No data	No Data
Red-throated diver	5	4	9.0	Low
Great northern diver (*Gavia immer*)	5	3	No data	No data
White-billed diver (*Gavia adamsii*)	5	4	No data	No data
European Shag (*Gulosus aristotelis*)	3	3	13.2±10.5	Highest
Great cormorant (*Phalacrocorax carbo*)	4	3	25.6±8.3	Moderate
Red-breasted merganser (*Mergus serrator*)	3	4	No data	No data
Goosander (*Mergus merganser*)	4	4	No data	No data
Great crested grebe (*Podiceps cristatus*)	3	4	No data	No data
Slavonian grebe (*Podiceps auratus*)	3	4	No data	No data
Seaducks				
Common scoter (*Melanitta nigra*)	5	4	No data	Uncertain
Common goldeneye (*Bucephala clangula*)	4	4	No data	No data
Velvet scoter (*Melanitta fusca*)	5	3	No data	Moderate
Common eider (*Somateria mollissima*)	3	4	21.5	Poor

Common Name	Disturbance Susceptibility (Ref 18; Ref 39)	Habitat Specialisation (Ref 18; Ref 39)	Foraging ranges (km) ± 1SD (Ref 44)	Confidence (Ref 44)
Greater scaup (*Aythya marila*)	4	4	No data	No data
Long-tailed duck (*Clangula hyemalis*)	3	4	No data	Uncertain
Auks				
Black guillemot (*Cepphus grylle*)	3	4	4.8±4.3	Uncertain
Terns and gulls				
Little tern (*Sternula albifrons*)	2	4	5.0	Moderate
Arctic tern (*Sterna paradisaea*)	2	3	25.7±14.8	Good
Sabine's gull (*Xema sabini*)	2	3	No data	No data
Black tern (*Chlidonias niger*)	2	3	No data	No data
Roseate tern (*Sterna dougallii*)	2	3	12.6±10.6	Moderate
Sandwich tern (*Thalasseus sandvicensis*)	2	3	34.3±23.2	Moderate
Common tern (*Sterna hirundo*)	No data	No data	18.0±8.9	Good
Black-headed gull (*Chroicocephalus ridibundus*)	1	3	18.5	Uncertain

Note: where a foraging range has not been prescribed for a species then it has been assumed the highest foraging range for the relevant group applies.

Key to confidence of data score:

Highest > 5 direct studies; graphs and standard deviation suggest relatively low variability between sites and hence higher confidence that estimates are likely to be representative for unsampled sites.

Good > 5 direct studies; graphs and standard deviation show wider variability between sites, hence lower confidence that estimates will be representative for all sites.

Moderate 2-5 direct studies

Low Indirect measures or only 1 direct study

Uncertain Survey-based estimates

Poor Few surveys estimates or speculative only

Proposed Onshore Scheme Screening criteria

3.4.8 Search areas for the Proposed Onshore Scheme for Annex I habitats and species and Annex II species which are qualifying features of a European site

have been defined to take into consideration the potential for indirect impacts. These are based upon either the maximum ZoI of a potential impact on a designated feature (i.e., the maximum spatial extent over which potential impacts could affect qualifying features), or for mobile Annex II species, the spatial extent over which the impacts of anthropogenic activities should be taken into consideration.

3.4.9 The maximum ZoI for the Proposed Onshore Scheme, considered sufficient for a robust assessment of all potential impact pathways (including functional linkage, as defined in **Paragraph 3.4.23** to **Paragraph 3.4.25**) and using the Source-Pathway-Receptor model, is 10km from the DOL. Specific ZoI for receptors are provided in **Table 3.3**.

Table 3.3: Onshore search areas for qualifying features of European sites

Qualifying features	Search Area (from the Proposed Onshore Scheme DOL)	Justification
Annex II great crested newt (*Triturus cristatus*)	500m	A search area of 500m has been applied to assess for the potential for indirect impacts such as loss of supporting habitats, with 500m a recognised buffer and in accordance with guidance and EPS licensing, beyond which impacts to this species are unlikely.
Annex II invertebrates	1km	A search area of 1km has been applied to assess for the potential for indirect impacts such as loss of supporting habitat, beyond which impacts to this species are unlikely.
Annex I habitat	10km	A search area of 10km has been applied to assess for the potential for indirect impacts such as habitat degradation through water or air pollution.
Annex I birds	10km	A search area of 10km has been applied to assess for the potential for indirect impacts such as such as loss or damage/degradation of supporting habitat. This search area has taken into consideration SSSI impact risk zones for birds (Ref 23) which are all covered by the 10km search area and is considered to be suitably precautionary, with impacts beyond 10km unlikely.
Annex II Eurasian otter	10km	A search area of 10km has been applied to assess for the potential for indirect impacts such as such as loss or damage/degradation of supporting habitat for this highly mobile species.
Annex II harbour porpoise	10km	The search area of 10km for harbour porpoise has been applied on the basis of the potential for direct impacts to the species while using land within the intertidal areas within the DOL and for indirect impacts such as disturbance as a result of the Proposed Onshore

Qualifying features	Search Area (from the Proposed Onshore Scheme DOL)	Justification
		Scheme in inshore marine areas and is considered to be suitably precautionary.
Annex II bats	30km	A search area of 30km has been applied on the basis of a precautionary distance over which bats may forage or move between summer and winter roosts.

Potential impact pathways

3.4.10 Potential impact pathways for the Proposed Scheme have been identified.

Proposed Offshore Scheme potential impact pathways

3.4.11 Impacts have been established based on industry experience and reference to the list of marine pressures established by the JNCC Marine Pressures-Activities Database v1.5 (Ref 46), OSPAR Intercessional Correspondence Group on Cumulative Effects (ICG-C) (Ref 47) pressures and Natural England's advice on operations for relevant designated sites. The impacts (pressures) considered relevant for the installation and operation of subsea cables are presented in **Table 5.1**.

3.4.12 The zone of influence (ZoI) for each of the impacts will be used during the Screening assessment to determine whether there is likely to be a source-pathway-receptor between the Proposed Offshore Scheme and the relevant designated feature of a European site. The ZoI is defined as the spatial extent over which the pathway could affect the receptor, and has been established quantitatively where possible, or qualitatively based on evidence from analogous projects, post-construction monitoring data and literature reviews.

3.4.13 Conservative estimates have been used when calculating the final ZoI for each impact to ensure that all potentially sensitive receptors are accounted for in the Screening process and that the 'worst-case scenario' is taken into consideration.

Proposed Onshore Scheme potential impact pathways

3.4.14 Potential impact pathways have been established based on industry experience and relevant guidance on the cause of effects upon European sites (Ref 21), known threats and pressures (Ref 62) and Natural England's conservation advice (Ref 63) for relevant European sites.

3.4.15 The ZoI for each of the identified impacts has been used to carry out an initial Screening by broad receptor to determine whether there is likely to be a source-pathway-receptor between the Proposed Onshore Scheme and the relevant qualifying feature of a European site. The ZoI is defined as the spatial extent over which the pathway could affect the receptor, and has been established

quantitatively where possible, or qualitatively based on evidence from analogous projects, post-construction monitoring data and literature reviews.

3.4.16 Conservative estimates have been used when calculating the final ZoI for each impact to ensure that all potentially sensitive receptors are accounted for in the Screening process and that the 'worst-case scenario' is taken into consideration. It should be noted that only qualifying features identified within the relevant search areas (as defined in **Table 3.3**) have been included.

Identification of LSE

3.4.17 Consideration has been given to the potential impact pathways of the Proposed Scheme upon each of the European sites and includes direct and indirect pathways during the construction, operation and decommissioning phases of the Proposed Scheme and in relation to both land within the European site and FLL. LSE are assessed with reference to the conservation objectives of the qualifying features of the European site under consideration.

3.4.18 Baseline information regarding the location, designation, status, sensitivity and qualifying features of the European sites has been obtained and reviewed, with reference to any condition assessments of Sites of Special Scientific Interest (SSSI) which underpin the European site. This has included a review of Impact Risk Zones (IRZs), which are defined by a GIS tool developed by Natural England to make a rapid initial assessment of the potential risks posed by development proposals to SSSIs and those SACs, SPAs and Ramsar sites that they underpin. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal that could potentially have adverse impacts.

3.4.19 For European sites of relevance to the Proposed Offshore Scheme, the JNCC website and mapper tool (Ref 45) was used to define features and sensitivities. Furthermore, Natural England's designated sites viewer (Ref 63) was referred to which provides advice on operations and seasonality of features. For European sites of relevance to the Proposed Onshore Scheme, Natural England's designated sites viewer was used (Ref 63).

3.4.20 The identification of potential effects has considered impacts on designated habitats and species of the European sites through aspects of the Proposed Scheme including the following:

a. size and scale;
b. land-take;
c. air quality;
d. water quality;
e. hydrology and hydrogeology; and
f. noise and vibration.

3.4.21 An effect to a European site could be significant if there is:

a. a reduction in the amount or quality of designated habitats or the habitats that support designated species;
b. a limit to the potential for restoring designated habitats in the future; a significant disturbance to the designated species; and/or
c. disruption to the natural processes that support the site's designated features.

3.4.22 Impacts to European sites are 'screened in' for Appropriate Assessment where there are considered to be LSE arising from the Proposed Scheme or there is sufficient uncertainty on the basis of existing data and analysis.

Consideration of functionally linked land

3.4.23 The assessment has considered the potential for the land required for the Proposed Onshore Scheme to be functionally linked for the qualifying species of the European sites. In general terms, functionally linked land (FLL) can be defined as follows:

> *"the term 'functional linkage' refers to the role or 'function' that land or sea beyond the boundary of a European site might fulfil in terms of ecologically supporting the populations for which the site was designated or classified. Such land is therefore 'linked' to the European site in question because it provides an important role in maintaining or restoring the population of qualifying species at favourable conservation status. However, that assessment will need to determine how critical the area may be to the population of the qualifying species and whether the area is necessary to maintain or restore the favourable conservation status of the species."* (Ref 22).

3.4.24 And in relation to bird populations:

> *"the term functionally linked land is used to describe an undesignated area lying beyond the boundary of a protected site, which is nevertheless used by the designated bird populations associated with the site. Such areas typically provide habitat for foraging or other ecological functions essential to the maintenance of the designated population. Functionally linked land may extend up to the maximum foraging distance for the designated bird species. However, the number of birds foraging will tend to decrease further away from the protected site and thus the importance of the land to the maintenance of the designated population will decrease."* (Ref 23)

3.4.25 Because there are no established protocols for empirically defining functional linkage, a certain degree of expert opinion is needed when assessing a site or area for functional linkage. It is considered that to qualify as 'functionally linked land', an area should have been shown to be of substantive importance to the ecology of a qualifying species - that is, if the land were to become unavailable to the qualifying species the lifecycle of the species could be compromised. In practice, to be assessed as functionally linked a site or area should have been shown to support important numbers of qualifying species on a regular basis.

In-combination

3.4.26 An in-combination assessment is either carried out at Stage 1 Screening when the no LSE test is applied, or at Stage 2 within the RIAA when the integrity test is applied, as explained further below.

3.4.27 If the Proposed Scheme was concluded to have an effect upon a European site that was not significant at Stage 1, an in-combination assessment would be required to consider whether the non-significant effect could combine with any other project or proposal to have a significant effect upon the European site. However, this is not the case for the Proposed Scheme and an in-combination assessment at Stage 1 on this basis is therefore not required.

3.4.28 The other potential effects of the Proposed Scheme upon a European site (excluding LSEs) are identified as being neutral effect (no pathway) or having no appreciable effect, meaning no in-combination assessment is required for these potential effects.

3.4.29 Where LSEs have been identified then no in-combination has been undertaken at Stage 1 for these effects because the potential for combined effects will be considered at Stage 2.

3.4.30 On the basis of case law and guidance (Ref 21), projects to be considered relevant to an in-combination assessment include:

a. built and operational projects (such as offshore wind farms) that were not operational when baseline surveys were undertaken, and/or where any residual impact may not have been captured in the baseline conditions;
b. applications submitted but not yet determined, including refusals subject to an outstanding appeal or legal challenge;
c. projects subject to periodic review e.g. annual licences, during the time that their renewal is under consideration;
d. projects authorised but not yet started;
e. projects started but not yet completed;
f. known projects that do not require external authorisation;
g. proposals in adopted local plans; and
h. proposals where information is in the public domain, including those at the Scoping or PEIR stage.

3.4.31 Existing plans/projects that are anticipated to be built and operational prior to the construction phase of the Proposed Scheme are typically classified as part of the baseline conditions and will not be considered in by the in-combination assessment. However, if residual effects persist after construction, such as habitat loss from infrastructure or external cable/crossing protection, these plans/projects are then included in the in-combination assessment.

3.4.32 The search area for other plans/projects that may contribute to in-combination effects from potential impacts to European sites is taken from the ZoI outlined in **Table 5.1** and **Table 5.2,** unless no source-pathway-receptor exists. The ZoI serves as the search area from the designated site to identify other plans or

projects that may fall within that distance and spatially overlap. The exception to this is when considering underwater noise from offshore wind farm construction, which can propagate further than underwater noise from other types of plans/projects. In this case, the search area for underwater noise remains within the 5 km EDR, except for offshore wind farm construction, which follows the JNCC's recommended 26 km EDR for piling (Ref 17).

4 Relevant European sites

4.1 Relevant European sites

4.1.1 A geographical information system (GIS) was used to identify European sites which have the potential to be impacted by the Proposed Scheme. Those identified as meeting the Screening criteria (as set out in **Section 3.4**) for the Proposed Offshore and/or Proposed Onshore Scheme are provided in **Table 4.1**, with the screening assessment provided in **Section 5**. The Natura 2000 Standard Data Forms are provided in **Appendix E Natura 2000 Standard Data Forms and Conservation Objectives**.

4.1.2 There are no European sites which match the Proposed Offshore Scheme Screening criteria for Annex II Migratory Fish or the Proposed Onshore Scheme Screening criteria for Annex II bat species, great crested newt or otter. All of the European sites which list these species as qualifying features are located outside of the relevant search areas.

Table 4.1: List of relevant European sites for the Proposed Scheme

Site name	Offshore	Onshore
Minsmere to Walberswick Heaths & Marshes SAC		✓
Minsmere-Walberswick SPA	✓	✓
Minsmere-Walberswick Ramsar site	✓	✓
Southern North Sea SAC	✓	✓
Outer Thames Estuary SPA	✓	✓
Benacre to Easton Bavents Lagoons SAC		✓
Benacre to Easton Bavents SPA	✓	✓
Sandlings SPA		✓
Alde-Ore & Butley Estuaries SAC		✓
Alde-Ore Estuary SPA	✓	✓
Alde-Ore Estuary Ramsar site		✓
Haisborough, Hammond and Winterton SAC	✓	
North Norfolk Sandbanks and Saturn Reef SAC	✓	
Orfordness-Shingle Street SAC		✓
The Broads SAC	✓	

Site name	Offshore	Onshore
Broadland Ramsar site	✓	
Staverton Park & The Thicks, Wantisden SAC		✓
Greater Wash SPA	✓	
Breydon Water SPA	✓	
Bruine Bank SPA	✓	
Klaverbank SAC	✓	
Friese Front SPA	✓	
Vlaamse Banken SAC	✓	
Doggerbank SAC (Netherlands and Germany)	✓	
Bancs des Flandres SPA	✓	
Bancs des Flandres SAC	✓	
Voordelta SAC	✓	
Noordzeekustzone SAC	✓	
Vlatke van de Raan SAC (Belgium and Netherlands)	✓	
Westerschelde & Saeftinghe SAC	✓	
Dunes de la plaine maritime flamande SAC	✓	
Falaises du Cran aux Oeufs et du Cap Gris-Nez, Dunes duChatelet, Marais de Tardinghen et Dunes de Wissant SAC	✓	
Recifs Gris-Nez Blanc-Nez SCI	✓	
Ridens et dunes hydrauliques du détroit du Pas-de-Calais SAC	✓	
Unterelbe SAC	✓	
Baie de Canche et couloir des trois estuaires SAC	✓	
Borkum-Riffgrund SCI	✓	
Nationalpark Niedersächsisches Wattenmee SAC	✓	
Littoral Cauchois SAC	✓	

5 Screening Assessment

5.1 Identification of likely significant effects

5.1.1 An assessment has been made as to whether the Proposed Scheme could have LSE upon relevant European sites, as identified in **Table 4.1**.

Potential impact pathways for the Proposed Offshore Scheme

5.1.2 The ZoI for each of the potential identified impacts and the rationale for establishing these is provided in **Table 5.1. Paragraphs 5.1.5** to **5.1.33** provide context to these justifications where required.

5.1.3 It should be noted that only receptors identified within the relevant search areas (as defined in **Section 3.4**) have been included. Therefore, as there are no relevant European sites which match the Screening criteria for Annex II migratory fish, potential impacts for this receptor have not been included.

5.1.4 Where seabed preparation is referred to in the relevant activities column this includes the following activities: UXO identification, boulder clearance, sandwave clearance (pre-sweeping), PLGR, OOS cable cutting, infrastructure crossing preparation.

Temporary habitat loss/seabed disturbance

5.1.5 This impact considers two JNCC pressures: 'Abrasion/disturbance of the substrate on the surface of the seabed' and 'Penetration and/or disturbance of the substratum below the surface of the seabed, including abrasion'. Most activities that cause temporary habitat loss/seabed disturbance would be constrained to within a 30m wide strip of the seabed. Beyond this direct footprint, low intensity physical disturbance may also occur due to anchor handling with the DOL. Abrasion and penetration of the substrate could result in the localised loss or damage to seabed habitats and benthic species. This would not directly remove or disturb the habitats of marine mammal or ornithology receptors, although there may be an indirect effect on the availability of their prey species. Therefore, this impact is screened out for these receptors and the indirect effects of changes in prey availability is considered under the relevant impact.

5.1.6 During the operational phase, there is the potential that localised repair works may be required. The most common reason for repair of an offshore cable is damage caused by third parties, typically caused by an anchor strike or fishing gear interaction with a shallow or exposed cable segment. The worst-case scenario with respect to this pressure is that the cables would be removed at decommissioning. The significance of the effect during decommissioning is equal to or of lower magnitude than during construction.

Temporary increase and deposition of suspended sediments

5.1.7 This impact considers two JNCC pressures: 'Changes in suspended solids (water clarity)' and 'Smothering and siltation rate changes'. Sediment dispersion modelling was carried out for the Proposed Offshore Scheme by Port and Coastal Solutions and can be seen in **Appendix 18.1 Sediment Dispersion Modelling Report** of the PEIR. The Appendix identified that sedimentation of more than 0.1mm is constrained to within 15km. As such, a maximum zone of influence for this potential impact is set at 15km.

5.1.8 Increased sedimentation following installation, cable repair and maintenance, and decommissioning may impact the characterising species of designated habitats. Many benthic species are sessile, sedentary or have low mobility and are unable to avoid the effects of increased sediment load. In addition, certain diving bird species such as little tern are sensitive to changes in water charity from changes in sediment and organic particulate matter concentrations. Marine mammals typically inhabit turbid environments and unlike diving birds, don't rely solely on vision for detecting prey and navigation through the water column (i.e., echolocation in cetaceans and sensitive vibrissae in seal and otters).

Permanent habitat loss

5.1.9 This impact considers the JNCC pressure 'Physical change (to another seabed or sediment type)'. This impact relates to the permanent change of one marine habitat type to another marine habitat type, through the change in substratum, including to artificial material (e.g. concrete). This involves the permanent loss of one marine habitat type but the creation of another which may result in the mortality of key characterising species of sub-tidal habitats (such as benthic and epibenthic fauna and algae) where directly disturbed. Permanent habitat loss on the seabed does not directly remove or disturb the habitats of marine mammal or ornithology receptors. However, there may be an indirect effect on the availability of their prey species. Therefore, this impact is screened out for these receptors and the indirect effects of changes in prey availability is considered under the relevant impact.

5.1.10 External cable protection would be required at infrastructure crossings and in areas of insufficient burial or cable exposure. During the operational phase, there is the potential that localised repair or remedial works may be required. It is assumed, for worst case assessment, that cable protection would not be decommissioned.

Underwater noise changes

5.1.11 During the Proposed Offshore Scheme, underwater noise would be generated through geophysical surveys and by vessels and equipment which may result in the temporary behavioural disturbance and displacement of marine mammals, seaducks, grebes and diving bird species including red-throated diver. There may be an indirect effect on the availability of bird and marine mammal fish prey

species from underwater noise however, this is considered under the relevant impact (changes in distribution of prey species). The effect of anthropogenic sound on benthic invertebrates is poorly understood however, a study carried out in Germany in 2023 identified that an isopod species (*Gammarus locusta*) has lower consumption rates in response to short term and long term added low frequency sound (Ref 183). Therefore, increased underwater noise may impact the growth and reproduction of invertebrates.

5.1.12 A precautionary 5km ZoI has been used. This is the effective deterrent range (EDR) for geophysical surveys as recommended by JNCC (Ref 56) for harbour porpoise. This has been used as a proxy for all marine mammals and ornithology receptors as it is deemed a worse case range; harbour porpoise are the most sensitive of marine mammal species to the underwater noise changes. The effects from underwater noise from vessels and equipment would be lower than this as demonstrated by **Appendix 22.1 Underwater Noise Modelling Report** of the PEIR.

5.1.13 It should be noted that UXO clearance is not being sought as part of the deemed Marine Licence within the DCO. Following the mitigation hierarchy if there are no alternatives and clearance using detonation is required a separate Marine Licence would be sought and full detailed location specific assessment would be carried out including Stage 1 Screening. As such UXO clearance has not been assessed in this Stage 1 Screening.

Barrier to species movement

5.1.14 This impact relates to the physical obstruction of species movements and including local movements (within and between roosting, breeding, feeding areas) and regional/global migrations (e.g. birds, migrating fish and marine mammals). In relation to ornithology receptors, the works which have potential for impact, as a result of the Proposed Offshore Scheme would take place below MLWS. If there are any activities which take place within the intertidal area, these activities will be temporary and would use vessels which will not be positioned in the intertidal area.

5.1.15 As the cables will be buried, there would be no permanent structures obstructing marine mammal or bird species movements within the water column. Even if cable protection is required, this would be placed on the seabed and animals would be able to move over it. Habitats cannot be affected by this impact. In addition, many benthic species are sessile, sedentary or have low mobility and therefore, won't be affected by a barrier to species movement. Any benthic species that are mobile would be able to move over any external cable protection.

Temperature changes – local

5.1.16 During the operation of an HVDC cable, heat losses occur because of the resistance in the cable/conductor. This can cause localised heating of the

surrounding environment (i.e., sediment for buried cables, or water in the interstitial spaces of external cable protection). There are no specific regulatory limits applied to temperature changes in the seabed, although a 2°C change between seabed surface and 0.2m depth is used as a guideline in Germany. Calculations presented in **Appendix 2.4 Offshore Thermal Emissions Technical Note** of the PEIR show that for cables operating at full power, the temperature is raised in the immediate vicinity of the proposed Offshore HVDC Cable but reduces with distance. Temperature measurements taken during the marine surveys undertaken in November-December 2024, recorded an average temperature of the sediment, 13cm below the seabed, to be 15.1°C. Temperature increases can be expected to be at around current accepted limits of 2°C over a year, over localised areas, with the cables operating at maximum operating temperatures. To reach these temperatures the system would have to operate at full load continuously for an extended period of time. In reality, the system will not be at full load for this long and therefore the temperature would fluctuate and be unlikely to reach these maximums for extended periods.

5.1.17 Where the proposed Offshore HVDC Cables are buried at a shallower depth, or surface laid with external cable protection, there is the potential for fauna to be exposed to higher temperature gradients. However, there is negligible capacity to heat the overlying water, meaning there would be no effects on epibenthic communities, marine mammals or birds. Only burrowing species are likely to be exposed to heating effects at shallow sediment depths (<0.2m) from cable operation. As the temperature increase is likely to be only 1-2°C higher than ambient levels at shallow sediment depths (<0.2m) fish prey species which are benthic or those which lay their eggs on the seabed will also not be affected by temperature changes. Therefore, there is not expected to be an indirect effect on the distribution of prey species for marine mammals and birds.

Electro-magnetic fields

5.1.18 The burial and bundling of cables help to reduce the strength of EMF when compared to surface laid cables. **Appendix 2.3 Electromagnetic Field Assessment** of the PEIR calculates that the EMF from the operating cables combined with the earths geomagnetic field (around 49.9µT in the UK) will reach 99.3µT on the seabed. The EMF fields will decrease with vertical distance from the cable, attenuating to background levels at around 10m from the cables.

5.1.19 Although some bird species may use the earth's magnetic field for navigation during migration, this would not be impacted by EMF from subsea cables due to the range of impact being localised to the surrounding area of the proposed Offshore HVDC Cable underwater. It is acknowledged that cetaceans use magnetic cues, such as the earth's geomagnetic field, to navigate. The mechanism for how this is achieved is still unknown (Ref 54). This localised change in the magnetic field may temporarily affect sensitive species as they cross the cables or pass alongside their length and may temporarily reduce their

navigational ability within the zone of effect. No evidence of magnetic sensitivity has been reported for seal or otters. The effects of EMF on invertebrates have not yet been well studied however, it is thought that some species of molluscs are also able to detect electric and magnetic fields. As benthic invertebrates are typically slow moving or sessile organisms that live on or within the seabed, they are exposed to the highest levels of EMF.

5.1.20 As benthic invertebrates are prey items for some fish species, which in turn are predated on by other fish, marine mammals and birds, Indirect effects of EMF may impact on the availability and distribution of prey species for marine mammal and ornithology receptors, which is considered under the relevant impact.

Introduction or spread of marine invasive non-native species (MINNS)

5.1.21 This impact refers to the direct or indirect introduction of non-native species, e.g., Chinese mitten crabs (*Eriocheir sinensis*), slipper limpets (*Crepidula fornicata*), Pacific oyster (*Crassostrea gigas*), and their subsequent spreading and out-competing of native species. Ballast water discharge, hull fouling and stepping stone effects from offshore structures may facilitate the spread of such species.

5.1.22 The introduction of MINNS (e.g., through discharge of ballast water from the Proposed Offshore Scheme vessels) would be managed through measures necessary to ensure regulatory compliance under the International Convention for the Control and Management of Ship's Ballast Water and Sediments. Vessel contractors will complete a biosecurity risk assessment prior to mobilisation. Best biosecurity practice for marine for commercial operations would be followed by all vessels associated with the Proposed Offshore Scheme to minimise the risk of MINNS spread. All materials used for cable protection will be sufficiently sterilised prior to use and seabed deposits would be inert with no biologically active material. All materials used for remedial works will be procured from reputable sources. These measures would be detailed in the Offshore Construction Environmental Management Plan, secured as a condition of the Deemed Marine Licence forming part of the DCO.

5.1.23 Nonetheless, there is potential for any external cable protection placed at proposed Offshore HVDC Cable crossings or during maintenance in areas of soft substrate to act as a stepping stone for MINNS that favour hard substrates. The placement of hard materials (such as rock protection) could introduce a new niche that increases connectivity with other natural or artificial hard habitats within the dispersal range of benthic species. MINNS may compete with native benthos for resources including food and space which may affect the availability and distribution of prey species for marine mammals and birds. However, taking into account the implementation of the control measures which are inherently part of the Proposed Offshore Scheme design required to ensure legal compliance, the introduction or spread of MINNS is not anticipated.

5.1.24 Control measures are set out in **Appendix 2.2 Outline Offshore Construction Environmental Management Plan** of the PEIR which will manage the effects of

construction. Several management plans would be provided as Outline Management Plans with the application for development consent to support the deemed marine licence. Those of relevance to MINNS and complying with the International Convention for the Control and Management of Ship's Ballast Water and Sediments include an Outline Offshore Construction Environmental Management Plan (CEMP) (including biosecurity plan details).

Water flow (tidal current) changes, including sediment transport considerations

5.1.25 Structures placed in the marine environment immediately interact with the local current regime. The use of external cable protection which is elevated above the seabed can potentially result in localised changes in water flow resulting in turbulence (especially at peak flow) and the possible formation of scour pits around the structure. Though the impact of this is expected to be highly localised and negligible in magnitude there is a possibility that scour would result in localised degradation of soft sediment habitats and the associated benthic communities. Unlike benthic communities, marine mammals and birds are highly mobile and are not restricted to the seabed and therefore won't be affected by any localised changes.

Accidental spills

5.1.26 This impact considers the JNCC pressure 'Hydrocarbon & PAH contamination'. During construction, operation and maintenance and decommissioning, accidental spillage may occur directly into the water column from vessels and equipment. Materials spilled may disperse as a plume on the water surface, within the water column or fall directly to the seabed. The primary chemicals of environmental concern in vessel oil and fuel are polycyclic aromatic hydrocarbons (PAHs). Deliberate discharges of oil or oil/water mixtures from ships are prohibited within the North West European Waters Special Area, established by the International Maritime Organization under MARPOL Annex I in 1999. This includes all waters around the UK and its approaches. However, accidental discharges still occur.

5.1.27 The Proposed Offshore Scheme vessels will comply with the International Convention for the Prevention of Pollution from Ships (MARPOL) 73/78 which relate to pollution from oil from equipment, fuel tanks and release of sewage (black and grey waters). All vessels are legally required to have a Shipboard Oil Pollution Emergency Plan. Compliance with International and National Regulations will be sufficient to minimise the risk to the environment as such, several management plans which are inherently part of the Proposed Offshore Scheme design would be provided as Outline Management Plans with the application for development consent to support the deemed marine licence. Those of relevance to accidental spills and complying with MARPOL 73/78 are an Outline Offshore CEMP including an Emergency Spill Response Plan, Waste Management Plan and a Marine Pollution Contingency Plan.

Changes in distribution of prey species

5.1.28 Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle, if the Proposed Offshore Scheme has a significant effect on fish species such as Atlantic herring (*Clupea harengus*) which is an important prey species to marine mammal and ornithology receptors. Sandeel are also important prey species, there are three predominant species of sandeel which inhabit the North Sea, Greater sandeel (*Hyperoplus lanceolatus*), Lesser sandeel (*Ammodytes tobianus*) and Raitt's sandeel (*Ammodytes marinus*). A further two species have also been identified as potentially present within the North Sea, although they are less abundant, namely Corbin's sandeel (*Hyperoplus immaculatus*) and smooth sandeel (*Gymnammodytes semisquamatus*).

5.1.29 Activities that lead to temporary habitat loss/seabed disturbance or permanent habitat loss (as outlined under each relevant impact) affect seabed habitats, which could affect the availability and distribution of prey. The deposition of cable protection would result in permanent alteration of affected areas of the seabed. This has the potential to reduce areas of habitat for prey species such as sandeel and herring and consequently reduce prey availability for bird species in the Proposed Offshore Scheme. Disturbance of the seabed during the spawning season for species with a demersal life stage could have a direct impact on the spawning biomass for a specific year group, leading to a shortage of prey species for birds and marine mammals.

5.1.30 The effects of underwater noise changes from vessels and equipment may affect the availability and distribution of prey for birds and marine mammals by triggering a behavioural response, temporarily displacing fish prey species. The indirect effects of EMF and a temporary increase and deposition of suspended sediments may impact the availability and distribution of prey species for marine mammal and ornithology receptors if benthic or fish species are affected. The introduction or spread of MINNS may indirectly affect the availability and distribution of prey for birds and marine mammals by outcompeting native benthic species, which their prey relies on for food, however MINNS was screened out as explained in paragraphs 5.1.22 to 5.1.24.

Visual/physical disturbance or displacement

5.1.31 This impact also considers the JNCC pressure 'Above water noise'. The physical presence of the Proposed Offshore Scheme vessels and equipment during all phases has the potential to disturb marine mammals. Vessels, vehicles and people movement can create visual stimuli which can evoke a disturbance response in mobile species such as seabirds. SNCBs recommend a 4km displacement buffer for sensitive species (divers and seaducks) (Ref 18). Therefore, 4km is used as the maximum ZoI for this impact.

Collision with Proposed Scheme vessels

5.1.32 There are known incidents of marine mammals colliding with fast moving vessels. However, it is largely recognised that the key factors contributing to collision between marine mammals and vessels are the presence of both in the same area and vessel speed (see Schoeman et al. (Ref 60) for review). Injuries to marine mammals from vessel strikes are species-dependent but generally are more severe at higher impact speeds (Ref 61). Birds are highly mobile and more manoeuvrable than marine mammals. Given that the Proposed Offshore Scheme vessels would be travelling at slow speeds or travelling within established shipping lanes, birds should be able to avoid collisions.

In-combination effects

5.1.33 In-combination effects are likely to result where localised disturbance from more than one activity either occurs simultaneously resulting in a wider ZoI or consecutively within a restricted area resulting in an extension of the source-pathway-receptor. There is the possibility that the Proposed Offshore Scheme could overlap, temporally and spatially with other projects in the region or will occur within short succession of another project.

Table 5.1: Proposed Offshore Scheme potential impact pathways between source and receptor

Key: C= Construction, O&M = Operations and Maintenance, Decommissioning

Potential Impact	Relevant Activities	Phase			Pathway Description	Initial Receptor Screening		
		C	O&M	D		Habitats and Benthic Species	Ornithology	Marine Mammals
Temporary habitat loss/seabed disturbance	• Horizontal drill duct exit excavation; • Anchoring; • Seabed preparation; • Proposed Offshore HVDC Cable lay and burial; • Proposed Offshore HVDC Cable repair; • Proposed Offshore HVDC Cable removal; and • Temporary seabed deposits.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.5** habitats and benthic species are screened in and ornithology and marine mammal receptors are screened out.	Within DOL	OUT	OUT

Potential Impact	Relevant Activities	Phase			Pathway Description	Initial Receptor Screening		
		C	O&M	D		Habitats and Benthic Species	Ornithology	Marine Mammals
Temporary increase and deposition of suspended sediments	• Horizontal drill duct exit excavation; • Anchoring; • Seabed preparation; • Proposed Offshore HVDC Cable lay and burial; • Proposed Offshore HVDC Cable repair; • Proposed Offshore HVDC Cable removal; • Deposit of external cable protection; and • Temporary seabed deposits.	✓	✓	✓	For the reasons outlined in **paragraphs 5.1.7** to **5.1.8** habitats, benthic species and ornithology receptors are screened in for this impact. There is not considered to be a source-pathway-receptor for marine mammals and this receptor is screened out. The deposition of suspended solids may impact demersal fish within the ZoI by potentially impeding foraging success (due to increased turbidity) and potentially affecting egg survival rates by decreasing intra-gravel flow velocities and oxygen concentrations. Indirectly this could lead to changes in prey availability for marine mammals and ornithology and is considered under the relevant impact (Changes in distribution of prey species).	Within 15km from DOL	Within 15km from DOL	OUT

Potential Impact	Relevant Activities	Phase			Pathway Description	Initial Receptor Screening		
		C	O&M	D		Habitats and Benthic Species	Ornithology	Marine Mammals
Permanent habitat loss	• Deposit of external cable protection.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.9** habitats and benthic species have been screened in and ornithology and marine mammal receptors are screened out.	Within DOL	OUT	OUT
Underwater noise changes	• All Proposed Offshore Scheme vessel manoeuvres and equipment; and • Geophysical surveys.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.11** marine mammal, ornithology and benthic species receptors have been screened in.	Within 5km from DOL	Within 5km from DOL	Within 5km from DOL
Barriers to species movement	• Presence of the Proposed Offshore Scheme vessels.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.14** there is not considered to be a source-pathway-receptor for habitats, benthic species, ornithology or marine mammal receptors.	OUT	OUT	OUT
Temperature changes – local	• Operational cables.		✓		For the reasons outlined in **paragraphs 5.1.16** to **5.1.17** habitats and benthic species are screened in. There is not considered to be a source-pathway-receptor between this impact and marine mammal and ornithology receptors and therefore, these receptors are screened out.	Within DOL	OUT	OUT

Potential Impact	Relevant Activities	Phase			Pathway Description	Initial Receptor Screening		
		C	O&M	D		Habitats and Benthic Species	Ornithology	Marine Mammals
EMF	• Operational cables.		✓		For the reasons outlined in **paragraphs 5.1.18** to **5.1.19** habitats, benthic species and marine mammal (except seal and otter) receptors are screened in. There is not considered to be a source-pathway-receptor for birds.	Within DOL	OUT	Within DOL
Introduction or spread of marine invasive non-native species (MINNS)	• Deposit of external cable protection; and • Presence of the Proposed Offshore Scheme vessels.	✓	✓		For the reasons provided in **paragraphs 5.1.21 to 5.1.24** this impact has been screened out for habitats and benthic species. There is not considered to be a source-pathway-receptor for birds or marine mammals.	OUT	OUT	OUT
Water flow (tidal current) changes, including sediment transport considerations	• Deposit of external cable protection.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.25**habitats and benthic species are screened in. There is not considered to be a source-pathway-receptor between this impact and marine mammal or ornithology receptors and therefore, these receptors are screened out.	Within DOL	OUT	OUT
Accidental Spills	• Presence of the Proposed Offshore Scheme vessels.	✓	✓	✓	For the reasons outlined in **paragraphs 5.1.26 to 5.1.27** this impact has been screened out of the assessment for all receptors.	OUT	OUT	OUT

Potential Impact	Relevant Activities	Phase			Pathway Description	Initial Receptor Screening		
		C	O&M	D		Habitats and Benthic Species	Ornithology	Marine Mammals
Changes in distribution of prey species	• Geophysical survey; • Seabed preparation; • Proposed Offshore HVDC Cable burial; • Proposed Offshore HVDC Cable operation; • Proposed Offshore HVDC Cable repair; • Proposed Offshore HVDC Cable removal; and • Deposit of external cable protection.	✓	✓	✓	For the reasons outlined in **paragraphs 5.1.28 to 5.1.29** ornithology and marine mammal receptors have been screened in. There is no source-pathway-receptor for habitats or benthic species.	OUT	Within DOL	Within DOL

Potential Impact	Relevant Activities	Phase			Pathway Description	Initial Receptor Screening		
		C	O&M	D		Habitats and Benthic Species	Ornithology	Marine Mammals
Visual/physical disturbance or displacement	• Presence of the Proposed Offshore Scheme vessels.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.31** ornithology and marine mammal receptors have been screened in, using 4km as the maximum ZoI for this impact. There is no source-pathway-receptor for habitats and benthic species, therefore, this impact has been screened out for this receptor.	OUT	Within 4km of DOL	Within 4km of DOL
Collision with Proposed Scheme **vessels**	• All the Proposed Offshore Scheme vessel manoeuvres.	✓	✓	✓	For the reasons outlined in **paragraph** 5.1.32 marine mammal receptors have been screened in. There is no source-pathway-receptor between vessel collision and habitats, benthic species or ornithology receptors.	OUT	OUT	Within DOL
In-combination effects	• All activities.	✓	✓	✓	For the reasons outlined in paragraph **5.1.33** this impact has been screened in for all receptors.	Within relevant European site	Within relevant European site	Within relevant European site

Potential impact pathways for the Proposed Onshore Scheme

5.1.34 The ZoI for each of the potential identified impacts and the rationale for establishing these is ZoI provided in **Table 5.2** and the following paragraphs.

Permanent habitat loss within European sites

5.1.35 Construction of the Proposed Onshore Scheme infrastructure will require permanent land take. However, there will be no requirement for land take from, and no direct permanent habitat loss within, any European site. Operation/maintenance of the Proposed Onshore Scheme and decommissioning activities will not require any land take or direct permanent habitat loss within any European site.

Temporary habitat loss within European sites

5.1.36 Construction activities will require temporary land take and vegetation clearance. However, the only requirement for temporary habitat loss within any European site is limited to the widening of an existing hedgerow gap that provides farm access from the B1387, which is to be utilised as a construction haul route. Operation/maintenance of the Proposed Onshore Scheme and decommissioning activities will not require any land take and no direct temporary habitat loss within any European site.

Loss of supporting habitat for qualifying species

5.1.37 Construction activities will not result in the loss of habitats within any European site that are likely to support qualifying species. Habitat beyond the boundaries of the European sites has the potential to comprise supporting habitat or functionally linked habitat for qualifying species of the European sites which could include that impacted during construction, operation/maintenance or decommissioning activities.

Habitat damage/degradation

5.1.38 Construction activities will include trenchless crossings beneath European sites with the potential for release of drilling fluids that could damage or degrade qualifying habitats. Changes in water quality or quantity during construction such as the accidental release of pollutants and changes in flow have the potential to damage or degrade qualifying habitats or supporting habitats for qualifying species through hydrological connections to European sites. Construction activities could result in changes in air quality (including dust) with the potential to damage or degrade qualifying habitats through deposition. Operational/maintenance and decommissioning activities have the potential to degrade habitats as a result of changes in water or air quality such as the operation of plant and machinery and accidental release of pollutants.

Direct mortality/injury

5.1.39 Construction activities including traffic and vehicle movements, the use of machinery and vegetation clearance could result in the direct mortality of or injury to qualifying species within the European sites or while using supporting habitats and functionally linked habitats. These activities would also have the potential to cause direct mortality during operational/maintenance and decommissioning.

Disturbance

5.1.40 Construction activities including traffic and vehicle movements, the use of machinery or generators, vegetation clearance and lighting and the presence of site personnel could result in the disturbance of qualifying species through visual or noise impacts within the European sites or while using supporting habitats/functionally linked habitats. These activities would also have the potential to cause visual and/or noise impacts during operational/maintenance and decommissioning.

Fragmentation

5.1.41 The permanent or temporary loss of habitats through construction activities to facilitate the Proposed Onshore Scheme could result in the fragmentation of habitats or habitat upon which species rely which could in turn affect the viability of populations. Operation/maintenance of the Proposed Onshore Scheme and decommissioning activities will not require any land take and would not result in habitat loss.

In-combination

5.1.42 In-combination effects are likely to result where activities within other plans or projects either occurs simultaneously resulting in a wider ZoI or consecutively within a restricted area resulting in an extension of the source-pathway-receptor. There is the possibility that the Proposed Onshore Scheme could overlap, temporally and spatially with other plans or projects in the region or will occur within short succession of another project.

Table 5.2: Onshore potential impact pathways

Key C = Construction, O&M = Operations and Maintenance, Decommissioning
** Mammals other than bat species which are presented as a separate receptor category

Potential Impact	Relevant Activities (source)	Phase*			Pathway Description	Initial Screening by Receptor – Maximum ZoI					
		C	O&M	D		Habitats	Ornithology	Invertebrates	GCN	Mammals **	Bats
Direct permanent habitat loss within European sites	• Construction of the Proposed Onshore Scheme infrastructure including Kiln Lane Substation, and the proposed Converter Station.				For the reasons outlined in **paragraph 5.1.35**, direct permanent loss of qualifying habitat within European sites is screened out during construction, operation and decommissioning, using a ZoI of habitats within the DOL. There is no source-pathway-receptor for qualifying habitats (or habitats upon which qualifying species rely).	Within DOL	N/A	N/A	N/A	N/A	N/A
Direct temporary habitat loss within European sites	• Construction of the Proposed Onshore Scheme infrastructure. • Trenched proposed Underground Cable installation. • Trenchless crossings.				For the reasons outlined in **paragraph 5.1.36**, direct temporary loss of qualifying habitat within European sites is screened out during construction, operation and decommissioning, using a ZoI of habitats within the DOL. There is no source-pathway-receptor for qualifying habitats (or habitats upon which qualifying species rely).	Within DOL	N/A	N/A	N/A	N/A	N/A

Potential Impact	Relevant Activities (source)	Phase*			Pathway Description	Initial Screening by Receptor – Maximum ZoI					
		C	O&M	D		Habitats	Ornithology	Invertebrates	GCN	Mammals **	Bats
	• Compounds, working areas & access. • Vegetation clearance.										
Direct loss of supporting habitat for qualifying species	• Construction of the Proposed Onshore Scheme infrastructure. • Trenched proposed Underground Cable installation. • Trenchless crossings. • Compounds, working areas & access. • Vegetation clearance.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.37**, direct loss of supporting habitat for qualifying species is screened in during construction, operation and decommissioning, using a ZoI of up to 30km (variable by receptor).	N/A	10km	1km	500m	10km	30km
Habitat damage/ degradation	• Trenched proposed Underground Cable installation. • Trenchless crossings.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.38**, habitat damage/degradation (of qualifying habitat or habitat upon which qualifying species rely) is screened in during construction, operation and	10km	10km	1km	500m	10km	30km

Potential Impact	Relevant Activities (source)	Phase*			Pathway Description	Initial Screening by Receptor – Maximum ZoI					
		C	O&M	D		Habitats	Ornithology	Invertebrates	GCN	Mammals **	Bats
	• Construction traffic & plant movements. • Operation of plant and machinery. • Earthworks. • Abstractions & dewatering.				decommissioning, using a ZoI of up to 30km (variable by receptor).						
Direct mortality/injury	• Vegetation clearance. • Construction traffic & plant movements. • Operation of plant and machinery.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.39**, direct mortality/injury of qualifying species is screened in during construction, operation and decommissioning, using a ZoI of up to 30km (variable by receptor).	N/A	10km	1km	500m	10km	30km
Disturbance	• Vegetation clearance. • Construction traffic & plant movements. • Operation of plant and machinery. • Construction lighting.	✓	✓	✓	For the reasons outlined in **paragraph 5.1.40**, disturbance of qualifying species is screened in during construction, operation and decommissioning, using a ZoI of up to 30km (variable by receptor).	N/A	10km	1km	500m	10km	30km

Potential Impact	Relevant Activities (source)	Phase*			Pathway Description	Initial Screening by Receptor – Maximum ZoI					
		C	O&M	D		Habitats	Ornithology	Invertebrates	GCN	Mammals **	Bats
Fragmentation	• Construction of the Proposed Onshore Scheme infrastructure. • Trenched proposed Underground Cable installation. • Trenchless crossings. • Compounds, working areas & access. • Vegetation clearance.	✓		✓	For the reasons outlined in **paragraph 5.1.41**, fragmentation is screened in during construction and decommissioning, using a ZoI of up to 30km (variable by receptor). There is no source-pathway-receptor for fragmentation during operation.	2km	10km	1km	500m	10km	30km

5.2 Screening assessment

5.2.1 In accordance with relevant guidance (refer to **Section 3.2**), Screening for LSE for each relevant UK European site identified in **Table 4.1** against the potential impact pathways identified in **Table 5.1** and **Table 5.2** has been carried out. This is presented alongside descriptive information in **Table 5.3** to **Table 5.40** below.

5.2.2 Screening for LSE for European sites within other European member state waters (i.e. transboundary sites) identified in **Table 4.1** against the potential impact pathways identified in **Table 5.1** has also been carried out. This is presented alongside descriptive information in **Table 5.41** and **Table 5.42**.

5.2.3 A full list of qualifying features for each UK European site is provided in each descriptive table for each site. Those qualifying features that meet the Screening criteria for the Proposed Offshore Scheme and/or the Proposed Onshore Scheme are identified within each descriptive table with these then taken into the subsequent Screening table for each site.

5.2.4 Distances have been provided for the two assessment scenarios under consideration for the Proposed Onshore Scheme and all distances should be considered approximate. The extent of designated sites can vary depending upon the source of data, for the purposes for standardisation, the extent of each site has been provided, as stated within JNCC sites lists (Ref 95). It is noted that the JNCC sites list provides SACs to two decimal places and SPAs rounded.

Proposed Offshore Scheme

5.2.5 A total of 12 UK European sites are included in the Screening for LSE for the Proposed Offshore Scheme, with the assessment for LSE in the following Screening tables:

a. Minsmere – Walberswick SPA (**Table 5.6**);
b. Minsmere-Walberswick Ramsar (**Table 5.8**);
c. Southern North Sea SAC (**Table 5.10**);
d. Outer Thames Estuary SPA (**Table 5.12**);
e. Benacre to Easton Bavents SPA (**Table 5.18**);
f. Alde-Ore Estuary SPA (**Table 5.22**);
g. Haisborough, Hammond and Winterton SAC (**Table 5.26**);
h. North Norfolk Sandbanks and Saturn Reef SAC (**Table 5.28**);
i. The Broads SAC (**Table 5.34**);
j. Broadland Ramsar (**Table 5.36**);
k. Greater Wash SPA (**Table 5.38**); and
l. Breydon Waters SPA (**Table 5.40**).

5.2.6 A total of 20 transboundary European sites are included in the Screening for LSE for the Proposed Offshore Scheme, with the assessment for LSE in **Table 5.42**.

5.2.7 A justification for each conclusion has been provided in the individual Screening for LSE table for each European site as relates to the identified impact pathways

for the Proposed Offshore Scheme assessment. The following paragraphs provide context to these justifications where required.

Baseline survey information and interpretation

5.2.8 The assessment has taken into consideration the results of baseline surveys undertaken to date for the Proposed Offshore Scheme which are relevant to the assessment. Baseline survey reports comprise appendices to **Chapter 8 Ecology and Biodiversity** and **Chapter 19 Intertidal and Subtidal Benthic Ecology** of the PEIR and are indicated below for reference. All relevant information to inform the HRA process is included within this document and its appendices. The relevant surveys comprise:

a. geophysical – nearshore surveys undertaken in 2024;
b. geophysical – offshore surveys undertaken in 2024;
c. Environmental Baseline and Habitat Assessment – nearshore surveys undertaken in 2025;
d. Environmental Baseline and Habitat Assessment – offshore surveys undertaken in 2024;
e. Inshore and Beach Breeding Survey undertaken in 2024; and
f. Wintering bird surveys undertaken in 2022/23 and 2023/24.

Geophysical and environmental surveys

5.2.9 Geophysical and environmental surveys along the subtidal regions of the Proposed Offshore Scheme included an offshore section, with water depths between 2m in nearshore areas and 50m in the offshore areas. Geophysical, geotechnical and benthic survey techniques were used to:

a. characterise the benthic community and benthic habitats; and
b. determine the presence of any features that may have conservation significance.

5.2.10 All sampling stations were positioned based on a sampling plan agreed with Cefas, Natural England and JNCC. Exact positions were refined based on review of geophysical data to ensure that stations were positioned on sediment representative of the area.

5.2.11 The surveys recorded seabed morphology and characterised habitats and macrofauna present through grab sample collection and analysis of drop down video camera and transect data. The subtidal survey strategy was broadly split into three main categories: environmental baseline, potential sandeel and herring spawning ground and potential sand sweeping locations.

5.2.12 The results of video and grab samples were combined to classify the habitats and associated biological communities in terms of biotopes in line with the EUNIS habitat classification. This allowed evaluation of presence and extent of habitats, with a focus on features/habitats of conservation importance including Annex I habitats and species, and any designated features of intersected European Sites.

5.2.13 The proposed Landfall lies at Walberswick where the foreshore sediments are reflective of coastal dunes and sandy shores (EUNIS habitat classification N1).

The nearshore area is dominated by littoral fine sand or muddy sand (EUNIS habitat classification MB5) and is located immediately south of the proposed Landfall. The nearshore region is characterised by offshore circalittoral sand (EUNIS habitat classification MD521).

5.2.14 The subtidal benthic habitats identified within the DOL were generally dominated by four broad scale sediment types: fine/muddy sand closer to shore progressing to alternating areas of coarse sediment, mixed sediment and sand further offshore. In total, five level 5 EUNIS biotopes were identified across three Level 4 EUNIS biotope complexes within the subtidal area. The three EUNIS level 4 biotope complexes were Atlantic offshore circalittoral sand (MD521) with patches of Atlantic offshore circalittoral mixed sediment (MD421) and Faunal communities in Atlantic offshore circalittoral coarse sediment (MD321).

5.2.15 Full details of the survey methodology, data collection and analysis and the survey outcomes can be found in **Appendix 19.1 Benthic Survey Report** of the PEIR.

Bird surveys

5.2.16 Vantage point surveys were undertaken at the proposed Landfall by experienced ornithologists using appropriate optics (binoculars and telescopes) focussed on a 2km 180° view arc looking out to sea. The observations for the vantage point surveys for the breeding season were undertaken April to September 2024, and for the non-breeding season from October 2023 to March 2024.

5.2.17 The LionLink Inshore and beach breeding bird survey at the proposed Landfall recorded seven species of seaducks, swans and geese, five species of gulls and no waders. Additionally, both red-throated diver and common scoter (*Melanitta negra*) were recorded. Between 2023-2024, a total count of two red-throated diver and a total count of 3,241 common scoter were recorded.

5.2.18 The LionLink wintering bird survey recorded a range of auks, seaducks, geese, wader, harriers, grebes, gulls, one species of kittiwake and one species of grebe. Given that the Proposed Offshore Scheme crosses the Outer Thames Estuary SPA, it was important to note that a total count of 160 red-throated diver from both vantage points were recorded.

5.2.19 Full details of the survey methodology, data collection and analysis and the survey outcomes can be found in **Appendix 8.13 Baseline Report – Wintering Bird Survey Report 2023-2024** and **Appendix 8.15 Baseline Report – Inshore and Beach Breeding Survey Report 2024** of the PEIR.

Temporary increase and deposition of suspended sediments

5.2.20 Sediment dispersion modelling was carried out for the Proposed Offshore Scheme by Port and Coastal Solutions and can be seen in **Appendix 18.1 Sediment Dispersion Modelling Report** of the PEIR. For pre-sweeping using a trailing suction hopper dredger, results show that increases in suspended sediment concentrations (SSC) of more than 5mg/l are constrained within 15km

and are short lived (generally occurring for less than 2.4 hours). Sedimentation is predicted to be less than 1mm except for a localised area along the dredge track (constrained to within the proposed Offshore HVDC Cable Corridor) and around placement locations, where sedimentation exceeds 10mm. Sedimentation of more than 0.1mm is constrained to within 15km. For cable burial using a jet trencher, results show that maximum increases in SSC of more than 5mg/l are mainly constrained to within 15km. The only exception to this is associated with cable burial between KP5 and KP10 where the higher percentage of fines and closer alignment of the proposed Offshore HVDC Cable Corridor with the flow direction could result in a build-up in SSC which is then advected an additional 1.5km north (16.5km in total) by the relatively fast tidal flows. Increases in SSC were predicted to occur for less than 2 hours beyond 15km of the DOL and for less than seven hours within 15 km of the DOL. If higher increases in SSC of 50mg/l were to occur, this would be constrained to within the DOL and would persist for more than 0.5 hours. Sedimentation is predicted to be less than 1mm except for a localised area along the proposed Offshore HVDC Cable Corridor.

5.2.21 The DOL intersect the north inshore and north offshore areas of the Outer Thames Estuary SPA for approximately 21km. **Chapter 18 Marine Physical Environment** of the PEIR established that SSCs close to shore can naturally reach 47mg/l. Approximately 20% of the Outer Thames Estuary SPA (only considering the north inshore and north offshore areas) is predicted to be affected by an increase in SSC of more than 5mg/l during the construction of the Proposed Offshore Scheme. The area predicted to be impacted at any one time is much smaller, being less than 0.1% of the SPA areas which intersect the DOL. The duration of time where SSC is increased by more than 5mg/l at any point within the Outer Thames Estuary SPA is 18 days, although the duration of time exceeded at any one point is much less than this (order of hours).

5.2.22 Two European sites were screened in for the Proposed Offshore Scheme for Annex I habitats: Haisborough, Hammond and Winterton SAC and North Norfolk Sandbanks and Saturn Reef SAC. **Chapter 18 Marine Physical Environment** of the PEIR assessed the impact of a temporary increase and deposition of suspended sediments on both sites and concluded that there would be no increases in SSC above background levels and no sedimentation within either SAC.

Underwater noise changes

5.2.23 During the Proposed Offshore Scheme, underwater noise would be generated through geophysical surveys and by vessels and equipment which may result in the temporary behavioural disturbance and displacement of marine mammals, seaducks, grebes and diving bird species including red-throated diver. A precautionary 5km ZoI has been used. This is the effective deterrent range (EDR) for geophysical surveys as recommended by JNCC (Ref 56) for harbour porpoise. This has been used as a proxy for all marine mammals and ornithology

receptors as it is deemed a worse case range; harbour porpoise are the most sensitive of marine mammal species to the underwater noise changes. The effects from underwater noise from vessels and equipment would be lower than this as demonstrated by **Appendix 22.1 Underwater Noise Modelling Report** of the PEIR.

5.2.24 For the Southern North Sea SAC Guidance from JNCC (Ref 17) considers noise disturbance to be significant if it results in the exclusion of harbour porpoises from more than: 20% of the relevant area of the site in any given day, or an average of 10% of the relevant area of the site over the season. The Proposed Offshore Scheme crosses the winter grounds for 86km. Assuming a 5km EDR, the area of the SAC affected by underwater noise changes from geophysical survey would be equivalent to 6.77% of the entire winter ground. The Proposed Offshore Scheme crosses the summer grounds for 88.5km. Assuming a 5km EDR, the area of the SAC affected by underwater noise changes from geophysical survey would be equivalent to 3.28% of the entire summer ground. The area impacted is below the thresholds for a significant effect on any given day; noting that it would likely take longer than one day to conduct the survey. However, it would also be below the threshold for 10% of the site in a season. Animals foraging outside of the SAC may swim into the zone of influence outside of the site boundary, but given the wide area available for foraging, the transient nature of the construction and repair activities and that vessels will not be present in one area for a sustained period of time, the Proposed Offshore Scheme will not have a significant effect on foraging animals from the site.

Changes in distribution of prey species

5.2.25 Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle, if the Proposed Offshore Scheme has a significant effect on fish species such as Atlantic herring (*Clupea harengus*) which is an important prey species to marine mammal and ornithology receptors. Sandeel are also important prey species, there are three predominant species of sandeel which inhabit the North Sea, Greater sandeel (*Hyperoplus lanceolatus*), Lesser sandeel (*Ammodytes tobianus*) and Raitt's sandeel (*Ammodytes marinus*). A further two species have also been identified as potentially present within the North Sea, although they are less abundant, namely Corbin's sandeel (*Hyperoplus immaculatus*) and smooth sandeel (*Gymnammodytes semisquamatus*).

5.2.26 Activities that lead to temporary habitat loss/seabed disturbance or permanent habitat loss (as outlined under each relevant impact) affect seabed habitats, which could affect the availability and distribution of prey. The deposition of cable protection would result in permanent alteration of affected areas of the seabed. Disturbance of the seabed during the spawning season for species with a demersal life stage (such as herring and sandeel) could have a direct impact on the spawning biomass for a specific year group, leading to a shortage of prey species for birds and marine mammals.

5.2.27 The trenchless technique will exit past the site boundary of Minsmere-Walberswick SPA and Minsmere-Walberswick Ramsar. Furthermore, the Proposed Offshore Scheme DOL is outside of the site boundary for Benacre to Easton Bavents SPA, Alde-Ore Estuary SPA, Broads SAC, Broadland Ramsar, Greater Wash SPA, and Breydon Water SPA. Therefore, all works associated with the Proposed Offshore Scheme will be outside of these European sites. However, the distribution and spawning biomass of prey species could be impacted by activities outside of the site.

5.2.28 For the Southern North Sea SAC pre-sweeping is required within the winter and summer grounds of the SAC and has been calculated to affect 0.29km^2 in the SAC. This lies within the area where the winter and summer grounds intersect and is equivalent to 0.002% of the winter grounds and 0.001% of the summer grounds. The footprint of the seabed affected by pre-sweeping is relatively small in comparison to the size of the summer and winter grounds. Furthermore, the effects would be temporary and transient, allowing sediment to re-distribute naturally and for species to re-colonise the affected area. Locations of the remedial cable protection were not available to inform the HRA Stage 1 Screening (for PEIR) but will be available at ES. However, assuming a highly unlikely and overly precautionary worst-case scenario that the entire proposed Offshore HVDC Cable Corridor would require external cable protection within the SAC the following calculations have been made. 14 crossings in the SAC at a length of 150m would leave 137.9km of the proposed Offshore HVDC Cable Corridor which could require additional protection. Therefore, habitat loss within the SAC could be 0.03km^2 from crossings and 1.38km^2 from cable protection. The total footprint of habitat loss in the SAC would be 1.41km^2 which is equivalent to 0.0054%, which is concluded not to be significant. This assumes:

a. the proposed Offshore HVDC Cable Corridor intersects the winter grounds of the SAC for approximately 86km and the summer grounds for 88.5km;
b. a maximum width for external cable protection (excluding infrastructure crossings) of 10m;
c. a maximum width for infrastructure crossings of 14m and a maximum length of 150m; and
d. 14 infrastructure crossings were identified in the SAC.

5.2.29 For the Outer Thames Estuary SPA Pre-sweeping is required as part of the seabed preparation for the proposed Offshore HVDC Cable Corridor installation. It has been calculated that the total area of seabed physically disturbed by the Proposed Offshore Scheme is 0.006km^2 (equivalent to <0.001% of the SPA). The footprint of the seabed affected by pre-sweeping is relatively small in comparison to the size of the SPA. Locations of the remedial cable protection were not available to inform the HRA Stage 1 Assessment (for PEIR) but would be available at ES. Assuming a highly unlikely and overly precautionary worst-case scenario that the entire proposed Offshore HVDC Cable Corridor within the SPA would require external cable protection the following calculations have been made. The habitat loss within the SPA could be 0.002km^2 from crossings and 0.22km^2 from

remedial cable protection; a total of 0.221km^2 which is equivalent to 0.01% of the entire SPA and is concluded to be not significant. This assumes:

a. the proposed Offshore HVDC Cable Corridor intersects the SPA for 22km;
b. 1 infrastructure crossing would be required with a maximum width of 14m and a maximum length of 150m; and
c. 20.55km of the proposed Offshore HVDC Cable Corridor would require additional protection (overly precautionary) with a maximum width of 10m.

5.2.30 **Chapter 20 Fish and Shellfish** of the PEIR assessed the effect of 'changes in distribution of species' with consideration of other impacts such as changes in underwater noise, seabed disturbance during sensitive periods for species with demersal life cycles, and permanent changes in seabed habitat. It also assessed the effect of 'electromagnetic changes/barrier to species movement' and 'temporary increase and deposition of suspended sediments'. It concluded that the Proposed Offshore Scheme would not cause changes in the distribution of fish and shellfish species.

Electro-magnetic fields

5.2.31 The burial and bundling of cables help to reduce the strength of EMF when compared to surface laid cables. **Appendix 2.3 Electromagnetic Field Assessment** of the PEIR calculates that the EMF from the operating cables combined with the earths geomagnetic field (around 49.9μT in the UK) will reach 99.3μT on the seabed. The EMF fields will decrease with vertical distance from the cable, attenuating to background levels at around 10m from the cables.

5.2.32 The Proposed Offshore Scheme intersects the Southern North Sea SAC winter and summer grounds and therefore may affect the qualifying feature, harbour porpoise. A study on the effects of submarine power cable emissions at UK offshore windfarms found that there have been no impacts to the migration of cetaceans (whales, dolphins and porpoises) over existing power cables (Ref 90) and another study notes that harbour porpoise migration across the Basslink interconnector has been observed unhindered despite several crossings of operating sub-sea HVDC cables (Ref 91). Given the rapid attenuation of the magnetic field, the lack of evidence of effects on cetaceans, and the predominantly pelagic existence resulting in separation with the change in field, harbour porpoise within the Southern North Sea SAC have a low likelihood of being affected by EMF.

Visual/physical disturbance or displacement

5.2.33 Vessels, vehicles and people can create visual stimuli which can evoke a disturbance response in mobile species such as birds and marine mammals. Birds identified as being sensitive to the proposed activities are breeding birds or those foraging within proximity to the Proposed Offshore Scheme vessels. Diving species, seaducks, geese, swans and waders are recognised as being highly sensitive to noise and visual disturbance whereas, terns and gulls are considered

to be low to moderately sensitive (Ref 43). Birds may take evasive action, but a single disturbance event does not have an immediate effect on the survival or productivity of an individual bird. However, repeated disturbance, or disturbance over an extended period of time can affect survival and productivity. Disturbance directly impacts birds due to temporary or permanent loss of feeding and roosting habitat, influencing body conditions and energy budgets (Ref 83; Ref 99). Marine mammals, particularly cetaceans have evolved a sophisticated acoustic sensory system which helps them to navigate, find prey, communicate with each other and avoid potential predators (Ref 94). Therefore, it is likely that any disturbance/displacement would first occur through underwater noise changes before the visual presence of vessels and equipment from the Proposed Offshore Scheme.

Collision with Proposed Scheme vessels

5.2.34 There are known incidents of marine mammals colliding with fast moving vessels. However, it is largely recognised that the key factors contributing to collision between marine mammals and vessels are the presence of both in the same area and vessel speed (see Schoeman et al. (Ref 60)). Injuries to marine mammals from vessel strikes are species-dependent but generally are more severe at higher impact speeds (Ref 61). Laist et al. (Ref 102) conclude that fatal collisions with marine mammals occur at vessel speeds of 14 knots or more. Vessels involved in the Proposed Offshore Scheme are likely to be either stationary or travelling slowly (circa 5 knots) during works, thus allowing both the vessel and any animal in the area time to avoid collision. During transit times, vessels will be travelling at speeds greater than 5 knots. However, the vessels will follow standard shipping routes to and from the Proposed Offshore Scheme.

Water flow (tidal current) changes, including sediment transport considerations

5.2.35 Two European sites were screened in for the Proposed Offshore Scheme for Annex I habitats: Haisborough, Hammond and Winterton SAC and North Norfolk Sandbanks and Saturn Reef SAC. The Proposed Offshore Scheme does not cross the boundary for either site and the SACs are beyond the ZoI for the potential impact. It has been considered that permanent structures, such as cable protection outside of either site boundary, could potentially impact water flow within the SAC. Where cable protection is not required, the seabed level will remain unchanged or similar to its pre-installation condition, eliminating the potential for this impact to occur. Where cable protection is required, the height of the structures on top of the seabed will result in a highly localised change of a small magnitude, immediately around the area where cable protection is applied. As Haisborough, Hammond and Winterton SAC is 10.2km way from the DOL and North Norfolk Sandbanks and Saturn Reef SAC is 13.1km away, and the changes due to external cable protection would be extremely localised, there is no source-pathway-receptor at any stage of the development on the features of either SAC.

In-combination effects

5.2.36 Minsmere–Walberswick SPA and Minsmere–Walberswick Ramsar site boundaries overlap entirely with each other however, they remain separate designations. The Proposed Offshore Scheme DOL intersects both of these sites at the proposed Landfall. The qualifying features for Minsmere–Walberswick SPA are little tern, gadwall, Eurasian teal, Northern shoveler and greater white-fronted goose. The qualifying features for Minsmere–Walberswick Ramsar are gadwall, Eurasian teal and northern shoveler. There will be no significant impact of changes in distribution of prey species as little tern are generalist feeders which are less susceptible to this impact and they can forage up to 5km away from the site (Ref 34). Gadwall, Eurasian teal, Northern shoveler and greater white-fronted goose are surface feeders of intertidal habitats feeding on gastropod molluscs, saltmarsh and coastal grazing marsh (Ref 43) and won't be impacted by the Proposed Offshore Scheme which uses a trenchless technique at the proposed Landfall. When considering the impact of suspended sediment, coarse sediments will not form part of the sediment plume and fine particles will be rapidly diluted and dispersed (Ref 48), making them unlikely to impede foraging success. Tern species have a low to moderate sensitivity to noise and visual disturbance and therefore there will be no in-combination effect for these impacts. Seaducks and geese are considered to be sensitive to noise and visual disturbance (Ref 43) however, as vessels from the Propose Offshore Scheme will not be located within the site boundaries, it is unlikely that there will be a significant impact. In conclusion No LSE is predicted in-combination with other plans or projects.

5.2.37 The Proposed Offshore Scheme intersects with the winter and summer grounds of the Southern North Sea SAC. Given the small footprint of the Proposed Offshore Scheme which could cause temporary or permanent habitat loss inside and outside of the SAC, it is concluded that there will be no significant effect for the impact of changes in distribution of prey species. Additionally, underwater noise and temporary increases and depositions of suspended sediments from the Proposed Offshore Scheme will be temporary and transient and will not significantly impact the population of prey species. Furthermore, the maximum EMF estimated to be generated by the operational cables (51.9μT) is not thought to be high enough to elicit any physiological or behavioural responses of prey species. Due to the minimum burial depth of the proposed Offshore HVDC Cable Corridor and the rapid attenuation of EMF to background levels, and that there is no evidence that the combined levels of offshore power cabling has affected cetacean behaviour, no LSE are predicted from EMF.

5.2.38 Harbour porpoise have evolved a sophisticated acoustic sensory system which helps them to navigate, find prey, communicate with each other and avoid potential predators (Ref 94). It is therefore likely that any disturbance/displacement would first occur through underwater noise changes before the visual presence of vessels from the Proposed Offshore Scheme.

5.2.39 Given the large number of projects either scheduled or proposed for construction in the North Sea, it cannot be ruled out at this stage that an in-combination effect will not occur for underwater noise changes. In conclusion, no LSE is predicted in-combination with other plans or projects for all impacts except for the impact of underwater noise changes on harbour porpoise.

5.2.40 The Proposed Offshore Scheme intersects the Outer Thames Estuary SPA which has little tern, common tern and red-throated diver as qualifying features. Given the small footprint of the Proposed Offshore Scheme which could cause temporary or permanent habitat loss, it is concluded that there will be no significant effect for the impact of changes in distribution of prey species. Additionally, underwater noise and temporary increases and depositions of suspended sediments from the Proposed Offshore Scheme will be temporary and transient and will not significantly impact the population of prey species. Furthermore, the maximum EMF estimated to be generated by the operational cables (51.9μT) is not thought to be high enough to elicit any physiological or behavioural responses of prey species. When considering the impact of a temporary increase and deposition of suspended sediments, the area predicted to be impacted at any one time is much smaller, being less than 0.1% of the SPA areas which intersect the DOL. The duration of time where SSC is increased by more than 5mg/l at is 18 days, although the duration of time exceeded at any one point is much less than this (order of hours).

5.2.41 For common tern and little tern qualifying features of the Outer Thames Estuary SPA, there will be no significant impact of changes in distribution of prey species as they are generalist feeders which are less susceptible to this impact. Furthermore, little tern and they can forage up to 5km away from the site and common tern can forage up to 26.9km away (Ref 34). Tern species have a low to moderate sensitivity to noise and visual disturbance and visual disturbance and therefore there will be no in-combination effect for these impacts. In conclusion, no LSE is predicted in-combination with other plans or projects for all impacts for little tern and common tern.

5.2.42 For red-throated diver features of the Outer Thames Estuary SPA, there will be no significant impact of changes in distribution of prey species. Although red-throated diver feed predominantly on fish such as herring, sprat and sandeel, they are considered to be opportunistic and are able to switch to alternative fish species dependent on availability (Ref 105). This makes them less susceptible to this impact. Red-throated diver are sensitive to noise and visual disturbance however, it is likely that they will flushed by the presence of vessels are unlikely to be present in proximity to vessels to be affected by underwater noise. In conclusion, no LSE is predicted in-combination with other plans or projects for all impacts and all qualifying features except for the impact of visual/physical disturbance or displacement on red-throated diver.

5.2.43 For all SPA's outside of the Proposed Offshore Scheme DOL (Benacre to Easton Bavents SPA, Alde-Ore Estuary SPA, Greater Wash SPA and Breydon Water

SPA) it was determined that there would be no detectable effect as a result of the Proposed Offshore Scheme in-combination with other projects and plans. Given the small footprint of the Proposed Offshore Scheme which could cause temporary or permanent habitat loss, it is concluded that there will be no significant effect for the impact of changes in distribution of prey species. Additionally, underwater noise and temporary increases and depositions of suspended sediments from the Proposed Offshore Scheme will be temporary and transient and will not significantly impact the population of prey species. Furthermore, the maximum EMF estimated to be generated by the operational cables (51.9μT) is not thought to be high enough to elicit any physiological or behavioural responses of prey species. Therefore, there will be no detectable contribution to an in-combination effect on changes in distribution of prey species. When considering the impact of suspended sediment, coarse sediments will not form part of the sediment plume and fine particles will be rapidly diluted and dispersed (Ref 48), making them unlikely to impede foraging success. Tern species have a low to moderate sensitivity to noise and visual disturbance and visual disturbance and therefore there will be no in-combination effect for these impacts. In conclusion No LSE is predicted in-combination with other plans or projects.

5.2.44 Two European sites were screened in for the Proposed Offshore Scheme for Annex I habitats: Haisborough, Hammond and Winterton SAC and North Norfolk Sandbanks and Saturn Reef SAC. The Proposed Offshore Scheme does not cross the boundary for either site and is beyond the ZoI for all potential impacts. There is no source-pathway-receptor between the Proposed Offshore Scheme alone and either SAC. Therefore, there is no source-pathway-receptor between the Proposed Offshore Scheme and other projects and plans to interact with either SAC at any stage of the development.

5.2.45 Two European sites were screened in for the Proposed Offshore Scheme for Eurasian otter: the Broads SAC and the Broadland Ramsar. Coastal otters can hunt as far as 80m seaward from the coast (Ref 30). They have a broad diet which varies depending on the availability of prey, therefore they are less susceptible to the impact of changes in distribution of prey species. Furthermore, some of their prey items such as rockling, butterfish (*Pholis gunnellus*) and eelpout (*Zoarcidae spp.*) are found within the intertidal zone (the area where the ocean meets the land between high and low tide) and therefore won't be impacted by the Proposed Offshore Scheme which is 12km away from the Broads SAC and 15.9km away from the Broadland Ramsar. Given the distance from the Proposed Offshore Scheme to each site, Eurasian otter would not be expected to travel within the ZoI for other impacts to occur. Furthermore, the Proposed Offshore Scheme on its own would not act as a barrier to otter accessing the SAC. Therefore, Eurasian otter are unlikely to be affected by the Proposed Offshore Scheme alone. As a result, there will be no detectable contribution to an in-combination effect with other plans and projects.

Proposed Onshore Scheme

5.2.46 A total of 13 European sites are included in the Screening for LSE for the Proposed Onshore Scheme (as shown in **Appendix F Proposed Onshore Scheme Relevant European Sites)**, with the assessment for LSE in the following Screening tables:

a. Minsmere to Walberswick Heaths & Marshes SAC (**Table 5.4**);
b. Minsmere – Walberswick SPA (**Table 5.6**);
c. Minsmere-Walberswick Ramsar site (**Table 5.8**);
d. Southern North Sea SAC (**Table 5.10**);
e. Outer Thames Estuary SPA (**Table 5.12**);
f. Sandlings SPA (**Table 5.14**);
g. Benacre to Easton Bavents Lagoons SAC (**Table 5.16**);
h. Benacre to Easton Bavents SPA (**Table 5.18**)
i. Alde, Ore & Butley Estuaries SAC (**Table 5.20**);
j. Alde-Ore Estuary SPA (**Table 5.22**);
k. Alde-Ore Estuary Ramsar site (**Table 5.24**);
l. Orfordness-Shingle Street SAC (**Table 5.30**); and
m. Staverton Park & The Thicks, Wantisden SAC (**Table 5.32**).

5.2.47 A justification for each conclusion has been provided in the individual Screening tables for each European site as relates to the identified impact pathways for the Proposed Onshore Scheme assessment. The following paragraphs provide context to these justifications where required.

Baseline survey information and interpretation

5.2.48 The assessment has taken into consideration the results of baseline surveys undertaken to date for the Proposed Onshore Scheme which are considered to be relevant to the assessment. Baseline survey reports comprise appendices to **Chapter 8 Ecology and Biodiversity** of the PEIR and are indicated below for reference. All relevant information to inform the HRA process is included within this document and its appendices. The relevant surveys comprise:

a. habitat surveys undertaken in between 2023 and 2025 of land within the DOL, **Appendix 8.2 Baseline Report – Habitat Classification** of the PEIR;
b. wintering bird surveys undertaken in 2022/23 and 2023/24 and inshore and beach surveys over the 2023/24 wintering period, **Appendix 8.12 Baseline Report – Wintering Bird Survey 2022-2023**, **Appendix 8.13 Baseline Report – Wintering Bird Survey 2023-2024 and Appendix 8.16 Baseline Report – Wintering Bird Survey 2024-2025** of the PEIR; and
c. breeding bird surveys undertaken in 2024 with supplementary acoustic monitoring and in addition to specific viewpoint surveys for Eurasian bittern (*Botauris stellaris*) and marsh harrier (*Circus aeruginosus*) and inshore and beach surveys over the breeding period, **Appendix 8.14 Baseline Report – Breeding Bird Survey 2024** and **Appendix 8.15 Baseline Report – Inshore and Beach Breeding Bird Survey 2024**.

5.2.49 One of the objectives of the bird surveys was to provide data on the use of the study areas by qualifying bird species of the nearby European designated sites at key locations.

5.2.50 Key place names referred to in the following sections can be identified in **Appendix E Proposed Onshore Scheme Relevant European Sites**.

Habitat surveys

5.2.51 Habitat surveys were undertaken for the Proposed Onshore Scheme between May to October 2023 and May to August 2024 and in May 2025 which included surveys of the intertidal habitats within the DOL at Walberswick Beach in July 2024. These surveys identified the following habitat types, ordered in a landward direction (including UK Hab codes in brackets):

a. beach (t2h);
b. coastal vegetated shingle (s3b);
c. coastal saltmarsh (t2a) including saline lagoons (t2g); and
d. Dunwich River (r2).

5.2.52 The surveys also included those within the DOL at Sallow Walk Covert comprising:

a. other lowland dry acid grassland (g1a5);
b. built linear feature (u1e);
c. other woodland; mixed; mainly broadleaved (w1h5);
d. other neutral grassland (g3c); and
e. other Scot's Pine woodland (w2b).

Non-breeding bird surveys

5.2.53 Wintering bird surveys were carried out in 2022/23 focused on a number of key locations across the Proposed Onshore Scheme (based upon the optioneering boundary for the non-statutory consultation held in October – December 2022). This included six visits (November 2022 to March 2023) focussed upon locations which included those of relevance to this assessment comprising habitats adjacent to the intertidal habitats of Walberswick Beach (north of the site and within Walberswick Saltmarsh County Wildlife Site (CWS)), the crossing of the Minsmere-Walberswick designated sites from offshore to onshore at Walberswick Beach and at Sallow Walk Covert, habitats along the River Blyth and Minsmere River corridors.

5.2.54 The 2022/23 surveys identified the majority of the qualifying wintering species along the River Blyth corridor, within and immediately adjacent to the Minsmere-Walberswick SPA and Ramsar site including qualifying wintering species gadwall (*Anas strepera*), common redshank (*Tringa totanus*), European white-fronted goose (*Anser albifrons*) and northern shoveler (*Spatula clypeata*).

5.2.55 While the results noted considerable bird interest in the fields to the east and west of Sallow Walk Covert, identification of qualifying wintering species was

limited to 16 gadwall in January 2023 adjacent to a farm reservoir approximately 300m south of the DOL. In addition, a single marsh harrier was noted in the fields to the west of Sallow Walk Covert and the farm reservoir, noting that the species is listed as a breeding feature of the Minsmere-Walberswick SPA only.

5.2.56 A single Eurasian teal (*Anas crecca*) was identified using the intertidal habitats within the offshore to onshore crossing of the Minsmere-Walberswick SPA and Ramsar site. This species is a breeding feature only noted within the citation as part of the wintering assemblage. Greater numbers of wintering birds were identified within Walberswick Saltmarsh CWS to the north including qualifying wintering species common redshank in addition to Eurasian teal, dunlin (*Calidris alpina*), a single ringed plover (*Charadrius hiaticula*) and individual marsh harrier. Small numbers of gadwall were identified along the Minsmere River corridor, west of the Minsmere-Walberswick SPA and Ramsar site associated with the Minsmere Valley Reckford Bridge to Beveriche Manor CWS. Common redshank is a wintering species of the Alde-Ore Estuary SPA and Ramsar site and noted within the citation as part of the wintering assemblage for the Minsmere-Walberswick designated sites.

5.2.57 A further three marsh harrier and two water rail (*Rallus aquaticus*) were identified within the Minsmere-Walberswick designated sites south of Lodge Road and Sallow Walk Covert towards the coast, noting that water rail is listed within the wintering site information for the Ramsar site only and is not a qualifying species.

5.2.58 The 2023/24 wintering bird surveys included six visits (October 2023 to March 2024) which included locations of relevance to this assessment comprising the proposed Landfall Site at Walberswick and the reedbeds to the south (within the Minsmere-Walberswick SPA and Ramsar site), the crossing of the Minsmere-Walberswick designated sites from offshore to onshore at Walberswick Beach and at Sallow Walk Covert, habitats along the Walberswick Cable Corridor and habitats along the River Blyth.

5.2.59 The majority of bird interest was noted within the Minsmere-Walberswick SPA and Ramsar site and highly associated with the pools and marsh south of the Dunwich River towards the coast, with qualifying wintering species gadwall present in addition to Eurasian teal and common redshank (see 2022/23 results for further information on the relevance of these species).

5.2.60 In addition, the surveys of the Walberswick Cable Corridor running to the west of the proposed Landfall Site identified the farm reservoir west of Sallow Walk Covert to be regularly used by a range of wintering species with significantly higher numbers noted in October and November 2023. These included qualifying wintering species gadwall in addition to northern shoveler and lesser black-backed gull (*Larus fuscus*) and Eurasian teal (both noted in the wintering information for the Minsmere-Walberswick designated site information). No qualifying species were identified using the proposed Landfall Site. Red-throated diver was observed offshore only.

5.2.61 The 2024/25 wintering bird surveys included six visits (October 2024 to March 2025) focussed upon habitats along the Walberswick Cable Corridor and habitats along the River Blyth. The results were similar to previous years, with the majority of bird interest noted within the Minsmere-Walberswick SPA and Ramsar site and highly associated with the pools and marsh south of the Dunwich River towards the coast, with regularly occurring qualifying wintering species gadwall, in addition to northern shoveler, Eurasian teal and common redshank. Individual or low numbers/occurrences of black-tailed godwit, great white egret and little egret were also noted within these habitats in addition to occasional marsh harrier. During these surveys small numbers of bearded tit and a single Cetti's warbler were observed (November 2024 only) within the reedbeds immediately south of the proposed Landfall Site.

5.2.62 The farm reservoir was again noted to be regularly used by qualifying species and again with the highest numbers in October, with good numbers of gadwall and northern shoveler. Also noted were two scaup (*Aytha marila)* in December 2024.

5.2.63 The results of these surveys are provided in **Appendix G Relevant Bird Survey Results**.

Breeding bird surveys

5.2.64 Breeding bird surveys comprised six evenly spaced visits between March and July 2024 which included Transects. This of greatest relevance to this assessment comprise:

a. Transect 5 including land along the River Blyth corridor;
b. Transect 6 including land along the Walberswick Corridor and including species specific viewpoint surveys for breeding marsh harrier and Eurasian bittern;
c. Transect 7 including land at Ten Acre Covert (part of the Minsmere-Walberswick SPA and Ramsar site) and near Hinton; and
d. Transect 8 including land at the crossing of the Minsmere River and the associated habitats.

5.2.65 No breeding territories for any qualifying species were identified within or immediately adjacent to the DOL for the Proposed Onshore Scheme along the Walberswick Corridor (Transect 6), with limited bird interest predominantly comprising passerine species typical of arable habitats noted in these areas. Qualifying breeding feature (of Sandlings SPA) woodlark (*Lullula arborea*) was noted to the north of the DOL and within the Minsmere-Walberswick designated sites at Tinker's Walk, which is not listed as a qualifying feature of the Minsmere-Walberswick designated sites but is noted within the available information.

5.2.66 Breeding European nightjar (*Caprimulgus europaeus*) was noted to the north of the DOL for the Proposed Onshore Scheme within Walberswick Common and was recorded on one day on an acoustic recording device to the southwest of the Walberswick Corridor and adjacent to the Dunwich Road (Transect 7). This

recording may indicate the presence of a breeding territory most likely within Ten Acre Covert. Also identified during the Transect 7 surveys was a probable breeding territory for oystercatcher (*Haematopus ostralegus*) to the west of Ten Acre Covert, a breeding feature of the Alde-Ore Estuary designated sites. The surveys of the crossing of the Minsmere River (Transect 8) identified a probable breeding territory for gadwall and oystercatcher and two for Cetti's warbler.

5.2.67 The qualifying bird interest was largely focussed within the Minsmere-Walberswick designations, within the reedbeds and marshes immediately south and southwest of the proposed Landfall Site. Within these habitats, marsh harrier and two booming male Eurasian bittern were identified during the viewpoint surveys with a breeding territory for gadwall towards the coast. In addition, 12 Cetti's warbler (*Cettia cetti*) and two bearded tit (*Panurus biamicus)* breeding territories were identified within these habitats with Cetti's Warbler within the DOL. Cetti's warbler and bearded tit were noted within the 1991 citation for the Minsmere-Walberswick SPA however are not a qualifying feature of the European site. Little tern (*Sterna albifrons*) and common tern (*Sterna hirundo*) have only been observed on passage or foraging offshore with no evidence of breeding recorded in proximity to the DOL for the Proposed Onshore Scheme.

5.2.68 The results of these surveys are provided in **Appendix G Relevant Bird Survey Results**.

Consideration of functionally linked land

5.2.69 The wintering bird surveys undertaken for the Proposed Onshore Scheme have identified key locations beyond the boundaries of the nearby European sites for the qualifying interest features. These comprise the River Blyth/Blythburgh Marshes and the farm reservoir within the Walberswick Corridor, west of Sallow Walk Covert. Sections of the River Blyth Corridor closest to the Blyth Estuary are considered likely to be functionally linked to the Minsmere-Walberswick designated sites and Suffolk Wildlife Trust (SWT) and the Royal Society for the Protection of Birds (RSPB) have stated that Blythburgh Marshes CWS should be considered as such for the Blyth Estuary (as part of the Minsmere-Walberswick SPA and Ramsar site) as part of non-statutory consultation in November 2023. Blythburgh Marshes CWS is located 673m north of the Proposed Onshore Scheme DOL. Given the distance of the CWS from any other European site (the next closest is Benacre to Easton Bavents SPA at over 5km), it is not considered to be functionally linked to any other European site.

5.2.70 On the basis of the wintering bird survey results, the farm reservoir is considered to potentially be functionally linked to the Minsmere-Walberswick designated sites. The farm reservoir is located approximately 300m south of the Proposed Onshore Scheme DOL. Given the distance of this reservoir from Benacre to Easton Bavents SPA (over 5km), it is not considered to comprise FLL for this site or any other more distant European designation.

5.2.71 The survey findings, in addition to the presence of high-quality habitat in the surrounding area, do not indicate that any habitat within any other area required for the Proposed Onshore Scheme comprises functionally linked land for qualifying breeding or wintering interest features of the relevant European sites. Summary guidance on IRZ for birds relating to SSSI (Ref 23) indicates that the foraging ranges for wintering birds (excepting wintering waders and grazing wildfowl) should be considered to 500m and up to 2km for wintering waders (see also **Section 3.4** consideration of functionally linked land for further context).

5.2.72 Minsmere-Walberswick Ramsar site is the only European site with invertebrate qualifying features that falls within the 1km ZoI. The invertebrate species are considered likely to be highly correlated with the high-quality habitats within the designated site and include those that are restricted to coastal shingle including moth species (*Ethmia bipunctella)* and *(Gymnancycla canella)* and sand wasp *(Podalonia affinis)* and those with marshland such as the silver barred moth (*Deltote bankiana*) and the twin-striped dark splay cranefly (*Erioptera bivittate*) associated with brackish water, coastal marshland and saltmarsh habitats. The habitats outside of the Ramsar site and within the DOL are not considered to be functionally linked to the European site for the invertebrate assemblage.

5.2.73 Harbour porpoise is a qualifying species of the Southern North Sea SAC. As this is a marine species, no additional terrestrial habitats beyond the immediate intertidal areas (within the Proposed Onshore Scheme DOL) at Walberswick Beach are considered to have any potential to be functionally linked to the SAC.

Habitat loss (functionally linked or supporting habitat)

5.2.74 There will be no direct loss (permanent or temporary) of any qualifying habitat within any European site. As identified above, none of the habitats within the Proposed Onshore Scheme DOL (including those outside of any European site and within a relevant ZoI) have been identified as comprising supporting or functionally linked habitats for the qualifying species of any European site. Therefore, no appreciable effect for the Proposed Onshore Scheme alone through direct habitat loss or of functionally linked land or supporting habitat is identified during construction, operation or decommissioning for qualifying habitats or the qualifying species of any European site.

Habitat damage or degradation

Frac-out

5.2.75 There are two locations where the proposed Underground HVDC Cable Corridor would cross European sites by HDD methods:

a. From the proposed Landfall Site to offshore, crossing the Minsmere to Walberswick Heaths and Marshes SAC, Minsmere-Walberswick SPA and Ramsar site and the intertidal habitats of the Outer Thames Estuary SPA.
b. At Sallow Walk Covert, crossing the Minsmere to Walberswick Heaths and Marshes SAC and Minsmere-Walberswick SPA and Ramsar site.

5.2.76 No other European sites will be crossed as part of the proposed Underground HVDC Cable Corridor installation through either open-cut or trenchless methods.

5.2.77 The potential for habitat degradation from frac-out (an unplanned loss of drilling fluid to the surface) during construction has been considered for the designated sites that would be crossed with trenchless cable installation methods. Drilling fluids involved in frac-out events are freshwater-based, inert bentonite (a clay rock) suspensions categorised as absolute non-hazardous waste in the European Waste Catalogue (Code 01 05 04, Ref 96) and which are considered to pose little or no risk to the environment (PLONOR, Ref 98). Above ground discharge of drilling fluid onto soil would not have toxic effects upon the habitats of the designated sites or the species they support.

5.2.78 There is potential for such frac-out incidents to result in habitat damage or degradation through the physical impacts of the deposition of clay. This could potentially smother and kill vegetation and change the composition of the substrates upon which qualifying habitats depend. As such, these techniques have the potential to result in direct impacts upon the qualifying habitats and the habitats upon which the qualifying species rely as a result of frac-out.

5.2.79 As identified, the habitats within the DOL of the Minsmere-Walberswick SPA and the Outer Thames Estuary SPA, including those within the sections which would be crossed by trenchless techniques, are not considered to comprise key areas for qualifying bird species or to be functionally linked for any qualifying species of any European site. As such, no impacts to supporting habitats or functionally linked land through habitat damage or degradation from frac-out are identified. However, the potential for impacts to qualifying habitats (including Annex I habitats) of the Minsmere to Walberswick Heaths & Marshes SAC and Minsmere-Walberswick Ramsar site is identified. In addition, these high-quality habitats are considered to include those that could support the invertebrate assemblage species of the Minsmere-Walberswick Ramsar site, such as those associated with coastal and heathland habitats and the potential for impacts to these habitats and species as a result of frac-out is identified.

5.2.80 In order to adequately assess and mitigate the potential impacts of frac out upon qualifying habitats (including Annex I habitats) and the invertebrate assemblage, a frac-out risk assessment would be required to be undertaken which would assess the likelihood of the risk of frac-out and would be based upon the results of ground investigation works. The potential for habitat degradation through frac-out is limited to the construction phase when the drilling will be undertaken and no potential for impacts during operation or decommissioning are identified.

5.2.81 In summary, the potential for LSE for the Proposed Onshore Scheme alone through habitat damage/degradation from frac-out during construction cannot be ruled out for the qualifying habitats and invertebrate assemblage of Minsmere to Walberswick Heaths & Marshes SAC and Minsmere-Walberswick Ramsar site. A frac-out risk assessment, further assessment of the potential for habitat

damage or degradation and any mitigation required (such as a frac-out contingency plan and clean-up operations) will be considered within the HRA Stage 2 RIAA for these sites.

5.2.82 No other appreciable effects for the Proposed Onshore Scheme alone during construction through habitat damage or degradation as a result of frac-out for the sites crossed by trenchless techniques is identified. No effect during operation or decommissioning for these sites or for any other European site not crossed by trenchless techniques during any phase is identified.

Water quality and quantity

5.2.83 Changes in water quality or quantity during construction such as the accidental release of pollutants and changes in flow have the potential to damage or degrade qualifying habitats or supporting habitats for qualifying species through hydrological connections to European sites. Standard pollution prevention measures to protect the general water environment and construction drainage design to manage quality and quantity are integral to the design of the Proposed Onshore Scheme and will be secured as embedded measures through the Outline Onshore CoCP. However, given the current stage of design development, it is unknown if additional pollution prevention measures will be required to specifically protect European sites and their qualifying features.

5.2.84 No hydrological connection exists between the Proposed Onshore Scheme and Benacre to Easton Bavents Lagoons SAC and Benacre to Easton Bavents SPA or Orfordness – Shingle Street SAC. The qualifying harbour porpoise of the Southern North Sea SAC or the intertidal habitats of the Outer Thames Estuary SPA (upon which the bird species rely) are considered unlikely to be adversely affected by any potential pollution event resulting from changes in water quality or quantity. Given distance from the DOL of Sandlings SPA, Alde-Ore & Butley Estuaries SAC, Alde-Ore Estuary SPA and Ramsar site and Staverton Park & The Thicks, Wantisden SAC and the embedded control measures to protect the general water environment, no appreciable effect is identified through changes in water quality or quantity for these sites.

5.2.85 The potential for LSE during construction through habitat damage/degradation as a result of changes in water quality or quantity for the qualifying habitats of Minsmere to Walberswick Heaths & Marshes SAC and Minsmere-Walberswick Ramsar site and the habitats upon which the qualifying invertebrate assemblage and bird species of the Minsmere-Walberswick SPA and Ramsar site rely cannot be ruled out.

5.2.86 The operational phase is limited to maintenance of elements of the Proposed Onshore Scheme and cable route inspections and it is anticipated that monitoring activities will be generally limited to small numbers of individuals undertaking non-intrusive works and using established access routes. In the very unlikely event that an underground cable fault occurs (i.e., a cable strike), cable repairs may be required. The activities involved would be similar to installation, typically limited to

the location of the repair. However, it is anticipated that given the small-scale and localised nature of these repairs (if required) that they would not result in impacts to the water environment such as that would require specific mitigation to protect the qualifying features of any European site. As such, no appreciable effect for the Proposed Onshore Scheme alone through habitat degradation from changes in water quality or quantity is identified during operation for any European site.

5.2.87 There are no plans to decommission the Proposed Onshore Scheme. However, in the event that the Proposed Onshore Scheme is decommissioned the underground components would be left in situ and all above ground assets would be removed to foundation level and foundations capped, and permanent access roads would be left in situ. The removals of assets would be limited to Kiln Lane Substation and the proposed Converter Station and there is a lack of hydrological connections between these assets and any European site. Should any underground cabling be required to be removed (rather than left in-situ as is anticipated), embedded control measures would protect the general water environment. As such, no appreciable effect for the Proposed Onshore Scheme alone through habitat damage or degradation from changes in water quality of quantity is identified during decommissioning for any European site.

5.2.88 In summary, the potential for LSE for the Proposed Onshore Scheme alone through habitat damage/degradation from changes in water quality or quality during construction cannot be ruled out for the qualifying habitats and the habitats upon which the qualifying invertebrate assemblage and bird species rely of the Minsmere to Walberswick Heaths & Marshes SAC and Minsmere-Walberswick SPA and Ramsar site. Further assessment including any mitigation required will be considered within the HRA Stage 2 RIAA for these sites. No other appreciable effects for the Proposed Onshore Scheme alone during construction, operation or decommissioning through habitat damage or degradation as a result of changes in water quality or quantity are identified.

Air quality

5.2.89 Changes in air quality through nitrogen deposition during construction from increased traffic movements could result in degradation of qualifying habitats or habitats upon which the qualifying species rely. An initial risk assessment undertaken to inform **Chapter 7 Air Quality** of the PEIR has identified Minsmere to Walberswick Heaths & Marshes SAC, Minsmere-Walberswick SPA and Ramsar site, Outer Thames Estuary SPA and Southern North Sea SAC as falling within 200m of the DOL and therefore at risk of air quality changes. Beyond 200m, concentrations are expected to have dispersed to concentrations equivalent to background levels and no impacts are anticipated.

5.2.90 Given the current stage of design development, traffic data to inform the ARN and air quality assessment modelling of the potential for nitrogen deposition has not been carried out. Given that the Southern North Sea SAC is wholly a marine site, the habitats present are not considered to be sensitive to nitrogen

deposition. The intertidal habitats of the Outer Thames Estuary SPA (upon which the qualifying birds rely) are considered unlikely to be impacted by changes in air quality.

5.2.91 The potential for LSE during construction through habitat damage/degradation as a result of changes in air quality for the qualifying habitats and habitats upon which the qualifying invertebrate assemblage and bird species of Minsmere to Walberswick Heaths & Marshes SAC, Minsmere-Walberswick SPA and Ramsar site cannot be ruled out.

5.2.92 The operational phase of the Proposed Onshore Scheme is anticipated to be limited to small-scale and localised monitoring and maintenance of the elements and is not anticipated to result in any operational increases in traffic such as could impact the qualifying features of any European site through nitrogen or dust deposition. As such, no appreciable effect is identified for any other European site alone through habitat degradation from changes in air quality during operation.

5.2.93 Should there be a decommissioning phase of the Proposed Onshore Scheme this anticipated to be limited to the removal of above ground assets, however could include the removal of some underground cabling. This would not be likely to comprise activities that would generate levels of additional traffic or dust such that would result in changes in air quality for those European sites in proximity to any access road. No European sites are located in proximity to Kiln Lane Substation or the proposed Converter Station. As such, no appreciable effect is identified for any European site alone through habitat degradation from changes in air quality during decommissioning.

5.2.94 In summary, the potential for LSE for the Proposed Onshore Scheme alone through habitat damage/degradation from changes in air quality during construction cannot be ruled out for the qualifying habitats and habitats upon which the qualifying invertebrate assemblage and bird species rely of Minsmere to Walberswick Heaths & Marshes SAC, Minsmere-Walberswick SPA and Ramsar site. Further assessment including any mitigation required will be considered within the HRA Stage 2 RIAA for these sites. No other appreciable effects for the Proposed Onshore Scheme alone during construction, operation or decommissioning through habitat damage or degradation as a result of changes in air quality are identified.

Direct mortality or injury

5.2.95 There will be no requirement for habitat loss within any European site, except the minor temporary loss of hedgerow to widen an existing hedgerow gap that provides farm access from the B1387, which is to be utilised as a construction haul route. This short section of roadside hedgerow within Minsmere to Walberswick Heaths & Marshes SAC, Minsmere-Walberswick SPA and Ramsar site is considered to be of negligible importance to qualifying species of these European sites. The only sites to be crossed (such crossings will be undertaken

by trenchless methods with no crossings via open-cut) will be Minsmere to Walberswick Heaths & Marshes SAC, Minsmere-Walberswick SPA and Ramsar site and the intertidal habitats of Outer Thames Estuary SPA. Open-cut and trenchless methods will occur outside of the European sites, with suitable buffers, and therefore there will be no requirement for any construction activity such as plant or vehicle movement within any European site that could cause direct mortality or injury to any qualifying species, including breeding and non-breeding bird species.

5.2.96 The risk of frac-out during construction as trenchless drilling is undertaken has been identified and it is considered that the qualifying invertebrate species and assemblage of Minsmere-Walberswick Ramsar site is likely to be highly associated with the high-quality habitats within the European site including the habitats to be crossed via trenchless methods. It is therefore identified that LSE cannot be ruled out for direct mortality in the event of a frac-out that resulted in breakout of bentonite that could potentially smother and kill vegetation and invertebrates using these habitats.

5.2.97 No relevant areas within the Proposed Onshore Scheme DOL (those that could be directly impacted) have been identified as comprising supporting habitats or being functionally linked for any qualifying species of any European site and specifically the results of the breeding and non-breeding bird surveys undertaken have not identified qualifying species as using these habitats. Furthermore, the construction activities associated with the installation of above ground infrastructure (limited to the proposed Converter Station and Kiln Lane Substation) and underground cabling (trenched and trenchless) are largely associated with arable fields and with limited potential to give rise to direct mortality or injury. As such, no appreciable effect through direct mortality or injury of qualifying species using functionally linked or supporting habitat is identified.

5.2.98 The operational phase is anticipated to be limited to small-scale routine monitoring and maintenance activities that would be unlikely to result in direct mortality or injury of any qualifying species. In the event that repairs of a greater scale were required, these would still be carried out outside of all European sites and with no areas identified as comprising functionally linked land. Frac-out (and the risk to the invertebrate species and assemblage) would be limited to construction only. As such, no appreciable effect is identified to the qualifying species of any European site through direct mortality of injury during operation.

5.2.99 Should there be a decommissioning phase of the Proposed Onshore Scheme this is likely to be limited to the removal of above ground assets and not within or in proximity to any European site or within any supporting or functionally linked land for any qualifying species. As such, no LSE is identified for the qualifying species of any European site through direct mortality or injury during decommissioning.

5.2.100 In summary, the potential for LSE for the Proposed Onshore Scheme alone through direct mortality of qualifying invertebrates of the Minsmere-Walberswick

Ramsar site during construction cannot be ruled out. Further assessment including any mitigation required will be considered within the HRA Stage 2 RIAA for these sites. No other appreciable effects for the Proposed Onshore Scheme alone during construction, operation or decommissioning through direct mortality or injury are identified.

Disturbance

5.2.101 Construction activities including traffic and vehicle movements, the use of machinery or generators, vegetation clearance and lighting and the presence of site personnel could result in the disturbance of qualifying species through visual or noise impacts within the European sites or while using supporting habitats/functionally linked habitats. This could include during construction of the proposed Landfall and the trenched and trenchless techniques for the proposed Underground HVDC Cable facilitate the Proposed Onshore Scheme. This could cause disturbance or displacement and in turn have the potential to affect the energetic resources of the qualifying bird species and longer term viability of their populations.

5.2.102 Construction of the proposed Landfall would take up to 20 months and has the potential for disturbance of qualifying ornithological interest within the Minsmere-Walberswick SPA and Ramsar site, noting the baseline surveys have not recorded that the proposed Landfall Site itself is used by qualifying bird species. The design includes a buffer from the designated sites to the proposed Landfall Site of approximately 100m. The closest habitats within these sites to the proposed Landfall Site comprise reedbeds to the south at Lampland Marshes, Town Salts, Oldtown Marshes and Corporation Marshes. While the survey results have not indicated high levels of use by qualifying non-breeding and breeding species in the reedbeds immediately to the south (likely to be attributed to existing levels of disturbance), good numbers have been noted further towards the coast.

5.2.103 The proposed Underground HVDC Cable Corridor includes two trenchless crossings: one offshore to onshore beneath Minsmere-Walberswick SPA and Ramsar site and the intertidal habitats of Outer Thames Estuary SPA; and a second beneath the Minsmere-Walberswick designated sites at Sallow Walk Covert. While high numbers of qualifying non-breeding and breeding species have not been identified as using these specific habitats, those in the wider landscape could be impacted by noise or visual disturbance originating from drill pits.

5.2.104 The qualifying features of the Outer Thames Estuary SPA (tern species and red-throated diver) have not been identified as using the intertidal habitats during the baseline surveys, having only been recorded offshore. It is considered unlikely that any of the construction activities to facilitate the Proposed Onshore Scheme would cause any appreciable effect through disturbance impacts to the qualifying bird species of the Outer Thames Estuary SPA.

5.2.105 The proposed Underground HVDC Cable Corridor includes a section along the Walberswick Cable Corridor which is in proximity to the Minsmere-Walberswick SPA and Ramsar site. Whilst use of the habitats within the Proposed Onshore Scheme DOL or those immediately adjacent have not been identified for the qualifying non-breeding or breeding bird species through baseline surveys, those in the wider landscape could be impacted by noise or visual disturbance and the potential. This could include the areas of potentially functionally linked habitat comprising the farm reservoir west of Sallow Walk Covert and the Blythburgh Marshes CWS. The potential for LSE during construction through disturbance to the qualifying bird species of the Minsmere-Walberswick SPA and Ramsar site cannot be ruled out.

5.2.106 No other European site is considered likely to be impacted by noise or visual disturbance given the distance from any construction activity and no functionally linked land for any other European site has been identified (with the exception of for Minsmere-Walberswick designated sites as identified above). The qualifying harbour porpoise of the Southern North Sea SAC is considered unlikely to be adversely affected by any disturbance impacts through construction of the Proposed Onshore Scheme.

5.2.107 The operational phase of Proposed Onshore Scheme is limited to maintenance of elements of the Proposed Onshore Scheme and cable route inspections and it is anticipated that monitoring activities will be generally limited to small numbers of individuals undertaking non-intrusive works and using established access routes. It is anticipated that should any repairs be required, these would be small-scale, localised and short in duration and no appreciable effect identified through disturbance impacts.

5.2.108 There are no plans to decommission the Proposed Onshore Scheme. However, in the event that the Proposed Onshore Scheme is decommissioned the underground components would be left in situ and removal of assets would be limited to Kiln Lane Substation and the proposed Converter Station. These assets are not in proximity to any European site and as such no appreciable effect is identified through disturbance impacts. However, dependent on specific requirements the redundant cables could either be left in-situ, or all or parts of the proposed Underground HVDC Cable could be removed for recycling. The potential for LSE through disturbance during removal of cable cannot be ruled out for the Minsmere-Walberswick SPA and Ramsar site.

5.2.109 In summary, the potential for LSE for the Proposed Onshore Scheme alone through disturbance to the qualifying bird species of the Minsmere-Walberswick SPA and Ramsar site cannot be ruled out during construction and decommissioning. Detailed noise modelling and an assessment of the potential for noise and visual impacts will be included within the HRA Stage 2 RIAA for these sites. No other appreciable effects for the Proposed Onshore Scheme alone during construction, operation or decommissioning through disturbance are identified.

Fragmentation

5.2.110 Habitat fragmentation can have a number of distinct effects including for the species they support, including:

a. subdivision of species' habitat into smaller patches, some of which might be too small to contribute positively to a metapopulation across multiple sites in the long term;
b. isolation of habitat patches and reduction of successful species immigration and emigration;
c. increased 'edge effects' – environmental changes that occur at the boundary between one type of land cover and another; and
d. impaired function of some ecosystem processes, such as hydrological flows (Ref 97).

5.2.111 The Proposed Onshore Scheme would bisect Minsmere to Walberswick Heaths & Marshes SAC, Minsmere-Walberswick SPA and Ramsar site and the intertidal habitats of Outer Thames Estuary SPA. Trenchless techniques have been embedded into the design of the Proposed Onshore Scheme and as such, no fragmentation of these sites would occur during construction. As the Proposed Onshore Scheme would not bisect any other European site, no fragmentation during construction is identified for any other European site. No fragmentation during operation or decommissioning due to the activities not giving rise to any potential for fragmentation impacts. No appreciable effect for the Proposed Onshore Scheme alone during construction, operation or decommissioning through fragmentation is identified.

In-combination

5.2.112 The potential for LSE for the Proposed Onshore Scheme alone cannot be ruled out for:

a. habitat damage/degradation from frac-out during construction out for the qualifying habitats and invertebrate assemblage of Minsmere to Walberswick Heaths & Marshes SAC and Minsmere-Walberswick Ramsar site;
b. habitat damage/degradation from changes in water quality or quality during construction for the qualifying habitats and the habitats upon which the qualifying invertebrate assemblage and bird species rely of the Minsmere to Walberswick Heaths & Marshes SAC and Minsmere-Walberswick SPA and Ramsar site;
c. habitat damage/degradation from changes in air quality during construction for the qualifying habitats and habitats upon which the qualifying invertebrate assemblage and bird species rely of Minsmere to Walberswick Heaths & Marshes SAC, Minsmere-Walberswick SPA and Ramsar site;
d. direct mortality of qualifying invertebrates of the Minsmere-Walberswick Ramsar site during construction; and
e. disturbance to the qualifying bird species of the Minsmere-Walberswick SPA and Ramsar site.

5.2.113 The identified LSE for these European sites will be subject to the integrity test within the RIAA for the Proposed Onshore Scheme where an in-combination assessment with other plans and projects will be carried out, if required.

5.2.114 No other appreciable effects for the Proposed Onshore Scheme alone during construction, operation or decommissioning have been identified which could act in-combination with any other plan or project.

Table 5.3: Minsmere to Walberswick Heaths & Marshes SAC – site description

Minsmere to Walberswick Heaths & Marshes SAC [UK0012809] (Ref 68; Ref 69)	
Relevance	Proposed Onshore Scheme
Site size (Ref 70)	1256.57ha
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	Partially within, crossing at Sallow Walk Covert and to the south east of the proposed Landfall Site. Partially within at Tinker's Walk/the B1387. Directly adjacent at Newdelight Covert/Dunwich Road and at Ten Acre Covert/Butcher's Lane
Distance and direction from the Proposed Onshore Scheme DOL (Full Build Out of Kiln Lane Substation Scenario)	Partially within, crossing at Sallow Walk Covert and to the south east of the proposed Landfall Site. Partially within at Tinker's Walk/the B1387. Directly adjacent at Newdelight Covert/Dunwich Road and at Ten Acre Covert/Butcher's Lane
Qualifying features	Annex I habitats: • H1210 Annual vegetation of drift lines; • H1220 European dry heaths; and • H4030 Perennial vegetation of stony banks. (Coastal shingle vegetation outside the reach of waves).
Qualifying features that meet the Proposed Onshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats and habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.
Threats/pressures (Ref 71; Ref 72)	• Changes in abiotic conditions, pollution to groundwater (point sources and diffuse sources), outdoor sports and leisure activities, recreational activities, invasive non-native species and problematic native species; • Public access/disturbance – affecting all qualifying habitats, trampling of heathland habitat and vegetated shingle (and dune) habitat is an issue;

Minsmere to Walberswick Heaths & Marshes SAC [UK0012809] (Ref 68; Ref 69)				
				• Air pollution – can impact on vegetation diversity, deposits of nitrogen exceed the threshold limit above which the diversity of heathland vegetation begins to be altered and adversely impacted; • Water quality - inappropriate surface and ground water quality may impact on SAC habitats; and • Deer – high numbers of red deer (*Cervus elaphus*) are damaging habitats including European dry heaths (erosion and reduced structural diversity).

Table 5.4: Minsmere to Walberswick Heaths & Marshes SAC – Screening For LSE

Broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
Proposed Onshore Scheme				
Annex I habitats	Habitat damage or degradation	Construction	LSE	Refer to **Section 5.2 Habitat damage or degradation**. The potential for LSE is identified on the basis of frac-out during trenchless drilling beneath the European site and changes in water quality, quantity and air quality.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No effect through frac-out is identified on the basis that trenchless techniques would be limited to the construction phase. The activities during the operational phase would be small-scale and/or localised and unlikely to result in any changes to water quality or quantity or air quality such that no appreciable effect is identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No effect through frac-out is identified on the basis that trenchless techniques would be limited to the

Broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
				construction phase. Should there be a decommissioning phase, this is anticipated to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quantity or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Habitat fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect alone is identified on the basis that the crossing of the European site would be undertaken using trenchless methods as embedded into the design of the Proposed Onshore Scheme.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation.** The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	LSE	Refer to **Section 5.2 In-combination effects**. The potential for LSE alone is identified for habitat damage or degradation on the basis of frac-out during trenchless drilling beneath the European site and changes in water quality, quantity and air quality during construction. The potential for in-combination effects will be considered within the RIAA, if required.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act

Broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
				in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects.** No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.5: Minsmere – Walberswick SPA - site description

Minsmere - Walberswick SPA [UK9009101] (Ref 73; Ref 74)	
Relevance	Proposed Scheme
Site size (Ref 75)	1998ha
Distance and direction from the offshore DOL	Overlaps
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	Partially within, crossing at Sallow Walk Covert and to the south east of the proposed Landfall Site. Partially within at Tinker's Walk/the B1387. Directly adjacent at Newdelight Covert/Dunwich Road and at Ten Acre Covert/Butcher's Lane
Distance and direction from the Proposed Onshore Scheme DOL (Full Build Out of Kiln Lane Substation Scenario)	Partially within, crossing at Sallow Walk Covert and to the south east of the proposed Landfall Site. Partially within at Tinker's Walk/the B1387. Directly adjacent at Newdelight Covert/Dunwich Road and at Ten Acre Covert/Butcher's Lane
Qualifying features	Qualifies as it hosts the following Annex I birds: • A195 Little tern; breeding; • A021 Eurasian bittern (*Botauris stellaris*); breeding; • A081 Marsh harrier (*Circus aeruginosus*); breeding; • A132 Pied avocet (*Recurvirostra avosetta);* breeding;

Minsmere - Walberswick SPA [UK9009101] (Ref 73; Ref 74)	
	• A224 European nightjar (*Caprimulgus europaeus*); breeding; and • A082 Hen harrier (*Circus cyaneus*); non-breeding. Qualifies as it hosts the following migratory birds: • A051 Gadwall (*Anas strepera*); breeding & non-breeding; • A052 Eurasian teal (*Anas crecca*); breeding; • A056 Northern shoveler (*Anas clypeata*); breeding & non-breeding; and • A394 Greater white-fronted goose (*Anser albifrons albifrons*); non-breeding. The SPA is also of national importance for an outstandingly diverse assemblage of breeding birds of marshland and reedbed habitats, including Eurasian bittern, garganey (*Anas querquedula),* marsh harrier, water rail (*Rallus aquaticus*), Cetti's warbler (*Cettia cetti*) and Savi's warbler (*Locustella lusciniodes*). Also notable is an assemblage of wintering waterfowl including, in addition to species listed above, Bewick's swan (*Cyqnus columbianus*), Eurasian wigeon (*Anas penelope*), Eurasian teal, pied avocet; spotted redshank (*Tringa erythropus*); and common redshank (*Tringa tetanus*). Also notable is a nationally important breeding population of bearded tit (*Panurus biamicus*).
Qualifying features that meet the Proposed Offshore Scheme Screening criteria	• A195 Little tern; breeding; • A051 Gadwall; breeding & non-breeding; • A052 Eurasian teal; breeding; • A056 Northern shoveler; breeding & non-breeding; and • A394 Greater white-fronted goose; non-breeding.
Qualifying features that meet the Proposed Onshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme, assessed in Screening **Table 5.6** as broad qualifying features non-breeding birds and breeding birds.
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site.

Minsmere - Walberswick SPA [UK9009101] (Ref 73; Ref 74)	
Threats/pressures (Ref 76,Ref 72)	• Changes in abiotic conditions, pollution to groundwater (point sources and diffuse sources), fishing and harvesting aquatic resources, outdoor sports and leisure activities, interspecific floral relations; • Coastal squeeze – as coastal change takes place there's a loss of SPA wintering and breeding habitat; • Public access/disturbance – human, dog and aircraft resulting in SPA bird disturbance; • Changes in species distributions – downward trend in population numbers of woodlark (*Lullula arborea*), European nightjar, marsh harrier and little tern presents concerns. Reasons for decline (predation, disturbance, habitat management, food sources, possibly persecution. • Invasive species – affecting SPA bird habitats; • Inappropriate pest control – affecting breeding European nightjar and woodlark; • Air pollution – affecting breeding and non-breeding gadwall, northern shoveler and pied avocet, breeding European nightjar and woodlark, non-breeding greater white-fronted goose and European dry heaths; • Water pollution – affecting breeding and non-breeding gadwall, northern shoveler, pied avocet and non-breeding greater white-fronted goose; • Deer – affecting breeding and non-breeding Eurasian bittern, breeding European nightjar and woodlark and European dry heaths; and • Fisheries: commercial marine and estuarine – affecting breeding little tern.

Table 5.6: Minsmere-Walberswick SPA- Screening for LSE

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
Proposed Offshore Scheme				
Little tern	Temporary increase and	Construction	No LSE	Little tern are in general visually foraging birds which means they are dependent on clear water to identify prey. They are therefore sensitive to

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
	deposition of suspended sediments	Operation	No LSE	changes in turbidity (or water clarity) (Ref 77). The spatial area covered by a sediment plume will be temporary and will be limited in comparison to the surrounding area available for tern foraging outside of the SPA. See **paragraph 5.2.20** for justification. Therefore, given the short duration of SSCs related to the Proposed Offshore Scheme, no LSE are predicted.
		Decommissioning	No LSE	
Seaducks and geese	Temporary increase and deposition of suspended sediments	Construction	No LSE	Seaducks are present at this site as designated species. Eurasian teal, gadwall and northern shoveler are classified as 'dabbling ducks' rather than 'diving ducks' according to the Wildlife Trust (Ref 78). Predominantly surface feeders, they may on occasion 'shallow dive' in search of invertebrates, shellfish and aquatic snails. Decreased water clarity could therefore affect their ability to forage. The Proposed Offshore Scheme is outside the European site boundary and the impact pathway is therefore on birds foraging outside of the SPA. The spatial area covered by a sediment plume will be temporary and will be limited in comparison to the surrounding area available for foraging outside of the SPA. See **paragraph 5.2.20** for justification. Therefore, given the short duration of SSCs related to the Proposed Offshore Scheme,. no LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Little tern, seaducks and geese	Underwater noise changes	Construction	No LSE	Underwater noise changes will be generated by geophysical survey, vessels and equipment and has a ZoI of 5km see **paragraph 5.2.23** for justification. Tern species are low to moderate sensitivity to noise disturbance (Ref 43) whereas seaducks and geese are identified as being sensitive to noise disturbance from vessel traffic (Ref 43). However, the proposed Landfall trenchless technique will exit past the European site boundary and therefore all works associated with the Proposed Offshore Scheme will be outside of the European site. The waters adjacent to the proposed Landfall are on the Approach Channel to Southwold Harbour, where average shipping density reaches 20 vessel hours per $km^{2.}$ (Ref 79). The increase in the volume of vessels caused by the Proposed Offshore Scheme would be of a temporary
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
				and transient nature that would not affect the conservation objectives of the site. No LSE are predicted.
Little tern, seaducks and geese	Changes in distribution of prey species	Construction	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraphs 5.2.25** to **5.2.26** for justification. There will be no temporary or permanent habitat loss of supporting habitat for prey species within the site boundary however, there is the potential for the Proposed Offshore Scheme beyond the site boundary to impact the distribution of prey species. See **paragraph 5.2.27** for justification. Little tern, seaducks and geese use the shallow coastal waters of the Proposed Offshore Scheme for foraging outside of the European site. Little tern feed singly, in small parties or in widely scattered flocks in shallow water, often very close to the shoreline. Little tern plunge dive to feed upon small fish, such as sandeels, sprat (*Sprattus sprattus*) and young herring, but may also feed upon crustaceans and insects (Ref 80). The principal foraging areas for little tern are shallow subtidal coastal waters, generally within 6km of their breeding colony (Ref 33). Little tern have a high habitat specialisation score (where 1 is the lowest and 5 is the highest) of 4 (Ref 18) however, being a generalist feeder makes them less susceptible to changes in distribution of prey species. Additionally, the seabed habitat within the nearshore area is a mix of circalittoral sand and sandy mud which will recover due to its resilience to disturbance (Ref 82) and will continue to support prey species within the short-term. There are recorded breeding colonies of little tern, gadwall and northern shoveler within this European site (Ref 81). Gadwall, Eurasian teal, northern shoveler and greater white-fronted goose are surface feeders of intertidal habitats feeding on gastropod molluscs, saltmarsh and coastal grazing marsh (Ref 43). As the Proposed Offshore Scheme is will use a trenchless technique such HDD at the proposed Landfall (where the SPA is located), the HDD would 'punch out' (exit onto the seabed) in the offshore
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
				environment. As such, there will be no direct removal of prey species or supporting habitats. Therefore, geese and seaducks are unlikely to be impacted by the Proposed Offshore Scheme. The impact of the Proposed Offshore Scheme on the distribution of fish and shellfish has been separately assessed as part of the PEIR and concluded that the Proposed Offshore Scheme would not cause changes in the distribution of fish and shellfish species (see **paragraph 5.2.30** for justification). No LSE are predicted.
Little tern, seaducks and geese	Visual/physical disturbance or displacement	Construction	No LSE	Birds may be disturbed by the visual presence of the Proposed Offshore Scheme vessels, with some species more sensitive than others (see **paragraph 5.2.33** for justification). Although the Proposed Offshore Scheme is not within the SPA boundary, the coastal waters are used by birds from the SPA for foraging, as well as a wide range of maintenance activities, such as bathing and loafing.
		Operation	No LSE	
		Decommissioning	No LSE	Tern species have a low disturbance score (2) (Ref 18) and Atterbury et al. (Ref 43) concluded a low to moderate sensitivity to visual disturbance. Fliessbach et al. (Ref 42) scored the escape distance of bird species from 1-5 (where 1 is the lowest and 5 is the highest) and scored little tern a 1, meaning escape distances are between 0-200m and noted that tern species are amongst the least vulnerable to ship disturbance of 26 common European seabirds evaluated (including seaducks and divers). Seaducks and geese could be found in the nearshore and coastal areas. Seaducks like gadwall and Eurasian teal and geese are considered sensitive to visual and noise disturbance caused by anthropogenic activities (Ref 83) and may not resettle immediately after being flushed (Ref 84). Fliessbach et al. (Ref 42) estimated that the mean escape distance of seaduck and geese species (except common scoter and red-breasted mergansers) were

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
				between 277-474m. Therefore, it is likely that gadwall, Eurasian teal, northern shoveler and greater white-fronted goose have similar escape distances. Considering the transient nature of the construction, maintenance and decommissioning activities, coupled with the fact that vessels will not be located within the SPA boundary, the Proposed Offshore Scheme will not have a significant effect on individuals from this site during any phase of development from this impact pathway. No LSE are predicted.
Little Tern, seaducks and geese	In-combination effects	Construction	No LSE	Refer to **paragraph 5.2.36**. No LSE is predicted for all impacts in combination with other plans or projects.
		Operation	No LSE	
		Decommissioning	No LSE	
Proposed Onshore Scheme				
Non-breeding & breeding birds	Habitat loss	Construction	No LSE	Refer to **Section 5.2 Habitat loss**. No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying non-breeding or breeding species or assemblages.
		Operation	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying non-breeding or breeding species or assemblages.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there would be no loss of habitat supporting or functionally linked habitat for any qualifying non-

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
				breeding or breeding species or assemblages.
	Habitat damage or degradation	Construction	LSE	Refer to **Section 5.2 Habitat damage or degradation** The potential for LSE through impacts to habitats within the European site upon which qualifying non-breeding and breeding species and assemblages rely through changes in water quality, quantity and air quality is identified. The results of the bird surveys for the Proposed Onshore Scheme have not identified the areas that will be crossed by trenchless methods as being key areas for qualifying bird species. As such, impacts as a result of frac-out are unlikely and no appreciable effect is identified.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No effect through frac-out is identified on the basis that trenchless techniques would be limited to the construction phase. The activities during the operational phase would be small-scale and/or localised and unlikely to result in any changes to water quality or quantity or air quality such that no appreciable effect is identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No effect through frac-out is identified on the basis that trenchless techniques would be limited to the construction phase. Should there be a decommissioning phase, this is anticipated to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quantity or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Direct mortality or	Construction	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that there will be no

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
	injury			construction activity within the European site, including during crossing by trenchless methods. No relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Operation	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that no activities would be undertaken within the European site during the operational phase and no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Decommissioning	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that should there be a decommissioning phase, no activities would be undertaken within the European site and no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
	Disturbance	Construction	LSE	Refer to **Section 5.2 Disturbance.** The potential for LSE during construction is identified for activities including construction of the proposed Landfall and the proposed Underground HVDC Cables to cause disturbance through noise or visual impacts.
		Operation	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis that it is anticipated that works would be limited to routine maintenance and monitoring and that should repairs be required, these would be small-scale, localised and short in duration.
		Decommissioning	LSE	Refer to **Section 5.2 Disturbance.** The potential for LSE cannot be ruled out should there be a decommissioning phase where underground cabling is removed. No appreciable effect is identified should decommissioning of the above ground

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE Conclusion	Justification
				assets as this would be limited to works that are not in proximity to the European site.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the crossing of the European site will be undertaken using trenchless methods as embedded into the design of the Proposed Onshore Scheme.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	LSE	Refer to **Section 5.2 In-combination effects**. The potential for LSE alone is identified for habitat damage or degradation and disturbance during construction and therefore the potential for in-combination effects will be considered within the RIAA.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.7: Minsmere-Walberswick Ramsar site – site description

Minsmere – Walberswick Ramsar site [UK11044] (Ref 85; Ref 86; Ref 87)	
Relevance	Proposed Scheme
Site size (Ref 88)	2018.92ha
Distance and direction from the Proposed Offshore Scheme DOL	Overlaps
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	Partially within, crossing at Sallow Walk Covert and to the south east of the proposed Landfall Site. Partially within at Tinker's Walk/the B1387. Directly adjacent at Newdelight Covert/Dunwich Road and at Ten Acre Covert/Butcher's Lane
Distance and direction from the Proposed Onshore Scheme DOL (Full Build Out of Kiln Lane Substation Scenario)	Partially within, crossing at Sallow Walk Covert and to the south east of the proposed Landfall Site. Partially within at Tinker's Walk/the B1387. Directly adjacent at Newdelight Covert/Dunwich Road and at Ten Acre Covert/Butcher's Lane
Qualifying features	Qualifies under Criterion 1 (Ref 89) by: • Containing a mosaic of marine, freshwater, marshland and associated habitats, complete with transition areas in between. Contains the largest continuous stand of reedbeds in England and Wales and rare transition in grazing marsh ditch plants from brackish to fresh water. Qualifies under Criterion 2 by: • At least 26 red data book invertebrates (*Ethmia bipunctella*, *Aleochara inconspicua*, *Philonthus dimidiatipennis*, *Deltote bankiana*, *Cephalops perspicuus*, *Erioptera bivittata*, *E. meijerei*, *Gymnancycla canella*, *Pisidium pseudosphaerium*, *Archanara neurica*, *Heliothis viriplaca*, *Pelosia muscerda*, *Photedes brevilinea*, *Senta flammea*, *Herminea tarsicrinalis*, *Haematopota grandis*, *Tipula marginata*, *Podalonia affinis*, *Arctosa fulvolineata*, *Eucosma catroptana*, *E. maritima*, *Melissoblaptes zelleri*, *Pima boisduvaliella*, *Acrotophthalmus bicolor*, *Limonia danica*, *Telmaturus tumidulus*); • Supporting nationally scarce plants (*Althaea officinalis*, *Myriophyllum verticillatum*, *Ruppia cirrhosa*, *Sium latifolium*, *Sonchus palustris*, *Ceratophyllum submersum*, *Ranunculus baudotii*, and *Carex divisa* associated with reedbeds, grazing marsh or ditches. *Hordeum marinum*

Minsmere – Walberswick Ramsar site [UK11044] (Ref 85; Ref 86; Ref 87)	
	occurs on sea-walls, *Lathyrus japonicus* on coastal shingle, and *Crassula tillaea* on heathland; • Supporting a population of the mollusc (*Vertigo angustior*); and • Supporting an important assemblage of rare breeding birds associated with marshland and reedbeds including Eurasian bittern, gadwall, Eurasian teal, northern shoveler, marsh harrier, pied avocet and bearded tit. Not included under the Criterion but noted within the RIS for the site are species with peak counts in spring/autumn: Eurasian bittern, ruff (Philomachus pugnax), black-tailed godwit (*Limosa limosa*), spotted redshank and common greenshank (*Tringa nebularia*). With peak counts in winter: greater white-fronted goose, gadwall, northern shoveler, hen harrier, water rail, pied avocet, golden plover (Pluvialis apricaria), common redshank and lesser black-backed gull (Larus fuscus).
Qualifying features that meet the Proposed Offshore Scheme Screening criteria	Supporting an important assemblage of rare breeding birds associated with marshland and reedbeds including: • Gadwall; • Eurasian teal; and • Northern shoveler.
Qualifying features that meet the Proposed Onshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme assessed in Screening **Table 5.8** as broad qualifying features habitats, invertebrate species & assemblage, breeding bird assemblage and non-breeding bird species.
Conservation Objectives	Ramsar sites do not have specific conservation objectives. However, many of the qualifying features overlap with the SPA and SAC designations and in those instances are considered to be covered by those.
Threats/pressures	• Erosion – coastal squeeze within the Blyth Estuary; • Recreational/tourism disturbance – trampling damage to vegetated shingle and drift line communities, and disturbance of little tern nesting habitat; • Groundwater abstraction; • Saltwater incursion due to sea-level rise; and • Pollution from sewage.

Table 5.8: Minsmere- Walberswick Ramsar site – Screening for LSE

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
Proposed Offshore Scheme				
Seaducks	Temporary increase and deposition of suspended sediments	Construction	No LSE	Eurasian teal, gadwall and northern shoveler, present at this site, are classified as 'dabbling ducks' rather than 'diving ducks' according to the Wildlife Trust (Ref 78). They are predominantly surface feeders they may on occasion 'shallow dive' in search of invertebrates, shellfish and aquatic snails upending with their heads underwater and bums in the air. The spatial area covered by a sediment plume will temporary and will be limited in comparison to the surrounding area available for foraging outside of the Ramsar (See **paragraph 5.2.19 for justification)**. Dabbling birds will therefore have sufficient alternative feeding grounds available and as a result are unlikely to be significantly affected by a temporary reduction in water clarity. Therefore, given the short duration of SSCs related to the Proposed Offshore Scheme, no LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Seaducks	Under water noise changes	Construction	No LSE	Underwater noise changes will be generated by geophysical survey, vessels and equipment, see **paragraph 5.2.23** for justification. Underwater noise directly influences water column feeders as these species are submerged for longer periods when diving in search for prey on the seabed, in comparison to other bird function groups that feed in the surface. It may result in result in the temporary behavioural disturbance and displacement of birds. Seaducks are identified as being sensitive to noise disturbance from vessel traffic (Ref 43) however, the works associated with the Proposed Offshore Scheme will be outside of the site. The waters adjacent to the proposed Landfall are on the Approach Channel to Southwold Harbour, where average shipping density reaches 20 vessel hours per km^2 (Ref 79). The increase in volume of vessels caused by
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
				the Proposed Offshore Scheme vessels will be of a temporary and transient nature that would not affect the conservation objectives of the site. No LSE are predicted.
Seaducks	Changes in distribution of prey species	Construction	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraphs 5.2.25** to **5.2.26** for justification. There will be no temporary or permanent habitat loss of supporting habitat for prey species within the site boundary however, there is the potential for the Proposed Offshore Scheme beyond the site boundary to impact the distribution of prey species. See **paragraph 5.2.27** for justification. Gadwall, Eurasian teall and northern shoveler are surface feeders of intertidal habitats feeding on gastropod molluscs, saltmarsh and coastal grazing marsh (Ref 43). As the Proposed Offshore Scheme is will use a trenchless technique such HDD at the proposed Landfall (where the Ramsar is located), the HDD would 'punch out' (exit onto the seabed) in the offshore environment. As such, there will be no direct removal of prey species or supporting habitats. Therefore, seaducks are unlikely to be impacted by the Proposed Offshore Scheme. The impact of the Proposed Offshore Scheme on the distribution of fish and shellfish has been separately assessed as part of the PEIR and concluded that the Proposed Offshore Scheme would not cause changes in the distribution of fish and shellfish species (see **paragraph 5.2.31** for justification). No LSE are predicted .
		Operation	No LSE	
		Decommissioning	No LSE	
Seaducks	Visual/physical	Construction	No LSE	Birds may be disturbed by the visual presence of the Proposed Offshore Scheme vessels, with some species more sensitive than

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
	disturbance or displacement	Operation	No LSE	others (see **paragraph 5.2.33** for justification). Although the Proposed Offshore Scheme is not within the Ramsar boundary, seaducks could be found in the nearshore and coastal areas. seaducks are considered sensitive to visual and noise disturbance caused by anthropogenic activities (Ref 43) and may not resettle immediately after being flushed (Ref 84). Fliessbach et al. (Ref 42) estimated that the mean escape distance of seaduck species (except common scoter and red-breasted mergansers) were between 277-474m. Therefore, it is likely that gadwall, Eurasian teal and northern shoveler have similar escape distances. Considering the transient nature of the construction, maintenance and decommissioning activities, coupled with the fact that vessels will not be located within the Ramsar boundary, the Proposed Offshore Scheme will not have a significant effect on individuals from this site during any phase of development from this impact pathway. No LSE are predicted.
		Decommissioning	No LSE	
Seaducks	In-combination effects	Construction	No LSE	Refer to **paragraph 5.2.36**. No LSE is predicted for all impacts in combination with other plans or projects.
		Operation	No LSE	
		Decommissioning	No LSE	
Proposed Onshore Scheme				
Annex I habitats	Habitat damage or	Construction	LSE	Refer to **Section 5.2 Habitat damage or degradation**. The potential for LSE is identified on the basis of frac-out during

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
	degradation			trenchless drilling beneath the European site and changes in water quality, quantity and air quality.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No effect through frac-out is identified on the basis that trenchless techniques would be limited to the construction phase. The activities during the operational phase would be small-scale and/or localised and unlikely to result in any changes to water quality or quantity or air quality such that no appreciable effect is identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No effect through frac-out is identified on the basis that trenchless techniques would be limited to the construction phase. Should there be a decommissioning phase, this is anticipated to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quality or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the crossing of the European site will be undertaken using trenchless methods as embedded into the design of the Proposed Onshore Scheme.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
				identified.
	In-combination effects	Construction	LSE	Refer to **Section 5.2 In-combination effects**. The potential for LSE alone is identified for habitat damage or degradation during construction and therefore the potential for in-combination effects will be considered within the RIAA.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
Invertebrate species & assemblage	Habitat loss	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
		Operation	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
	Habitat damage or	Construction	LSE	Refer to **Section 5.2 Habitat damage or degradation**.

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
	degradation			The potential for LSE is identified on the basis of frac-out during trenchless drilling beneath the European site and changes in water quality, quantity and air quality.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No effect through frac-out is identified on the basis that trenchless techniques would be limited to the construction phase. The activities during the operational phase would be small-scale and/or localised and unlikely to result in any changes to water quality or quantity or air quality such that no appreciable effect is identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** No effect through frac-out is identified on the basis that trenchless techniques would be limited to the construction phase. Should there be a decommissioning phase, this is anticipated to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quality or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Direct mortality, injury or disturbance	Construction	LSE	Refer to **Section 5.2 Direct mortality or injury.** The potential for LSE is identified on the basis of frac-out risk during trenchless drilling beneath the European site that could result in a bentonite breakout that could smother and kill vegetation and invertebrates using these habitats.
		Operation	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that all activities would be carried out outside of the European site and no supporting or

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
				functionally linked habitat has been identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis should there be a decommissioning phase, all activities would be carried out outside of the European site and no supporting or functionally linked habitat has been identified.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the crossing of the European site would be undertaken using trenchless methods as embedded into the design of the Proposed Onshore Scheme.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	LSE	Refer to **Section 5.2 In-combination effects**. The potential for LSE alone is identified for habitat damage or degradation and direct mortality/injury during construction and therefore the potential for in-combination effects will be considered within the RIAA.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
				combination with any other plan or project.
Non-breeding & breeding bird species & assemblage	Habitat loss	Construction	No LSE	Refer to **Section 5.2 Habitat loss and Section 5.2 Consideration of functionally linked land**. No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying non-breeding or breeding species or assemblages.
		Operation	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying non-breeding or breeding species or assemblages.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying non-breeding or breeding species or assemblages.
	Habitat damage or degradation	Construction	LSE	Refer to **Section 5.2 Habitat damage or degradation.** The potential for LSE through impacts to habitats within the European site upon which qualifying non-breeding and breeding species and assemblages rely through changes in water quality, quantity and air quality is identified. The results of the bird surveys for the Proposed Onshore Scheme have not identified the areas that will be crossed by trenchless methods as being key areas for qualifying bird species. As such, impacts as a result of frac-out are unlikely and no appreciable effect is identified.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** No effect through frac-out is identified on the basis that trenchless

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
				techniques would be limited to the construction phase. The activities during the operational phase not anticipated to result in any changes to water quality or quantity or air quality such that no appreciable effect is identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No effect through frac-out is identified on the basis that trenchless techniques would be limited to the construction phase. Should there be a decommissioning phase, this is anticipated to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quality or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Direct mortality or injury	Construction	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that there would be no construction activity within the European site, including during crossing by trenchless methods. No relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Operation	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that no activities would be undertaken within the European site during the operational phase and no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Decommissioning	No LSE	Refer to **Section 5.2 Direct mortality or injury.**

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
				No appreciable effect is identified on the basis that should there be a decommissioning phase, no activities would be undertaken within the European site and no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
	Disturbance	Construction	LSE	Refer to **Section 5.2 Disturbance.** The potential for LSE during construction is identified for activities including construction of the proposed Landfall and the proposed Underground HVDC Cables to cause disturbance through noise or visual impacts.
		Operation	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis that it is anticipated that works would be limited to routine maintenance and monitoring and that should repairs be required, these would be small-scale, localised and short in duration.
		Decommissioning	LSE	Refer to **Section 5.2 Disturbance.** The potential for LSE cannot be ruled out should there be a decommissioning phase where underground cabling is removed. No appreciable effect is identified should decommissioning of the above ground assets as this would be limited to works that are not in proximity to the European site.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the crossing of the European site will be undertaken using trenchless methods as embedded into the design of the Proposed Onshore Scheme.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	LSE	Refer to **Section 5.2 In-combination effects**. The potential for LSE alone is identified for habitat damage or degradation and disturbance during construction and therefore the potential for in-combination effects will be considered within the RIAA.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.9: Southern North Sea SAC – site description

Southern North Sea SAC [UK0013104] (Ref 100)	
Relevance	Proposed Scheme
Site size (Ref 70)	3,695,054ha (Harbour porpoise winter grounds 1,269,600 ha and summer grounds 2,701,500 ha)
Distance and direction from the Offshore DOL	Proposed Offshore Scheme overlaps for approximately 140km and overlaps both the winter and summer grounds
Distance and direction from the Proposed Onshore Scheme DOL	Offshore site, immediately adjacent to the intertidal habitats to the south east of the proposed Landfall Site

Southern North Sea SAC [UK0013104] (Ref 100)	
(Amendment to Kiln Lane Substation Scenario)	
Distance and direction from the Proposed Onshore Scheme DOL (Full Build Out of Kiln Lane Substation Scenario)	Offshore site, immediately adjacent to the intertidal habitats to the south east of the proposed Landfall Site
Qualifying features	Qualifies as it hosts the following Annex II species: • 1351 Harbour porpoise.
Qualifying features that meet the Proposed Offshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Offshore Scheme
Qualifying features that meet the Proposed Onshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme
Conservation Objectives	To ensure that the integrity of the site is maintained and that it makes the best possible contribution to maintaining Favourable Conservation Status (FCS) for Harbour Porpoise in UK waters. In the context of natural change, this will be achieved by ensuring that: • Harbour porpoise is a viable component of the site; • There is no significant disturbance of the species; and • The condition of supporting habitats and processes, and the availability of prey is maintained.
Threats/pressure	• Exploration and extraction of oil or gas, other ecosystem modifications, military use and civil unrest, fishing and harvesting aquatic resources, marine water pollution, renewable abiotic energy use & shipping lanes, ports, marine constructions; and • Operational activities in UK waters - commercial fisheries with bycatch, discharge/runoff from landfill, terrestrial and offshore industries, noise, shipping, recreational boating, renewable energy installations, agriculture, aquaculture, sewage, waste disposal, bridges, tunnels, dams, installations, presence of vessels (shipping, recreation), terrestrial and at-sea ‘disposal’.

Table 5.10: Southern North Sea SAC-Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Offshore Scheme				
Harbour Porpoise	Under water noise changes	Construction	No LSE	Underwater noise changes will be generated by geophysical survey, vessels and equipment see **paragraph 5.2.23** for justification. The effects of noise disturbance may be physical, physiological and/or behavioural. Disturbance is frequently a behavioural response to noise and my lead to harbour porpoises being displaced from an affected area. The onset of a temporary threshold shift (TTS) can be referred to as the fleeing response. This is therefore a behavioural response, and animals exposed to these noise levels are likely to actively avoid injury as a result of a permanent threshold shift (PTS) by moving away from the area. Following guidance from JNCC (Ref 17), no LSE is predicted (see **paragraph 5.2.24** for justification)..
		Operation	No LSE	
		Decommissioning	No LSE	
Harbour Porpoise	EMF	Operation	No LSE	Cetaceans use magnetic cues, such as the earth's geomagnetic field, for navigation. An increase in EMF may temporarily affect sensitive species as they cross the cables or pass alongside their length. As the SAC overlaps with the DOL, it is within the ZoI for EMF. **Paragraph 5.2.31** notes that the EMF fields will decrease with vertical distance from the cable, attenuating to background levels at around 10m above the seabed. Refer to **paragraph 5.2.32**. No LSE is identified as a result of studies indicating that harbour porpoise are not affected by increased EMF from subsea cables.
Harbour Porpoise	Changes in distribution of prey species	Construction	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraph 5.2.25** to **5.2.26** for justification. Harbour porpoises are considered to have higher metabolic rates than land mammals of a
		Operation	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				similar size, and are therefore highly dependent on year-round proximity to reliable food sources (Ref 101). The maintenance of supporting habitats and processes to ensure the provision of prey species for harbour porpoise is therefore a key consideration in maintaining the conservation objectives. Temporary habitat loss as a result of pre-sweeping within the SAC and permanent habitat loss as a result of external cable protection (including crossings) are not considered to be significant (refer to **paragraph 5.2.28** for justification). The impact of the Proposed Offshore Scheme on the distribution of fish and shellfish has been separately assessed as part of the PEIR and concluded that the Proposed Offshore Scheme would not cause changes in the distribution of fish and shellfish species (see **paragraph 5.2.30** for justification). No LSE are predicted.
Harbour Porpoise	Visual/physical disturbance or displacement	Construction	No LSE	The physical presence of the vessels and equipment from the Proposed Offshore Scheme have the potential to disturb marine mammals during construction, operation and decommissioning. However, harbour porpoise are likely to be disturbed by underwater noise before the visual presence of the Proposed Offshore Scheme vessels (refer to **paragraph 5.2.33** for justification)
		Operation	No LSE	
		Decommissioning	No LSE	Harbour porpoise within the SAC are exposed to vessels of all sizes on a regular basis due to the density of shipping in the North Sea, which ranged from 0-100+ hours/km^2 per month in 2023 (Ref 86) with the highest vessel density near the coastline and in the southern region of the North Sea. Therefore, animals are habituated to a certain degree to the presence of vessels. Furthermore, given the transient and temporary nature of the construction, repair and decommissioning activities, it is unlikely that individuals will be in the vicinity of vessels from the Proposed Offshore Scheme for a sustained period of time. Therefore, any visual disturbance would be

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				temporary and not repeated over an extended period of time. No LSE are predicted.
Harbour Porpoise	Collision with Proposed Scheme vessels	Construction	No LSE	Harbour porpoise are unlikely to collide with vessels from the Proposed Offshore Scheme due to the speed of the vessels and that transiting vessels will follow existing shipping lanes (refer to **paragraph 5.2.34** for justification).Furthermore, harbour porpoise in the SAC are exposed to vessels of all sizes on a regular basis due to the density of shipping in the Southern North Sea, which ranged from 0-100+ hours/km^2 per month in 2023 (Ref 86). Therefore, the collision risk posed by Proposed Scheme vessels associated with the Proposed Offshore Scheme is likely to be significantly lower than that posed by commercial shipping activity. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Harbour Porpoise	In-combination effects	Construction	LSE	Refer to **paragraph 5.2.37**. No LSE predicted in-combination with other plans or projects for all impacts except for the impact of underwater noise changes on harbour porpoise which will be assessed in the Stage 2 RIAA.
		Operation	LSE	
		Decommissioning	LSE	
Proposed Onshore Scheme				
Harbour porpoise	Habitat loss	Construction	No LSE	Refer to **Section 5.2 Consideration of functionally linked land** and **Section 5.2 Habitat loss**. No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.
		Operation	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.
	Habitat damage or degradation	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis that the qualifying harbour porpoise is considered unlikely to be adversely impacted by any pollution event resulting from changes in water quality or quantity within the European site.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the activities during the operational phase not anticipated to result in any changes to water quality or quantity and the qualifying harbour porpoise is considered unlikely to be adversely impacted by any pollution event resulting from changes in water quality or quantity within the European site.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** No appreciable effect is identified due to the activities during the decommissioning phase not anticipated to result in any changes to water quality or quantity and the qualifying harbour porpoise is considered unlikely to be adversely impacted by any pollution event resulting from changes in water quality or quantity within the European site.
	Direct mortality, injury or disturbance	Construction	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that there would be no construction activity within the European site and no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality, injury or disturbance.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
		Operation	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that no activities would be undertaken within the European site during the operational phase and no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality, injury or disturbance.
		Decommissioning	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that should there be a decommissioning phase, no activities would be undertaken within the European site and no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality, injury or disturbance.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the Proposed Onshore Scheme does not bisect the European site.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination	Construction	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.11: Outer Thames Estuary SPA – site description

Outer Thames Estuary SPA [UK9020309] (Ref 103; Ref 104)	
Relevance	Proposed Scheme
Site size (Ref 75)	393,612ha
Distance and direction from the Offshore DOL	Proposed Offshore Scheme overlaps for approximately 22km
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	Partially within, the site is largely offshore with a small overlap of intertidal habitats to the south east of the proposed Landfall Site
Distance and direction from the Proposed Onshore Scheme DOL (Full Build Out of Kiln Lane Substation Scenario)	Partially within, the site is largely offshore with a small overlap of intertidal habitats to the south east of the proposed Landfall Site
Qualifying features	Qualifies as it hosts the following Annex I birds: • A001 Red-throated diver; non-breeding • A193 Common tern; breeding; and • A195 Little tern; breeding.
Qualifying features that meet the Proposed Offshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Offshore Scheme
Qualifying features that meet the Proposed Onshore Screening	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme, assessed in Screening **Table 5.12** as broad qualifying features breeding birds and non-breeding birds.

Outer Thames Estuary SPA [UK9020309] (Ref 103; Ref 104)	
criteria	
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site.
Threats/pressures	• Shipping lanes, ports and marine constructions, military use and civil unrest, renewable abiotic energy use, fishing and harvesting aquatic resources and marine water pollution; • Fisheries: Commercial marine and estuarine – affecting non-breeding red-throated diver; • Changes in biotic conditions, outdoor sports and leisure activities, pollution to groundwater (point sources and diffuse sources) and human induced changes in hydraulic conditions; • Water pollution – affecting coastal lagoons; and • Physical modification – affecting coastal lagoons.

Table 5.12: Outer Thames Estuary SPA – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Offshore Scheme				
Red-throated diver and tern species	Temporary increase and deposition of suspended sediments	Construction	No LSE	Diving species such as red-throated divers, little tern and common tern are water column feeders which dive for prey and rely on clear vision for success (Ref 106). A reduction in water clarity as a result of increased suspended solids in the water column following disturbance of seabed sediments could negatively impact foraging success. Refer to **paragraph 5.2.21**. Given the short duration of SSCs related to the Proposed Offshore Scheme and the small area impacted at any one time, no LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Red-throated diver	Under water noise changes	Construction	No LSE	Increased presence of the Proposed Offshore Scheme vessels and equipment will generate underwater noise see **paragraph 5.2.23** for justification. Red-throated divers also spend a significant amount of time underwater when diving in search for prey. Generally, water column feeders are potentially more affected by underwater noise than surface feeders and effects of noise on foraging divers are likely to be moderate (Ref 107) however, Natural England's Advice on Operations for the Outer Thames Estuary identifies red-throated diver as having a low sensitivity to underwater noise (Ref 108). In comparison, the Advice on Operations identifies red-throated divers as being highly sensitive to above water noise. Atterbury et al., (2021) also recognised red-throated diver as being highly sensitive to above water noise and visual disturbance, such as that caused by vessel traffic (Ref 43), with a score of 5 for disturbance susceptibility (Ref 18). Given the low sensitivity to underwater noise and the high sensitivity to above water noise and visual disturbance, it is unlikely that underwater noise will displace red-throated diver before the visual presence of a vessel. Once flushed i.e. by the presence of the vessel, they may not rapidly resettle. This means that they are unlikely to be present in proximity to vessels to be affected by underwater noise. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Tern species	Under water noise changes	Construction	No LSE	Increased presence of the Proposed Offshore Scheme vessels and equipment will generate underwater noise see **paragraph 5.2.23** for justification. The trenchless technique will punch out within site boundary and there will be vessel movements associated with the Proposed Offshore Scheme within the site. However, tern species are low to moderately sensitive to noise (Ref 43) and have a low disturbance
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				score (2) (Ref 18). Furthermore, the waters adjacent to the proposed Landfall are on the Approach Channel to Southwold Harbour, where average shipping density reaches 20 vessel hours per $km^{2.}$ (Ref 79). The increase in the volume of vessels caused by the Proposed Offshore Scheme will be of a temporary and transient nature that would not affect the conservation objectives of the site. No LSE are predicted.
Red-throated diver and tern species	Changes in distribution of prey species	Construction	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraphs 5.2.25** to **5.2.26** for justification. Terns use shallow coastal waters for foraging and plunge dive to feed upon small fish, such as sandeel, sprat and young herring, but may also feed upon crustaceans and insects (Ref 80). Little tern have a high habitat specialisation score (where 1 is the lowest and 5 is the highest) of 4 (Ref 18) whereas, common tern did not have a habitat specialisation score however, it can be presumed to be either moderate or high such as the rest of the functional group. Terns feed singly, in small parties or in widely scattered flocks in shallow water, often very close to the shoreline and being a generalist feeder makes them less susceptible to changes in distribution of prey species. Red-throated divers feed predominantly on fish such as herring, sprat and sandeel. However, they are considered to be opportunistic and are able to switch to alternative fish species dependent on availability (Ref 105). They have a high habitat specialisation score of 4 (Ref 18) but being an opportunistic feeder makes them less susceptible to changes in distribution of prey species. Temporary habitat loss as a result of pre-sweeping within the SPA and permanent habitat loss as a result of external cable protection (including crossings) are not considered to be significant (refer to **paragraph 5.2.29** for justification).
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				The impact of the Proposed Offshore Scheme on the distribution of fish and shellfish has been separately assessed as part of the PEIR and concluded that the Proposed Offshore Scheme would not cause changes in the distribution of fish and shellfish species (see **paragraph 5.2.30** for justification). No LSE are predicted.
Red-throated diver	Visual/physical disturbance or displacement	Construction	LSE	Birds may be disturbed by the visual presence of the Proposed Offshore Scheme vessels, with some species more sensitive than others (see **paragraph 5.2.33** for justification). Red-throated divers are highly sensitive to displacement by vessels. Once flushed, they may not rapidly resettle as documented by Schwemmer et al (Ref 109) where divers have shown clear avoidance of areas with high shipping intensity. It is likely that vessel activity will be required during the winter period and therefore there is the potential that red-throated diver could be disturbed by vessel presence. The vessel route plus a buffer of several kilometres maybe be effectively lost as habitat (Ref 43). JNCC advised that for red-throated diver, a displacement buffer of 2km with 100% displacement should be considered for vessel disturbance/displacement. The conservation objective for red throated diver is to reduce disturbance and avoid further displacement. The SPA is designated for winter populations of the species and as it is uncertain at this stage when licensable activities will take place, therefore it cannot be ruled out that an LSE will not occur. Therefore, visual/physical disturbance or displacement will be assessed in-combination with other plans/projects in the Stage 2 RIAA.
		Operation	LSE	
		Decommissioning	LSE	
Tern species	Visual/physical disturbance or displacement	Construction	No LSE	Birds may be disturbed by the visual presence of the Proposed Offshore Scheme vessels, with some species more sensitive than others (see **paragraph 5.2.33** for justification). Little tern have a low disturbance score (2) (Ref 18) and Atterbury et al. (Ref 43) concluded a low to moderate sensitivity to visual disturbance. Fliessbach et al. (Ref 42) scored the escape distance of bird
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				species from 1-5 (where 1 is the lowest and 5 is the highest) and scored little tern a 1, meaning escape distances are between 0-200m and noted that tern species are among the least sensitive. Therefore, in comparison to other species, they are less susceptible to disturbance from an increase in vessel traffic unless within a close range. Considering the transient nature of the construction, maintenance and decommissioning activities, coupled with the fact that little tern have a low sensitivity to disturbance, the Proposed Offshore Scheme will not have a significant effect on individuals from this site during any phase of development from this impact pathway. No LSE are predicted.
Tern species	In-combination effects	Construction	No LSE	Refer to **paragraphs 5.2.40** and **5.2.41**. No LSE predicted in-combination with other plans or projects for all impacts for little tern and common tern.
		Operation	No LSE	
		Decommissioning	No LSE	
Red-throated diver	In-combination effects	Construction	LSE	Refer to **paragraph 5.2.40** and **5.2.42**. No LSE predicted in-combination with other plans or projects for all impacts except for the impact of visual/physical disturbance or displacement on red-throated diver, which will be assessed in the Stage 2 RIAA.
		Operation	LSE	
		Decommissioning	LSE	
Proposed Onshore Scheme				
Non-breeding & breeding birds	Habitat loss	Construction	No LSE	Refer to **Section 5.2 Consideration of functionally linked land** and **Section 5.2 Habitat loss**. No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.
		Operation	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat loss.**

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
	Habitat damage or degradation	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation** No appreciable effect is identified on the basis that the results of the bird surveys for the Proposed Onshore Scheme have not identified the areas that will be crossed by trenchless methods as being key areas for qualifying bird species and the intertidal habitats of the European site are considered unlikely to be impacted by changes in water quality or quantity or air quality.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the activities during the operational phase would be small-scale and/or localised and unlikely to result in any changes to water quality, quantity or air quality.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** No appreciable effect is identified on the basis that should there be a decommissioning phase, this is likely to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quality or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Direct mortality or injury	Construction	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that there would be no construction activity within the European site, including during crossing by trenchless methods. No relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
		Operation	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that no activities would be undertaken within the European site during the operational phase and no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Decommissioning	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that should there be a decommissioning phase, no activities would be undertaken within the European site and no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
	Disturbance	Construction	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis that the qualifying species have not been identified as using any habitats within proximity to any construction activities, only being recorded offshore.
		Operation	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis that the qualifying species have not been identified as using any habitats within proximity to the DOL, only being recorded offshore, and it is anticipated that works would be limited to routine maintenance and monitoring and that should repairs be required, these would be small-scale, localised and short in duration.
		Decommissioning	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis that the qualifying species have not been identified as using any habitats within proximity to the DOL, only being recorded offshore, and should there be a decommissioning phase this would be limited to works that are not in proximity to the European site.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the crossing of the European site will be undertaken using trenchless methods as embedded into the design of the Proposed Onshore Scheme.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.13: Sandlings SPA – site description

Sandlings SPA [UK9020286] (Ref 115; Ref 116)	
Relevance	Proposed Onshore Scheme
Site size (Ref 75)	3,406ha
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	2.8km south
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	1.3km south
Qualifying features	Qualifies as it hosts the following Annex I species: • A224 European nightjar; breeding; and • A246 Woodlark; breeding.
Qualifying features that meet the onshore Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme, assessed in Screening **Table 5.14** as broad qualifying features breeding birds
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site.
Threats/pressures	• Problematic native species, air pollution, outdoor sports and leisure activities, recreational activities, changes in biotic conditions and biocenotic evolution, succession; • Changes in species distributions - woodlark and European nightjar populations on the Suffolk coast have declined by 65% and 66% respectively since notification in 2001; • Inappropriate scrub control – scrub encroachment is reducing habitat suitability for Woodlark and European nightjar; • Deer – a large deer population exerting grazing pressure on habitats will affect quality of nesting habitat;

Sandlings SPA [UK9020286] (Ref 115; Ref 116)
• Air pollution – nitrogen deposition exceeds site relevant critical loads; and • Public access/disturbance – recreational pressure could be increased by new housing developments in the area and by the potential displacement of visitors during the construction of Sizewell C.

Table 5.14: Sandlings SPA – Screening for LSE

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
Proposed Onshore Scheme				
Breeding birds	Habitat loss	Construction	No LSE	Refer to **Section 5.2 Consideration of functionally linked land** and **Section 5.2 Habitat loss**. No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.
		Operation	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.
	Habitat damage or degradation	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis of distance and embedded standard pollution prevention measures to protect the general water environment.

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the activities during the operational phase not anticipated to result in any changes to water quality or quantity or air quality.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** Should there be a decommissioning phase, this is anticipated to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quality or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Direct mortality or injury	Construction	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that there will be no construction activity within the European site, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Operation	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that no activities would be undertaken within the European site during the operational phase, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Decommissioning	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that should there be a decommissioning phase, no activities would be undertaken within the European site and no relevant supporting or functionally linked land

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
				has been identified that would be impacted and could give rise to direct mortality or injury.
	Disturbance	Construction	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis of distance from any construction activity to the European site.
		Operation	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis of distance and that it is anticipated that works would be limited to routine maintenance and monitoring and that should repairs be required, these would be small-scale, localised and short in duration.
		Decommissioning	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis that should there be a decommissioning phase this would be limited to works that are not in proximity to the European site.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Fragmentation**. No appreciable effect is identified on the basis that the Proposed Onshore Scheme would not bisect the European site.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Table 5.2 Fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**.

Qualifying feature/broad qualifying feature	Potential impact	Phase	LSE conclusion	Justification
				No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.15: Benacre to Easton Bavents Lagoons SAC – site description

Benacre to Easton Bavents Lagoons SAC [UK0013104]	
Relevance	Proposed Onshore Scheme
Site size (Ref 70)	326.7ha
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	4.4km north
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	4.4km north
Qualifying features	Qualifies as it hosts the following Annex I habitats: • 1150 Coastal lagoons.
Qualifying features that meet the Proposed Onshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme.
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by

Benacre to Easton Bavents Lagoons SAC [UK0013104]	
	maintaining or restoring: • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.
Threats/pressures	• Changes in biotic conditions, outdoor sports and leisure activities, pollution to groundwater (point sources and diffuse sources) and human induced changes in hydraulic conditions; • Water pollution – affecting coastal lagoons; and • Physical modification – affecting coastal lagoons.

Table 5.16: Benacre to Easton Bavents Lagoons SAC – Screening for LSE

Qualifying features	Potential effects	Phase	LSE Conclusion	Justification
Proposed Onshore Scheme				
Annex I habitats	Habitat damage or degradation	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis that the European site will not be crossed by trenchless methods, is not hydrologically connected to the Proposed Onshore Scheme and due to distance no changes in air quality are likely.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the European site not being hydrologically connected to the Proposed Onshore Scheme, and that the activities during the operational phase not anticipated to result in any changes to water quality, quantity or air quality.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** No appreciable effect is identified on the basis that the European site is not hydrologically connected to the Proposed Onshore Scheme and due to distance no changes in air quality are likely.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**.

Qualifying features	Potential effects	Phase	LSE Conclusion	Justification
				No appreciable effect is identified on the basis that the Proposed Onshore Scheme does not bisect the European site.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	No LSE	Refer to **Section 5.2 In-combination effects**. No pathway for effect alone is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No pathway for effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.17: Benacre to Easton Bavents SPA – site description

Benacre to Easton Bavents SPA [UK9009291] (Ref 112; Ref 113)	
Relevance	Proposed Scheme
Site size (Ref 75)	470.6ha
Distance and direction from the Offshore DOL	3.8km north
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane	3.8km north

Benacre to Easton Bavents SPA [UK9009291] (Ref 112; Ref 113)	
Substation Scenario)	
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	3.8km north
Qualifying features	Qualifies as it hosts the following Annex I species: • A195 Little tern; breeding • A021 Eurasian bittern; breeding • A081 Marsh harrier; breeding
Qualifying features that meet the offshore Screening criteria	Qualifies as it hosts the following Annex I species: • A195 Little tern; breeding
Qualifying features that meet the onshore Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site.
Threats/pressures	• Changes in biotic conditions, fishing and harvesting aquatic resources, outdoor sports and leisure activities, pollution to groundwater (point sources and diffuse sources) and human induced changes in hydraulic conditions; • Public access/disturbance – affecting breeding little tern; • Physical modification – affecting breeding and non-breeding Eurasian bittern and breeding marsh harrier and little tern; • Changes in species distributions – affecting breeding little tern; and • Fisheries: Commercial marine and estuarine – affecting breeding little tern.

Table 5.18: Benacre to Easton Bavents SPA – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusions	Justification
Proposed Offshore Scheme				
Little tern	Temporary increase and deposition of suspended sediments	Construction	No LSE	Little tern are in general visually foraging birds which means they are dependant of clear water to identify prey. They are therefore sensitive to changes in turbidity (Ref 114). The spatial area covered by a sediment plume will temporary and will be limited in comparison to the surrounding area available for tern foraging outside of the SPA See **paragraph 5.2.19** for justification. Although this site is within the mean maximum breeding foraging range ± 1 SD (5.0km for little tern), they are likely to forage closer to the SPA to conserve energy. Therefore, given the short duration of SSCs related to the Proposed Offshore Scheme, no LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Little tern	Under water noise changes	Construction	No LSE	Underwater noise changes will be generated by geophysical survey, vessels and equipment, see **paragraph 5.2.23** for justification. As this site is 3.8km away from the Proposed Offshore Scheme, there will be no vessel activity within the SPA. However, noise from geophysical surveys could propagate through the water column to impact birds within the SPA and birds could travel to forage within the DOL and subsequently be impacted by the noise generated from the vessels and equipment. Little tern are low to moderately sensitive to noise (Ref 43) and have a low disturbance score (2) (Ref 18). The use of vessels during construction, maintenance and decommissioning activities will be transient and temporary. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Little tern	Changes in distribution of prey species	Construction	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraphs 5.2.25** to **5.2.26** for justification. There will be no temporary or permanent habitat loss of supporting habitat for prey species within the site boundary however, there is the potential for the Proposed Offshore Scheme beyond the site boundary to impact the distribution of prey species. See **paragraph 5.2.27** for justification.
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusions	Justification
				Little tern use the shallow coastal waters for foraging. They feed singly, in small parties or in widely scattered flocks in shallow water, often very close to the shoreline. Little tern plunge dive to feed upon small fish, such as sandeels, sprat and young herring, but may also feed upon crustaceans and insects (Ref 80). Little tern have a high habitat specialisation score (where 1 is the lowest and 5 is the highest) of 4 (Ref 18) however, being a generalist feeder makes them less susceptible to changes in distribution of prey species. The principal foraging areas for little terns are shallow subtidal coastal waters, generally within 6km of their breeding colony (Ref 33). The impact of the Proposed Offshore Scheme on the distribution of fish and shellfish has been separately assessed as part of the PEIR and concluded that the Proposed Offshore Scheme would not cause changes in the distribution of fish and shellfish species (see **paragraph 5.2.31** for justification). No LSE are predicted.
Little tern	Visual/physical disturbance or displacement	Construction	No LSE	Birds may be disturbed by the visual presence of the Proposed Offshore Scheme vessels, with some species more sensitive than others (see **paragraph 5.2.33** for justification). Although the Proposed Offshore Scheme is not within the SPA boundary, the coastal waters are used for birds from the SPA for foraging, as well as a wide range of maintenance activities, such as bathing and loafing. Tern species have a low disturbance score (2) (Ref 18) JNCC, (2022) and Atterbury et al. (Ref 43) concluded a low to moderate sensitivity to visual disturbance. Fliessbach et al. (Ref 42) estimate that tern species have an escape distance of between 0-200m and noted that tern species are amongst the least vulnerable to ship disturbance of 26 common European seabirds evaluated (including seaducks and divers). Considering the transient nature of the construction, maintenance and
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusions	Justification
				decommissioning activities, coupled with the fact that vessels will not be located within the Ramsar boundary, the Proposed Offshore Scheme will not have a significant effect on individuals from this site during any phase of development from this impact pathway. No LSE are predicted.
Little tern	In-combination effects	Construction	No LSE	Refer to **paragraph 5.2.43**. No LSE predicted in-combination with other plans or projects for all impacts for little tern.
		Operation	No LSE	
		Decommissioning	No LSE	
Proposed Onshore Scheme				
Breeding birds	Habitat loss	Construction	No LSE	Refer to **Section 4.2 Consideration of functionally linked land** and **Section 4.2 Habitat loss**. No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.
		Operation	No LSE	Refer to **Section 4.2 Habitat loss.** No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.
		Decommissioning	No LSE	Refer to **Section 4.2 Habitat loss.** No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.
	Habitat damage or degradation	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis that the European site would not be crossed by trenchless methods, is not hydrologically connected to the Proposed Onshore Scheme and due to distance no changes in air quality are likely.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the European site not being hydrologically connected to the Proposed Onshore Scheme, and that

Qualifying features	Potential effects	Phase	LSE conclusions	Justification
				the activities during the operational phase not anticipated to result in any changes to water quality, quantity or air quality.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** No appreciable effect is identified on the basis that, should there be a decommissioning phase, the European site is not hydrologically connected to the Proposed Onshore Scheme and due to distance no changes in air quality are likely.
	Direct mortality or injury	Construction	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that there would be no construction activity within the European site, the distance of any activities from the European site and the no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Operation	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that no activities would be undertaken within the European site during the operational phase, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Decommissioning	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that should there be a decommissioning phase, no activities would be undertaken within the European site, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
	Disturbance	Construction	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis of distance from any construction activity to the European site.

Qualifying features	Potential effects	Phase	LSE conclusions	Justification
		Operation	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis of distance and that it is anticipated that works would be limited to routine maintenance and monitoring and that should repairs be required, these would be small-scale, localised and short in duration.
		Decommissioning	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis that should there be a decommissioning phase this would be limited to works that are not in proximity to the European site.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the Proposed Onshore Scheme would not bisect the European site.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation** The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.19: Alde, Ore & Butley Estuaries SAC - site description

Alde, Ore & Butley Estuaries SAC [UK0030076] (Ref 117; Ref 118)	
Relevance	Proposed Onshore Scheme
Site size (Ref 70)	1,632.63ha
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	3.1km south
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	1.5km south
Qualifying features	Qualifies as it hosts the following Annex I habitats: • 1330 Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*); • 1130 Estuaries; and • 1140 Mudflats and sandflats not covered by seawater at low tide. (Intertidal mudflats and sandflats).
Qualifying features that meet the Proposed Onshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.
Threats/pressures (Ref 119; Ref 120)	• Hydrological changes – flood wall breaches due to tidal surge has led to flooding of qualifying habitats; • Public access/disturbance – human trampling impacts vegetated shingle habitat; • Inappropriate coastal management – maintaining coastal defences is leading to increased shingle recharge requirements, and loss of shingle beach;

Alde, Ore & Butley Estuaries SAC [UK0030076] (Ref 117; Ref 118)

- Coastal squeeze – seawalls preventing natural adaption of estuary to sea level rise through roll back of habitat. saltmarsh is at risk of being squeezed, limited areas of natural habitat transition within the site could be lost;
- Invasive species – saltmarsh could be squeezed out by Spartina encroachment; and
- Air pollution: impact of atmospheric nitrogen deposition – Aerial deposits of nitrogen may exceed the site relevant critical load above which the diversity of saltmarsh vegetation begins to be altered (possibly to reed) and adversely impacted.

Table 5.20: Alde, Ore & Butley Estuaries SAC – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Onshore Scheme				
Annex I habitats	Habitat damage or degradation	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis of distance and embedded standard pollution prevention measures to protect the general water environment.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the activities during the operational phase not anticipated to result in any changes to water quality or quantity.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** Should there be a decommissioning phase, this is anticipated to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quality or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				No appreciable effect is identified on the basis that the Proposed Onshore Scheme would not bisect the European site.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.21: Alde-Ore Estuary SPA – site description

Alde-Ore Estuary SPA [UK9009112] (Ref 121; Ref 122)	
Relevance	Proposed Scheme
Site size (Ref 75)	2,404ha
Distance and direction from the Proposed Offshore Scheme DOL	17 km south
Distance and direction from the Proposed Onshore Scheme DOL	3.1km south

Alde-Ore Estuary SPA [UK9009112] (Ref 121; Ref 122)	
(Amendment to Kiln Lane Substation Scenario)	
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	1.5km south
Qualifying features	Qualifies as it hosts the following Annex I birds: • A191 Sandwich tern; breeding; • A195 Little tern; breeding; • A081 Marsh harrier; breeding; • A132 Pied avocet; breeding; • A132 Pied avocet; non-breeding; and • A151 Ruff; non-breeding. Qualifies as it hosts the following migratory birds: • A193 Lesser black-backed gull; breeding; and • A162 Common redshank; non-breeding. The SPA also supports notable breeding wetland birds, in addition to those listed above, including: • A103 Eurasian oystercatcher (*Haematopus ostralegus*); • A137 Ringed plover (*Charadrius hiaticula*); • A142 Northern lapwing (*Vanellus vanellus*); • Black-headed gull; and • A213 Barn owl (*Tyto alba*). And wintering species including: • A683 Cormorant; • A394 Greater white-fronted goose; • A675 Brent goose (*Branta bernicula*); • A054 Northern Pintail; • A141 Grey plover (*Pluvialis squatarola*); • A149 Dunlin (*Calidris alpina*); and • A768 Eurasian curlew (*Numenius arquata*).
Qualifying features that meet the	• A191 Sandwich tern; breeding.

Alde-Ore Estuary SPA [UK9009112] (Ref 121; Ref 122)	
Proposed Offshore Scheme Screening criteria	
Qualifying features that meet the Proposed Onshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme, assessed in Screening **Table 5.22** as broad qualifying features non-breeding birds and breeding birds.
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site.
Threats/pressures (Ref 123; Ref 124)	• Hydrological changes – flood wall breaches due to tidal surge has led to flooding and loss of nesting habitat and saline lagoons; • Public access/disturbance – disturbance to nesting birds on beaches, trampling impacts vegetated shingle habitat, aircraft disturbs wintering and breeding birds; • Inappropriate coastal management – maintaining coastal defences is leading to increased shingle recharge requirements, and loss of shingle beach; • Coastal squeeze – Seawalls afford little scope for natural adaption of the estuary to sea level rise through roll back of habitat. Saltmarsh is at risk of being squeezed in the future and limited areas of natural habitat transition within the site could be lost; • Inappropriate pest control – fox predation/disturbance is a key issue for breeding birds, particularly lesser black-backed gulls; • Changes in species distributions – negative population trends in bird species using the site. Breeding locations are moving within and away from the designated site; • Invasive species – Spartina is encroaching on estuarine muds. With Spartina at the front, and reed encroaching at the back, saltmarsh could be squeezed out; • Air pollution: impact of atmospheric nitrogen deposition – Aerial deposits of nitrogen may exceed the site relevant critical load above which the diversity of saltmarsh vegetation begins to be altered (possibly to reed) and adversely impacted. Many land use practices contribute to this problem locally including land spreading, outdoor pigs, high nutrient inputs on fields; and

Alde-Ore Estuary SPA [UK9009112] (Ref 121; Ref 122)

- Fisheries: commercial marine and estuarine – fishing pressures include bycatch of juvenile fish and disturbance of fish nursery areas which could impact little tern by reducing suitable feeding areas.

Table 5.22: Alde-Ore Estuary SPA – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Offshore Scheme				
Sandwich tern	Temporary increase and deposition of suspended sediments	Construction	No LSE	Sandwich tern are in general visually foraging birds which means they are dependant of clear water to identify prey. They are therefore sensitive to changes in turbidity (Ref 125). The spatial area covered by a sediment plume is not expected to reach this site as the Alde-Ore Estuary Spa is 17km away from the Proposed Offshore Scheme. See **paragraph 5.2.19** for justification. Although this site is within the mean maximum breeding foraging range ± 1 SD (57.5km for sandwich tern), they are likely to forage closer to the SPA to conserve energy. Therefore, given the short duration of SSCs related to the Proposed Offshore Scheme and the distance to the Alde-Ore Estuary SPA, no LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Sandwich tern	Under water noise changes	Construction	No LSE	Underwater noise changes will be generated by geophysical survey, vessels and equipment, see **paragraph 5.2.23** for justification. As this site is 17km away from the Proposed Offshore Scheme, the SPA will not be directly impacted by underwater noise generated by the Proposed Offshore Scheme. However, birds could travel to forage within the DOL and subsequently be impacted by the noise generated from the vessels and equipment. Sandwich tern are low to moderately sensitive to noise (Ref 43) and have a low disturbance score (2) (Ref 18). The use of vessels during construction, maintenance and decommissioning activities will be transient and temporary. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Sandwich tern	Changes	Construction	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
	in distribution of prey species	Operation	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraphs 5.2.25** to **5.2.26** for justification. There will be no temporary or permanent habitat loss of supporting habitat for prey species within the site boundary however, there is the potential for the Proposed Offshore Scheme beyond the site boundary to impact the distribution of prey species. See **paragraph 5.2.27** for justification. Sandwich tern use the shallow coastal waters of the Proposed Offshore Scheme for foraging outside of the European site. They feed singly, in small parties or in widely scattered flocks in shallow water, often very close to the shoreline. Tern plunge dive to feed upon small fish, such as sand eels, sprat and young herring, but may also feed upon crustaceans and insects (Ref 80). Sandwich tern have a moderate habitat specialisation score (where 1 is the lowest and 5 is the highest) of 3 however, being a generalist feeder makes them less susceptible to changes in distribution of prey species. The impact of the Proposed Offshore Scheme on the distribution of fish and shellfish has been separately assessed as part of the PEIR and concluded that the Proposed Offshore Scheme would not cause changes in the distribution of fish and shellfish species (see **paragraph 5.2.31** for justification). No LSE are predicted.
		Decommissioning	No LSE	
Sandwich tern	Visual/physical disturbance or displacement	Construction	No LSE	Birds may be disturbed by the visual presence of the Proposed Offshore Scheme vessels, with some species more sensitive than others (see **paragraph 5.2.33** for justification). Although the Proposed Offshore Scheme is not within the SPA boundary, the coastal waters are used for birds from the SPA for foraging, as well as a wide range of maintenance activities, such as bathing and loafing. Tern species have a low disturbance score (2) (Ref 18) and Atterbury et al. (Ref 43) concluded a low to moderate sensitivity to visual disturbance. Fliessbach et al. (Ref 42) estimate that tern species have
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				an escape distance of between 0-200m and noted that tern species are amongst the least vulnerable to ship disturbance of 26 common European seabirds evaluated (including seaducks and divers). Considering the transient nature of the construction, maintenance and decommissioning activities, coupled with the fact that vessels will not be located within the Ramsar boundary, the Proposed Offshore Scheme will not have a significant effect on individuals from this site during any phase of development from this impact pathway. No LSE are predicted.
Sandwich tern	In-combination effects	Construction	No LSE	Refer to **paragraph 5.2.40**. No LSE predicted in-combination with other plans or projects for all impacts for sandwich tern.
		Operation	No LSE	
		Decommissioning	No LSE	
Proposed Onshore Scheme				
	Habitat loss	Construction	No LSE	Refer to **Section 4.2 Consideration of functionally linked land** and **Section 4.2 Habitat loss**. No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
		Operation	No LSE	Refer to **Section 4.2 Habitat loss.** No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
		Decommissioning	No LSE	Refer to **Section 4.2 Habitat loss.** No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
Non-breeding & breeding birds	Habitat damage or degradati	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis of distance and embedded standard pollution prevention measures to protect the

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
	on			general water environment.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the activities during the operational phase not anticipated to result in any changes to water quality or quantity or air quality.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** Should there be a decommissioning phase, this is anticipated to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quality or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Direct mortality or injury	Construction	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that there would be no construction activity within the European site, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Operation	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that no activities would be undertaken within the European site during the operational phase, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Decommissioning	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that should there be a decommissioning phase, no activities would be undertaken within the European site, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				that would be impacted and could give rise to direct mortality or injury.
	Disturbance	Construction	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis of distance from any construction activity to the European site.
		Operation	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis of distance and that it is anticipated that works would be limited to routine maintenance and monitoring and that should repairs be required, these would be small-scale, localised and short in duration.
		Decommissioning	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis that should there be a decommissioning phase this would be limited to works that are not in proximity to the European site.
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the Proposed Onshore Scheme does not bisect the European site.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.23: Alde-Ore Estuary Ramsar site – site description

Alde-Ore Estuary Ramsar site [UK11002] (Ref 126; Ref 127; Ref 128)	
Relevance	Proposed Onshore Scheme
Site size (Ref 88)	2,546.99ha
Distance and direction from the Proposed Offshore Scheme DOL	17km south
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	3.1km south
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	1.5km south

Alde-Ore Estuary Ramsar site [UK11002] (Ref 126; Ref 127; Ref 128)	
Qualifying features	Qualifies under Criterion 2 by supporting a number of nationally scarce plant species and British Red Data Book invertebrates. Qualifies under Criterion 3 by supporting a notable assemblage of breeding and wintering wetland birds. Qualifies under Criterion 6 by supporting an internationally important breeding population of: • A193 Lesser black-backed gull. Qualifies under Criterion 6 by supporting internationally important wintering populations of the following species: • A132 Pied avocet; and • A162 Common redshank.
Qualifying features that meet the Proposed Onshore Scheme Screening criteria	The bird qualifying features meet the Screening criteria for the Proposed Onshore Scheme, assessed as non-breeding bird species and assemblage and breeding bird species and assemblage.
Conservation Objectives	Ramsar sites do not have specific conservation objectives. However, many of the features overlap with the SPA and SAC designations and are considered to be covered by those.
Threats/pressures	Erosion

Table 5.24: Alde-Ore Estuary Ramsar site – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Onshore Scheme				
Non-breeding & breeding bird species &	Habitat loss	Construction	No LSE	Refer to **Section 5.2 Consideration of functionally linked land** and **Section 5.2Habitat loss**. No appreciable effect is identified on the basis that there will be no loss of supporting or functionally linked habitat for any qualifying species.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
assemblages		Operation	No LSE	Refer to **Section 5.2Habitat loss.** No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat loss.** No appreciable effect is identified on the basis that there would be no loss of supporting or functionally linked habitat for any qualifying species.
	Habitat damage or degradation	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis of distance and embedded standard pollution prevention measures to protect the general water environment.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the activities during the operational phase not anticipated to result in any changes to water quality or quantity or sir quality.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** Should there be a decommissioning phase, this is anticipated to be limited to the removal of assets that are not hydrologically connected or likely to give rise to changes in water quality or quality or air quality. Should the removal of cabling be required, these activities are unlikely to give rise to changes in water quality or quantity or air quality. No appreciable effect is identified.
	Direct mortality or injury	Construction	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that there would be no construction activity within the European site, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				mortality or injury.
		Operation	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that no activities would be undertaken within the European site during the operational phase, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
		Decommissioning	No LSE	Refer to **Section 5.2 Direct mortality or injury.** No appreciable effect is identified on the basis that should there be a decommissioning phase, no activities would be undertaken within the European site, the distance of any activities from the European site and that no relevant supporting or functionally linked land has been identified that would be impacted and could give rise to direct mortality or injury.
	Disturbance	Construction	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis of distance from any construction activity to the European site.
		Operation	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis of distance and that it is anticipated that works would be limited to routine maintenance and monitoring and that should repairs be required, these would be small-scale, localised and short in duration.
		Decommissioning	No LSE	Refer to **Section 5.2 Disturbance.** No appreciable effect is identified on the basis that should there be a decommissioning phase this would be limited to works that are not in proximity to the European site.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
	Fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the Proposed Onshore Scheme does not bisect the European site.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.25: Haisborough, Hammond and Winterton SAC Site description

Haisborough, Hammond and Winterton SAC [UK0030369] (Ref 129, Ref 130)	
Relevance	Proposed Offshore Scheme
Site size (Ref 131)	146,729.0ha
Distance and direction from the Proposed Offshore Scheme DOL)	10.2km north

Haisborough, Hammond and Winterton SAC [UK0030369] (Ref 129, Ref 130)	
Qualifying features	Qualifies as it hosts the following Annex I habitats: • 1170 Reefs ; and • 1110 Sandbanks which are slightly covered by seawater all the time.
Qualifying features that meet the Proposed Offshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Offshore Scheme
Conservation Objectives	The objectives are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the Favourable Conservation Status of its qualifying features, by maintaining or restoring: • the extent and distribution of qualifying natural habitats and habitats of the qualifying species; • the structure and function (including typical species) of qualifying natural habitats; • the structure and function of the habitats of the qualifying species; • the supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • the populations of each of the qualifying species; and • the distribution of qualifying species within the site.

Table 5.26: Haisborough, Hammond and Winterton SAC – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Offshore Scheme				
Annex I Habitats	Temporary habitat loss/seabed disturbance	Construction	No LSE	The Proposed Offshore Scheme does not cross the boundary for this SAC and is beyond the ZoI for the potential impact. Therefore, there is no source-pathway-receptor at any stage of the development. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	Temporary increase and deposition of suspended	Construction	No LSE	The maximum extent of sediment dispersion could be 15 km (refer to **paragraph 5.2.20** for justification) however, there would be no effect of a temporary increase and deposition of suspended sediments (refer to **paragraph 5.2.22**) on the qualifying features of this SAC. No
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
	sediments			LSE are predicted.
Annex I Habitats	Permanent habitat loss	Construction	No LSE	The Proposed Offshore Scheme does not cross the boundary for this SAC and is beyond the ZoI for the potential impact. Therefore, there is no source-pathway-receptor at any stage of the development. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	Temperature changes local	Construction	No LSE	The Proposed Offshore Scheme does not cross the boundary for this SAC and is beyond the ZoI for the potential impact. Therefore, there is no source-pathway-receptor at any stage of the development. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	EMF	Construction	No LSE	The Proposed Offshore Scheme does not cross the boundary for this SAC and is beyond the ZoI for the potential impact. Therefore, there is no source-pathway-receptor at any stage of the development. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	Water flow (tidal current) changes, including sediment transport considerations	Construction	No LSE	There is no-source-pathway-receptor at any stage of development on the qualifying features of the SAC (refer to **paragraph 5.2.35** for justification). No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	In-combination effects	Construction	No LSE	There is no source-pathway-receptor between the Proposed Offshore Scheme and other projects and plans to interact with either SAC at any stage of the development (refer to **paragraph 5.2.44** for justification). No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	

Table 5.27: North Norfolk Sandbanks and Saturn Reef SAC - Site Description

North Norfolk Sandbanks and Saturn Reef SAC [UK0030358] (Ref 132, Ref 133**)**	
Relevance	Proposed Offshore Scheme

North Norfolk Sandbanks and Saturn Reef SAC [UK0030358] (Ref 132, Ref 133)	
Site size (Ref 134)	360341.0ha
Distance and direction from the Proposed Offshore Scheme DOL)	13.1 km north
Qualifying features	Qualifies as it hosts the following Annex I habitats: • 1170 Reefs ; and • 1110 Sandbanks which are slightly covered by seawater all the time
Qualifying features that meet the Proposed Offshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Offshore Scheme
Conservation Objectives	For the features to be in favourable condition thus ensuring site integrity in the long term and contribution to Favourable Conservation Status of Annex I Sandbanks which are slightly covered by sea water all of the time and Annex I Reefs. This contribution would be achieved by maintaining or restoring, subject to natural change: • The extent and distribution of the qualifying habitats in the site; • The structure and function of the qualifying habitats in the site; and • The supporting processes on which the qualifying habitats rely.

Table 5.28: North Norfolk Sandbanks and Saturn Reef SAC – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Offshore Scheme				
Annex I Habitats	Temporary habitat loss/seabed disturbance	Construction	No LSE	The Proposed Offshore Scheme does not cross the boundary for this SAC and is beyond the ZoI for the potential impact. Therefore, there is no source-pathway-receptor at any stage of the development. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	Temporary increase and deposition of suspended	Construction	No LSE	The maximum extent of sediment dispersion could be 15 km (refer to **paragraph 5.2.20** for justification) however, there would be no effect of a temporary increase and deposition of suspended sediments (refer to **paragraph 5.2.22**) on the qualifying features of this SAC. No
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
	sediments			LSE are predicted.
Annex I Habitats	Permanent habitat loss	Construction	No LSE	The Proposed Offshore Scheme does not cross the boundary for this SAC and is beyond the ZoI for the potential impact. Therefore, there is no source-pathway-receptor at any stage of the development. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	Temperature changes local	Construction	No LSE	The Proposed Offshore Scheme does not cross the boundary for this SAC and is beyond the ZoI for the potential impact. Therefore, there is no source-pathway-receptor at any stage of the development. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	EMF	Construction	No LSE	The Proposed Offshore Scheme does not cross the boundary for this SAC and is beyond the ZoI for the potential impact. Therefore, there is no source-pathway-receptor at any stage of the development. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	Water flow (tidal current) changes, including sediment transport considerations	Construction	No LSE	There is no-source-pathway-receptor at any stage of development on the qualifying features of the SAC (refer to **paragraph 5.2.35** for justification). No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Annex I Habitats	In-combination effects	Construction	No LSE	There is no source-pathway-receptor between the Proposed Offshore Scheme and other projects and plans to interact with either SAC at any stage of the development (refer to **paragraph 5.2.44** for justification). No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	

Table 5.29: Orfordness-Shingle Street SAC – site description

Orfordness-Shingle Street SAC [UK0014780] (Ref 139; Ref 140; Ref 141)	
Relevance	Proposed Onshore Scheme
Site size (Ref 70)	888ha

Orfordness-Shingle Street SAC [UK0014780] (Ref 139; Ref 140; Ref 141)	
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	8.1km south
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	6.2km south
Qualifying features	Qualifies as it hosts the following Annex I habitats: • A1210 Annual vegetation of drift lines; • A1150 Coastal lagoons; and • A1220 Perennial vegetation of stony banks. (Coastal shingle vegetation outside the reach of waves).
Qualifying features that meet the onshore Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.
Threats/pressures (Ref 142)	• Changes in abiotic conditions; • Interspecific faunal relations; • Outdoor sports and leisure activities, recreational activities; and • Human induced changes in hydraulic conditions.

Table 5.30: Orfordness-Shingle Street SAC – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Onshore Scheme				
Annex I habitats	Habitat damage or degradation	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis that the European site would not be crossed by trenchless methods, is not hydrologically connected to the Proposed Onshore Scheme and due to distance no changes in air quality are likely.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the European site not being hydrologically connected to the Proposed Onshore Scheme, and that the activities during the operational phase not anticipated to result in any changes to water quality, quantity or air quality.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** No appreciable effect is identified on the basis that, should there be a decommissioning phase, the European site is not hydrologically connected to the Proposed Onshore Scheme and due to distance no changes in air quality are likely.
	Habitat fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect is identified on the basis that the Proposed Onshore Scheme would not bisect the European site.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-	Construction	No LSE	Refer to **Section 5.2 In-combination effects**.

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
	combination effects			No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.31: Staverton Park & The Thicks, Wantisden SAC – site description

Staverton Park & The Thicks, Wantisden SAC [UK0012741]	
Relevance	Proposed Onshore Scheme
Site size (Ref 70)	84.28ha
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	10.6km south
Distance and direction from the Proposed Onshore Scheme DOL (Amendment to Kiln Lane Substation Scenario)	9.9km south
Qualifying features	Qualifies as it hosts the following Annex I habitats: • H9190 Old *acidophilous* oak woods with *Q. robur* on sandy plains
Qualifying features that meet the Proposed Onshore Scheme Screening criteria	All qualifying features meet the Screening criteria for the Proposed Onshore Scheme

Staverton Park & The Thicks, Wantisden SAC [UK0012741]	
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.
Threats/pressures (Ref 142)	• Forest and Plantation management & use; • Outdoor sports and leisure activities, recreational activities; • Invasive non-native species; • Interspecific floral relations; • Human induced changes in hydraulic conditions; • Forestry and woodland management; • Disease; • Public Access/Disturbance; • Deer; • Hydrological changes; and • Air Pollution: impact of atmospheric nitrogen deposition.

Table 5.32: Staverton Park & The Thicks, Wantisden SAC – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Onshore Scheme				
Annex I habitats	Habitat damage or degradation	Construction	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified on the basis that the European site would not be crossed by trenchless methods, is not hydrologically connected to the Proposed Onshore Scheme and due to distance no changes in air quality are likely.
		Operation	No LSE	Refer to **Section 5.2 Habitat damage or degradation**. No appreciable effect is identified due to the European site not being

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				hydrologically connected to the Proposed Onshore Scheme, and that the activities during the operational phase not anticipated to result in any changes to water quality, quantity or air quality.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat damage or degradation.** No appreciable effect is identified on the basis that should there be a decommissioning phase, the European site is not hydrologically connected to the Proposed Onshore Scheme and due to distance no changes in air quality are likely.
	Habitat fragmentation	Construction	No LSE	Refer to **Section 5.2 Habitat fragmentation**. No appreciable effect alone is identified on the basis that the Proposed Onshore Scheme does not bisect the European site.
		Operation	No LSE	Refer to **Table 5.2**. No source-pathway-receptor identified.
		Decommissioning	No LSE	Refer to **Section 5.2 Habitat fragmentation**. The activities are unlikely to give rise to any fragmentation impacts and no appreciable effect is identified.
	In-combination effects	Construction	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Operation	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.
		Decommissioning	No LSE	Refer to **Section 5.2 In-combination effects**. No appreciable effect alone is identified which could act in-combination with any other plan or project.

Table 5.33: The Broads SAC - site description

The Broads SAC [UK0013577] (Ref 143; Ref 144)	
Relevance	Proposed Offshore Scheme
Site size (Ref 70)	5,889.43ha
Distance and direction from the Proposed Offshore Scheme DOL	13km north
Qualifying features	Qualifies as it hosts the following Annex I habitats: • H3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp;* • H3150 Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* type vegetation; • H6410 *Molinia* meadows on calcareous, peat or clay-silt soil; • H7140 Transition mires and quaking bogs; • H7210 Calcareous fens with *Cladium mariscus* and species of *Caricion davallianae;* • H7230 Alkaline fens; and • H91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*). Alder woodland on floodplains. Qualifies as it supports the following Annex II species: • S1355 Eurasian otter; • S1016 Desmoulin's whorl snail (*Vertigo moulinsiana*); • S1903 Fen orchid (*Liparis loeselii*); and • S4056 Ram's-horn snail (*Anisus vorticulus*).
Qualifying features that meet the offshore Screening criteria	S1355 Eurasian otter.
Conservation Objectives	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring: • The extent and distribution of qualifying natural habitats and habitats of qualifying species; • The structure and function (including typical species) of qualifying natural habitats; • The structure and function of the habitats of qualifying species; • The supporting processes on which qualifying natural habitats and the habitats of qualifying species rely; • The populations of qualifying species; and • The distribution of qualifying species within the site.

The Broads SAC [UK0013577] (Ref 143; Ref 144)	
Threats/pressures (Ref 146)	• Water pollution – diffuse water pollution, saline incursion due to climate change and increasing likelihood of both regular and extreme tidal impacts and point sources of pollution; • Climate change – potentially impacts many of the other identified issues; • Invasive species – involving a number of different species. could be exacerbated by climate change; • Siltation – a number of sites require significant lake restoration to restore SAC quality open water features; • Inappropriate water levels – it is essential that the correct water management infrastructure and operating protocols are in place to deliver the optimum hydrological regime for the features of interest at a site, also in the context of a changing climate. Appropriate water level management is critical to the maintenance of dykes and infield water features (for breeding waders); • Hydrological changes – water availability to sites from both surface and groundwater sources will come under increasing pressure in a changing climate; • Water abstraction – key issue potentially affecting the full range of Broads' habitats and species; • Change in land management – could have a significant impact on water supply and quality affecting sites; • Inappropriate ditch management – catch dykes may play a key role both in the transfer of diffuse pollution into sites, the interruption of the hydroseral succession from wet to dry habitats on the valley sides, impacts on water chemistry, and impacts on saline incursion. • Inappropriate scrub control – Encroachment of scrub into fens remains an issue across the Broads; • Changes in species distributions; • Public access/disturbance – Recreational impacts on SAC habitats and disturbance to wintering waterfowl, largely a result of boat-based use of the water bodies; • Undergrazing – an issue on a number of sites within the Broads. Issues often associated with difficult ground, the difficulty of implementing grazing infrastructure, and/or the lack of suitable stock. This can also impact on dyke margins; • Water pollution – diffuse pollution from the Brograve level due to past drainage in the catchment has led to elevated salinity and ochre levels in both Horsey Mere and Hickling Broad; • Drainage – a Water Level Management Plan to address ochre has now been costed and is planned to be delivered by 2015 by the Broads IDB;

The Broads SAC [UK0013577] (Ref 143; Ref 144)

- Direct impact from third party – the presence of military and police aircraft performing training exercises within the SPA is causing disturbance to the wildfowl interest features;
- Inappropriate coastal management – the presence of the sea wall at Winterton-Horsey Dunes compromises the coastal processes, and the dynamism within the dune features; and
- Air pollution – nitrogen deposition exceeds the site relevant critical load for ecosystem protection and hence there is a risk of harmful effects, particularly in the light of a changing climate.

Table 5.34: The Broads SAC – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Proposed Offshore Scheme				
Eurasian otter	Under water noise changes	Construction	No LSE	Increased presence of the Proposed Offshore Scheme vessels and equipment will generate underwater noise see **paragraph 5.2.2**for justification. As this site is 13km away from the Proposed Offshore Scheme, the SAC will not be directly impacted by underwater noise generated by the Proposed Offshore Scheme. Otter could travel to forage within the DOL and subsequently be impacted by the noise generated from the vessels and equipment. However, coastal otters can hunt as far as 80m seaward from the coast (Ref 30) and given the distance to the SAC, they will not be impacted by underwater noise generated by the Proposed Offshore Scheme. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Eurasian otter	Changes in distribution of prey species	Construction	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraphs 5.2.25** to **5.2.26**for justification. However, it should be noted that the Proposed Offshore Scheme is outside of the site boundary.
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				The diet of coastal otters may include rockling, butterfish and eelpout which are typically found in the intertidal zone and lumpsuckers (*Cyclopterus lumpus*) which are typically found in deeper waters and an occasional crab. The diet of otters varies depending on the availability of prey, which in turn varies with the time of year. Though there may be some changes in the distribution of prey during construction there should be a sufficient diverse range of food sources available throughout the year for the otter eat (Ref 147). Additionally, coastal otters can hunt as far as 80m seaward from the coast (Ref 30) and have large home ranges along the coast (32km for males and 20km for females) (Ref 29). Given the distance to the SAC (13km) they will have sufficient alternative habitat for foraging and will not be impacted by any direct loss of prey within the DOL. No LSE are predicted.
Eurasian otter	Visual/physical disturbance or displacement	Construction	No LSE	Little evidence has come to light to suggest that disturbance by recreation is a significant pressure (Ref 148), indicating that the otter is not particularly sensitive to visual and noise disturbance. Furthermore, coastal otters can hunt as far as 80m seaward from the coast (Ref 30) and given the distance to the SAC (13km) they will not be impacted by vessels within the Proposed Offshore Scheme. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Eurasian otter	Collision with Proposed Scheme vessels	Construction	No LSE	Coastal otters can hunt as far as 80m seaward from the coast (Ref 30) and given the distance to the Ramsar (15.9km) they will not be impacted by vessels within the Proposed Offshore Scheme. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Eurasian otter	In-combination effects	Construction	No LSE	Refer to **paragraph 5.2.45**. No LSE predicted in-combination with other plans or projects for all impacts for Eurasian otter.
		Operation	No LSE	
		Decommissioning	No LSE	

Table 5.35: Broadland Ramsar site-site description

Broadland Ramsar site [UK11010] (Ref 149; Ref 150; Ref 151)	
Relevance	Proposed Offshore Scheme
Site size (Ref 88)	5,488.61ha
Distance and direction from the Proposed Offshore Scheme DOL	15.9km north
Qualifying features	Qualifies under Criterion 2 (Ref 89) for supporting a number of rare species and habitats, including the following Annex I habitats: • H7120 Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* Calcium-rich fen dominated by great fen sedge (saw sedge); • H7230 Alkaline fens; and • H91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*). Qualifies under Criterion 2 for supporting the following Annex II species: • S1355 Eurasian otter; • S1016 Desmoulin's whorl snail; and • S1903 Fen orchid. Qualifies under Criterion 2 for supporting outstanding assemblages of rare plants and invertebrates including nine British Red Data Book plants and 136 British Red Data Book invertebrates. Qualifies under Criterion 6 for supporting wintering populations of the following species: • A037 Bewick's swan; • A050 Eurasian wigeon; • A703 Gadwall; and • A056 Northern shoveler. •
Qualifying features that meet the offshore Screening criteria	• S1355 Eurasian otter
Conservation Objectives	Ramsar sites do not have specific conservation objectives. However, many of the features overlap with the SPA and SAC designations and are considered to be covered by those.

Broadland Ramsar site [UK11010] (Ref 149; Ref 150; Ref 151)	
Threats/pressures	No factors reported.

Table 5.36: Broadland Ramsar site- Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Eurasian otter	Under water noise changes	Construction	No LSE	Increased presence of the Proposed Offshore Scheme vessels and equipment will generate underwater noise see **paragraphs 5.1.11** to **5.1.13** for justification. As this site is 15.9km away from the Proposed Offshore Scheme, the Ramsar will not be directly impacted by underwater noise generated by the Proposed Offshore Scheme. Otter could travel to forage within the DOL and subsequently be impacted by the noise generated from the vessels and equipment. However, coastal otters can hunt as far as 80m seaward from the coast (Ref 30) and given the distance to the Ramsar, they will not be impacted by underwater noise generated by the Proposed Offshore Scheme. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Eurasian otter	Changes in distribution of prey species	Construction	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraph 5.1.28** for justification. However, it should be noted that the Proposed Offshore Scheme is outside of the site boundary. The diet of coastal otters may include rockling, butterfish and eelpout which are typically found in the intertidal zone, lumpsuckers which are typically found in deeper waters and an occasional crab. The diet of otters varies depending on the availability of prey, which in turn varies with the time of year. Though there may be some changes in the distribution of prey during construction there should be a sufficient diverse range of food sources available throughout the year for the otter eat (Ref 147). Additionally, coastal otters can hunt as far as 80m seaward from the coast (Ref 30) and have large home ranges along
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				the coast (32km for males and 20km for females) (Ref 29). Given the distance to the SAC (15.9km) they will have sufficient alternative habitat for foraging and will not be impacted by any direct loss of prey within the DOL. No LSE are predicted.
Eurasian otter	Visual/physical disturbance or displacement	Construction	No LSE	Little evidence has come to light to suggest that disturbance by recreation is a significant pressure (Ref 148), indicating that the otter is not particularly sensitive to visual and noise disturbance. Furthermore, coastal otters can hunt as far as 80m seaward from the coast (Ref 30) and given the distance to the Ramsar (15.9km) they will not be impacted by vessels within the Proposed Offshore Scheme. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Eurasian otter	Collision with Proposed Scheme vessels	Construction	No LSE	Coastal otters can hunt as far as 80m seaward from the coast (Ref 30) and given the distance to the Ramsar (15.9km) they will not be impacted by vessels within the Proposed Offshore Scheme. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Eurasian otter	In-combination effects	Construction	No LSE	Refer to **paragraph 5.2.45**. No LSE predicted in-combination with other plans or projects for all impacts for Eurasian otter.
		Operation	No LSE	
		Decommissioning	No LSE	

Table 5.37: Greater Wash SPA – site description

Greater Wash SPA [UK9020329] (Ref 152)	
Relevance	Proposed Offshore Scheme
Site size (Ref 75)	353600ha
Distance and direction from the Offshore DOL	19km north
Qualifying features	Qualifies as it hosts the following Annex I species: • A001 Red-throated diver (in non-breeding season); • A177 Little gull (*Hydrocoloeus minutus*); non-breeding;

Greater Wash SPA [UK9020329] (Ref 152)	
	• A706 Common scoter; non-breeding; • A191 Sandwich tern; breeding; • A631 Little tern; breeding; and • A193 Common tern; breeding
Qualifying features that meet the offshore Screening criteria	• A191 Sandwich tern; breeding; and • A193 Common tern; breeding.
Conservation Objectives (Ref 153)	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring; • The extent and distribution of the habitats of the qualifying features • The structure and function of the habitats of the qualifying features • The supporting processes on which the habitats of the qualifying features rely • The population of each of the qualifying features, and, • The distribution of the qualifying features within the site.
Threats/pressures	• Shipping lanes, ports and marine constructions, military use and civil unrest, renewable abiotic energy use, fishing and harvesting aquatic resources and marine water pollution; • Fisheries: Commercial marine and estuarine – affecting non-breeding red-throated diver; • Changes in biotic conditions, outdoor sports and leisure activities, pollution to groundwater (point sources and diffuse sources) and human induced changes in hydraulic conditions; • Water pollution – affecting coastal lagoons; and • Physical modification – affecting coastal lagoons.

Table 5.38: Greater Wash SPA - Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Sandwich tern and common tern	Temporary increase and deposition of suspended sediments	Construction	No LSE	Tern species are in general visually foraging birds which means they are dependant of clear water to identify prey. They are therefore sensitive to changes in turbidity (Ref 154). The spatial area covered by a sediment plume is not expected to reach this site as the Greater Wash Spa is 19km away from the Proposed Offshore Scheme. See **paragraph 5.2.19** for justification. Although this site is within the
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				mean maximum breeding foraging range ± 1 SD (57.5km for sandwich tern and for common tern 26.9km), they are likely to forage closer to the SPA. Therefore, given the short duration of SSCs related to the Proposed Offshore Scheme and the distance to the Greater Wash SPA, no LSE are predicted.
Sandwich tern and common tern	Under water noise changes	Construction	No LSE	Underwater noise changes will be generated by geophysical survey, vessels and equipment, see **paragraph 5.2.23** for justification. As this site is 19km away from the Proposed Offshore Scheme, the SPA will not be permanently or directly affected by underwater noise from Proposed Scheme activities. However, birds are highly mobile and may still move within the EDR when foraging. Tern species are low to moderately sensitive to noise (Ref 43) and have a low disturbance score (2) (Ref 18). The use of vessels during construction, maintenance and decommissioning activities will be transient and temporary. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Sandwich tern and common tern	Changes in distribution of prey species	Construction	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraphs 5.2.25** to **5.2.26** for justification. There will be no temporary or permanent habitat loss of supporting habitat for prey species within the site boundary however, there is the potential for the Proposed Offshore Scheme beyond the site boundary to impact the distribution of prey species. See **paragraph 5.2.27** for justification. Sandwich tern and common tern use the shallow coastal waters of the Proposed Offshore Scheme for foraging outside of the European site. They feed singly, in small parties or in widely scattered flocks in shallow water, often very close to the shoreline. Tern plunge dive to feed upon small fish, such as sand eels, sprat and young herring, but may also feed upon crustaceans and insects (Ref 80). Tern species have a moderate habitat specialisation score (where 1 is the lowest and 5 is the highest) of 3 however, being a generalist feeder makes them less susceptible to changes in distribution of prey species.
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				The impact of the Proposed Offshore Scheme on the distribution of fish and shellfish has been separately assessed as part of the PEIR and concluded that the Proposed Offshore Scheme would not cause changes in the distribution of fish and shellfish species (see **paragraph 5.2.31** for justification). No LSE are predicted.
Sandwich tern and common tern	Visual/physical disturbance or displacement	Construction	No LSE	Birds may be disturbed by the visual presence of the Proposed Offshore Scheme vessels, with some species more sensitive than others (see **paragraph 5.2.33** for justification). Although the Proposed Offshore Scheme is not within the SPA boundary, the coastal waters are used for birds from the SPA for foraging, as well as a wide range of maintenance activities, such as bathing and loafing. Atterbury et al. (Ref 43) concluded that tern species are low to moderate sensitivity to visual disturbance. Sandwich tern are vulnerable to human disturbance during the breeding season. Premature nest-leaving as a result of human disturbance has been documented for chicks of Sandwich tern by (Ref 158) increasing nestling mortality. However, as the site is 19km away from the DOL, there will be no nest disturbance. Sandwich tern have a low disturbance score (2) (Ref 18) and although common tern do not have a disturbance score, other tern species in **Table 3.2** have a low disturbance score of 2 and therefore, it can be assumed that common tern would be similar. Fliessbach et al. (Ref 42) estimate that tern species have an escape distance of between 0-200m and noted that tern species are amongst the least vulnerable to ship disturbance of 26 common European seabirds evaluated (including seaducks and divers). Considering the transient nature of the construction, maintenance and decommissioning activities, coupled with the fact that vessels will not be located within the Ramsar boundary, the Proposed Offshore Scheme will not have a significant effect on individuals from this site during any phase of development from this
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				impact pathway. No LSE are predicted.
Sandwich tern and common tern	In-combination effects	Construction	No LSE	Refer to **paragraph 5.2.40**. No LSE predicted in-combination with other plans or projects for all impacts for sandwich tern and common tern.
		Operation	No LSE	
		Decommissioning	No LSE	

Table 5.39: Breydon Water SPA- site description

Breydon Water SPA [UK9009181] (Ref 155)	
Relevance	Proposed Offshore Scheme
Site size (Ref 156)	1203.05ha
Distance and direction from the Offshore DOL	25km north
Qualifying features	Qualifies as it hosts the following Annex I species: • A132 Pied avocet; non-breeding; • A037 Bewick's swan; non-breeding; • A193 Common tern; breeding; • A140 Golden plover; non-breeding; and • A151 Ruff; non-breeding. Qualifies as it hosts the following migratory birds: • A142 Northern Lapwing; non-breeding.
Qualifying features that meet the offshore Screening criteria	• A193 Common tern (in breeding season).
Conservation Objectives (Ref 155)	Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring: • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features;

Breydon Water SPA [UK9009181] (Ref 155)	
	• The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and • The distribution of the qualifying features within the site.
Threats/pressures (Ref 156; Ref 157)	• Outdoor sports and leisure activities, recreational activities, other human intrusions and disturbances, Modification of cultivation practices, fishing and harvesting aquatic resources and human induced changes in hydraulic conditions; • Shooting/scaring - land surrounding Breydon Water is used to entice wildfowl for shooting which may cause bird numbers to decline due to disturbance; • Change in land management - there is a threat to the SPA features of expiring HLS/ESA agreements and changing land use from grassland to arable which could affect conditions for aquatic plants and invertebrates which are important food sources to features of the SPA; • Public access/disturbance - there is potential for adverse impacts on birds from recreational disturbance at Breydon Water; • Hydrological changes - current saline intrusion events are possibly a threat to bird assemblages; and • Fisheries: commercial marine and estuarine - the mid to high level risk interactions between surface-feeding birds and netting/bait digging are known to occur in this SPA.

Table 5.40: Breydon Waters SPA - Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Common tern	Temporary increase and deposition of suspended sediments	Construction	No LSE	Common tern are in general visually foraging birds which means they are dependant of clear water to identify prey. They are therefore sensitive to changes in turbidity (Ref 154). However, it should be noted that the Proposed Offshore Scheme is outside the site of the boundary and the impact is on birds foraging outside of the SPA. The spatial area covered by a sediment plume is not expected to reach this site as the Breydon Waters Spa is 25km away from the Proposed Offshore Scheme. See **paragraph 5.2.19** for justification. Therefore, given the short duration of SSCs related to the Proposed Offshore Scheme and the distance to the Breydon Waters SPA, no LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Common tern	Under water noise changes	Construction	No LSE	Underwater noise changes will be generated by geophysical survey, vessels and equipment, see **paragraph 5.2.23** for justification. As this site is 25km away from the Proposed Offshore Scheme, the SPA will not be permanently or directly affected by underwater noise from Proposed Scheme activities. However, birds are highly mobile and may still move within the EDR for foraging. Atterbury et al. (Ref 43) concluded that tern species are low to moderate sensitivity to noise disturbance. Furthermore, the mean max foraging range ± 1SD for common tern is 26.9km. Given that the distance to the site is 25km, foraging grounds are likely to be closer to the SPA as and therefore, they are unlikely to be present in proximity to vessels to be affected by underwater noise, particularly as this is towards the upper limit of the common tern foraging range. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Common tern	Changes in distribution of prey species	Construction	No LSE	Changes in prey availability is a potential indirect impact which could arise during any phase of the Proposed Scheme life cycle. See **paragraphs 5.2.25** to **5.2.26** for justification. There will be no temporary or permanent habitat loss of supporting habitat for prey species within the site boundary however, there is the potential for the Proposed Offshore Scheme beyond the site boundary to impact the distribution of prey species. See **paragraph 5.2.27** for justification. Common tern forage within both inshore and offshore waters around the UK and feed in lose single species colonies, or mixed colonies with other tern species and black-headed gulls. As opportunistic feeders, common tern have a wide range of prey including fish, crustaceans, squid, marine worms and insects (Ref 80). Common tern do not have a habitat specialisation score in the Joint Interim Advice (Ref 18) however other tern species in **Table 3.2** have a habitat specialisation score of 3 or more and therefore, it can be assumed that common tern would be similar.
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				The impact of the Proposed Offshore Scheme on the distribution of fish and shellfish has been separately assessed as part of the PEIR and concluded that the Proposed Offshore Scheme would not cause changes in the distribution of fish and shellfish species (see **paragraph 5.2.31** for justification). No LSE are predicted.
Common tern	Visual/physical disturbance or displacement	Construction	No LSE	Birds may be disturbed by the visual presence of the Proposed Offshore Scheme vessels, with some species more sensitive than others (see **paragraph 5.2.33** for justification). Although the Proposed Offshore Scheme is not within the SPA boundary, the coastal waters are used for birds from the SPA for foraging, as well as a wide range of maintenance activities, such as bathing and loafing. Although common tern were not assigned a disturbance score in the Joint Interim Advice (Ref 18), other tern species in **Table 3.2** have a low disturbance score of 2 and therefore, it can be assumed that common tern would be similar. In addition, Atterbury et al. (Ref 43) concluded that tern species are low to moderate sensitivity to visual disturbance. Fliessbach et al. (Ref 42) estimate that tern species have an escape distance of between 0-200m and noted that tern species are amongst the least vulnerable to ship disturbance of 26 common European seabirds evaluated (including seaducks and divers). Considering the transient nature of the construction, maintenance and decommissioning activities, coupled with the fact that vessels will not be located within the Ramsar boundary, the Proposed Offshore Scheme will not have a significant effect on individuals from this site during any phase of development from this impact pathway. No LSE are predicted.
		Operation	No LSE	
		Decommissioning	No LSE	
Common tern	In-combination effects	Construction	No LSE	Refer to **paragraph 5.2.40**. No LSE predicted in-combination with other plans or projects for all impacts for common tern.
		Operation	No LSE	
		Decommissioning	No LSE	

Table 5.41: Transboundary European sites – site descriptions

Site name and ID	Country	Distance from Offshore DOL	Relevant qualifying feature
Bruine Bank SPA [NL2021168] (Ref 159)	Netherlands	41km	A200 Razorbill; and A678 Common guillemot.
Klaverbank SAC [NL2008002] (Ref 160)	Netherlands	46km	1351 Harbour porpoise; 1364 Grey seal; and 1365 Harbour seal.
Friese Front SPA [NL2016166] (Ref 161)	Netherlands	79km	A678 Common guillemot.
Vlaamse Banken SAC [BEMZ0001] (Ref 162)	Belgium	101km	1351 Harbour porpoise.
Doggerbank SAC [NL2008001] (Ref 163)	Netherlands	107km	1351 Harbour porpoise.
Bancs des Flandres SPA [FR3112006]	France	113km	A200 Razorbill.
Bancs des Flandres SCI [FR3102002] (Ref 164)	France	115km	1351 Harbour porpoise.
Voordelta SAC [NL4000017] (Ref 165)	Netherlands	115km	1351 Harbour porpoise.
Noordzeekustzone SAC [NL9802001] (Ref 166)	Netherlands	116km	1351 Harbour porpoise.
Vlakte van de Raan SAC [BEMNZ0005] (Ref 167)	Belgium/	118km	1351 Harbour porpoise.
Vlakte van de Raan SAC [NL2008003] (Ref 168)	Netherlands	118km	1351 Harbour porpoise.
Westerschelde & Saeftinghe SAC [NL9803061] (Ref 169)	Netherlands	118km	1351 Harbour porpoise.
Dunes de la plaine maritime flamande SAC [FR3100474] (Ref 170)	France	142km	1351 Harbour porpoise.
Falaises du Cran aux Oeufs et du Cap Gris-Nez, Dunes du Chatelet, Marais de Tardinghen et Dunes de Wissant SAC [FR3100478] (Ref 171)	France	145km	1351 Harbour porpoise.
Recifs Gris-Nez Blanc-Nez SCI [FR3102003] (Ref 172)	France	148km	1351 Harbour porpoise.
Ridens et dunes hydrauliques du détroit du Pas-de-Calais SAC [FR3102004] (Ref 173)	France	155km	1351 Harbour porpoise.

Site name and ID	Country	Distance from Offshore DOL	Relevant qualifying feature
Unterelbe SAC [DE20218331] (Ref 174)	Germany	188km	1351 Harbour porpoise.
Baie de Canche et couloir des trois estuaires SAC [FR3102005] (Ref 175)	France	195km	1351 Harbour porpoise.
Borkum-Riffgrund SCI [DE2104301] (Ref 176)	Germany	211km	1351 Harbour porpoise.
Doggerbank SAC [DE1003301] (Ref 177)	Germany	230km	1351 Harbour porpoise.
Nationalpark Niedersächsisches Wattenmee SAC [DE2306301] (Ref 178)	Germany	240km	1351 Harbour porpoise.
Littoral Cauchois SAC [FR2300139] (Ref 179)	France	250km	1351 Harbour porpoise.

Table 5.42: Transboundary European sites – Screening for LSE

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
Auks	Temporary increase and deposition of suspended sediments	Construction	No LSE	Auks are water column feeders and therefore potentially impacted by turbidity when they forage for prey. A study in South Africa suggested that water clarity did not significantly affect the distribution of waterbirds (Ref 180). Common guillemot and razorbill are moderately sensitive to increased water turbidity in response to dredging operations (Ref 106). However, it should be noted that the Proposed Offshore Scheme is outside the site of the boundary and the impact is on birds foraging outside of the SPA. Although several Proposed Offshore Scheme activities will create minor elevations in SSCs, cable burial will cause the largest temporary sediment plume (elevation in SSCs) in proximity to the UK/NL border. As the nearest transboundary European site to have auks as qualifying features is Bruine Bank SPA which is 41km away from the DOL, the spatial area covered by a sediment plume is not expected to reach any transboundary sites. See **paragraphs 5.1.7** to **5.1.8** for justification. The effects from marine activities in UK waters
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				will be limited in spatial extent close to the jurisdictional boundary i.e., concentrations of suspended sediments will be exceeded across the border, but only to the same extent that sediment is travelling in UK waters – within 15km. The DOL are however within the mean maximum breeding foraging range ± 1 SD for common guillemot and razorbill (95.2km and 122.2km, respectively). However, the length of This means that individuals could forage within the DOL to be impacted by an increase in SSC. However, it would not be within the foraging range from the coastal colonies in other member states, If individuals are flying offshore to get to reach the Natura 2000 site, they are unlikely to travel further to reach the DOL as preferred foraging grounds are likely closer to the Natura 2000 site. Therefore, given the short duration of SSCs related to the Proposed Offshore Scheme and the distance to the transboundary sites with auks as a qualifying feature, no LSE are predicted
Auks	Under water noise changes	Construction	No LSE	Underwater noise changes will be generated by geophysical survey, vessels and equipment, see **paragraphs 5.1.11** to **5.1.13** for justification. changes in underwater noise may result in the temporary behavioural disturbance and displacement of birds. Underwater noise directly influences water column feeders such as auks. Common guillemot and razorbill spend a large amount of time underwater diving in search of prey on the seabed. As the nearest European site to have auk as qualifying features is Bruine Bank SPA which is 41km away from the DOL, no transboundary sites will be directly impacted by underwater noise generated by the Proposed Offshore Scheme. However, birds could travel to forage within the DOL and subsequently be impacted by the noise generated from the vessels and equipment. The DOL are however within the mean maximum breeding foraging range ± 1 SD for common guillemot and razorbill (95.2km and 122.2km, respectively). However, the length of This means that individuals could forage within the DOL to be impacted by an
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				increase in SSC. However, it would not be within the foraging range from the coastal colonies in other member states, If individuals are flying offshore to get to reach the Natura 2000 site, they are unlikely to travel further to reach the DOL as preferred foraging grounds are likely closer to the Natura 2000 site. Therefore, given the small ZoI of this impact and the distance from the DOL to the transboundary sites with auks as a qualifying feature, no LSE are predicted.
Harbour porpoise	Under water noise changes	Construction	No LSE	For the purposes of the assessment, the JNCC (Ref 56) precautionary EDR for harbour porpoise for geophysical surveys of 5km has been used to assess the potential effects of disturbance from underwater noise. There are no transboundary European sites within 5km of the DOL and therefore there will be no directs impacts on transboundary European sites designated for harbour porpoise. The nearest transboundary European site is Klaverbank SAC which is 46km away from the DOL. Indirect impacts have been considered including animals moving from the sites into the ZoI, however given the wide area available for foraging within the management unit and the short duration of the Proposed Offshore Scheme activities, there will be no LSE on foraging animals from transboundary European sites.
		Operation	No LSE	
		Decommissioning	No LSE	
Grey Seal Harbour seal	Under water noise changes	Construction	No LSE	For the purposes of the assessment, the JNCC (Ref 56) precautionary EDR for harbour porpoise for geophysical surveys of 5km has been used to assess the potential effects of disturbance from underwater noise. This has been used as a proxy for pinnipeds as there are no equivalent thresholds. Pinnipeds are not as sensitive to underwater noise to very high frequency cetaceans (harbour porpoise) and therefore this is a worst-case assumption. As noted above the 5km EDR is a worst-case for harbour porpoise and therefore is highly precautionary.
		Operation	No LSE	
		Decommissioning	No LSE	

Qualifying features	Potential effects	Phase	LSE conclusion	Justification
				There are no transboundary European sites within 5km of the DOL and therefore there will be no directs impacts on grey seal and harbour seal within a transboundary European site. The nearest transboundary European site is Klaverbank SAC which is 46km away from the DOL. Indirect impacts have been considered including animals moving from the sites into the ZoI, however given the size of the North Sea in relation to grey seals and harbour seals foraging ranges of up to 100km and 50km from haul-out sites on the coast respectively, and the fact that works will take place against a high level of shipping activity in the Southern North Sea, the Proposed Offshore Scheme activities will not have a LSE on foraging animals from the relevant transboundary European sites. No LSE predicted.
All species	In-combination effects	Construction	No LSE	There are many major infrastructure projects being developed within the waters of the Southern North Sea by different European countries. Though construction with one or more of these projects may overlap with the Proposed Offshore Scheme given the distance between the DOL and transboundary European designated sites this is unlikely to cause any significant effect. Therefore, no in-combination effects are predicted for the Proposed Offshore Scheme and no LSE is predicted.
		Operation	No LSE	
		Decommissioning	No LSE	

6 Conclusion

6.1 Screening Statement

6.1.1 Having reviewed relevant legislation and followed the HRA guidance, a Stage 1 Screening for Appropriate Assessment was undertaken to ascertain whether or not the Proposed Scheme is likely to have a likely significant effect upon any European site.

6.1.2 The Screening approach identified 19 UK European sites and 22 transboundary European sites as relevant, either because they were in the direct zone of influence of the Proposed Scheme, or they contained mobile Annex II species which could potentially travel into the zone of influence of the Proposed Scheme.

6.1.3 A review of the Proposed Scheme description identified 13 potential offshore impact pathways during construction, operation and maintenance/decommissioning namely:

a. temporary habitat loss/seabed disturbance;
b. temporary increase and deposition of suspended sediments;
c. permanent habitat loss;
d. under water noise changes;
e. barrier to species movement;
f. temperature changes – local;
g. introduction or spread of marine invasive non-native species (MINNS);
h. water flow (tidal current) changes, including sediment transport considerations;
i. accidental spills;
j. changes in distribution of prey species;
k. visual/physical disturbance or displacement;
l. collision with Proposed Scheme vessels; and
m. in-combination effects.

6.1.4 A review of the Proposed Scheme description identified six potential onshore impact pathways during construction, operation and maintenance/decommissioning namely:

a. reduction of habitat area;
b. habitat damage or degradation;
c. direct mortality or injury;
d. disturbance of qualifying species;
e. habitat or species fragmentation; and
f. in-combination effects.

6.1.5 An assessment taking into consideration the conservation objectives for the European sites and the Designated Features was undertaken for each relevant European site and is summarised in **Table 5-1**. Where Screening concluded that

at this stage LSE cannot be ruled out, it is proposed that Appropriate Assessment is undertaken for the European site. Considering the conclusions, the Applicant will prepare a RIAA for the following European sites:

a. Minsmere to Walberswick Heaths & Marshes SAC;
b. Minsmere-Walberswick SPA;
c. Minsmere-Walberswick Ramsar site;
d. Southern North Sea SAC; and
e. Outer Thames Estuary SPA.

6.1.6 Conservation Objectives for which LSE could not be ruled out are provided in **Appendix E Natura 2000 Standard Data Forms and Conservation Objectives**.

Table 6.1: Summary of HRA Stage 1 Screening

Site name	Relevant qualifying feature	Potential impact	Conclusion
Minsmere to Walberswick Heaths & Marshes SAC	Annex I habitats	Habitat damage or degradation	LSE for the Proposed Onshore Scheme alone during construction
		Habitat fragmentation	No LSE
		In-combination	LSE
Minsmere-Walberswick SPA	Litte tern, Seaducks and geese	Temporary increase and deposition of suspended sediments	No LSE
		Under water noise changes	No LSE
		Changes in distribution of prey species	No LSE
		Visual/physical disturbance or displacement	No LSE
	Non-breeding & breeding birds	Habitat loss	No LSE
		Habitat damage or degradation	LSE for the Proposed Onshore Scheme alone during construction
		Direct mortality or injury	No LSE
		Disturbance	LSE for the Proposed Onshore Scheme during construction & decommissioning
		Fragmentation	No LSE
		In-combination	LSE
Minsmere Ramsar site	Seaducks	Temporary increase and deposition of suspended sediments	No LSE
		Under water noise changes	No LSE

Site name	Relevant qualifying feature	Potential impact	Conclusion
		Changes in distribution of prey species	No LSE
		Visual/physical disturbance or displacement	No LSE
	Annex I habitats	Habitat damage or degradation	LSE for the Proposed Onshore Scheme alone during construction
		Fragmentation	No LSE
	Invertebrate species & assemblage	Habitat loss	No LSE
		Habitat damage or degradation	LSE for the Proposed Onshore Scheme alone during construction
		Direct mortality, injury or disturbance	LSE for the Proposed Onshore Scheme alone during construction
		Fragmentation	No LSE
	Non-breeding & breeding bird species & assemblage	Habitat loss	No LSE
		Habitat damage or degradation	LSE for the Proposed Onshore Scheme alone during construction
		Direct mortality or injury	No LSE
		Disturbance	LSE for the Proposed Onshore Scheme alone during construction & decommissioning
		Fragmentation	No LSE
		In-combination effects	LSE
Southern North Sea SAC	Harbour porpoise	Under water noise changes	No LSE

Site name	Relevant qualifying feature	Potential impact	Conclusion
		EMF	No LSE
		Changes in distribution of prey species	No LSE
		Visual/physical disturbance or displacement	No LSE
		Collision with Proposed Scheme vessels	No LSE
		Habitat loss	No LSE
		Habitat damage or degradation	No LSE
		Direct mortality, injury or disturbance	No LSE
		Fragmentation	No LSE
		In-combination effects	LSE
Outer Thames Estuary SPA	Red-throated diver and tern species	Temporary increase and deposition of suspended sediments	No LSE
		Under water noise changes	No LSE
		Changes in distribution of prey species	No LSE
	Red-throated diver	Visual/physical disturbance or displacement	LSE for the Proposed Offshore Scheme
	Tern species	Visual/physical disturbance or displacement	No LSE
		In-combination effects	No LSE
	Red-throated diver	In-combination effects	LSE for the Proposed Offshore Scheme
	Non-breeding & breeding birds	Habitat loss	No LSE
		Habitat damage or degradation	No LSE

Site name	Relevant qualifying feature	Potential impact	Conclusion
		Direct mortality or injury	No LSE
		Disturbance	No LSE
		Fragmentation	No LSE
		In-combination effects	LSE
Benacre to Easton Bavents Lagoons SAC	Annex I habitats	Habitat damage or degradation	No LSE
		Fragmentation	No LSE
		In-combination	No LSE
Benacre to Easton Bavents SPA	Little tern	Temporary increase and deposition of suspended sediments	No LSE
		Under water noise changes	No LSE
		Changes in distribution of prey species	No LSE
		Visual/physical disturbance or displacement	No LSE
	Breeding birds	Habitat loss	No LSE
		Habitat damage or degradation	No LSE
		Direct mortality or injury	No LSE
		Disturbance	No LSE
		Fragmentation	No LSE
		In-combination effects	No LSE
Sandlings SPA	Breeding birds	Habitat loss	No LSE
		Habitat damage or degradation	No LSE
		Direct mortality or injury	No LSE
		Disturbance	No LSE

Site name	Relevant qualifying feature	Potential impact	Conclusion
		Fragmentation	No LSE
		In-combination effects	No LSE
Alde-Ore & Butley Estuaries SAC	Annex I habitats	Habitat damage or degradation	No LSE
		Fragmentation	No LSE
		In-combination	No LSE
Alde-Ore Estuary SPA	Sandwich tern	Temporary increase and deposition of suspended sediments	No LSE
		Under water noise changes	No LSE
		Changes in distribution of prey species	No LSE
		Visual/physical disturbance or displacement	No LSE
	Non-breeding & breeding birds	Habitat loss	No LSE
		Habitat damage or degradation	No LSE
		Direct mortality or injury	No LSE
		Disturbance	No LSE
		Fragmentation	No LSE
		In-combination effects	No LSE
Alde-Ore Estuary Ramsar site	Non-breeding & breeding bird species & assemblages	Habitat loss	No LSE
		Habitat damage or degradation	No LSE
		Direct mortality or injury	No LSE
		Disturbance	No LSE
		Fragmentation	No LSE
		In-combination effects	No LSE

Site name	Relevant qualifying feature	Potential impact	Conclusion
Haisborough, Hammond and Winterton SAC	Annex I Habitat	Temporary habitat loss/seabed disturbance	No LSE
		Temporary increase and deposition of suspended sediments	No LSE
		Permanent habitat loss	No LSE
		Temperature changes local	No LSE
		EMF	No LSE
		Water flow (tidal current) changes, including sediment transport considerations	No LSE
		In-combination	No LSE
North Norfolk Sandbanks and Saturn Reef SAC	Annex I Habitat	Temporary habitat loss/seabed disturbance	No LSE
		Temporary increase and deposition of suspended sediments	No LSE
		Permanent habitat loss	No LSE
		Temperature changes local	No LSE
		EMF	No LSE
		Water flow (tidal current) changes, including sediment transport considerations	No LSE
		In-combination	No LSE
Orfordness-Shingle Street SAC	Annex I habitats	Habitat damage or degradation	No LSE
		Fragmentation	No LSE
		In-combination	No LSE
Staverton Park & The	Annex I habitats	Habitat damage or degradation	No LSE

Site name	Relevant qualifying feature	Potential impact	Conclusion
Thicks, Wantisden SAC		Fragmentation	No LSE
		In-combination	No LSE
The Broads SAC	Eurasian otter	Under water noise changes	No LSE
		Changes in distribution of prey species	No LSE
		Visual/physical disturbance or displacement	No LSE
		Collision with Proposed Scheme vessels	No LSE
		In-combination effects	No LSE
Broadland Ramsar	Eurasian otter	Under water noise changes	No LSE
		Changes in distribution of prey species	No LSE
		Visual/physical disturbance or displacement	No LSE
		Collision with Proposed Scheme vessels	No LSE
		In-combination effects	No LSE
Greater Wash SPA	Sandwich tern and common tern	Temporary increase and deposition of suspended sediments	No LSE
		Under water noise changes	No LSE
		Changes in distribution of prey species	No LSE
		Visual/physical disturbance or displacement	No LSE
		In-combination effects	No LSE
Breydon Waters SPA	Common tern	Temporary increase and deposition of suspended sediments	No LSE
		Under water noise changes	No LSE
		Changes in distribution of prey species	No LSE

Site name	Relevant qualifying feature	Potential impact	Conclusion
		Visual/physical disturbance or displacement	No LSE
		In-combination effects	No LSE
Transboundary European sites	Razorbill and common guillemot	Temporary increase and deposition of suspended sediments	No LSE
		Under water noise changes	No LSE
	Harbour porpoise, Grey and harbour seal	Under water noise changes	No LSE
	All species	In-combination effects	No LSE

Appendix A: Proposed Scheme Draft Order Limits



Proposed Scheme Draft Order Limits

Mean High Water (Springs)*

Mean Low Water (Springs)

Exclusive Economic Zone

*MHWS tide line will vary depending on the scale of the drawing and Ordnance Survey product used to represent the background map.

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Coordinate System: British National Grid

Kilometres

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Rev	Date	By	Chkd	Appd	Authd
02	01/10/2025	AW	JM	LC	LC

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Client

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Drawing Title

HRA Stage 1 Screening - Proposed Scheme Draft Order Limits

Scale at A3

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Role

HRA Evidence Plan

Suitability

For Information

Project Number

287334-00

Rev

02

Drawing Number

LL-ARP-FIG-ENV-0155-P01

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Appendix B: Proposed Offshore Scheme Draft Order Limits

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A3

Proposed Offshore Scheme Draft Order Limits

12NM

Exclusive Economic Zone Limit

0 150 300 km

Coordinate System
ETRS89 / UTM zone 31N

Kilometres

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P01	18/07/2025	JC	AN	DS	AF

collaborative environmental advisers

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Role
Environment

Suitability
S2

Project Number
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Rev
P01

Drawing Number
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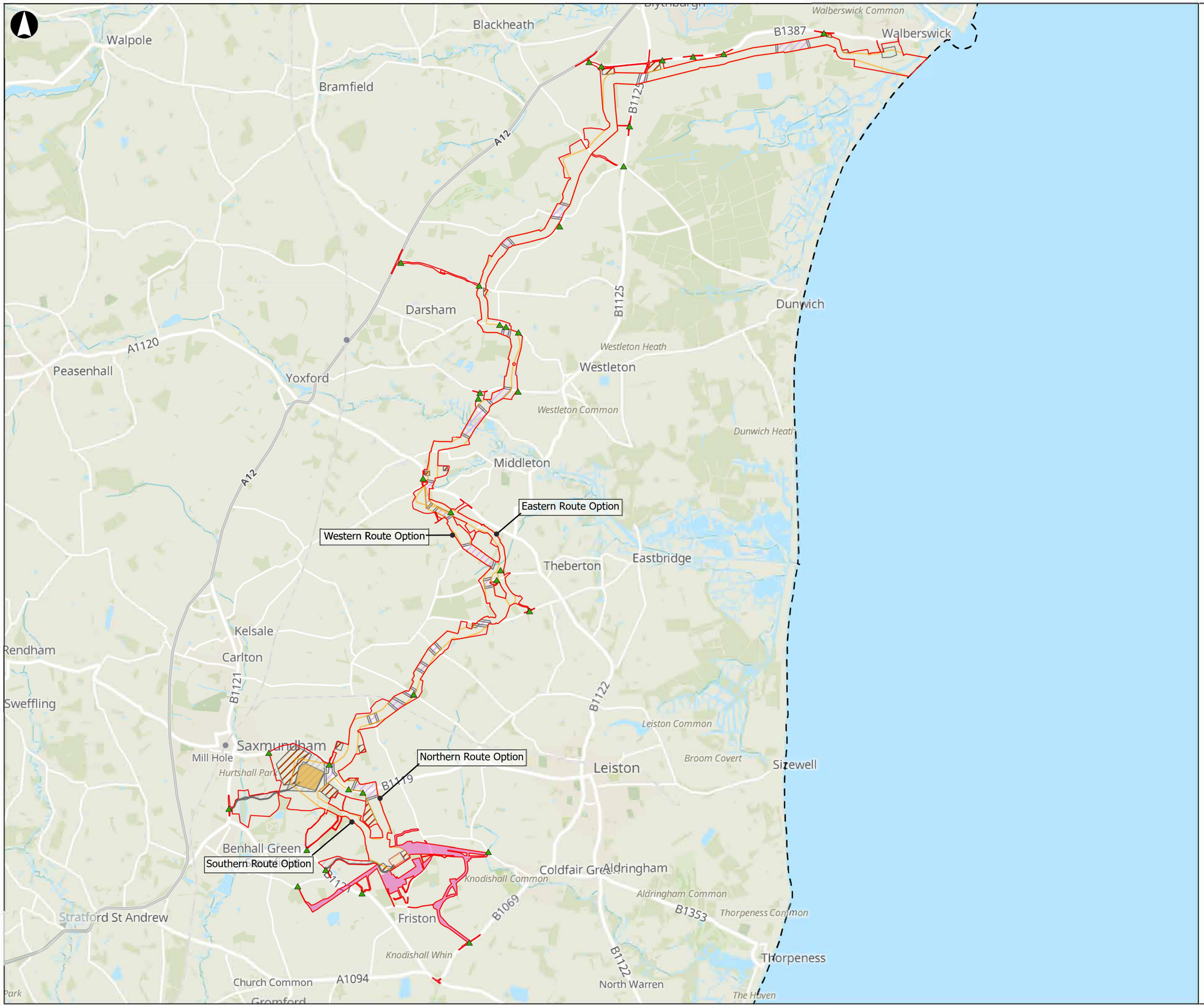
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Appendix C: Proposed Onshore Scheme



- Proposed Onshore Scheme Draft Order Limits
- Mean Low Water Springs
- Full Build-out of Kiln Lane Substation Scenario
- Kiln Lane Substation Limits of Deviation
- Converter Station Limits of Deviation
- Cable Route Limit of Deviation
- Proposed Permanent Access Road LOD
- Proposed Permanent Access Road
- Proposed Bellmouth
- Landfall Site
- Proposed Trenchless Installation
- Temporary Construction Compound

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HRA Stage 1 Screening Proposed Onshore Scheme

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Role

Environment

Suitability

S2

Project Number

287334-00

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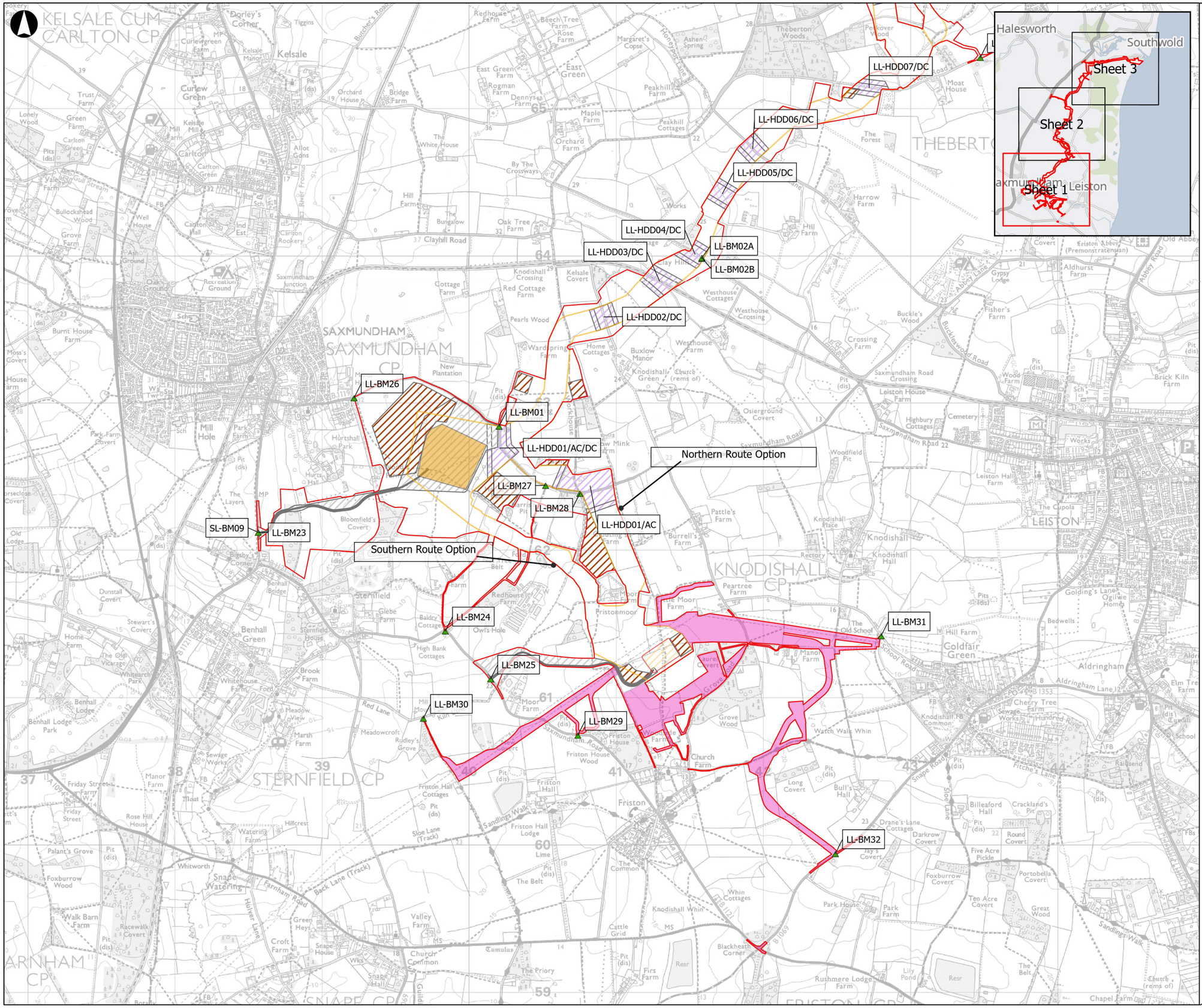
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- Proposed Onshore Scheme Draft Order Limits
- Full Build-out of Kiln Lane Substation Scenario
- Kiln Lane Substation Limits of Deviation
- Converter Station Limits of Deviation
- Cable Route Limit of Deviation
- Proposed Permanent Access Road LOD
- Proposed Permanent Access Road
- Proposed Bellmouth
- Landfall Site
- Proposed Trenchless Installation
- Temporary Construction Compound

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HRA Stage 1 Screening Proposed Onshore Scheme - Sheet 1

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Role

Environment

Suitability

S2

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287334-00

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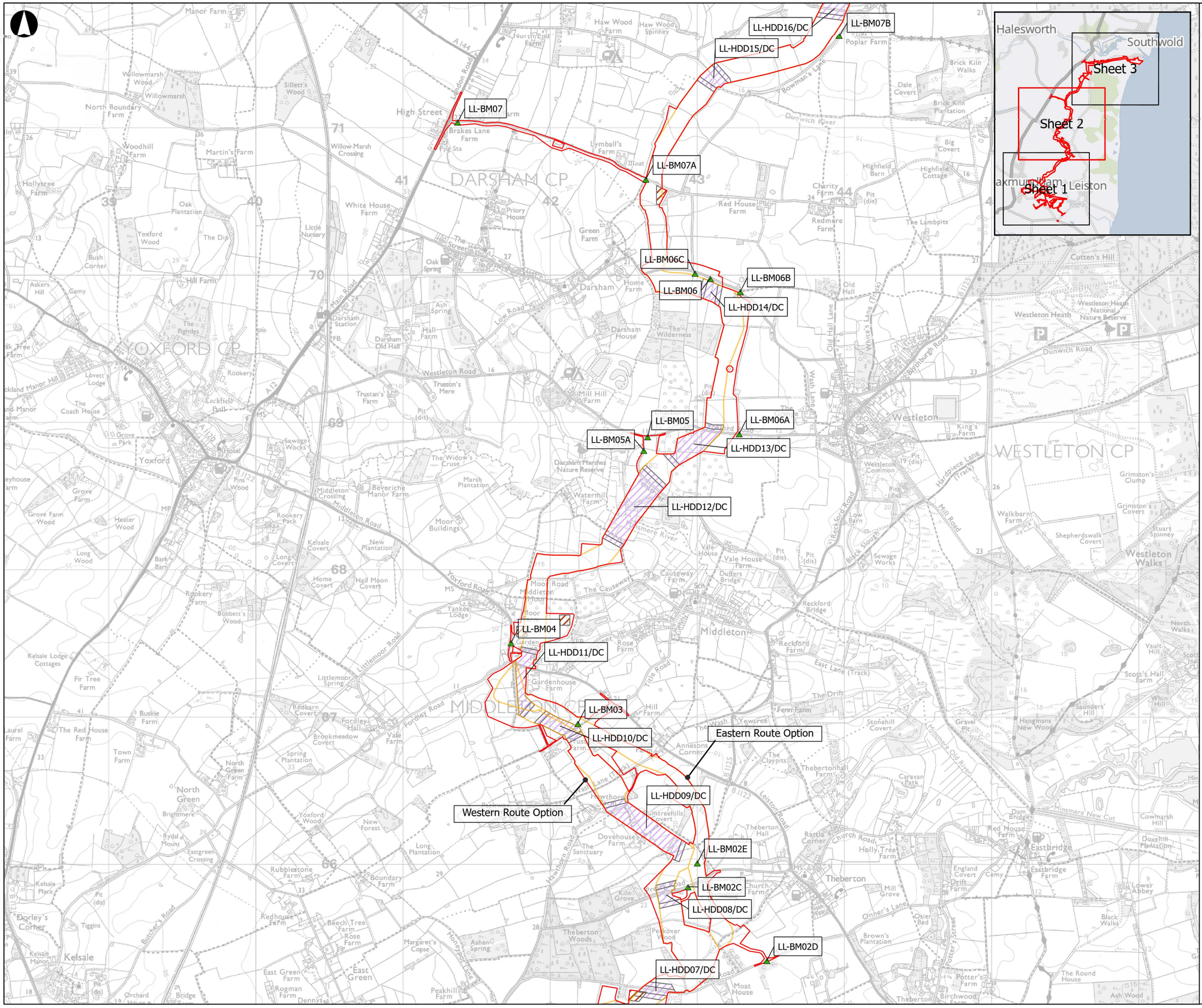
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- Kiln Lane Substation Limits of Deviation
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- Proposed Trenchless Installation
- Temporary Construction Compound

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Role

Environment

Suitability

S2

Project Number

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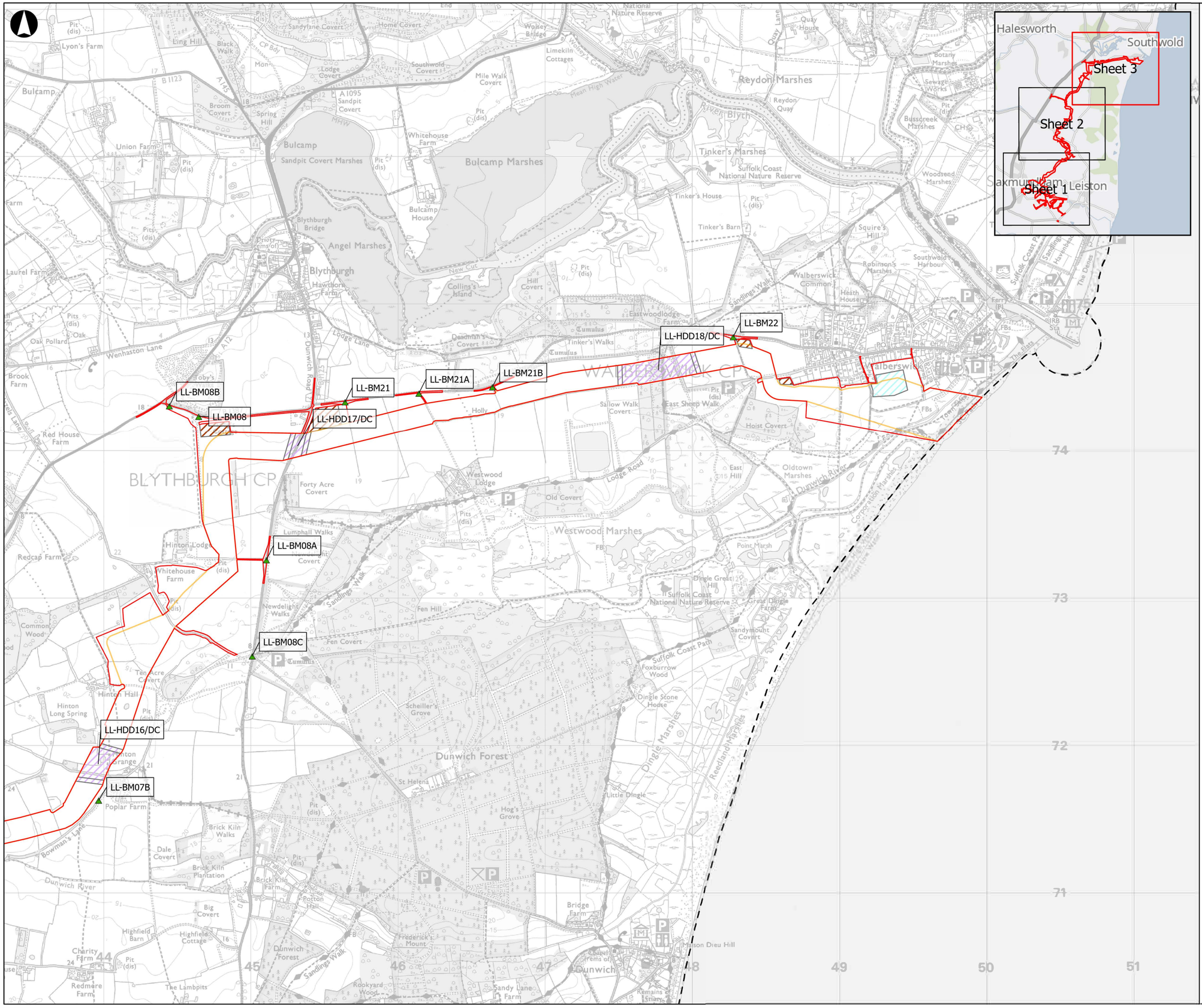
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- Proposed Onshore Scheme Draft Order Limits
- Mean Low Water Springs
- Kiln Lane Substation Limits of Deviation
- Converter Station Limits of Deviation
- Cable Route Limit of Deviation
- Proposed Permanent Access Road LOD
- Proposed Permanent Access Road
- Proposed Bellmouth
- Landfall Site
- Proposed Trenchless Installation
- Temporary Construction Compound

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AC0000808122

Coordinate System: British National Grid

Kilometres

0 0.5 1

Rev	Date	By	Chkd	Appd	Authd
02	17/12/2025	JM	JM	CP	CE

ARUP

8 Fitzroy Street
London W1T 4BJ
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www.arup.com

Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Drawing Title

HRA Stage 1 Screening Proposed Onshore Scheme - Sheet 3

Scale at A3

1:25,000

Role

Environment

Suitability

S2

Project Number

287334-00

Rev

02

Drawing Number

LL-ARP-FIG-ENV-0155-P01

A3

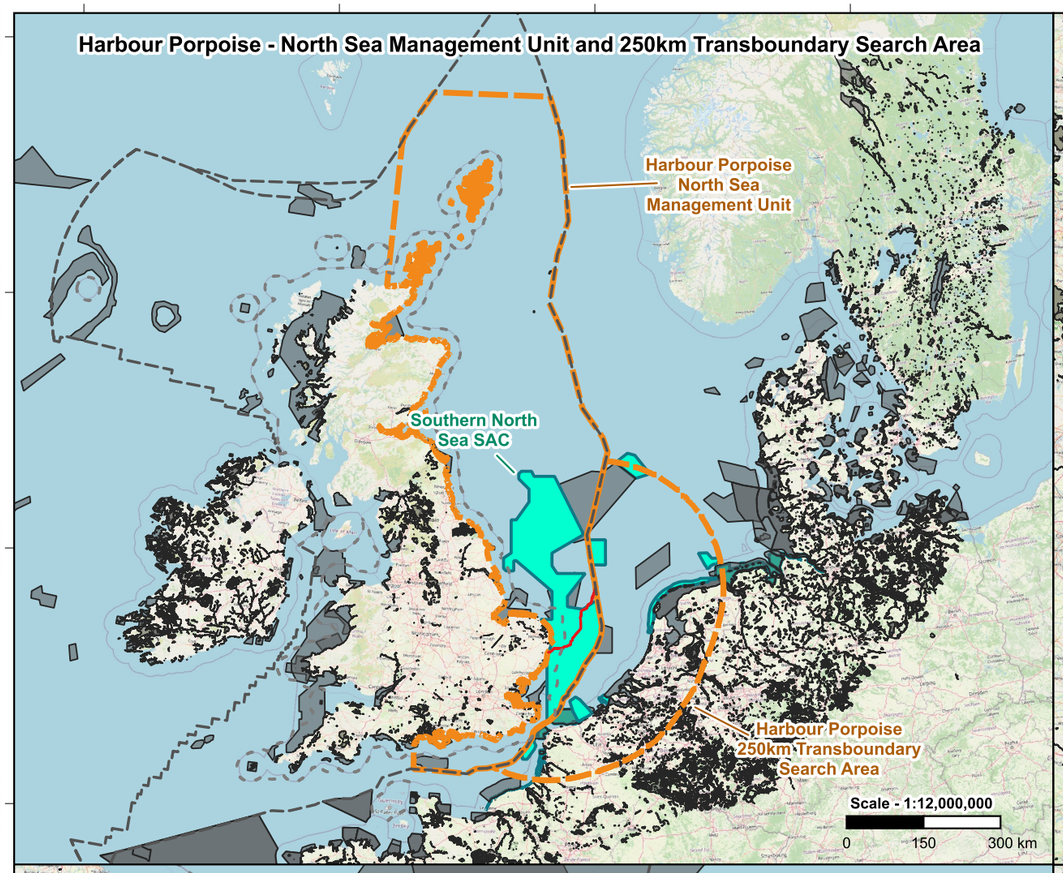
© Arup 2025

Appendix D: Proposed Offshore Scheme Search Areas for SACs and SPAs

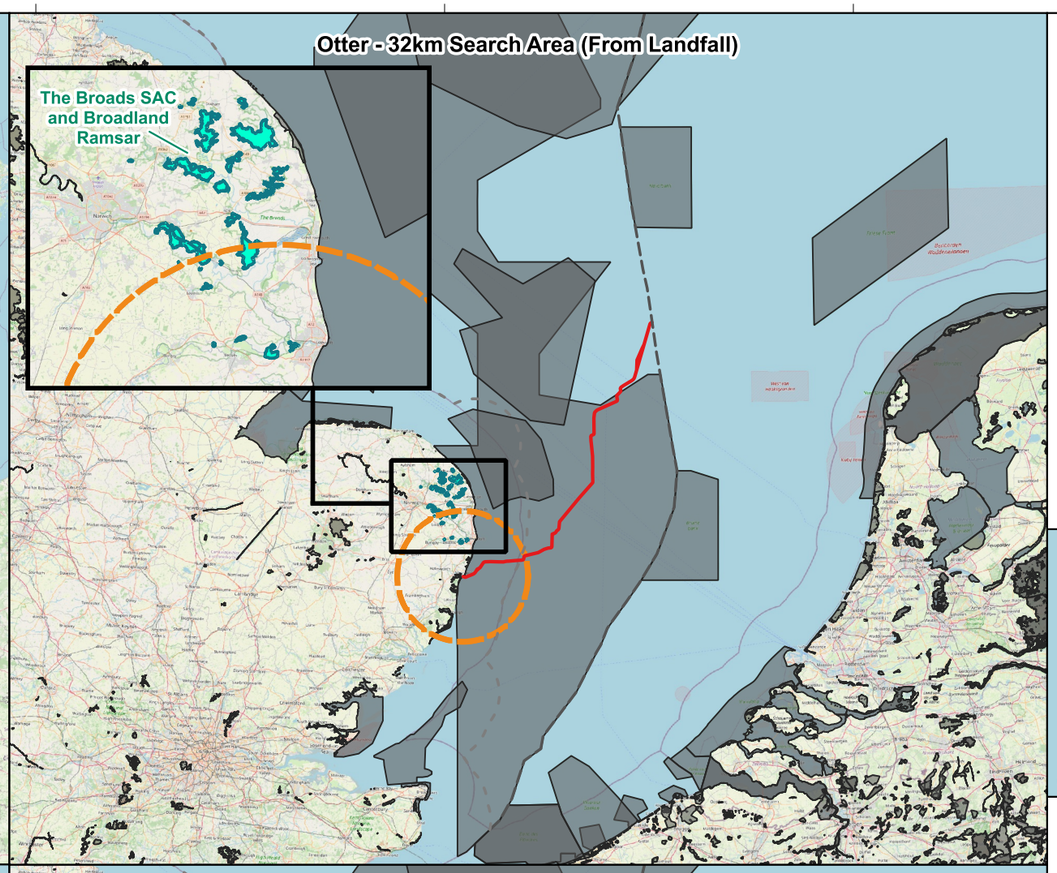
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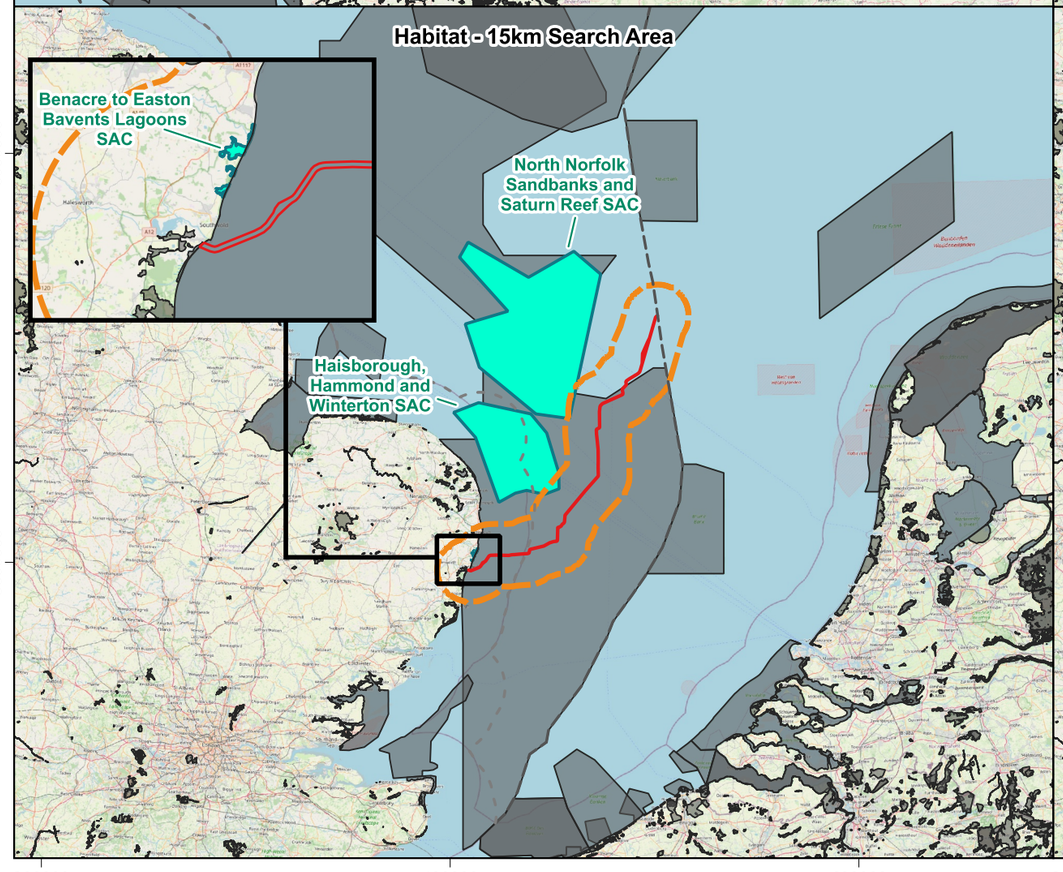
Harbour Porpoise - North Sea Management Unit and 250km Transboundary Search Area



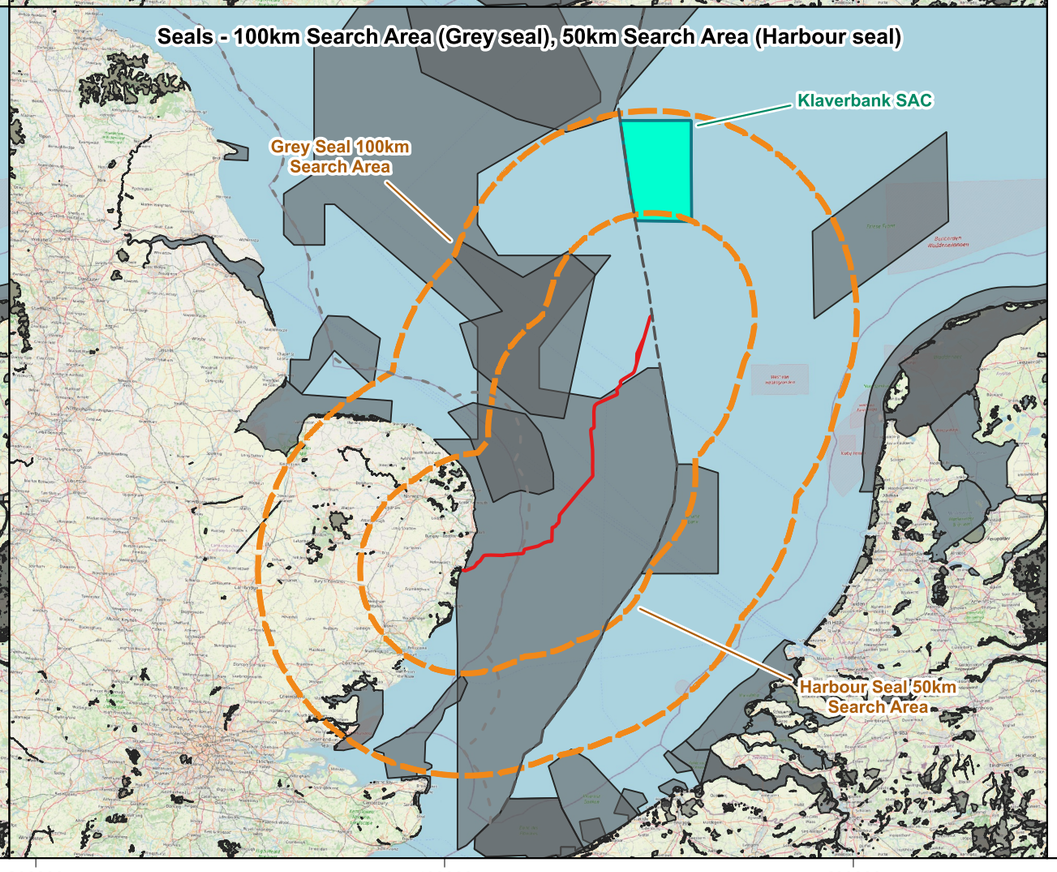
Otter - 32km Search Area (From Landfall)



Habitat - 15km Search Area

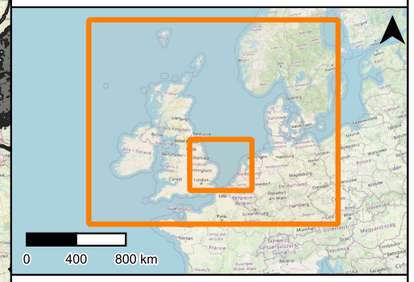


Seals - 100km Search Area (Grey seal), 50km Search Area (Harbour seal)



Legend

- Proposed Offshore Scheme Draft Order Limits
- Relevant Designated Site
- Non-relevant Designated Site
- Species Specific Search Area
- EEZ
- 12NM



Coordinate System: WGS 84 / UTM zone 31N

Kilometres

0 60 120

Rev	Date	By	Chkd	Appd	Authd
A	18/07/2025	AN	JC	AF	AF

collaborative environmental advisers

Project Name

LionLink

Client

National Grid LionLink Limited (NGLLL)

Drawing Title

Search Area for Special Areas of Conservation (SAC)

Scale at A3

1:3,000,000

Role

Environment

Suitability

S2

Project Number

C01467

Rev

P01

Drawing Number

LLK1-CEA-DWG-ENV-00115

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X:\GIS\GIS_PROJECTS\C01467_NGV_LionLink\Projects\Layouts\06_PROT\C01467_PROT_011.qgz

400000 600000

6000000 5800000 5600000

Razorbill - 122.2km Search Area

Bruine Bank SPA

Bancs des Flandres SPA

Waders - Overlap with Draft Order Limits

Minsmere-Walberswick SPA/Ramsar

Sandwich tern - 57.5km Search Area

Alde-Ore Estuary SPA

Greater Wash Estuary SPA

Common tern - 57.5km Search Area

Greater Wash SPA

Breydon Water SPA

Outer Thames Estuary SPA

Little tern - 5km Search Area

Benacre to Easton Bavents SPA

Minsmere-Walberswick SPA

Outer Thames Estuary SPA

Seaducks - 4km Search Area

Minsmere-Walberswick SPA/Ramsar

Guillemot - 95.2km Search Area

Friese Front SPA

Bruine Bank SPA

Red-throated diver - 9km Search Area

Outer Thames Estuary SPA

Legend

- Proposed Offshore Scheme Draft Order Limits
- Relevant Designated Site
- Non-relevant Designated Site
- Species Specific Search Area
- EEZ
- 12NM

0 250 500 km

Coordinate System: WGS 84 / UTM zone 31N

Kilometres

0 100 200

Rev	Date	By	Chkd	Appd	Authd
A	18/07/2025	AN	JC	AF	AF

collaborative environmental advisers

Project Name

LIONLINK

Client

National Grid LionLink Limited (NGLLL)

Drawing Title

Search Area for Special Protection Areas (SPA)

Scale at A3

1:4,500,000

Role

Environment

Suitability

S2

Project Number

C01467

Rev

P01

Drawing Number

LLK1-CEA-DWG-ENV-00116

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Appendix E: Natura 2000 Standard Data Forms and Conservation Objectives

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0012809**

SITENAME **Minsmere to Walberswick Heaths and Marshes**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT
- 7. MAP OF THE SITE

1. SITE IDENTIFICATION

Back to top

1.1 Type	1.2 Site code
B	UK0012809

1.3 Site name

Minsmere to Walberswick Heaths and Marshes

1.4 First Compilation date	1.5 Update date
1995-06	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1995-06
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

2.1 Site-centre location [decimal degrees]:

Back to top

Longitude	Latitude
1.6172	52.2561

2.2 Area [ha]:

1256.57

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

Back to top

3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1150	X		1.26	0	G	D			
1210			5.03	0	G	A	B	A	A
1220			3.77	0	G	C	C	C	C
4030			502.63	0	M	B	C	A	B

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive

92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
A	1166	Triturus cristatus			p				P	DD	D			

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

Back to top

4.1 General site character

Habitat class	% Cover
N07	20.0
N04	5.0
N08	40.0
N05	15.0
N19	20.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: acidic,sand,shingle 2 Terrestrial: Geomorphology and landscape: coastal,lowland 4 Marine: Geomorphology: lagoon

4.2 Quality and importance

Annual vegetation of drift lines for which this is one of only four known outstanding localities in the United Kingdom. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 100 hectares. Perennial vegetation of stony banks for which the area is considered to support a significant presence. European dry heaths for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
	Threats and	Pollution (optional)	inside/outside

Positive Impacts			
Rank	Activities, management	Pollution (optional)	inside/outside

Rank	pressures [code]	[code]	[i|o|b]
H	M01		B
H	H02		B
H	G01		I
H	I01		B
H	I02		B

	[code]	[code]	[i|o|b]
H	D05		I
H	B02		I
H	G03		I
H	A04		I
H	A02		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

Back to top

5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0	UK01	24.0		

6. SITE MANAGEMENT

Back to top

6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

Back to top

INSPIRE ID:

Map delivered as PDF in electronic format (optional)

[ ] Yes [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE	**UK9009101**
SITENAME	**Minsmere-Walberswick**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT
- 7. MAP OF THE SITE

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009101

1.3 Site name

Minsmere-Walberswick

1.4 First Compilation date	1.5 Update date
1992-05	2022-09

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1992-05
National legal reference of SPA designation	Regulations 15 and 17-19 of The Conservation Habitats and Species Regulations 2017 (http://www.legislation.gov.uk/uksi/2017/1012/contents/made) (as amended).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude
1.6339

Latitude
52.3153

2.2 Area [ha]:

1997.67

2.3 Marine area [%]

14.4

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A056	Anas clypeata			r	23	23	p		G	C		C	
B	A056	Anas clypeata			w	98	98	i		G	C		C	
B	A052	Anas crecca			r	73	73	p		G	B		C	
B	A051	Anas strepera			w	93	93	i		G	C		C	
B	A051	Anas strepera			r	24	24	p		G	C		C	
B	A394	Anser albifrons albifrons			w	67	67	i		G	C		B	
B	A021	Botaurus stellaris			r	7	7	i		G	A		B	
B	A224	Caprimulgus europaeus			r	24	24	p		G	C		C	
B	A081	Circus aeruginosus			r	16	16	p		G	B		B	

B	A082	Circus cyaneus			w	15	15	i		G	C		C	
B	A132	Recurvirostra avosetta			r	47	47	p		G	B		B	
B	A195	Sterna albifrons			r	28	28	p		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N17	5.0
N06	4.0
N04	3.0
N08	23.0
N16	16.0
N03	8.0
N14	7.0
N05	3.0
N15	2.0
N07	15.0
N02	14.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: acidic,shingle,sand,peat,nutrient-poor 2 Terrestrial: Geomorphology and landscape: lowland,coastal,floodplain 3 Marine: Geology: shingle,mud,sand 4 Marine: Geomorphology: shingle bar,intertidal sediments (including sandflat/mudflat),open coast (including bay),estuary,lagoon

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (2009/147/EC) During the breeding season the area regularly supports: Botaurus stellaris (Europe - breeding) 35% of the GB breeding population 5 year mean, 1993-1997 Caprimulgus europaeus 0.7% of the GB breeding population Count, as at 1990 Circus aeruginosus 10.2% of the GB breeding population 5 year mean, 1993-1997 Recurvirostra avosetta (Western Europe/Western Mediterranean - breeding) 10.4% of the GB breeding population Count, as at early 1990s Sterna albifrons (Eastern Atlantic - breeding) 1.2% of the GB breeding population 5 year mean, 1992-1996 Over winter the area regularly supports: Circus cyaneus 2% of the GB population 5 year peak mean

1985/6-1989/90 ARTICLE 4.2 QUALIFICATION (2009/147/EC) During the breeding season the area regularly supports: Anas clypeata (North-western/Central Europe) 2.3% of the population in Great Britain Count, as at 1990 Anas crecca (North-western Europe) 4.9% of the population in Great Britain Count, as at 1990 Anas strepera (North-western Europe) 3.1% of the population in Great Britain Count, as at 1990 Over winter the area regularly supports: Anas clypeata (North-western/Central Europe) 1% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Anas strepera (North-western Europe) 1.1% of the population in Great Britain 5 year peak mean 1991/92-1995/96 Anser albifrons albifrons (North-western Siberia/North-eastern & North-western Europe) 1.1% of the population in Great Britain 5 year peak mean 1991/92-1995/96

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	H02		B
H	M01		B
H	F02		I
H	G01		I
H	K03		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	D05		I
H	A04		I
H	A02		I
H	B02		I
H	G03		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	27.6	UK04	100.0		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

☐ Yes ☒ No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

~~3.3~~3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code

SBA	Breeding seabird assemblage	UK specific code
BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
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M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
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UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
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IN09	Special Area of Conservation	67

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

Joint Nature Conservation Committee
Monkstone House
City Road
Peterborough
Cambridgeshire PE1 1JY
UK
Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948
Email: RIS@JNCC.gov.uk

2. Date this sheet was completed/updated:

Designated: 05 January 1976

3. Country:

UK (England)

4. Name of the Ramsar site:

Minsmere–Walberswick

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* □;
ii**) an electronic format** (e.g. a JPEG or ArcView image) Yes
iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* □;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

52 18 55 N 01 38 02 E

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Southwold

Composite site situated on the coast of Suffolk, between Southwold in the north and Sizewell in the south.

Administrative region: Suffolk

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 2018.92

Min. -1
Max. 24
Mean 9

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

This composite, Suffolk coastal site contains a complex mosaic of habitats, notably, areas of marsh with dykes, extensive reedbeds, mudflats, lagoons, shingle and driftline, woodland and areas of lowland heath. The site supports the largest continuous stand of reed in England and Wales and demonstrates the nationally rare transition in grazing marsh ditch plants from brackish to fresh water. The combination of habitats create an exceptional area of scientific interest supporting nationally scarce plants, British Red Data Book invertebrates and nationally important numbers of breeding and wintering birds.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

1, 2

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 1

The site contains a mosaic of marine, freshwater, marshland and associated habitats, complete with transition areas in between. Contains the largest continuous stand of reedbeds in England and Wales and rare transition in grazing marsh ditch plants from brackish to fresh water.

Ramsar criterion 2

This site supports nine nationally scarce plants and at least 26 red data book invertebrates.

Supports a population of the mollusc *Vertigo angustior* (Habitats Directive Annex II; British Red Data Book Endangered), recently discovered on the Blyth estuary river walls.

An important assemblage of rare breeding birds associated with marshland and reedbeds including: *Botaurus stellaris, Anas strepera, Anas crecca, Anas clypeata, Circus aeruginosus, Recurvirostra avosetta, Panurus biarmicus*

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	acidic, neutral, shingle, sand, peat, nutrient-poor, mud, alluvium
Geomorphology and landscape	lowland, coastal, valley, floodplain, shingle bar, intertidal sediments (including sandflat/mudflat), open coast (including bay), estuary, lagoon
Nutrient status	mesotrophic
pH	circumneutral
Salinity	brackish / mixosaline, fresh, saline / euhaline
Soil	no information
Water permanence	usually permanent
Summary of main climatic features	Annual averages (Lowestoft, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/lowestoft.html) Max. daily temperature: 13.0° C Min. daily temperature: 7.0° C Days of air frost: 27.8 Rainfall: 576.3 mm Hrs. of sunshine: 1535.5

General description of the Physical Features:

Minsmere – Walberswick comprises two large marshes, the tidal Blyth estuary and associated habitats. This composite coastal site contains a complex mosaic of habitats, notably areas of marsh with dykes, extensive reedbeds, mudflats, lagoons, shingle, woodland and areas of lowland heath. It supports the largest continuous stand of common reed *Phragmites australis* in England and Wales, and demonstrates the nationally rare transition in grazing marsh ditch plants from brackish to fresh water.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Minsmere – Walberswick comprises two large marshes, the tidal Blyth estuary and associated habitats. This composite coastal site contains a complex mosaic of habitats, notably areas of marsh with dykes, extensive reedbeds, mudflats, lagoons, shingle, woodland and areas of lowland heath.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

No special values known

19. Wetland types:

Marine/coastal wetland

Code	Name	% Area
Other	Other	30
U	Peatlands (including peat bogs swamps, fens)	30
G	Tidal flats	12.9
E	Sand / shingle shores (including dune systems)	12.4
H	Salt marshes	7.2
M	Rivers / streams / creeks: permanent	4
F	Estuarine waters	2.5
J	Coastal brackish / saline lagoons	1

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

This composite Suffolk coastal site contains a complex mosaic of habitats notably, areas of marsh with dykes, extensive reedbeds, mud flats, lagoons, shingle, woodland and areas of lowland heath. The site supports the largest continuous stand of reed *Phragmites australis* in England and Wales and nationally rare transition in grazing marsh ditch plants from brackish to fresh water. The combination of habitats create an exceptional area of scientific interest supporting nationally scarce plants, RDB invertebrates and nationally important numbers of breeding and wintering birds.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Nationally important species occurring on the site.

Higher Plants.

This is one of few sites nationally for red-tipped cudweed *Filago lutescens* (RDB2) which occurs on light, sandy soils.
The nationally rare species *Corynephorus canescens* (RDB3) occurs on coastal dune habitat.

The site supports a range of nationally scarce plant species characteristic of heathland, wetland and coastal habitats, and the transitions between them. *Althaea officinalis, Myriophyllum verticillatum, Ruppia cirrhosa, Sium latifolium, Sonchus palustris, Ceratophyllum submersum, Ranunculus baudotii,* and *Carex divisa* (all nationally scarce) are associated with reedbeds, grazing marsh or ditches. *Hordeum marinum* occurs on sea-walls, *Lathyrus japonicus* on coastal shingle, and *Crassula tillaea* on heathland.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds

Species currently occurring at levels of national importance:

Species regularly supported during the breeding season:

Eurasian marsh harrier , *Circus aeruginosus*, Europe	16 pairs, representing an average of 10.5% of the GB population (5 year mean 1993-1997)
Mediterranean gull , *Larus melanocephalus*, Europe	2 apparently occupied nests, representing an average of 1.8% of the GB population (Seabird 2000 Census)
Black-headed gull , *Larus ridibundus*, N & C Europe	2558 apparently occupied nests, representing an average of 1.9% of the GB population (Seabird 2000 Census)
Little tern , *Sterna albifrons albifrons*, W Europe	20 apparently occupied nests, representing an average of 1% of the GB population (Seabird 2000 Census)

Species with peak counts in spring/autumn:

Great bittern , *Botaurus stellaris stellaris*, W Europe, NW Africa	3 individuals, representing an average of 3% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)
Eurasian teal , *Anas crecca*, NW Europe	3083 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , *Philomachus pugnax*, Europe/W Africa	10 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)
Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe	846 individuals, representing an average of 5.4% of the GB population (5 year peak mean 1998/9-2002/3 - spring peak)
Spotted redshank , *Tringa erythropus*, Europe/W Africa	15 individuals, representing an average of 11% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , *Tringa nebularia*, Europe/W Africa	9 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Greater white-fronted goose , *Anser albifrons albifrons*, NW Europe	212 individuals, representing an average of 3.6% of the GB population (5 year peak mean for 1996/7-2000/01)

Gadwall , *Anas strepera strepera*, NW Europe	261 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Northern shoveler , *Anas clypeata*, NW & C Europe	238 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)
Hen harrier, *Circus cyaneus*, Europe	15 individuals, representing an average of 2% of the GB population (5 year peak mean 1985/6-1989/90)
Water rail , *Rallus aquaticus*, Europe	5 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Pied avocet , *Recurvirostra avosetta*, Europe/Northwest Africa	329 individuals, representing an average of 9.6% of the GB population (5 year peak mean 1998/9-2002/3)
European golden plover , *Pluvialis apricaria apricaria*, P. a. altifrons Iceland & Faroes/E Atlantic	4503 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
Common redshank , *Tringa totanus totanus*,	1386 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Lesser black-backed gull , *Larus fuscus graellsii*,	905 individuals, representing an average of 1.4% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site.

Invertebrates.

Ethmia bipunctella, Aleochara inconspicua, Philonthus dimidiatipennis, Deltote bankiana, Cephalops perspicuus, Erioptera bivittata, E. meijerei, Gymnancycla canella, Pisidium pseudosphaerium, Archanara neurica, Heliothis viriplaca, Pelosia muscerda, Photedes brevilinea, Senta flammea, Herminea tarsicrinalis, Haematopota grandis, Tipula marginata, Podalonia affinis, Arctosa fulvolineata, Eucosma catroptana, E.maritima, Melissoblaptes zelleri, Pima boisduvaliella, Acrotophthalmus bicolor, Limonia danica, Telmaturus tumidulus, Vertigo angustior (a Habitats Directive Annex II species (S1014)).

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23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic
Aquatic vegetation (e.g. reeds, willows, seaweed)
Environmental education/ interpretation
Livestock grazing
Non-consumptive recreation
Scientific research
Tourism

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:

ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	+
Local authority, municipality etc.	+	
National/Crown Estate	+	
Private	+	+
Other	+	

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	
Cutting of vegetation (small-scale/subsistence)	+	
Permanent arable agriculture		+
Grazing (unspecified)	+	
Flood control	+	
Transport route	+	+
Non-urbanised settlements	+	+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
Erosion	2	Coastal squeeze within the Blyth Estuary	+		+
Recreational/tourism disturbance (unspecified)	2	Trampling damage to vegetated shingle and driftline communities, and disturbance of little tern nesting habitat	+		+

For category 2 factors only.
What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Erosion - English Nature provides advice to the Environment Agency and coastal local authorities in relation to flood and coastal protection management. This will inform the development of the Suffolk Estuaries strategies and the second generation shoreline management plan.

Recreational/tourism disturbance (unspecified) - English Nature to work with owners/occupiers and regulatory authorities to develop a strategy to manage visitor pressure on Suffolk vegetated shingle. These measures are likely to include temporary fencing and provision of boardwalks as well as measures to increase visitor awareness about the sensitivity of the shingle habitat, for example by interpretation, wardening.

Is the site subject to adverse ecological change? YES

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
National Nature Reserve (NNR)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	
Management agreement	+	
Site management statement/plan implemented	+	

Area of Outstanding National Beauty (AONB)	+	+
Environmentally Sensitive Area (ESA)	+	+
Special Area of Conservation (SAC)	+	

b) Describe any other current management practices:
The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Fauna.
Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

Flora.
NVC and vegetation monitoring, bird and invertebrate surveys/monitoring carried out on EN's NNRs, NT, SWT, RSPB reserves.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Facilities at National Trust and Royal Society for the Protection of Birds reserves.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Activities, Facilities provided and Seasonality.
A popular area for tourists as it is an AONB and contains Minsmere bird reserve and Dunwich heath, both with toilets/shop/cafe. There are more visitors in the summer, however it well used throughout the year by walkers and bird watchers.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs, European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6EB

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see **15** above), list full reference citation for the scheme.

Site-relevant references

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Barne, JH, Robson, CF, Kaznowska, SS, Doody, JP, Davidson, NC & Buck, AL (eds.) (1998) *Coasts and seas of the United Kingdom. Region 7 South-east England: Lowestoft to Dungeness*. Joint Nature Conservation Committee, Peterborough. (Coastal Directories Series.)

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Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge. www.wwt.org.uk/publications/default.asp?PubID=14

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Wiggington, M (1999) *British Red Data Books. 1. Vascular plants*. 3rd edn. Joint Nature Conservation Committee, Peterborough

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Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone**: +41 22 999 0170** • Fax: **+41 22 999 0169** • email: **ramsar@ramsar.org**

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030395**

SITENAME **Southern North Sea**

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- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 6. SITE MANAGEMENT
- 7. MAP OF THE SITE

1. SITE IDENTIFICATION

1.1 Type	1.2 Site code Back to top
B	UK0030395

1.3 Site name

Southern North Sea

1.4 First Compilation date	1.5 Update date
2017-01	2019-03

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee
Address: Monkstone House, City Road, Peterborough, PE1 1JY
Email:

Date site proposed as SCI:	2017-01
Date site confirmed as SCI:	2017-12
Date site designated as SAC:	2019-02
National legal reference of SAC designation:	Regulations 13 and 17-19 of The Conservation of Habitats and Species Regulations 2017 (https://www.legislation.gov.uk/uksi/2017/1012/contents/made), and Regulations 11, 19 and 20 of The Conservation of Offshore Marine Habitats and Species Regulations 2017 (http://www.legislation.gov.uk/uksi/2017/1013/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.7999	53.551

2.2 Area [ha]:

3695054.0

2.3 Marine area [%]

100.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
M	1351	Phocoena phocoena			p	11864	28889	i	C	M	A	A	C	A

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.0
Total Habitat Cover	100

Other Site Characteristics

General site characteristics: Sand and coarse sediments. Non-vegetated. Full salinity. Water depths between 10m and 75m.

4.2 Quality and importance

Harbour porpoise (Phocoena phocoena) "For which this is considered to be one of the best areas in the United Kingdom".

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	C02		b
L	J03		b
L	G04		b
H	F02		b
M	H03	O	b
H	C03		b
L	D03		b

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

For information on this site, including the Selection Assessment Document, Conservation Objectives and Advice on Activities document, as well as information about the identification process of the UK network of harbour porpoise SACs, see the Site Information Centre (see link) for this site. The population size estimate in Section 3.2, provided at the time the site was proposed as an SCI, is based on data from a survey conducted in 2005 (Hammond et al. 2013). Revised “population in the site” estimates based on the 2016 survey (Hammond et al. 2017) are a minimum of 20237 (lower 95% CI) and maximum of 41538 (higher 95% CI). All these estimates are derived from one-month summer surveys and should not be considered as specific population sizes for the site. Hammond, P. Macleod, K. Berggren, P. Borchers, D. Burt, L. Canadas, A. Desportes, G. Donovan, G. Gilles, A. Gillespie, D. Gordon, J. Hiby, L. Kuklik, I. Leaper, R. Lehnert, K. Leopold, M. Lovell, P. Øien, N. Paxton, C. Ridoux, V. Rogan, E. Samarra, F. Scheidat, M. Sequeira, M. Siebert, U. Skov, H. Swift, R. Tasker, M. Teilmann, J. van Canneyt, O. Vazques, J. (2013). Cetacean abundance and distribution in European Atlantic shelf waters to inform conservation and management. Biological Conservation. 164. 107 - 122. Hammond, P. Lacey, C. Gilles, A. Viquerat, S. Börjesson, P. Herr, H. Macleod, K. Ridoux, V. Santos, M. Scheidat, M. Teilmann, J. Vingada, J. Øien, N. (2017). Estimates of cetacean abundance in European Atlantic waters in summer 2016 from the SCANS-III aerial and shipboard surveys. Available: https://synergy.st-andrews.ac.uk/scans3/files/2017/05/SCANS-III-design-based-estimates-2017-05-12-final-revis

Link(s): http://jncc.defra.gov.uk/page-7243

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Joint Nature Conservation Committee
Address:	
Email:	

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

[ ] Yes [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
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C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
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2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9020309**

SITENAME **Outer Thames Estuary**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT
- 7. MAP OF THE SITE

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9020309

1.3 Site name

Outer Thames Estuary

1.4 First Compilation date	1.5 Update date
2010-08	2017-11

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2010-08
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made), and Regulations 12, 16 and 17 of the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (http://www.legislation.gov.uk/uksi/2007/1842/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.545	51.916

2.2 Area [ha]:

392451.66

2.3 Marine area [%]

100.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A001	Gavia stellata			w	6466	6466	i		G	A		C	
B	A195	Sterna albifrons			r	746	746	i		G	A		C	
B	A193	Sterna hirundo			r	532	532	i		G	B		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information

- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	98.45
N03	0.05
N02	1.5
Total Habitat Cover	100

Other Site Characteristics

3 Marine: Geology: mud,sand,gravel 4 Marine: Geomorphology: range of mobile sediments,tidal current stream

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Gavia stellata (North-western Europe - wintering) - 38% of the population in Great Britain peak mean over the period 1989-2006/07 The area supports breeding populations of: Sternula albifrons (in breeding season) - 19.64% of GB population (2011 - 2015) Sterna hirundo (in breeding season) - 2.66% of GB population (2011 - 2015)

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
M	D03		B
L	G04		b
H	C03		B
L	F02		I
L	H03		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

JNCC's weblink 'http://jncc.defra.gov.uk/page-1414' provides general information on marine SPAs. The weblink 'http://jncc.defra.gov.uk/page-6895' allows access to site specific information for all marine MPAs in UK offshore waters. See the UK Approach document for more information (link via the JNCC website).

Link(s): http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

http://jncc.defra.gov.uk/page-1414
http://jncc.defra.gov.uk/page-6895

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	3.0	UK00	93.0	UK05	4.0

6. SITE MANAGEMENT

Back to top

6.1 Body(ies) responsible for the site management:

Organisation:	Maldon Local/District Unitary Authority, Rochford Local/District Unitary Authority, Southend on Sea Local/District Unitary Authority, Swale Local/District Unitary Authority, Canterbury Local/District Unitary Authority
Address:	
Email:	

Organisation:	Crouch Harbour Authority, Port of London Authority, Peel Ports London Medway, Great Yarmouth Local/District Unitary Authority, Waveney Local/District Unitary Authority, Suffolk Coastal Local/District Unitary Authority
Address:	
Email:	

Organisation:	Southwold Harbour Authority – Waveney District Council, Ipswich Port Authority, Felixstowe Dock & Railway Company, Harwich Haven Authority, Brightlingsea Harbour Commissioners, Maldon Harbour Improvement Commissioners
Address:	
Email:	

Organisation:	For information about relevant management offshore please contact JNCC
Address:	
Email:	

Organisation:	Natural England, Marine Management Organisation, Kent and Essex Inshore Fisheries & Conservation Authority, Crown Estate, Great Yarmouth Port Authority, Lowestoft – Associated British Ports (ABP)
Address:	
Email:	

Organisation:	Thanet Local/District Unitary Authority
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information on relevant conservation measures of the site, including the Conservation Objectives, see section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

☐ Yes ☒ No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

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CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

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B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
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B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

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N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
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N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9020286**

SITENAME **Sandlings**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9020286

1.3 Site name

Sandlings

1.4 First Compilation date	1.5 Update date
2001-08	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2001-08
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.4425	52.07888889

2.2 Area [ha]:

3405.72

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A224	Caprimulgus europaeus			r	109	109	p		G	B		C	
B	A246	Lullula arborea			r	154	154	p		G	B		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N17	57.6
N06	1.5
N16	10.6
N07	0.9
N14	0.1
N23	1.8
N09	11.5
N19	1.4
N08	14.6
Total Habitat Cover	100

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Caprimulgus europaeus 3.2% of the GB breeding population Count as at 1992 Lullula arborea 10.3% of the GB breeding population Count as at 1997

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	I02		B
H	H04		B
H	G01		I
H	M02		B
H	K02		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A04		I
H	B02		I
H	A02		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
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6130	Calaminarian grasslands of the Violetalia calaminariae	57
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9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
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91D0	Bog woodland	57
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C	≤ 2%	62
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C	Average or reduced conservation	63

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N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
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H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
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U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

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IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

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https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0013104**

SITENAME **Benacre to Easton Bavents Lagoons**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

Back to top

1.1 Type	1.2 Site code
B	UK0013104

1.3 Site name

Benacre to Easton Bavents Lagoons

1.4 First Compilation date	1.5 Update date
1995-06	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1995-06
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

Back to top

2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.710277778	52.38638889

2.2 Area [ha]:

326.7

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1150	X		16.34	0	M	A	C	A	B
91E0	X		7.84	0	G	D			

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N05	25.0
N19	30.0
N07	30.0
N02	5.0
N04	5.0
N08	5.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: alluvium,neutral,sand,shingle,acidic 2 Terrestrial: Geomorphology and landscape: coastal,lowland 4 Marine: Geomorphology: open coast (including bay),lagoon

4.2 Quality and importance

Coastal lagoons for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	J02		B
H	G01		I
H	H02		B
H	M02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	D05		I
H	A02		I
H	A04		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

Back to top

5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	88.0	UK04	100.0		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

X	Yes	Name: Benacre to Easton Bavents Lagoons: The Benacre National Nature Reserve (NNR) Management Plan provides management infomation related to this site. This is available from Natural England. Link:
	No, but in preparation	
	No	

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
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https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009291**

SITENAME **Benacre to Easton Bavents**

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- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009291

1.3 Site name

Benacre to Easton Bavents

1.4 First Compilation date	1.5 Update date
1996-10	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1996-10
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.710277778	52.38638889

2.2 Area [ha]:

470.6

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A021	Botaurus stellaris			r	1	1	i		G	B		B	
B	A081	Circus aeruginosus			r	8	8	i		G	B		B	
B	A195	Sterna albifrons			r	21	21	p		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size

can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N02	30.0
N16	10.0
N04	5.0
N07	50.0
N05	5.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: sand,sedimentary 2 Terrestrial: Geomorphology and landscape: lowland,coasta 3 Marine: Geology: shingle 4 Marine: Geomorphology: shingle bar

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Botaurus stellaris (Europe - breeding) 5% of the GB breeding population 5 year mean, 1992-1996 Circus aeruginosus 5.1% of the GB breeding population 5 year mean, 1993-1997 Sterna albifrons (Eastern Atlantic - breeding) 0.9% of the GB breeding population 5 year mean, 1992-1996

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M02		B
H	F02		I
H	G01		I
H	H02		B
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A04		I
H	A02		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	76.0	UK04	100.0		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

X	Yes	Name: Benacre to Easton Bavents: The Benacre National Nature Reserve (NNR) Management Plan provides management infomation related to this site. This is available from Natural England. Link:
	No, but in preparation	
	No	

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030076**

SITENAME **Alde, Ore and Butley Estuaries**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0030076

1.3 Site name

Alde, Ore and Butley Estuaries

1.4 First Compilation date	1.5 Update date
2001-01	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	2001-01
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.568888889	52.10166667

2.2 Area [ha]:

1632.63

2.3 Marine area [%]

68.9

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			32.65	0	M	D			
1130			1142.84	0	G	B	C	C	B
1140			653.05	0	G	B	C	B	C
1330			408.16	0	G	C	C	C	C

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

4. SITE DESCRIPTION

Back to top

4.1 General site character

Habitat class	% Cover
N05	5.0
N02	70.0
N03	25.0
Total Habitat Cover	100

Other Site Characteristics

2 Terrestrial: Geomorphology and landscape: coastal 3 Marine: Geology: mud,shingle,sand 4 Marine: Geomorphology: enclosed coast (including embayment),lagoon,estuary,islands,intertidal sediments (including sandflat/mudflat),open coast (including bay),subtidal sediments (including sandbank/mudbank)

4.2 Quality and importance

Estuaries for which this is considered to be one of the best areas in the United Kingdom. Mudflats and sandflats not covered by seawater at low tide for which the area is considered to support a significant presence. Atlantic salt meadows (Glauco-Puccinellietalia maritimae) for which the area is considered to support a significant presence.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	G01		I
H	M01		B
H	M02		B
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	D05		I
H	G03		I
H	A04		I
H	A06		I
H	A02		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

Back to top

6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

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3.1 Habitat code

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1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
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2110	Embryonic shifting dunes	57
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2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
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2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
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4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
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6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
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9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
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C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

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3.1 Global assessment (abbreviated to 'Global' in data form)

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3.2 Population (abbreviated to 'Pop.' in data form)

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3.2 Degree of conservation (abbreviated to 'Con.' in data form)

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3.2 Isolation (abbreviated to 'Iso.' in data form)

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A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009112**

SITENAME **Alde-Ore Estuary**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT
- 7. MAP OF THE SITE

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009112

1.3 Site name

Alde-Ore Estuary

1.4 First Compilation date	1.5 Update date
1996-10	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1996-10
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.5508	52.0828

2.2 Area [ha]:

2403.5

2.3 Marine area [%]

48.6

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo
B	A081	Circus aeruginosus			r	3	3	p		G	C		B	
B	A183	Larus fuscus			r	14070	14070	p		G	A		C	
B	A151	Philomachus pugnax			w	3	3	i		G	C		C	
B	A132	Recurvirostra avosetta			w	766	766	i		G	A		B	
B	A132	Recurvirostra avosetta			r	104	104	p		G	A		B	
B	A195	Sterna albifrons			r	48	48	p		G	C		C	
B	A191	Sterna sandvicensis			r	170	170	p		G	C		C	
B	A162	Tringa totanus			w	1919	1919	i		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles

- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N05	25.0
N07	5.0
N03	20.0
N02	50.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: sedimentary,shingle,mud,nutrient-rich 2 Terrestrial: Geomorphology and landscape: coastal,lowland 4 Marine: Geomorphology: shingle bar,intertidal sediments (including sandflat/mudflat),lagoon,estuary

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Circus aeruginosus at least 1.9% of the GB breeding population 5 year mean, 1993-1997 Recurvirostra avosetta (Western Europe/Western Mediterranean - breeding) 23.1% of the GB breeding population 5 year mean, 1990-1994 Sterna albifrons (Eastern Atlantic - breeding) 2% of the GB breeding population 5 count mean, 1993-4,1996-8 Sterna sandvicensis (Western Europe/Western Africa) 1.2% of the GB breeding population 5 year mean, 1992-1996 Over winter the area regularly supports: Philomachus pugnax (Western Africa - wintering) 0.4% of the GB population 5 year peak mean 1991/92-1995/96 Recurvirostra avosetta (Western Europe/Western Mediterranean - breeding) 60.3% of the GB population 5 year peak mean 1991/92-1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Larus fuscus (Western Europe/Mediterranean/Western Africa) 11.3% of the breeding population 5 year mean 1994-1998 Over winter the area regularly supports: Tringa totanus (Eastern Atlantic - wintering) 1.1% of the population 5 year peak mean 1991/92-1995/96

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M02		B
H	G01		I
H	M01		B
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	A06		I
H	A04		I
H	D05		I
H	G03		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK01	4.5	UK04	100.0		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

X	Yes	Name: Alde-Ore Estuary: The Orfordness-Havergate National Nature Reserve (NNR) Management Plan provides management infomation related to this site. This is available from Natural England. Link:
	No, but in preparation	
	No	

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

[ ] Yes [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
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8330	Submerged or partially submerged sea caves	57
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91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
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B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

Joint Nature Conservation Committee
Monkstone House
City Road
Peterborough
Cambridgeshire PE1 1JY
UK
Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948
Email: RIS@JNCC.gov.uk

2. Date this sheet was completed/updated:

Designated: 04 October 1996

3. Country:

UK (England)

4. Name of the Ramsar site:

Alde–Ore Estuary

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* □;
ii**) an electronic format** (e.g. a JPEG or ArcView image) Yes
iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* □;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

52 04 58 N 01 33 03 E

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Woodbridge

Alde-Ore Estuary is located on the east coast of Suffolk, east of Woodbridge, stretching between Aldeburgh to the north and Bawdsey to the south.

Administrative region: Suffolk

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 2546.99

Min. -1
Max. 5
Mean 1

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

The site comprises the estuary complex of the rivers Alde, Butley and Ore, including Havergate Island and Orfordness. There are a variety of habitats including, intertidal mudflats, saltmarsh, vegetated shingle (including the second-largest and best-preserved area in Britain at Orfordness), saline lagoons and grazing marsh. The Orfordness/Shingle Street landform is unique within Britain in combining a shingle spit with a cuspate foreland. The site supports nationally-scarce plants, British Red Data Book invertebrates, and notable assemblages of breeding and wintering wetland birds.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

2, 3, 6

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 2

The site supports a number of nationally-scarce plant species and British Red Data Book invertebrates.

Ramsar criterion 3

The site supports a notable assemblage of breeding and wintering wetland birds.

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species regularly supported during the breeding season:

Lesser black-backed gull , *Larus fuscus graellsii*, W Europe/Mediterranean/W Africa	5790 apparently occupied nests, representing an average of 3.9% of the breeding population (Seabird 2000 Census)

Species with peak counts in winter:

Pied avocet , *Recurvirostra avosetta*, Europe/Northwest Africa	1187 individuals, representing an average of 1.6% of the population (5 year peak mean 1998/9-2002/3)
Common redshank , *Tringa totanus totanus*,	2368 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.

See Sections 21/22 for details of noteworthy species

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15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

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16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	shingle, mud, nutrient-rich, sedimentary
Geomorphology and landscape	lowland, coastal, shingle bar, intertidal sediments (including sandflat/mudflat), estuary, lagoon
Nutrient status	mesotrophic
pH	no information
Salinity	saline / euhaline
Soil	mainly mineral
Water permanence	usually permanent

Summary of main climatic features	Annual averages (Lowestoft, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/lowestoft.html) Max. daily temperature: 13.0° C Min. daily temperature: 7.0° C Days of air frost: 27.8 Rainfall: 576.3 mm Hrs. of sunshine: 1535.5

General description of the Physical Features:

This estuary is the only bar-built estuary in the UK with a shingle bar. This bar has been extending rapidly along the coast since 1530, pushing the mouth of the estuary progressively south-westwards. The eastwards-running Alde River originally entered the sea at Aldeburgh, but now turns south along the inner side of the Orfordness shingle spit. It is relatively wide and shallow, with extensive intertidal mudflats on both sides of the channel in its upper reaches and saltmarsh accreting along its fringes. The Alde subsequently becomes the south-west flowing River Ore, which is narrower and deeper with stronger currents. The smaller Butley River, which has extensive areas of saltmarsh and a reedbed community bordering intertidal mudflats, flows into the Ore shortly after the latter divides around Havergate Island. The mouth of the River Ore is still moving south as the Orfordness shingle spit continues to grow through longshore drift from the north.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

The Alde-Ore Estuary comprises the estuarine complex of the rivers Alde, Butley and Ore, including Havergate Island and Orfordness.

This estuary is the only bar-built estuary in the UK with a shingle bar. This bar has been extending rapidly along the coast since 1530, pushing the mouth of the estuary progressively south-westwards. The eastwards-running Alde River originally entered the sea at Aldeburgh, but now turns south along the inner side of the Orfordness shingle spit. It is relatively wide and shallow, with extensive intertidal mudflats on both sides of the channel in its upper reaches and saltmarsh accreting along its fringes. The Alde subsequently becomes the south-west flowing River Ore, which is narrower and deeper with stronger currents. The smaller Butley River, which has extensive areas of saltmarsh and a reedbed community bordering intertidal mudflats, flows into the Ore shortly after the latter divides around Havergate Island. The mouth of the River Ore is still moving south as the Orfordness shingle spit continues to grow through longshore drift from the north.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Shoreline stabilisation and dissipation of erosive forces

19. Wetland types:

Inland wetland, Marine/coastal wetland

Code	Name	% Area
E	Sand / shingle shores (including dune systems)	33.3
H	Salt marshes	23.6
G	Tidal flats	17.7
M	Rivers / streams / creeks: permanent	9.8
Sp	Saline / brackish marshes: permanent	5.9

Tp	Freshwater marshes / pools: permanent	3.9
U	Peatlands (including peat bogs swamps, fens)	3.8
J	Coastal brackish / saline lagoons	2

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The main habitat types of the Alde-Ore Estuary are: intertidal mudflats, saltmarsh, reedswamp, coastal freshwater, brackish lagoons, semi-improved grazing marsh, brackish ditches and vegetated shingle, the second-largest and best-preserved example in Britain.

A unique feature for East Anglian beaches is the abundance on the ground of normally epiphytic lichens.

There is a zonation of shingle vegetation from shifting to more stable areas of grassland and lichen communities.

Areas of saltmarsh succeed to higher saltmarsh and neutral grassland with ditches.

There is a series of brackish lagoons and ditches; and borrow pits.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Nationally important species occurring on the site.

Higher Plants.

A range of nationally scarce plant species characteristic of freshwater, estuarine, and shingle habitats, and their transitions are present. These include: *Althaea officinalis, Frankenia laevis, Lathyrus japonicus, Lepidium latifolium, Medicago minima, Parapholis incurva, Puccinellia fasciculata, Ruppia cirrhosa, Sarcocornia perennis, Sonchus palustris, Trifolium suffocatum, Vicia lutea* and *Zostera angustifolia*.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds

Species currently occurring at levels of national importance:

Species regularly supported during the breeding season:

Eurasian marsh harrier , *Circus aeruginosus*, Europe	3 pairs, representing an average of 1.9% of the GB population (5 year mean 1993-1997)
Mediterranean gull , *Larus melanocephalus*, Europe	6 apparently occupied nests, representing an average of 5.5% of the GB population (Seabird 2000 Census)
Sandwich tern , *Sterna (Thalasseus) sandvicensis sandvicensis*, W Europe	169 pairs, representing an average of 1.6% of the GB population (5 year mean 1991-1995)

Little tern , *Sterna albifrons albifrons*, W Europe	88 apparently occupied nests, representing an average of 4.5% of the GB population (Seabird 2000 Census)
Species with peak counts in spring/autumn:	
Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe	283 individuals, representing an average of 1.8% of the GB population (5 year peak mean 1998/9-2002/3)
Spotted redshank , *Tringa erythropus*, Europe/W Africa	44 individuals, representing an average of 32.3% of the GB population (5 year peak mean 1998/9-2002/3)
Common greenshank , *Tringa nebularia*, Europe/W Africa	29 individuals, representing an average of 4.8% of the GB population (5 year peak mean 1998/9-2002/3)
Species with peak counts in winter:	
Greater white-fronted goose , *Anser albifrons albifrons*, NW Europe	186 individuals, representing an average of 3.2% of the GB population (5 year peak mean for 1996/7-2000/01)
Common shelduck , *Tadorna tadorna*, NW Europe	1398 individuals, representing an average of 1.7% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian wigeon , *Anas penelope*, NW Europe	6851 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian teal , *Anas crecca*, NW Europe	2447 individuals, representing an average of 1.2% of the GB population (5 year peak mean 1998/9-2002/3)
Northern pintail , *Anas acuta*, NW Europe	556 individuals, representing an average of 1.9% of the GB population (5 year peak mean 1998/9-2002/3)
Northern shoveler , *Anas clypeata*, NW & C Europe	224 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site.

Invertebrates.

The highly specialised invertebrate fauna of the saline lagoons includes *Nematostella vectensis*, and *Gammarus insensibilis*, both species protected under Schedules 5 and 8 of the Wildlife and Countryside Act 1981 (as amended).

Other notable invertebrates on the site include: *Malacosoma castrensis, Campsicnemus magius, Cheilosia velutina, Empis prodomus, Dixella attica, Hylaeus euryscapus, Pseudamnicola confusa, Euophrys browningi, Baryphyma duffeyi, Haplodrassus minor, Trichoncus affinis*.

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic
Aquatic vegetation (e.g. reeds, willows, seaweed)
Archaeological/historical site
Environmental education/ interpretation
Fisheries production
Livestock grazing
Non-consumptive recreation

Scientific research
Sport fishing
Sport hunting
Tourism
Transportation/navigation

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:

ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	+
National/Crown Estate	+	
Private	+	+
Public/communal	+	

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	
Collection of non-timber natural products: commercial	+	
Fishing: recreational/sport	+	
Marine/saltwater aquaculture	+	
Gathering of shellfish	+	
Permanent arable agriculture		+
Grazing (unspecified)	+	+
Hunting: recreational/sport	+	
Harbour/port		+
Flood control		+
Irrigation (incl. agricultural water supply)		+
Non-urbanised settlements		+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
Erosion	2		+		+

For category 2 factors only.
What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Erosion - English Nature provides advice to the Environment Agency and coastal local authorities in relation to flood and coastal protection management. This will inform the development of the Suffolk Estuaries strategies and the second generation shoreline management plan.
A Management Scheme is required, taking into account the effects of erosion. A Coastal Habitat Management Plan will be produced for this site.

Is the site subject to adverse ecological change? YES

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
National Nature Reserve (NNR)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	+
Site management statement/plan implemented	+	
Other	+	
Area of Outstanding National Beauty (AONB)	+	
Environmentally Sensitive Area (ESA)	+	
Special Area of Conservation (SAC)	+	
Management plan in preparation	+	

b) Describe any other current management practices:
The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Fauna.
Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

Environment.
Monitoring estuarine processes.
Saline lagoon survey.
Study on the effects of guanofication on shingle flora.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

None reported

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Activities.
The site is used informally for walking, boating and angling.

Facilities provided.

River moorings.

Seasonality.

Walking and boating activities are predominantly in spring and summer. Seasonal (winter) wildfowling occurs on the estuary.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs, European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6EB

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see **15** above), list full reference citation for the scheme.

Site-relevant references

Anon. (1995) *Biodiversity: The UK Steering Group Report. Volume 2: Action plans*. HMSO, London

Anon. (2002) *Suffolk Coast and Estuaries Coastal Habitat Management Plan: Executive summary*. English Nature, Peterborough (Living with the Sea LIFE Project) www.english-nature.org.uk/livingwiththesea/project_details/good_practice_guide/HabitatCRR/ENRestore/CHaMPs/SuffolkCoast/SuffolkCHaMP.pdf

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Covey, R (1998) Chapter 6. Eastern England (Bridlington to Folkestone) (MNCR Sector 6). In: *Benthic marine ecosystems of Great Britain and the north-east Atlantic*, ed. by K. Hiscock, 179-198. Joint Nature Conservation Committee, Peterborough. (Coasts and Seas of the United Kingdom. MNCR series)

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Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
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STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

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https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030369**

SITENAME **Haisborough, Hammond and Winterton**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 6. SITE MANAGEMENT
- 7. MAP OF THE SITE

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0030369

1.3 Site name

Haisborough, Hammond and Winterton

1.4 First Compilation date	1.5 Update date
2010-08	2017-11

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee, Monkstone House, City Road, Peterborough, PE1 1JY

Email:

Date site proposed as SCI:	2010-08
Date site confirmed as SCI:	2011-11
Date site designated as SAC:	2017-09
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made), and Regulations 11, 16 and 17 of the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (http://www.legislation.gov.uk/uksi/2007/1842/contents/made).

2. SITE LOCATION

Back to top

2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.966	52.841

2.2 Area [ha]:

146759.0

2.3 Marine area [%]

100.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

Back to top

3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			66892.75		M	A	C	B	B
1170			88.06		P	A	C	B	A

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
M	1364	Halichoerus grypus			p				P	DD	D			
M	1351	Phocoena phocoena			p				P	DD	D			

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.0
Total Habitat Cover	100

Other Site Characteristics

General site characteristics: Gravelly sand. Sand. Non-vegetated. Full salinity. Intermediate coastal influence. Headland associated. Sabellaria spinulosa biogenic reef. Circalittoral. Moderate energy.

4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time for which this is considered to be one of the best areas in the United Kingdom. Reefs for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
L	D02		I
H	C02		B
L	H03		B
L	D03		B
L	C01		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

H	F02		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

For further information on this site, including its features, conservation objectives, advice on operations and management, please see Natural England's Designated Sites System and JNCC's Site Information Centres via the links below. See also the UK Approach document for more information (link via the JNCC website).

Link(s): http://jncc.defra.gov.uk/page-6534
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

https://designatedsites.naturalengland.org.uk/Marine/MarineSiteDetail.aspx?SiteCode=UK0030369&SiteName=Haisborou

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	For information about relevant management bodies contact the Joint Nature Conservation Committee and see Section 4.5 for site management progress
Address:	
Email:	

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

- [ ] Yes
- [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

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https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030358**

SITENAME **North Norfolk Sandbanks and Saturn Reef**

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- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
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- 6. SITE MANAGEMENT
- 7. MAP OF THE SITE

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0030358

1.3 Site name

North Norfolk Sandbanks and Saturn Reef

1.4 First Compilation date	1.5 Update date
2010-08	2017-11

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	2010-08
Date site confirmed as SCI:	2011-11
Date site designated as SAC:	2017-09
National legal reference of SAC designation:	Regulations 11, 16 and 17 of the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (http://www.legislation.gov.uk/uksi/2007/1842/contents/made).

2. SITE LOCATION

2.1 Site-centre location [decimal degrees]:

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Longitude	Latitude
2.1208	53.3747

2.2 Area [ha]:

360341.0

2.3 Marine area [%]

100.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1110			360232.9	0	M	A	B	C	B
1170			108.1	0	M	A	C	B	A

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.0
Total Habitat Cover	100

Other Site Characteristics

3 Marine: Geology: sedimentary,sand,biogenic reef 4 Marine: Geomorphology: subtidal sediments (including sandbank/mudbank) General site characteristics: Sand. Non-vegetated. Full salinity. Intermediate coastal influence. Open shelf ridge. Sabellaria spinulosa biogenic reef. Infralittoral. High energy.

4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time for which this is considered to be one of the best areas in the United Kingdom. Reefs for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
L	C01		I
H	C02		I
L	H03		B
H	F02		I
L	D03		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

For further information on this site, including its features, conservation objectives, advice on operations and management, please see JNCC's Site Information Centre via the link below. See also the UK Approach document for more information (link via the JNCC website).

Link(s): http://jncc.defra.gov.uk/page-6537
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK00	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

For information about relevant management bodies contact the Joint Nature

Organisation:	Conservation Committee and see Section 4.5 for site management progress
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

- [ ] Yes
- [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0014780**

SITENAME **Orfordness - Shingle Street**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0014780

1.3 Site name

Orfordness - Shingle Street

1.4 First Compilation date	1.5 Update date
1996-01	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1996-01
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.561388889	52.08138889

2.2 Area [ha]:

888.0

2.3 Marine area [%]

61.4

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
1150	X		26.64	0	P	B	C	B	B
1210			9.77	0	G	A	B	A	A
1220			535.46	0	G	A	B	A	A

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N02	25.0
N03	15.0
N23	2.0
N05	40.0
N14	18.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: sand,shingle,mud,nutrient-poor 2 Terrestrial: Geomorphology and landscape: coastal,lowland 4 Marine: Geomorphology: lagoon,estuary,intertidal sediments (including sandflat/mudflat),shingle bar

4.2 Quality and importance

Coastal lagoons for which this is considered to be one of the best areas in the United Kingdom. Annual vegetation of drift lines for which this is one of only four known outstanding localities in the United Kingdom. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 100 hectares. Perennial vegetation of stony banks for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M01		B
H	K03		I
H	G01		I
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	A04		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

X	Yes	Name: Orfordness-Shingle Street: The Orfordness-Havergate National Nature Reserve (NNR) Management Plan provides management infomation related to this site. This is available from Natural England. Link:
	No, but in preparation	
	No	

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

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3.1 Habitat code

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1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
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1220	Perennial vegetation of stony banks	57
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2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
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21A0	Machairs (* in Ireland)	57
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3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
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4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0012741**

SITENAME **Staverton Park and The Thicks, Wantisden**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

Back to top

1.1 Type	1.2 Site code
B	UK0012741

1.3 Site name

Staverton Park and The Thicks, Wantisden

1.4 First Compilation date	1.5 Update date
1995-06	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1995-06
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.440833333	52.10583333

2.2 Area [ha]:

84.28

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
9190			84.28	0	G	A	C	A	B

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N16	100.0

Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: acidic,nutrient-poor,sand 2 Terrestrial: Geomorphology and landscape: lowland

4.2 Quality and importance

Old acidophilous oak woods with Quercus robur on sandy plains for which this is one of only four known outstanding localities in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	B02		I
H	G01		I
H	I02		B
H	K04		I
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	B02		I
H	A04		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
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9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
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D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

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B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

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3.3 Other species – essentially covers bird assemblage types

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SBA	Breeding seabird assemblage	UK specific code

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N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
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N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
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A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
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B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
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C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
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D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
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CODE	DESCRIPTION	PAGE NO
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E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0013577**

SITENAME **The Broads**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0013577

1.3 Site name

The Broads

1.4 First Compilation date	1.5 Update date
1996-01	2015-12

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	1996-01
Date site confirmed as SCI:	2004-12
Date site designated as SAC:	2005-04
National legal reference of SAC designation:	Regulations 11 and 13-15 of the Conservation of Habitats and Species Regulations 2010 (http://www.legislation.gov.uk/uksi/2010/490/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.603611111	52.73527778

2.2 Area [ha]:

5889.43

2.3 Marine area [%]

0.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Global
3140			175.51	0	G	A	A	A	A
3150			292.12	0	G	A	B	A	B
6410			58.31	0	G	B	C	A	C
7140			5.89	0	G	B	C	A	B
7210	X		209.07	0	G	A	A	A	A
7230			5.89	0	G	A	C	A	B
91E0	X		763.27	0	G	A	B	A	A

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)

- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
I	4056	Anisus vorticulus			p				P	DD	B	B	C	B
P	1903	Liparis loeselii			p	251	500	i		M	C	B	A	B
M	1355	Lutra lutra			p	23	23	i		G	C	A	C	C
A	1166	Triturus cristatus			p				P	DD	D			
I	1016	Vertigo moulinsiana			p				P	DD	C	A	C	A

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N08	1.0
N09	1.0
N10	39.0
N16	24.0
N07	19.0
N06	16.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: nutrient-poor,alluvium,basic,nutrient-rich,clay,peat 2 Terrestrial: Geomorphology and landscape: floodplain,lowland,valley

4.2 Quality and importance

Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. for which this is considered to be one of the best areas in the United Kingdom. Natural eutrophic lakes with Magnopotamion or Hydrocharition-type vegetation for which this is considered to be one of the best areas in the United Kingdom. Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) for which the area is considered to support a significant presence. Transition mires and quaking bogs for which this is considered to be one of the best areas in the United Kingdom. Calcareous fens with Cladium mariscus and species of the Caricion davallianae for which this is considered to be one of the best areas in the United Kingdom. which is considered to be rare as its total extent in the United Kingdom is estimated to be less than 1000 hectares. Alkaline fens for which this is considered to be one of the best areas in the United Kingdom. Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) for which this is considered to be one of the best areas in the United Kingdom. Liparis loeselii for which this is one of only three known outstanding localities in the United Kingdom. which is known from 15 or fewer 10 x 10 km squares in the United Kingdom. Lutra lutra for which the area is considered to support a significant presence. Vertigo moulinsiana for which this is considered to be one of the best areas in the United Kingdom. Anisus vorticulus for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	M01		B
H	I01		B
H	H02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A06		I
H	D05		I
H	A04		I
H	B02		I
H	D05		I
H	A02		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0	UK01	35.7		

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
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I03	Introduced genetic material, GMO	65
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XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
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UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
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IN09	Special Area of Conservation	67

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

Joint Nature Conservation Committee
Monkstone House
City Road
Peterborough
Cambridgeshire PE1 1JY
UK
Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948
Email: RIS@JNCC.gov.uk

2. Date this sheet was completed/updated:

Designated: 21 September 1994

3. Country:

UK (England)

4. Name of the Ramsar site:

Broadland

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* □;
ii**) an electronic format** (e.g. a JPEG or ArcView image) Yes
iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* □;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

52 43 56 N 01 36 00 E

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Great Yarmouth

Located in eastern Norfolk, part of East Anglia.

Administrative region: Norfolk; Suffolk

10. Elevation (average and/or max. & min.) (metres): 11. Area (hectares): 5488.61

Min. -2
Max. 4
Mean 1

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

Broadland is a low-lying wetland complex straddling the boundaries between east Norfolk and northern Suffolk. The area includes the river valley systems of the Bure, Yare and Waveney and their major tributaries. The open distinctive landscape comprises a complex and interlinked mosaic of wetland habitats including open water, reedbeds, carr woodland, grazing marsh and fen meadow. The region is important for recreation, tourism, agriculture and wildlife.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

2, 6

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 2

The site supports a number of rare species and habitats within the biogeographical zone context, including the following Habitats Directive Annex I features:

H7210	Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae*	Calcium-rich fen dominated by great fen sedge (saw sedge).
H7230	Alkaline fens	Calcium-rich springwater-fed fens.
H91E0	Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)	Alder woodland on floodplains,
and the Annex II species		
S1016	*Vertigo moulinsiana*	Desmoulin`s whorl snail
S1355	*Lutra lutra*	Otter
S1903	*Liparis loeselii*	Fen orchid.

The site supports outstanding assemblages of rare plants and invertebrates including nine British Red Data Book plants and 136 British Red Data Book invertebrates.

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in winter:

Tundra swan , *Cygnus columbianus bewickii*, NW Europe	196 individuals, representing an average of 2.4% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian wigeon , *Anas penelope*, NW Europe	6769 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)
Gadwall , *Anas strepera strepera*, NW Europe	545 individuals, representing an average of 3.1% of the GB population (5 year peak mean 1998/9-2002/3)
Northern shoveler , *Anas clypeata*, NW & C Europe	247 individuals, representing an average of 1.6% of the GB population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species with peak counts in winter:

Pink-footed goose , *Anser brachyrhynchus*, Greenland, Iceland/UK	4263 individuals, representing an average of 1.7% of the population (5 year peak mean 1998/9-2002/3)
Greylag goose , *Anser anser anser*, Iceland/UK, Ireland	1007 individuals, representing an average of 1.1% of the population (Source period not collated)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.

15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	acidic, basic, neutral, clay, alluvium, peat, nutrient-rich, sedimentary
Geomorphology and landscape	lowland, valley, floodplain
Nutrient status	eutrophic, highly eutrophic, mesotrophic, oligotrophic
pH	acidic, alkaline, circumneutral
Salinity	brackish / mixosaline, fresh
Soil	mainly mineral, mainly organic
Water permanence	usually permanent, usually seasonal / intermittent
Summary of main climatic features	Annual averages (Lowestoft, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/lowestoft.html) Max. daily temperature: 13.0° C Min. daily temperature: 7.0° C Days of air frost: 27.8 Rainfall: 576.3 mm Hrs. of sunshine: 1535.5

General description of the Physical Features:

Broadland is a low-lying wetland complex in eastern England. The Broads are a series of flooded medieval peat cuttings within the floodplains of five principal river systems. The area includes the river valley systems of the Bure, Yare and Waveney and their major tributaries. The distinctive open landscape comprises a complex and interlinked mosaic of wetland habitats including open water, reedbeds, carr woodland, grazing marsh and fen meadow, forming one of the finest marshland complexes in the UK. The differing types of management of the vegetation for reed, sedge and marsh hay, coupled with variations in hydrology and substrate, support an extremely diverse range of plant communities.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

Broadland is a low-lying wetland complex in eastern England. The Broads are a series of flooded medieval peat cuttings within the floodplains of five principal river systems. The area includes the river valley systems of the Bure, Yare and Waveney and their major tributaries. The distinctive open landscape comprises a complex and interlinked mosaic of wetland habitats including open water, reedbeds, carr woodland, grazing marsh and fen meadow, forming one of the finest marshland complexes in the UK.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Recharge and discharge of groundwater, Flood water storage / desynchronisation of flood peaks, Maintenance of water quality (removal of nutrients)

19. Wetland types:

Inland wetland

Code	Name	% Area
U	Peatlands (including peat bogs swamps, fens)	30
Tp	Freshwater marshes / pools: permanent	30
W	Shrub-dominated wetlands	15
Xf	Freshwater, tree-dominated wetlands	10
O	Freshwater lakes: permanent	10
Q	Saline / brackish lakes: permanent	3
M	Rivers / streams / creeks: permanent	2

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

The peatland areas of this site support: alder woodland on the floodplain dominated by *Alnus glutinosa* and the *Betula-Dryopteris cristata* community; mixed tall-herb fen typical of calcareous conditions are dominated by *Phragmites australis* and *Cladium mariscus*. The very wet mires are dominated by *Carex* spp. and *Juncus* spp., and spring-fed fens with *Schoenus nigricans*, *Carex dioica* and *Pinguicula nigricans*. Open waters are mostly highly eutrophic; however, some plant-rich mesotrophic and eutrophic examples remain, dominated by *Chara* sp., *Najas marina* and *Ceratophyllum demersum*. The ditch systems within the drained grasslands support Magnopotamion and Hydrocharition vegetation, often with *Stratiotes aloides*.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Nationally important species occurring on the site.

Higher Plants.

Nationally Rare:

S1903 *Liparis loeselii* Fen orchid.

S1831 *Luronium natans* Floating water-plantain.

Najas marina, *Potamogeton acutifolius*, *Dryopteris cristata*

Nationally Scarce: *Althaea officinalis, Dactylorhiza traunsteineri, Potamogeton compressus, Potamogeton trichoides, Pyrola rotundifolia, Sonchus palustris, Cicuta virosa, Carex appropinquata, Thelypteris palustris, Lathyrus palustris, Potamogeton coloratus, Sium latifolium, Stratiotes aloides, Myriophyllum verticillatum.*

Lower Plants.

Nationally Rare: *Chara intermedia, Nitellopsis obtusa*, *Chara connivens, Chara intermedia* and *Cinclodium stygium*

Nationally scarce: *Chara curta, Drepanocladus vernicosus, Chara pendunculata, Campylium elodes, Chara aspera, Ricciocarpus natans, Tolypella glomerata*.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds

Species currently occurring at levels of national importance:

Species regularly supported during the breeding season:

Eurasian marsh harrier , *Circus aeruginosus*, Europe	16 pairs, representing an average of 10.5% of the GB population (5 year mean 1987/8-1991/2)

Species with peak counts in spring/autumn:

Common coot , *Fulica atra atra*, NW Europe	3112 individuals, representing an average of 1.7% of the GB population (5 year peak mean 1998/9-2002/3)

Species with peak counts in winter:

Great cormorant , *Phalacrocorax carbo carbo*, NW Europe	273 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Great bittern , *Botaurus stellaris stellaris*, W Europe, NW Africa	2 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
Bean goose , *Anser fabalis fabalis*, NW Europe - wintering	238 individuals, representing an average of 59.5% of the GB population (5 year peak mean for 1996/7-2000/01)
Greater white-fronted goose , *Anser albifrons albifrons*, NW Europe	351 individuals, representing an average of 6% of the GB population (Source period not collated)
Eurasian teal , *Anas crecca*, NW Europe	2934 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3)
Common pochard , *Aythya ferina*, NE & NW Europe	800 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Smew , *Mergellus albellus*, NW & C Europe	10 individuals, representing an average of 2.7% of the GB population (5 year peak mean 1998/9-2002/3)
Hen harrier, *Circus cyaneus*, Europe	22 individuals, representing an average of 2.9% of the GB population (5 year peak mean 1987/8-1991/2)
Water rail , *Rallus aquaticus*, Europe	23 individuals, representing an average of 5.1% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , *Philomachus pugnax*, Europe/W Africa	82 individuals, representing an average of 11.7% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Species occurring at levels of international importance.

Invertebrates.

S1016 *Vertigo moulinsiana* Desmoulin`s whorl snail

Assemblage.

This site supports a diverse assemblage of invertebrates including:
Aeshna isosceles, Papilio machaon britannicus.
136 British Red Data Book invertebrate species have been recorded on the site.

Nationally important species occurring on the site.

Mammals.

S1355 *Lutra lutra* Otter

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic
Aquatic vegetation (e.g. reeds, willows, seaweed)
Archaeological/historical site
Environmental education/ interpretation
Fisheries production
Forestry production
Livestock grazing
Non-consumptive recreation
Scientific research
Sport fishing
Sport hunting
Tourism
Transportation/navigation

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:

ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	
Local authority, municipality etc.	+	
National/Crown Estate	+	

Private	+	+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	+
Tourism	+	+
Recreation	+	+
Current scientific research	+	+
Collection of non-timber natural products: commercial	+	
Commercial forestry	+	+
Cutting/coppicing for firewood/fuel	+	+
Cutting of vegetation (small-scale/subsistence)	+	+
Fishing: commercial	+	+
Fishing: recreational/sport	+	+
Permanent arable agriculture		+
Rough or shifting grazing	+	+
Permanent pastoral agriculture	+	+
Hay meadows	+	+
Hunting: recreational/sport	+	+
Sewage treatment/disposal		+
Flood control	+	+
Irrigation (incl. agricultural water supply)		+
Mineral exploration (excl. hydrocarbons)		+
Transport route		+
Domestic water supply		+
Urban development		+
Non-urbanised settlements		+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
No factors reported	NA				

For category 2 factors only. What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Is the site subject to adverse ecological change? NO

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
National Nature Reserve (NNR)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	+
Management agreement	+	+
Site management statement/plan implemented	+	
Other	+	+
Environmentally Sensitive Area (ESA)	+	+
Special Area of Conservation (SAC)	+	

b) Describe any other current management practices:
The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Contemporary.

Flora.
The entire site has had a vegetation survey, primarily fen, wet woodland and open water areas, lakes plus ditch systems, and this is now on GIS.
Monitoring is undertaken on the site, particularly freshwater and fen habitats.

Completed.

Fauna.
Wintering and breeding bird survey of all drained marshland area completed, results on a GIS.
Some species survey and monitoring, e.g. *Liparis loeselii*, *Luronium natans* and a number of molluscs.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Many nature trails and footpaths with information boards and leaflets plus five visitor centres at Ranworth, Hickling, Strumpshaw, How Hill and Carlton Colville.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Activities.

The area attracts large numbers of tourists predominantly during the summer, many of which are water-borne. The river and broads (lakes) both within and adjacent to the site carry large numbers of power and sail craft which results in large-scale erosion and loss of fringing reedswamp. Speed limits have been imposed, however boat numbers remains too high.

Facilities provided.

Land-based recreation within the site is well managed, directing people to facilities where boardwalks are provided.

Seasonality.

All year.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs, European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6EB

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see **15** above), list full reference citation for the scheme.

Site-relevant references

Aldridge, DC & Müller, SJ (2001) The Asiatic clam, *Corbicula fluminea*, in Britain: current status and potential impacts. *Journal of Conchology*, **37**(2), 177-183

Baker, R, Clarke, K & Howlett, D (1999) A survey of the Broadland distribution of *Pseudamnicola confusa* (Frauenfeld). *English Nature Research Reports*, No. **319**

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Musgrove, AJ, Pollitt, MS, Hall, C, Hearn, RD, Holloway, SJ, Marshall, PE, Robinson, JA & Cranswick, PA (2001) *The Wetland Bird Survey 1999–2000: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge. www.wwt.org.uk/publications/default.asp?PubID=14

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O'Riordan, AM (1976) *A Broadland bibliography*. Nature Conservancy Council, England, East Anglia Region, Norwich (Internal report, Rep.NC.162B)

Tickner, M, Evans, C & Blackburn, M (1991) Restoration of a Norfolk Broad: a case study of Strumpshaw Fen. *RSPB Conservation Review*, **5**, 72-77

Wiggington, M (1999) *British Red Data Books. 1. Vascular plants*. 3rd edn. Joint Nature Conservation Committee, Peterborough

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Please return to: **Ramsar Secretariat, Rue Mauverney 28, CH-1196 Gland, Switzerland**
Telephone**: +41 22 999 0170** • Fax: **+41 22 999 0169** • email: **ramsar@ramsar.org**

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9020329**

SITENAME **Greater Wash**

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- 6. SITE MANAGEMENT
- 7. MAP OF THE SITE

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9020329

1.3 Site name

Greater Wash

1.4 First Compilation date	1.5 Update date
2018-03	-

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	2018-03
National legal reference of SPA designation	Regulations 15 and 17-19 of The Conservation of Habitats and Species Regulations 2017 (https://www.legislation.gov.uk/uksi/2017/1012/contents/made), and Regulations 12, 19 and 20 of The Conservation of Offshore Marine Habitats and Species Regulations 2017 (http://www.legislation.gov.uk/uksi/2017/1013/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
0.7264	53.2356

2.2 Area [ha]:

353577.86

2.3 Marine area [%]

100.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia
UKF3	Lincolnshire
UKZZ	Extra-Regio
UKE1	East Yorkshire and Northern Lincolnshire

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo.
B	A001	Gavia stellata			w	1407	1407	i		G	B		C	
B	A177	Larus minutus			w	1255	1255	i		M			C	
B	A065	Melanitta nigra			w	3449	3449	i		G	A		C	
B	A195	Sterna albifrons			r	798	798	p		G	A		C	
B	A193	Sterna hirundo			r	510	510	p		G	B		C	
B	A191	Sterna sandvicensis			r	3852	3852	p		G	A		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)

- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	99.0
N02	1.0
Total Habitat Cover	100

Other Site Characteristics

3 Marine: Geology: a mixture of coarse sediments, sand, mud, muddy sand and mixed sediments. 4 Marine: Geomorphology: intertidal mudflats and sandflats, subtidal sandbanks and biogenic reef, including Sabellaria reefs and mussel beds.

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC): During the breeding season the area supports Annex I populations of little tern (Sternula albifrons) (798 pairs, 5-year peak mean 2009-2013, 42% of GB breeding population), common tern (Sterna hirundo) (510 pairs, 5-year peak mean 2010-2014, 5.1% of GB breeding population) and Sandwich tern (Sterna sandvicensis) (3,852 pairs, 5-year peak mean 2010-2014, 35% of GB breeding population) (stage 1.1). During the winter, the site also supports populations of overwintering Annex I species: little gull (Hydrocoloeus minutus) (1,255 peak mean 2004/05-2005/06, no current GB population estimate) (stage 1.4) and red-throated diver (Gavia stellata) (1,407 individuals, 5-year peak mean 2002/03-2005/06, 8.3% of GB non-breeding population) (stage 1.1). ARTICLE 4.2 QUALIFICATION (2009/147/EC): Site regularly supports 3,449 Common scoter (Melanitta nigra) (5-year peak mean 2002/03-2007/08, 0.6% of biogeographic population), a regularly occurring migratory species not listed in Annex I of the EC Birds Directive is also supported within the site (stage 1.4).

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
M	G01		b
M	D03		b
H	C03		b
L	H03		b
L	F02		i

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

The weblink 'http://jncc.defra.gov.uk/page-6895' allows access to site specific information for all marine MPAs in UK offshore waters.

Link(s): http://consult.defra.gov.uk/natural-england-marine/greater-wash-potential-special-protection-area-com/supporting_docur

http://publications.naturalengland.org.uk/publication/4597871528116224

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

Organisation:	For information about relevant management offshore please contact JNCC
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

- [ ] Yes
- [ ] No, but in preparation
- [X] No

6.3 Conservation measures (optional)

For available information on relevant conservation measures of the site, including the Conservation Objectives, see section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

- [ ] Yes
- [X] No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK9009181**

SITENAME **Breydon Water**

TABLE OF CONTENTS

- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
A	UK9009181

1.3 Site name

Breydon Water

1.4 First Compilation date	1.5 Update date
1996-03	2015-12

1.6 Respondent:

Name/Organisation:	Joint Nature Conservation Committee
Address:	Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY
Email:	

1.7 Site indication and designation / classification dates

Date site classified as SPA:	1996-03
National legal reference of SPA designation	Regulations 12A and 13-15 of the Conservation Habitats and Species Regulations 2010, (http://www.legislation.gov.uk/uksi/2010/490/contents/made) as amended by The Conservation of Habitats and Species (Amendment) Regulations 2011 (http://www.legislation.gov.uk/uksi/2011/625/contents/made).

2. SITE LOCATION

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2.1 Site-centre location [decimal degrees]:

Longitude	Latitude
1.621666667	52.58416667

2.2 Area [ha]:

1203.05

2.3 Marine area [%]

38.1

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKH1	East Anglia

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site assessment			
G	Code	Scientific Name	S	NP	T	Size		Unit	Cat.	D.qual.	A|B|C|D	A|B|C		
						Min	Max				Pop.	Con.	Iso.	Glo
B	A037	Cygnus columbianus bewickii			w	391	391	i		G	B		B	
B	A151	Philomachus pugnax			c	54	54	i		G	B		C	
B	A140	Pluvialis apricaria			w	5040	5040	i		G	B		C	
B	A132	Recurvirostra avosetta			w	33	33	i		G	B		B	
B	A193	Sterna hirundo			r	155	155	p		G	C		C	
B	A142	Vanellus vanellus			w	24940	24940	i		G	C		C	

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)

- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation					
Group	CODE	Scientific Name	S	NP	Size		Unit	Cat.	Species Annex		Other categories			
					Min	Max		C|R|V|P	IV	V	A	B	C	D
B	WATR	Waterbird assemblage			43225	43225	i						X	

- **Group:** A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
- **CODE:** for Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Unit:** i = individuals, p = pairs or other units according to the standard list of population units and codes in accordance with Article 12 and 17 reporting, (see reference portal)
- **Cat.:** Abundance categories: C = common, R = rare, V = very rare, P = present
- **Motivation categories: IV, V:** Annex Species (Habitats Directive), **A:** National Red List data; **B:** Endemics; **C:** International Conventions; **D:** other reasons

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N10	55.0
N02	42.0
N03	3.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: alluvium,nutrient-rich,clay 2 Terrestrial: Geomorphology and landscape: floodplain,coastal,lowland 3 Marine: Geology: mud 4 Marine: Geomorphology: intertidal sediments (including sandflat/mudflat),estuary

4.2 Quality and importance

ARTICLE 4.1 QUALIFICATION (79/409/EEC) During the breeding season the area regularly supports: Sterna hirundo (Northern/Eastern Europe - breeding) 1.3% of the GB breeding population Four year count mean for 1992 to 1994 & 1996 Over winter the area regularly supports: Cygnus columbianus bewickii (Western Siberia/North-eastern & North-western Europe) 5.6% of the population in Great Britain Five year peak mean for 1991/92 to 1995/96 Pluvialis apricaria [North-western Europe - breeding] 2% of the GB population Five year peak mean for 1991/92 to 1995/96 Recurvirostra avosetta (Western Europe/Western Mediterranean -

breeding) 3.3% of the population in Great Britain Five year peak mean for 1991/92 to 1995/96 On passage the area regularly supports: Philomachus pugnax (Western Africa - wintering) 7.7% of the population in Great Britain Five year peak mean for 1991/92 to 1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC) Over winter the area regularly supports: Vanellus vanellus (Europe - breeding) 1.2% of the population in Great Britain Five year peak mean for 1991/92 to 1995/96 ARTICLE 4.2 QUALIFICATION (79/409/EEC): AN INTERNATIONALLY IMPORTANT ASSEMBLAGE OF BIRDS Over winter the area regularly supports: 43225 waterfowl (5 year peak mean 1991/92-1995/96) Including: Cygnus columbianus bewickii , Recurvirostra avosetta , Pluvialis apricaria [North-western Europe - breeding], Vanellus vanellus , Philomachus pugnax

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	G01		I
H	G05		I
H	A02		I
H	F02		I
H	J02		B

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]
H	A02		I
H	D05		I

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

Conservation Objectives - the Natural England links below provide access to the Conservation Objectives (and other site-related information) for its terrestrial and inshore Natura 2000 sites, including conservation advice packages and supporting documents for European Marine Sites within English waters and for cross-border sites. See also the 'UK Approach' document for more information (link via the JNCC website).

Link(s): http://publications.naturalengland.org.uk/category/6490068894089216

http://publications.naturalengland.org.uk/category/3212324
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK04	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	Natural England
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Bruine Bank (NL2021168 - SPA)

Table of contents

1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

A

1.2 Site Code

NL2021168

1.3 Site Name

Bruine Bank

1.4 First Compilation date

2021-12

1.5 Update date

No information provided

1.6 Respondent

Name/Organisation: Ministry of Agriculture, Fisheries, Food Security and Nature - DG Nature & Fisheries

Address: No information provided

Email: No information provided

1.7 Site indication and designation / classification dates

Date site classified as SPA: 2021-12

National legal reference of SPA designation: https://www.natura2000.nl/sites/default/files/documenten/gebieden/168/Besluit%20aanwijzing%20Bruine%20Bank.pdf

Date site proposed as SCI: No information provided

Date site confirmed as SCI: No information provided

Date site designated as SAC: No information provided

National legal reference of SAC designation: No information provided

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 3.297008

Latitude: 52.509704

2.2 Area [ha]

136548

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Marine Atlantic	100
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

No information provided

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment		
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
B	A200	Alca torda			c	2900	6300	i	P	M	C	B
B	A175	Catharacta skua			c	61	61	i	P	M	C	B
B	A862	Hydrocoloeus minutus			c	130	440	i	P	M	C	B
B	A187	Larus marinus			c	350	1200	i	P	M	C	B
B	A016	Morus bassanus			c	900	1100	i	P	M	C	B
B	A199	Uria aalge			c	6000	31800	i	V	M	C	B

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
	Total Habitat Cover	0

Other Site Characteristics

The Bruine Bank is located in the western part of the Dutch North Sea, near the border with the United Kingdom, approximately at the latitude of Amsterdam. It is a dynamic sandy area characterized by a distinctive elevation in the deep sea; the highest point of the Bruine Bank lies at 16 meters below sea level. The overall depth ranges between -16 and -50 meters. Additionally, the area features sand dunes that can rise up to 20 meters above the seabed.

4.2 Quality and importance

No information provided

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	U		b

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

No information provided

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

No information provided

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Rijkswaterstaat Dienst Noordzee

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

☐ Yes

- [ ] No, but in preparation
- [x] No

6.3 Conservation measures (optional)

No information provided

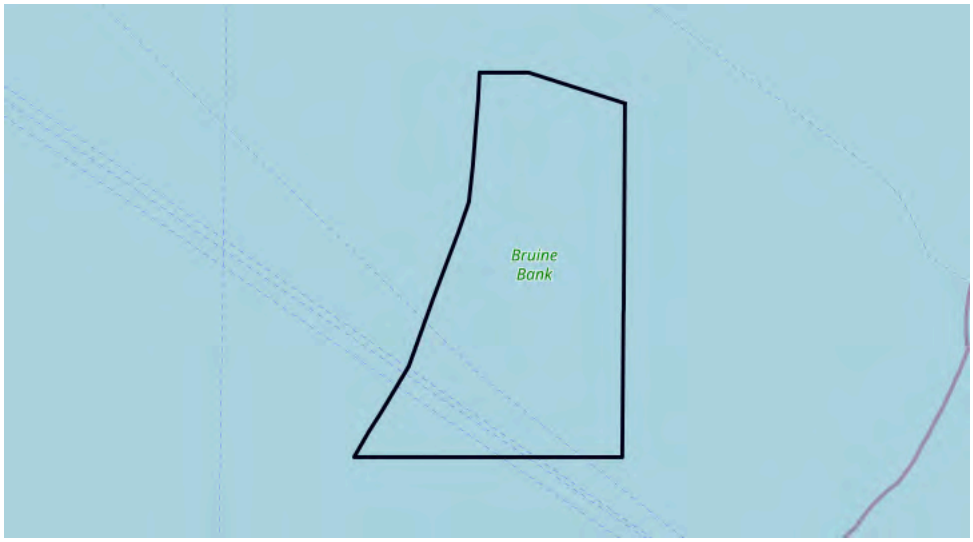
7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Klaverbank (NL2008002 - SCI)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

NL2008002

1.3 Site Name

Klaverbank

1.4 First Compilation date

2008-12

1.5 Update date

2016-11

1.6 Respondent

Name/Organisation: Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity

Address: No information provided

Email: No information provided

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: 2008-12

Date site confirmed as SCI: 2009-12

Date site designated as SAC: 2016-06

National legal reference of SAC designation: https://www.natura2000.nl/sites/default/files/documenten/gebieden/165/PUBLICATIEVERSIE_N2K165_definitief%20besluit%20Klaverbank%20met%20kaart.pdf

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 3.0844

Latitude: 54.0233

2.2 Area [ha]

153900

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

0

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Marine Atlantic	100
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types							Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1170	Reefs			76934	0.00	M	C	A	C	A

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site				Site Assessment				
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
M	1364	Halichoerus grypus			p	0	0	i	C	M	C	B	C
M	1365	Phoca vitulina			p	0	0	i	R	M	C	B	C

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
M	1351	Phocoena phocoena			p	0	0	i	C	M	B	B	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N01	Marine areas, Sea inlets	100
	Total Habitat Cover	100

Other Site Characteristics

De Klaverbank is het enige gebied op het NCP waar significante hoeveelheden grind aan het oppervlak liggen en waar ook grotere stenen met een specifieke begroeiing van o.a. kalkroodwieren voorkomen. Het is het gebied met de hoogste bodemfauna-diversiteit van het NCP. De Klaverbank wordt van noordwest tot zuidoost in twee delen opgesplitst door een 60 meter diepe geul, de Botney Cut. Ook op het Engelse Plat bevinden zich grote grind- en steenconcentraties. Het gebied is ontstaan als eindmorene van een gletsjer uit de laatste ijstijd (Weichselien) (Lindenboom et al., 2005).

4.2 Quality and importance

Potentieel is het gebied ook belangrijk voor de voortplanting van vissen als roggen en Haring, die harde substraten nodig hebben. Er zijn aanwijzingen dat dit in het verleden het geval is geweest, de huidige situatie is onbekend. Ook zijn er aanwijzingen dat vogels en Bruinvissen soms in grotere concentraties in dit gebied voorkomen; of dit echter structureel is, is niet bekend (Lindeboom et al., 2005).Alle ecologische waarden van het gebied met grof grind zijn van belang, met name aan het oppervlak liggende stenen met hun specifieke begroeiing. Ook het ertussen liggende benthos heeft een hoge natuurwaarde met een specifieke (voor Nederland unieke) langlevende soorten (Lindeboom et al., 2005). Op de Klaverbank is een levensgemeenschap aanwezig die voor zover bekend niet op andere delen van het NCP wordt aangetroffen (Van Moorsel, 2003).Kenmerkende vissoorten voor de Klaverbank zijn verder: Ansjovis (Engraulis encrasicolus), gevlekte rog (Raja montagui), Kabeljauw (Gadus morhua), Kleine pieterman (Echiichthys vipera), Schurftvis (Arnoglossus laterna).Kenmerkende benthossoorten voor de Klaverbank met dichtheden van ongeveer 1 tot 100 individuen per vierkante meter zijn Harpinia antennaria, Hippomedon denticulatus, Urothoe elegans, Dosinia lupinus, Mactra coralline, Phaxas pellucidus, Glycera lapidum, Glycera rouxi, Lumbrineris latreilli, Pectinaria koreni, Poecilochaetus serpens en Synelmis klatti.

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	F02		b
L	A07		o
L	C02		o

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	C03.03		o
L	D02.09		o
L	D03		b
L	E02	X	o
L	E03		o
L	H01		o

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: - Anonymus (2005) Integraal Beheerplan Noordzee 2015. Interdepartementale Directeurenoverleg Noordzee (IDON)- Arts FA, Berrevoets CM (2005) Monitoring van zeevogels en zeezoogdieren op het Nederlands Continentaal Plat 1991 - 2005: Verspreiding, seizoenspatroon en trend van zeven soorten zeevogels en de Bruinvis. Rapport RIKZ/2005.032, Rijksinstituut voor Kust en Zee/RIKZ, Middelburg- Brasseur SMJM, Tulp I, Reijnders PJH, Smit CJ, Dijkman EM, Cremer JSM, Kotterman MJJ, Meesters HWG (2004) Voedselecologie van de Gewone en Grijze zeehond in de Nederlandse kustwateren. Rapport 905, Alterra, Wageningen- Daan N, Heessen HJL, Hofstede Rt (2005) North Sea Elasmobranchs: distribution, abundance and biodiversity. ICES, Copenhagen- De Groot SJ (2002) A review of the past and present status of anadromous fish species in the Netherlands: is restocking the Rhine feasible? Hydrobiologia 478:205-218- Degraer S, Wittoeck J, Appeltans W, Cooreman K, Deprez T, Hillewaert H, Hostens K, Mees J, Vanden Berghe W, Vincx M (2006) De macrobenthosatlas van het Belgisch deel van de Noordzee. Federaal Wetenschapsbeleid D/2005/1191/5- Hammond PS, Berggren P, Benke H, Borchers DL, Collet A, Heide Jorgensen MP, Heimlich S, Hiby AR, Leopold MF, Oien N (2002) Abundance of harbour porpoise and other cetaceans in the North Sea and adjacent waters. Journal-of-Applied-Ecology [print] April, 2002; 39 (2): 361-376 URLJ: http://wwwblackwell-sciencecom/~cgilib/jnlpageasp?Journal=jappl&File=jappl- Lindeboom HJ, Dijkman EM, Bos OG, Meesters EH, Cremer JSM, De Raad I, Bosma A (2008) Ecologische Atlas Noordzee ten behoeve van gebiedsbescherming. Wageningen IMARES vestiging Texel- Lindeboom HJ, Geurts van Kessel AJM, Berkenbosch A (2005) Gebieden met bijzondere ecologische waarden op het Nederlands Continentaal Plat. Rapport RIKZ/2005008, Den Haag / Alterra rapport 1109, Wageningen:103 p.-Patberg W, De Leeuw JJ, Winter HV (2005) Verspreiding van rivierprik, zeeprik, fint en elft in Nederland na 1970. Rapport C004/05, RIVO, IJmuiden, The Netherlands- Ter Hofstede R, Heessen HJL, Daan N (2005) Systeembeschrijving Noordzee: Natuurwaardenkaarten vis. Rapport C090/05, RIVO, IJmuiden- Ter Hofstede R, Quirijns FJ, Daan N, Dekker W, Verver SW, Heessen HJL, Asjes J, Star B (2004) Beschermde Gebieden Noordzee: Begrenzing en ecologische waardering t.a.v. visgemeenschappen; visserij-activiteiten. Rapport C057/04, RIVO Biologie en Ecologie- Van Moorsel GWNM (2003) Ecologie van de Klaverbank, Biotasurvey 2002. Ecosub, Doorn

Links: http://www.noordzeeloket.nl/beleid/noordzee-natura-2000/

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
NL01	100

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

The same designation as under OSPAR under consideration.

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Rijkswaterstaat Dienst Noordzee

Address: No information provided

Email: peter.heslenfeld@rws.nl

6.2 Management Plan(s)

- [ ] Yes
- [ ] No, but in preparation
- [x] No

6.3 Conservation measures (optional)

Integraal Beheerplan Noordzee 2015 (2005)

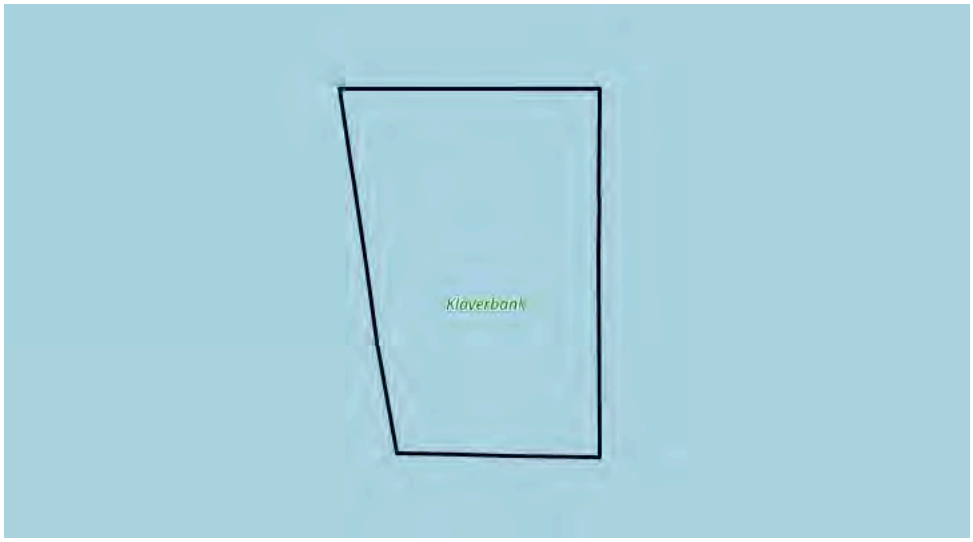
7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Friese Front (NL2016166 - SPA)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

A

1.2 Site Code

NL2016166

1.3 Site Name

Friese Front

1.4 First Compilation date

2016-06

1.5 Update date

2018-12

1.6 Respondent

Name/Organisation: Ministry of Agriculture, Fisheries, Food Security and Nature - DG Nature & Fisheries

Address: No information provided

Email: No information provided

1.7 Site indication and designation / classification dates

Date site classified as SPA: 2016-06

National legal reference of SPA designation: https://www.natura2000.nl/sites/default/files/documenten/gebieden/166/PUBLICATIEVERSIE_N2K166_definitief%20besluit%20Friese%20Front%20met%20kaart.pdf

Date site proposed as SCI: No information provided

Date site confirmed as SCI: No information provided

Date site designated as SAC: No information provided

National legal reference of SAC designation: No information provided

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 4.732

Latitude: 53.812

2.2 Area [ha]

288200

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

0

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Marine Atlantic	100
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

No information provided

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
B	A199	Uria aalge			c	10000	20000	i		M	A	C	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N01	Marine areas, Sea inlets	100
	Total Habitat Cover	100

Other Site Characteristics

Het Friese Front maakt onderdeel uit van het lange fysische front langs de zuidzijde van het ?s zomers gestratificeerde gebied in de centrale Noordzee. Door de unieke eigenschappen van dit front worden slib en voedingsstoffen vanuit de Engelse kust en het Engelse deel van de Noordzee aangevoerd, waardoor er een verhoogde primaire productie mogelijk is. Daarnaast komt de Nederlandse kustrivier hier in dieper, en dus langzamer stromend water, waardoor slib en voedseldeeltjes uitzakken. Dit alles leidt er toe dat hier een strook ligt met een hoge benthos-biomassa en -diversiteit.

4.2 Quality and importance

De hoge benthos-biomassa en biodiversiteit. Ook worden hier hogere concentraties vissen en vogels waargenomen. Met name Zeekoeten trekken in grote aantallen in de late zomer en het najaar met hun jongen naar dit gebied om te foerageren. In het gebied bevindt zich een belangrijke concentratie van de op de OSPAR-lijst genoemde Noordkromp.

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	D03.02		i
L	F02.02.01		i

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: - Anonymus (2005) Integraal Beheerplan Noordzee 2015. Interdepartementale Directeurenoverleg Noordzee (IDON)- Arts FA, Berrevoets CM (2005) Monitoring van zeevogels en zeezoogdieren op het Nederlands Continentaal Plat 1991 - 2005: Verspreiding, seizoenspatroon en trend van zeven soorten zeevogels en de Bruinvis. Rapport RIKZ/2005.032, Rijksinstituut voor Kust en Zee/RIKZ, Middelburg- Lindeboom HJ, Dijkman EM, Bos OG, Meesters EH, Cremer JSM, De Raad I, Bosma A (2008) Ecologische Atlas Noordzee ten behoeve van gebiedsbescherming. Wageningen IMARES vestiging Texel- Lindeboom HJ, Geurts van Kessel AJM, Berkenbosch A (2005) Gebieden met bijzondere ecologische waarden op het Nederlands Continentaal Plat. Rapport RIKZ/2005008, Den Haag / Alterra rapport 1109, Wageningen:103 p.- Ter Hofstede R, Heessen HJL, Daan N (2005) Systeembeschrijving Noordzee: Natuurwaardenkaarten vis. Rapport C090/05, RIVO, IJmuiden- Ter Hofstede R, Quirijns FJ, Daan N, Dekker W, Ververs SW, Heessen HJL, Asjes J, Star B (2004) Beschermde Gebieden Noordzee: Begrenzing en ecologische waardering t.a.v. visgemeenschappen; visserij-activiteiten. Rapport C057/04, RIVO Biologie en Ecologie

Links: http://www.noordzeeloket.nl/beleid/noordzee-natura-2000/

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
NL01	100

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Rijkswaterstaat Dienst Noordzee

Address: No information provided

Email: peter.heslenfeld@rws.nl

6.2 Management Plan(s)

- [ ] Yes
- [ ] No, but in preparation
- [x] No

6.3 Conservation measures (optional)

Integraal Beheerplan Noordzee 2015 (2005)

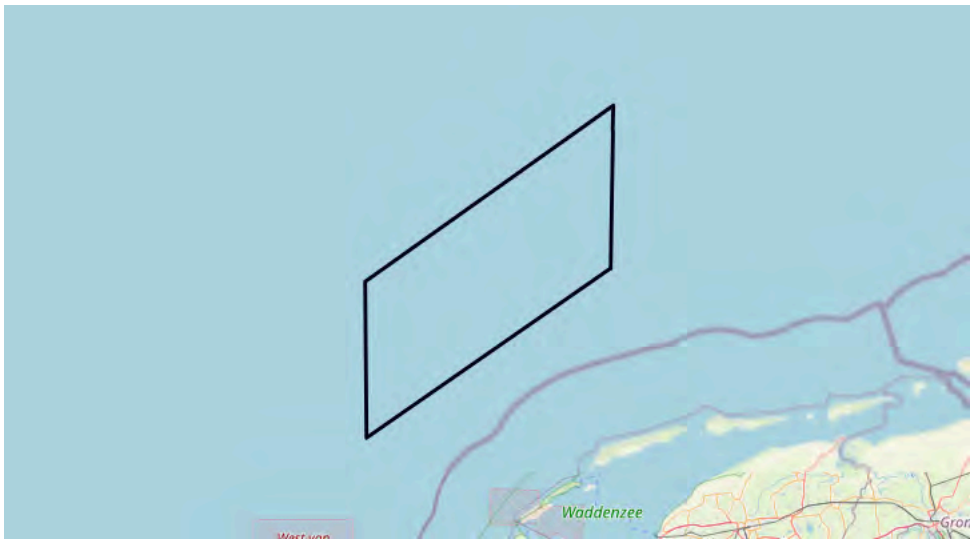
7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Vlaamse Banken (BEMNZ0001 - SCI)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

BEMNZ0001

1.3 Site Name

Vlaamse Banken

1.4 First Compilation date

1995-12

1.5 Update date

2014-09

1.6 Respondent

Name/Organisation: Marine Environment Unit,FPS Public Health,Food Chain Safety and Environment;DG EnvinronmentFOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, DG Leefmilieu, Dienst Marien Milieu (Marine environment and marine spatial planning unit)

Address: No information provided

Email: marien.milieu.marin@environment.belgium.be

1.7 Site indication and designation / classification dates

Date site classified as SPA: 1900-01

National legal reference of SPA designation: No information provided

Date site proposed as SCI: 2010-06

Date site confirmed as SCI: 2011-09

Date site designated as SAC: 2012-10

National legal reference of SAC designation: Royal Decree of 16 October 2012 conserning the designation of the SAC

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 2.5489

Latitude: 51.3339

2.2 Area [ha]

109939.9

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

0

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
BEZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	
Marine Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types						Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			110700	0.00	G	A	A	C	B
1170	Reefs			50600	0.00	G	B	A	C	B

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site Assessment	
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
B	A001	Gavia stellata			w	0	0	localities	R	M	A	C
B	A183	Larus fuscus			c	0	0	localities	C	M	A	C
B	A187	Larus marinus			c	0	0	localities	C	M	A	C
B	A177	Larus minutus			c	0	0	localities	C	M	A	C
B	A065	Melanitta nigra			w	0	0	localities	R	M	A	C
B	A005	Podiceps cristatus			w	0	0	i	C	M	A	C
B	A195	Sterna albifrons			c	0	0	localities	V	M	D	
B	A193	Sterna hirundo			c	0	0	localities	R	M	B	C
B	A191	Sterna sandvicensis			c	0	0	localities	R	M	B	C
F	1103	Alosa fallax			p	0	0	localities	P	P	D	
F	1099	Lampetra fluviatilis			p	0	0	localities	P	P	D	
F	1095	Petromyzon marinus			p	0	0	localities	P	P	D	
M	1364	Halichoerus grypus			p	0	0	localities	R	P	A	C
M	1365	Phoca vitulina			p	0	0	localities	R	P	A	C
M	1351	Phocoena phocoena			c	0	0	i	C	M	A	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N01	Marine areas, Sea inlets	100
	Total Habitat Cover	100

4.2 Quality and importance

No information provided

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	F02.02.01		i
H	F02.02.02		i
H	J02.02		i
L	C01.01		i
L	D02.02		i
L	D03.01		i
L	F01		i
L	F02.03		i
L	G01.01.02		i
L	G04.01		i
L	H03.01		o
L	H03.03		o
L	J02.12.01		i
M	D03.02		i
M	G01.01.01		i
M	K02.03		o

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	F02.03		i

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

Type	[%]
Public - National/Federal	100
Public - State/Province	0
Public - Local/Municipal	0
Public - Any Public	0
Joint or Co-Ownership	0
Private	0
Unknown	0
Total	100

4.5 Documentation (optional)

No information provided

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

No information provided

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu,DG Leefmilieu, Dienst Marien Milieu

Address: No information provided

Email: marien.milieu.marin@environment.belgium.be

6.2 Management Plan(s)

☑ Yes

Name: Belgische Staat. 2009. BELEIDSPLANNEN BESCHERMDE GEBIEDEN IN HET BELGISCHE DEEL VAN DE NOORDZEE. Minister bevoegd inzake het mariene milieu. 69 p

Link: http://

☐ No, but in preparation

☐ No

6.3 Conservation measures (optional)

. Industrial activities are prohibited (Marine Environment Law of 20 January 1999, art. 25, §1, (v) Royal Decree of 14 October 2005,art. 5 and 10)- this includes mariclture;. Activities of PR and commercial companies are prohibited (MMM art 25, $1 (vi), Royal Decree of 14 October 2005 art 5 and 10);. fishery on "sedentary species" is prohibited in territorial partof the Vlaamse Banken (Royal Decree of 14/08/1989);. Proposed fishery measures in 4 zones of the Vlaamse Banken (Royal Decree conserning the Marine Spatial Plan in the Belgian part of the Nort Sea of xxx April 2014) to protect and restore the benthic habitat of sand banks (1110) and reefs and gravel beds (1170); fishery measures to be approved through the CFP (art. 11 and 18 procedures). Sand extraction is reduced and gravel extraction forbidden in the "sand extraction zones" (destignated by the Royal Decree of 1 September 2004); (Royal Decree concerning the Marine Spatial Plan in the Belgian part of the Nort Sea of xxx April 2014);. Disposal of dredged material is prohibited in N2K areas (Royal Decree of 14 October 2005, art.10);. Activities of civil engineering are prohibited (MMM art.25 §1 (i));The following rules apply in the entire Belgian part of the North sea, including Natura2000 areas:. Fishery-prohibition to catch and hold Cetacea (whales, dolhpins, incl. Harbour porpoise) and Pinnipeds (seals); (MMM art. 13 and 14);. Recreational fishery using trammel nets, gill nets, floating nets, electrical fishing, explosives are forbidden (Royal Decree of 21 December 2001);. Hunting is prohibited (Marine Environment Law of 20 January 1999);. Deliberate introduction of non-native species is forbidden, exept when conditionally permitted (MMM art. 11 § 1);. Deliberate introduction of non-native species via ballast water is forbidden(MMM art.11 § 2);. Deliberate introduction of genetically modified species is forbidden (MMM art. 11 § 4);. Waste disposal, burning at sea are prohibited; disposal of dredged material is forbidden;. To protect and restore the benthic habitat of sand banks (1110) and reefs and gravel beds (1170), fishery within 4,5 nautical miles, measured from the baseline, is forbidden for vessels above a 70 Bruto Tonnage.

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

Yes



STANDARD DATA FORM for sites within the ‘UK national site network of European sites’

Special Protection Areas (SPAs) are classified and Special Areas of Conservation (SACs) are designated under:

- the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters);
- the Conservation (Natural Habitats &c.) Regulations 1994 (as amended) in Scotland;
- the Conservation (Natural Habitats, &c) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland; and
- the Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) in the UK offshore area.

Each SAC or SPA (forming part of the UK national site network of European sites) has its own Standard Data Form containing site-specific information. The information provided here generally follows the same documenting format for SACs and SPAs, as set out in the Official Journal of the European Union recording the Commission Implementing Decision of 11 July 2011 (2011/484/EU).

Please note that these forms contain a number of codes, all of which are explained either within the data forms themselves or in the end notes.

More general information on SPAs and SACs in the UK is available from the SPA homepage and SAC homepage on the JNCC website. These webpages also provide links to Standard Data Forms for all SAC and SPA sites in the UK.

https://jncc.gov.uk/

NATURA 2000 - STANDARD DATA FORM

For Special Protection Areas (SPA),
Proposed Sites for Community Importance (pSCI),
Sites of Community Importance (SCI) and
for Special Areas of Conservation (SAC)

SITE **UK0030352**

SITENAME **Dogger Bank**

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- 1. SITE IDENTIFICATION
- 2. SITE LOCATION
- 3. ECOLOGICAL INFORMATION
- 4. SITE DESCRIPTION
- 5. SITE PROTECTION STATUS AND RELATION WITH CORINE BIOTOPES
- 6. SITE MANAGEMENT
- 7. MAP OF THE SITE

1. SITE IDENTIFICATION

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1.1 Type	1.2 Site code
B	UK0030352

1.3 Site name

Dogger Bank

1.4 First Compilation date	1.5 Update date
2011-08	2017-11

1.6 Respondent:

Name/Organisation: Joint Nature Conservation Committee

Address: Joint Nature Conservation Committee Monkstone House City Road Peterborough PE1 1JY

Email:

Date site proposed as SCI:	2011-08
Date site confirmed as SCI:	2012-11
Date site designated as SAC:	2017-09
National legal reference of SAC designation:	Regulations 11, 16 and 17 of the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (http://www.legislation.gov.uk/uksi/2007/1842/contents/made).

2. SITE LOCATION

2.1 Site-centre location [decimal degrees]:

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Longitude	Latitude
2.2189	54.8575

2.2 Area [ha]:

1233115.0

2.3 Marine area [%]

100.0

2.4 Sitelength [km]:

0.0

2.5 Administrative region code and name

NUTS level 2 code	Region Name
UKZZ	Extra-Regio

2.6 Biogeographical Region(s)

Atlantic (100.0 %)

3. ECOLOGICAL INFORMATION

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3.1 Habitat types present on the site and assessment for them

Annex I Habitat types						Site assessment			
Code	PF	NP	Cover [ha]	Cave [number]	Data quality	A|B|C|D	A|B|C		
						Representativity	Relative Surface	Conservation	Globa
1110			1233115.0	0	G	A	B	B	A

- **PF:** for the habitat types that can have a non-priority as well as a priority form (6210, 7130, 9430) enter "X" in the column PF to indicate the priority form.
- **NP:** in case that a habitat type no longer exists in the site enter: x (optional)
- **Cover:** decimal values can be entered
- **Caves:** for habitat types 8310, 8330 (caves) enter the number of caves if estimated surface is not available.
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation)

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site assessment			
G	Code	Scientific Name	S	NP	T	Size	Unit	Cat.	D.qual.	A|B|C|D	A|B|C		

						Min	Max				Pop.	Con.	Iso.	Glo.
M	1364	Halichoerus grypus			p				P	DD	D			
M	1365	Phoca vitulina			p				P	DD	D			
M	1351	Phocoena phocoena			p				P	DD	D			

- **Group:** A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
- **S:** in case that the data on species are sensitive and therefore have to be blocked for any public access enter: yes
- **NP:** in case that a species is no longer present in the site enter: x (optional)
- **Type:** p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
- **Unit:** i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
- **Abundance categories (Cat.):** C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
- **Data quality:** G = 'Good' (e.g. based on surveys); M = 'Moderate' (e.g. based on partial data with some extrapolation); P = 'Poor' (e.g. rough estimation); VP = 'Very poor' (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field "Abundance categories" has to be filled in)

4. SITE DESCRIPTION

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4.1 General site character

Habitat class	% Cover
N01	100.0
Total Habitat Cover	100

Other Site Characteristics

1 Terrestrial: Soil & Geology: not applicable 2 Terrestrial: Geomorphology and landscape: not applicable General site characteristics: Gravelly sand. Sand . Non-vegetated. Full salinity. Intermediate coastal influence. Sandy mounds.

4.2 Quality and importance

Sandbanks which are slightly covered by sea water all the time for which this is considered to be one of the best areas in the United Kingdom.

4.3 Threats, pressures and activities with impacts on the site

The most important impacts and activities with high effect on the site

Negative Impacts			
Rank	Threats and pressures [code]	Pollution (optional) [code]	inside/outside [i|o|b]
L	H03		B
L	D02		I
L	C03		I
L	C02		I
M	F02		I
L	D03		B
L	C01		I

Positive Impacts			
Rank	Activities, management [code]	Pollution (optional) [code]	inside/outside [i|o|b]

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphor/Phosphate input, A = Acid input/acidification,
T = toxic inorganic chemicals, O = toxic organic chemicals, X = Mixed pollutions
i = inside, o = outside, b = both

4.5 Documentation

For further information on this site, including its features, conservation objectives, advice on operations and management, please see JNCC's Site Information Centre via the link below. See also the UK Approach document for more information (link via the JNCC website).

Link(s): http://jncc.defra.gov.uk/page-6508
http://jncc.defra.gov.uk/pdf/Natura2000_StandardDataForm_UKApproach_Dec2015.pdf

5. SITE PROTECTION STATUS (optional)

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5.1 Designation types at national and regional level:

Code	Cover [%]	Code	Cover [%]	Code	Cover [%]
UK00	100.0				

6. SITE MANAGEMENT

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6.1 Body(ies) responsible for the site management:

Organisation:	For information about relevant management bodies contact the Joint Nature Conservation Committee and see Section 4.5 for site management progress
Address:	
Email:	

6.2 Management Plan(s):

An actual management plan does exist:

☐	Yes
☐	No, but in preparation
☒	No

6.3 Conservation measures (optional)

For available information, including on Conservation Objectives, see Section 4.5.

7. MAP OF THE SITES

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INSPIRE ID:

Map delivered as PDF in electronic format (optional)

☐ Yes ☒ No

Reference(s) to the original map used for the digitalisation of the electronic boundaries (optional).

EXPLANATION OF CODES USED IN THE SPECIAL AREA OF CONSERVATION (SAC) AND SPECIAL PROTECTION AREA (SPA) STANDARD DATA FORMS

The codes in the table below generally follow those explained in the official European Union guidelines for the Standard Data Form (also referencing the relevant page number).

1.1 Site type

CODE	DESCRIPTION	PAGE NO
A	SPA (classified Special Protection Area)	53
B	cSAC, SCI or SAC (candidate Special Area of Conservation, Site of Community Importance, designated Special Area of Conservation)	53
C	SPA area/boundary is the same as the cSAC/SCI/SAC i.e. a co-classified/designated site (Note: this situation only occurs in Gibraltar)	53

3.1 Habitat code

CODE	DESCRIPTION	PAGE NO
1110	Sandbanks which are slightly covered by sea water all the time	57
1130	Estuaries	57
1140	Mudflats and sandflats not covered by seawater at low tide	57
1150	Coastal lagoons	57
1160	Large shallow inlets and bays	57
1170	Reefs	57
1180	Submarine structures made by leaking gases	57
1210	Annual vegetation of drift lines	57
1220	Perennial vegetation of stony banks	57
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts	57
1310	Salicornia and other annuals colonizing mud and sand	57
1320	Spartina swards (Spartinion maritimae)	57
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	57
1340	Inland salt meadows	57
1420	Mediterranean and thermo-Atlantic halophilous scrubs (Sarcocornetea fruticosi)	57
2110	Embryonic shifting dunes	57
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")	57
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	57
2140	Decalcified fixed dunes with Empetrum nigrum	57
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)	57
2160	Dunes with Hippopha• rhamnoides	57
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)	57
2190	Humid dune slacks	57
21A0	Machairs (* in Ireland)	57
2250	Coastal dunes with Juniperus spp.	57
2330	Inland dunes with open Corynephorus and Agrostis grasslands	57
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	57
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea	57
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.	57
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	57

CODE	DESCRIPTION	PAGE NO
3160	Natural dystrophic lakes and ponds	57
3170	Mediterranean temporary ponds	57
3180	Turloughs	57
3260	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation	57
4010	Northern Atlantic wet heaths with Erica tetralix	57
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	57
4030	European dry heaths	57
4040	Dry Atlantic coastal heaths with Erica vagans	57
4060	Alpine and Boreal heaths	57
4080	Sub-Arctic Salix spp. scrub	57
5110	Stable xerothermophilous formations with Buxus sempervirens on rock slopes (Berberidion p.p.)	57
5130	Juniperus communis formations on heaths or calcareous grasslands	57
6130	Calaminarian grasslands of the Violetalia calaminariae	57
6150	Siliceous alpine and boreal grasslands	57
6170	Alpine and subalpine calcareous grasslands	57
6210	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)	57
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	57
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	57
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	57
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	57
6520	Mountain hay meadows	57
7110	Active raised bogs	57
7120	Degraded raised bogs still capable of natural regeneration	57
7130	Blanket bogs (* if active bog)	57
7140	Transition mires and quaking bogs	57
7150	Depressions on peat substrates of the Rhynchosporion	57
7210	Calcareous fens with Cladium mariscus and species of the Caricion davallianae	57
7220	Petrifying springs with tufa formation (Cratoneurion)	57
7230	Alkaline fens	57
7240	Alpine pioneer formations of the Caricion bicoloris-atrofuscae	57
8110	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	57
8120	Calcareous and calcshist screes of the montane to alpine levels (Thlaspietea rotundifolii)	57
8210	Calcareous rocky slopes with chasmophytic vegetation	57
8220	Siliceous rocky slopes with chasmophytic vegetation	57
8240	Limestone pavements	57
8310	Caves not open to the public	57
8330	Submerged or partially submerged sea caves	57
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)	57
9130	Asperulo-Fagetum beech forests	57
9160	Sub-Atlantic and medio-European oak or oak-hornbeam forests of the Carpinion betuli	57
9180	Tilio-Acerion forests of slopes, screes and ravines	57
9190	Old acidophilous oak woods with Quercus robur on sandy plains	57
91A0	Old sessile oak woods with Ilex and Blechnum in the British Isles	57
91C0	Caledonian forest	57
91D0	Bog woodland	57
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	57
91J0	Taxus baccata woods of the British Isles	57

3.1 Habitat representativity (abbreviated to 'Representativity' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent representatively	57
B	Good representatively	57
C	Significant representatively	57
D	Non-significant presence representatively	57

3.1 Relative surface

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	58
B	> 2%-15%	58
C	≤ 2%	58

3.1 Degree of conservation (abbreviated to 'Conservation' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	59
B	Good conservation	59
C	Average or reduced conservation	59

3.1 Global assessment (abbreviated to 'Global' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	59
B	Good value	59
C	Significant value	59

3.2 Population (abbreviated to 'Pop.' in data form)

CODE	DESCRIPTION	PAGE NO
A	> 15%-100%	62
B	> 2%-15%	62
C	≤ 2%	62
D	Non-significant population	62

3.2 Degree of conservation (abbreviated to 'Con.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent conservation	63
B	Good conservation	63
C	Average or reduced conservation	63

3.2 Isolation (abbreviated to 'Iso.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Population (almost) Isolated	63
B	Population not-isolated, but on margins of area of distribution	63
C	Population not-isolated within extended distribution range	63

3.2 Global Grade (abbreviated to 'Glo.' or 'G.' in data form)

CODE	DESCRIPTION	PAGE NO
A	Excellent value	63
B	Good value	63
C	Significant value	63

3.3 Other species – essentially covers bird assemblage types

CODE	DESCRIPTION	PAGE NO
WATR	Non-breeding waterbird assemblage	UK specific code
SBA	Breeding seabird assemblage	UK specific code

BBA	Breeding bird assemblage (applies only to sites classified pre 2000)	UK specific code

4.1 Habitat class code

CODE	DESCRIPTION	PAGE NO
N01	Marine areas, Sea inlets	65
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	65
N03	Salt marshes, Salt pastures, Salt steppes	65
N04	Coastal sand dunes, Sand beaches, Machair	65
N05	Shingle, Sea cliffs, Islets	65
N06	Inland water bodies (Standing water, Running water)	65
N07	Bogs, Marshes, Water fringed vegetation, Fens	65
N08	Heath, Scrub, Maquis and Garrigue, Phygrana	65
N09	Dry grassland, Steppes	65
N10	Humid grassland, Mesophile grassland	65
N11	Alpine and sub-Alpine grassland	65
N14	Improved grassland	65
N15	Other arable land	65
N16	Broad-leaved deciduous woodland	65
N17	Coniferous woodland	65
N19	Mixed woodland	65
N21	Non-forest areas cultivated with woody plants (including Orchards, groves, Vineyards, Dehesas)	65
N22	Inland rocks, Screes, Sands, Permanent Snow and ice	65
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	65
N25	Grassland and scrub habitats (general)	65
N26	Woodland habitats (general)	65

4.3 Threats code

CODE	DESCRIPTION	PAGE NO
A01	Cultivation	65
A02	Modification of cultivation practices	65
A03	Mowing / cutting of grassland	65
A04	Grazing	65
A05	Livestock farming and animal breeding (without grazing)	65
A06	Annual and perennial non-timber crops	65
A07	Use of biocides, hormones and chemicals	65
A08	Fertilisation	65
A10	Restructuring agricultural land holding	65
A11	Agriculture activities not referred to above	65
B01	Forest planting on open ground	65
B02	Forest and Plantation management & use	65
B03	Forest exploitation without replanting or natural regrowth	65
B04	Use of biocides, hormones and chemicals (forestry)	65
B06	Grazing in forests/ woodland	65
B07	Forestry activities not referred to above	65
C01	Mining and quarrying	65
C02	Exploration and extraction of oil or gas	65
C03	Renewable abiotic energy use	65
D01	Roads, paths and railroads	65
D02	Utility and service lines	65
D03	Shipping lanes, ports, marine constructions	65
D04	Airports, flightpaths	65
D05	Improved access to site	65
E01	Urbanised areas, human habitation	65
E02	Industrial or commercial areas	65

CODE	DESCRIPTION	PAGE NO
E03	Discharges	65
E04	Structures, buildings in the landscape	65
E06	Other urbanisation, industrial and similar activities	65
F01	Marine and Freshwater Aquaculture	65
F02	Fishing and harvesting aquatic ressources	65
F03	Hunting and collection of wild animals (terrestrial), including damage caused by game (excessive density), and taking/removal of terrestrial animals (including collection of insects, reptiles, amphibians, birds of prey, etc., trapping, poisoning, poaching, predator control, accidental capture (e.g. due to fishing gear), etc.)	65
F04	Taking / Removal of terrestrial plants, general	65
F05	Illegal taking/ removal of marine fauna	65
F06	Hunting, fishing or collecting activities not referred to above	65
G01	Outdoor sports and leisure activities, recreational activities	65
G02	Sport and leisure structures	65
G03	Interpretative centres	65
G04	Military use and civil unrest	65
G05	Other human intrusions and disturbances	65
H01	Pollution to surface waters (limnic & terrestrial, marine & brackish)	65
H02	Pollution to groundwater (point sources and diffuse sources)	65
H03	Marine water pollution	65
H04	Air pollution, air-borne pollutants	65
H05	Soil pollution and solid waste (excluding discharges)	65
H06	Excess energy	65
H07	Other forms of pollution	65
I01	Invasive non-native species	65
I02	Problematic native species	65
I03	Introduced genetic material, GMO	65
J01	Fire and fire suppression	65
J02	Human induced changes in hydraulic conditions	65
J03	Other ecosystem modifications	65
K01	Abiotic (slow) natural processes	65
K02	Biocenotic evolution, succession	65
K03	Interspecific faunal relations	65
K04	Interspecific floral relations	65
K05	Reduced fecundity/ genetic depression	65
L05	Collapse of terrain, landslide	65
L07	Storm, cyclone	65
L08	Inundation (natural processes)	65
L10	Other natural catastrophes	65
M01	Changes in abiotic conditions	65
M02	Changes in biotic conditions	65
U	Unknown threat or pressure	65
XO	Threats and pressures from outside the Member State	65

5.1 Designation type codes

CODE	DESCRIPTION	PAGE NO
UK00	No Protection Status	67
UK01	National Nature Reserve	67
UK04	Site of Special Scientific Interest (GB)	67
UK05	Marine Conservation Zone	67
UK06	Nature Conservation Marine Protected Area	67
UK86	Special Area (Channel Islands)	67
UK98	Area of Special Scientific Interest (NI)	67
IN00	Ramsar Convention site	67
IN08	Special Protection Area	67
IN09	Special Area of Conservation	67

NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Bancs des Flandres (FR3102002 - SCI)

Table of contents

1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

FR3102002

1.3 Site Name

Bancs des Flandres

1.4 First Compilation date

No information provided

1.5 Update date

No information provided

1.6 Respondent

Name/Organisation: Ministère de la Transition écologique - DGALN/DEB/SDET/ET5

Address: No information provided

Email: en3.en.deb.dgaln@developpement-durable.gouv.fr

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: No information provided

Date site confirmed as SCI: 2011-11

Date site designated as SAC: No information provided

National legal reference of SAC designation: https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000032097263&dateTexte=

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 2.15889

Latitude: 51.17611

2.2 Area [ha]

112919

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
FR30	Nord - Pas-de-Calais

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types							Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			79320		G	B	B	C	B

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
M	1364	Halichoerus grypus			w			i	P	M	C	A	C
M	1364	Halichoerus grypus			c			i	P	M	C	A	C
M	1365	Phoca vitulina			w			i	P	M	C	B	C
M	1365	Phoca vitulina			c			i	P	M	C	B	C
M	1351	Phocoena phocoena			r			i	P	DD	B	B	C
M	1351	Phocoena phocoena			c			i	C	M	B	B	C
M	1351	Phocoena phocoena			w			i	C	M	A	B	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
M	2032	Lagenorhynchus albirostris					i	P			x		x

Group: A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
Code: For Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Motivation: Species Annex IV and Species Annex V: the species is listed under Annex IV or Annex V of the Habitats Directive. A = Species listed in the National Red List, B = Endemic species, C = Species listed under an Internation convention, D = Other reasons

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N01	Marine areas, Sea inlets	100
	Total Habitat Cover	100

Other Site Characteristics

Les fonds sont essentiellement sableux, parcourus par de nombreux bancs de sables s'élevant au-dessus des fonds. On observe dans les espaces inter-bancs des sédiments plus grossiers, avec certains cas d'envasement à proximité de la côte. S'agissant d'un site proche de la côte, un certain nombre d'activités anthropiques s'y exercent (pêche professionnelle et de loisir, transport maritime, activités portuaires, conchyliculture, sports nautiques) qu'il conviendra d'identifier plus finement dès la phase de gestion. Leurs effets sur la conservation des habitats et des espèces d'intérêt communautaire restent à apprécier par l'amélioration des connaissances dans le cadre de l'élaboration puis de la mise en œuvre du document d'objectifs du site ou de l'évaluation des incidences des éventuels projets à venir. la zone est caractérisée par un trafic maritime le plus dense du monde. La reconversion de certains pêcheurs amène le développement de la conchyliculture notamment sur les filets. Le site des bancs des Flandres est situé au large du Port de Dunkerque et comprend 4 zones de clapage autorisées nécessaires à l'entretien courant (autorisation de draguer 4.2 Mm23 aujourd'hui qui pourront être revus à la hausse en fonction des développements portuaires), ces activités de dragage et de clapage faisant partie intégrante de l'état actuel justifiant la désignation du site. La forte hydrodynamique du site permet une dispersion très rapide des sédiments. Le port a des projets de développement ambitieux, notamment l'installation d'un terminal méthanier. De façon générale, les activités portuaires actuelles et à venir feront l'objet de mesures de gestion définies dans le DOCOB. La construction de l'avant port Ouest a influé sur l'hydrodynamique locale, conduisant à la modification du milieu marin y compris dans l'enceinte de l'avant port, tant du point de vue hydraulique que sédimentologique et écologique. L'existence des accès maritimes (chenaux Est et Ouest) impliquent par ailleurs une gestion spécifique par dragages et entretiens des ouvrages maritimes, afin de maintenir dans des conditions de navigation et de sécurité satisfaisantes (refoulements réguliers de matériaux sableux de manière à entretenir et conforter nos ouvrages structurels maritimes). Le site proposé est donc en partie profondément artificialisé du fait de ces aménagements. La proposition de désignation de ce site a été décidée en connaissance de ces éléments, que ce sont les digues et leur entretien, chenaux de navigations, les dragages d'entretien, les clapages des sédiments et les zones de clapages associées, ainsi que l'ensemble des opérations liées directement ou indirectement à l'activité portuaire qui a vocation à se développer. Ces caractéristiques font partie de l'état actuel justifiant la désignation du site. Les conditions de maintien sur le site des mammifères marins (alimentation, zones de mise bas, de mue et de repos) devront être spécialement étudiées. L'habitat "dunes hydrauliques", qui a prévalu dans la proposition du site, est lié à des conditions hydrodynamiques particulières qu'il convient de préserver.

4.2 Quality and importance

Habitats : Le site "Bancs des Flandres" est principalement ciblé pour l'habitat d'intérêt communautaire "Bancs de sable à faible couverture permanente d'eau marine" (1110), notamment avec un habitat plus élémentaire "sables moyens dunaires". Ces accumulations sous-marines de sables peuvent prendre l'aspect de véritables dunes, dites dunes hydrauliques, souvent composées de sables coquilliers, qui s'élèvent parfois jusqu'à 20 m au-dessus des fonds. Bien que relativement pauvres sur le plan

biologique en terme de diversité, ces bancs de sables, particulièrement représentés sur cette façade maritime et dans le détroit du Pas-de-Calais, hébergent des espèces typiquement inféodées à ce type de formation. Espèce : Les données montrent que cette zone est l'un des deux sites français fréquentés couramment par le Marsouin commun (Phocoena phocoena), notamment pour son alimentation. Ce petit cétacé farouche, plutôt solitaire, autrefois rare, est observé de plus en plus souvent sur ce littoral. Espèce ciblée par Natura 2000 et la convention OSPAR, la France a une responsabilité forte pour cette espèce, dans le maintien de son aire de répartition. Sa reproduction est suspectée sur la zone. Le site se justifie également par la présence de certaines espèces de mammifères marins d'intérêt communautaire, et notamment les Phoques veau-marin (Phoca vitulina) et Phoques gris (Halichoerus grypus) qui fréquentent le secteur, de par la proximité de sites de repos abritant des populations de phoques près de Dunkerque et près de Calais. L'utilisation du site "Banc des Flandres" se fait pour des raisons alimentaires.

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts
No data

Positive Impacts
No data

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

Type	[%]
Public - National/Federal	100
Public - State/Province	0
Public - Local/Municipal	0
Public - Any Public	0
Joint or Co-Ownership	0
Private	0
Unknown	0
Total	100

4.5 Documentation (optional)

Documents: Augris C. et al., 1995. Le Domaine marin côtier du Nord-Pas-de-Calais. Carte des formations superfielles. Echelle 1/100 000. IFREMER, Région Nord-Pas-de-Calais, USTL. CRMM, 1980-2005. Données d'échouage de Mammifères marins par commune entre 1980 et 2005. Centre de Recherche sur les Mammifères Marins (CRMM). Dewarumez J.M., 2008. Université de Lille 1. Station marine de Wimereux. Dires d'expert. Siblet J.-Ph. & Vaudin A.-C., 2007 : Justification des zonages Natura 2000 Mer. Rapport MNHN-SPN/MEDAD. 34 p. Service Hydrographique et Océanographique de la Marine. Carte SHOM 6651 De Calais à Dunkerque au 1/43 139 - Publication 2002. Carte SHOM 6735 Pas de Calais - De Boulogne-sur-Mer à Zeebrugge- Estuaire de la Tamise (Thames) au 1/149 395. Edition 1991. Carte SHOM 7323G Carte de Sédimentologie (nature des fonds). Pas de Calais - De Boulogne-sur-Mer à Calais et de Dungeness à Dover au 1/74 300. Edition 2003. Voisin P., 2007. Synthèse des connaissances sur la distribution des mammifères marins en région Nord-Pas-de-Calais. Bensettiti F. & Gaudillat V. (coord.), 2002 : Habitats côtiers. Cahiers Habitats Natura 2000. T.2. La Documentation Française. 399 p. Justification des zonages Natura 2000 Mer. Rapport MNHN-SPN/MEDAD. 34 p. Bensettiti F. & Gaudillat V. (coord.), 2002 : Espèces animales. Cahiers Habitats Natura 2000. T.7. La Documentation Française. 353 p.

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

No information provided

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: AFB

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

- [ ] Yes
- [x] No, but in preparation
- [ ] No

6.3 Conservation measures (optional)

Un comité de pilotage mis en place par le Préfet maritime de la Manche et de la mer du Nord réunira l'ensemble des acteurs concernés par le site dont les organisations socio-professionnelles et de loisirs nautiques. Ce comité aura pour rôle de participer à la préparation du document d'objectifs qui devra définir les préconisations de gestion nécessaires à la préservation durable des milieux et espèces marins d'intérêt communautaire concernés. Le Port Autonome de Dunkerque se proposera pour être l'opérateur du comité. Après un diagnostic écologique du site et des différentes activités s'y exerçant, des mesures seront proposées au regard des enjeux de conservation durable des habitats et espèces d'intérêt communautaire ayant justifié la proposition du site Natura 2000. tout en tenant compte des exigences économiques, sociales et culturelles, ainsi que des particularités régionales ou locales. Pour ce faire, le comité de pilotage et l'opérateur local en charge de la rédaction du document d'objectifs pourront utilement s'appuyer sur les références technico-économiques pour les mesures de gestion des sites Natura 2000 en milieu marin concernant les activités de pêche, d'aquaculture et de plaisance (commande passée auprès de l'Agence des aires marines protégées). S'agissant des plans, programmes, travaux ou projets d'aménagement, ils pourront avoir lieu au sein ou à proximité du site pour autant qu'ils ne s'exonèrent pas des objectifs de conservation du site. S'ils sont susceptibles d'affecter le site de façon notable, individuellement ou en raison de leurs effets cumulés, ils devront faire l'objet d'une évaluation de leurs incidences sur les habitats et les espèces d'intérêt communautaire ayant justifié le site. Dès lors, les porteurs de projets pourront s'appuyer sur les guides méthodologiques élaborés à l'échelon national : - guide pour l'évaluation des incidences des projets d'extraction de granulats marins sur les sites Natura 2000 (en cours) ; - guide sur l'évaluation des incidences des dragages des chenaux de navigation et des immersions sur l'état de conservation des sites Natura - GEODE / BCEOM, août 2007 - (volet calapge en site Natura 2000 marin en cours de rédaction) ; - guide sur l'étude d'impact des projets éoliens (volet mer en cours de rédaction) ; - guide sur l'évaluation des incidences des projets de création et d'extension de ports de plaisance et de sites de mouillages organisés (en cours). Au sein du site, les activités de défense exercées sont en particulier : - des missions opérationnelles de surveillance, de police, de défense ou de service public (sauvetage, assistance, lutte antipollution, etc.) par navires ou embarcations de la Marine nationale et de la gendarmerie maritime; - des missions de recherche et de neutralisation d'explosifs immergés en mer ou sur l'estran par navires, embarcations ou plongeurs de la Marine nationale; - des missions opérationnelles et des patrouilles de surveillance, de police, de défense ou de service public par aéronefs militaires sans restriction d'altitude; - des exercices et entraînements de navires de la Marine nationale ou de la gendarmerie maritime; - des exercices et entraînements d'aéronefs militaires (hélicoptères sans restriction d'altitude, avions 100 pieds mer minimum); - des exercices et entraînements de plongeurs et de commandos de la Marine nationale (entraînements nautiques, aériens et terrestres). Plus généralement, les espaces marins inclus dans le périmètre du site sont mobilisés pour assurer la protection du territoire national, y compris à un niveau stratégique. La pérennisation de l'ensemble des activités et des missions précitées (activités de défense, d'assistance et de sauvetage, de prévention et de lutte contre la pollution et de police en mer) ne devra pas être remise en cause par la désignation du site.

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No

NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Voordelta (NL4000017 - SPA/SCI)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

C

1.2 Site Code

NL4000017

1.3 Site Name

Voordelta

1.4 First Compilation date

1998-10

1.5 Update date

2018-12

1.6 Respondent

Name/Organisation: Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity

Address: No information provided

Email: No information provided

1.7 Site indication and designation / classification dates

Date site classified as SPA: 2000-03

National legal reference of SPA designation: https://www.natura2000.nl/sites/default/files/documenten/gebieden/113/Besluit%20Voordelta.pdf

Date site proposed as SCI: 1998-07

Date site confirmed as SCI: 2004-12

Date site designated as SAC: 2008-03

National legal reference of SAC designation: https://www.natura2000.nl/sites/default/files/documenten/gebieden/113/Besluit%20Voordelta.pdf

Explanations: Merge of SPA NL9802017 Voordelta and SCI NL4000017 Voordelta

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 3.6775

Latitude: 51.7452

2.2 Area [ha]

83534

2.3 Marine area [%]

99

2.4 Sitelength [km] (optional)

0

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
NL33	Zuid-Holland
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Marine Atlantic	100
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types							Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			81381	0.00	M	A	B	B	B
1140	Mudflats and sandflats not covered by seawater at low tide			2017	0.00	M	A	B	B	A
1310	Salicornia and other annuals colonizing mud and sand			7.12	0.00	M	B	C	A	B
1320	Spartina swards (Spartinion maritimae)			1.49	0.00	M	C	C	A	C
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)			30.8	0.00	M	B	C	A	B
2110	Embryonic shifting dunes			10.4	0.00	M	B	C	A	B
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")			10.2		M	B	C	B	B

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.

NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment		
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
B	A054	Anas acuta			w	247	247	i		G	B	A
B	A052	Anas crecca			w	178	178	i		G	C	B
B	A043	Anser anser			w	173	173	i		G	C	A
B	A169	Arenaria interpres			w	59	59	i		G	B	B
B	A062	Aythya marila			w	9	9	i		G	C	C
B	A067	Bucephala clangula			w	131	131	i		G	B	C
B	A144	Calidris alba			w	702	702	i		G	B	A
B	A149	Calidris alpina			w	864	864	i		G	C	A
B	A137	Charadrius hiaticula			w	99	99	i		G	B	A
B	A001	Gavia stellata			w	500	4000	i	C	P	B	A
B	A130	Haematopus ostralegus			w	2271	2271	i		G	C	A
B	A862	Hydrocoloeus minutus			c	0	0		C	DD	B	A
B	A157	Limosa lapponica			w	156	156	i		G	C	B
B	A855	Mareca penelope			w	260	260	i		G	C	B
B	A889	Mareca strepera			w	91	91	i		G	C	A
B	A065	Melanitta nigra			w	1117	1117	i		M	A	C
B	A069	Mergus serrator			w	114	114	i		G	B	C
B	A160	Numenius arquata			w	1283	1283	i		G	C	A
B	A017	Phalacrocorax carbo			w	542	542	i		G	C	A

Species					Population in the site					Site Assessment		
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
B	A034	Platalea leucorodia			c	31	31	i		G	C	C
B	A141	Pluvialis squatarola			w	181	181	i		G	C	A
B	A007	Podiceps auritus			w	18	18	i		G	B	A
B	A005	Podiceps cristatus			w	94	94	i		G	C	C
B	A132	Recurvirostra avosetta			w	98	98	i		G	C	C
B	A063	Somateria mollissima			w	1124	1124	i		M	B	C
B	A857	Spatula clypeata			w	59	59	i		G	C	A
B	A193	Sterna hirundo			c	0	0		C	DD	B	B
B	A048	Tadorna tadorna			w	575	575	i		G	C	A
B	A863	Thalasseus sandvicensis			c	0	0		C	DD	A	B
B	A162	Tringa totanus			w	240	240	i		G	B	C
F	1102	Alosa alosa			p	0	0	i	P	P	D	
F	1103	Alosa fallax			p	0	0	i	P	P	C	C
F	1099	Lampetra fluviatilis			p	0	0	i	P	M	B	B
F	1095	Petromyzon marinus			p	0	0	i	P	M	C	B
M	1364	Halichoerus grypus			p	50	200	i		P	B	B
M	1365	Phoca vitulina			p	100	1000	i		P	B	B
M	1351	Phocoena phocoena			p	0	0	i	C	G	C	B

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population

Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N04	Coastal sand dunes, Sand beaches, Machair	1
N03	Salt marshes, Salt pastures, Salt steppes	3
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	10
N01	Marine areas, Sea inlets	86
	Total Habitat Cover	100

Other Site Characteristics

An extensive area of coastal waters of the North Sea, extending from Rotterdam in the north up to the Westerschelde estuary in the south. The site also adjoins the closed-off delta area of the Rhine/Maas river system including six other Natura 2000-sites, and is close to Vlaamse Banken in Belgium. It contains shoals, mud and sand flats, beaches, sand-dunes and raised saltmarshes. Important habitats include shallowly submerged sandbanks and intertidal mud- and sandflats.

4.2 Quality and importance

The following data refer to the period 1993-1997 (data in paragraph 3.2a-b refer te period 1999-2003). In winter this area holds fluctuating numbers of Aythya marila (max. 5,550, 1992/93), Somateria mollissima (max. 9,968, 1992/93) and Melanitta nigra (max. 20,000, 1986/87).Species meeting the 1% threshold (non-breeding): Eurasian Spoonbill Platalea leucorodia (3,3%), Greater Scaup Aythya marila (1,8%), Grey Plover Pluvialis squatarola (1,0%), Common Redshank Tringa totanus totanus (1,7%).The site regularly supports more than 20,000 wintering waterbirds: average peak number 39,000+ (1992/93-1996/97, not all species included).One of the five most important sites for (non-breeding): Red-throated Diver Gavia stellata, Horned Grebe Podiceps auritus.Site largely overlaps with IBA 020-21 (IBA2000).

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	F02		b
H	G01		i
H	J03.01		i
L	C01		i
L	C03.03		o
L	D03		i
L	F01		o
L	H03.01		b
L	J02.05		i
L	J02.14		i
L	K02		i
M	D03		i

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	E02		i
M	E02		b
M	F02		i
M	F02.01		i
M	M01.07		b

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: *Berchum A.M. & Smit T. 1998., ZeeZicht op de Voordelta. Resultaten van fysische, chemische en biologische monitoring. RIKZ Rapport 98.027, RIKZ, Middelburg *Berrevoets CM Strucker RCW Arts FA Meininger PL. 2003. Watervogels in de Zoute Delta 2001/2002. RIKZ Rapport 2003.001, RIKZ, Middelburg. *Dijkstra, 1997. Belangrijke zoogdiergebieden in Nederland. VZZ. *Kuijpers, J. (1990). Kust in beweging. In: Kuijpers, J. et al. De veranderende Delta. Wetenschappelijke Mededelingen KNNV 198, 88 pp. *Osieck E.R. 1996., Veranderingen van vogelaantallen in belangrijke wetlands. Techn Rapport Vogelbescherming 17, Vogelbescherming Nederland, Zeist. *Roomen M. van, Boele A., Weide M. van der, Winden E. van ea. 2000. Belangrijke vogelgebieden in Nederland 1993-97. Actueel overzicht van Europese vogelwaarden in aangewezen en aan te wijzen speciale beschermingszones en andere belangrijke gebieden. Sovon Informatierapport 2000/01, Beek-Ubbergen. *SOVON & CBS (2006) Trends van vogels in het Nederlandse Natura 2000 netwerk. SOVON Vogelonderzoek Nederland, Beek-Ubbergen. *Tempel R. van den & Osieck E.R. 1994. Areas important for birds in the Netherlands. Techn Rapport Vogelbescherming 13E, Vogelbescherming Nederland, Zeist. *Voslamber et al, 1998. Monitoring van vogels in belangrijke vogelgebieden: broedvogels 1995, niet-broedvogels seizoen 1994/95. Sovon, Beek-Ubbergen.

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
NL01	100

5.2 Relation of the described site with other sites (optional)

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	ramsar	Voordelta	=	100

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Rijkswaterstaat

Address: No information provided

Email: hans.lammers@rws.nl

Organisation: Rijkswaterstaat

Address: No information provided

Email: hans.lammers@rws.nl

6.2 Management Plan(s)

- [x] Yes

Name: Beheerplan Voordelta - Spelregels voor natuurbescherming

Link: https://www.bij12.nl/wp-content/uploads/2020/09/Natura-2000-Beheerplan-113-Voordelta.pdf

Name: Beheerplan Voordelta 2015-2021 - Spelregels voor natuurbescherming

Link: https://www.bij12.nl/wp-content/uploads/2020/09/Natura-2000-Beheerplan-113-Voordelta.pdf

- [ ] No, but in preparation
- [ ] No

6.3 Conservation measures (optional)

No information provided

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No

NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Noordzeekustzone (NL9802001 - SPA/SCI)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

C

1.2 Site Code

NL9802001

1.3 Site Name

Noordzeekustzone

1.4 First Compilation date

2000-03

1.5 Update date

2018-12

1.6 Respondent

Name/Organisation: Ministry of Agriculture, Fisheries, Food Security and Nature - DG Nature & Fisheries

Address: No information provided

Email: No information provided

1.7 Site indication and designation / classification dates

Date site classified as SPA: 2000-03

National legal reference of SPA designation: https://www.natura2000.nl/sites/default/files/documenten/gebieden/007/n2k_007_db_hvn_noordzeekustzone.pdf

Date site proposed as SCI: 2002-08

Date site confirmed as SCI: 2004-12

Date site designated as SAC: 2009-02

National legal reference of SAC designation: https://www.natura2000.nl/sites/default/files/documenten/gebieden/007/n2k_007_db_hvn_noordzeekustzone.pdf

Explanations: Merge of SPA NL9802001 Noordzeekustzone, SCI NL2003062 Noordzeekustzone and SCI NL2008004 Noordzeekustzone II (proposed 2008-12, confirmed 2009-##)Formerly known as SPA NL9802001 Waddeneilanden, Noordzeekustzone, Breebaart.Site was separated in 2007 into NL9802001 Noordzeekustzone and 5 Islands (NL3009005 - NL3009009)

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 5.0268

Latitude: 53.3453

2.2 Area [ha]

144475

2.3 Marine area [%]

99.7

2.4 Sitelength [km] (optional)

0

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
NL12	Friesland
NL32	Noord-Holland
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Marine Atlantic	99.7
Atlantic	0.3

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			138174	0.00	G	C	B	B	B
1140	Mudflats and sandflats not covered by seawater at low tide			3310	0.00	G	A	C	A	A
1310	Salicornia and other annuals colonizing mud and sand			78.3	0.00	M	A	B	C	B
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)			114	0.00	M	C	C	B	C
2110	Embryonic shifting dunes			200	0.00	P	A	A	A	A
2190	Humid dune slacks			2	0.00	M	C	C	A	C

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)

Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site						Site Assessment		
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	
B	A169	Arenaria interpres			w	173	173	i		G	B	B	I
B	A062	Aythya marila			w	1	1	i	C	DD	C	C	I
B	A144	Calidris alba			w	1972	1972	i		G	A	A	I
B	A149	Calidris alpina			w	15268	15268	i		G	C	A	I
B	A143	Calidris canutus			w	7100	7100	i		G	B	B	I
B	A138	Charadrius alexandrinus			r	10	10	p		G	B	C	I
B	A137	Charadrius hiaticula			r	15	15	p		G	B	C	I
B	A137	Charadrius hiaticula			w	499	499	i		G	B	B	I
B	A002	Gavia arctica			w	30	200	i	C	P	A	A	I
B	A001	Gavia stellata			w	3000	7000	i	C	P	A	A	I
B	A130	Haematopus ostralegus			w	2874	2874	i		G	C	C	I
B	A862	Hydrocoloeus minutus			c	0	0	i	C	DD	A	A	I
B	A157	Limosa lapponica			w	3429	3429	i		G	C	A	I
B	A065	Melanitta nigra			w	31837	31837	i		M	A	B	I
B	A160	Numenius arquata			w	985	985	i		G	C	B	C
B	A017	Phalacrocorax carbo			w	973	973	i		G	B	B	C
B	A141	Pluvialis squatarola			w	2637	2637	i		G	B	B	I
B	A132	Recurvirostra avosetta			w	90	90	i		G	C	C	I
B	A063	Somateria mollissima			w	12782	12782	i		M	A	C	I
B	A885	Sternula albifrons			r	15	15	p		G	B	C	I

Species					Population in the site					Site Assessment		
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
B	A048	Tadorna tadorna			w	235	235	i		G	C	B
F	1103	Alosa fallax			p	0	0	i	P	P	C	C
F	1099	Lampetra fluviatilis			p	0	0	i	P	M	B	A
F	1095	Petromyzon marinus			p	0	0	i	P	M	B	B
M	1364	Halichoerus grypus			p	2040	2040	i		G	A	A
M	1365	Phoca vitulina			p	6340	6340	i		G	A	A
M	1351	Phocoena phocoena			p	0	0	i	V	M	B	B
P	1903	Liparis loeselii			p	25	50	i		P	C	A

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N04	Coastal sand dunes, Sand beaches, Machair	3
N01	Marine areas, Sea inlets	97
	Total Habitat Cover	100

Other Site Characteristics

Coastal zone of the Northsea, from the moderate high tide line to the -20m depth line. Site stretches from Bergen to north of Schiermonnikoog. Adjacent to the dune areas of the Wadden Islands and Wadden sea. It consists of sandbanks permanently covered by seawater (1110).

4.2 Quality and importance

Very important site for sandbanks covered by seawater and sea-mammals: Phocoena phocoena, Halichoerus grypus and Phoca vitulina.De begrenzing van de Noordzeekustzone wordt vooral bepaald door het gebied met hoge natuurwaarden voor vogels en vissen. Deze grens valt voor vogels aan de zeezijde samen met de doorgaande NAP 20 m dieptelijn. De Noordzeekustzone wordt gekenmerkt door hoge natuur- en belevingswaarden. Bij Schiermonnikoog wordt een hoge benthos-diversiteit gevonden. De visfauna in de Kustzee onderscheidt zich van de rest van het NCP door een hoge soortenrijkdom. En potentiëel kunnen hier een aantal

Habitatrichtlijnsoorten als, Fint, Elft en Zeeprik, voorkomen. In de Noordzeekustzone kunnen kunnen grote aantallen (tot > 100.000) Zwarte zee-eenden verblijven. Ook grote groepen Eidereenden worden regelmatig in dit gebied gezien. In voorjaar en zomer (de broedperiode) is de hele Noordzeekustzone zeer belangrijk als foerageergebied voor Kleine Mantel- en Zilvermeeuwen, Grote sterns en Visdieven. In de trektijd (najaar en voorjaar) verblijven bovendien zeer grote aantallen zeevogels tijdelijk in het gebied, die er "onderweg naar elders" ook kunnen foerageren. De al onder de Vogelrichtlijn aangewezen gebieden zijn ook van belang voor Roodkeelduikers. In de winter en het voorjaar kunnen tot enige duizenden exemplaren in de Noordzeekustzone voorkomen. Voorts fungeert de Noordzeekustzone tijdens strenge winters soms ook als uitwijkgebied voor grote aantallen Futen en andere watervogels. De belangrijkste locatie in het afgelopen decennium was een groot complex van Spisula-banken tussen Bergen aan Zee en Callantsoog. Gezien het voorkomen van ondiep water met her en der (op wisselende plaatsen en eveneens wisselend in de tijd) rijke voorkomens van schelpdieren (Spisula of andere soorten) kunnen zeer grote groepen eenden overal in de Hollandse Noordzeekustzone opduiken. De Noordzeekustzone voor de Waddeneilanden is van belang voor de in de HR genoemde Gewone en Grijze zeehonden en de Bruinvis.Kenmerkende vissoorten die vooral in de Kustzone voorkomen, vergeleken met de rest van het Nederlandse deel van de Noordzee zijn: Adderzeenaald (Entelurus aequoraeus), Botervis (Pholis gunnulus), Diklipharder (Chelon labrosus), Geep (Belone belone), Gevlekte gladde haai (Mustelus asterias), Grote koornaarvis (Atherina presbyter), Puitaal (Zoarces viviparus), Ruwe haai (Galeorhinus galeus), Schol (Pleuronectes platessa), Slakdolf (Liparis liparis), Spiering (Osmerus eperlanus), Tong (Solea vulgaris). Vijfdradige meun (Ciliata mustela).Kenmerkende benthossoorten van de Noordzeekustzone zijn: Synchelidium maculatum, Vlokreeftje (Urothoe brevicornis), Buldozerkreeftje (Urothoe poseidonis), Zaagje (Donax vittatus), Amerikaanse zwaardschede (Ensis americanus), Nonnetje (Macoma balthica), Halfgeknotte strandschelp (Spisula subtruncata), Ovale zeeklit7schelp/7mosseltje (Tellimya ferruginosa), Rechtgestreepte strandschelp (Tellina fabula), Slangpier (Capitella capitata), Eumida sanguinea, Schelpkokerworm (Lanice conchilega), Magelona johnstoni, Magelona mirabilis, Malmgreniella lunulata, Mediomastus fragilis, Nephtys caeca, Zandzager (Nephtys hombergii), Wapenworm (Scoloplos armiger).

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	D03		b
H	F02		b
H	G01		i
L	A07		o
L	A08	X	o
L	C01.01		o
L	C02		i
L	D03		b
L	E02		o
L	F02.01		i
L	G04		b
L	H03.01		b
L	M01.07		o
M	C01		i
M	C03.03		o
M	H01	X	b
M	J02.12.01		i
M	J03.01		i
M	M01		b

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: - Anonymus (2005) Integraal Beheerplan Noordzee 2015. Interdepartementale Directeurenoverleg Noordzee (IDON)- Arts FA, Berrevoets CM (2005) Monitoring van zeevogels en zeezoogdieren op het Nederlands Continentaal Plat 1991 - 2005: Verspreiding, seizoenspatroon en trend van zeven soorten zeevogels en de Bruinvis. Rapport RIKZ/2005.032, Rijksinstituut voor Kust en Zee/RIKZ, Middelburg- Beintema A.J. & Schekkerman H. 2001., Nadere toetsing van aanwijzing en begrenzing van negen, Vogelrichtlijngebieden., Alterra Rapport 328, Alterra, Wageningen - Berrevoets CM Arts AA. 2003., Midwintertelling van zee-eenden in de Waddenzee en de Nederlandse, kustwateren, januari 2003., RIKZ Rapport 2003.008, RIKZ, Middelburg.- Brasseur SMJM, Tulp I, Reijnders PJH, Smit CJ, Dijkman EM, Cremer JSM, Kotterman MJJ, Meesters HWG (2004) Voedselecologie van de Gewone en Grijze zeehond in de Nederlandse kustwateren. Rapport 905, Alterra, Wageningen- Daan N, Heessen HJL, Hofstede Rt (2005) North Sea Elasmobranchs: distribution, abundance and biodiversity. ICES, Copenhagen- De Groot SJ (2002) A review of the past and present status of anadromous fish species in the Netherlands: is restocking the Rhine feasible? Hydrobiologia 478:205-218- Degraer S, Wittoeck J, Appeltans W, Cooreman K, Deprez T, Hillewaert H, Hostens K, Mees J, Vanden Berghe W, Vincx M (2006) De macrobenthosatlas van het Belgisch deel van de Noordzee. Federaal Wetenschapsbeleid D/2005/1191/5- Hammond PS, Berggren P, Benke H, Borchers DL, Collet A, Heide Jorgensen MP, Heimlich S, Hiby AR, Leopold MF, Oien N (2002) Abundance of harbour porpoise and other cetaceans in the North Sea and adjacent waters. Journal-of-Applied-Ecology [print] April, 2002; 39 (2): 361-376 URLJ: http://wwwblackwell-sciencecom/~cgilib/jnlpageasp?Journal=jappl&File=jappl- Lindeboom HJ, Dijkman EM, Bos OG, Meesters EH, Cremer JSM, De Raad I, Bosma A (2008) Ecologische Atlas Noordzee ten behoeve van gebiedsbescherming. Wageningen IMARES vestiging Texel- Lindeboom HJ, Geurts van Kessel AJM, Berkenbosch A (2005) Gebieden met bijzondere ecologische waarden op het Nederlands Continentaal Plat. Rapport RIKZ/2005008, Den Haag / Alterra rapport 1109, Wageningen:103 p.- Patberg W, De Leeuw JJ, Winter HV (2005) Verspreiding van rivierprik, zeeprik, fint en elft in Nederland na 1970. Rapport C004/05, RIVO, IJmuiden, The Netherlands.- Roomen M. van, Boele A., Weide M. van der, Winden E. van ea. 2000., Belangrijke vogelgebieden in Nederland 1993-97. Actueel overzicht van, Europese vogelwaarden in aangewezen en aan te wijzen speciale, beschermingszones en andere belangrijke gebieden., SOVON Informatierapport 2000/01 SOVON, Beek-Ubbergen - SOVON & CBS (2006) Trends van vogels in het Nederlandse Natura 2000 netwerk. SOVON Vogelonderzoek Nederland, Beek-Ubbergen.- Tempel R. van den, Osieck E.R. 1994., Areas important for birds in the Netherlands., Techn Rapport Vogelbescherming 13E, Vogelbescherming Nederland, Zeist - Ter Hofstede R, Heessen HJL, Daan N (2005) Systeembeschrijving Noordzee: Natuurwaardenkaarten vis. Rapport C090/05, RIVO, IJmuiden- Ter Hofstede R, Quirijns FJ, Daan N, Dekker W, Verver SW, Heessen HJL, Asjes J, Star B (2004) Beschermde Gebieden Noordzee: Begrenzing en ecologische waardering t.a.v. visgemeenschappen; visserij-activiteiten. Rapport C057/04, RIVO Biologie en Ecologie

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
NL01	100
NL22	4

5.2 Relation of the described site with other sites (optional)

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	ramsar	Waddeneilanden en Noordzeekustzone	=	95

5.3 Site designation (optional)

Small part National Park.The same designation as under OSPAR under consideration.

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Rijkswaterstaat Zee en Delta

Address: No information provided

Email: hans.lammers@rws.nl

6.2 Management Plan(s)

- [x] Yes

Name: Natura 2000 beheerplan Noordzeekustzone - periode 2016-2022

Link: https://www.provinciegroningen.nl/fileadmin/user_upload/Documenten/Beleid_en_documenten/Documentenzoeker/Natuur_en_landschap/Natuur/Natura_2000/Natura-2000-beheerplan-Noordzeekustzone.pdf

- [ ] No, but in preparation
- [ ] No

6.3 Conservation measures (optional)

No information provided

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Vlakte van de Raan (BEMNZ0005 - SCI)

Table of contents

1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

BEMNZ0005

1.3 Site Name

Vlakte van de Raan

1.4 First Compilation date

2006-04

1.5 Update date

2010-09

1.6 Respondent

Name/Organisation: FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu Directoraat -Generaal Leefmilieu Dienst Marien Milieu

Address: No information provided

Email: marien.milieu.marin@environment.belgium.be

1.7 Site indication and designation / classification dates

Date site classified as SPA: 1900-01

National legal reference of SPA designation: No information provided

Date site proposed as SCI: 2005-10

Date site confirmed as SCI: 2010-06

Date site designated as SAC: 2020-03

National legal reference of SAC designation: Koninklijk besluit van 22 mei 2019 tot de vastelling van het marien ruimtelijk plan voor de periode 2020 tot 2026 in de Belgische Zeegebieden / Arrêté royal du 22 mai 2019 relatif à l'établissement du plan d'aménagement des espaces marins pour la période de 2020 à 2026 dans les espaces marins belges.

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 3.2014

Latitude: 51.47

2.2 Area [ha]

6492.2

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

0

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
BEZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	0

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types							Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			1925	0.00	M	B	A	B	B

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site				Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
B	A002	Gavia arctica			w	0	0		P	M	C	B	C
B	A001	Gavia stellata			w	0	0		P	M	B	B	C
B	A177	Larus minutus			c	0	0		C	M	C	B	C
B	A005	Podiceps cristatus			w	0	0		C	M	B	B	C
B	A193	Sterna hirundo			c	0	0		C	M	B	B	C
B	A191	Sterna sandvicensis			c	0	0		C	M	C	B	C
B	A191	Sterna sandvicensis			r	0	0		C	M	C	B	C
F	1103	Alosa fallax			c	0	0		C	M	B	B	C

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
F	1095	Petromyzon marinus			c	0	0		R	M	C	B	C
M	1364	Halichoerus grypus			c	0	0		R	M	C	B	C
M	1365	Phoca vitulina			c	0	0		R	M	B	B	C
M	1351	Phocoena phocoena			c	0	0		C	M	C	B	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
F	5790	Pleuronectes platessa			0	0		C					
F	5849	Solea solea			0	0		C					
I		Abra alba			0	0		C					
I		Crangon crangon			0	0		C					
I		Ensis directus			0	0		C					
I		Macropipus holsatus			0	0		C					
I		Spisula subtruncata			0	0		C					

Group: A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
Code: For Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Motivation: Species Annex IV and Species Annex V: the species is listed under Annex IV or Annex V of the Habitats Directive. A = Species listed in the National Red List, B = Endemic species, C = Species listed under an Internation convention, D = Other reasons

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N01	Marine areas, Sea inlets	100
	Total Habitat Cover	100

Other Site Characteristics

Very shallow area representative for habitat type 1110 in the eastern Belgian coastal waters

4.2 Quality and importance

The shallow area is important as spawning and nursery for some flatfish and gray shrimp

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	D03.01		o
H	F02.02.02		i

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	U		b

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	J02.02		o
L	D03.02		i
L	G01.01		i
M	F02.03		i
M	K02.03		o

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: Departement Zeevisserij, 2002. Beoordeling van het MER van het project Seanergy (Electrabel Jan de Nul), februari 2002. Departement Zeevisserij, CLO, studie uitgevoerd in opdracht van het KBIN (BMM).Departement voor Zeevisserij (CLO), 2002. Analyse van macro- en epibenthos en visbestanden in en rond het geplande windmolenpark Fina Eolia op de Vlakte van de Raan. Studie uitgevoerd in opdracht van Ecolas.Haelters, J., Vigin, L., Stienen, E.W.M., Scory, S., Kuijken, E. & Jacques, T.G., 2004. Ornithologisch belang van de Belgische zeegebieden - Importance ornithologique des espaces marins de la Belgique. Bulletin van het Koninklijk Belgisch Instituut voor Natuurwetenschappen, Biologie, Vol.74, suppl., 91p.Offringa, H., Seys J., Van den Bossche W. & Meire , P., 1996. Seabirds on the Channel doormat. De Giervalk 86: 3-71.Offringa, H., Seys, J., Van Waeyenberghe, J. & Meire, P., 2001. The Belgian marine avifauna. In: Cattrijsse, A. & Vincx, M. (Eds.), 2001. Biodiversity of the benthos and the avifauna of the Belgian coastal waters; summary of data collected between 1970 and 1998. OSTC (Federal Office for Scientific, Technical and Cultural Affairs), Brussel: 27-30.Cattrijsse, A. & Vincx, M. (Eds.), 2001. Biodiversity of the benthos and the avifauna of the Belgian coastal waters; summary of data collected between 1970 and 1998. Sustainable Management of the North Sea. Brussel, Belgium: Federal Office for Scientific, Technical and Cultural Affairs, 48p.Heip, C., Herman, R., Bisschop, G., Govare, J.C.R., Holvoet, M., Van Damme, D., Vansosael, C., Willems, K.R. & De Coninck, L.A.P, 1979. Benthic studies of the Southern Bight of the Nort Sea and its adjacent contintental estuaries, Verslag van de studiedagen, Geconcerteerde onderzoeksacties, Interuniversitaire Actie, Oceanologie. Brussel, Belgie, Diensten van de Eerste Minister, Programmatie van het Wetenschapsbeleid, 133-164.Seys, J., 2001. Sea- and coastal bird data as tools in the policy and management of Belgian marine waters. Doctoraal proefschrift, niet gepubliceeerd. Universiteit Gent, oktober 2001, 133p., 10 bijlagen.Seys, J., 2002. Estimates of the number of seabirds residing in and migrating through the southern North Sea. Report IN.D.2002.2. Institute of Nature Conservation, Brussel.Seys, J., Offringa, H., van Waeyenberge J., Meire P. & Kuijken E. (1999). Ornithologisch belang van de Belgische maritieme wateren: naar een aanduiding van kensoorten en sleutelgebieden. Nota In A74. Instituut voor Natuurbehoud, Brussel., 17p., 10 bijlagen.Skov, H., Durinck, J., Leopold, M.F. & Tasker, M.L., 1995. Important bird areas in the North Sea, including the Channel and the Kattegat. BirdLife International, Cambridge, 156p.Van den Bossche, W., Meire, P., Anselin, A., Kuijken, E., De Putter, G., Orbie, G. & Willemijns, F., 1995. Ontwikkeling en toekomst van sternenkolonies aan de Belgische kust. Rapport Instituut voor Natuurbehoud 95.03, 50p.Van Waeyenberge, J.,. Stienen, E.W.M. & Seys, J., 2001b. Broedbiologisch onderzoek bij sternen en meeuwen in de Zeebrugse voorhaven: waarom, wat en hoe? Vogelnieuws, ornithologische nieuwsbrief van het Instituut voor Natuurbehoud, nr. 1, juni 2001: 15-20.

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

No information provided

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: DG Leefm. FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefm.FOD Volksgezondheid, Veiligheid van de Voedselketen en Leefmilieu, DG Leefmilieu, Dienst Marien Milieu (Marine environment and marine spatial planning unit)

Address: No information provided

Email: marien.milieu.marin@environment.belgium.be

6.2 Management Plan(s)

- [ ] Yes
- [ ] No, but in preparation
- [x] No

6.3 Conservation measures (optional)

Op 5 maart 2006 werd een Koninklijk Besluit uitgevaardigd tot instelling van een gericht marien reservaat in de zeegebieden onder de rechtsbevoegdheid van België en tot wijziging van het koninklijk besluit van 14 oktober 2005 tot instelling van speciale beschermingszones en speciale zones voor natuurbehoud in de zeegebieden onder de rechtsbevoegdheid van België (Belgisch Staatsblad van 27 maart 2006). In de speciale beschermingszones voor de vogels zijn bepaalde activiteiten verboden en voor andere activiteiten is er een algemeen systeem voor machtigingen en vergunningen volgens de procedure, ingesteld bij het KB van 9 september 2003 houdende de regels betreffende de milieu-effectenbeoordeling in toepassing van de wet van 20 januari 1999 ter bescherming van het mariene milieu in de zeegebieden onder de rechtsbevoegdheden van België. De Beheerseenheid van het Mathematisch Model van de Noordzee (BMM)is belast met de voortdurende algemene milieumonitoring van het mariene milieu en in het bijzonder van de hydrodynamica en de samenstelling van de zeebodem, het benthos en de vis - en vogelstand in het gebied BEMNZ0004. Voor de tussenkomst van de overheid bij scheepsongevallen bestaan rampenplannen.

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Vlakte van de Raan (NL2008003 - SCI)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

NL2008003

1.3 Site Name

Vlakte van de Raan

1.4 First Compilation date

2008-12

1.5 Update date

2018-12

1.6 Respondent

Name/Organisation: Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity

Address: No information provided

Email: No information provided

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: 2008-12

Date site confirmed as SCI: 2009-12

Date site designated as SAC: 2011-03

National legal reference of SAC designation: https://www.natura2000.nl/sites/default/files/documenten/gebieden/163/n2k163%20vlakte%20van%20de%20raan_definitief%20aanwijzingsbesluit_03dec10.pdf

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 3.3096

Latitude: 51.4866

2.2 Area [ha]

17521

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

0

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Marine Atlantic	100
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types							Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			17521	0.00	M	C	C	B	C

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
F	1103	Alosa fallax			p	0	0	i	V	P	D		

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
F	1099	Lampetra fluviatilis			p	0	0	i	P	M	B	B	C
F	1095	Petromyzon marinus			p	0	0	i	P	M	C	B	C
M	1364	Halichoerus grypus			p	0	400	i		G	B	B	C
M	1365	Phoca vitulina			p	101	250	i		G	B	C	C
M	1351	Phocoena phocoena			p	0	0	i	V	M	C	C	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N01	Marine areas, Sea inlets	100
	Total Habitat Cover	100

Other Site Characteristics

De Vlakte van de Raan wordt begrensd door de -20 NAP lijn aan de zeezijde, de Speciale Berschermingszone (SBZ) Voordelta, de SBZ Westerschelde en aan de zuidkant door de grens met België.Op geologische schaal is er sprake van grootschalige bodembewegingen in het gebied, die enerzijds bestaan uit een langzame daling van de Noordzeebodem en anderzijds uit een geleidelijke stijging van het ?Massief van Brabant? (De Mulder et al., 2003) waarop een serie van paleocene, pleistocene en holocene sedimenten zijn afgezet (Le Bot et al., 2003, 2005). De samenstelling van de bodemsedimenten in het Westerscheldemondingsgebied is zeer heterogeen. Zowel zandige sedimenten als slib komen voor (Du Four et al. 2006).

4.2 Quality and importance

De Vlakte van de Raan is van belang voor vissen, benthos en vogels. Kenmerkende soorten van de Klaverbank zijn: Aonides paucibranchiata, Chone duneri, Glycera lapidum, Glycera alba, Laonice bahusiensis, Pistella lornensis, Typosyllis cornuta, het bulldozerkreeftje Urothoe marina, de Gewone zeeappel (Psammechinus miliaris) en de tweekleppige Dosinia exoleta (Van Moorsel 2003).

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	A07		o
L	C01		o
L	C02		b
L	D02.09		i
L	E02		o
L	G01		i
L	J02		b
L	J03.01		i
M	F02		b
M	F02.01		i

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: -Anonymus (2005) Integraal Beheerplan Noordzee 2015. Interdepartementale Directeurenoverleg Noordzee (IDON)- Arts FA, Berrevoets CM (2005) Monitoring van zeevogels en zeezoogdieren op het Nederlands Continentaal Plat 1991 - 2005: Verspreiding, seizoenspatroon en trend van zeven soorten zeevogels en de Bruinvis. Rapport RIKZ/2005.032, Rijksinstituut voor Kust en Zee/RIKZ, Middelburg

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
NL01	100

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

The same designation as under OSPAR under consideration.

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Rijkswaterstaat Dienst Noordzee

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

- [x] Yes

Name: Beheerplan Natura 2000 Vlakte van de Raan

Link: https://www.bij12.nl/wp-content/uploads/2021/01/Natura-2000-Beheerplan-163-Vlakte-van-de-Raan.pdf

- [ ] No, but in preparation
- [ ] No

6.3 Conservation measures (optional)

No information provided

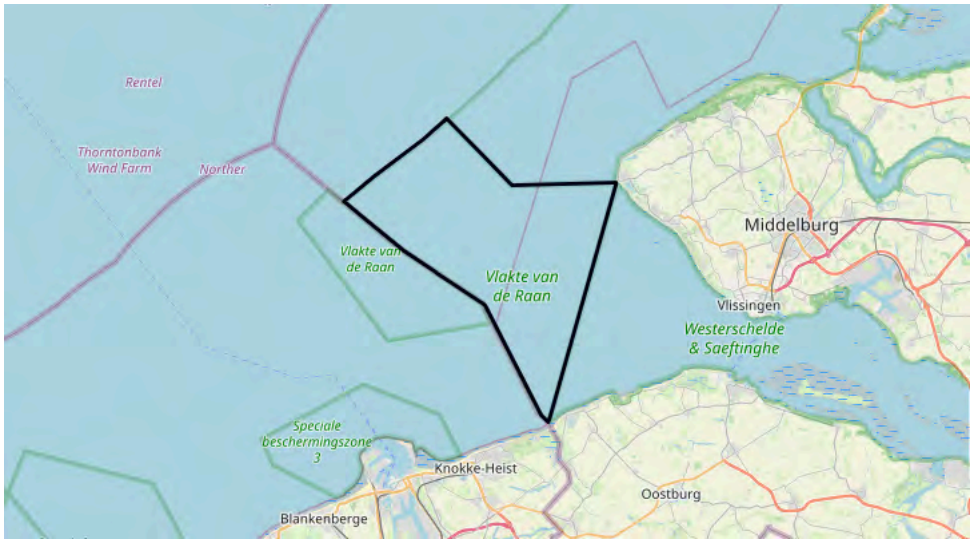
7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Westerschelde & Saeftinghe (NL9803061 - SCI)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

NL9803061

1.3 Site Name

Westerschelde & Saeftinghe

1.4 First Compilation date

1998-10

1.5 Update date

2018-12

1.6 Respondent

Name/Organisation: Ministry of Agriculture, Nature and Food Quality - Department Nature & Biodiversity

Address: No information provided

Email: No information provided

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: 1998-07

Date site confirmed as SCI: 2004-12

Date site designated as SAC: 2010-02

National legal reference of SAC designation: https://www.natura2000.nl/sites/default/files/documenten/gebieden/122/n2k122_db_hvnw_westerschelde_en_saeftinghe.pdf

Explanations: Formerly known as SCI NL9803061 Westerschelde (2000-2012)Merged with SPA Westerschelde under sitecode NL9803061 (2012-2014)Diveded from SPA Westerschelde & Saeftinghe in 2014 because of change in border of SAC

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 3.7825

Latitude: 51.3812

2.2 Area [ha]

44052

2.3 Marine area [%]

25

2.4 Sitelength [km] (optional)

0

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
NL34	Zeeland
NLZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Marine Atlantic	25
Atlantic	75

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			11878	0.00	G	C	C	B	C
1130	Estuaries			27906	0.00	G	A	A	C	A
1140	Mudflats and sandflats not covered by seawater at low tide			92.6		M	A	C	A	A
1310	Salicornia and other annuals colonizing mud and sand			442	0.00	G	B	B	C	B
1320	Spartina swards (Spartinion maritimae)			136	0.00	G	C	A	A	A
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)			2278	0.00	G	B	A	B	A
2110	Embryonic shifting dunes			1.13	0.00	G	B	C	A	B
2120	Shifting dunes along the shoreline with Ammophila			12.7	0.00	G	B	C	B	B

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
	arenaria ("white dunes")									
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")			0.87		M	C	C	C	C
2160	Dunes with Hippophaë rhamnoides			14.2	0.00	G	C	C	C	C
2190	Humid dune slacks			1.02	0.00	G	C	C	C	C

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site				Site Assessment				
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
F	1103	Alosa fallax			r	0	0	i	P	P	B	B	C
F	1099	Lampetra fluviatilis			c	0	0	i	P	M	C	A	C
F	1095	Petromyzon marinus			p	0	0	i	P	M	C	A	C
I	1014	Vertigo angustior			p	0	0	i	P	M	B	A	A
M	1364	Halichoerus grypus			p	1	20	i		G	C	B	C
M	1365	Phoca vitulina			p	51	100	i		G	C	B	C
M	1351	Phocoena phocoena			p	1	10	i		M	C	C	C
P	1903	Liparis loeselii			p	26	50	i		M	C	C	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)

Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N04	Coastal sand dunes, Sand beaches, Machair	3
N03	Salt marshes, Salt pastures, Salt steppes	7
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	90
	Total Habitat Cover	100

Other Site Characteristics

A tidal estuary of the River Schelde with mudflats and sandbanks and the only estuary in south-west Netherlands which will be allowed to remain open to the sea. The estuary is 60 km long from the Belgian border up to the North Sea, and is adjacent to the Voordelta (NL9802017) in the west and "Schelde- en Durmeëstuarium van de Nederlandse grens tot Gent" (BE2300006) in Vlaanderen (BE) in the south. Saeftinge is one of the largest, contiguous salt marshes in Western Europe, which is an important breeding site for various Annex I species and wintering/ staging site for geese and dabbling ducks. The SPA includes the shallow parts of the estuary (depth less than 10 m) and the raised saltmarsh Verdronken Land van Saeftinghe; deeper parts including the shipping lane have been excluded.

4.2 Quality and importance

The following data refer to the period 1993-1997 (data in paragraph 3.2a-b refer te period 1999-2003). For Westerschelde: Species meeting the 1% threshold (breeding): Sandwich Tern Sterna sandvicensis (4,2%), Common Tern Sterna hirundo (1,6%), (non-breeding): Greylag Goose Anser anser (5,8%), Common Shelduck Tadorna tadorna (1,7%), Eurasian Oystercatcher Haematopus ostralegus (2,2%), Avocet Recurvirostra avosetta (1,1%), Common Ringed Plover Charadrius hiaticula (1,2%), Grey Plover Pluvialis squatarola (2,5%), Knot Calidris canutus islandica (1,0%), Sanderling Calidris alba (1,3%), Calidris alpina alpina (2,1%), Bar-tailed Godwit Limosa lapponica (1,3%), Eurasian Curlew Numenius arquata (1,1%), Common Redshank Tringa totanus totanus (1,3%). One of the five most important sites for (breeding): Sandwich Tern Sterna sandvicensis, Common Tern Sterna hirundo, Little Tern Sterna albifrons. For Verdronkenland van Saeftinghe: Species meeting the 1% threshold (breeding): Herring Gull Larus argentatus (2,0%), (non-breeding): Eurasian Spoonbill Platalea leucorodia (3,1%), Greylag Goose Anser anser (18,5%), Common Shelduck Tadorna tadorna (1,1%), Eurasian Wigeon Anas [Mareca] penelope.One of the five most important sites for (non-breeding): Little Egret Egretta garzetta, Peregrine Falcon Falco peregrinus. (3,0%), Northern Pintail Anas acuta (10,6%). The site is an important roost for tens of thousands of geese Anser from Zeeuws-Vlaanderen, but numbers of Anser albifrons in particular have been poorly covered by counts. The site regularly supports more than 20,000 wintering waterbirds: average peak 131,283 (1991/92-1996/97). Site largely overlaps with IBA 029 (IBA2000).Large estuary with sandflats and salt marshes. Extensive estuarine system (type 1130) and one of the largest continuous salt marshes of NW. Europe (habitat type 1330 in particular).

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	J03.01		i
H	J03.02		b
H	K02		i
H	K02.01		i
L	E02		b
L	F01		i

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	J02.03		i
L	J02.07		i
L	J02.14		i
L	K02.04		i
M	D03		b
M	F02		i
M	F02.01		i
M	H01		o
M	H04.02	N	o

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	U		b

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: Antrop, M. & P. van der Reest (2001). Het Landschap van de Schelde. De Levende Natuur 102 (2): 42-48.Asmuth, J. von (1996). De schorren van de Westerschelde 1990/1993. Rapport MDGAT 9623, Rijkswaterstaat Meetkundige Dienst, Delft.Baeyens, W., B. van Eck, C. Lambert, R. Wollast & L. Goeyens (1998). General description of the Scheldt estuary. Hydrologia 366: 1-14.Beeftink, W.G. (1957). De buitendijkse terreinen van de Westerschelde en de Zeeschelde. - Natuurwetenschappelijke betekenis, bedreiging door het Deltaplan en behoud voor de toekomst. Natuur en Landschap 11 (2): 1-19. Bergh, E. van den, A. Huiskes, B. Criel, M. Hoffmann & P. Meire (2001). Biodiversiteit op de Scheldeschorren. De Levende Natuur 102 (2): 62-66.Berrevoets C.M., Strucker R.C.W., Arts F.A., Meininger P.L. 2003., Watervogels in de Zoute Delta 2001/2002., RIKZ Rapport 2003.001, RIKZ, Middelburg; Bruyndoncx, L., K. Jordaens & P. Meire (2001). De weekdieren van de schorren van het Schelde-estuarium. De Levende Natuur 102 (2): 70.Buise, M. & G. Sponselee (1996). Saeftinghe, Verdronken land. Duerinck, Kloosterzande, 287 pp.Castelijns H., Maebe J., Kerkhoven W. van. 1998., De Grauwe ganzen A.a. van het Verdronken Land van Saeftinghe: aantallen, trends en voedsel. Oriolus 64 :90-102 Damme, S. van, B. de Winder, T. Ysebaert & P. Meire (2001). Het 'bijzondere' van de Schelde: de abiotiek van het Schelde-estuarium. De Levende Natuur 102 (2): 37-39.Dijk A.J.van ,Weide M.van der, Deuzeman S. ea. 2002., Kolonievogels en zeldzame broedvogels in Nederland in 2000 en 2001., SOVON Monitoringrapport 2002/03, SOVON, Beek-Ubbergen Dijkstra, 1997, Belangrijke zoogdiergebieden in Nederland. VZZ.Haan, W. de, E. van den Bergh & C. Jacobusse (2001). Bescherming en beheer van het Schelde-estuarium. De Levende Natuur 102 (2): 88-92.Handboek NatuurmonumentenHaperen, A. van (2000??). De Oost-Zeeuws-Vlaamse grensstreek. In: A. van Haperen et al. Aan de monding van Maas en Schelde. Natuurgebieden in Zuidwest-Nederland. Staatsbosbeheer, Middelburg, pp 291-311.Hendrickx, F., K. Desender & J-P. Maelfait (2001). Verspreidingspatronen en bedreigingen van de arthropodenfauna van het Schelde-estuarium. De Levende Natuur 102 (2): 68-69.Houtekamer, N.L. (1994). Het Verdronken Land van Saeftinghe: schor onder druk? Nota AX 94.018/RIKZ 94.033, Rijkswaterstaat Directie Zeeland/RIKZ, Middelburg.Huiskes, A.H.L. (1988). The salt marshes of the Westerschelde and their role in theNoordwest Duitsland, het Dortmund-Ems-Seitenkanal, kortweg DESK. Hydrobiological Bulletin 22: 57-63. Jacobusse C. ea. 1993., Themanummer Saeftinghe., Zeeuws Landschap 9.2: hele nr. Jansen, P. & J.G. Sloff (1938). Spartina in Zeeland. De Levende Natuur 42: 348-358. Langendonck, H.J. van (1931). De Vegetatie en Oecologie der Schorrenplanten van Saaftingen. Botanisch Jaarboek XXIII: 1-128. Leemans, J. & B. Verspaandonck (1972). Vegetatiekaart 1971, schorren verdronken land van Saeftinghe 1: 10.000. Leemans, J. & B. Verspaandonk (1975). Het verdronken land van Saeftinghe - Een vegetatiekundige studie met behulp van luchtfoto's. Rapport Botanisch Laboratorium, KU Nijmegen 165 pp.. Lensink R., Meijer M., Buth G.J. 1997., Nieuw beheersplan gereed. Het beheer van het Verdronken Land van Saeftinghe. Zeeuws Landschap 13.4: 10-13 Maes, J. (2001). Stijgende aantallen Finten in de Zeeschelde. De Levende Natuur 102 (2): 87.Osieck E.R. 1996., Veranderingen van vogelaantallen in belangrijke wetlands., Techn Rapport Vogelbescherming 17, Vogelbescherming Nederland, Zeist Roomen M.van, Boele A., Weide M. van der, Winden E. van, ea. 2000., Belangrijke vogelgebieden in Nederland 1993-97. Actueel overzicht van Europese vogelwaarden in aangewezen en aan te wijzen speciale, beschermingszones en andere belangrijke gebieden., SOVON Informatierapport 2000/01 SOVON, Beek-Ubbergen Santbergen, L. (2001). Gebruik en misbruik van de Schelde. De Levende Natuur 102 (2): 40-42.Schaik, A.W.J. van, D.J. de Jong & A.M. van der Pluijm (1988). Vegetatie buitendijkse gebieden Westerschelde. Nota GWAO 88.1003, Rijkswaterstaat Dienst Getijdewateren, Middelburg.Smulders B.J. ea. 1982., Westerschelde themanummer., Zeeuws Nieuws 8.2: hele nr. SOVON & CBS (2006) Trends van vogels in het Nederlandse Natura 2000 netwerk. SOVON Vogelonderzoek Nederland, Beek-UbbergenStenfert-Steehouwer, E.R. (1993). Toelichting bij de vegetatiekaart 'Verdronken Land van Saeftinghe'. Rapport MDLKM-R-9328, Rijkswaterstaat Meetkundige Dienst, Delft.Tempel R. van den, Osieck E.R. 1994., Areas

important for birds in the Netherlands., Techn Rapport Vogelbescherming 13E, Vogelbescherming Nederland, Zeist Vroon J Storm c Coosen J. 1997., Westerschelde, stram of struis?., RIKZ Rapport 97.023, Min.VW / RIKZ, Middelburg Werkgroep Natuurontwikkeling (1999). Natuurontwikkeling inlaag Hoofdplaat. Rapport WNO99-06, Werkgroep Natuurontwikkeling, Provincie Zeeland, 30 pp.Westhoff, V. & W.G.Beeftink (1950). De vegetatie van duinen, slikken en schorren op de Kaloot en in het Noord-Sloe. I. Inleiding - De Kaloot. De Levende Natuur 50 (7): 124-133. Wieland A. 1999., Vogelonderzoek in het Verdronken Land van Saeftinghe., Zeeuws Landschap 15.3: 20-21 Witte, R. (2001). De betekenis van de Westerschelde voor de Gewone zeehond. De Levende Natuur 102 (2): 82-83.

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
NL01	100

5.2 Relation of the described site with other sites (optional)

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	ramsar	Westerschelde	=	92
National or regional	ramsar	Verdronken land van Saeftinge	=	8

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Rijkswaterstaat Zee en Delta

Address: No information provided

Email: ruud.cuperus@rws.nl

Organisation: Rijkswaterstaat Zee en Delta

Address: No information provided

Email: ruud.cuperus@rws.nl

6.2 Management Plan(s)

- [x] Yes

Name: Beheerplan Westerschelde en Saeftinghe Natura 2000 Deltawateren Beheerplan 2016-2022

Link: https://www.bij12.nl/wp-content/uploads/2021/01/Natura-2000-Beheerplan-122-Westerschelde-en-Saeftinghe.pdf

Name: Beheerplan Natura 2000 Deltawateren

Link: https://www.bij12.nl/wp-content/uploads/2021/01/Natura-2000-Beheerplan-122-Westerschelde-en-Saeftinghe.pdf

- [ ] No, but in preparation
- [ ] No

6.3 Conservation measures (optional)

No information provided

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No


Švizra
Slovenija
Milano
Auvergne-
Rhône-Alpes
Nouvelle-
Aquitaine
Torino
Genova
Bologna
Hrvatsk
Monaco
Città di San
Marino
Occitanie
Pamplona /
Iruña
Marseille
Andorra
la Vella
Castilla
y León
Aragón
Roma
Italia
Madrid
Napoli
España
València
Palma
Portugal
Lisboa
Palermo
Constantine
Sevilla
Andalucía
Málaga
Oran
Alger
Gibraltar
Malta
Batna
Djelfa
Rabat

NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Dunes de la plaine maritime flamande (FR3100474 - SCI)

Table of contents

1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

FR3100474

1.3 Site Name

Dunes de la plaine maritime flamande

1.4 First Compilation date

No information provided

1.5 Update date

No information provided

1.6 Respondent

Name/Organisation: Ministère de la Transition écologique - DGALN/DEB/SDET/ET5

Address: No information provided

Email: en3.en.deb.dgaln@developpement-durable.gouv.fr

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: No information provided

Date site confirmed as SCI: 2004-12

Date site designated as SAC: No information provided

National legal reference of SAC designation: http://www.legifrance.gouv.fr/jo_pdf.do?cidTexte=JORFTEXT000000277382

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 2.45472

Latitude: 51.07389

2.2 Area [ha]

4420

2.3 Marine area [%]

84.2

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
FR30	Nord - Pas-de-Calais

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			442.5		G	C	C	C	C
1140	Mudflats and sandflats not covered by seawater at low tide			3495.75		P	C	C	C	C
1210	Annual vegetation of drift lines			0		P	D			
2110	Embryonic shifting dunes			0.09		G	D			
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")			72.7		G	B	C	B	B
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")	x		81.7		G	B	C	B	B
2160	Dunes with Hippophaë rhamnoides			272		G	B	B	A	B
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)			0.05		G	C	C	B	C

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
2180	Wooded dunes of the Atlantic, Continental and Boreal region			28.06		G	C	C	C	C
2190	Humid dune slacks			20.7		G	A	B	B	A
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels			2.19		G	D			
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)			7.4		G	D			

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site				Site Assessment				
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
A	1166	Triturus cristatus			p			i	P	DD	C	C	C
I	1014	Vertigo angustior			p			i	P	DD	C	A	C
M	1364	Halichoerus grypus			c			i	P	DD	D		
M	1365	Phoca vitulina		x	r	3	3	i	P		B	C	B
M	1365	Phoca vitulina			w	10	10	i	P	M	B	C	B
M	1365	Phoca vitulina			c	15	15	i	P	M	B	C	B
M	1365	Phoca vitulina		x	p	0	7	i	P	G	C	C	B

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
M	1351	Phocoena phocoena			p			i	P	P	D		
P	1903	Liparis loeselii			p	260	260	i	P	G	C	C	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
		Sagina nodosa var. moniliformis					i	P					
M	1330	Myotis mystacinus							x				x
P		Anagallis tenella					i	P					
P		Apium inundatum					i	P					
P		Blysmus compressus					i	P					
P		Botrychium lunaria					i	P					
P		Bromus diandrus roth					i	P					
P		Bromus thominei					i	P					
P		Carex viridula var. pulchella					i	P					
P		Centaurea aspera					i	P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
P		Centaurium littorale					i	P					
P		Centunculus minimus					i	P					
P		Colchicum autumnale L.					i	P					
P		Dactylorhiza fuchsii					i	P			x		
P		Dactylorhiza incarnata					i	P			x		
P		Epipactis helleborine subsp. neerlandica					i	P					
P		Epipactis palustris					i	P			x		
P		Equisetum variegatum schleich.					i	P					
P		Eryngium campestre					i	P					
P		Eryngium maritimum					i	P					
P		Euphorbia cyparissias					i	P					
P		Euphrasia tetraquetra					i	P					
P		Gentianella uliginosa					i	P					
P		Glaux maritima					i	P					
P		Helianthemum nummularium subsp. obscurum					i	P					
P		Herminium monorchis					i	P			x		
P		Holosteum umbellatum					i	P					
P		Jasione montana					i	P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
P		Juncus subnodulosus					i	P					
P		Koeleria albescens					i	P					
P		Leonurus cardiaca					i	P					
P		Leymus arenarius					i	P					
P		Littorella uniflora					i	P					
P		Malva moschata L.					i	P					
P		Marrubium vulgare					i	P					
P		Medicago minima					i	P					
P		Mibora minima					i	P					
P		Minuartia hybrida					i	P					
P		Ophioglossum vulgatum					i	P					
P		Ophrys apifera					i	P			x		
P		Orobanche caryophyllacea					i	P					
P		Orobanche purpurea					i	P					
P		Parnassia palustris var. condensata					i	P					
P		Poa bulbosa					i	P					
P		Potamogeton coloratus					i	P					
P		Potentilla neumanniana					i	P					
P		Pyrola rotundifolia var. arenaria					i	P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
P		Ranunculus baudotii					i	P					
P		Rosa obtusifolia					i	P					
P		Rosa pimpinellifolia					i	P					
P		Salix repens subsp. argentea					i	P					
P		Schoenus nigricans					i	P					
P		Sieglingia decumbens					i	P					
P		Thalictrum minus subsp. dunense					i	P					
P		Thesium humifusum					i	P					
P		Trifolium scabrum L.					i	P					
P		Triglochin palustre					i	P					
P		Valeriana dioica					i	P					
P		Vicia lathyroides					i	P					
P		Viola canina var. dunensis					i	P					
P		Viola curtisii					i	P					

Group: A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
Code: For Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Motivation: Species Annex IV and Species Annex V: the species is listed under Annex IV or Annex V of the Habitats Directive. A = Species listed in the National Red List, B = Endemic species, C = Species listed under an Internation convention, D = Other reasons

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N06	Inland water bodies (Standing water, Running water)	1

Code	Habitat Class	Cover [%]
N04	Coastal sand dunes, Sand beaches, Machair	13
N01	Marine areas, Sea inlets	86
	Total Habitat Cover	100

Other Site Characteristics

Géomorphologie typique des rivages de la Mer du Nord : formes d'érosion actives avec vastes dunes paraboliques, reliefs en crocs et cahoudeyres, pannes en formation où affleure la nappe phréatique, dunes de hauteur moyenne ne dépassant pas 30 m et peu étalées vers l'intérieur, relief tourmenté.. La plupart des habitats herbacés les plus précieux accusent un recul sensible, certains paraissant même très menacés [aggravation de l'érosion de la dune bordière ; chute des populations de lapins dont la "gestion" s'avère insuffisante pour contrôler l'embroussaillement des dunes sèches internes ; assèchement général du massif dû à l'extension des boisements dans les pannes et plaines humides, aux pompages dans la nappe phréatique en liaison avec l'accroissement des besoins en eau ; fréquentation touristique excessive et incontrôlée de certaines zones fragiles ; introduction regrettable d'essences agressives et/ou eutrophisantes ; ensablement des pannes proches de dunes vives. De plus, certains espaces non encore acquis par le Conservatoire du Littoral (qui possède aujourd'hui la majeure partie de ces dunes) semblent très menacés par des projets d'urbanisation et d'extension d'aménagements existants (dunes du Calvaire en particulier). Enfin, une restructuration du Camping du Perroquet avec protection forte des espaces dunaires non aménagés et réhabilitation des zones dégradées, devra être envisagée afin de rétablir la continuité biologique et écologique avec le massif dunaire du Westhoek. Les habitats les plus précieux au regard de la Directive sont également les plus fragiles : - Végétations hygrophiles oligotrophes de l'hygrosère dunaire dont la diversité et l'originalité sont étroitement dépendantes du niveau et de la qualité des eaux de la nappe phréatique superficielle, le vieillissement naturel des pannes nécessitant des interventions humaines pour rajeunir le système (débroussaillage, recreusement de mares, étrépage des horizons superficiels eutrophisés, fauche exportatrice, ...) et restaurer les habitats typiques de l'hygrosère dunaire oligotrophe non tourbeuse ; - Pelouses dunaires sensibles au piétinement dont le maintien et l'extension sont liés à la stabilisation voir à la régression des fourrés dunaires ; - Ourlets dunaires internes et arrhénathéraie nécessitant une fauche exportatrice périodique en cas d'embroussaillement et d'évolution marquée vers des végétations arbustives hautes (périodicité à adapter au cas par cas).

4.2 Quality and importance

Remarquable système dunaire littoral jeune (dunes "dunkerquiennes") présentant pratiquement toutes les végétations naturelles potentielles des dunes flamandes dont il constitue le plus bel exemple français, dans la continuité de la Réserve Naturelle Belge du Westhoek. Par sa géomorphologie typique des rivages de la Mer du Nord (formes d'érosion actives avec vastes dunes paraboliques, reliefs en crocs et cahoudeyres, pannes en formation où affleure la nappe phréatique, ...), ses conditions mésoclimatiques originales et la multiplicité des conditions topographiques et édaphiques, ce complexe de dunes jeunes forme un ensemble naturel relictuel d'une très grande valeur patrimoniale, abritant le système dunaire nord - atlantique des côtes de la Mer du Nord le plus typique et le plus représentatif à l'échelle du littoral national et peut être européen : ourlets et pelouses thermophiles internes uniquement connus à ce jour du littoral flamand, pelouses dunaires calcarifères à acidoclines en mosaïque ou en succession tout à fait caractéristiques, des cordons sableux les plus externes jusqu'aux cordons internes en voie de décalcification , Arrhénathéraie dunaire mésotrophe du Phelypaeo coerulei-Arrhenatheretum elatioris, ... L'hygrosère, même si elle est loin d'être développée de manière optimale, présente également la plupart des habitats du système dunaire hygrophile nord - atlantique, les stades dynamiques les plus évolués étant toutefois les mieux représentés : mégaphorbiaie dunaire paratourbeuse (Ophioglosso vulgati-Calamagrostietum epigeji), prairie hygrophile (Calamagrostio epigeji-Juncetum subnodulosi)..., sauf dans la dune du Perroquet qui apparaît à cet égard comme le sous-site présentant les plus fortes potentialités biologiques et les capacités de régénération d'habitats aquatiques et amphibies oligo-mésotrophes les plus spectaculaires (maintien de mares et de dépressions jeunes longuement inondables à substrat minéral).

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	E01.01		i
H	G05		i
H	G05.01		i
H	K01.01		i
H	K01.03		i
L	B01.02		i
L	F04.01		i
M	D01.01		i
M	D01.02		i
M	G01.02		i
M	G01.03		i

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	G02.08		i
M	H01		i
M	J02		i
M	K02.02		i
M	K02.03		i

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	K01.04		i
M	A03		i
M	K02.04		i

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

Type	[%]
Public - National/Federal	100
Public - State/Province	0
Public - Local/Municipal	0
Public - Any Public	0
Joint or Co-Ownership	0
Private	0
Unknown	0
Total	100

4.5 Documentation (optional)

Documents: Etudes du Centre régional de phytosociologie / Conservatoire botanique de Bailleul ; Etudes CREPIS, Biotope Plan de gestion réalisé par le Conseil général du Nord pour les massif dunaires dont il assure la gestion. Etude mammifères marins du GON. Etude geomorphologique du banc aux phoques réalisée par le Labo Geodal de l'Ulco. Etude Vertigo angustior par le Bureau d'Etudes Greet Ing. Document d'objectifs réalisé par le Bureau d'Etudes Alfa en 2007. Utilisation de diverses sources documentaires mentionnées dans la bibliographie du DOCOB.

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
FR03	1
FR12	2
FR14	11
IN01	1
FR13	21

5.2 Relation of the described site with other sites (optional)

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	FR03	Dune Marchand	+	1
National or regional	biogenetic	DUNE MARCHAND	+	1
National or regional	FR13	Dunes du Perroquet		14
National or regional	FR13	Dunes maritimes de Flandres		12
National or regional	FR14	DUNE DEWULF	+	4
National or regional	FR14	DUNE DU PERROQUET	+	3
National or regional	FR14	DUNE MARCHAND	+	2

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Département du Nord / Bureau de l'environnement

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

- [x] Yes

Name: No information provided

Link: https://www.hauts-de-france.developpement-durable.gouv.fr/IMG/pdf/docob_site_npc01_partiea.pdf

- [ ] No, but in preparation
- [ ] No

6.3 Conservation measures (optional)

Plan de gestion synthétique pour les dunes marchand, du Perroquet, et de Leffrinckoucke (réalisé et présenté en 1998). Le Conseil Général du Nord, gestionnaire des terrains du Conservatoire du Littoral, a mis en place, depuis 1990. des expériences de restauration des habitats herbacés de l'hygrosère dunaire (débroussaillage de pannes avec exportation des résidus, décapage superficiel de sables eutrophisés, recreusement de mares, ...) dont les résultats sont très prometteurs (réapparition d'espèces et de communautés végétales de grand intérêt patrimonial), même si toutes les opérations réalisées ne l'ont pas été dans les conditions les plus favorables en raison des difficultés pour éliminer hors du site sables remaniés et végétaux coupés.

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No

NATURA 2000 - STANDARD DATA FORM

RELEASE Natura2000_end2023 (16/01/2025)

Falaises du Cran aux Oeufs et du Cap Gris-Nez, Dunes du Chatelet, Marais de Tardinghen et Dunes de Wissant (FR3100478 - SCI)

Table of contents

1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

FR3100478

1.3 Site Name

Falaises du Cran aux Oeufs et du Cap Gris-Nez, Dunes du Chatelet, Marais de Tardinghen et Dunes de Wissant

1.4 First Compilation date

No information provided

1.5 Update date

No information provided

1.6 Respondent

Name/Organisation: Ministère de la Transition écologique - DGALN/DEB/SDET/ET5

Address: No information provided

Email: en3.en.deb.dgaln@developpement-durable.gouv.fr

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: No information provided

Date site confirmed as SCI: 2004-12

Date site designated as SAC: No information provided

National legal reference of SAC designation: http://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000031082274

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 1.6275

Latitude: 50.87722

2.2 Area [ha]

1059

2.3 Marine area [%]

79

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
FR30	Nord - Pas-de-Calais

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			40.92		P	B	C	B	B
1140	Mudflats and sandflats not covered by seawater at low tide			511.5		P	B	C	B	B
1170	Reefs			92.07		P	A	C	B	A
1210	Annual vegetation of drift lines			0.03		G	D			
1220	Perennial vegetation of stony banks		x	0		P	D			
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts			20.21		G	C	C	B	A
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)		x	0		P	D			
2110	Embryonic shifting dunes			0.01		G	D			
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")			4.2		G	D			
2130	Fixed coastal dunes with	x		5.03		G	C	C	B	B

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
	herbaceous vegetation ("grey dunes")									
2160	Dunes with Hippophaë rhamnoides			32.57		G	B	C	B	B
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)			0		G	D			
2180	Wooded dunes of the Atlantic, Continental and Boreal region			0.96		G	C	C	C	C
2190	Humid dune slacks			5.59		P	D			
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea			0.01		G	C	C	B	C
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.		x	0		P	C	C	B	C
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation			0.42		G	D			
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)	x		0.86		G	C	C	C	B
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)			0.99		G	D			
6430	Hydrophilous tall herb fringe communities of			2		G	D			

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
	plains and of the montane to alpine levels									
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)			14.08		G	D			
7220	Petrifying springs with tufa formation (Cratoneurion)	x		0		G	C	C	B	B
7230	Alkaline fens		x	0		P	D			
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	x		5.23		G	C	C	C	C

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site				Site Assessment				
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
A	1166	Triturus cristatus			p			i	P	M	C	C	C
M	1364	Halichoerus grypus			p	3	3	i	P	P	B	C	B
M	1321	Myotis emarginatus			p			i	P	M	D		
M	1365	Phoca vitulina			p	3	3	i	P	P	C	C	C
M	1351	Phocoena phocoena			p			i	P	M	C	B	C
M	1349	Tursiops truncatus			c			i	P	P	D		

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles

S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
		Sagina nodosa var. moniliformis					i	P					
P		Aira caryophyllea					i	P					
P		Apium graveolens					i	P					
P		Apium inundatum					i	P					
P		Armeria maritima subsp. maritima					i	P					
P		Atriplex babingtonii					i	P					
P		Baldellia ranunculoides					i	P					
P		Bromus ferronii					i	P					
P		Callitriche hamulata					i	P					
P		Calystegia soldanella					i	P					
P		Carex distans var. vikingensis					i	P					
P		Carex trinervis					i	P					
P		Catapodium marinum					i	P					
P		Catapodium rigidum					i	P					
P		Chenopodium chenopodioides					i	P					
P		Cratoneuron filicinum					i	P					
P		Crithmum maritimum					i	P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
P		Dactylorhiza praetermissa					i	P			x		
P		Daucus carota subsp. gummifer					i	P					
P		Euphrasia officinalis subsp. rostkoviana					i	P					
P		Festuca rubra subsp. pruinosa					i	P					
P		Juncus gerardi					i	P					
P		Juncus subnodulosus					i	P					
P		Limonium binervosum (g.e.sm.)c.e.salmon					i	P					
P		Oenanthe lachenalii					i	P					
P		Ornithopus perpusillus					i	P					
P		Parapholis incurva					i	P					
P		Parapholis strigosa					i	P					
P		Pyrola rotundifolia var. arenaria					i	P					
P		Salix repens subsp. argentea					i	P					
P		Sieglingia decumbens					i	P					
P		Silene nutans					i	P					
P		Silene vulgaris subsp. maritima					i	P					
P		Spergularia salina j.& c. presl					i	P					
P		Stellaria palustris hoffm.					i	P					
P		Thymus praecox subsp. britannicus					i	P					
P		Trifolium micranthum viv.					i	P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
P		Trifolium scabrum L.					i	P					
P		Triglochin maritimum					i	P					
P		Triglochin palustre					i	P					
P		Veronica scutellata					i	P					
P		Viola curtisii					i	P					

Group: A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
Code: For Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Motivation: Species Annex IV and Species Annex V: the species is listed under Annex IV or Annex V of the Habitats Directive. A = Species listed in the National Red List, B = Endemic species, C = Species listed under an Internation convention, D = Other reasons

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N03	Salt marshes, Salt pastures, Salt steppes	1
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	1
N09	Dry grassland, Steppes	2
N07	Bogs, Marshes, Water fringed vegetation, Fens	3
N06	Inland water bodies (Standing water, Running water)	3
N10	Humid grassland, Mesophile grassland	9
N05	Shingle, Sea cliffs, Islets	9
N04	Coastal sand dunes, Sand beaches, Machair	12
N01	Marine areas, Sea inlets	60
	Total Habitat Cover	100

Other Site Characteristics

Les falaises du Cap Gris-Nez et du Cran aux Oeufs représentent le seul exemple de falaise européenne à soubassement de marnes Kimmeridgiennes recouvertes de sables et de lentilles de grès du Portlandien dont l'agrégat forme ces lits de blocs en forme d'oeufs si caractéristiques. Ce site est d'une extrême originalité géomorphologique : abrupt de la falaise avec talus de solifluction en marches d'escaliers, vallées suspendues, "les crans", sortes de petites valleuses drainées par des ruisseaux s'ecoulant sur la plage, sources et résurgences marquant la partie inférieure de la falaise, formations tuffeuses, cap dérivant les courants et favorisant la sédimentation sableuse au Nord du site, dans l'ancienne baie de Wissant ; marais tourbeux d'origine lagunaire.. Comme beaucoup de sites littoraux, le Cap Gris-Nez souffre de sa notoriété et de la pression touristique croissante qui affecte plus particulièrement certains habitats dont l'état de conservation est devenu critique à proximité des espaces aménagés. C'est le cas des pelouses aérohalines sommitales pour lesquelles un programme de restauration est en cours d'élaboration, dans le cadre de l'opération "Cap 93". D'autres menaces pèsent sur le site (pratique du moto-cross, urbanisation, remise en cultures de nombreuses prairies sur le plateau et en haut de falaise, pollution par les nitrates des sources et ruisseaux en provenance des espaces agricoles intensifiés...). La prise en compte de l'extrême sensibilité de certains habitats (pelouses, végétations oligotrophes amphibies, ...) devrait donc orienter les choix de gestion ultérieurs : * Pelouses subhalophiles sommitales vivaces devant être préservées d'une fréquentation excessive (altération structurale avec ouverture du tapis herbacé, rudéralisation et eutrophisation de la flore , disparition des espèces sensibles au piétinement, ...) : - cheminements à éloigner du haut de falaise - canalisation du public au niveau des aires de stationnement - éloignement des

parkings et des aménagements vers l'intérieur des terres - recul des cultures de manière à préserver une bande de terrain non exploitée en haut de falaise, une fauche exportatrice ultérieure de celle-ci permettant à moyen terme de régénérer des pelouses aérohalines de haute valeur patrimoniale. * Maintien des prairies en amont des "crans" de manière à préserver au mieux la qualité des ruisseaux superficiels alimentant les bas-marais suspendus et les suintements en haut de falaise. * Végétations hygrophiles oligotrophes de l'hygrosère dunaire dont la diversité et l'originalité sont étroitement dépendantes du niveau et de la qualité des eaux de la nappe phréatique superficielle. * Végétations pionnières des cordons dunaires littoraux ne pouvant se développer qu'au niveau des zones de sédimentation non soumises à une forte pression humaine...

4.2 Quality and importance

Sur ce site spectaculaire de grande qualité esthétique, les amas rocheux à la base de la falaise hébergent la plus riche flore algologique du littoral régional. Du fait de son extrême originalité géologique et géomorphologique, ce site rassemble de très nombreuses communautés végétales d'intérêt majeur, inféodées aux systèmes littoraux nord - atlantiques de la Manche Orientale et de la Mer du Nord (falaises jurassiques, dunes calcarifères récentes, dunes plus anciennes plaquées sur l'ancienne falaise, ...). Les habitats les plus représentatifs et les plus précieux, conférant un intérêt phytocoenotique de premier plan à ce site sont nombreux, relevant pour la plupart de la directive étant donné leur spécificité et leur degré de raréfaction en Europe : végétations aérohalines nord-atlantiques des falaises jurassiques du Boulonnais avec groupement rupicole à Limonium binervosum et Crithmum maritimum, pelouses vivaces acidiclines (Dauco gummiferi-Armerietum maritimae subass. endémique des côtes du Boulonnais), pelouses annuelles écorchées à affinités thermo-atlantiques (Trifolio scabri-Catapodietum marini), bas-marais littoral subhalophile sommital uniquement connu du Gris-Nez et d'Equihen pour l'ensemble de la façade littorale française (Samolo valerandi-Caricetum vikingensis), prairie hygrophile naturelle sub-saumâtre des suintements le long de la falaise (Apio graveolens-Tussilaginetum farfarae), pelouses et moliniaies acidiclines à acidiphiles des sables dunaires plaqués sur l'ancienne falaise de sables et d'argiles ponctuée de sources de la Motte du Bourg, ...

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	A03		i
H	A07		i
H	G01.02		i
H	G05.01		i
H	K01.01		i
M	A01		i
M	A02		i
M	A04		i
M	A04.03		i
M	A11		i
M	B01.02		i
M	E01.01		i
M	E01.03		i
M	G01.03		i
M	G05		i
M	H01		i
M	H05		i
M	J02.06		i
M	L05		i

Positive Impacts
No data

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

Type	[%]
Public - National/Federal	99.91
Public - State/Province	0
Public - Local/Municipal	0
Public - Any Public	0
Joint or Co-Ownership	0
Private	0
Unknown	0
Total	99.91

4.5 Documentation (optional)

Documents: Etudes du Centre régional de phytosociologie / Conservatoire botanique national de BAILLEUL : Dunes de Ponticourt, carrière du Fart, Motte du bourg et autres publications. Document d'objectifs réalisé par le PNR CMO, EDEN 62. Chambre d'Agriculture comprenant : Cartographie des habitats terrestres et préconisations de gestion du site du Bureau d'Etudes Biotope Cartographie et proposition de gestion des habitats marins du Bureau d'Etudes Elico Utilisation spatio-temporelle de la partie DPM par le Phoque gris, le Marsouin commun, le Phoque veau marin et les mammifères marins par la Coordination Mammalogiuqe du Nord de la France. Etude cynégétique et Etude historique de la gestion de l'espace. Etudes d'Espace Naturel Régional Utilisation de diverses sources documentaires mentionnées dans la bibliographie du DOCOB.

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
FR32	14
FR13	60
FR14	12
FR15	25

5.2 Relation of the described site with other sites (optional)

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	FR14	CAP GRIS NEZ	*	6
National or regional	FR14	DUNE D'AVAL-MARAIS DE TARDINGHNE-MOTTE DU BOURG	+	6
National or regional	FR15	NORD PAS DE CALAIS	*	25

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Syndicat mixte du Parc Naturel Régional Caps et Marais d'Opale

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

- [x] Yes

Name: No information provided

Link: http://www.hauts-de-france.developpement-durable.gouv.fr/?DOCOB-site-Natura-2000-NPC-005-FR-3100478

- [ ] No, but in preparation
- [ ] No

6.3 Conservation measures (optional)

Réalisation de plans de gestion en cours pour les terrains du Conservatoire de l'espace littoral et des rivages lacustres. Une gestion plus globale des flux touristiques et des problèmes d'érosion de la falaise est assurée par le PNR Boulonnais, dans le cadre de l'opération CAP 93 ; mais il ne s'agit pas pour le moment d'opérations spécifiques visant à la conservation des habitats.

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No

NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Récifs Gris-Nez Blanc-Nez (FR3102003 - SCI)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

FR3102003

1.3 Site Name

Récifs Gris-Nez Blanc-Nez

1.4 First Compilation date

No information provided

1.5 Update date

No information provided

1.6 Respondent

Name/Organisation: Ministère de la Transition écologique - DGALN/DEB/SDET/ET5

Address: No information provided

Email: en3.en.deb.dgaln@developpement-durable.gouv.fr

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: No information provided

Date site confirmed as SCI: 2009-12

Date site designated as SAC: No information provided

National legal reference of SAC designation: http://legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000030732264

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 1.5625

Latitude: 50.89167

2.2 Area [ha]

29156

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
FR30	Nord - Pas-de-Calais

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			4956.52		G	B	C	B	B
1170	Reefs			3790.28		G	A	C	B	B

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
M	1364	Halichoerus grypus			w			i	P	DD	C	A	C
M	1364	Halichoerus grypus			c			i	P	G	C	A	C
M	1365	Phoca vitulina			w			i	P	DD	C	B	C
M	1365	Phoca vitulina			c			i	P	G	C	B	C
M	1351	Phocoena phocoena			c			i	C	G	C	B	C
M	1351	Phocoena phocoena			p			i	C	G	C	B	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles

S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N01	Marine areas, Sea inlets	100
	Total Habitat Cover	100

Other Site Characteristics

Cette zone est caractérisée par de très forts courants et de grandes profondeurs. Les fonds sont constitués essentiellement de sédiments grossiers, graviers et cailloutis, recouvrant environ 70% du site, notamment au large. Des affleurements rocheux associés à ces éléments grossiers apparaissent parfois sur ces zones. Les fonds sableux, présents au sud et au nord-est, relativement proches de la côte, représentent environ 17% des fonds, et se partagent entre les sables fins (2.5%), les sables moyens (10%) et les sables grossiers (4.5%). Enfin, un platier rocheux recouvre environ 13% du site, notamment au niveau du cap Gris-Nez, au centre du site. S'agissant d'un site proche de la côte, un certain nombre d'activités anthropiques s'y exercent (pêche professionnelle et de loisirs, transport maritime, sports nautiques) qu'il conviendra d'identifier plus finement dès la phase de gestion. Leurs effets sur la conservation des habitats et des espèces d'intérêt communautaire, qu'ils soient positifs, négatifs ou neutres, restent à apprécier par l'amélioration des connaissances dans le cadre de l'élaboration puis de la mise en oeuvre du document d'objectifs du site ou de l'évaluation des incidences des éventuels projets à venir. De même, les moulières de Modiolus modiolus, aujourd'hui menacées (considérées en déclin par la convention OSPAR), possèdent une valeur écologique très importante et concourent à diversifier les peuplements benthiques en augmentant sensiblement le nombre de niches écologiques grâce à l'hétérogénéité du substrat. Leur préservation est fondamentale.

4.2 Quality and importance

Habitats : Cette zone comprend des récifs (roches de la zone photique avec algues, riches en laminaires), des prolongements rocheux en subtidal, des moulières à Modiolus sp (habitat considéré comme en déclin et/ou en danger par la convention OSPAR), des bancs de sables dunaires, et des champs de graviers et cailloutis plus ou moins ensablés riches en Ophiures caractéristiques de ce secteur de la façade (La richesse spécifique y est très forte : 56 espèces par m² en moyenne. La biomasse moyenne est de 320 g.m-2 et l'abondance moyenne de 1700 individus par m²). Mammifères marins : Il s'agit d'un site relativement important pour le Marsouin commun dont la fréquentation est régulière. La proximité d'une petite population de phoques installées sur l'estran vers Calais (phare de Walde) explique leur présence sur le site. Il a été émis comme hypothèse que cette zone était utilisée comme zone d'alimentation. Des études plus fines devraient le confirmer ou l'infirmer.

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts
No data

Positive Impacts
No data

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: Augris C. et al., 1995. Le Domaine marin côtier du Nord-Pas-de-Calais. Carte des formations superficielles. Echelle 1/100 000. IFREMER, Région Nord-Pas-de-Calais, USTL. CRMM, 1980-2005. Données d'échouage de Mammifères marins par commune entre 1980 et 2005. Centre de Recherche sur les Mammifères Marins (CRMM). Dewarumez J.M., 2008. Université de Lille 1. Station marine de Wimereux. Dires d'expert. Siblet J.-Ph. & Vaudin A.-C., 2007 : Justification des zonages Natura 2000 Mer. Rapport MNHN-SPN/MEDAD. 34 p. Voisin P., 2007. Synthèse des connaissances sur la distribution des mammifères marins en région Nord-Pas-de-Calais. Carte SHOM 7323G Carte de Sédimentologie (nature des fonds). Pas de Calais - De Boulogne-sur-Mer à Calais et de Dungeness à Dover au 1/74 300. Edition 2003.

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

No information provided

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Services de l'Etat sous l'autorité du Préfet maritime de la Manche et de la mer du Nord

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

- [ ] Yes
- [ ] No, but in preparation
- [x] No

6.3 Conservation measures (optional)

Un comité de pilotage mis en place par le Préfet maritime de la Manche et de la mer du Nord réunira l'ensemble des acteurs concernés par le site dont les organisations socio-professionnelles et de loisirs nautiques. Ce comité aura pour rôle de participer à la préparation du document d'objectifs qui devra définir les préconisations de gestion nécessaires à la préservation durable des milieux et espèces marins d'intérêt communautaire concernés. Après un diagnostic écologique du site et des différentes activités s'y exerçant, des mesures seront proposées au regard des enjeux de conservation durable des habitats et espèces d'intérêt communautaire ayant justifié la proposition du site Natura 2000. tout en tenant compte des exigences économiques, sociales et culturelles, ainsi que des particularités régionales ou locales. Pour ce faire, le comité de pilotage et l'opérateur local en charge de la rédaction du document d'objectifs pourront utilement s'appuyer sur les références technico-économiques pour les mesures de gestion des sites Natura 2000 en milieu marin concernant les activités de pêche, d'aquaculture et de plaisance (commande passée auprès de l'Agence des aires marines protégées). S'agissant des différentes activités, plans, programmes, travaux ou projets d'aménagement, ils pourront avoir lieu au sein ou à proximité du site pour autant qu'ils ne s'exonèrent pas des objectifs de conservation du site. S'ils sont susceptibles d'affecter le site de façon notable, individuellement ou en raison de leurs effets cumulés, ils devront faire l'objet d'une évaluation de leurs incidences sur les espèces d'intérêt communautaire ayant justifié le site. Dès lors, les porteurs de projets pourront s'appuyer sur les guides méthodologiques élaborés à l'échelon national : - guide pour l'évaluation des incidences des projets d'extraction de granulats marins sur les sites Natura 2000 (en cours) ; - guide sur l'évaluation des incidences des dragages des chenaux de navigation et des immersions sur l'état de conservation des sites Natura - GEODE / BCEOM, août 2007 - (volet calapge en site Natura 2000 marin en cours de rédaction) ; - guide sur l'étude d'impact des projets éoliens (volet mer en cours de rédaction) ; - guide sur l'évaluation des incidences des projets de création et d'extension de ports de plaisance et de sites de mouillages organisés (en cours). Au sein du site, les activités de défense exercées sont en particulier : - des missions opérationnelles de surveillance, de police, de défense ou de service public (sauvetage, assistance, lutte antipollution, etc.) par navires ou embarcations de la Marine nationale et de la gendarmerie maritime; - des missions de recherche et de neutralisation d'explosifs immergés en mer ou sur l'estran par navires, embarcations ou plongeurs de la Marine nationale; - des missions opérationnelles et des patrouilles de surveillance, de police, de défense ou de service public par aéronefs militaires sans restriction d'altitude; - des exercices et entraînements de navires de la Marine nationale ou de la gendarmerie maritime; - des exercices et entraînements d'aéronefs militaires (hélicoptères sans restriction d'altitude, avions 100 pieds mer minimum); - des exercices et entraînements de plongeurs et de commandos de la Marine nationale (entraînements nautiques, aériens et terrestres). Plus généralement, les espaces marins inclus dans le périmètre du site sont mobilisés pour assurer la protection du territoire national, y compris à un niveau stratégique. La pérennisation de l'ensemble des activités et des missions précitées (activités de défense, d'assistance et de sauvetage, de prévention et de lutte contre la pollution et de police en mer) ne devra pas être remise en cause par la désignation du site.

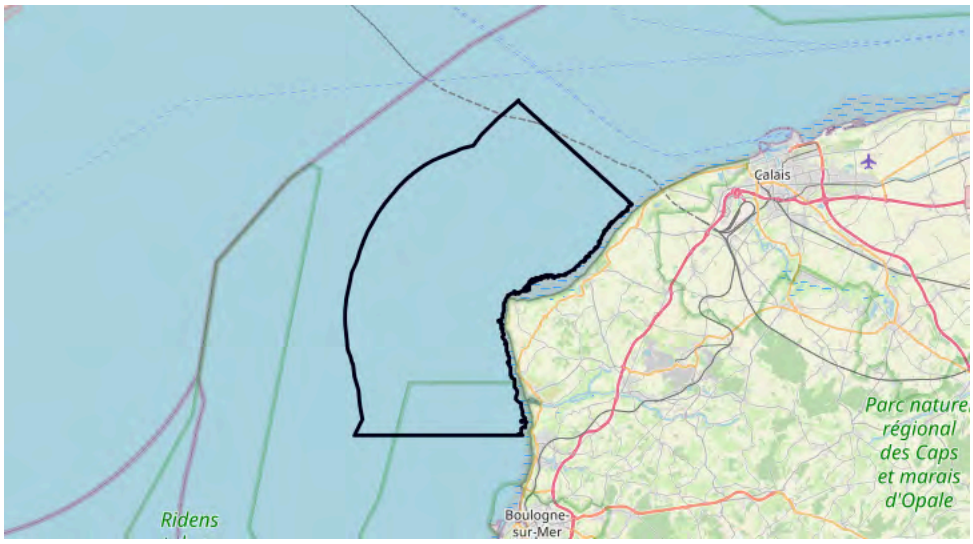
7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Ridens et dunes hydrauliques du détroit du Pas-de-Calais (FR3102004 - SCI)

Table of contents

1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

FR3102004

1.3 Site Name

Ridens et dunes hydrauliques du détroit du Pas-de-Calais

1.4 First Compilation date

No information provided

1.5 Update date

No information provided

1.6 Respondent

Name/Organisation: Ministère de la Transition écologique - DGALN/DEB/SDET/ET5

Address: No information provided

Email: en3.en.deb.dgaln@developpement-durable.gouv.fr

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: No information provided

Date site confirmed as SCI: 2011-11

Date site designated as SAC: No information provided

National legal reference of SAC designation: https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000032097269&dateTexte=

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 1.24861

Latitude: 50.66833

2.2 Area [ha]

68245

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
FR30	Nord - Pas-de-Calais

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types							Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			58690.7			A	B	B	B
1170	Reefs			682.45			C	C	B	C

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
M	1364	Halichoerus grypus			c			i	P		C	A	C
M	1365	Phoca vitulina			c			i	P		C	B	C
M	1351	Phocoena phocoena			w			i	P		C	B	C
M	1351	Phocoena phocoena			c			i	P		C	B	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has

to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N01	Marine areas, Sea inlets	100
	Total Habitat Cover	100

Other Site Characteristics

Deux systèmes différents caractérisent ce site : Dunes hydrauliques du détroit du Pas de Calais (Colbart, Vergoyer, Bassurelle) : Ces systèmes à forte dynamique (40 à 70 m par an) sont caractéristiques du détroit du Pas-de-Calais, elles comportent un nombre restreint d'espèces mais uniques en Manche et très inféodées à cet habitat. Ridens de Boulogne : Ce haut-fond rocheux partiellement ensablé à 15 milles marins environ de Boulogne-sur-Mer (forte dynamique sédimentaire) est le seul gisement de maërl de la façade maritime de la région Nord-Pas-de-Calais sur le versant nord-ouest. Constitué de roches de 2.5 à 3 m de hauteur et d'une profondeur de l'ordre de 15 à 20m. cette zone est un îlot de diversité dans le contexte Manche. Il s'agit de la zone la plus au large avec présence d'algues, en particulier de macroalgues. Sur ce site relativement éloigné de la côte, un certain nombre d'activités anthropiques s'y exercent (pêche professionnelle et de loisirs, transport maritime, sports nautiques) qu'il conviendra d'identifier plus finement dès la phase de gestion. Leurs effets sur la conservation des habitats et des espèces d'intérêt communautaire, qu'ils soient positifs, négatifs ou neutres, restent à apprécier par l'amélioration des connaissances dans le cadre de l'élaboration puis de la mise en oeuvre du document d'objectifs du site ou de l'évaluation des incidences des éventuels projets à venir. L'habitat "dunes hydrauliques" est lié à des conditions hydrodynamiques particulières. Les ridens présentent une diversité biologique relativement importante à l'échelle de la façade du Nord-Pas-de-Calais.

4.2 Quality and importance

Le site "Ridens et dunes hydrauliques du détroit du Pas-de-Calais" est principalement ciblé pour l'habitat d'intérêt communautaire "Bancs de sable à faible couverture permanente d'eau marine" (1110). Ces accumulations sous-marines de sables peuvent prendre l'aspect de véritables dunes, dites dunes hydrauliques, souvent composées de sables coquilliers, qui s'élèvent parfois jusqu'à 20 m au-dessus des fonds. Bien que relativement pauvres sur le plan biologique en terme de diversité, ces bancs de sables, particulièrement représentés dans le détroit du Pas-de-Calais, hébergent des espèces typiquement inféodées à ce type de formation. Ces espèces sont des annélides comme les ophélies, Ophelia borealis et O. celtica, la glycère Glycera lapidum ou encore Syllis hyalina. Ce sont aussi les crsutacés du genre Bathyporeia ou des échinodermes tels que la Fève de mer (Echinocyamus pusillus) et l'Ophiure blanche, Ophuria albida. D'autre part, le site présente, à une échelle plus réduite, un secteur particulier, constitué de roches et de sables graveleux. Il s'agit du secteur des Ridens de Boulogne, qui constitue une entité tout à fait particulière en Manche orientale. Il s'agit d'un haut-fond rocheux, le seul dans cette zone géographique. A cette structure géomorphologique remarquable s'ajoutent des conditions hydrologiques (salinité très stable et faible amplitude de variation de température) et hydrodynamiques particulières pour la région. Ce massif, selon l'observation des pêcheurs, des plongeurs et des scientifiques, s'ensable fortement (phénomène naturel qui a débuté dans les années 90). L'intérêt majeur de cet habitat réside dans la présence du faciès à maërl. Il s'agit du développement et de l'accumulation d'algues rouges calcaires corallinacées sur les fonds meubles infralittoraux. Ces algues, aux formes très découpées, forment un réseau complexe dans lequel une multitude d'organismes trouve abri et nourriture. On y trouve près de 10 espèces de macroalgues, plus de 40 espèces d'annélides et 40 espèces de mollusques ou de crustacés. La biodiversité de l'habitat créé par le maërl est proportionnelle à la complexité de sa structure, qui permet aux organismes de toutes tailles de circuler dans ses galeries, de se blottir dans ses cavités ou de creuser ce substrat meuble. En association avec cet habitat sableux, l'habitat rocheux sublittoral du secteur des Ridens de Boulogne est également ciblé comme habitat d'intérêt communautaire : "Récifs" (1170). Celui-ci offre une stratification variée de communautés algales et animales, en fonction de la profondeur et des conditions hydrodynamiques. De ce fait, il présente souvent une grande biodiversité et participe à la richesse du site. De part l'hétérogénéité sédimentaire du secteur (roches et sables), la richesse spécifique est importante (de 10 à 48 espèces), tout comme la densité (jusqu'à 1800 individus par m2). Par contre la biomasse n'est pas très élevée (jusqu'à 6 g par m2).

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts
No data

Positive Impacts
No data

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions

Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

Type	[%]
Public - National/Federal	38
Public - State/Province	0
Public - Local/Municipal	0
Public - Any Public	0
Joint or Co-Ownership	0
Private	0
Unknown	0
Total	38

4.5 Documentation (optional)

Documents: Augris C. et al., 1995. Le Domaine marin côtier du Nord-Pas-de-Calais. Carte des formations superfielles. Echelle 1/100 000. IFREMER, Région Nord-Pas-de-Calais, USTL. CRMM, 1980-2005. Données d'échouage de Mammifères marins par commune entre 1980 et 2005. Centre de Recherche sur les Mammifères Marins (CRMM). Dewarumez J.M., 2008. Université de Lille 1. Station marine de Wimereux. Dires d'expert. Grall J., 2003. Fiche de synthèse sur les biocénoses : les bancs de maërl, REBENT, 20 p. Siblet J.-Ph. & Vaudin A.-C., 2007 : Justification des zonages Natura 2000 Mer. Rapport MNHN-SPN/MEDAD. 34 p. Service Hydrographique et Océanographique de la Marine. Carte SHOM 7323 et 7323G Carte simple et carte de sédimentologie (nature des fonds). Pas de Calais - De Boulogne-sur-Mer à Calais et de Dungeness à Dover au 1/74 300. Edition 2002 et 2003. Voisin P., 2007. Synthèse des connaissances sur la distribution des mammifères marins en région Nord-Pas-de-Calais. Bensettiti F. & Gaudillat V. (coord.), 2002 : Habitats côtiers. Cahiers Habitats Natura 2000. T.2. La Documentation Française. 399 p. Justification des zonages Natura 2000 Mer. Rapport MNHN-SPN/MEDAD. 34 p."Bensettiti F. & Gaudillat V. (coord.), 2002 : Espèces animales. Cahiers Habitats Natura 2000. T.7. La Documentation Française. 353 p.

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

No information provided

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Services de l'Etat sous l'autorité du Préfet maritime de la Manche et de la mer du Nord

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

- [ ] Yes
- [ ] No, but in preparation
- [x] No

6.3 Conservation measures (optional)

Un comité de pilotage mis en place par le Préfet maritime de la Manche et de la mer du Nord réunira l'ensemble des acteurs concernés par le site dont les organisations socio-professionnelles et de loisirs nautiques. Ce comité aura pour rôle de participer à la préparation du document d'objectifs qui devra définir les préconisations de gestion nécessaires à la préservation durable des milieux et espèces marins d'intérêt communautaire concernés. Après un diagnostic écologique du site et des différentes activités s'y exerçant, des mesures seront proposées au regard des enjeux de conservation durable des habitats et espèces d'intérêt communautaire ayant justifié la proposition du site Natura 2000. tout en tenant compte des exigences économiques, sociales et culturelles, ainsi que des particularités régionales ou locales. Pour ce faire, le comité de pilotage et l'opérateur local en charge de la rédaction du document d'objectifs pourront utilement s'appuyer sur les références technico-

économiques pour les mesures de gestion des sites Natura 2000 en milieu marin concernant les activités de pêche, d'aquaculture et de plaisance (commande passée auprès de l'Agence des aires marines protégées). L'activité pêche est très importante sur ce site et devra faire l'objet d'attention particulière. S'agissant des différentes activités, plans, programmes, travaux ou projets d'aménagement, ils pourront avoir lieu au sein ou à proximité du site pour autant qu'ils ne s'exonèrent pas des objectifs de conservation du site. S'ils sont susceptibles d'affecter le site de façon notable, individuellement ou en raison de leurs effets cumulés, ils devront faire l'objet d'une évaluation de leurs incidences sur les espèces d'intérêt communautaire ayant justifié le site. Dès lors, les porteurs de projets pourront s'appuyer sur les guides méthodologiques élaborés à l'échelon national : - guide pour l'évaluation des incidences des projets d'extraction de granulats marins sur les sites Natura 2000 (en cours) ; - guide sur l'évaluation des incidences des dragages des chenaux de navigation et des immersions sur l'état de conservation des sites Natura - GEODE / BCEOM, août 2007 - (volet calapge en site Natura 2000 marin en cours de rédaction) ; - guide sur l'étude d'impact des projets éoliens (volet mer en cours de rédaction) ; - guide sur l'évaluation des incidences des projets de création et d'extension de ports de plaisance et de sites de mouillages organisés (en cours). Au sein du site, les activités de défense exercées sont en particulier : - des missions opérationnelles de surveillance, de police, de défense ou de service public (sauvetage, assistance, lutte antipollution, etc.) par navires ou embarcations de la Marine nationale et de la gendarmerie maritime; - des missions de recherche et de neutralisation d'explosifs immergés en mer ou sur l'estran par navires, embarcations ou plongeurs de la Marine nationale; - des missions opérationnelles et des patrouilles de surveillance, de police, de défense ou de service public par aéronefs militaires sans restriction d'altitude; - des exercices et entraînements de navires de la Marine nationale ou de la gendarmerie maritime; - des exercices et entraînements d'aéronefs militaires (hélicoptères sans restriction d'altitude, avions 100 pieds mer minimum); - des exercices et entraînements de plongeurs et de commandos de la Marine nationale (entraînements nautiques, aériens et terrestres). Plus généralement, les espaces marins inclus dans le périmètre du site sont mobilisés pour assurer la protection du territoire national, y compris à un niveau stratégique. La pérennisation de l'ensemble des activités et des missions précitées (activités de défense, d'assistance et de sauvetage, de prévention et de lutte contre la pollution et de police en mer) ne devra pas être remise en cause par la désignation du site.

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Unterelbe (DE2018331 - SCI)

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1. Site Identification

1.1 Type

B

1.2 Site Code

DE2018331

1.3 Site Name

Unterelbe

1.4 First Compilation date

2000-01

1.5 Update date

2020-07

1.6 Respondent

Name/Organisation: Niedersachsen: Landesbetrieb NLWKN

Address: Göttinger Chaussee 76A

Email: Poststelle@nlwkn-h.niedersachsen.de

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: 2005-01

Date site confirmed as SCI: 2007-11

Date site designated as SAC: 2018-12

National legal reference of SAC designation: §32 (2) BNatSchG i.V.m. §26 BNatSchG und §19 NAGBNatSchG, Verordnung über das Landschaftsschutzgebiet 'Kehdinger Marsch' vom 05.03.2018 (Landkreis Stade), Amtsblatt für den Landkreis Stade Nr. 11 v. 15.03.2018 S. 81 §32 (2) BNatSchG i.V.m. §23 BNatSchG und §16 NAGBNatSchG, Verordnung über das Naturschutzgebiet 'Hadelner und Belumer Außendeich' vom 26.04.2017 (Landkreis Cuxhaven, Landkreis Stade), Nds. Ministerialblatt Nr. 16 v. 26.04.2017 S. 505 §32 (2) BNatSchG i.V.m. §23 BNatSchG und §16 NAGBNatSchG, Verordnung über das Naturschutzgebiet 'Untere Oste' vom 07.06.2017 (Landkreis Cuxhaven, Landkreis Stade), Amtsblatt für den Landkreis Cuxhaven Nr. 42 v. 16.11.2017 S. 231 §32 (2) BNatSchG i.V.m. §23 BNatSchG und §16 NAGBNatSchG, Verordnung über das Naturschutzgebiet 'Asselersand' vom 10.12.2018 (Landkreis Stade), Amtsblatt für den Landkreis Stade Nr. 49 v. 13.12.2018 S. 406 §32 (2) BNatSchG i.V.m. §23 BNatSchG und §16 NAGBNatSchG, Verordnung über das Naturschutzgebiet 'Niedersächsischer Mündungstrichter der Elbe' vom 28.03.2018 (Niedersächsischer Landesbetrieb für Wasserwirtschaft, Küsten- und Naturschutz), Nds. Ministerialblatt Nr. 38 v. 21.11.2018 S. 1197 §32 (2) BNatSchG i.V.m. §23 BNatSchG und §16 NAGBNatSchG, Verordnung über das Naturschutzgebiet 'Elbe und Inseln' vom 10.12.2018 (Landkreis Stade), Amtsblatt für den Landkreis Stade Nr. 50 v. 20.12.2018 S. 458

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 9.4297

Latitude: 53.7269

2.2 Area [ha]

18774.75

2.3 Marine area [%]

72.71

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
DE93	Lüneburg

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types							Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1130	Estuaries			18660	0.00	G	A	B	C	A
1140	Mudflats and sandflats not covered by seawater at low tide			3045	0.00	G	B	B	B	B
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)			205	0.00	G	A	C	B	B
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation			6.2	0.00	G	B	C	B	C
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels			6.1	0.00	G	A	C	B	B

Annex I Habitat Types				Site Assessment						
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)			130	0.00	G	A	C	B	C
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)			91.5	0.00	G	B	C	B	C
91F0	Riparian mixed forests of Quercus robur, Ulmus laevis and Ulmus minor, Fraxinus excelsior or Fraxinus angustifolia, along the great rivers (Ulmenion minoris)			3.4	0.00	G	C	C	B	C

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site				Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
F	1103	Alosa fallax			p	0	0	i	R	DD	A	C
F	1130	Aspius aspius			c	0	0	i	V	DD	C	C
F	1113	Coregonus oxyrhynchus			c	0	0	i	P	DD	D	-
F	1099	Lampetra fluviatilis			c	16000	170000	i		G	A	B
F	1095	Petromyzon marinus			c	25	500	i		G	A	C
F	1106	Salmo salar			c	0	0	i	P	DD	B	C
M	1355	Lutra lutra			p	1	1	i		G	C	B

Species					Population in the site					Site Assessment		
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
M	1365	Phoca vitulina			p	51	100	i		-	C	B
M	1351	Phocoena phocoena			p	11	50	i		-	C	C
P	1601	Oenanthe conioides			p	188	188	i		G	A	B

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
P		Schoenoplectus pungens			0	0	i	P					

Group: A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
Code: For Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Motivation: Species Annex IV and Species Annex V: the species is listed under Annex IV or Annex V of the Habitats Directive. A = Species listed in the National Red List, B = Endemic species, C = Species listed under an Internation convention, D = Other reasons

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N10	Humid grassland, Mesophile grassland	3
N14	Improved grassland	14
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	83
	Total Habitat Cover	100

Other Site Characteristics

Außendeichsflächen im Ästuar der Elbe mit Flachwasserbereichen, vertiefter Fahrrinne, Brack- und Süßwasserwatten, feuchten Weidelgrasweiden, Salzwiesen, Röhrichten, artenreichen Mähwiesen, feuchten Hochstaudenfluren, insb. auf den Elbinseln mit Weiden-Auwaldfragmenten und Fließ- und Stillgewässerbiotopen. Ufer

häufig mit Steinen oder Buhnen befestigt. Bedeutend u.a. als Wanderkorridor für Finte, Fluss- und Meerneunauge sowie weiterer Fisch- und Säugetierarten wie Seehund und Schweinswal. Wichtiges Vorkommen des Schierlings-Wasserfenchel (Oenanthe conioides).

4.2 Quality and importance

Teil des bedeutendsten Ästuars an der deutschen Nordseeküste. Vorkommen mehrerer Anh. II-Arten (v.a. Schierlings-Wasserfenchel, Finte, Meerneunauge, Rapfen).

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	H01	X	i
H	I01		b
H	J02		i
H	J02.02		i
H	J02.12.02		b
L	A04.03		i
L	F02		b
L	G01		i
L	J02.05		i
L	J02.05.01		b
L	J02.12.01		b
L	J03.02		b
M	A04.01		i
M	B02.01.02		i
M	C01.02	X	i
M	D02	X	i
M	D03		b
M	F01		b
M	H01.03	X	i
M	H01.05	X	b
M	J02.05.02		i
M	J02.12		i
M	K02.01		i

Positive Impacts
No data

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: FFH-Basiserfassung LAVES, Binnenfischerei; Daten zur Fischfauna in Niedersachsen; unveröff. NLWKN, Pflanzenarten-Erfassungsprogramm NLWKN, Tierarten-Erfassungsprogramm Stede, Michael (2008); Wattenjagdaufsicht beim Lk Cuxhaven, schriftliche Mitteilung

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
DE07	0.5
DE01	0
DE02	29.27
IN00	0

5.2 Relation of the described site with other sites (optional)

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	DE02	Außendeich Nordkehdingen II	+	3.47
National or regional	ramsar	Niederelbe zwischen Stade und Otterndorf	*	0
National or regional	DE01	Nationalpark Niedersächsisches Wattenmeer	/	0
National or regional	DE02	Außendeich Nordkehdingen I	+	4.29
National or regional	DE02	Ostemündung	+	0.79
National or regional	DE02	Hadelner und Belumer Außendeich	+	6.61
National or regional	DE07	Lühesand	*	0.5
National or regional	DE02	Borsteler Binnenelbe und Großes Brack	+	0.32
National or regional	DE02	Asselersand	+	3.29
National or regional	DE02	Schwarztonnensand	+	3.11
National or regional	DE02	Allwördener Außendeich/Brammersand	+	3.29
National or regional	DE02	Hahnöfer Sand	+	0.58
National or regional	DE02	Neßsand	+	0.89
National or regional	DE02	Schnook, Außendeichfladen bei Geversdorf	*	0.31

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	DE02	Vogelschutzgebiet Hullen	+	2.32

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: LK Stade

Address: No information provided

Email: No information provided

Organisation: Niedersachsen: Landesbetrieb NLWKN

Address: No information provided

Email: Poststelle@nlwkn-h.niedersachsen.de

Organisation: LK Cuxhaven

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

- [ ] Yes
- [ ] No, but in preparation
- [x] No

6.3 Conservation measures (optional)

No information provided

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Baie de Canche et couloir des trois estuaires (FR3102005 - SCI)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

FR3102005

1.3 Site Name

Baie de Canche et couloir des trois estuaires

1.4 First Compilation date

No information provided

1.5 Update date

No information provided

1.6 Respondent

Name/Organisation: Ministère de la Transition écologique - DGALN/DEB/SDET/ET5

Address: No information provided

Email: en3.en.deb.dgaln@developpement-durable.gouv.fr

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: No information provided

Date site confirmed as SCI: 2009-12

Date site designated as SAC: No information provided

National legal reference of SAC designation: http://legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000030732258

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 1.48833

Latitude: 50.34611

2.2 Area [ha]

33306

2.3 Marine area [%]

99.86

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
FR30	Nord - Pas-de-Calais

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types						Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			29309.28		P	A	B	B	B
1130	Estuaries			666.12		P	A	C	B	B
1140	Mudflats and sandflats not covered by seawater at low tide			2664.48		P	A	C	B	B
1210	Annual vegetation of drift lines			33.31		P	D			
1310	Salicornia and other annuals colonizing mud and sand			0.1		P	C	C	C	C
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)			0.1		P	C	C	C	C

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A $\geq$ 15%, B = 2-15%, C $\leq$ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
F	1102	Alosa alosa			c			i	P	P	D		
F	1099	Lampetra fluviatilis			c			i	P	P	D		
F	1095	Petromyzon marinus			c			i	P	P	D		
F	1106	Salmo salar			c			i	P	P	D		
M	1364	Halichoerus grypus			w	50	60	i	P	P	B	A	C
M	1364	Halichoerus grypus			c			i	C	P	B	A	C
M	1365	Phoca vitulina			c			i	C	P	A	B	C
M	1365	Phoca vitulina			w	100	175	i	P	P	A	B	C
M	1351	Phocoena phocoena			w			i	P	P	C	B	C
M	1351	Phocoena phocoena			c			i	P	P	C	B	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

No information provided

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	2
N01	Marine areas, Sea inlets	98
	Total Habitat Cover	100

Other Site Characteristics

Situé au large de la côte sableuse picarde et du sud du Pas-de-Calais, le site "Baie de Canche et couloir des trois estuaires", d'une surface d'environ 330 km2. permet de compléter le réseau Natura 2000 existant qui couvre d'ores et déjà la baie de Somme, une partie de la baie d'Authie et de la baie de Canche, et les massifs dunaires du littoral. Le site s'appuie sur les sites Natura 2000 existants : FR 3110038 "Estuaire de la Canche", FR2200346 "Estuaires et littoral picards", FR3100482 "Estuaire, dunes de l'Authie, mollières de Berck et prairies humides arrière-littorales", FR3100481 "Dunes et marais arrière-littoraux de la plaine maritime picarde" FR3100480 "Estuaire de la Canche, dunes picardes plaquées sur l'ancienne falaise, forêt d'Hardelot et falaise d'Equihen", auxquels il faut ajouter les sites sur le département de la Somme. Hors zones en contact avec ces sites, le site "Baie de Canche et couloir des trois estuaires" s'appuie sur le trait de côte, afin de couvrir la totalité des espaces découvrants (estran) du secteur, et s'étend jusqu'à la limite des 3 milles nautiques. Au sud, le site est limité par un segment à peu près perpendiculaire à la côte, au niveau du phare d'Ault. Au nord, le site s'étend jusqu'au parallèle 50°35'N, au niveau du village de Sainte-Cécile, sur la commune de Camiers (coordonnées géographiques en WGS 84). Ce site se caractérise par un complexe d'estuaires et d'estrans vaseux en connexion écologique. Ce complexe est majeur à l'échelle de la façade. Il joue un rôle essentiel de nourricerie de poissons et pour les poissons amphihalins, constituant la limite amont des niches écologiques en estuaires. S'agissant d'un site proche de la côte, un certain nombre d'activités anthropiques s'y exercent (pêche professionnelle et de loisirs, sports nautiques…) qu'il conviendra d'identifier plus finement dès la phase de gestion. Leurs effets sur la conservation des habitats et des espèces d'intérêt communautaire, qu'ils soient positifs, négatifs ou neutres, restent à apprécier par l'amélioration des connaissances dans le cadre de l'élaboration puis de la mise en œuvre du document d'objectifs du site ou de l'évaluation des incidences des éventuels projets à venir. Les conditions de maintien sur le site des mammifères marins (alimentation, zones de mise bas, de mue et de repos) devront être spécialement étudiées. Une forte pression touristique et urbaine est aussi à prendre en compte.

4.2 Quality and importance

Le site "Baie de Canche et couloir des trois estuaires" est principalement ciblé pour les habitats d'intérêt communautaire "Bancs de sable à faible couverture permanente d'eau marine" (1110), "Estrans sableux et/ou vasières exondés à marée basse" (1140) et "Estuaires" (1130). Ce site se caractérise par un complexe d'estuaires et d'estrans vaseux en connexion écologique. Ce complexe est majeur à l'échelle de la façade. Il joue un rôle essentiel de nourricerie de poissons et constitue, pour les poissons amphihalins, la limite amont des niches écologiques en estuaire. Les estuaires concernés présentent l'ensemble des habitats atlantiques caractéristiques de la slikke et du shorre, soit plus d'une vingtaine de groupements, dont certains très remarquables et fragiles, liés aux contacts des dunes et prés salés et dépendants des degrés de salinité. La morphologie de ces estuaires est très caractéristique et originale avec leurs systèmes de poulier et musoir (le poulier est un cordon littoral formé par l'action des courants, qui l'engraissent par l'apport de sédiments. Il se forme en bordure d'une baie ou d'un estuaire qu'il tend à fermer. La rive opposée, le musoir, est surcreusée par ces mêmes courants et l'action des vagues). En particulier le musoir sur la rive nord de la Canche est le seul indemne de tout endiguement et altération notable, et constitue un site exceptionnel avec son système complexe de contre poulier du Pli de Camiers. Le site se justifie également par la présence de trois espèces de mammifères marins d'intérêt communautaire qui fréquentent régulièrement ce secteur, comme le Phoque veau-marin (Phoca vitulina - 1365) , sédentaire et reproducteur en baie de Somme, le Phoque gris (Halichoerus grypus - 1364) présent hors période de reproduction et le Marsouin commun (Phocoena phocoena - 1351) , dont la fréquentation est moins bien connue. Le Phoque veau-marin affectionne principalement les estuaires sablonneux abrités pouvant lui apporter un rythme de vie en fonction des marées. La baie de Somme constitue l'un des trois sites majeurs en France où le Phoque veau-marin se reproduit (avec la baie du Mont-Saint-Michel et la baie des Veys). On estime la population sédentaire de la Baie de Somme à environ 100 individus avec un maximum de 175 individus en période de reproduction. Les phoques utilisent le périmètre proposé en site Natura 2000 comme zone de déplacement et de pêche. Dans la baie d'Authie, les Phoques veaux-marins sont présents principalement à marée haute et il est donc probable que la baie d'Authie serve de zone de chasse à des individus qui se reposent en baie de Somme. L'effectif maximum observé en baie d'Authie en 2007 est de 12 Phoques veaux-marins. Le Phoque veau marin est de plus en plus présent en baie de Canche. Le Phoque gris se retrouve généralement sur les côtes rocheuses, mais il est présent régulièrement en baie de Somme entre mars et octobre, avec un effectif maximum de 52 individus. Il est aussi observé en moindre proportion en baie d'Authie (le maximum étant de 4 individus observés en 2007). Les individus présents en baies de Somme et d'Authie peuvent également utiliser la bande côtière comme zone de déplacement et de pêche. Le Marsouin commun se trouve principalement sur le plateau continental, avec une préférence pour les zones de haut-fond. Compte tenu des difficultés à observer cet animal, la principale source de données utilisées sont les données échouages dont le nombre est en progression sur les deux dernières années. Il s'agit d'un site majeur, à l'échelle nationale, de passage des marsouins. Espèce ciblée par Natura 2000 et la convention OSPAR, la France a une responsabilité forte pour cette espèce, dans le maintien de son aire de répartition.

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
L	C01.01		i
L	D03.02		i
L	F01		i
L	F02.01.02		i
L	F02.02		i
L	F02.03		i
L	G01.01		i
L	J02.02		i
L	L07		i

Positive Impacts
No data

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

Type	[%]
Public - National/Federal	100
Public - State/Province	0
Public - Local/Municipal	0
Public - Any Public	0
Joint or Co-Ownership	0
Private	0
Unknown	0
Total	100

4.5 Documentation (optional)

Documents: Augris C. et al., 1995. Le Domaine marin côtier du Nord-Pas-de-Calais. Carte des formations superfielles. Echelle 1/100 000. IFREMER, Région Nord-Pas-de-Calais, USTL. CRMM, 1980-2005. Données d'échouage de Mammifères marins par commune entre 1980 et 2005. Centre de Recherche sur les Mammifères Marins (CRMM). Dewarumez J.M., 2008. Université de Lille 1. Station marine de Wimereux. Dires d'expert. Duhamel F., 1996. Recensement des sites susceptibles d'être retenus dans le cadre de la Directive Habitats Faune Flore. Siblet J.-Ph & Vaudin A.-C., 2007 : Justification des zonages Natura 2000 Mer. Rapport MNHN-SPN/MEDAD. 34p. Service Hydrographique et Océanographique de la Marine. Carte SHOM 7416 et 7416 G. Carte simple et carte de sédimentologie (nature des fonds). Abords Sud de Boulogne-sur-Mer - Du Tréport à Boulogne-sur-Mer au 1/75 000. Edition 2006. Picardie Nature. Observations de mammifères marins. Voisin P., 2007. Synthèse des connaissances sur la distribution des mammifères marins en région Nord-Pas-de-Calais. Bensettiti F. & Gaudillat V. (coord.), 2002 : Habitats côtiers. Cahiers Habitats Natura 2000. T.2 La Documentation Française. 399 p. Justification des zonages Natura 2000 Mer. Rapport MNHN-SPN/MEDAD. 34 p. Bensettiti F. & Gaudillat V. (coord.), 2002 : Espèces animales. Cahiers Habitats Natura 2000. T.7. La Documentation Française. 353 p.

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

No information provided

5.2 Relation of the described site with other sites (optional)

No information provided

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Parc Naturel Marin des Estuaires Picards et de la mer d'Opale

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

☑ Yes

Name: No information provided

Link: http://www.aires-marines.fr/L-Agence/Organisation/Parcs-naturels-marins/Parc-naturel-marin-des-estuaires-picards-et-de-la-mer-d-Opale

- [ ] No, but in preparation
- [ ] No

6.3 Conservation measures (optional)

Un comité de pilotage mis en place par le Préfet du Pas-de-Calais, le Préfet de la Somme et le Préfet maritime de la Manche et de la mer du Nord réunira l'ensemble des acteurs concernés par le site dont les organisations socio-professionnelles et de loisirs nautiques. Ce comité aura pour rôle de participer à la préparation du document d'objectifs qui devra définir les préconisations de gestion nécessaires à la préservation durable des milieux et espèces marins d'intérêt communautaire concernés. Après un diagnostic écologique du site et des différentes activités s'y exerçant, des mesures seront proposées au regard des enjeux de conservation durable des habitats et espèces d'intérêt communautaire ayant justifié la proposition du site Natura 2000. tout en tenant compte des exigences économiques, sociales et culturelles, ainsi que des particularités régionales ou locales. Pour ce faire, le comité de pilotage et l'opérateur local en charge de la rédaction du document d'objectifs pourront utilement s'appuyer sur les références technico-économiques pour les mesures de gestion des sites Natura 2000 en milieu marin concernant les activités de pêche, d'aquaculture et de plaisance (commande passée auprès de l'Agence des aires marines protégées). Ce site borde une zone littorale à fort attrait touristique. La pression urbaine qui s'exerce incite au développement de nombreux projets d'aménagements et d'activités diverses de loisir. S'agissant des plans, programmes, travaux ou projets d'aménagement, ils pourront avoir lieu au sein ou à proximité du site pour autant qu'ils ne s'exonèrent pas des objectifs de conservation du site. S'ils sont susceptibles d'affecter le site de façon notable, individuellement ou en raison de leurs effets cumulés, ils devront faire l'objet d'une évaluation de leurs incidences sur les espèces d'intérêt communautaire ayant justifié le site. Dès lors, les porteurs de projets pourront s'appuyer sur les guides méthodologiques élaborés à l'échelon national : - guide pour l'évaluation des incidences des projets d'extraction de granulats marins sur les sites Natura 2000 (en cours) ; - guide sur l'évaluation des incidences des dragages des chenaux de navigation et des immersions sur l'état de conservation des sites Natura - GEODE / BCEOM, août 2007 - (volet calapge en site Natura 2000 marin en cours de rédaction) ; - guide sur l'étude d'impact des projets éoliens (volet mer en cours de rédaction) ; - guide sur l'évaluation des incidences des projets de création et d'extension de ports de plaisance et de sites de mouillages organisés (en cours). Au sein du site, les activités de défense exercées sont en particulier : - des missions opérationnelles de surveillance, de police, de défense ou de service public (sauvetage, assistance, lutte antipollution, etc.) par navires ou embarcations de la Marine nationale et de la gendarmerie maritime; - des missions de recherche et de neutralisation d'explosifs immergés en mer ou sur l'estran par navires, embarcations ou plongeurs de la Marine nationale; - des missions opérationnelles et des patrouilles de surveillance, de police, de défense ou de service public par aéronefs militaires sans restriction d'altitude; - des exercices et entraînements de navires de la Marine nationale ou de la gendarmerie maritime; - des exercices et entraînements d'aéronefs militaires (hélicoptères sans restriction d'altitude, avions à 500 pieds terre et 100 pieds mer minimum); - des exercices et entraînements de plongeurs et de commandos de la Marine nationale (entraînements nautiques, aériens et terrestres). Plus généralement, les espaces marins inclus dans le périmètre du site sont mobilisés pour assurer la protection du territoire national, y compris à un niveau stratégique. La pérennisation de l'ensemble des activités et des missions précitées (activités de défense, d'assistance et de sauvetage, de prévention et de lutte contre la pollution et de police en mer) ne devra pas être remise en cause par la désignation du site.

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Borkum-Riffgrund (DE2104301 - SCI)

Table of contents

1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

DE2104301

1.3 Site Name

Borkum-Riffgrund

1.4 First Compilation date

2004-04

1.5 Update date

2020-07

1.6 Respondent

Name/Organisation: Bundesamt für Naturschutz

Address: Insel Vilm

Email: II3-Abteilung-Vilm@bfn.de

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: 2004-05

Date site confirmed as SCI: 2007-11

Date site designated as SAC: 2017-09

National legal reference of SAC designation: Verordnung über die Festsetzung des Naturschutzgebietes 'Borkum Riffgrund' vom 22. September 2017 (BGBl. I S.3395)
Link: https://www.gesetze-im-internet.de/nsgbrgv/

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 6.3831

Latitude: 53.8706

2.2 Area [ha]

62500

2.3 Marine area [%]

100

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
DEZZ	Extra-Regio NUTS 2

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types							Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			52104	0.00	G	A	B	C	A
1170	Reefs			2276	0.00	M	B	C	B	A

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment			
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	
B	A002	Gavia arctica			w	6	10	i		G	C	B	C

Species					Population in the site					Site Assessment		
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
B	A001	Gavia stellata			w	11	50	i		G	C	B
B	A862	Hydrocoloeus minutus			w	101	250	i		G	B	B
B	A182	Larus canus			w	251	500	i		G	C	C
B	A183	Larus fuscus			c	1001	10000	i		G	B	C
B	A187	Larus marinus			w	1001	10000	i		G	B	C
B	A016	Morus bassanus			w	51	100	i		G	B	B
B	A188	Rissa tridactyla			w	501	1000	i		G	B	B
B	A193	Sterna hirundo			c	6	10	i		G	C	B
B	A194	Sterna paradisaea			c	1	5	i		G	C	B
B	A863	Thalasseus sandvicensis			c	51	100	i		G	C	B
B	A199	Uria aalge			w	1001	10000	i		G	B	C
F	1103	Alosa fallax			p	0	0	i	P	DD	C	B
M	1364	Halichoerus grypus			p	0	5	i		P	C	B
M	1365	Phoca vitulina			p	11	50	i		P	C	B
M	1351	Phocoena phocoena			p	251	500	i		G	C	B

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
F		Amblyraja radiata			0	0		P					
F		Ammodytes marinus			0	0		P					
F	5543	Ammodytes tobianus			0	0		P					
F		Ctenolabrus rupestris			0	0		P					
F	5634	Echiichthys vipera			0	0		P			x		
F		Gadus morhua			0	0		P					
F		Hyperoplus lanceolatus			0	0		P					
F		Liparis liparis			0	0		P					
F		Myoxocephalus scorpius			0	0		P					
F	5790	Pleuronectes platessa			0	0		P					
F		Scyliorhinus canicula			0	0		P					
I		Abra alba			0	0		P					
I		Abra nitida			0	0		P					
I		Alcyonium digitatum			0	0		P					
I		Alcyonium glomeratum			0	0		P					
I		Amphictene auricoma			0	0		P					
I		Amphiura filiformis			0	0		P					
I		Aonides paucibranchiata			0	0		P					
I		Arctica islandica			0	0		P					
I		Ascidiella scabra			0	0		P					
I		Asterias rubens			0	0		P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
I		Bathyporeia elegans			0	0		P					
I		Bathyporeia guilliamsoniana			0	0		P					
I		Branchiostoma lanceolatum			0	0		P					
I		Buccinum undatum			0	0		P			x		
I		Callianassa subterranea			0	0		P					
I		Cancer pagurus			0	0		P					
I		Ciona intestinalis			0	0		P					
I		Diastylis bradyi			0	0		P					
I		Echinocardium cordatum			0	0		P					
I		Echinocyamus pusillus			0	0		P			x		
I		Echinus esculentus			0	0		P			x		
I		Echiurus echiurus			0	0		P					
I		Electra pilosa			0	0		P					
I		Ensis ensis			0	0		P			x		
I		Ensis magnus			0	0		P					
I		Eunereis longissima			0	0		P					
I		Flustra foliacea			0	0		P					
I		Galathea intermedia			0	0		P					
I		Gastrosaccus spinifer			0	0		P					
I		Glycera lapidum			0	0		P					
I		Goniadella bobretzkii			0	0		P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
I		Goodallia triangularis			0	0		P					
I		Halichondria panicea			0	0		P					
I		Lanice conchilega			0	0		P					
I		Liocarcinus holsatus			0	0		P					
I		Liocarcinus pusillus			0	0		P			x		
I		Mactra stultorum			0	0		P					
I		Magelona johnstoni			0	0		P					
I		Magelona mirabilis			0	0		P					
I		Metridium dianthus			0	0		P			x		
I		Modiolus modiolus			0	0		P					
I		Molgula oculata			0	0		P					
I		Mya truncata			0	0		P					
I		Nephtys caeca			0	0		P					
I		Nephtys hombergii			0	0		P					
I		Nephtys longosetosa			0	0		P					
I		Nucula nitidosa			0	0		P					
I		Ophelia borealis			0	0		P					
I		Ophiothrix fragilis			0	0		P					
I		Ophiura albida			0	0		P					
I		Ophiura ophiura			0	0		P					
I		Orbinia sertulata			0	0		P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
I		Owenia fusiformis			0	0		P					
I		Phaxas pellucidus			0	0		P			x		
I		Pisione remota			0	0		P					
I		Poecilochaetus serpens			0	0		P					
I		Polycirrus medusa			0	0		P					
I		Polygordius appendiculatus			0	0		P					
I		Processa modica			0	0		P					
I		Protodorvillea kefersteini			0	0		P					
I		Scolelepis bonnieri			0	0		P					
I		Scoloplos armiger			0	0		P					
I		Sertularia cupressina			0	0		P			x		
I		Spatangus purpureus			0	0		P					
I		Spio goniocephala			0	0		P					
I		Spio symphyta			0	0		P					
I		Spiophanes bombyx			0	0		P					
I		Spirobranchus triqueter			0	0		P					
I		Spisula elliptica			0	0		P			x		
I		Spisula solida			0	0		P			x		
I		Tellimya ferruginosa			0	0		P					
I		Tellina donacina			0	0		P					
I		Tellina fabula			0	0		P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
I		Tellina tenuis			0	0		P					
I		Thia scutellata			0	0		P			x		
I		Thracia papyracea			0	0		P					
I		Thracia villosiuscula			0	0		P					
I		Travisia forbesii			0	0		P			x		
I		Upogebia deltaura			0	0		P					
I		Urothoe poseidonis			0	0		P					

Group: A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
Code: For Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Motivation: Species Annex IV and Species Annex V: the species is listed under Annex IV or Annex V of the Habitats Directive. A = Species listed in the National Red List, B = Endemic species, C = Species listed under an Internation convention, D = Other reasons

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N01	Marine areas, Sea inlets	100
	Total Habitat Cover	100

Other Site Characteristics

Gebiet umfasst Großteil einer Sandbank (LRT 1110) mit riffartigen Teilbereichen (LRT 1170) u. hoher Habitat- u. Strukturvielfalt, LRT hervorgegangen aus einer weitgehend eingeebneten Moräne d. Saale-Kaltzeit.

4.2 Quality and importance

Repräsentive Sandbank mit gut erhaltenen Strukturen u. Funktionen. Repräsentative u. gut erhaltene Steinriffe auf Moränenrücken. Wahrscheinl. wichtiges Habitat d.stark gefährdeten Schweinswal-Teilpopulation der südl. Nordsee. Die Vorkommen des Biotoptyps artenreiche Kies-, Grobsand- und Schillgründe (KGS) nehmen insgesamt ca. 189 km² und damit 30,2 % der Schutzgebietsfläche ein. Die KGS-Vorkommen liegen im Gebiet innerhalb des LRT 1170 und in seiner Umgebung, stellenweise aber auch im Bereich des LRT 1110. Sie stellen für andere KGS-Vorkommen in der deutschen AWZ der Nordsee einen Ausgangspunkt zur Wiederbesiedlung nach Störungen dar und besitzen aufgrund ihrer weiten Verbreitung eine „Trittsteinfunktion“ für die für diesen Biotoptyp charakteristischen Arten. Für LRT repräsent. u. charakterist. benthische Lebensgemeinschaften. Hohe Diversität d. Benthos (breite Nahrungsgrundl. f. Seevögel u. Fische), viele RL-Arten. Rückzugs-u. Regenerationsgebiet f. benth. Lebensgemeinschaften. Wichtiger Lebensraum f. Fische (Anh.II FFH-RL) u. Seevögel.

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	C03.03		o

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	D03.02		i
H	F02.02.01		i
H	H03.03		o
H	H06.01		b
L	D02		i
L	F02.01.01		i
L	F02.02.03		i
L	G04.01		b
L	J03.04		b
M	C02		b
M	F02.01.02		i
M	G05		i
M	H03		b
M	H04		b

Positive Impacts

No data

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: ARGUMENT GmbH (2002); Abgrenzung von Sandbänken als FFH-Vorschlagsgebiete; Zwischenbericht. Studie im Auftrage des BfN; 1-34 Adelung, D., R.P. Wilson & N. Liebsch (2002); Telemetrische Unters. z. räumlichen u. zeitlichen Nutzung d. Schleswig-Holsteinischen Wattenmeeres u. d. angrenzenden Seegebietes d. Seehunde (Phoca vitulina vitulina); Zwischenbericht. Studie im Auftrage des BMU; 1-18 Anatec / Germanischer Lloyd (2000/2002); Karte - Shipping Densities within the North Sea (All vessels) BEERMANN J, HOLSTEIN J, DANNHEIM J, HEYER K (2017); Zoobenthische Datenanalyse zu Status und Belastungen der Benthosgemeinschaften in der Deutschen Buch. Endbericht im Auftrag des NLWKN ud LLUR; 145 Bairlein, F., Dierschke, J., Dierschke, V., Salewski, V., Geiter, O. (2014); Atlas des Vogelzugs. Ringfunde deutscher Brut- und Gastvögel. ; Aula; Wiebelsheim Bellebaum, J., Diederichs, A., Kube, J., Schulz, A. & Nehls, G. (2006); Flucht- und Meidedistanzen überwinternder Seetaucher und Meeresenten gegen-über Schiffen auf See. ; Ornithologischer Rundbrief für Mecklenburg-Vorpommern ; 45, Son; 86-90 BfN (Hrsg.) (2017); Die Meeresschutzgebiete in der deutschen ausschließlichen Wirtschaftszone der Nordsee - Beschreibung und Zustandsbewertung -; BfN-Skripten 477; 487 Bundesamt für Naturschutz (Hrsg.) (2017); Die Meeresschutzgebiete in der deutschen ausschließlichen Wirtschaftszone der Nordsee - Beschreibung und Zustandsbewertung - ; BfN-Skripten; 477; 486 S. Corman, A.-M. & Garthe, S (2014); What flight heights tell us about foraging and potential conflicts with wind farms: a case study in Lesser Black-backed Gulls (Larus fuscus). ; Journal of Ornithology ; 155; 1037-1043 Corman, A.-M., Mendel, B., Voigt, C. C. & Garthe, S (2016); Varying foraging patterns in response to competition? A multicolony approach in a generalist seabird.; Ecology and Evolution; 6; 974-986 DHI (1981); Karte der Sedimentverteilung in der Deutschen Bucht 1:250.000 (Geologische Bearbeitung K. Figge); Deutsches Hydrographisches Institut Hamburg Darr, A., Beisiegel, K., Zettler, A., Zettler, M., Gutow, L. et al. (2018); Erfassung, Bewertung und Kartierung benthischer Arten und Biotope (AWZ-P4, Benthos) - Abschlussbericht des IOW, des AWI und der BioConsult Schuchardt & Scholle GbR im Auftrag des BfN; 165 Darr, A., Beisiegel, K., Zettler, M. L., Ebbe, B. & Gutow, L. (2016); Monitoringbericht: Zustand der benthischen Biotope und Lebensräume in der dt. AWZ von Nord- und Ostsee. Untersuchungsj. 2015 Stand: 31.08.2016. ; www.io-warnemünde.de Darr, A., Zettler, M. L., Ebbe, B. & Gutow, L. (2014); Monitoringbericht: Zustand benthischer Arten und Biotope in der deutschen Ausschließlichen Wirtschaftszone von Nord- und Ostsee. Untersuchungsjahr 2013. ; 86; www.io-warnemuende.de Dierschke, J., Dierschke, V., Hüppop, K., Hüppop, O. & Jachmann, K. (2011); Die Vogelwelt der Insel Helgoland. ; OAG Helgoland; Helgoland Dierschke, V., Exo, K.-M., Mendel, B. & Garthe, S. (2012); Gefährdung von Sterntaucher Gavia stellata und Prachttaucher G. arctica in Brut-, Zug- und Überwinterungsgebieten - eine Übersicht mit

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(; Possible impacts of offshore wind farms on seabirds: a pilot study in Northern Gannets in the southern North Sea. ; Journal of Ornithology ; 158; 345-349 Garthe, S., Schwemmer, H., Markones, N., Müller, S. & Schwemmer, P. (2015); Verbreitung, Jahresdynamik und Bestandsentwicklung der Seetaucher Gavia spec. in der Deutschen Bucht (Nordsee). ; Vogelwarte; 53; 121-138 Gedeon, K., Grüneberg, C., Mitschke, A., Sudfeldt, C., Eikhorst, W., (2014); Atlas Deutscher Brutvogelarten. ; Stiftung Vogelmonitoring Deutschland; Münster Gilles, A., Peschko, V., Scheidat, M., Siebert U. (2012); Survey for small cetaceans over the Dogger Bank and adjacent areas in summer 2011; 19th ASCOBANS Advisory Committee Meeting AC19/Doc.5-08; 13; Galway, Ireland. Gilles, A., Peschko, V., U. Siebert, U. Gallus, A., Hansen, u.a. (2011); Monitoringbericht 2010-2011. Marine Säugetiere und Seevögel in der deutschen AWZ von Nord- und Ostsee; Monitoringbericht. Studie des ITAW & DMM i. A. des BfN; 138 Gilles, A., Viquerat, S., Siebert, U., Gallus, A. & Benke, H. (2014); Monitoring von marinen Säugetieren 2013 in der deutschen Nord- und Ostsee; Monitoringbericht. Studie des ITAW & DMM i. A. des BfN; 71 Grüneberg, C., Bauer, H.-G., Haupt, H., Hüppop, O., Ryslavy, T. & Sü (2015); Rote Liste der Brutvögel Deutschlands, 5. Fassung, 30. November 2015. ; Berichte zum Vogelschutz ; 52; 19-67 Hüppop, O., Bauer, H.-G., Haupt, H., Ryslavy, T., Südbeck, P. & Wahl (2013); Rote Liste wandernder Vogelarten Deutschlands, 1. Fassung, 31. Dezember 2012. ; Berichte zum Vogelschutz ; 49/50; 23-83 Kloppmann, M. (2002); Erfassung von FFH-Anhang II-Fischarten in der deutschen AWZ von Nord- und Ostsee; Zwischenbericht. Studie im Auftrage des BfN; 1-25 Kröncke, I. & R. Knust (1995); The Dogger Bank: A special ecological region in the central North Sea; Helgoländer Meeresuntersuchungen; 49; 335-353 Lindeboom, H.J. & S.J. de Groot (1998); IMPACT-II. The effects of different types of fisheries on the North Sea and Irish Sea benthic ecosystems. (EU-Projekt); Rapport 1998-1; 1-404; Nederlands Instituut (NIOZ) Markones, N., Guse, N., Borkenhagen, K., Schwemmer, H. & Garthe, S. (2015); Seevogel-Monitoring 2014 in der deutschen AWZ von Nord- und Ostsee. ; BfN; Vilm Mendel, B., Schwemmer, P., Peschko, V., Müller, S., Schwemmer, H., M (2019); Operational offshore wind farms and associated ship traffic cause profound changes in distribution patterns of Loons (Gavia spp.). ; Journal of Environmental Management; 231; 429-438 Nordheim, H. von & T. Merck (1995); Rote Liste der Biotoptypen, Tier- und Pflanzenarten des deutschen Wattenmeer- und Nordseebereichs. (BfN); Landschaftspflege Naturschutz; Heft 44; 1-139; Landwirtschaftsverlag GmbH, Münster; Bonn - Bad Godesberg Rachor, E. (1998); Rote Liste der bodenlebenden wirbellosen Meerestiere; Schr.-Reihe Landschaftspflege Naturschutz; Heft 55; 290-300 Rachor, E. & P. 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Links: https://www.bfn.de/themen/meeresnaturschutz/nationale-meeresschutzgebiete/nordsee-awz/borkum-riffgrund.html

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
IN06	100
DE02	100

5.2 Relation of the described site with other sites (optional)

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	DE02	Borkum Riffgrund	=	100

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: No information provided

Address: No information provided

Email: No information provided

Organisation: Bundesamt für Naturschutz

Address: No information provided

Email: II3-Abteilung-Vilm@bfn.de

Organisation: No information provided

Address: No information provided

Email: No information provided

Organisation: No information provided

Address: No information provided

Email: No information provided

Organisation: Bundesamt für Naturschutz

Address: No information provided

Email: II3-Abteilung-Vilm@bfn.de

Organisation: Bundesamt für Naturschutz

Address: No information provided

Email: II3-Abteilung-Vilm@bfn.de

6.2 Management Plan(s)

☑ Yes

Name: Berücksichtigung der Bedrohungen aus Feld 4.3.

Link: No information provided

Name: einschließlich der FFH-Arten Schweinswal, Seehund, Kegelrobbe und Finte. Erhaltung u. Wiederherstellung der spezifischen ökologischen Funktionen, der biologischen Vielfalt u. der natürlichen Hydro- u. Morphodynamik des Gebietes.

Link: No information provided

Name: einschließlich der FFH-Arten Schweinswal, Seehund, Kegelrobbe und Finte. Erhaltung u. Wiederherstellung der spezifischen ökologischen Funktionen, der biologischen Vielfalt u. der natürlichen Hydro- u. Morphodynamik des Gebietes.

Link: No information provided

Name: Managementplan für das Naturschutzgebiet 'Borkum Riffgrund'

Link: https://www.bundesanzeiger.de/ebanzwww/contentloader/BAnz_AT_13_05_2020_B900.pdf?state.action=genericsearch_loadbundolpdf&state.filename=BAnz_AT_13_05_2020_B900.pdf&state.pubcode=17527976&&state.orig_filename=2004110017l3M001.pdf

Name: Berücksichtigung der Bedrohungen aus Feld 4.3.

Link: No information provided

Name: Managementplan für das Naturschutzgebiet 'Borkum Riffgrund'

Link: https://www.bundesanzeiger.de/ebanzwww/contentloader/BAnz_AT_13_05_2020_B900.pdf?state.action=genericsearch_loadbundolpdf&state.filename=BAnz_AT_13_05_2020_B900.pdf&state.pubcode=17527976&&state.orig_filename=2004110017l3M001.pdf

☐ No, but in preparation

☐ No

6.3 Conservation measures (optional)

Gewährleistung eines günstigen Erhaltungszustandes der Sandbänke und Riffe, ihrer charakteristischen Lebensgemeinschaften und der gefährdeten Arten. Die Naturschutzgebietsverordnung verbietet zu diesem Zweck die marine Aquakultur, das Einbringen von Baggergut und das Ausbringen von Tieren und Pflanzen gebietsfremder Arten im gesamten Gebiet sowie die Freizeitfischerei in einer ca. 59 % des Schutzgebietes umfassenden Zone ganzjährig. Weitere Maßnahmen sind u.a. im Zuge der Erstellung des Managementplans sowie im Rahmen des geplanten deutschen Antragsprozesses bei der EU-Kommission bezüglich des Schutzes der Lebensraumtypen und Arten vor negativen Auswirkungen der Berufsfischerei vorgesehen.

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

Yes



NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Nationalpark Niedersächsisches Wattenmeer (DE2306301 - SCI)

Table of contents

1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

DE2306301

1.3 Site Name

Nationalpark Niedersächsisches Wattenmeer

1.4 First Compilation date

1997-11

1.5 Update date

2023-05

1.6 Respondent

Name/Organisation: Niedersachsen: Landesbetrieb NLWKN

Address: Göttinger Chaussee 76A

Email: Poststelle@nlwkn-h.niedersachsen.de

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: 1998-10

Date site confirmed as SCI: 2004-12

Date site designated as SAC: 2010-02

National legal reference of SAC designation: §32 (2) BNatSchG i.V.m. §24 BNatSchG und §17 NAGBNatSchG, Gesetz über den Nationalpark Niedersächsisches Wattenmeer (NWattNPG) vom 11. Juli 2001* Nds. GVBl. 2001, 443, zuletzt geänd. durch Artikel 3 des Gesetzes vom 19.02.2010 (Nds. GVBl. Nr. 6 v. 26.02.2010 S. 104)

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 6.9203

Latitude: 53.6036

2.2 Area [ha]

276742.16

2.3 Marine area [%]

93.57

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
DE93	Lüneburg
DE94	Weser-Ems

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types							Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1110	Sandbanks which are slightly covered by sea water all the time			44250	0.00	P	A	B	B	A
1130	Estuaries			19150	0.00	M	A	C	C	A
1140	Mudflats and sandflats not covered by seawater at low tide			151000	0.00	M	A	A	B	A
1150	Coastal lagoons			56.7	0.00	G	A	C	B	B
1160	Large shallow inlets and bays			102600	0.00	P	A	A	B	A
1170	Reefs			190	0.00	P	B	C	B	B
1310	Salicornia and other annuals colonizing mud and sand			880	0.00	G	A	A	A	A

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1320	Spartina swards (Spartinion maritimae)			234	0.00	G	D	-	-	-
1330	Atlantic salt meadows (Glauco-Puccinellietalia maritimae)			8337	0.00	G	A	A	B	A
2110	Embryonic shifting dunes			426	0.00	G	A	A	A	A
2120	Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")			316	0.00	G	A	A	B	A
2130	Fixed coastal dunes with herbaceous vegetation ("grey dunes")			1947	0.00	G	A	A	B	A
2140	Decalcified fixed dunes with Empetrum nigrum			191.4	0.00	G	A	B	A	A
2150	Atlantic decalcified fixed dunes (Calluno-Ulicetea)			17.3	0.00	G	B	B	B	B
2160	Dunes with Hippophaë rhamnoides			263.9	0.00	G	A	A	A	A
2170	Dunes with Salix repens ssp. argentea (Salicion arenariae)			215	0.00	G	A	A	B	A
2180	Wooded dunes of the Atlantic, Continental and Boreal region			213	0.00	G	A	B	A	A
2190	Humid dune slacks			319	0.00	G	A	A	B	A
3130	Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or of the Isoëto-Nanojuncetea			0.09	0.00	G	C	C	B	C
3150	Natural eutrophic lakes with Magnopotamion or			1.33	0.00	G	C	C	C	C

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
	Hydrocharition - type vegetation									
6230	Species-rich Nardus grasslands, on silicious substrates in mountain areas (and submountain areas in Continental Europe)			0.03	0.00	G	D	-	-	-
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels			0.54	0.00	G	C	C	B	C
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)			193	0.00	G	B	C	B	B
7120	Degraded raised bogs still capable of natural regeneration			2.6	0.00	G	B	C	C	C
7150	Depressions on peat substrates of the Rhynchosporion			0.03	0.00	G	C	C	C	C
9190	Old acidophilous oak woods with Quercus robur on sandy plains			0.3	0.00	G	D	-	-	-
91D0	Bog woodland			2.1	0.00	G	C	C	C	C
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)			2.6	0.00	G	C	C	B	C

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment		
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation	I
F	1103	Alosa fallax			p	0	0	i	P	DD	A	C	C
F	1099	Lampetra fluviatilis			p	0	0	i	P	DD	B	B	C
F	1095	Petromyzon marinus			p	0	0	i	P	DD	A	C	C
I	1014	Vertigo angustior			p	0	0	i	C	DD	C	A	A
M	1364	Halichoerus grypus			p	251	500	i		-	A	B	C
M	1365	Phoca vitulina			p	4300	4300	i		-	A	B	C
M	1351	Phocoena phocoena			p	1001	10000	i		-	B	B	C
P	1903	Liparis loeselii			p	14263	14263	i		G	B	A	C

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
A	6284	Epidalea calamita			0	0	i	C			x		
P		Alopecurus bulbosus			0	0	i	P					
P		Baldellia ranunculoides			0	0	i	P					
P		Blysmus rufus			0	0	i	P					
P		Botrychium lunaria			0	0	i	P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
P		Calystegia soldanella			0	0	i	P					
P		Carex diandra			0	0	i	P					
P		Carex punctata			0	0	i	P					
P		Carex trinervis			0	0	i	P					
P		Cladium mariscus			0	0	i	P					
P		Crambe maritima			0	0	i	P					
P		Dactylorhiza incarnata (s.str.)			0	0	i	P					
P		Dactylorhiza majalis (s.str.)			0	0	i	P					
P		Epipactis palustris			0	0	i	P					
P		Equisetum variegatum			0	0	i	P					
P		Glaucium flavum			0	0	i	P					
P		Lathyrus japonicus subsp. maritimus			0	0	i	P					
P		Linnaea borealis			0	0	i	P					
P		Littorella uniflora			0	0	i	P					
P		Parnassia palustris			0	0	i	P					
P		Pedicularis palustris subsp. palustris			0	0	i	P					
P		Pinguicula vulgaris			0	0	i	P					
P		Platanthera bifolia (s.str.)			0	0	i	P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
P		Potamogeton gramineus			0	0	i	P					
P		Samolus valerandi			0	0	i	P					
P		Tuberaria guttata			0	0	i	P					

Group: A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
Code: For Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Motivation: Species Annex IV and Species Annex V: the species is listed under Annex IV or Annex V of the Habitats Directive. A = Species listed in the National Red List, B = Endemic species, C = Species listed under an Internation convention, D = Other reasons

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	0
N06	Inland water bodies (Standing water, Running water)	0
N03	Salt marshes, Salt pastures, Salt steppes	3
N10	Humid grassland, Mesophile grassland	3
N04	Coastal sand dunes, Sand beaches, Machair	5
N01	Marine areas, Sea inlets	34
N02	Tidal rivers, Estuaries, Mud flats, Sand flats, Lagoons (including saltwork basins)	55
	Total Habitat Cover	100

Other Site Characteristics

Nordseeküstenbereich zwischen Elbästuar bei Cuxhaven und NL-Grenze mit dynamischen, von Wind und Gezeiten geformten Lebensräumen mit Wattflächen, Salzwiesen, Düneninseln sowie Sandbänken und Riffen in der Flachwasserzone. Zwischen dem Inselbogen und der Küste dominieren bei Ebbe mit Ausnahmen von kleinen Teilen der Ems- und Weserästuarien mit Brackwasserwatten und zahlreicher verzweigter Meeresarme, der vorrangig nördlich der Inseln vorherrschenden Flachwasserzone, vegetationsfreie Schlick-, Sand- und Mischwatten. Diese marinen Bereiche sind bedeutend für Finte, Flussneunauge, Meeresneunauge, Kegelrobbe, Seehund und Schweinswal. Auf Inseln charakteristische Abfolge zwischen Quellerwatten, Salzwiesen mit Prielen und seewärtigem Mosaik aus vielfältigen Dünenstadien, Dünentälern und Lagunen. Komplex bedeutend für die Schmale Windelschnecke (Vertigo angustior) und das Sumpf-Glanzkraut (Liparis loeselii). Die Erholungszone des Nationalparks (ca. 2000 ha) ist nicht Bestandteil der Gebietsmeldung.

4.2 Quality and importance

Großflächiger Komplex naturnaher Küstenbiotope mit Flachwasserbereichen, Wattflächen, Sandbänken, Stränden und Dünen. Vorkommen zahlreicher seltener und gefährdeter Arten. Bestandteil des größten Wattenmeers der Welt.

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	D03		i
H	F02		i
H	H01		b
H	I01		b
H	J02.02.02		b
L	A04.01		i
L	C01.01		i
L	C01.02		i
L	C02		o
L	D02		b
L	E01		b
M	A02.01		i
M	A03.03		i
M	A04.03		i
M	F05.02		b
M	G01		b
M	H03		b
M	H04.02		b
M	J02.04.02		b
M	J02.05.01		b
M	J02.07		b
M	J02.12		b
M	J02.12.01		b
M	J03.03		i
M	K02.01		i

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	A04.02		i

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	K02		i

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

No information provided

4.5 Documentation (optional)

Documents: FFH-Basiserfassung NLWKN, Pflanzenarten-Erfassungsprogramm NLWKN, Tierarten-Erfassungsprogramm Nationalpark Nieders. Wattenmeer; fernmündliche und schriftl. Auskünfte Seehundaufzuchtstation Norden-Norddeich; Hinweise zum Vorkommen von Schweinswal und Großem Tümmler

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
DE02	0
IN00	0
IN03	0
DE01	100
DE06	0

5.2 Relation of the described site with other sites (optional)

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	DE02	Borkum Riff	/	0
National or regional	DE01	Niedersächsisches Wattenmeer	-	100
National or regional	ramsar	Wattenmeer: Elbe-Weser-Dreieck	*	0
National or regional	ramsar	Wattenmeer: Jadebusen und westliche Wesermündung	*	0
National or regional	biosphere			0
National or regional	DE06			0
National or regional	ramsar	Ostfriesisches Wattenmeer mit Dollart	*	0

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: LK Friesland

Address: No information provided

Email: No information provided

Organisation: LK Leer

Address: No information provided

Email: No information provided

Organisation: LK Wesermarsch

Address: No information provided

Email: No information provided

Organisation: Nationalpark Nds. Wattenmeer

Address: No information provided

Email: No information provided

Organisation: LK Wittmund

Address: No information provided

Email: No information provided

Organisation: LK Aurich

Address: No information provided

Email: No information provided

Organisation: LK Cuxhaven

Address: No information provided

Email: No information provided

Organisation: Stadt Cuxhaven

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

- [ ] Yes
- [ ] No, but in preparation
- [x] No

6.3 Conservation measures (optional)

No information provided

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No




Gibraltar
وهران
الجزائر
سوسة
Malta
Rabat ⵕⴱⴰⵟ
الرباط
Djelfa ⵊⵍⴼⴰ
الجلفة
Batna ⵜⴱⴰⵜⵜ
باتنة
صفاقس
تونس
Oriental
ⵜⴰⵏⵣⴰⵡⵜ
الشرقية
طرابلس

NATURA 2000 - STANDARD DATA FORM
RELEASE Natura2000_end2023 (16/01/2025)
Littoral Cauchois (FR2300139 - SCI)

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1. Site Identification 2. Site Location 3. Ecological Information 4. Site Description 5. Site Protection Status 6. Site Management 7. Map of the Site

1. Site Identification

1.1 Type

B

1.2 Site Code

FR2300139

1.3 Site Name

Littoral Cauchois

1.4 First Compilation date

No information provided

1.5 Update date

No information provided

1.6 Respondent

Name/Organisation: Ministère de la Transition écologique - DGALN/DEB/SDET/ET5

Address: No information provided

Email: en3.en.deb.dgaln@developpement-durable.gouv.fr

1.7 Site indication and designation / classification dates

Date site classified as SPA: No information provided

National legal reference of SPA designation: No information provided

Date site proposed as SCI: No information provided

Date site confirmed as SCI: 2015-11

Date site designated as SAC: No information provided

National legal reference of SAC designation: https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000032495763&dateTexte=

2. Site Location

2.1 Site-centre location [decimal degrees]

Longitude: 0.27833

Latitude: 49.73778

2.2 Area [ha]

6303

2.3 Marine area [%]

69

2.4 Sitelength [km] (optional)

No information provided

2.5 Administrative region code and name

NUTS Level 2 Code	Region Name
FR23	Haute-Normandie

2.6 Biogeographical Region(s)

Name	Cover [%]
Atlantic	100

3. Ecological Information

3.1 Habitat types present on the site and assessment for them

Annex I Habitat Types						Site Assessment			
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
1170	Reefs			1401		G	A	C	A	A
1220	Perennial vegetation of stony banks			0		M	A	C	B	B
1230	Vegetated sea cliffs of the Atlantic and Baltic Coasts			6		M	A	B	A	A
3110	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)			0.03		M	D			
3140	Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.			0.82		G	C	C	B	C
3150	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation			0.04		G	D			
4020	Temperate Atlantic wet heaths with Erica ciliaris and Erica tetralix	x		19		G	A	C	B	B
4030	European dry heaths			1.61		G	D			

Annex I Habitat Types						Site Assessment				
Code	Name	PF	NP	Cover [ha]	Caves [number]	Data Quality	Representativity	Relative Surface	Conservation	Global
6410	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)			0.62		G	B	C	A	A
6430	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels			0.25		G	D			
6510	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)			0.01		G	D			
7220	Petrifying springs with tufa formation (Cratoneurion)	x		0		G	A	C	A	A
7230	Alkaline fens			7.35		G	C	C	C	C
8310	Caves not open to the public		x	0	8.00	G	B	C	B	B
9120	Atlantic acidophilous beech forests with Ilex and sometimes also Taxus in the shrublayer (Quercion robori-petraeae or Ilici-Fagenion)			3.21		M	D			
9130	Asperulo-Fagetum beech forests			0.76		G	D			
9180	Tilio-Acerion forests of slopes, screes and ravines	x		14.4		G	B	C	B	B
9190	Old acidophilous oak woods with Quercus robur on sandy plains			5.9		G	B	C	B	B
91E0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae)	x		9.35		G	B	C	A	A

PF: Habitat types 6210, 7130, 9430 priority depend on the habitat characteristics. Letter 'X' indicates that the reported habitat characteristics corresponds to its priority form.
NP: In case that a habitat type no longer exists in the site enter: x (optional)
Cover: Decimal values can be entered
Caves: For habitat types 8310 and 8330 (caves), the number of caves when the estimated surface is not available.
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation)
Representativity: A = excellent representativity, B = good representativity, C = significant representativity, D = non-significant presence
Relative Surface: A ≥ 15%, B = 2-15%, C ≤ 2%
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Global: A = excellent value, B = good value, C = significant value

3.2 Species referred to in Article 4 of Directive 2009/147/EC and listed in Annex II of Directive 92/43/EEC and site evaluation for them

Species					Population in the site					Site Assessment		
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
A	1166	Triturus cristatus			p			i	P	G	C	B
F	1103	Alosa fallax			p			i	P	DD	D	
F	1163	Cottus gobio		x	p			i	P	DD	D	
F	1099	Lampetra fluviatilis			p			i	P	DD	D	
F	1095	Petromyzon marinus			p			i	P	DD	D	
I	1044	Coenagrion mercuriale			p			i	R	M	D	
I	6199	Euplagia quadripunctaria			p			i	P	M	C	A
I	1083	Lucanus cervus			p			i	P	M	C	A
M	1308	Barbastella barbastellus			c			i	P	M	D	
M	1364	Halichoerus grypus			p			i	V	P	D	
M	1323	Myotis bechsteinii			c			i	P	M	D	
M	1321	Myotis emarginatus			c			i	P	M	D	
M	1324	Myotis myotis			w	2	2	i	P	M	D	
M	1324	Myotis myotis			c			i	P	M	D	
M	1365	Phoca vitulina			p			i	V	P	D	
M	1351	Phocoena phocoena			p			i	R	P	D	
M	1304	Rhinolophus ferrumequinum			w	5	7	i	P	M	C	C
M	1304	Rhinolophus ferrumequinum			c			i	P	M	C	C

Species					Population in the site					Site Assessment	
Group	Code	Scientific Name	S	NP	Type	Size Min	Size Max	Unit	Abundance	Data Quality	Population	Conservation
M	1303	Rhinolophus hipposideros			p	7	10	i	P	M	C	B
M	1349	Tursiops truncatus			p			i	V	P	D	

Group: A = Amphibians, B = Birds, F = Fish, I = Invertebrates, M = Mammals, P = Plants, R = Reptiles
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Type: p = permanent, r = reproducing, c = concentration, w = wintering (for plant and non-migratory species use permanent)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Data Quality: G = Good (e.g. based on surveys), M = Moderate (e.g. based on partial data with some extrapolation), P = Poor (e.g. rough estimation), DD = Data deficient (use this category only, if not even a rough estimation of the population size can be made, in this case the fields for population size can remain empty, but the field 'Abundance' has to be filled in)
Population: A = >15%, B = 2-15%, C = <2%, D = non-significant population
Conservation: A = excellent conservation, B = good conservation, C = average or reduced conservation
Isolation: A = population (almost) isolated, B = population not-isolated, but on the margins of are of distribution, C = population not-isolated withing extended distribution range
Global: A = excellent value, B = good value, C = significant value

3.3 Other important species of flora and fauna (optional)

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
B	A210	Streptopelia turtur			6	12	p	C			x		x
I		Euchoeca nebulata					i	P					
I		Sympetrum flaveolum					i	P					
I		Xestia sexstrigata					i	P					
P		Asplenium marinum					i	P					
P		Atripplex glabriuscula					i	P					
P		Cakile maritima					i	P					
P		Crambe maritima					i	P					
P		Drosera rotundifolia					i	P					
P		Euphrasia tetraquetra					i	P					
P		Genista anglica					i	P					

Species					Population in the site				Motivation				
Group	Code	Scientific Name	S	NP	Size Min	Size Max	Unit	Abundance	Species Annex IV	Species Annex V	Other Cat. A	Other Cat. B	Other Cat. C
P		Genista tinctoria littoralis					i	P					
P		Halimione portulacoides					i	P					
P		Salix repens repens					i	P					
P		Teophroseris helenitis candida					i	P					
P		Ulex gallii					i	P					

Group: A = Amphibians, B = Birds, F = Fish, Fu = Fungi, I = Invertebrates, L = Lichens, M = Mammals, P = Plants, R = Reptiles
Code: For Birds, Annex IV and V species the code as provided in the reference portal should be used in addition to the scientific name
S: In case that the data on species are sensitive and therefore have to be blocked for any public access enter: Yes
NP: In case that a species is no longer present in the site enter: x (optional)
Unit: i = individuals, p = pairs or other units according to the Standard list of population units and codes in accordance with Article 12 and 17 reporting (see reference portal)
Abundance: C = common, R = rare, V = very rare, P = present - to fill if data are deficient (DD) or in addition to population size information
Motivation: Species Annex IV and Species Annex V: the species is listed under Annex IV or Annex V of the Habitats Directive. A = Species listed in the National Red List, B = Endemic species, C = Species listed under an Internation convention, D = Other reasons

4. Site Description

4.1 General site character

Code	Habitat Class	Cover [%]
N15	Other arable land	2
N16	Broad-leaved deciduous woodland	9
N10	Humid grassland, Mesophile grassland	9
N23	Other land (including Towns, Villages, Roads, Waste places, Mines, Industrial sites)	9
N05	Shingle, Sea cliffs, Islets	14
N01	Marine areas, Sea inlets	57
	Total Habitat Cover	100

Other Site Characteristics

Partie terrestre : Les falaises crayeuses du pays de Caux, qui peuvent atteindre plus de 100 m d'altitude, constituent un milieu très original en Europe, parcourant le littoral sur plus de 100 km. Ces falaises se prolongent dans la zone de balancement des marées par un platier rocheux recouvert ou non de galets. Au niveau des falaises, se rencontrent les pelouses aérohalines, formation très originale en Europe. Les valleuses, vallées sèches débouchant sur la mer, sont souvent occupées par des forêts de ravin. Zone marine au large du littoral cauchois : La zone marine permet de couvrir un panel bathymétrique allant jusqu'à 10 m de profondeur, afin de prendre en compte l'ensemble des platiers rocheux immergés ou non à marée basse.Ces derniers constituent en effet une part importante des fonds marins du site. On y trouve également des zones de cailloutis et de placages sableux jouxtant le platier rocheux. L'intensité de l'hydrodynamisme est plutôt décroissant d'Ouest en Est. Certains secteurs boisés ponctuels sont très riches en habitats d'intérêt communautaire et complètent le site sur la partie terrestre (Cap d'Ailly notamment) La zone de falaises au sens strict est peu vulnérable du fait des difficultés d'accès. Les zones comprises au débouché des valleuses peuvent être sujettes à des dépôts d'ordures sauvages. Les éboulements de falaises naturels et relativement fréquents peuvent affecter à la fois le front de falaise qui s'éboule (pelouses aéro-halines) et les zones inférieures (zone de balancement des marées, zone infralittorale de récifs) qui se trouvent enfouies sous des matériaux de taille très variable, allant des gros blocs de craie aux graviers.

4.2 Quality and importance

Zone terrestre : Falaises crayeuses du littoral cauchois, site remarquable en Europe. Beaux secteurs de tourbières, de landes et de forêts de ravins en arrière des falaises, notamment au niveau du Cap d'Ailly. Zone marine au large du littoral cauchois : La zone de balancement des marées est contituée d'un platier rocheux (habitat Récifs -

1170)où se développent des algues. La richesse de ce taxon est réelle puisqu'on trouve des espèces de chaque grande famille de végétaux marins : algues vertes, brunes et rouges. Le site du littoral cauchois a été déterminé de façon à prendre en compte les champs de laminaires de la zone infralittorale. Ces forêts marines (Laminaria digitata et Laminaria saccharina en majorité) constituent un milieu particulièrement riche car elles hébergent une flore et une faune variées : espèces benthiques, comme démersales et pélagiques. Cette variété est d'autant plus forte que la zone sélectionnée se caractérise par une variété de conditions abiotiques (profondeur, conditions hydrodynamiques). L'habitat "Récifs" présent sur le site "Littoral cauchois" est d'autant plus exceptionnel qu'il est constitué du sbstrat calcaire. Cette zone est la seule en France à présenter cette particularité. Il est à noter qu'il s'agit de plus d'un habitat ciblé par la convention OSPAR "Communautés des calcaires du littoral". On note également la présence de certaines espèces de mammifères marins d'intérêt communautaire. Leurs observations sont toutefois très ponctuelles, et les données sont essentiellement des données d'échouage. Le site présente également la particularité d'acceuillir des chiroptères, notamment une colonie de petits rhinolophes repérés sur le site en hibernation et en chasse.

4.3 Threats, pressures and activities with impacts on the site

Negative Impacts

Rank	Threats and pressures [code]	Pollution (optional) [code]	Occurrence [i|o|b]
H	A02.03		i
H	A02.03		b
H	E03		i
L	C01.07		i
L	F03.01		i
L	H03		i
L	I01		i
M	A04		i
M	F01		i
M	F02.03		i
M	G01		i
M	G01.03		i
M	L05		i

Positive Impacts

Rank	Activities, management [code]	Pollution (optional) [code]	Occurrence [i|o|b]
M	B		i

Rank: H = high, M = medium, L = low
Pollution: N = Nitrogen input, P = Phosphore/Phosphate input, A = Acid input/acidification, T = Toxic inorganic chemicals, O = Toxic organic chemicals, X = Mixed pollutions
Occurrence: i = inside, o = outside, b = both

4.4 Ownership (optional)

Type	[%]
Public - National/Federal	100
Public - State/Province	0
Public - Local/Municipal	0
Public - Any Public	0

Type	[%]
Joint or Co-Ownership	0
Private	0
Unknown	0
Total	100

4.5 Documentation (optional)

Documents: Document d'objectifs du site Natura 2000 du Littoral Cauchois, janvier 2012

5. Site Protection Status

5.1 Designation types at national and regional level (optional)

Code	Cover [%]
FR18	7
FR00	76
FR05	1
FR14	1
FR13	15

5.2 Relation of the described site with other sites (optional)

Designation Level	Type Code	Site Name	Type	Cover [%]
National or regional	FR14	VALLEUSE D'ANTIFER	*	1
National or regional	FR05	Cap d'Ailly	*	1
National or regional	FR14	FALAISE D'AMONT	*	0

5.3 Site designation (optional)

No information provided

6. Site Management

6.1 Body(ies) responsible for the site management

Organisation: Syndicat Mixte du Littoral Normand

Address: No information provided

Email: No information provided

6.2 Management Plan(s)

- [x] Yes

Name: Document d'Objectifs (DOCOB)

Link: http://natura2000.mnhn.fr/uploads/doc/PRODBIOTOP/400_Tome 0_Natura_2000_Littoral_cauchois_19012012.pdf

- [ ] No, but in preparation
- [ ] No

6.3 Conservation measures (optional)

No information provided

7. Map of the Site

7.1 INSPIRE ID

No information provided

7.2 Map delivered as PDF in electronic format (optional)

No



European Site Conservation Objectives for Minsmere to Walberswick Heaths and Marshes Special Area of Conservation Site Code: UK0012809

With regard to the SAC and the natural habitats and/or species for which the site has been designated (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;

- **The extent and distribution of qualifying natural habitats and habitats**
- **The structure and function (including typical species) of qualifying natural habitats, and**
- **The supporting processes on which qualifying natural habitats rely**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

H1210. Annual vegetation of drift lines

H1220. Perennial vegetation of stony banks; Coastal shingle vegetation outside the reach of waves

H4030. European dry heaths

This is a European Marine Site

This site is a part of the Minsmere–Walberswick European Marine Site. These Conservation Objectives should be used in conjunction with the Conservation Advice document for the EMS. Natural England's formal Conservation Advice for European Marine Sites can be found via GOV.UK.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 as amended from time to time (the "Habitats Regulations"). They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment', including an Appropriate Assessment, under the relevant parts of this legislation.

These Conservation Objectives and the accompanying Supplementary Advice (where available) will also provide a framework to inform the measures needed to conserve or restore the European Site and the prevention of deterioration or significant disturbance of its qualifying features.

These Conservation Objectives are set for each habitat or species of a Special Area of Conservation (SAC). Where the objectives are met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving Favourable Conservation Status for that species or habitat type at a UK level. The term 'favourable conservation status' is defined in regulation 3 of the Habitats Regulations.

Publication date: 27 November 2018 (version 3). This document updates and replaces an earlier version dated 30 June 2014 to reflect the consolidation of the Habitats Regulations in 2017.

Minsmere-Walberswick SPA Conservation Objectives taken from Natural England's Designated Sites View

Conservation objectives

The site's conservation objectives apply to the site and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying features' listed above).

The objectives are to ensure that, subject to natural change, the integrity of the site is maintained or restored as appropriate, and that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring:

- the extent and distribution of the habitats of the qualifying features
- the structure and function of the habitats of the qualifying features
- the supporting processes on which the habitats of the qualifying features rely
- the populations of each of the qualifying features
- the distribution of qualifying features within the site

Qualifying features

Refer to the site information table above for the list of features within this site.

This should be read in conjunction with the accompanying supplementary advice section, which provides more detailed information to help achieve the objectives set out above, including which attributes should be maintained and which restored.

The conservation objectives apply under the Habitats Regulations, and must be considered during a Habitats Regulation Assessment, including an Appropriate Assessment.

The conservation objectives and accompanying supplementary advice provide a framework to inform the management and measures needed to conserve or restore the European site, and the prevention of deterioration and significant disturbance of its qualifying features.

Where the objectives are met, the site will be considered to show a high level of integrity, and to be contributing to achieving the aims of the Habitats Regulations.



Harbour Porpoise (*Phocoena phocoena)* Special Area of Conservation: Southern North Sea

Conservation Objectives and Advice on Operations

March 2019

Advice under Regulation 21 of The Conservation of Offshore Marine Habitats and Species Regulation 2017 and Regulation 37(3) of the Conservation of Habitats and Species Regulations 2017

Further information

This document is available as a pdf file on the JNCC website for download if required (www.jncc.defra.gov.uk).

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NE

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Summary of Conservation Objectives and Advice on Operations

The Conservation Objectives and Advice on Operations are set out for the Southern North Sea Special Area of Conservation (SAC) for harbour porpoise (*Phocoena phocoena*). The site covers both inshore (within 12 nautical miles of coast) and offshore (beyond 12 nautical miles of coast) waters where Natural England (NE) and the Joint Nature Conservation Committee (JNCC) have respective advisory responsibilities as the Statutory Nature Conservation Bodies (SNCB).

The general objective of achieving or maintaining Favourable Conservation Status (FCS) for all species and habitat types listed in Annexes I and II of the Habitats Directive needs to be translated into Conservation Objectives for SACs. These objectives describe the condition to be achieved by a site for it to contribute in the best possible way to achieving FCS at the national, bio-geographical and European level[1]. The Advice on Operations is site-specific but based on a broad assessment of the sensitivity of the harbour porpoise to anthropogenic pressures at a UK scale.

The advice in this document has been developed using the best available scientific information and expert interpretation as of February 2019. The advice provided here may be subject to change as our knowledge about the site and the impacts of human activities improves.

To ensure the site contributes in the best possible way to achieving FCS, management of human activities occurring in or around the site is required if these activities are likely to have an adverse impact (directly or indirectly) on the integrity of the site, with regards to its Conservation Objectives. It should be noted that as European Protected Species under Annex IV of the Habitats Directive, harbour porpoises are already strictly protected throughout their European range. As such, several conservation measures are already in place in the UK.

To achieve the Conservation Objectives for the Southern North Sea SAC, the Relevant[2] and Competent[3] Authorities should consider human activities within their remit which might affect the integrity of the site.

[1] http://jncc.defra.gov.uk/PDF/comm02D07.pdf

[2] Relevant Authorities are those who are already involved in some form of relevant marine regulatory function and would therefore be directly involved in the management of a marine site lying within territorial waters. The bodies which may be relevant authorities are listed in Regulation 6 of the Conservation of Habitats and Species Regulations 2017. All Relevant Authorities are also Competent Authorities.

[3] Competent Authorities are defined in Regulation 5 of the Conservation of Offshore Marine Habitats and Species Regulations 2017 and Regulation 7 of the Conservation of Habitats and Species Regulations 2017. In summary, a Competent Authority is any person or organisation that has the legally delegated or invested authority (e.g. Minister, government department, public body of any kind or statutory undertaker) to perform a designated function.

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1 Introduction

1.1 Background

Initial advice on a network of sites identified within UK waters for harbour porpoise (*Phocoena phocoena*) was submitted to UK and Devolved Governments as a series of draft SACs in June 2015. The sites were identified within the UK portions of Management Units (MUs[4]) defined for the species (ICES, 2014; IAMMWG, 2015). The Welsh and Northern Irish Governments, along with Defra on behalf of England and relevant offshore waters, gave approval for sites within their areas of jurisdiction to proceed to consultation (January to May 2016). In light of the responses to the consultation, five sites were submitted to the European Commission as candidate SACs in January 2017. These five sites were adopted by the EC as Sites of Community Importance on 12 December 2017 and designated as SACs by Ministers on 26th February 2019. These sites are shown in Figure 1.

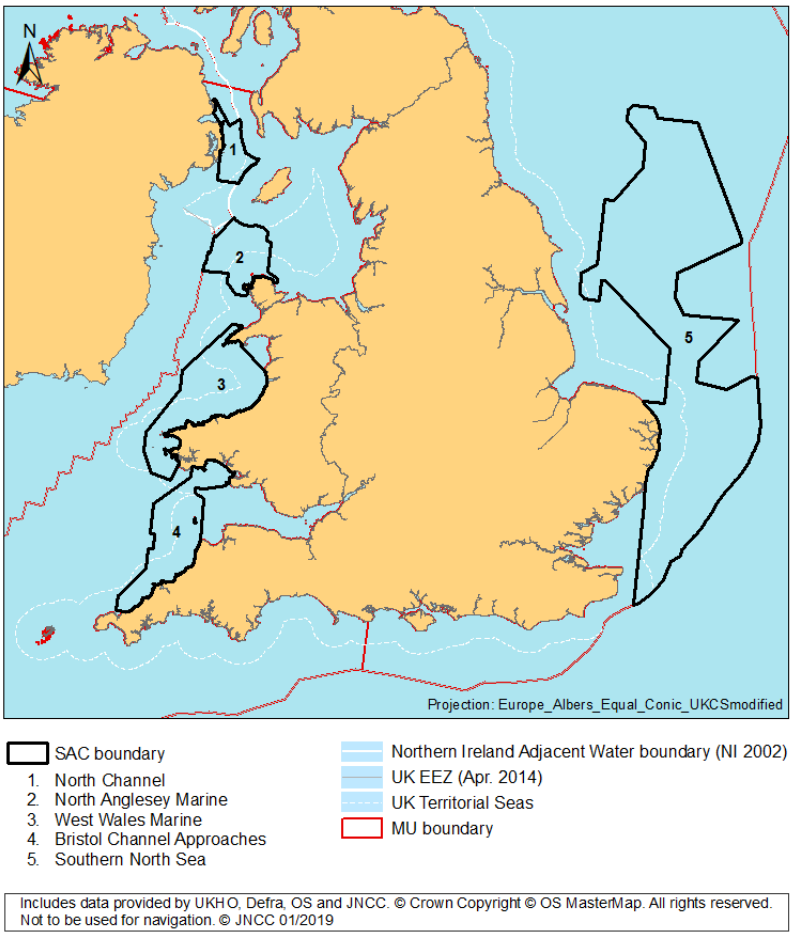


Figure 1: Special Areas of Conservation for the harbour porpoise, *Phocoena phocoena* identified in Northern Ireland, England, Wales and offshore waters. The Management Unit (MU) boundary (red line) refers to the UK portion of the North Sea and Celtic and Irish Seas MUs.

[4] For conservation and management purposes it is practical to divide the population into smaller units, termed Management Units (MUs). These MUs were developed to take account of biological populations of animals but were also be determined by political boundaries and are at an appropriate scale at which to assess human activities. In the UK, three MUs have been defined for harbour porpoise: West of Scotland, Celtic and Irish Seas, and North Sea (IAMMWG, 2015)

This advice document is for the Southern North Sea SAC (Figure 2) which is subject to protection under the Conservation of Habitats and Species Regulations 2017[5] and the Conservation of Offshore Marine Habitats and Species Regulation 2017[6] (collectively referred to as the Habitats Regulations). The advice is given in fulfilment of the duty of the Statutory Nature Conservation Bodies (SNCBs) under the Habitats Regulations to advise Relevant and Competent Authorities as to (a) the Conservation Objectives for the site; and (b) any operations which may cause deterioration of natural habitats or the habitats of species, or disturbance of species, for which the site has been designated. The SNCBs aim to ensure that the Conservation Objectives are up-to-date, accessible and enable the assessment of the potential effects of plans and projects.

2 Responsibilities of Relevant and Competent Authorities

Competent Authorities (including those which are also Relevant Authorities) are required to exercise their functions to comply with the Habitats Regulations. Competent Authorities must, within their areas of jurisdiction, consider both direct and indirect effects on the site. This includes considering operations inside and outside the boundary of the SAC, if the impacts could affect the achievement of the site's Conservation Objectives. Decisions on management measures (e.g. the scale and type of mitigation) are the responsibility of the relevant regulatory or management bodies. These bodies will consider SNCB advice and hold discussions with the sector concerned, where appropriate. Where consent is required and the operation (if considered a plan or project) is likely to significantly affect a European Site, Article 6(3) of the Habitats Directive requires that an Appropriate Assessment (AA) is carried out. The AA is part of the “Habitat Regulations Assessment” (HRA), which is a case-specific assessment made in view of the Conservation Objectives for the affected site or sites. Each HRA requires case-specific advice from the SNCB but the assessment is the responsibility of the competent authority concerned.

The variability of harbour porpoise distribution and abundance within sites is in part due to their mobility and wide-ranging nature as well as natural and anthropogenic changes in habitat and prey. Relevant and Competent Authorities are not required to undertake any actions to ameliorate changes in the condition of the site if it is shown that the changes result wholly from natural causes. It is therefore important to contextualise any apparent deterioration of harbour porpoise presence in the site in terms of natural variability and the abundance and distribution patterns at the population level (i.e. MU).

3 Conservation Objectives for harbour porpoise SACs

3.1 The role of Conservation Objectives

Site level Conservation Objectives are a set of specified objectives that must be met to ensure that the site contributes in the best possible way to achieving Favourable Conservation Status (FCS) of the designated site feature(s) at the national and biogeographic level (EC, 2012). Conservation Objectives constitute a necessary reference for:

- identifying any site-based conservation measures that may be required;
- carrying out HRAs of the implications of plans or projects.

The purpose of the HRA is to determine whether a plan or project adversely affects a site’s integrity. The critical consideration in relation to site integrity is not the extent or degree of an

[5] http://www.legislation.gov.uk/uksi/2017/1012/contents/made
[6] http://www.legislation.gov.uk/uksi/2017/1013/contents/made

impact, or whether an impact is direct or indirect, but whether a plan or project, either individually or in combination with other plans or projects, affects the site's ability to achieve its Conservation Objectives and therefore contribute to Favourable Conservation Status.

Harbour porpoise are protected everywhere in European waters under the provisions of the Habitats Regulations. The harbour porpoise in UK waters are considered part of a wider European population and the highly mobile nature of this species means that the concept of a 'site population' is not considered an appropriate basis for expressing Conservation Objectives for this species. Site based conservation measures will complement wider ranging measures that are in place for the harbour porpoise.

3.2 Background to Conservation Objectives

The Conservation Objectives are designed to help ensure that the obligations of the Habitats Directive can be met. Article 6(2) of the Directive requires that there should be no deterioration or significant disturbance of the qualifying species or to the habitats upon which they rely. Therefore, the focus of the Conservation Objectives for harbour porpoise sites is on addressing pressures that affect site integrity and would include:

- killing or injuring harbour porpoise (directly or indirectly);
- preventing their use of significant parts of the site (disturbance / displacement);
- significantly damaging relevant habitats; or
- significantly reducing the availability of prey.

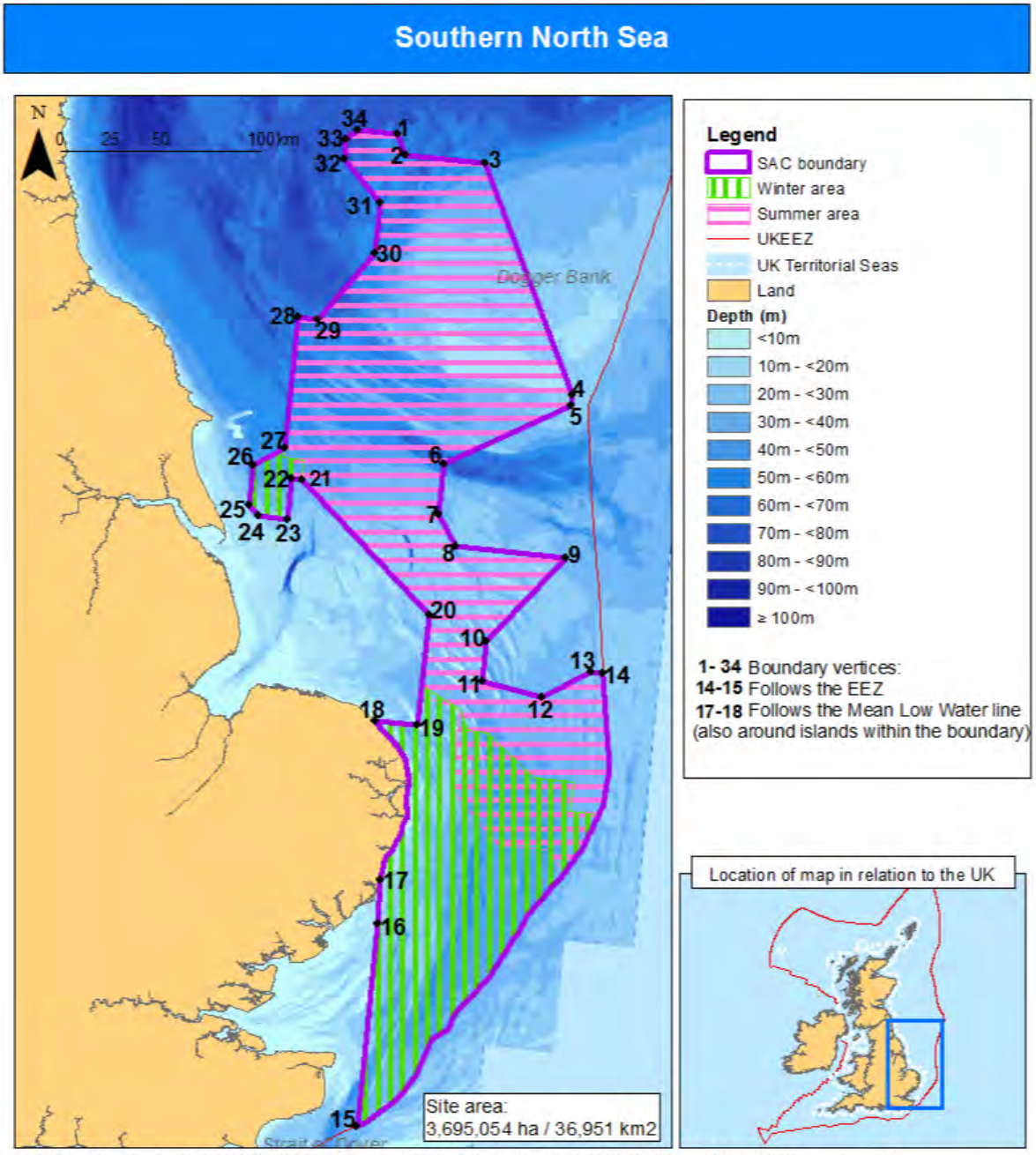
This document includes both a statement of the Conservation Objectives and explanatory text on their intent and interpretation specific to the site. The Conservation Objectives have been set taking account of European Commission guidance (EC, 2012). Further guidance on the management of specific pressures of harbour porpoise is being developed.

3.3 The Southern North Sea SAC Conservation Objectives

The qualifying feature of the site is the Habitats Directive Annex II species:

- harbour porpoise (*Phocoena phocoena*)

Seasonal differences in the relative use of the site have been identified based on the analyses of Heinänen and Skov (2015). Harbour porpoise sightings data were modelled seasonally (Summer: April-September and Winter: October-March) for each MU. The outputs of this analysis were maps of areas by season and MU, that persistently contained elevated densities of harbour porpoises. These areas were used as the basis for site identification and as a consequence, sites may have seasonal components which should be considered in the assessment of impacts and proposed management. The Southern North Sea has been designated because of its importance to harbour porpoise in both the summer and winter months (Figure 2).



Includes data provided by UKHO, Defra, OS and JNCC. © Crown Copyright © OS MasterMap. All rights reserved.
Not to be used for navigation. © JNCC 02/2019. Coordinates displayed in WGS84 geographic coordinate system.
Site area calculated using modified Europe_Albers_Equal_Area_Conic_UK projection.

ID	Latitude	Longitude	ID	Latitude	Longitude	ID	Latitude	Longitude	ID	Latitude	Longitude
1	55° 28' 53.1'' N	01° 02' 24.8'' E	10	53° 17' 32.9'' N	02° 11' 31.6'' E	19	52° 53' 06.4'' N	01° 45' 21.9'' E	28	54° 37' 0.5'' N	00° 27' 44.8'' E
2	55° 23' 34.2'' N	01° 07' 24.8'' E	11	53° 06' 45.7'' N	02° 11' 43.8'' E	20	53° 22' 42.4'' N	01° 44' 22.2'' E	29	54° 37' 11.8'' N	00° 37' 01.8'' E
3	55° 24' 03.2'' N	01° 45' 17.6'' E	12	53° 04' 11.8'' N	02° 38' 38.6'' E	21	53° 54' 05.6'' N	00° 39' 29.7'' E	30	54° 56' 28.6'' N	00° 59' 18.7'' E
4	54° 25' 05.4'' N	02° 37' 56.9'' E	13	53° 12' 19.1'' N	02° 59' 22.3'' E	22	53° 54' 0.3'' N	00° 35' 04.2'' E	31	55° 09' 56.9'' N	00° 58' 38.1'' E
5	54° 22' 23.6'' N	02° 37' 58.3'' E	14	53° 12' 19.0'' N	03° 04' 57.1'' E	23	53° 43' 17.2'' N	00° 35' 41.1'' E	32	55° 20' 23.2'' N	00° 39' 10.7'' E
6	54° 03' 07.5'' N	01° 43' 06.7'' E	15	51° 04' 38.9'' N	01° 39' 44.1'' E	24	53° 42' 60.0'' N	00° 22' 03.6'' E	33	55° 25' 46.4'' N	00° 38' 51.5'' E
7	53° 49' 40.4'' N	01° 43' 32.5'' E	16	51° 59' 04.9'' N	01° 38' 08.0'' E	25	53° 45' 35.5'' N	00° 17' 20.7'' E	34	55° 28' 33.4'' N	00° 43' 26.4'' E
8	53° 41' 38.9'' N	01° 52' 54.2'' E	17	52° 10' 54.3'' N	01° 37' 11.0'' E	26	53° 56' 22.0'' N	00° 16' 38.8'' E			
9	53° 41' 57.7'' N	02° 42' 50.7'' E	18	52° 52' 51.4'' N	01° 26' 06.8'' E	27	54° 02' 03.1'' N	00° 30' 01.3'' E			

Figure 2: The Southern North Sea Special Area of Conservation for harbour porpoise. Summer and winter areas shown.

The Conservation Objectives for the site are:

To ensure that the integrity of the site is maintained and that it makes the best possible contribution to maintaining Favourable Conservation Status (FCS) for Harbour Porpoise in UK waters

In the context of natural change, this will be achieved by ensuring that:

1. Harbour porpoise is a viable component of the site;

2. There is no significant disturbance of the species; and

3. The condition of supporting habitats and processes, and the availability of prey is maintained.

Conservation Objective 1: Harbour porpoise is a viable component of the site

This SAC has been selected primarily based on the long-term, relatively higher densities of porpoise in contrast to other areas of the MU. The implication is that the SAC provides relatively good foraging habitat and may also be used for breeding and calving. However, because the number of harbour porpoise using the site naturally varies (e.g. between seasons), there is no exact value for the number of animals expected within the site.

The intent of this objective is to minimise the risk of injury and killing or other factors that could restrict the survivability and reproductive potential of harbour porpoise using the site. Specifically, this objective is primarily concerned with operations that would result in unacceptable levels of those impacts on harbour porpoises using the site. Unacceptable levels can be defined as those having an impact on the FCS of the populations of the species in their natural range. The reference population for assessments against this objective is the MU population in which the SAC is situated (IAMMWG 2015).

Harbour porpoise is a European Protected Species (EPS) listed on Annex IV of the Habitats Directive and as such is protected under the Habitats Directive Article 12 and transposing regulations from deliberate killing (or injury), capture and disturbance throughout its range. In addition, Article 12 (4) of the Habitats Directive is concerned with incidental capture and killing. It states that Member States 'shall establish a system to monitor the incidental capture and killing of the species listed on Annex IV (all cetaceans). In the light of the information gathered, Member States shall take further research or conservation measures as required to ensure that incidental capture and killing does not have a significant negative impact on the species concerned'. Site based measures should therefore be aligned with the existing strict protection measures in place throughout UK waters. Significant disturbance within or affecting the site is considered in the second conservation objective.

Conservation Objective 2: There is no significant disturbance of the species

Disturbance of harbour porpoise typically, but not exclusively, originates from operations that cause underwater noise including, as examples, seismic surveys, pile driving and sonar. Responses to noise can be physiological and/or behavioural. JNCC has produced guidelines to minimise the risk of physical injury to cetaceans from various sources of loud, underwater noise[7]. However, disturbance is primarily a behavioural response to noise and may, for example, lead to harbour porpoises being displaced from the affected area.

This SAC was identified as having persistently higher densities of harbour porpoises (Heinänen and Skov 2015) compared to other areas of the MU. This is likely linked to the habitats within the site providing good feeding opportunities. Therefore, operations within or affecting the site should be managed to ensure that the animals' potential usage of the site is

[7] http://jncc.defra.gov.uk/page-4273

maintained. Disturbance is considered significant if it leads to the exclusion of harbour porpoise from a significant portion of the site. Specifically, draft SNCB advice / guidance for assessing the significance of noise disturbance to a site suggests:

Noise disturbance within an SAC from a plan/project individually or in combination is significant if it excludes harbour porpoises from more than:

1. 20% of the relevant area[8] of the site in any given day[9], and

2. an average of 10% of the relevant area of the site over a season[10,11].

Conservation Objective 3: The condition of supporting habitats and processes, and the availability of prey is maintained

Supporting habitats, in this context, means the characteristics of the seabed and water column. Processes encompass the movements and physical properties of the habitat. The maintenance of supporting habitats and processes contributes to ensuring that prey is maintained within the site and is available to harbour porpoises using the site. Some evidence shows that the harbour porpoise has a high metabolic rate compared to terrestrial mammals of similar size (Rojano-Doñate et al. 2018) and high feeding rates (Wisniewska et al., 2016). The harbour porpoise is therefore thought to be a species that is highly dependent on year-round proximity to food sources and its distribution and condition may strongly reflect the availability and energy density of its prey (Brodie 1995 in Santos & Pierce, 2003). The densities of porpoise using a site are likely linked to the availability (and density) of prey within the site. Harbour porpoise eat a variety of prey including gobies, sandeel, whiting, herring and sprat. However, the diet of porpoises when within the sites is not well known but is likely comparable to that in the wider seas.

There are several operations (Table 2) which potentially affect the achievement of this Conservation Objective. Whilst some plans/projects are unlikely to have a significant effect alone, an effect might become significant when considered in combination with other plans/projects and against the background of existing activities/pressures on the site. Further work is needed to assess historic, existing and planned levels of plans/projects in the sites and to better understand their impacts on the habitats and prey within the sites.

4 Advice on Operations

4.1 Purpose of advice

This section details the advice on activities specifically occurring within or close to the Southern North Sea SAC that would be expected to impact the site; this is known as Advice on Operations. Initial assessments were conducted at a UK scale, with subsequent site-level assessment detailing our understanding of the operations and their potential to impact the site (Section 5 & 6). Advice is only given where pressures[12] may impact the site and

[8] The relevant area is defined as that part of the SAC that was designated on the basis of higher persistent densities for that season (summer defined as April to September inclusive, winter as October to March inclusive).

[9] Applicable only in Habitats Regulations Assessments (HRA) due to impracticality of daily noise limit management of activities, but retrospective compliance analysis advised

[10] Summer defined as April to September inclusive, winter as October to March inclusive

[11] For example, a daily footprint of 19% for 95 days would result in an average of 19x95/183 days (summer) =9.86%

[12] See Annex B for definition of key terms

therefore, may require management, if the Conservation Objectives are to be met. Widespread pressures may also act to affect the overall status of harbour porpoise, but their effects are not restricted to specific sites. Such pressures are best dealt with through broader measures. Alongside and in addition to the identification of the network of harbour porpoise sites, an overarching conservation strategy (DETR, 2000) has been in place for harbour porpoise since 2000. In light of a recent conservation literature review (IAMMWG *et al* 2015), a UK Dolphin and Porpoise Conservation Strategy is being developed.

The advice outlined below should also be used to help identify the extent to which existing operations are, or can be made, consistent with the Conservation Objectives, and thereby focus the attention of Relevant and Competent Authorities and monitoring programmes to areas that may need management measures.

This Advice on Operations will be supplemented through further discussions with the Relevant and Competent Authorities and any advisory groups that may be formed for the site.

4.2 Background

In compiling this Advice on Operations, the SNCBs have considered the pressures that may be caused by human activities and may affect the integrity of the site when considered against the Conservation Objectives. The advice is generated through a broad grading of sensitivity and exposure of the harbour porpoise to pressures associated with activities to gain an understanding of how vulnerable the species is to each activity at a UK level. The activities and their associated pressures to which the harbour porpoise is deemed vulnerable at a UK level are then considered at a site level to inform the risks to achieving the Conservation Objectives along with any potential management that may be required to mitigate against such risks. Annex A details the assessments of the level of impact risk[13] from operations on harbour porpoise populations at a UK-wide scale. This informs on the activities likely to impact the site.

This document is guidance only and activities and their management within or affecting the site will be considered in the context of HRA and where applicable through other environmental assessment processes, such as Environmental Impact Assessment (EIA).

5 Operation assessments at UK scale

The assessments have been carried out using all available evidence as of February 2019. If further information is made available in future which would improve our understanding of harbour porpoise vulnerability in UK waters, the assessments may be updated. This advice is provided without prejudice for use by the Relevant and Competent Authorities. The level of any impact will depend on the location, timing and intensity of the relevant operation. This advice is provided to assist and focus the Relevant and Competent Authorities in their consideration of the management of these operations.

The harbour porpoise is a wide-ranging species and occurs throughout the UK Continental Shelf area (JNCC, 2013). It does occur in deeper waters but in very low densities, and perhaps only seasonally. As a predominantly continental shelf species, it is exposed to a wide range of pressures that are both ubiquitous (e.g. pollution) and patchy (e.g. bycatch) in nature, and the list of anthropogenic activities leading to these pressures is long. Based on current available information, the operations that pose the most notable risk of impact to UK harbour porpoise are shown in Table 1.

[13] Risk includes consideration of severity of implications of impact

The current levels of impact of the various pressures are based on the Article 17 assessments[14] and the full list of assessed activities and key references can be found in Annex A. Updates to the assessments will occur as more evidence becomes available.

Definitions of pressures are explained in Annex B.

Activities which currently pose a low risk to harbour porpoise at the UK level (Annex A) have not been considered in this advice. The exposure to the pressures associated with these activities is currently very limited. Non-anthropogenic impacts are also not considered, such as attack and predation from other marine mammal species that have the potential to impact harbour porpoise populations.

Table 1: Key activities (operations) and the relative risk of impacts on harbour porpoise throughout UK waters. Those pressures ranked 'high' are known to have the greatest impact relative to other pressures on the population of UK harbour porpoises. Activities which currently pose a low risk are not shown.

Operations	**Pressures**	**Impacts**	**Current relative level of risk of impact**
Commercial fisheries with bycatch of harbour porpoise (predominantly static nets)	**Removal of non-target species**	• Mortality through entanglement/bycatch	High
Discharge/run-off from land-fill, terrestrial and offshore industries	**Contaminants**	• Effects on water and prey quality • Bioaccumulation through contaminated prey ingestion Leading to health issues (e.g. on reproduction)	High
Shipping, drilling, dredging and disposal, aggregate extraction, pile driving, acoustic surveys, underwater explosion, military activity, acoustic deterrent devices and recreational boating activity	**Anthropogenic underwater sound**	• Mortality • Internal injury • Disturbance leading to physical and acoustic behavioural changes (potentially impacting foraging, navigation, breeding, socialising) • Habitat changes/loss	Medium
Shipping, recreational boating, tidal energy installations	**Death or injury by collision**	• Mortality • Injury	Medium/Low
Commercial fisheries (reduction in prey resources)	**Removal of target species**	• Reduction in food availability • Increased competition from other species • Displacement from natural range	Medium

[14] EU Habitats Directive Article 17 assessment, harbour porpoise report: http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/S1351_UK.pdf . Updated Article 17 reports for 2013-2018 will be available in 2019.

6 Site specific considerations: Southern North Sea SAC

6.1 Sensitivity of harbour porpoise to existing activities within or impacting the site

The Southern North Sea site spans territorial and offshore waters and covers a large geographical area of 36,951km^2. A summary of the site can be found in the Selection Assessment Document on the Site Information Centre[15].

All available information on activities within the site has been used to assess the threats and pressures within the site. However, precise information on some activities within the boundary is not currently available due to lack of targeted data collection to date. Assessing exposure carries certain assumptions about the spatial extent, frequency and intensity of the pressures associated with marine activities.

Table 2 is an overview of activities (operations) occurring within or in proximity to the Southern North Sea site to which the harbour porpoise has a current relative level of risk of impact as High or Medium at a UK level (Table 1) and therefore may require further consideration concerning options for management. The impact of a pressure at the site level can differ to that at UK level dependent on the amount of activity within or adjacent to the site. GIS layers of spatial activity data as well as review of literature, were used to identify the impact risk within the site (where a pressure is concentrated within a site) and whether it differs from the UK level risk. These assessments include all available information as of February 2019.

In 2012, the UK Government adopted a revised approach to the management of fishing activities within European marine sites (EMS) in England[16]. The revised approach is designed to ensure consistency in the management of fishing activities with Article 6 of the Habitats Directive. Risk based prioritisation of managing the fishing activities of UK and non-UK vessels has been applied to relevant SAC features within the UK 12 nautical mile (nm) territorial limit. For SACs outside of 12 nm, management measures will be introduced by appropriate regulators to ensure adequate protection.

JNCC and the country SNCBs are working with the Regulators and Industry to ensure that a pragmatic approach to mitigation and management of pressures that may affect the integrity of the site is adopted. Any future guidance documents will be made available on the Site Information Centre on the JNCC website.

[15] SAC Selection Assessment Document: http://jncc.defra.gov.uk/page-7243

[16] https://www.gov.uk/government/publications/revised-approach-to-the-management-of-commercial-fisheries-in-european-marine-sites-overarching-policy-and-delivery

Table 2: Operations occurring within/near to the Southern North Sea site which may affect the integrity of the site.

Operations	Pressure	Comment on current level of activity	Management considerations
Commercial fisheries (with harbour porpoise bycatch)	Removal of non-target (bycatch) species	Bycatch of harbour porpoise in fishing gear is one of the most significant anthropogenic pressures impacting the population at a UK level. The commercial fisheries most associated with harbour porpoise bycatch are bottom set nets, such as gillnets and tangle nets. The Fishery Activity Database (Marine Management Organisation) shows that fishing effort is higher along the coast. There are pockets of higher bycatch rates in areas close to the site boundary, particularly in areas off the coast from Flamborough Head, although the use of static and drift nets is higher in the southern regions of the site. VMS data from large vessels suggest there is higher static net effort from EU registered vessels compared to UK vessels in the offshore region of the SAC. Effort in the south east appears to have increased between 2009 and 2013.	Where bycatch may pose a risk to achieving the site's conservation objectives, mitigation may be required. Where management measures are required, the development of these would be led by fishery managers in discussion with fishing interests and informed by any detailed information about fishing activity that can be made available. Detailed measures, if required, will be developed by the relevant management authority (European Commission/MMO/IFCA/Defra) The use of pingers as a mitigation measure is required on static nets deployed by vessels >12 m in length in specified areas through EU Regulation 812/2004[17]. This part of the UK fleet currently utilises the DDD pinger, which has been agreed under derogation. Additional noise disturbance may need to be considered if acoustic deterrent devices are considered to be used as mitigation. A fisheries guidance document will be developed in collaboration with management authorities and stakeholders. The majority of bycatch is taken by the numerous small bottom set gillnetting vessels (<12m), for which the use of pingers is not mandatory under Regulation 812/2004. One option for management could be to extend the pinger requirement to include any vessels. Further work is needed to understand the scale of disturbance that could result from the wide-spread deployment of pingers on all vessels operating within the site. If necessary, consideration of alternatives to pinger use could be explored and might include gear modification or alternative gear types.

[17] http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2004:150:0012:0031:EN:PDF

Discharge/run-off from land-fill, terrestrial/ offshore industries	Contaminants	Current exposure within/near the site is unknown.	This pressure cannot be managed effectively at the site level. Most of the relevant pollutants have been effectively phased out of use by action under the OSPAR Convention and the Stockholm convention, which restrict the marketing and use of PCBs; plan for disposal of PCBs; and eliminate or restrict the production and use of persistent organic pollutants [POPs]). However, human activities are the most likely cause of the re-release of these chemically stable chemicals into the environment or for introduction of other contaminants of which the impacts are poorly known. Any novel sources of potential contamination and/or activities likely to cause re-release of pollutants form stores associated with a new plan or project will be assessed under HRA both within and outside the site where there is the potential to impact upon site integrity. Current sources of exposure have to be identified and further efforts to limit or eliminate PCB discharges to the marine environment may still be needed.
Shipping	Anthropogenic underwater sound	Several ports along the east coast of England result in large vessel shipping routes throughout the site. There is higher pressure along the southern boundary of the site, although development is ongoing in the Humber to increase port capacity. An estimated increase in local vessel traffic associated with wind farms is expected at 25% during construction and 20% during operation.	Harbour porpoise use sound for foraging, navigation, communication and predator detection. Underwater noise therefore has the potential to interrupt or affect these behaviours as well as cause hearing damage, particularly at short distances. The peak frequency of echolocation pulses produced by harbour porpoise is 120–130 kHz, corresponding to their peak hearing sensitivity although hearing occurs throughout the range of ~1 and 180 kHz (Southall *et al* 2007). The underwater sounds created by large ships are unlikely to cause physical trauma but could make preferred habitats less attractive as a result of disturbance (habitat displacement, area avoidance). However, additional management is unlikely to be required based on current levels within the site. Significant increases in vessel traffic, for example as may be associated with the installation of wind farms in

			the area, would need further assessment.
Oil and gas drilling		Areas licensed for oil and gas extraction are present in the northern and central parts of the site.	Existing and inactive (exploratory and dry) wells and oil and gas licensed blocks occur within the network of harbour porpoise sites and any future applications would be subject to an HRA.
Pile driving		Current and licensed areas for offshore wind, including construction and maintenance phases are located within the site.	A European Protected Species (EPS) licence is required for any construction activity which could affect cetaceans and carries the risk of resulting in a disturbance or injury offence. Developers are required to follow the 'Statutory Nature Conservation Agency protocol for minimising the risk of injury to marine mammals from piling noise'[18]. An HRA will be considered for all new (or review of consent) developments (coastal and marine) using pile driving within the site **or** within 26km of site boundaries. If additional mitigation (to that required under EPS licence) is required, planning and management of pile driving activities may be needed. There is potential for a reduction or limitation of the disturbance / displacement effects by varying the schedule of piling, particularly if several developments are constructing at the same time and pile driving footprints do not overlap (which would maximise area from which porpoise are excluded). Limited spatio-temporal restrictions may be needed. Other examples of mitigation that might be required include the use of sound dampers, i.e. methods that create a barrier to sound transfer (e.g. bubble curtains) and the use of alternative foundation types (e.g. gravity foundations, suction cups, floating turbines, drilling).
Dredging and disposal		A number of capital and maintenance dredging and disposal sites are present within the site boundary.	Dredging and disposal can cause disturbance leading to changes in harbour porpoise behaviour as well as to their habitat and prey. There is also potential for resuspension of pollutants from the sediment. The risk from single plans/projects may be considered relatively low but is assessed through HRA. However,

[18] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/50006/jncc-pprotocol.pdf

			there is currently considerable uncertainty regarding effects on habitat and prey. New dredging projects (or licence renewals) are subject to HRA. Cumulative impacts will be considered within the HRA.
Aggregate extraction		Extensive existing licensed and active areas within the site.	Aggregate extraction can cause disturbance leading to changes to harbour porpoise behaviour as well as to their habitat and prey. However, the risk is considered relatively low and additional management is unlikely to be required. New aggregate extraction projects (or licence renewals) are subject to HRA. Cumulative impacts will be considered within the HRA.
Geophysical surveys (including seismic) surveys		Geophysical surveys occur in the site.	Some geophysical surveys that may affect the integrity of the site may require consent and be subject to HRA. Each case needs to be assessed individually, and the *JNCC Guidelines for minimising the risk of injury to marine mammals from geophysical surveys* (updated August 2017[19]) are available online. Within the guidance, seismic survey is defined as *'Any geophysical survey that uses airguns to generate sound which is sent into the seabed and the reflected energy is recorded and processed to produce images of the geological strata below; described as 2D, 3D and 4D and includes any similar techniques that use airguns.'* It is currently not known whether sub-bottom profilers cause disturbance to harbour porpoise. Further research is needed to understand the sound propagation and effect ranges from these types of equipment. Cumulative impacts of geophysical surveys will need to be considered. Further advice on assessment and management of noisy activities within the sites is being developed by the SNCBs in consultation with Regulators, industry and NGOs.

[19] http://jncc.defra.gov.uk/pdf/jncc_guidelines_seismicsurvey_apr2017.pdf.

Acoustic deterrent/mitigation devices		Unknown, no consistent areas of usage but can be used as a mitigation tool during pile driving and unexploded ordnance (UXO) detonations.	See pile driving and UXOs.
Pinger devices		23 UK registered >12 m gillnet boats of which four are required to use pingers in the area of the site to meet the requirements of Reg812/2004. Use on vessels under 12 m within the site is unknown but likely low.	See 'Fisheries (commercial and recreational) with harbour porpoise bycatch'. The use of pingers is required for >12m gillnet sector and there are 4 vessels fishing within the site that are required to use pingers. Because the majority of the total bycatch occurs in bottom set nets deployed from vessels <12m, which are the greatest component of the UK gillnet fleet, one option for management could be to extend the pinger requirement to further vessels deploying static nets within site boundaries. However, the impact of potential disturbance as a result of such an approach may need to be assessed and the potential for other mitigation options such as alternative gear types, gear modifications or spatial gear restriction may need to be considered.
Military activity		Although few active MOD areas are located within the site, the MOD can operate anywhere in UK waters.	Activities take place under Range Standing Orders, command guidance and environmental risk management tools, which include measures to reduce the risk of killing, injury and disturbance of marine mammals (for example live firing trials are subject to confirmation that marine mammals are not present in the vicinity of targets). MOD, a Competent Authority, incorporates the SACs into their environmental assessments via their MOD Environmental Protection Guidelines (Maritime) and Marine Environment and Sustainability Assessment Tool (MESAT)[20].
Unexploded ordnance (UXOs)		Unexploded ordnance from WWII can be found throughout the North Sea, including within the site. Projects that could inadvertently explode	Although the removal of UXOs is short term, the noise is significant and can cause injury or death to harbour porpoise. An EPS licence and/or HRA may be required. Mitigation is usually required to reduce risk of injury and killing. As a minimum, the JNCC

[20] http://www.royalnavy.mod.uk/-/media/royal-navy-responsive/documents/useful-resources/environmental-protection/environmental-protection-guidelines-maritime-v21.pdf?la=en-gb

		UXOs must undertake a survey to search for possible ordnance ahead of the project commencing. Most ordnance found is exploded on site or removed for health and safety reasons.	guidelines for minimising the risk of disturbance and injury to marine mammals whilst using explosives are applied. A combination of Marine Mammal Observers (MMO)s, Acoustic Deterrent Devices (ADD) and occasionally scare charges are used to ensure harbour porpoise and other marine mammals are a sufficient distance from the explosion to prevent death or injury. Discussions are ongoing between industry, regulators and SNCBs on the most appropriate suite of mitigation measures for UXO clearance (including the possible use of bubble curtains). This will depend on the size of UXOs likely to be encountered and the practicality of deployment of the mitigation measure, amongst other factors. Discussions are ongoing between industry, regulators and SNCBs on the most appropriate suite of mitigation measures for UXO clearance (including the possible use of bubble curtains). This will depend on the size of UXOs likely to be encountered and the practicality of deployment of the mitigation measure, amongst other factors.
Shipping	Death or injury by collision	Several ports along the east coast of England resulting in busy shipping routes throughout the site, with the highest level of activity in the south.	Post mortem investigations of stranded harbour porpoise (Deaville & Jepson, 2011; Deaville 2011:2017) have revealed some deaths caused by trauma (potentially linked with vessel strikes). However, this is not currently considered a significant risk and no additional management is likely to be required.
Recreational boating activity		Royal Yachting Association (RYA) cruising routes are present across the extent of the site, although focussed along the coast	See 'Shipping' (with death or injury by collision). Adherence to wildlife codes of conduct is already advocated, e.g: WiSe scheme; SeaWatch code of conduct; ZSL code of conduct; The RYA good practice guide - The Green Wildlife Guide for Boaters UK SNCBs are looking at the option of developing an overarching wildlife watching code of conduct to site alongside the Scottish code.
Commercial fisheries	Removal of target (prey) species	Fisheries targeting prey species such as whiting, herring, sandeel and sprat throughout their	Currently, most commercial species are managed at scales relevant for stock management and not at the site level.

		ranges in the North Sea, fished by UK and EU fisheries.	Harbour porpoise diet within UK waters includes a wide variety of fish and they will generally focus on the most abundant local species (De Pierrepont *et al* 2005; Camphuysen *et al* 2006). The predominant prey type appears to be whiting, gobies and sandeel, although shoaling fish such as mackerel and herring are also taken. Harbour porpoise diets overlap extensively with diets of other piscivorous marine predators (notably seals) and many of the main prey species are also taken by commercial fisheries, although porpoises tend to take smaller fish than those targeted by fisheries (Santos and Pierce 2003). The overlap between commercial fisheries and harbour porpoise prey is unknown within the site. Further research is required to establish whether there is any direct overlap.

6.2 Limitations of the evidence

It is important to note that the information used to catalogue activities occurring within the site is not complete. The available data are drawn from existing monitoring programmes (e.g. the UK's Bycatch Monitoring Scheme for Protected Species and other European datasets linked to VMS monitoring of fishing vessels) but these have limitations, including availability and accessibility of data at the time of preparing this advice. Caveats with how the data have been collected also need to be understood to correctly interpret the information. This has resulted in the use of expert judgement where sufficient evidence is lacking but risk is implied. Below are some points to consider alongside the above table to ensure the information is not taken out of context:

- **Data availability**
  - Globally, the marine environment is generally far behind the evidence levels of that on land, particularly in offshore areas, mainly due to scale and difficulty/cost of data acquisition.
  - There can be sensitivities surrounding data that have been gathered by industry, and some data are not available for use for advice and management purposes. Often these data become available eventually, but not in time to inform management decisions.

- **Fishing: Limitations of fishing Vessel Monitoring System (VMS) data**
  - VMS positional data are transmitted at approximately 2-hour intervals. There is no information transmitted regarding precise vessel activity, therefore assumptions on its activity, based on logbook returns and vessel speed profile are often made.
  - Vessel positional data (e.g. VMS) cannot inform regulators regarding extent of static gear deployment or soak times.
  - Fishing vessels under 12m long, (and from 2009 until 2013, vessels under 15m long) are not required to use the VMS, and therefore VMS data tells us nothing

regarding the activity of this segment of the fleet. However, local information can be obtained from fisheries management authorities and will be used to develop more detailed guidance to assist with identification of any management measures where considered necessary.

- **Contaminants**
  - Although use of many of the relevant substances (e.g. PCBs) has been heavily regulated for many years, including a ban on further production, re-suspension or reintroduction of pollutants may occur. It is difficult to identify sources of contamination when dealing with highly mobile species.

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8 Annex A: Assessment of the level of impact risk from operations (activities) on UK harbour porpoise populations

The relative level of risk of impact to harbour porpoise from a range of pressures was assessed at UK level (Table A1) as part of the 3rd reporting round for Article 17[21]. See Annex B for the definitions of pressures as used for the harbour porpoise assessments. For the assessment the relative importance of the pressure was assessed by considering the evidence available of an impact and the nature of that impact (direct/indirect) together with the area over which the pressure is acting in UK waters in relation to the species distribution. The relative levels are assigned according to the Article 17 guidance (Evans and Marvela, 2013) as:

Code	Meaning	Comment
H	High importance/impact	Important direct or immediate influence and/or acting over large areas
M	Medium importance/impact	Medium direct or immediate influence, mainly indirect influence and/or acting over moderate part of the area/acting only regionally
L	Low importance/impact	Low direct or immediate influence, indirect influence and/or active over small part of the area/acting only regionally

Table A1: Full assessment of relative level of the impact risk from operations (activities) on harbour porpoise in UK waters based on considerations for Article 17 assessment for harbour porpoise conservation status[22].

Operations	**Pressures[23]**	**Impacts**	**Relative level of risk of impact**	**Evidence**		**Key references**
				Spatial overlap (species & pressure)	**Post-mortem examination**	
Commercial fisheries with bycatch (predominantly static nets)	Removal of non-target species	• Mortality through entanglement/by catch	High	✓	✓	Deaville and Jepson, 2011; Morizur *et al* 1999; Read *et al* 2006; Northridge, S. and Kingston, A. 2010; Northridge *et al* 2016; ICES 2015b

[21] http://jncc.defra.gov.uk/page-6564

[22] EU Habitats Directive Article 17 assessment, harbour porpoise report: http://jncc.defra.gov.uk/pdf/Article17Consult_20131010/S1351_UK.pdf

[23] The NE Advice on Operations also has a 'Radionuclide' pressure category assessed as being insufficient in evidence. This would likely be a 'low' in terms of impact risk and as such is unlikely to pose a significant threat to maintenance of harbour porpoise FCS

Discharge/run-off from land-fill, terrestrial and offshore industries	Contaminants [24]	• Effects on water and prey quality • Bioaccumulation through contaminated prey ingestion • Health issues (e.g. on reproduction)	High		✓	Jepson *et al* 2005; Jepson *et al* 2016; Deaville & Jepson, 2011; ICES, 2015a; Van De Vijver *et al* 2003; Law *et al* 2012; Pierce *et al* 2008; Murphy *et al* 2015.
Noise[25] from shipping, drilling, dredging and disposal, aggregate extraction, pile driving, acoustic surveys, underwater explosion, military activity, acoustic deterrent devices and recreational boating activity	Anthropogenic underwater sound	• Mortality • Internal injury • Disturbance leading to physical and acoustic behavioural changes (potentially impacting foraging, navigation, breeding, socialising) • Habitat change/loss	Medium	✓		Deaville & Jepson, 2011; Stone & Tasker, 2006; Stone, 2015; Jepson *et al* 2005; Fernandez *et al* 2005; Würsig & Richardson, 2009; WGMME, 2012.
Shipping, recreational boating, renewable energy installations	Death or injury by collision	• Mortality • Injury	Medium/ Low	✓	✓	Deaville & Jepson, 2011; Dolman *et al* 2006; ICES 2015a
Commercial fisheries, bycatch	Removal of target species	• Reduction in food availability • Increased competition from other species • Displacement from natural range • Habitat change/loss	Medium		✓	Simmonds and Isaac, 2007; OSPAR QSR 2010; MacLeod *et al* 2007a, b; Thompson *et al* 2007; Santos and Pierce, 2003; Pierce *et al* 2007; ICES 2015b
Agriculture, aquaculture, sewage	Nutrient enrichment	• Effects on water quality • Increased risk of algal blooms may present health issues • Habitat change/loss	Low	✓	✓	Craig *et al* 2013
Agriculture, aquaculture, sewage	Organic enrichment	• Effects on water quality • Increased risk of algal blooms may present health issues • Habitat change/loss	Low	✓		Craig *et al* 2013

[24] The NE Advice on Operations splits contaminants into 'Transition elements and organo-metals, e.g. TBT'; 'Hydrocarbon and PAHs'; and 'synthetic compounds, e.g. pesticides, antifoulants, PCBs and pharmaceuticals'. Users of this advice should be mindful of all these categories of contaminants.

[25] The NE Advice on Operations includes 'vibration' as a pressure but considers that the potential effects of vibration are adequately covered by consideration of the potential pressure 'Underwater Noise Changes' and refers back to this pressure. Similar considerations should be undertaken using this advice.

Waste disposal - navigational dredging (capital, maintenance)	Physical change (to another seabed type)	• Changes in availability of prey species • Habitat change/loss	Low			
Bridges, tunnels, dams, installations, presence of vessels (shipping, recreation)	Water flow (tidal current) changes – local	• Changes in location of prey species • Displacement of harbour porpoise • Habitat change/loss	Low			
Terrestrial and at-sea 'disposal'	Litter	• Mortality through entanglement • Ingestion	Low	✓	✓	Deaville and Jepson, 2011
Bridges, tunnels, dams, installations, presence of vessels (shipping, recreation)	Barrier to species movement	• Habitat inaccessible • Potential physiological effects • Habitat change/loss	Low	✓		WGMME., 2012; ICES 2015a
Sewage	Introduction of microbial pathogens	• Increased risk of disease	Low		✓	Harvell *et al* 1999; Gulland and Hall, 2007; Van Bressem *et al* 2009

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9 Annex B: Definitions of Pressures as applied within harbour porpoise SAC Advice on Operations

Pressures	Definition in the context of harbour porpoise advice
Removal of non-target species	The removal of species not targeted by the fishery; in this case the bycatch (and probable mortality) of harbour porpoise
Contaminants	Introduced material capable of contaminating harbour porpoise, prey or habitat important to harbour porpoise, with a negative impact directly or indirectly on porpoises
Anthropogenic underwater sound	Introduced noise with the potential to cause injury, stress or disturbance to harbour porpoise
Death or injury by collision	Introduction of physical objects; mobile or immobile, that may collide with or result in potential collision of harbour porpoise resulting in injury or mortality
Removal of target species	Removal of harbour porpoise prey, resulting in increased competition amongst porpoise and other species, and/or displacement from their natural range

European Site Conservation Objectives for Outer Thames Special Protection Area Site Code: UK9020309

With regard to the SPA and the individual species and/or assemblage of species for which the site has been classified (the 'Qualifying Features' listed below), and subject to natural change;

Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;

- **The extent and distribution of the habitats of the qualifying features**
- **The structure and function of the habitats of the qualifying features**
- **The supporting processes on which the habitats of the qualifying features rely**
- **The population of each of the qualifying features, and,**
- **The distribution of the qualifying features within the site.**

This document should be read in conjunction with the accompanying *Supplementary Advice* document, which provides more detailed advice and information to enable the application and achievement of the Objectives set out above.

Qualifying Features:

A001 Gavia stellata; Red-throated diver (Non-breeding)

A193 Sterna hirundo; Common tern (Breeding)

A195 Sternula albifrons; Little tern (Breeding)

This is a European Marine Site

This SPA is a part of the Outer Thames European Marine Site (EMS). These Conservation Objectives should be used in conjunction with the Conservation Advice document for the EMS. Natural England's formal Conservation Advice for European Marine Sites can be found via GOV.UK.

Explanatory Notes: European Site Conservation Objectives

These Conservation Objectives are those referred to in the Conservation of Habitats and Species Regulations 2017 (as amended) ('the Habitats Regulations'). They must be considered when a competent authority is required to make a 'Habitats Regulations Assessment' including an Appropriate Assessment, under the relevant parts of this legislation.

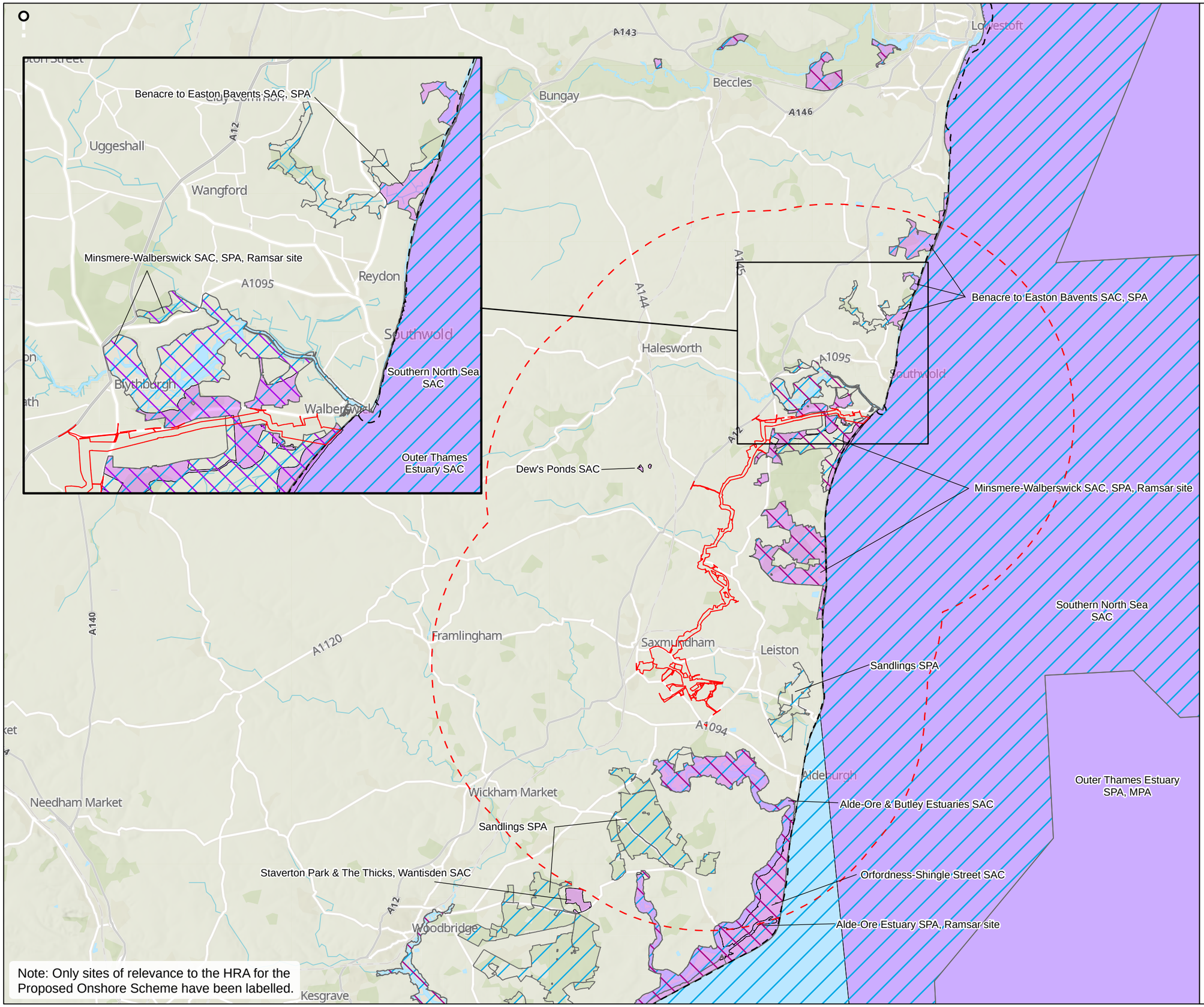
These Conservation Objectives, and the accompanying Supplementary Advice (where this is available), will also provide a framework to inform the management of the European Site and the prevention of deterioration of habitats and significant disturbance of its qualifying features

These Conservation Objectives are set for each bird feature for a Special Protection Area (SPA).

Where these objectives are being met, the site will be considered to exhibit a high degree of integrity and to be contributing to achieving the aims of the Wild Birds Directive.

Publication date: 21 February 2019 (version 3). This document updates and replaces an earlier version dated 20 December 2017 to reflect the consolidation of the Habitats Regulations in 2017.

Appendix F: Proposed Onshore Scheme Relevant European Sites



Note: Only sites of relevance to the HRA for the Proposed Onshore Scheme have been labelled.

- Proposed Onshore Scheme Draft Order Limits
- Mean Low Water Springs
- Study Area
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- Ramsar site

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HRA Stage 1 Screening - Proposed Onshore Scheme Relevant European Sites - Sheet 1

Scale at A3

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Role

HRA Evidence Plan

Suitability

S2

Project Number

287334-00

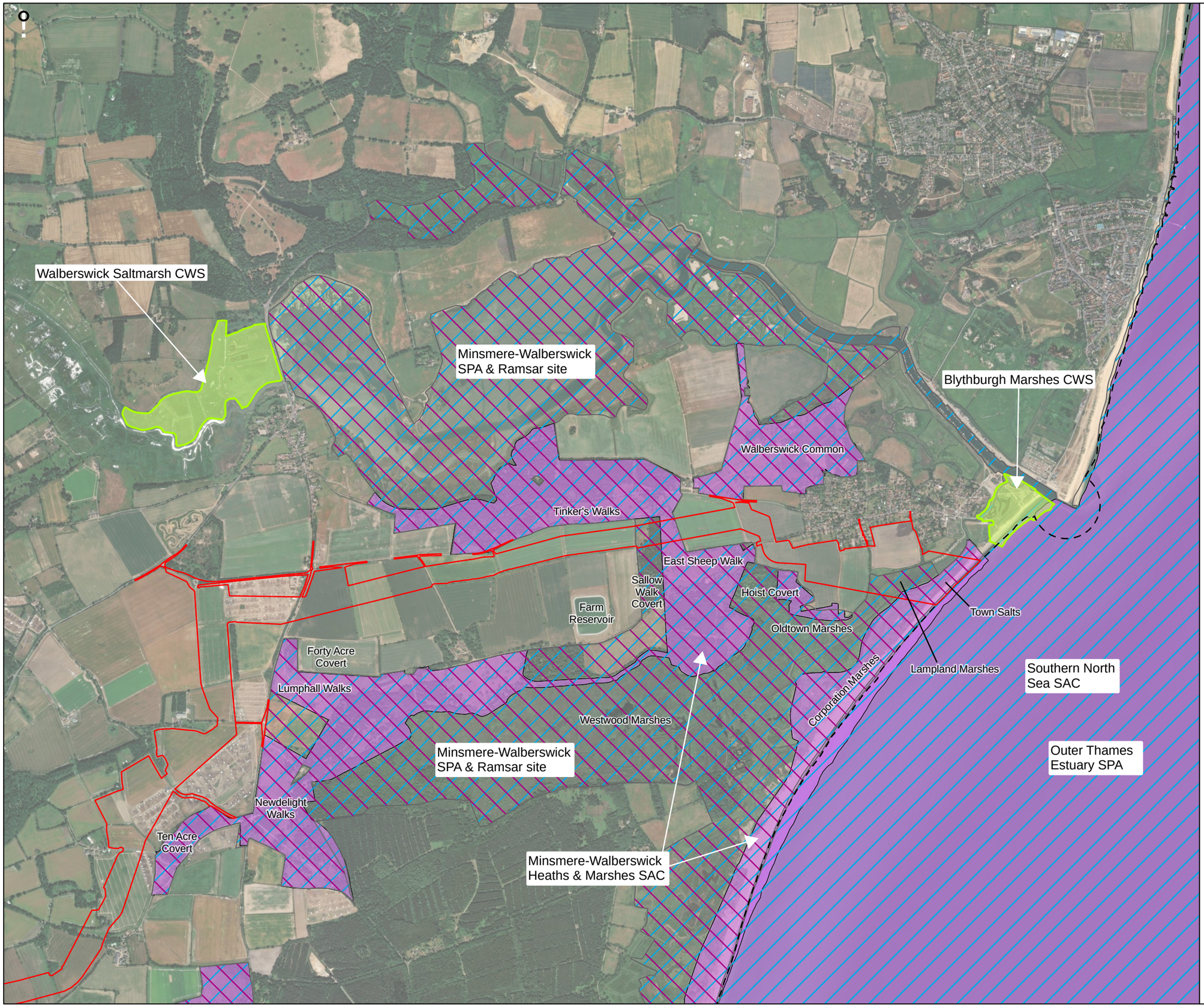
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Proposed Onshore Scheme Draft Order Limits

Mean Low Water Springs

Special Area of Conservation (SAC)

Special Protection Area (SPA)

Ramsar site

SBIS County Wildlife Site (CWS) (shown for context)

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HRA Stage 1 Screening - Proposed Onshore Scheme Relevant European Sites - Sheet 2

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Role

HRA Evidence Plan

Suitability

S2

Project Number

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Rev

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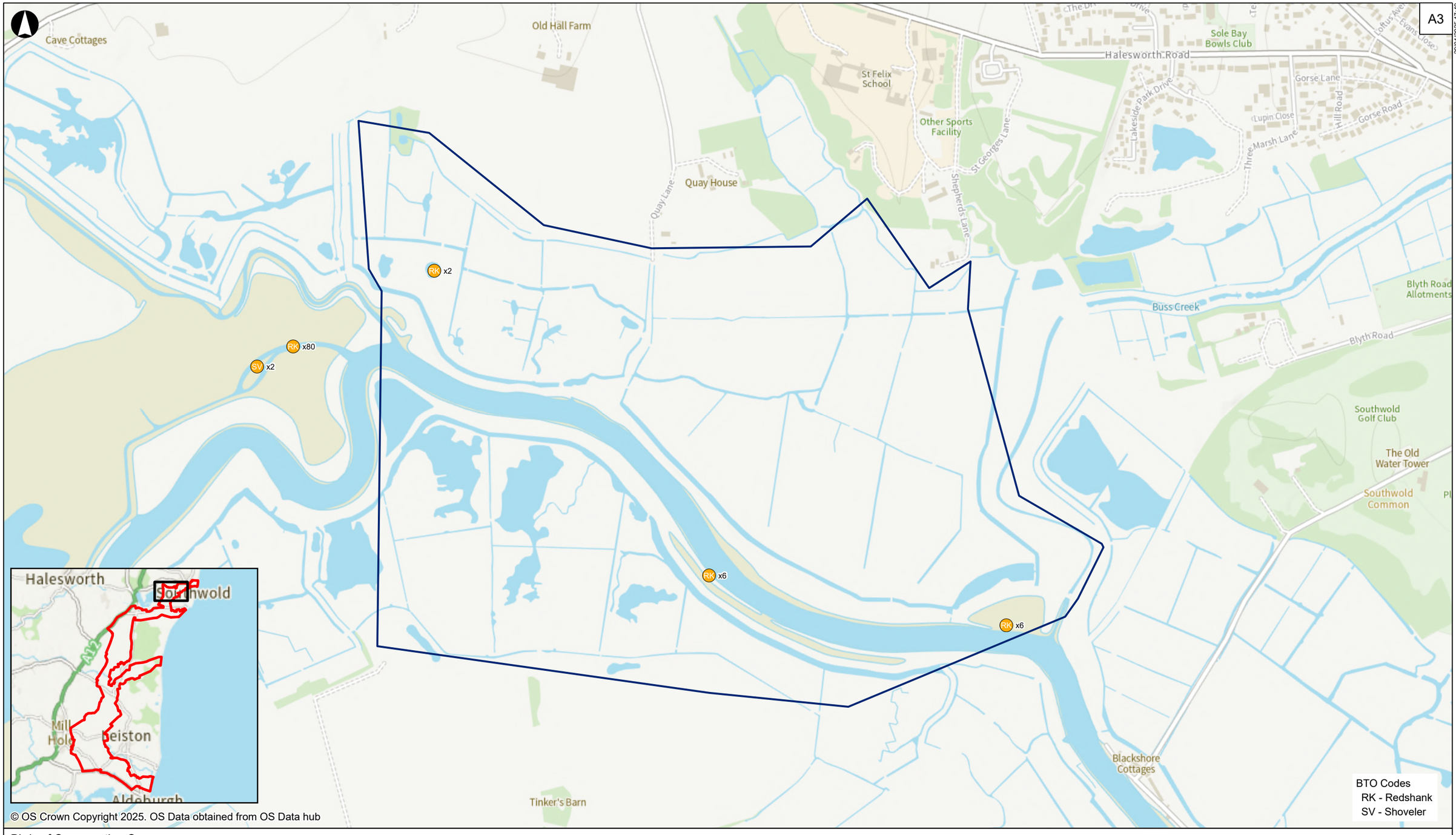
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Appendix G: Relevant Bird Survey Results

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Birds of Conservation Concern
- Amber

Potential Cable Corridor

Non-statutory Consultation Boundary

Meters
0 50 100 200

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Project Name
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Drawing Title
Study Areas with SPA/Ramsar Species Crossing of River Blyth Visit 1 High Tide

Scale at A3
1:8,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

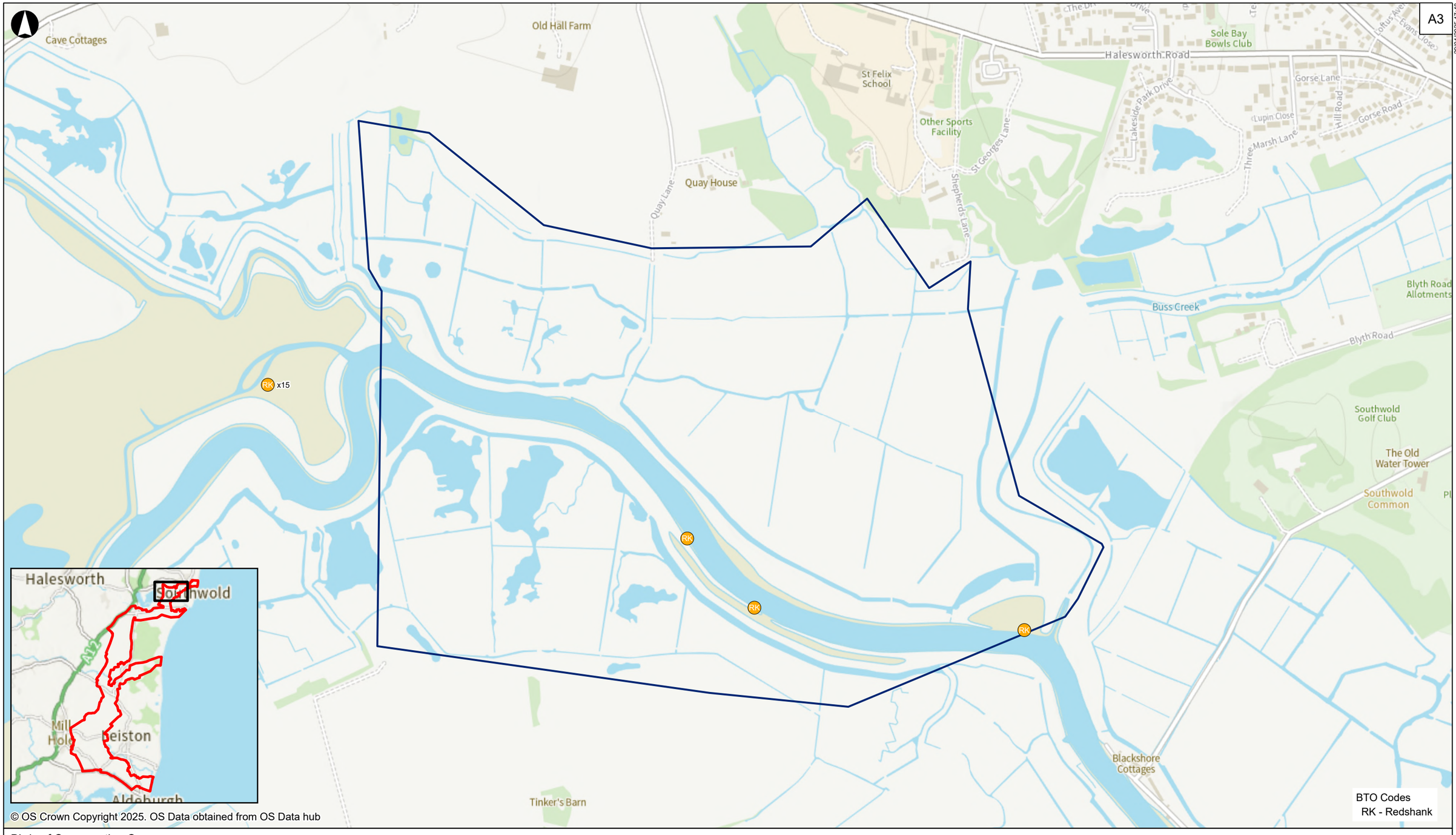
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Birds of Conservation Concern
- Amber

Potential Cable Corridor

Non-statutory Consultation Boundary

Meters
0 50 100 200

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Project Name

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Drawing Title

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Scale at A3
1:8,000

Role
Ecology

Suitability
For Information

Project Number
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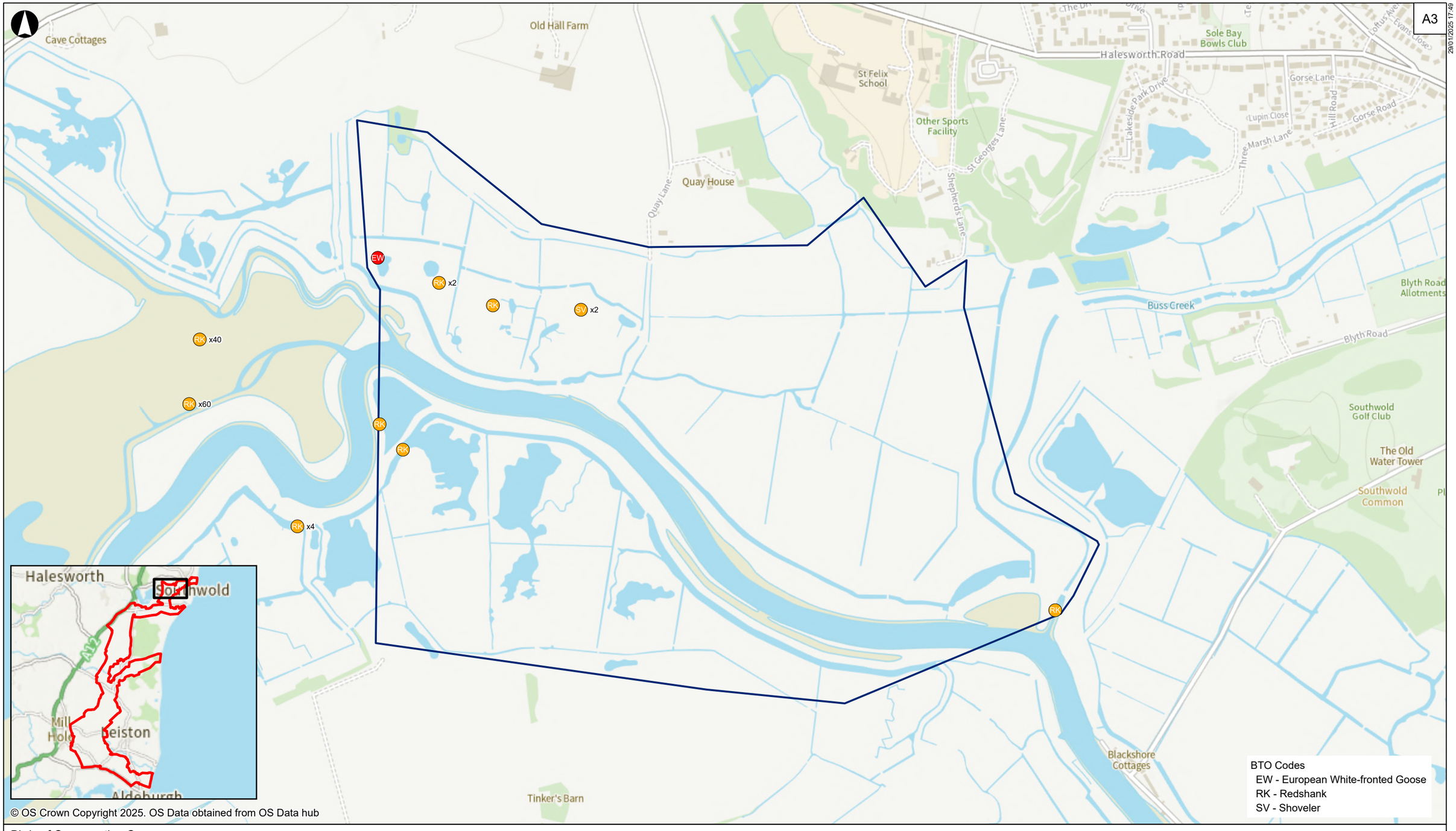
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BTO Codes
EW - European White-fronted Goose
RK - Redshank
SV - Shoveler

Birds of Conservation Concern
- Red
- Amber
- Potential Cable Corridor
- Non-statutory Consultation Boundary

Meters
0 50 100 200

Coordinate System: British National Grid

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Scale at A3
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Role
Ecology

Suitability
For Information

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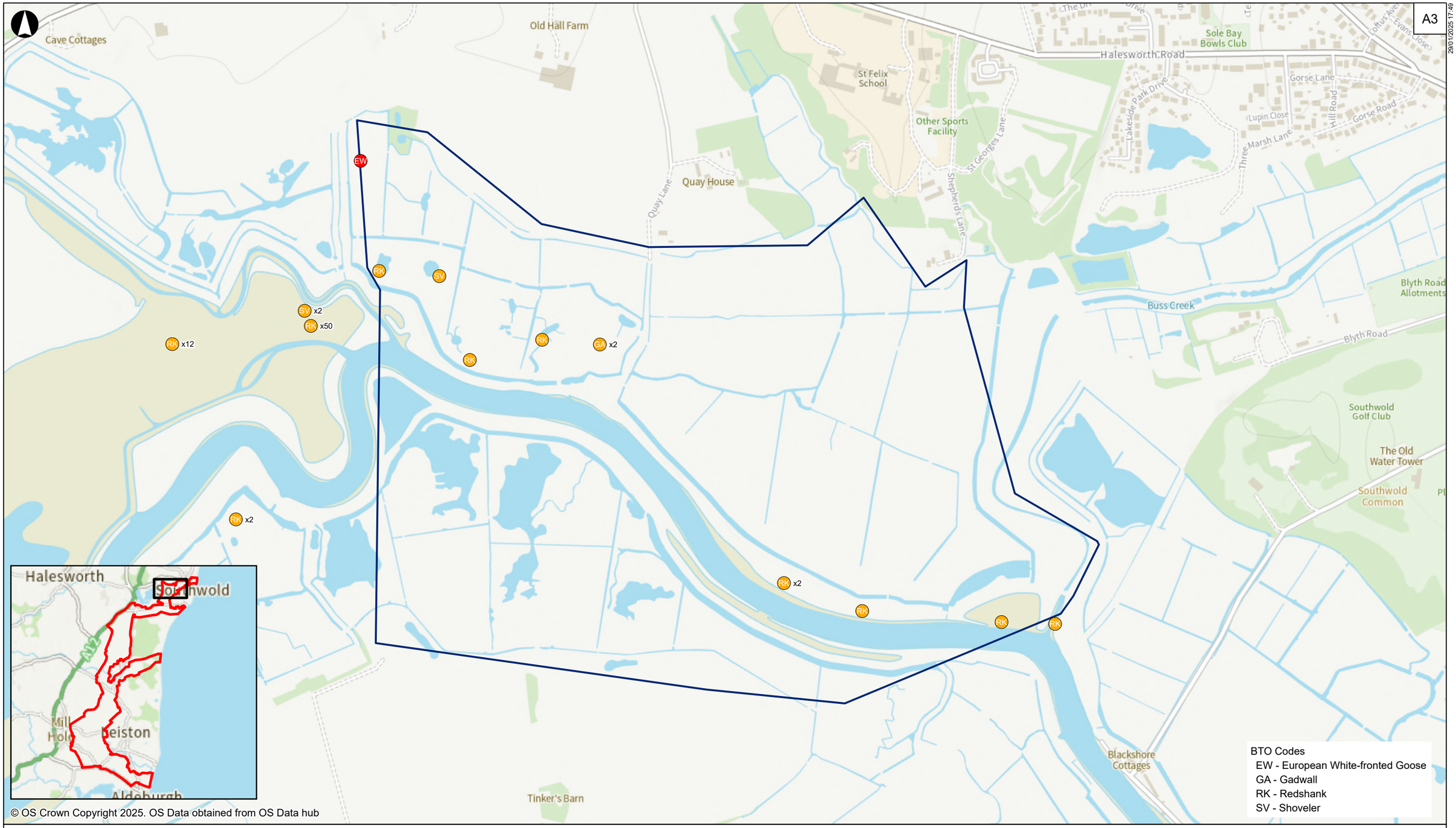
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GA - Gadwall
RK - Redshank
SV - Shoveler

Birds of Conservation Concern
- Red
- Amber
- Potential Cable Corridor
- Non-statutory Consultation Boundary

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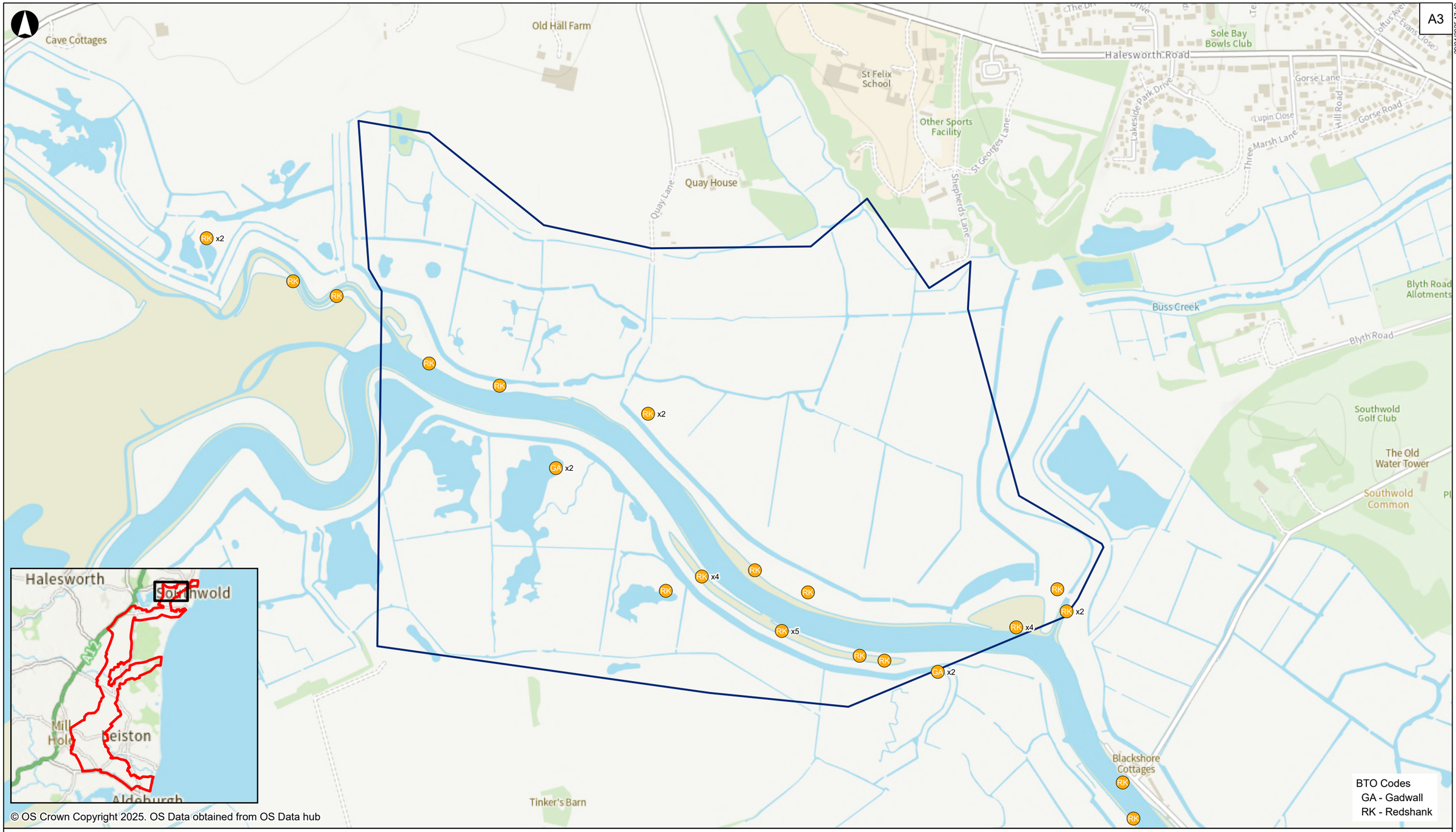
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GA - Gadwall
RK - Redshank

Birds of Conservation Concern
- Amber
- Potential Cable Corridor
- Non-statutory Consultation Boundary

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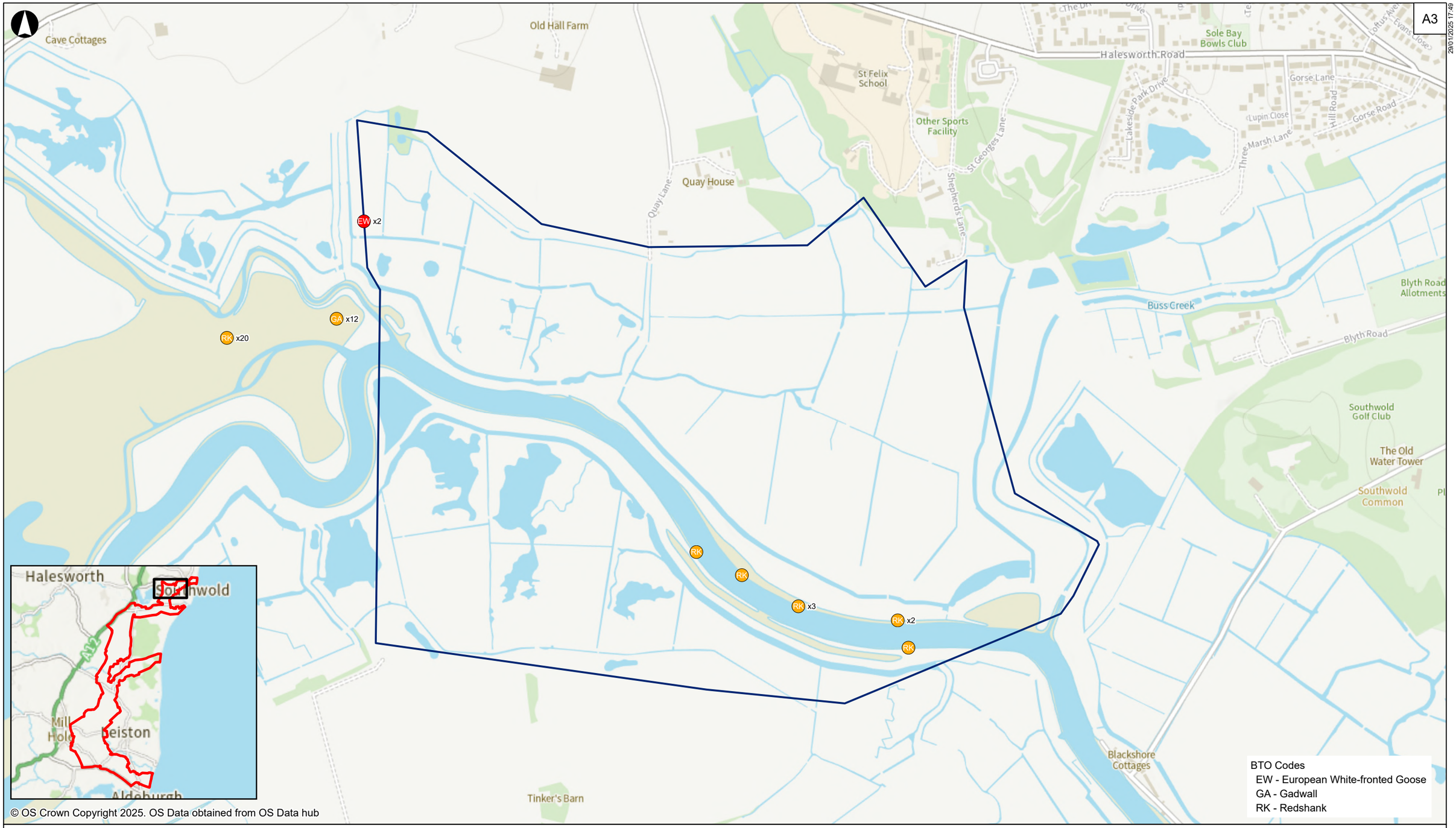
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GA - Gadwall
RK - Redshank

Birds of Conservation Concern
- Red
- Amber
- Potential Cable Corridor
- Non-statutory Consultation Boundary

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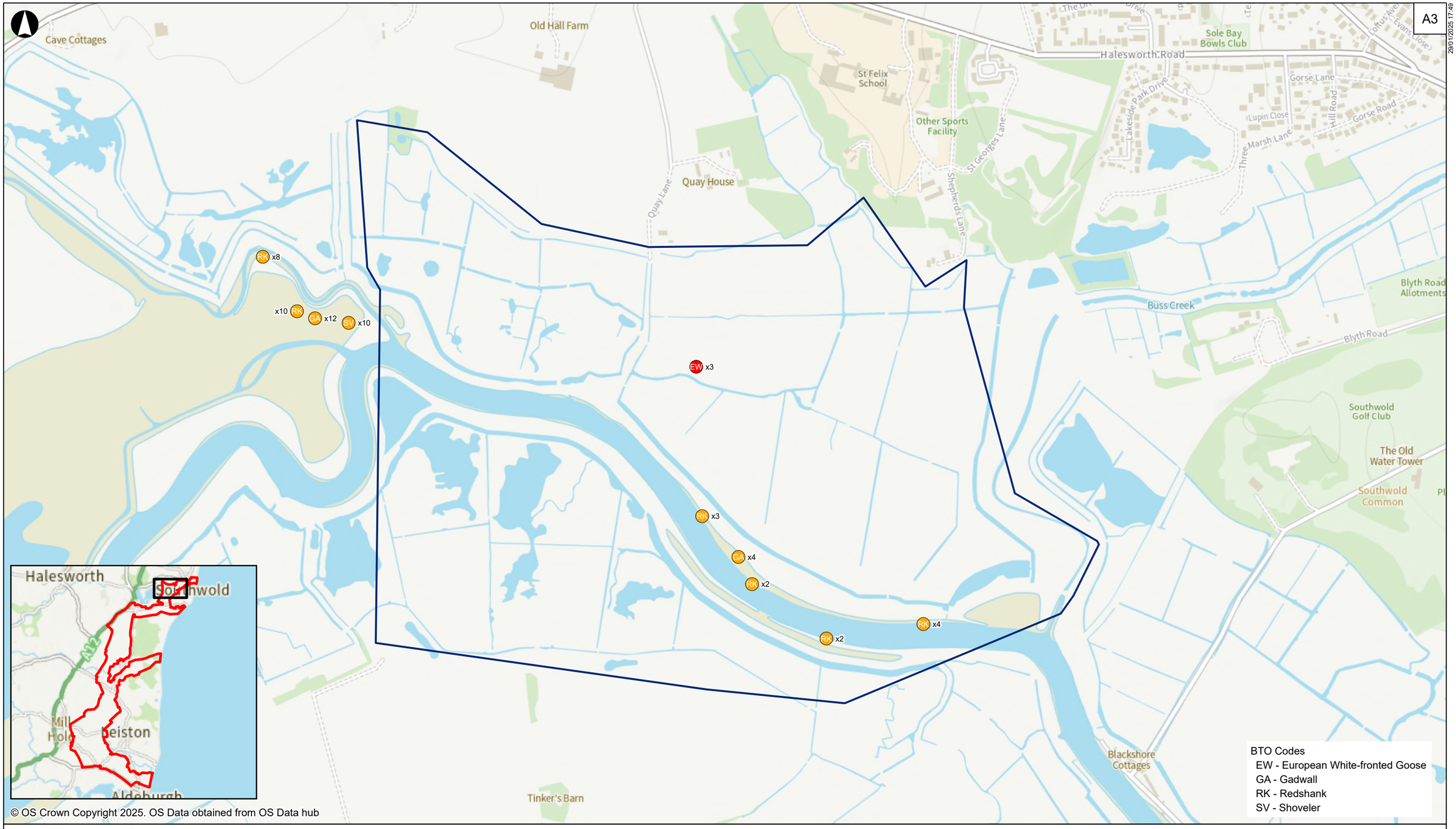
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Cave Cottages
Old Hall Farm
Halesworth Road
Sole Bay Bowls Club
St Felix School
Other Sports Facility
Quay Lane
Quay House
St Georges Lane
Shepherds Lane
Lakeside Park Drive
Gorse Lane
Lupin Close
Hill Road
Gorse Road
Three Marsh Lane
Buss Creek
Blyth Road Allotments
Blyth Road
Southwold Golf Club
The Old Water Tower
Southwold Common
Blackshore Cottages
Tinker's Barn

RK x2
RK x15
SV x6
EW x5
RK x2
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RK x2



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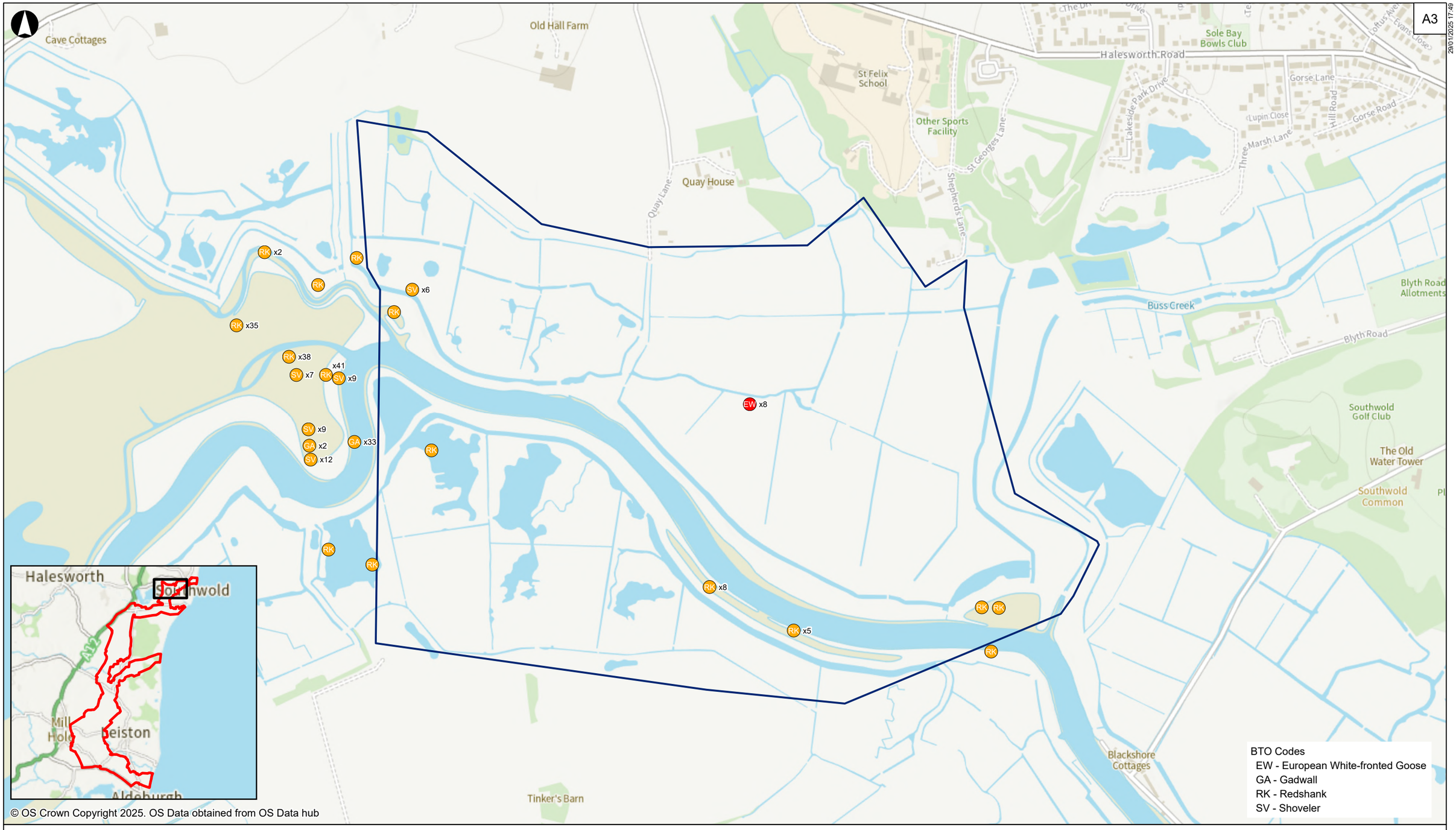
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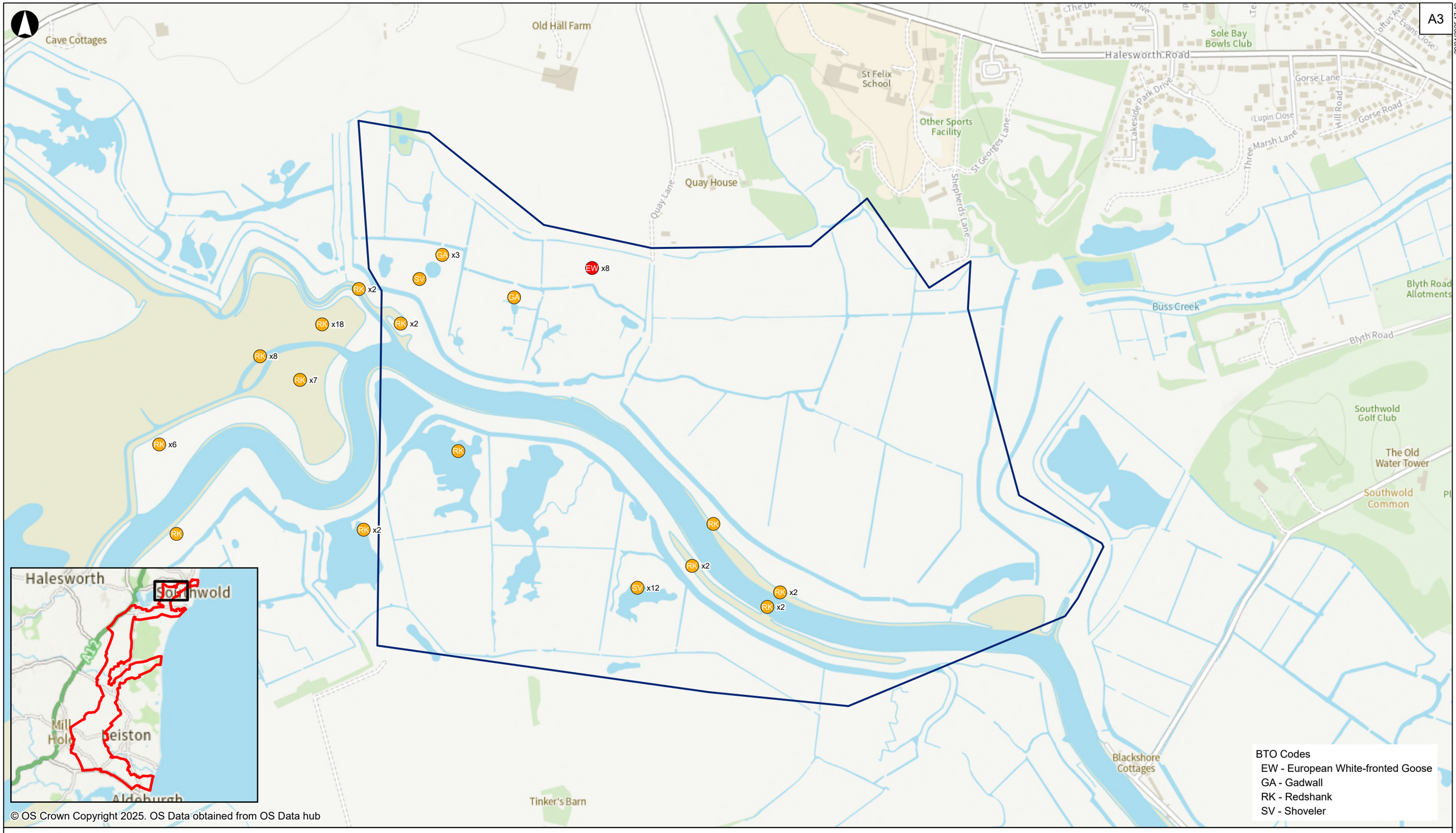
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BTO Codes
- EW - European White-fronted Goose
- GA - Gadwall
- RK - Redshank
- SV - Shoveler

Birds of Conservation Concern
- Red
- Amber
- Potential Cable Corridor
- Non-statutory Consultation Boundary

Meters
0 50 100 200

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	29/01/2025	JG	DB	RM	AC

ARUP
8 Fitzroy St
London W1T 4BJ
Tel +44 20 7636 1531
www.arup.com

Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Study Areas with SPA/Ramsar Species Crossing of River Blyth Visit 5 Low Tide

Scale at A3
1:8,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

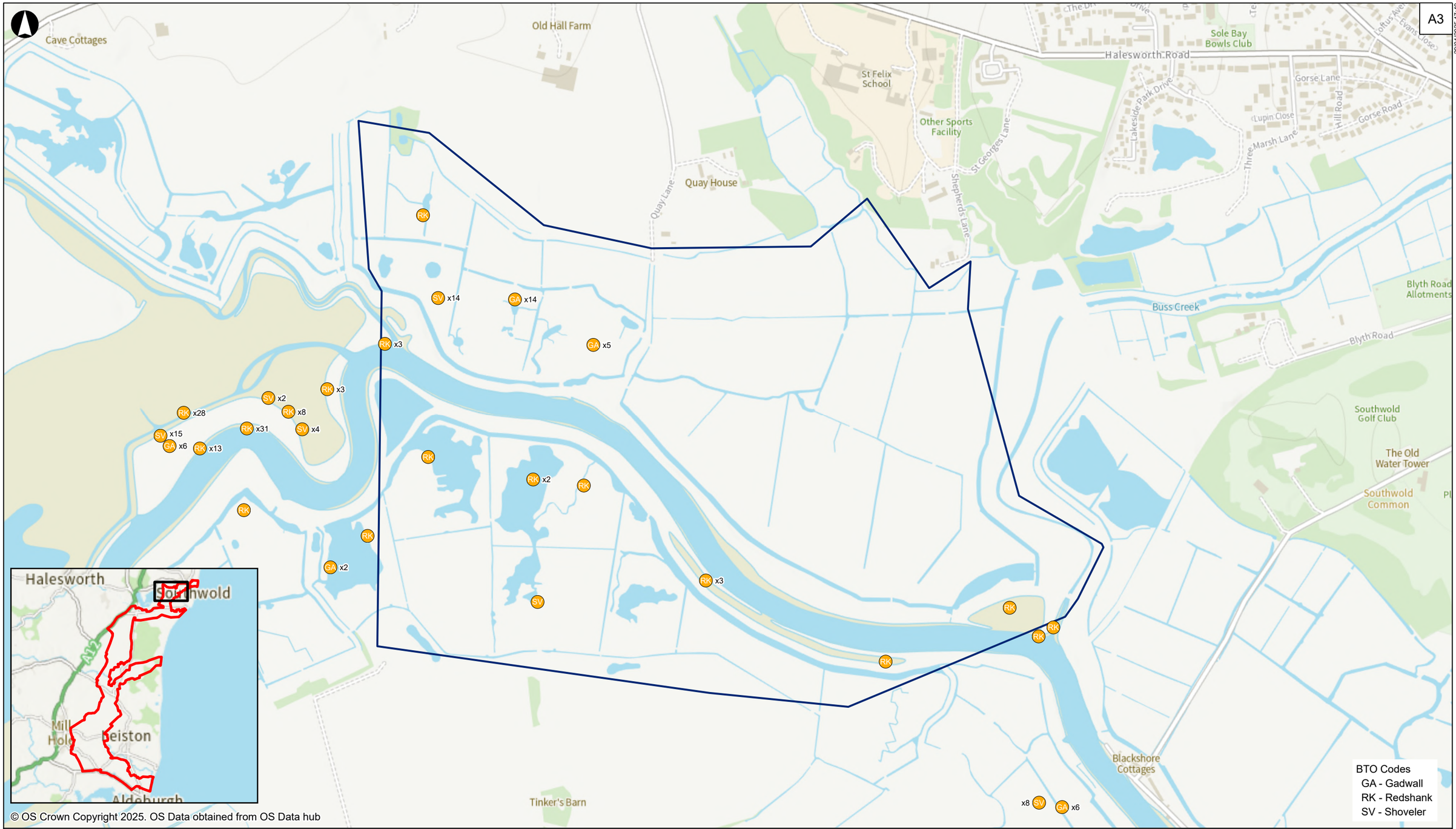
Drawing Number
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Birds of Conservation Concern
- Amber

Potential Cable Corridor

Non-statutory Consultation Boundary

Meters
0 50 100 200

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	29/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Study Areas with SPA/Ramsar Species Crossing of River Blyth Visit 6 High Tide

Scale at A3
1:8,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

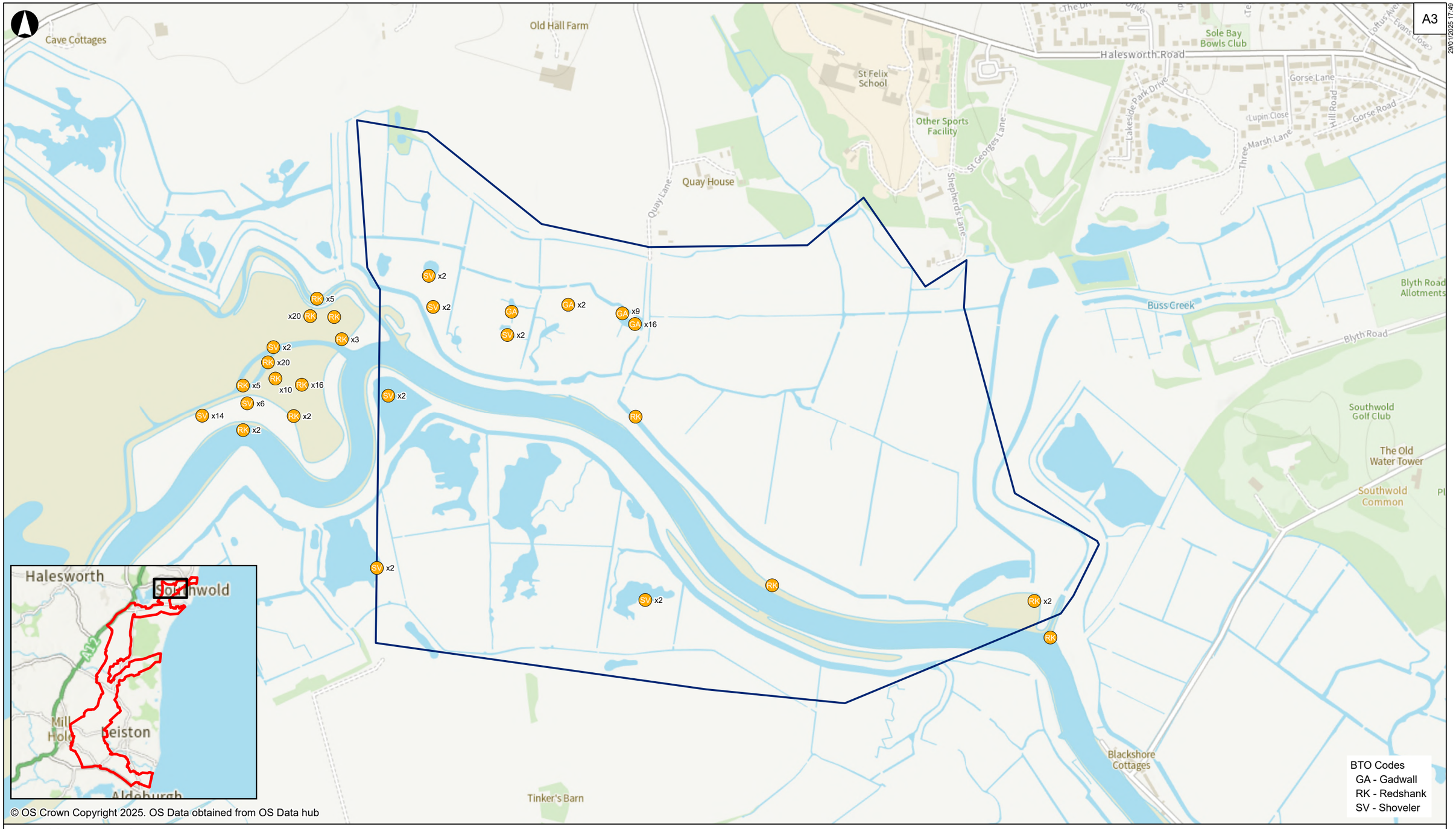
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Birds of Conservation Concern
- Amber

Potential Cable Corridor

Non-statutory Consultation Boundary

Meters
0 50 100 200

Coordinate System: British National Grid

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Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Wintering Bird Survey 2022/2023

Drawing Title

Study Areas with SPA/Ramsar Species Crossing of River Blyth Visit 6 Low Tide

Scale at A3
1:8,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

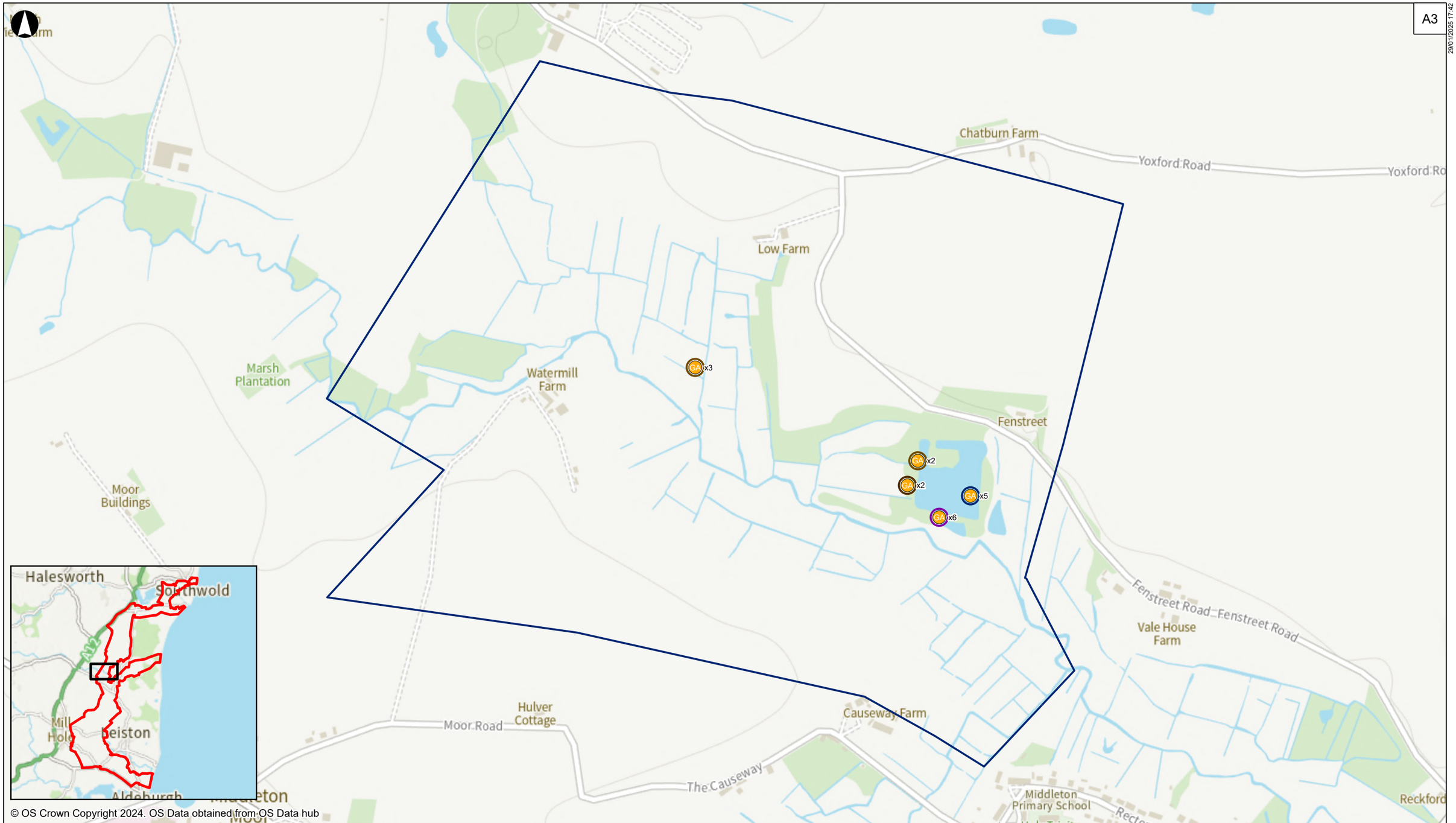
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Birds of Conservation Concern
- Amber

Potential Cable Corridor

Non-statutory Consultation Boundary

Visits
- Visit 2
- Visit 4
- Visit 5
- Visit 6

BTO Codes
GA - Gadwall

Meters
0 50 100 200

Rev	Date	By	Chkd	Appd	Authd
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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Study Areas with SPA/Ramsar Species Crossing of River Minsmere At Darsham Marshes (High and Low Tide)

Scale at A3
1:6,500

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

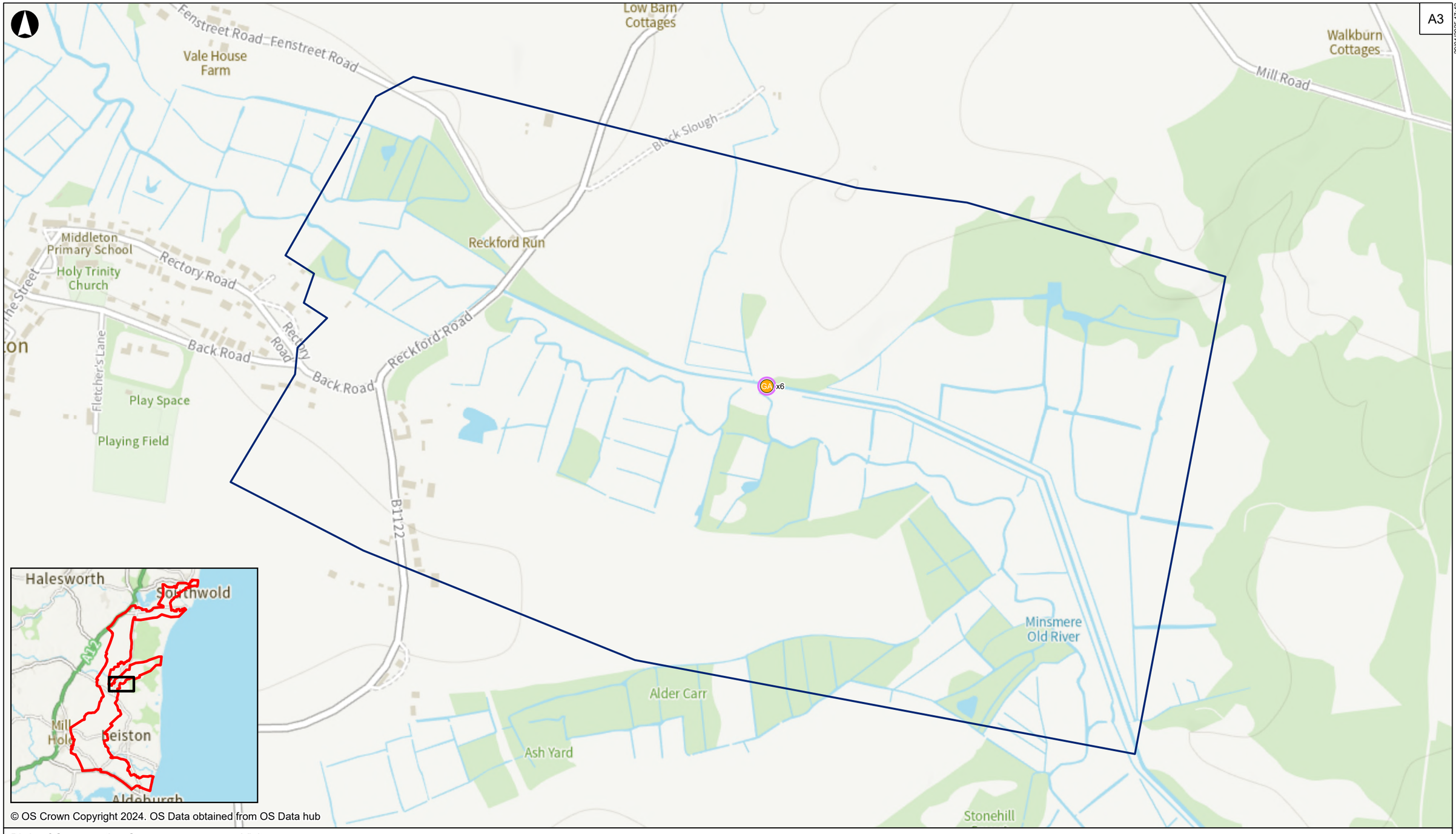
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Birds of Conservation Concern
- Amber

Visits
- Visit 3

BTO Codes
GA - Gadwall

- Potential Cable Corridor
- Non-statutory Consultation Boundary

Meters
0 50 100 200

Rev	Date	By	Chkd	Appd	Authd
1	29/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Study Areas with SPA/Ramsar Species Crossing of River Minsmere At Reckford (High and Low Tide)

Scale at A3
1:6,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

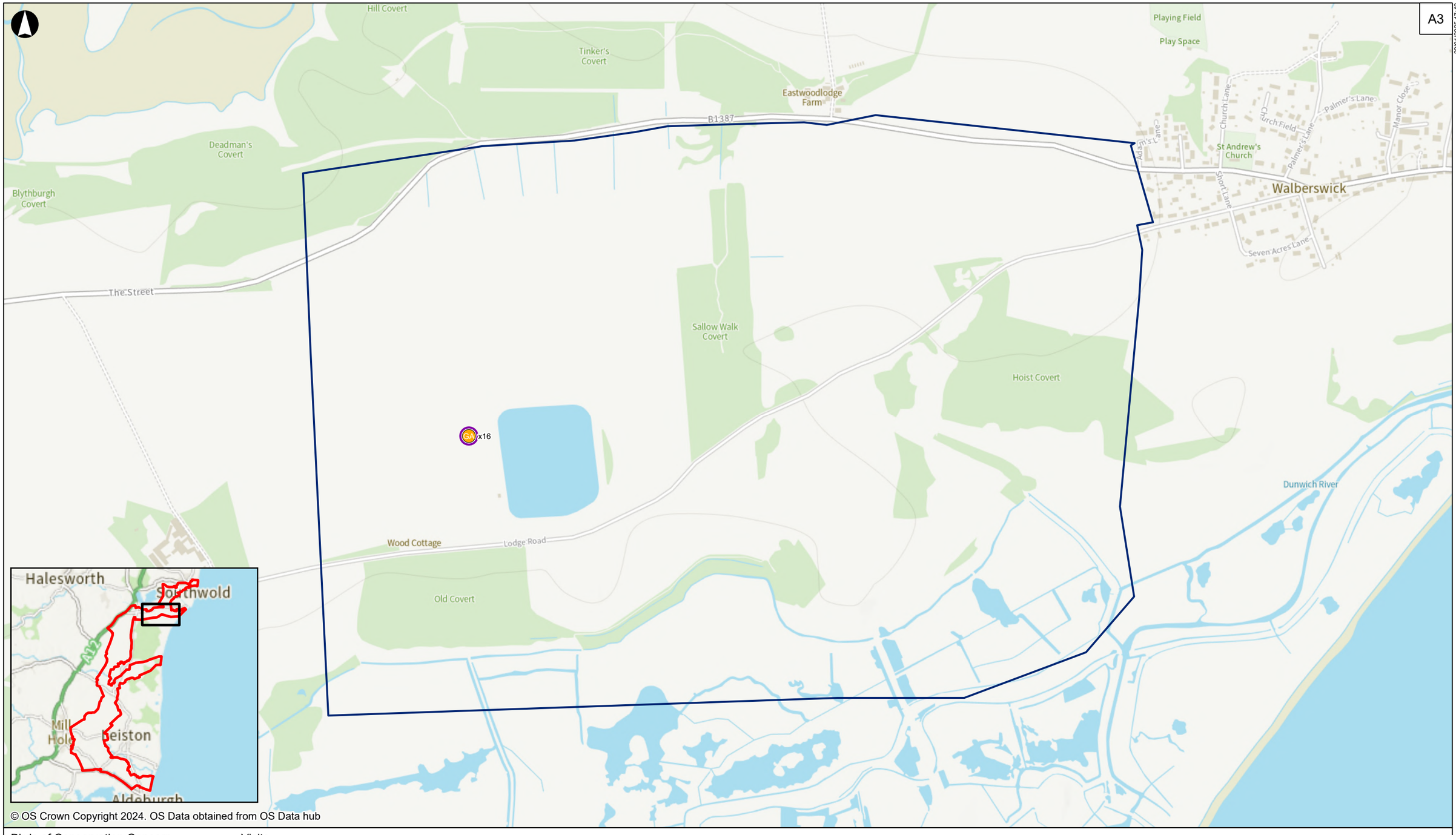
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Birds of Conservation Concern
- Amber

Visits
- Visit 4

BTO Codes
GA - Gadwall

- Potential Cable Corridor
- Non-statutory Consultation Boundary

Meters
0 50 100 200

Rev	Date	By	Chkd	Appd	Authd
1	29/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Study Areas with SPA/Ramsar Species Crossing of SPA/Ramsar/SSSI at Sallow Walk Covert (High and Low Tide)

Scale at A3
1:9,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

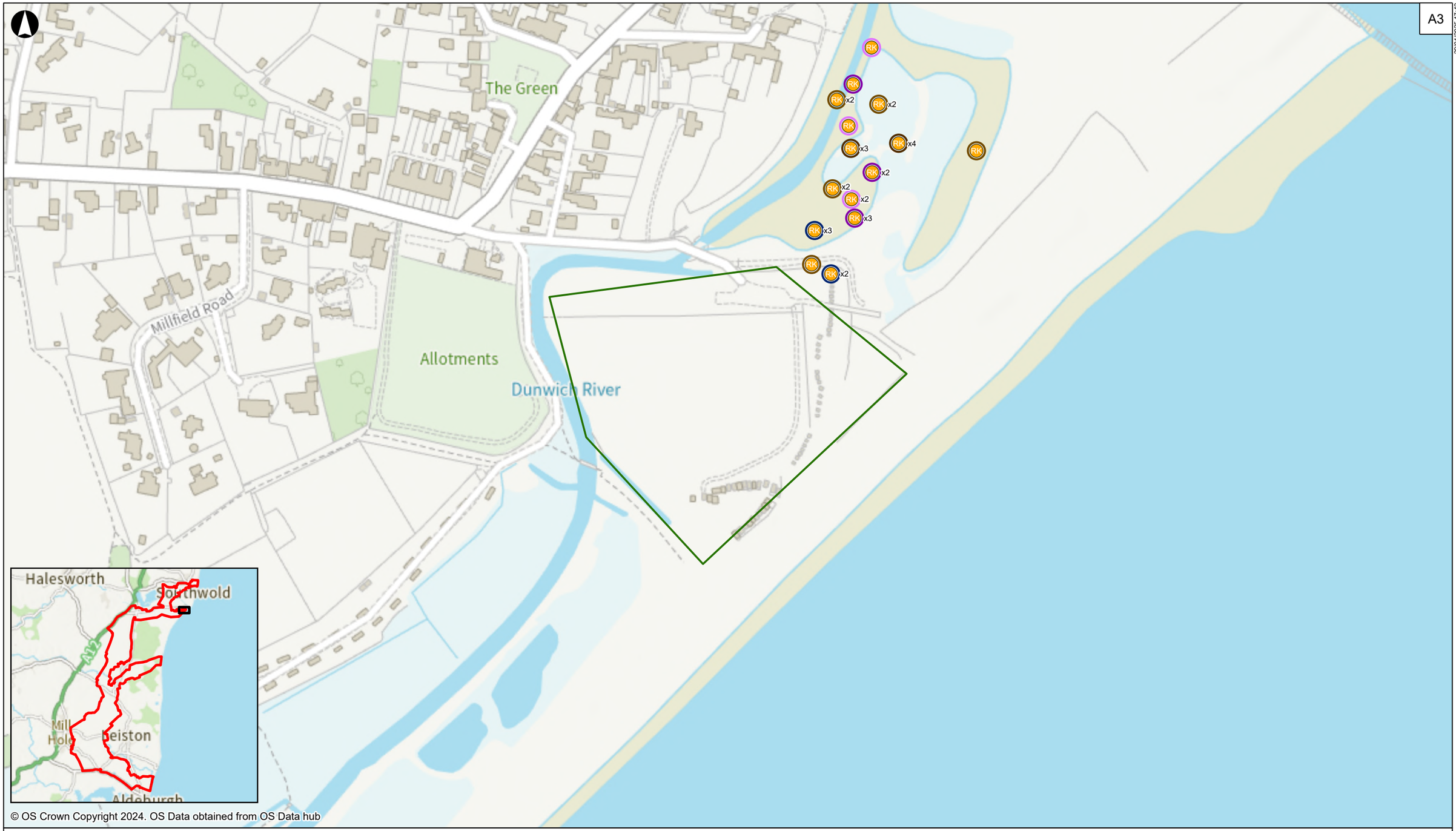
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Birds of Conservation Concern
- Amber
- Potential Landfall Location
- Non-statutory Consultation Boundary

Visits
- Visit 2
- Visit 3
- Visit 4
- Visit 5
- Visit 6

BTO Codes
RK - Redshank

Meters
0 50 100 200

Rev	Date	By	Chkd	Appd	Authd
1	29/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Study Areas with SPA/Ramsar Species Location G (High and Low Tide)

Scale at A3
1:2,500

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

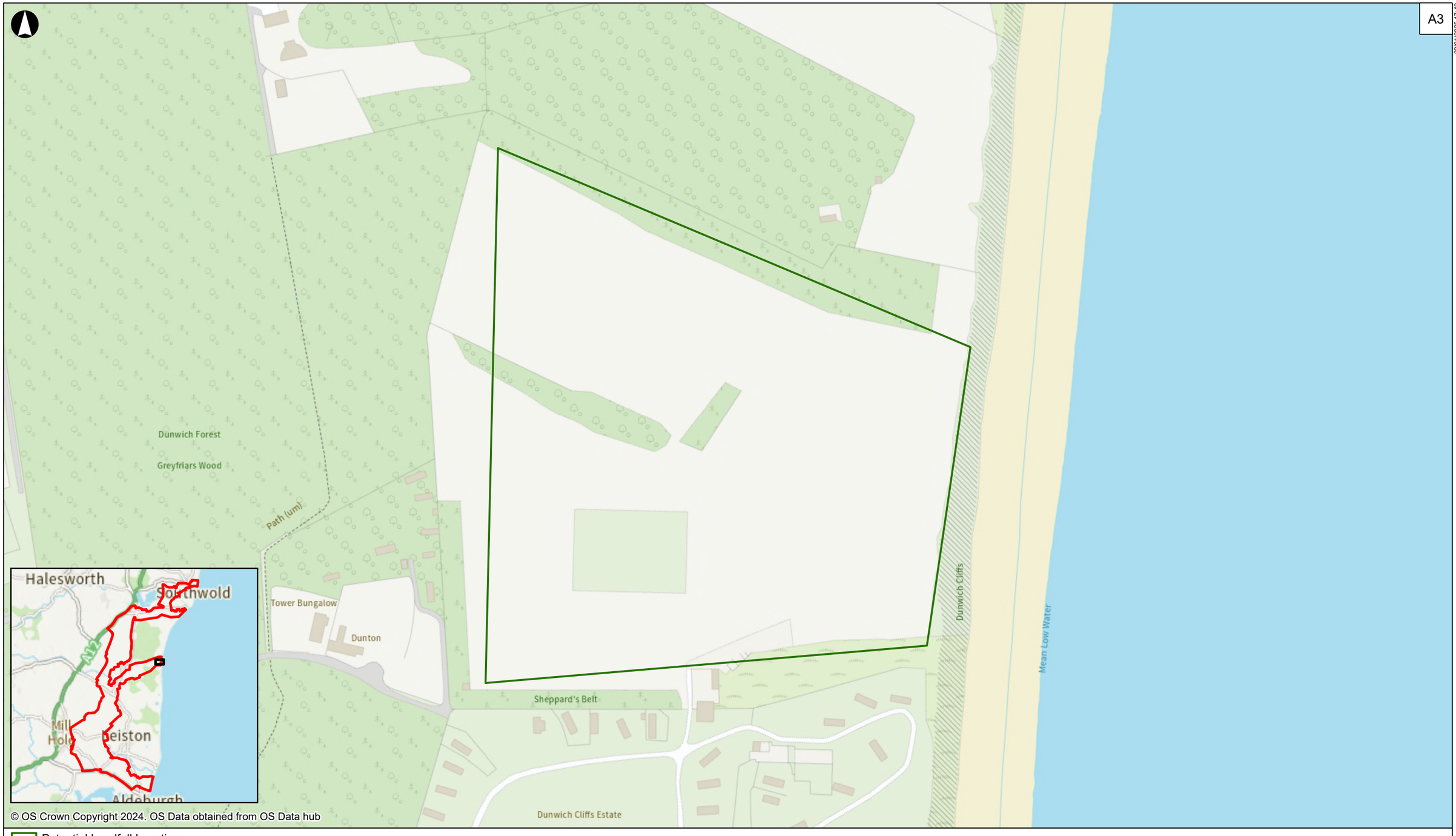
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Potential Landfall Location
Non-statutory Consultation Boundary

Meters
0 50 100 200

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Study Areas with SPA/Ramsar Species Location H (High and Low Tide)

Scale at A3
1:2,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

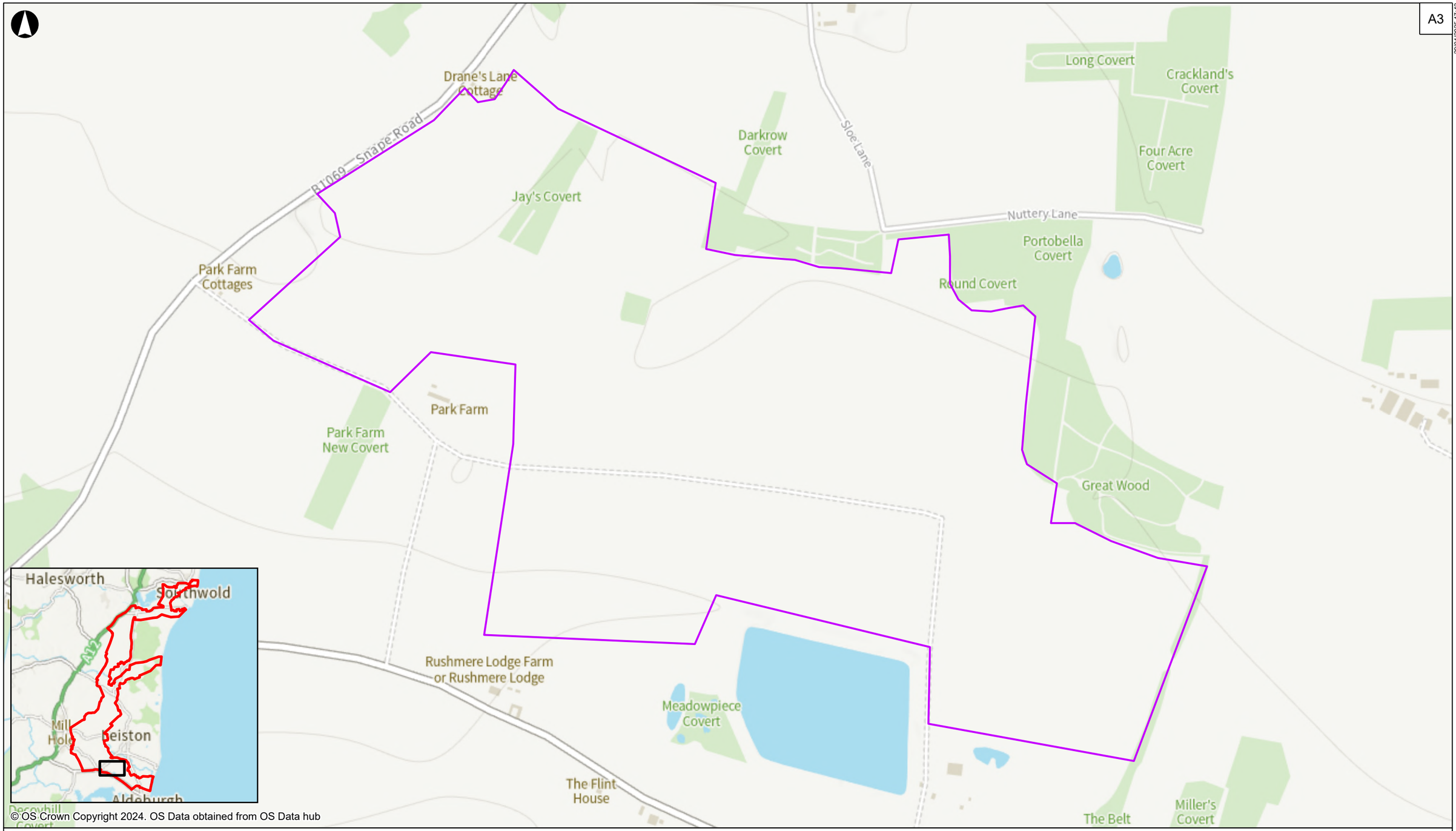
Drawing Number
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Potential Convertor Station Location

Non-statutory Consultation Boundary

Meters
0 50 100 200

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Study Areas with SPA/Ramsar Species Site 1 (High and Low Tide)

Scale at A3
1:6,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

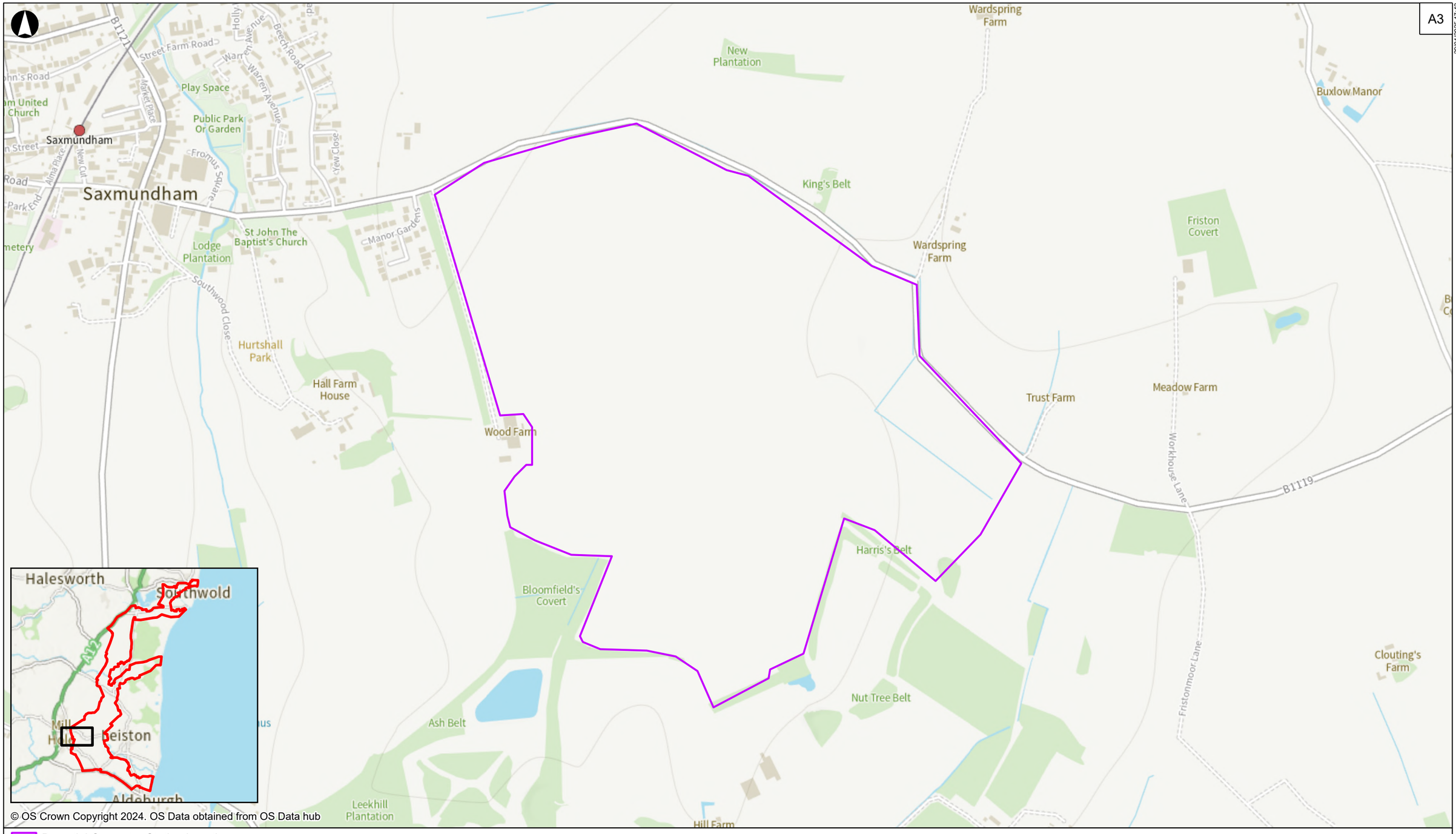
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Potential Convertor Station Location

Non-statutory Consultation Boundary

Meters

0 50 100 200

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Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Wintering Bird Survey 2022/2023

Drawing Title

Study Areas with SPA/Ramsar Species Site 3 (High and Low Tide)

Scale at A3

1:7,500

Role

Ecology

Suitability

For Information

Project Number

287334

Rev

P01

Drawing Number

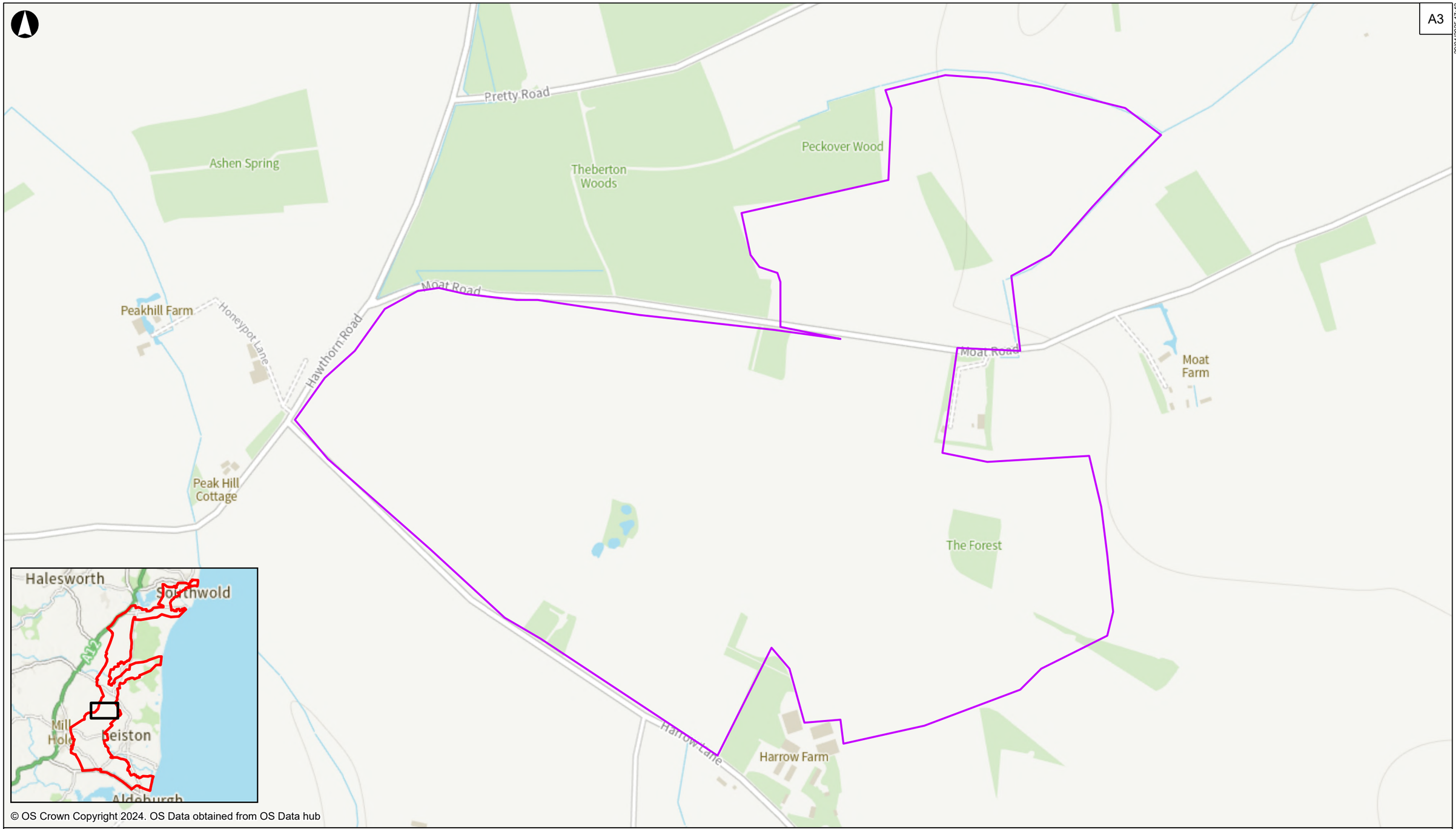
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Potential Convertor Station Location

Non-statutory Consultation Boundary

Meters

0 50 100 200

Rev	Date	By	Chkd	Appd	Authd
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Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Wintering Bird Survey 2022/2023

Drawing Title

Study Areas with SPA/Ramsar Species Site 4 (High and Low Tide)

Scale at A3

1:6,500

Role

Ecology

Suitability

For Information

Project Number

287334

Rev

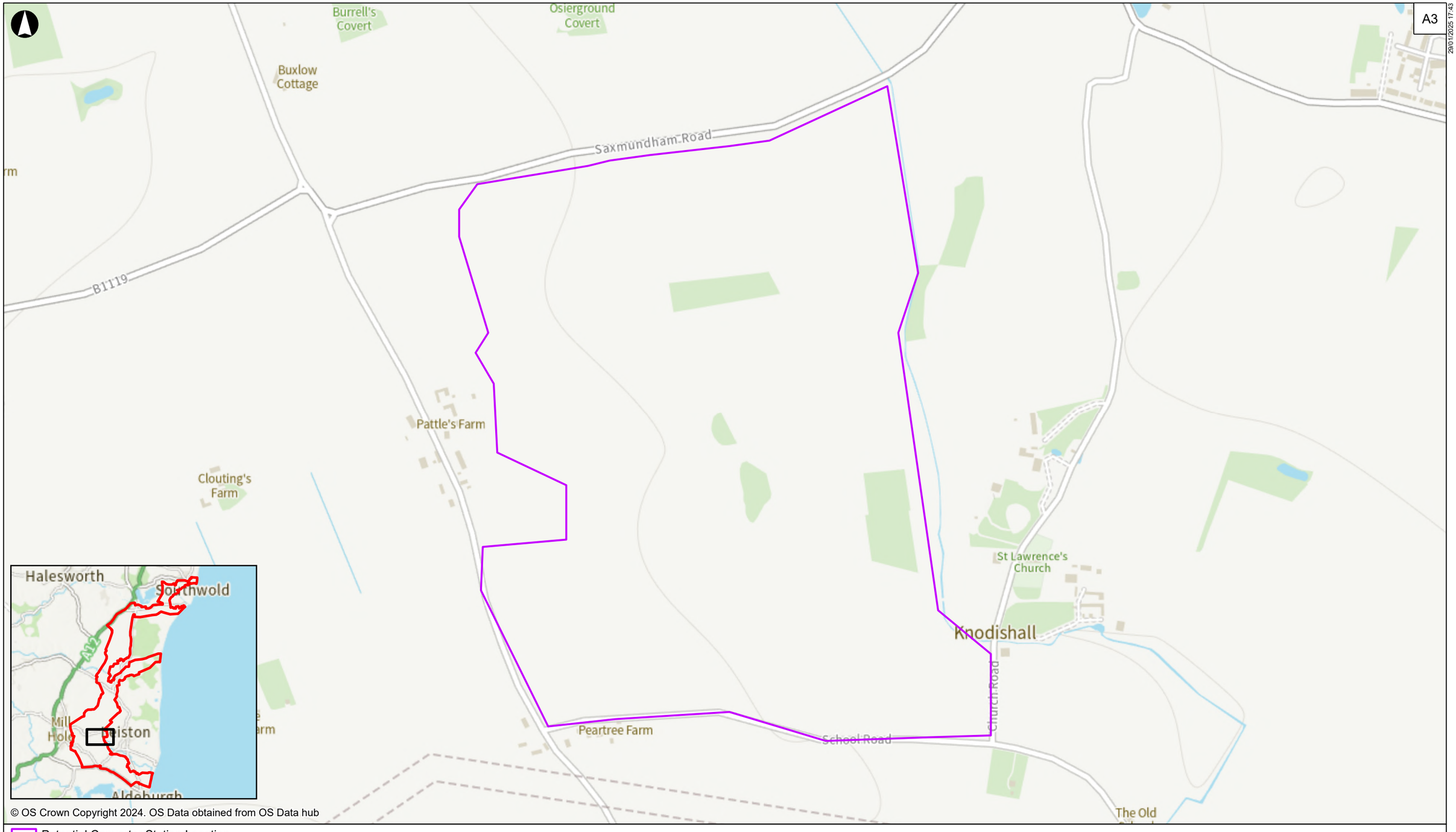
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Drawing Number

Figure 3.57

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Potential Convertor Station Location
Non-statutory Consultation Boundary

Meters
0 50 100 200

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Study Areas with SPA/Ramsar Species Site 5 (High and Low Tide)

Scale at A3
1:6,500

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

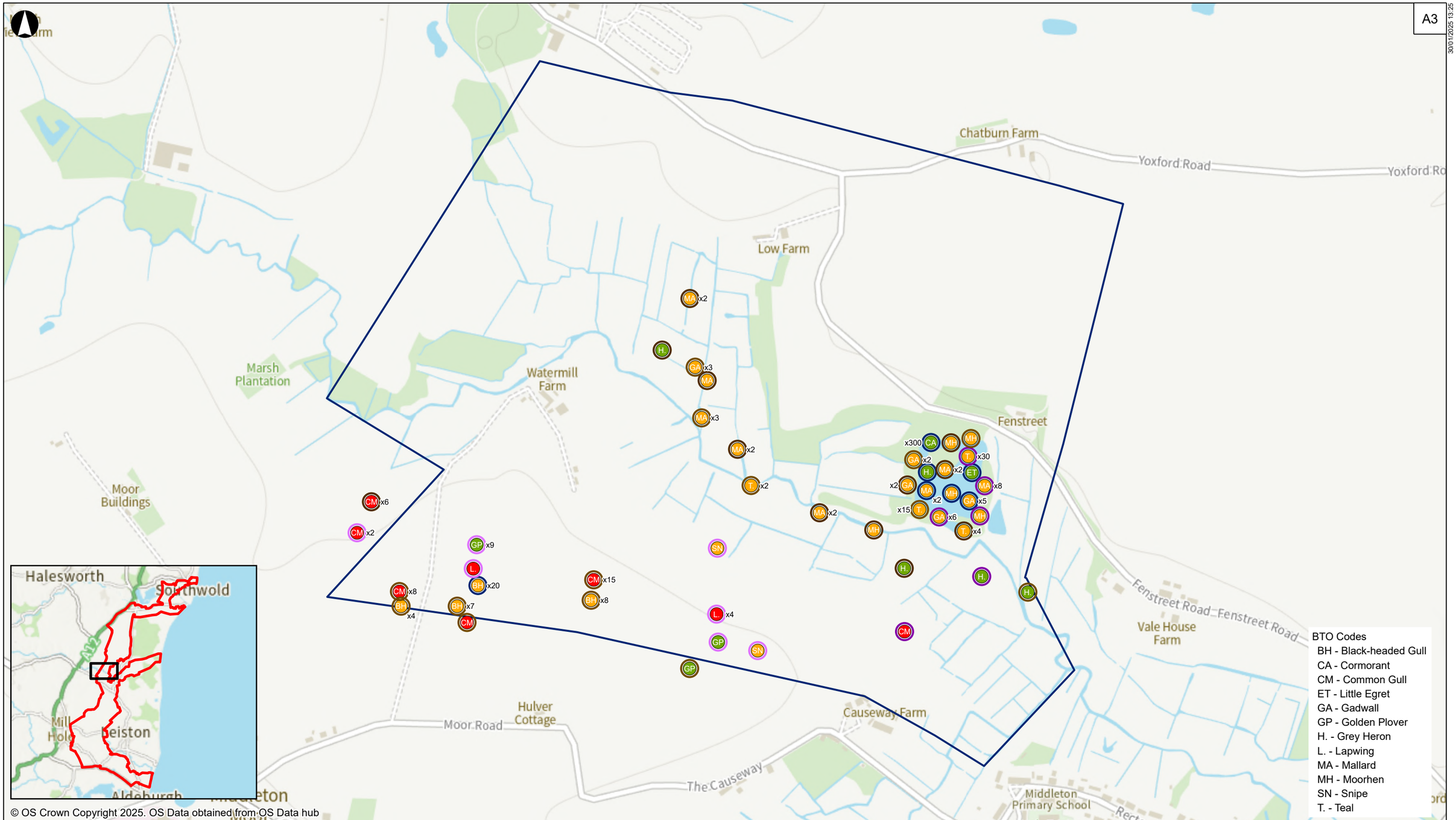
Drawing Number
Figure 3.58

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Birds of Conservation Concern

- Red
- Amber
- Green
- Potential Cable Corridor
- Non-statutory Consultation Boundary

Visits

- Visit 2
- Visit 3
- Visit 4
- Visit 5
- Visit 6

Meters

0 50 100 200

Coordinate System: British National Grid

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Client

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Project Name

LIONLINK

Wintering Bird Survey 2022/2023

Drawing Title

Crossing of River Minsmere At Darsham Marshes Wintering Bird Survey Results

Scale at A3

1:6,500

Role

Ecology

Suitability

For Information

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Rev

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Drawing Number

Figure 6

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Low Barn Cottages

Walkburn Cottages

Fenstreet Road

Vale House Farm

Mill Road

Black Slough

Reckford Run

Middleton Primary School

Holy Trinity Church

Rectory Road

Back Road

Reckford Road

Fletcher's Lane

Play Space

Playing Field

B1122

Minsmere Old River

Alder Carr

Ash Yard

Stonehill



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BTO Codes
- GA - Gadwall
- H. - Grey Heron
- KF - Kingfisher
- MA - Mallard
- MR - Marsh Harrier
- MS - Mute Swan
- T. - Teal

Birds of Conservation Concern
- Amber
- Green
- Potential Cable Corridor
- Non-statutory Consultation Boundary

Visits
- Visit 2
- Visit 3
- Visit 4
- Visit 5
- Visit 6

Meters
0 50 100 200

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Crossing of River Minsmere At Reckford Wintering Bird Survey Results

Scale at A3
1:6,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

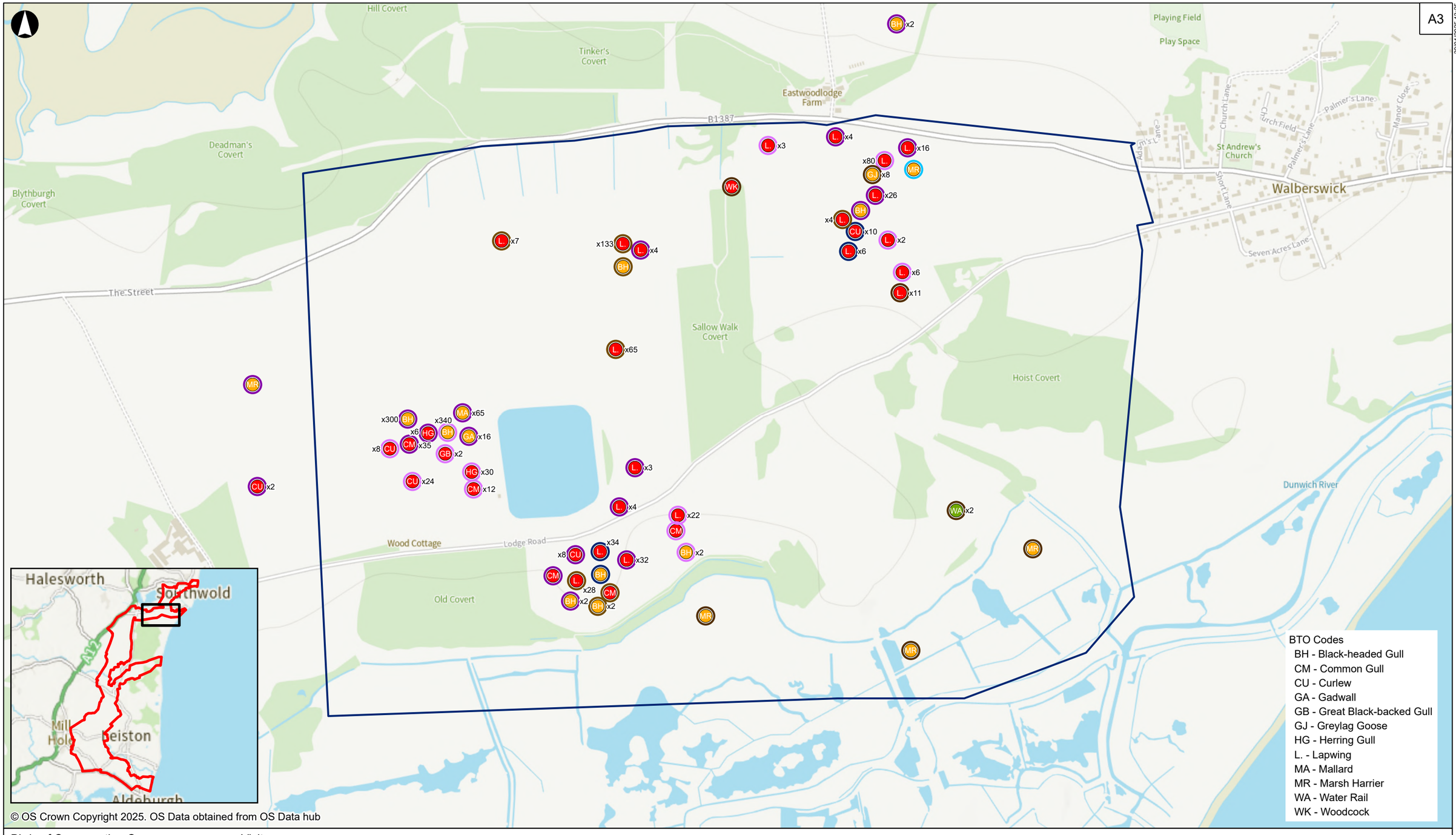
Drawing Number
Figure 7

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BTO Codes

- BH - Black-headed Gull
- CM - Common Gull
- CU - Curlew
- GA - Gadwall
- GB - Great Black-backed Gull
- GJ - Greylag Goose
- HG - Herring Gull
- L. - Lapwing
- MA - Mallard
- MR - Marsh Harrier
- WA - Water Rail
- WK - Woodcock

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Birds of Conservation Concern

- Red
- Amber
- Green
- Potential Cable Corridor
- Non-statutory Consultation Boundary

Visits

- Visit 1
- Visit 2
- Visit 3
- Visit 4
- Visit 5
- Visit 6

Meters

0 50 100 200

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Wintering Bird Survey 2022/2023

Drawing Title

Crossing of SPA/Ramsar/SSSI at Sallow Walk Covert Wintering Bird Survey Results

Scale at A3

1:9,000

Role

Ecology

Suitability

For Information

Project Number

287334

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P01

Drawing Number

Figure 8

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The Green

Millfield Road

Allotments

Dunwich River

Halesworth

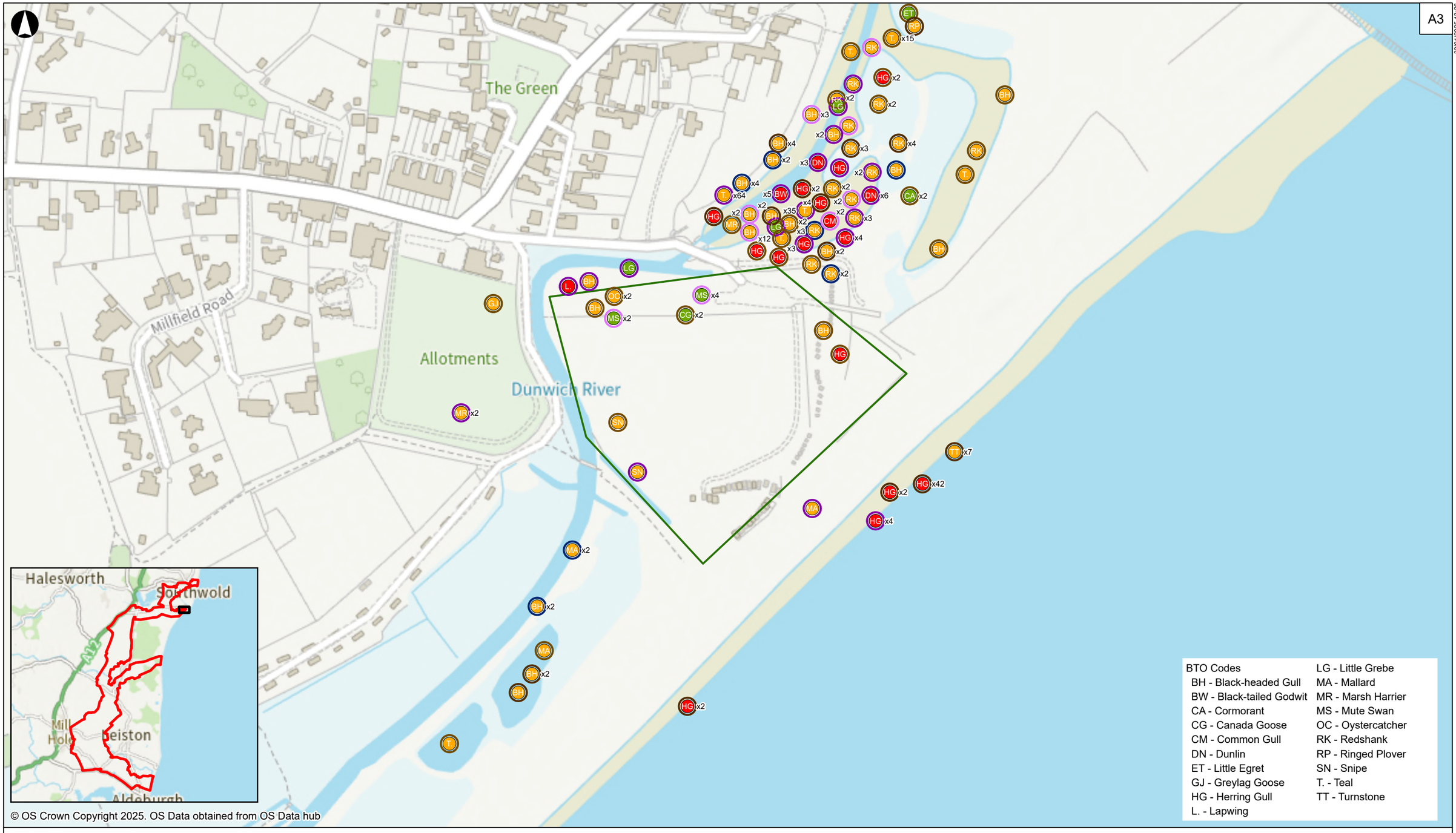
Southwold

A12

Mill Hol

Beiston

Aldeburgh



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BTO Codes

BH - Black-headed Gull	LG - Little Grebe
BW - Black-tailed Godwit	MA - Mallard
CA - Cormorant	MR - Marsh Harrier
CG - Canada Goose	MS - Mute Swan
CM - Common Gull	OC - Oystercatcher
DN - Dunlin	RK - Redshank
ET - Little Egret	RP - Ringed Plover
GJ - Greylag Goose	SN - Snipe
HG - Herring Gull	T. - Teal
L. - Lapwing	TT - Turnstone

Birds of Conservation Concern
- Red
- Amber
- Green
- Potential Landfall Location
- Non-statutory Consultation Boundary

Visits
- Visit 2
- Visit 3
- Visit 4
- Visit 5
- Visit 6

Meters
0 50 100 200

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Location G Wintering Bird Survey Results

Scale at A3
1:2,500

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

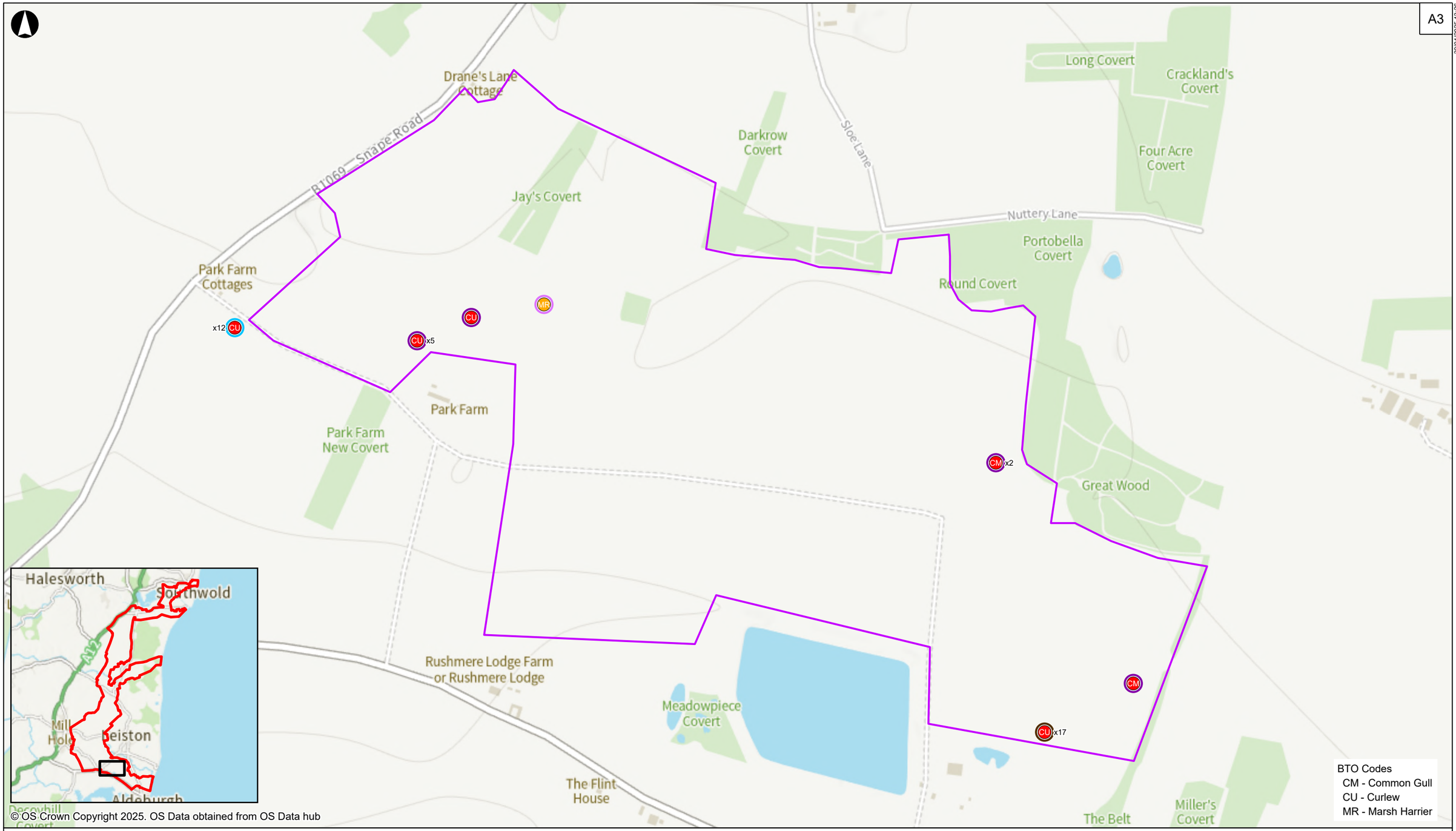
Drawing Number
Figure 11

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Birds of Conservation Concern
- Red
- Amber
- Potential Convertor Station Location
- Non-statutory Consultation Boundary

Visits
- Visit 1
- Visit 3
- Visit 4
- Visit 6

Meters
0 50 100 200

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Site 1 Wintering Bird Survey Results

Scale at A3
1:6,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

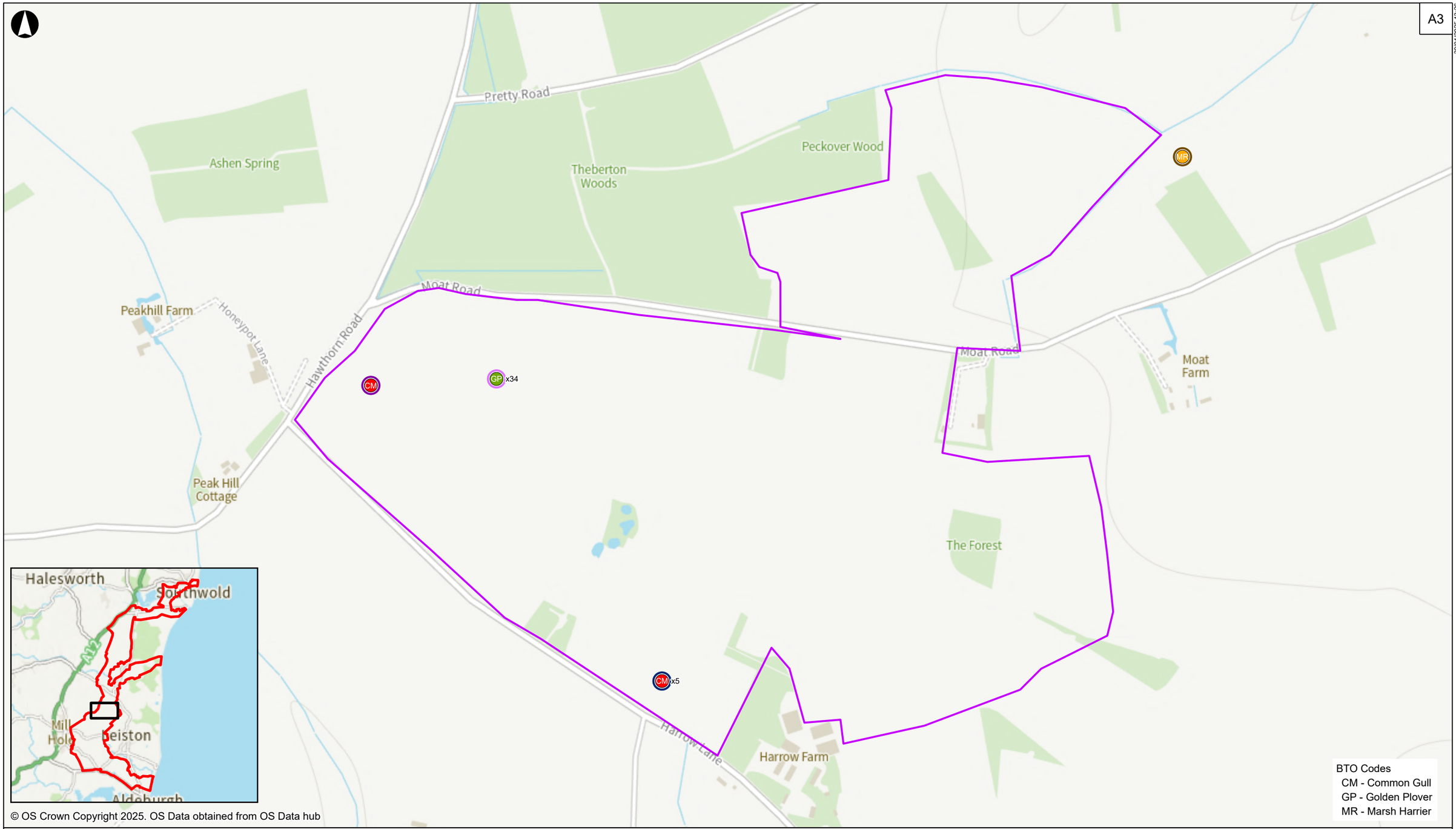
Drawing Number
Figure 13

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Birds of Conservation Concern
- Red
- Amber
- Green
- Potential Convertor Station Location
- Non-statutory Consultation Boundary

Visits
- Visit 2
- Visit 3
- Visit 4
- Visit 5

Meters
0 50 100 200

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2022/2023

Drawing Title
Site 4 Wintering Bird Survey Results

Scale at A3
1:6,500

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

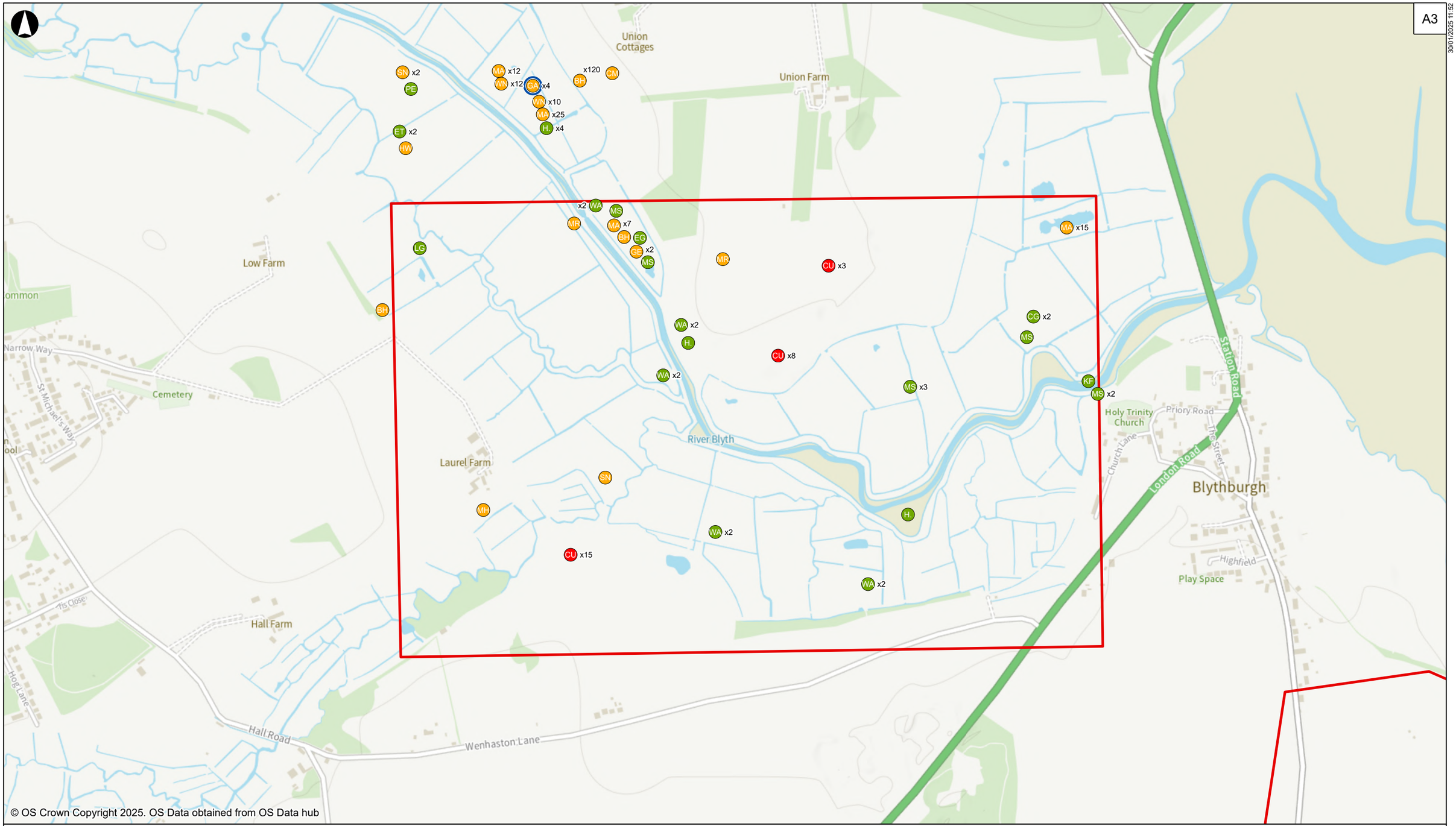
Drawing Number
Figure 15

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Birds of Conservation Concern
- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes			
BH - Black-headed Gull	EG - Egyptian Goose	HW - Great White Egret	MS - Mute Swan
CG - Canada Goose	ET - Little Egret	LG - Little Grebe	PE - Peregrine
CM - Common Gull	GA - Gadwall	MA - Mallard	SN - Snipe
CU - Curlew	GE - Green Sandpiper	MH - Moorhen	WA - Water Rail
	H. - Grey Heron	MR - Marsh Harrier	WN - Wigeon

Metres
0 100 200 400
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Client

National Grid LionLink Limited (NGLLL)

Project Name

LIONLINK

Wintering Bird Survey 2023/2024

Drawing Title

River Blyth Crossing October 2023

Scale at A3
1:8,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

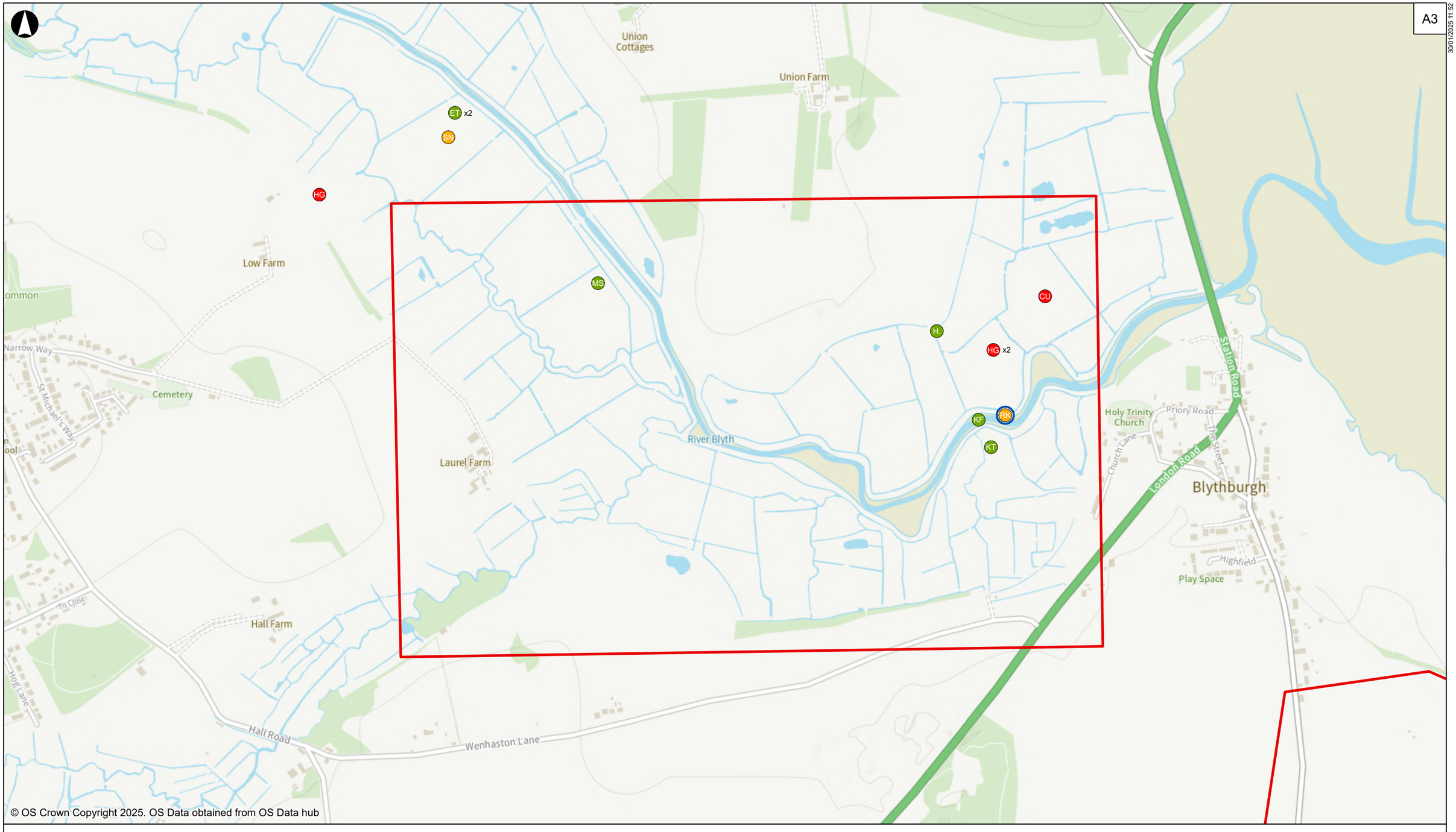
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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes			
CU - Curlew	H. - Grey Heron	MS - Mute Swan	
ET - Little Egret	HG - Herring Gull	RK - Redshank	
	KT - Red Kite	SN - Snipe	

Metres
0 100 200 400
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2023/2024

Drawing Title
River Blyth Crossing November 2023

Scale at A3
1:8,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

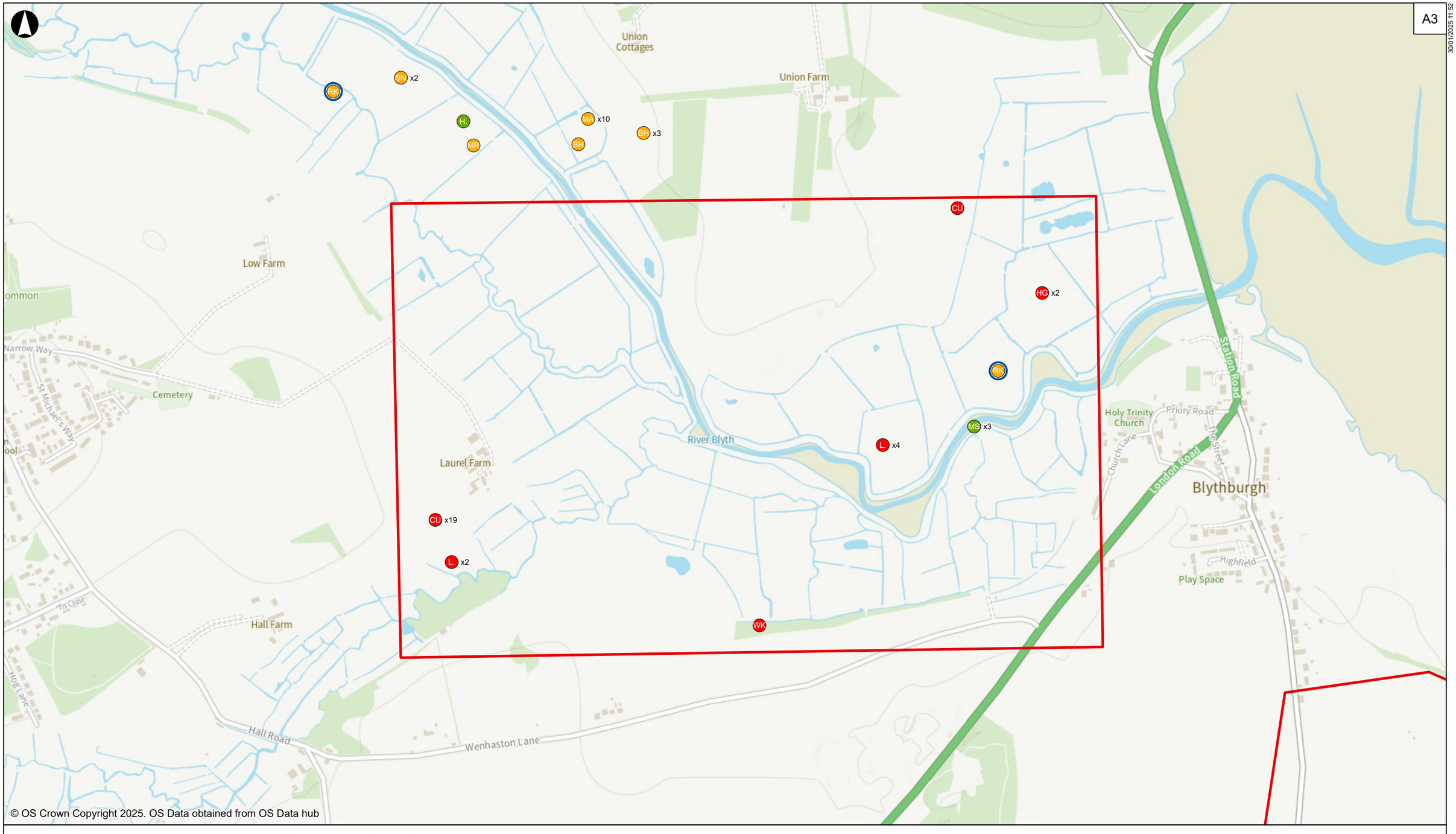
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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

BH - Black-headed Gull	HG - Herring Gull	MS - Mute Swan
CU - Curlew	L. - Lapwing	RK - Redshank
H. - Grey Heron	MA - Mallard	SN - Snipe
	MR - Marsh Harrier	WK - Woodcock

Metres

0 100 200 400

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Client

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Project Name

LIONLINK

Wintering Bird Survey 2023/2024

Drawing Title

River Blyth Crossing December 2023

Scale at A3

1:8,000

Role

Ecology

Suitability

For Information

Project Number

287334

Rev

P01

Drawing Number

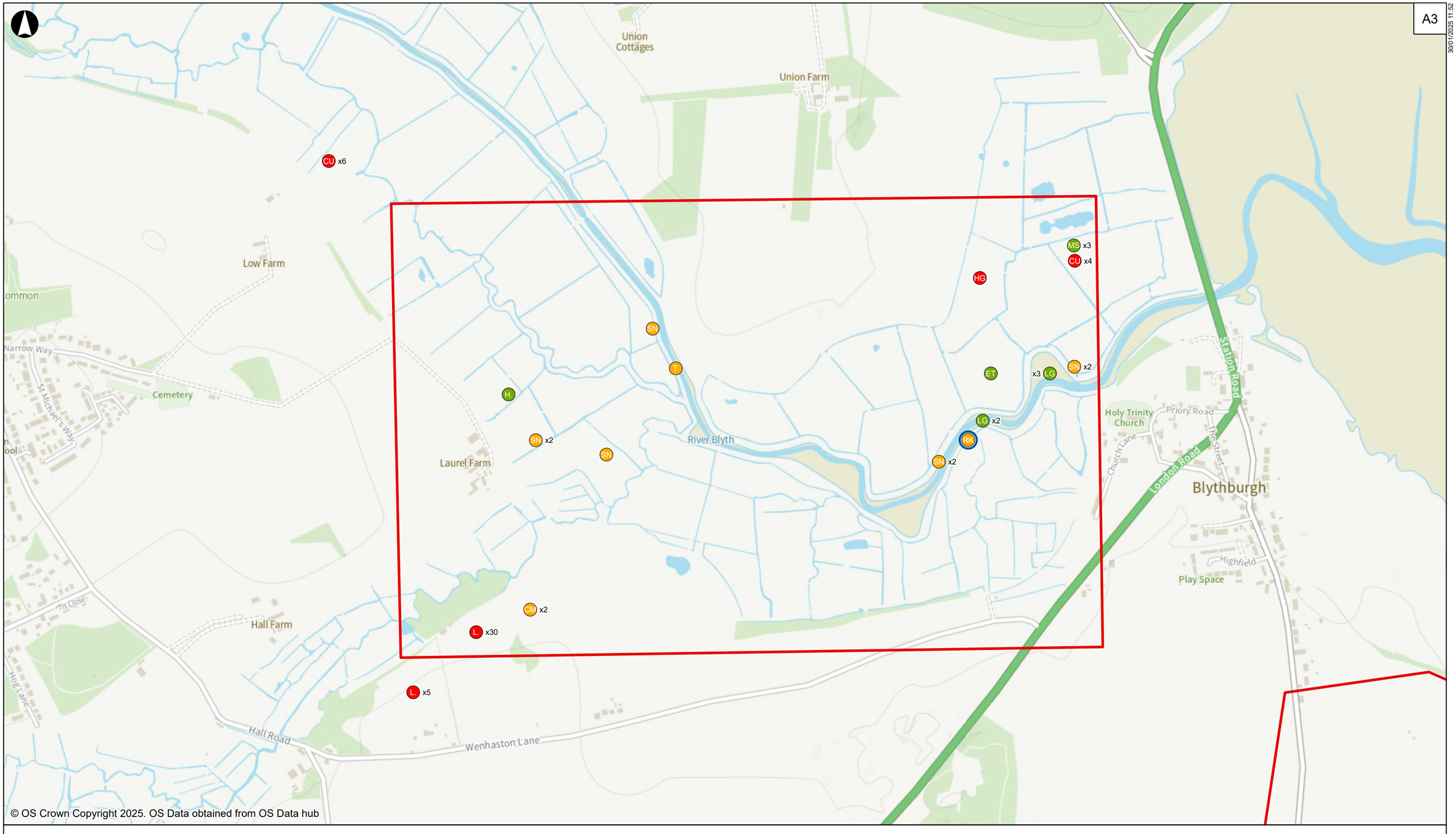
Figure 3.3

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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes		
CM - Common Gull	HG - Herring Gull	RK - Redshank
CU - Curlew	L. - Lapwing	SN - Snipe
ET - Little Egret	LG - Little Grebe	T. - Teal
H. - Grey Heron		MS - Mute Swan

Metres
0 100 200 400
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2023/2024

Drawing Title
River Blyth Crossing January 2024

Scale at A3
1:8,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

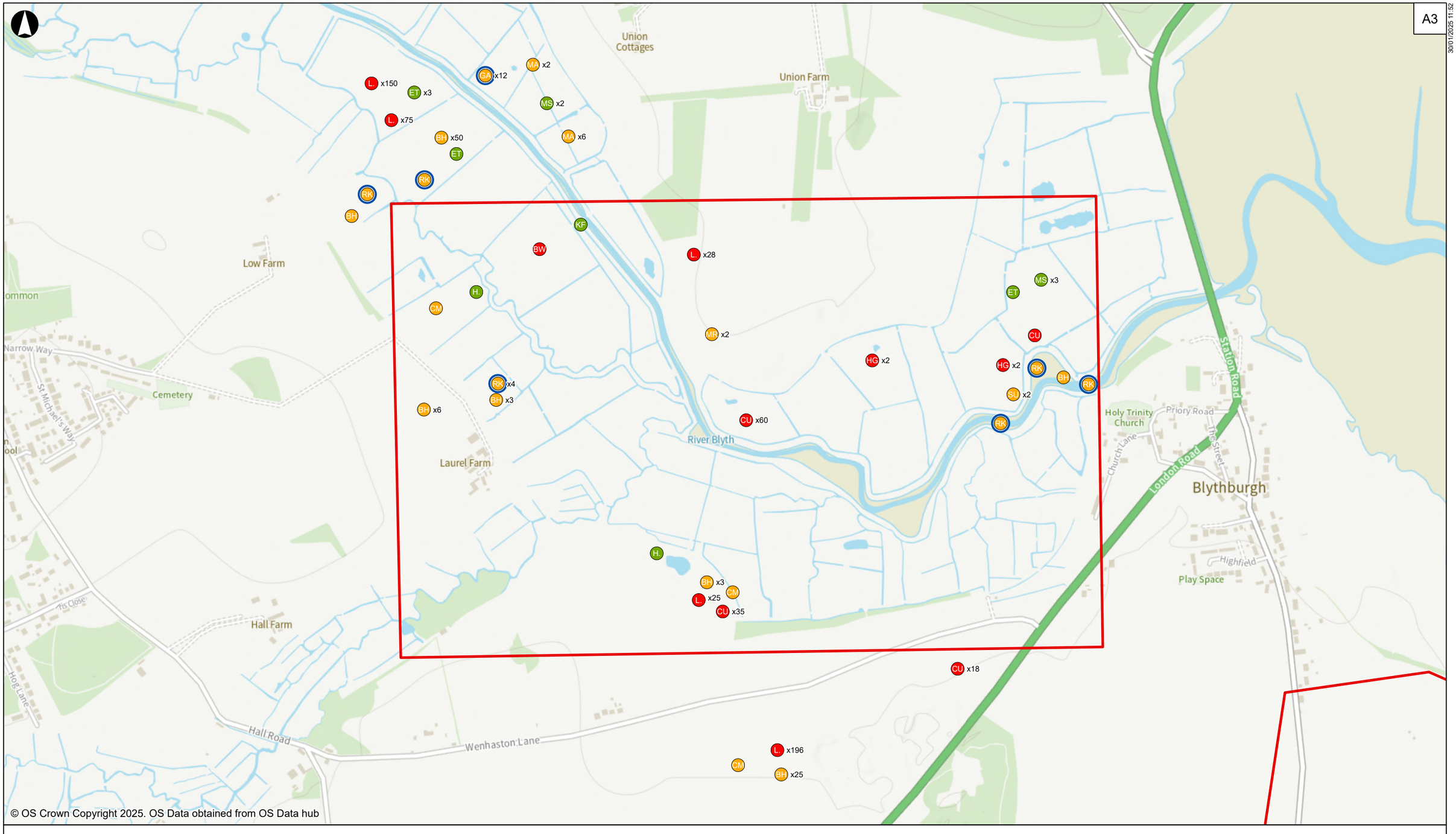
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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

BH - Black-headed Gull	ET - Little Egret	MA - Mallard
BW - Black-tailed Godwit	H. - Grey Heron	MR - Marsh Harrier
CM - Common Gull	HG - Herring Gull	MS - Mute Swan
CU - Curlew	L. - Lapwing	RK - Redshank
		SU - Shelduck

Metres

0 100 200 400

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Project Name

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Wintering Bird Survey 2023/2024

Drawing Title

River Blyth Crossing February 2024

Scale at A3

1:8,000

Role

Ecology

Suitability

For Information

Project Number

287334

Rev

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Drawing Number

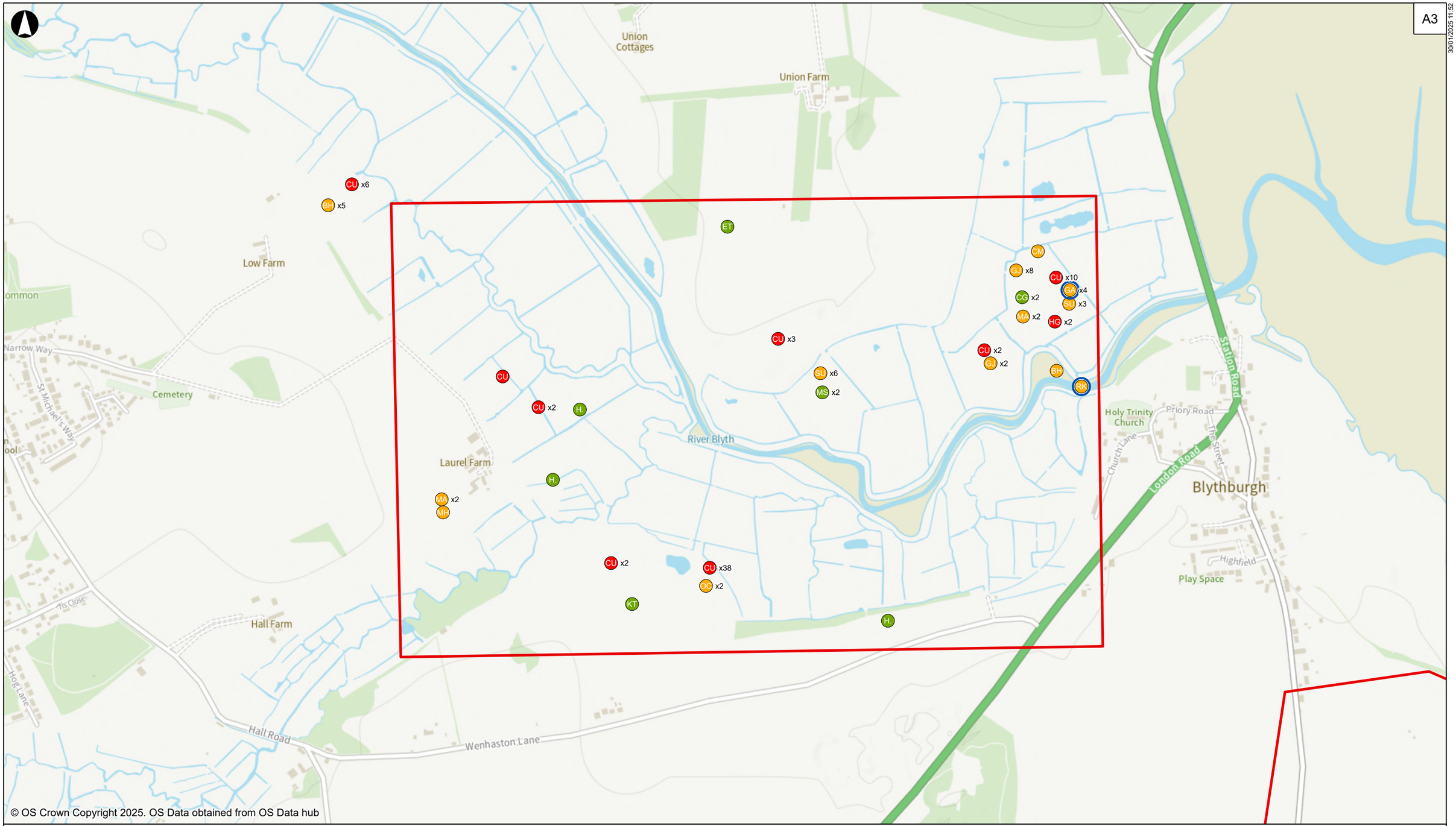
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Birds of Conservation Concern
- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

BH - Black-headed Gull	ET - Little Egret	KT - Red Kite	RK - Redshank
CG - Canada Goose	GA - Gadwall	MA - Mallard	SU - Shelduck
CM - Common Gull	GJ - Greylag Goose	MH - Moorhen	
CU - Curlew	H. - Grey Heron	MS - Mute Swan	
	HG - Herring Gull	OC - Oystercatcher	

Metres
0 100 200 400
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Project Name
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Wintering Bird Survey 2023/2024

Drawing Title
River Blyth Crossing March 2024

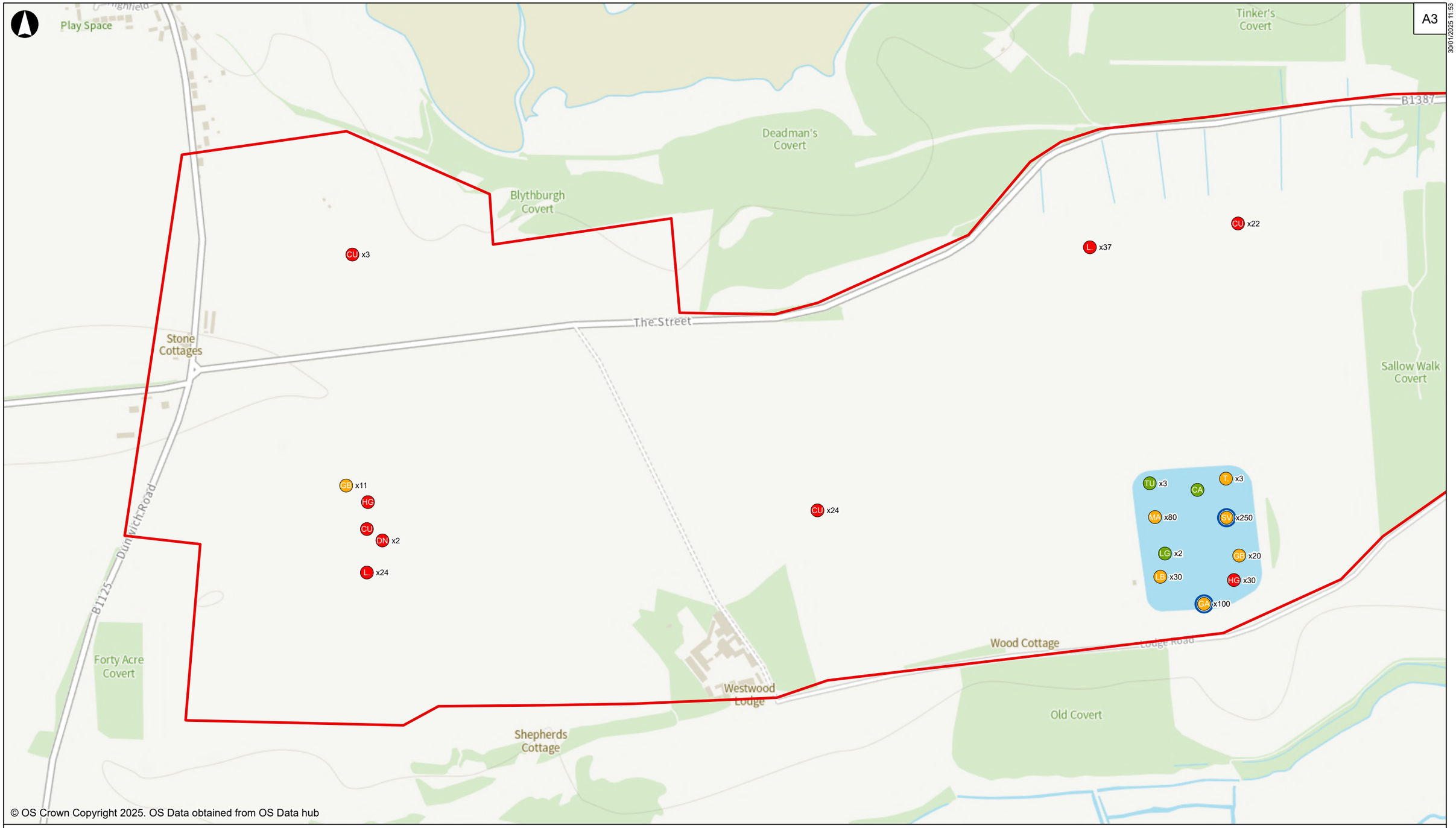
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Role
Ecology
Suitability
For Information
Project Number
287334
Rev
P01
Drawing Number
Figure 3.6

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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

CA - Cormorant	GB - Great Black-backed Gull	MA - Mallard
CU - Curlew	HG - Herring Gull	SV - Shoveler
DN - Dunlin	L. - Lapwing	T. - Teal
GA - Gadwall	LB - Lesser Black-backed Gull	TU - Tufted Duck
	LG - Little Grebe	

Metres
0 100 200
Coordinate System: British National Grid

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Drawing Title
Walberswick Corridor (West) October 2023

Scale at A3
1:7,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
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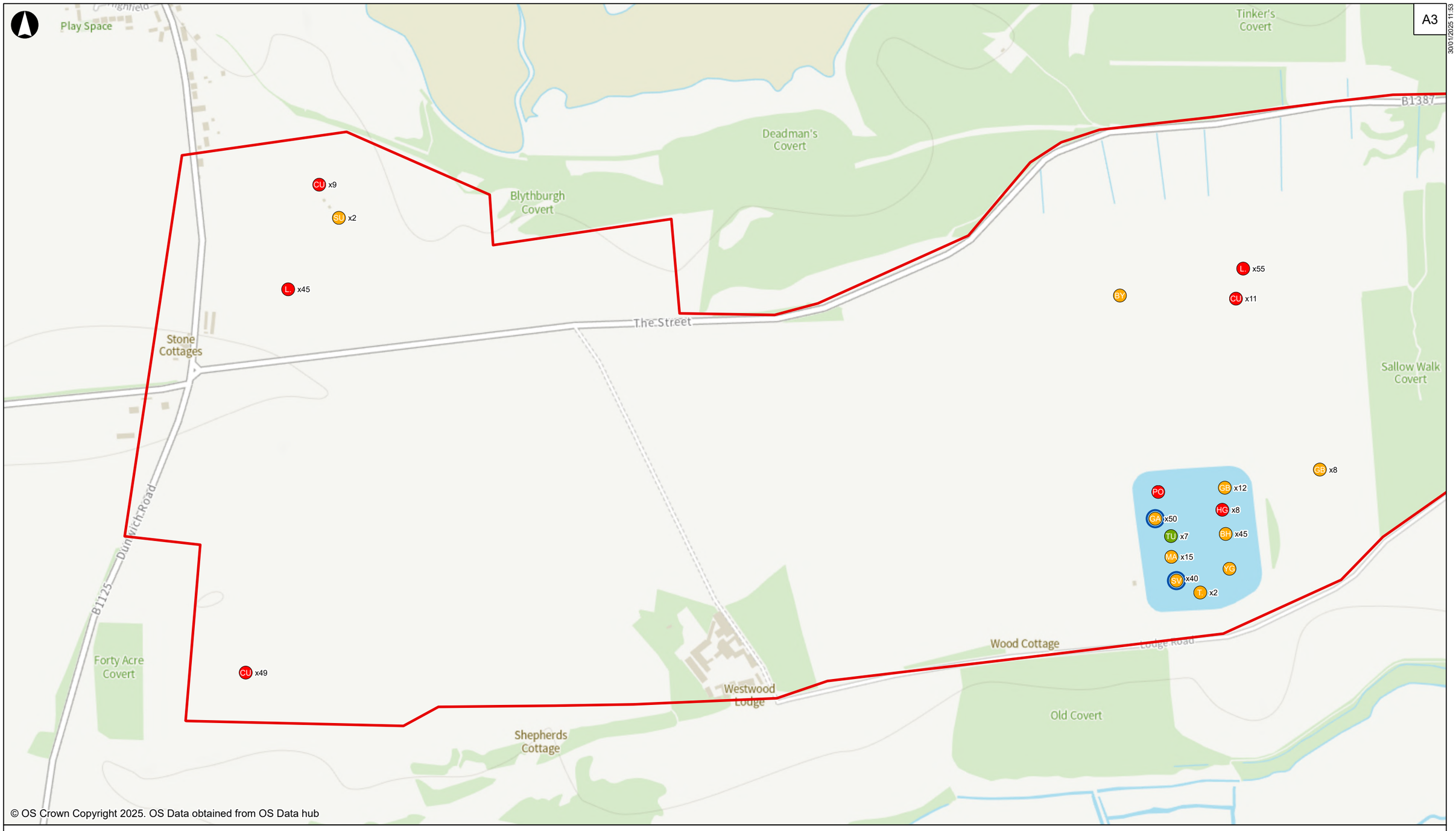
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Birds of Conservation Concern
- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

BH - Black-headed Gull	GB - Great Black-backed Gull	SU - Shelduck
BY - Barnacle Goose	HG - Herring Gull	SV - Shoveler
CU - Curlew	L. - Lapwing	T. - Teal
GA - Gadwall	MA - Mallard	TU - Tufted Duck
	PO - Pochard	YG - Yellow Legged Gull

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (West) November 2023

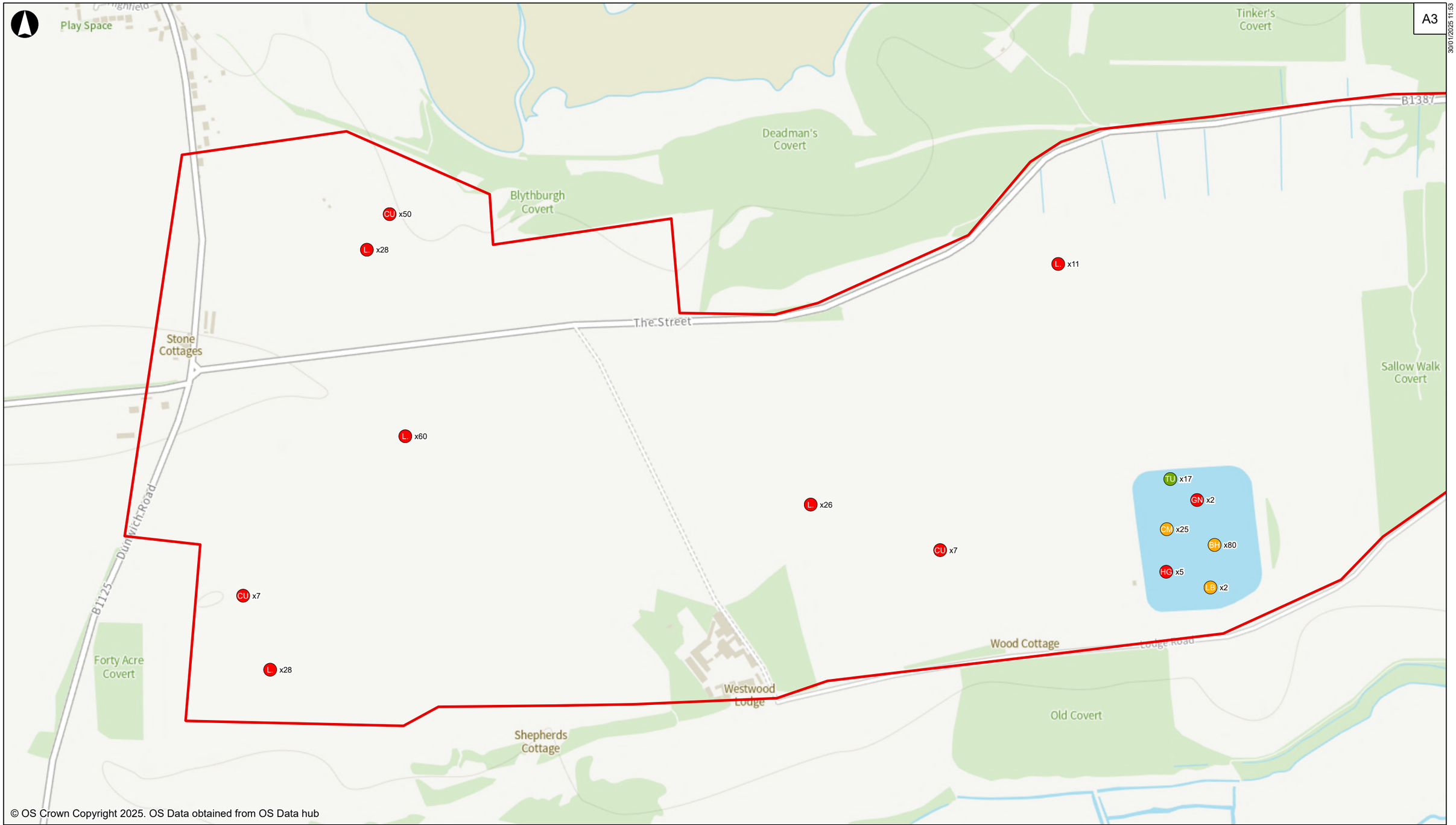
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Role
Ecology
Suitability
For Information
Project Number
287334
Rev
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Drawing Number
Figure 3.26

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Birds of Conservation Concern
- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes
- BH - Black-headed Gull
- CM - Common Gull
- CU - Curlew
- GN - Goldeneye
- HG - Herring Gull
- L. - Lapwing
- LB - Lesser Black-backed Gull
- TU - Tufted Duck

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Walberswick Corridor (West) December 2023

Scale at A3
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Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

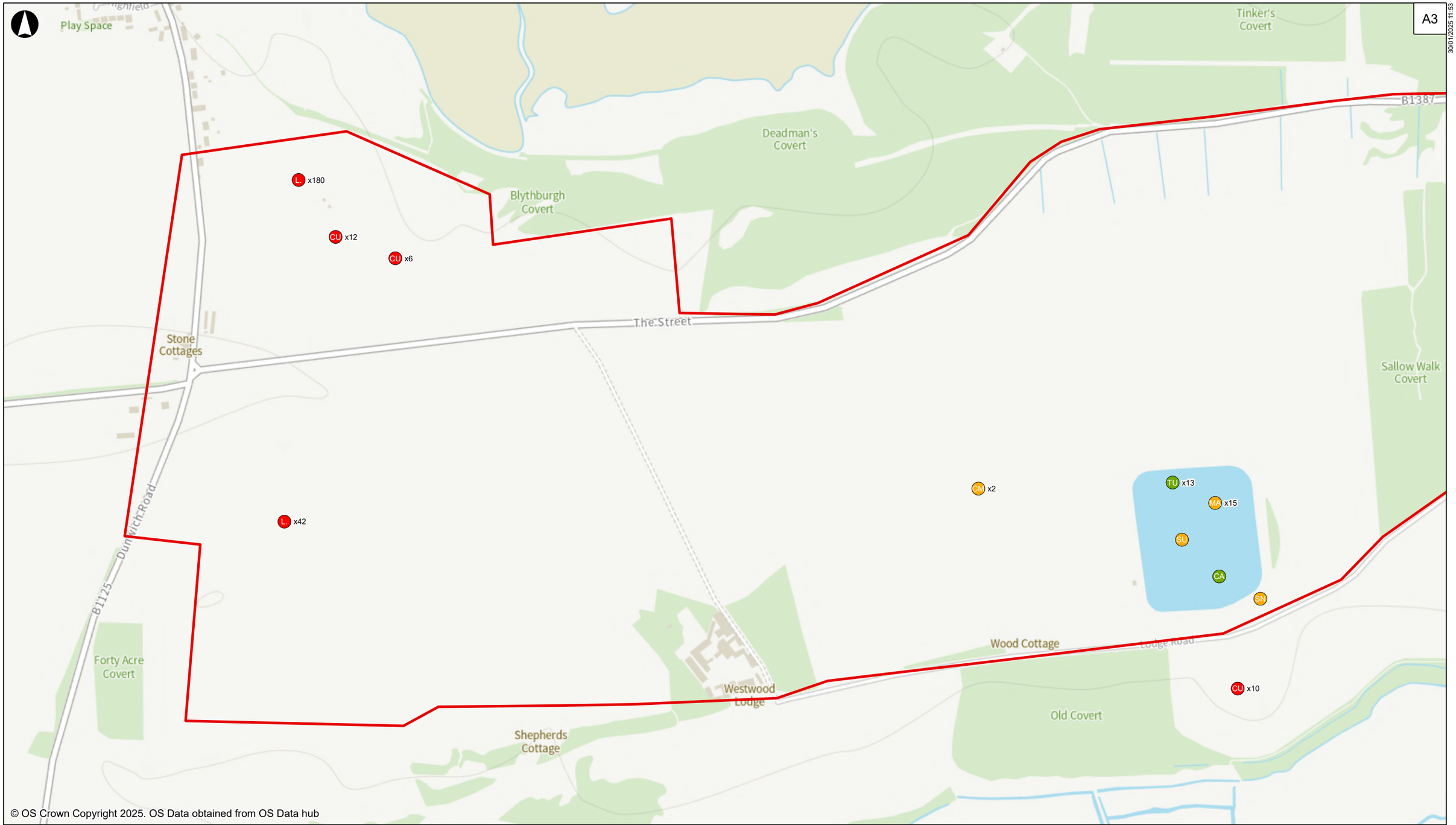
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Birds of Conservation Concern
- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes
CA - Cormorant
CM - Common Gull
CU - Curlew
L. - Lapwing
MA - Mallard
SN - Snipe
SU - Shelduck
TU - Tufted Duck

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Project Name
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Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (West) January 2024

Scale at A3
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Role
Ecology

Suitability
For Information

Project Number
287334

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P01

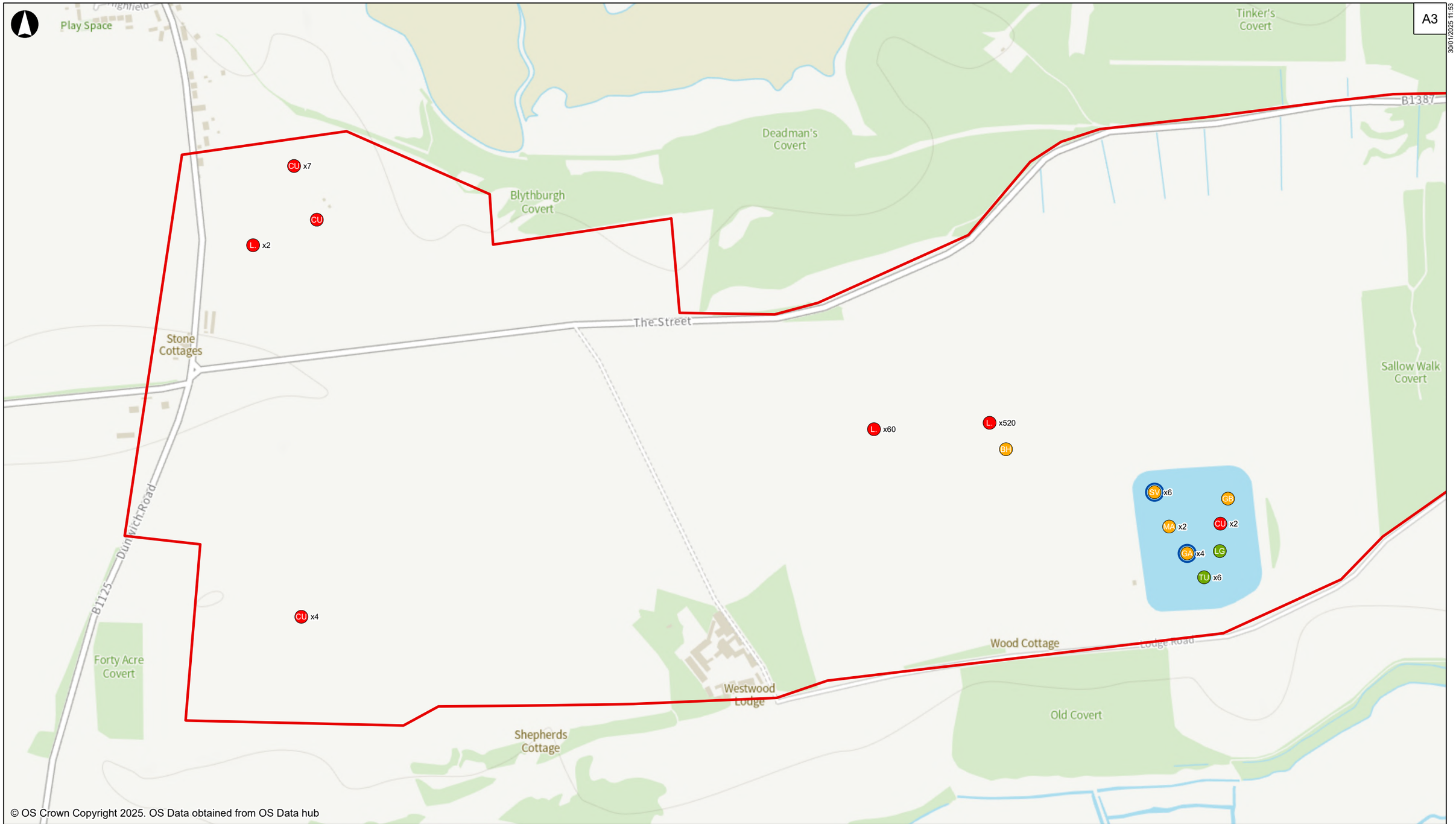
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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

BH - Black-headed Gull	L. - Lapwing
CU - Curlew	LG - Little Grebe
GA - Gadwall	MA - Mallard
GB - Great Black-backed Gull	SV - Shoveler
	TU - Tufted Duck

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Project Name
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Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (West) February 2024

Scale at A3
1:7,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

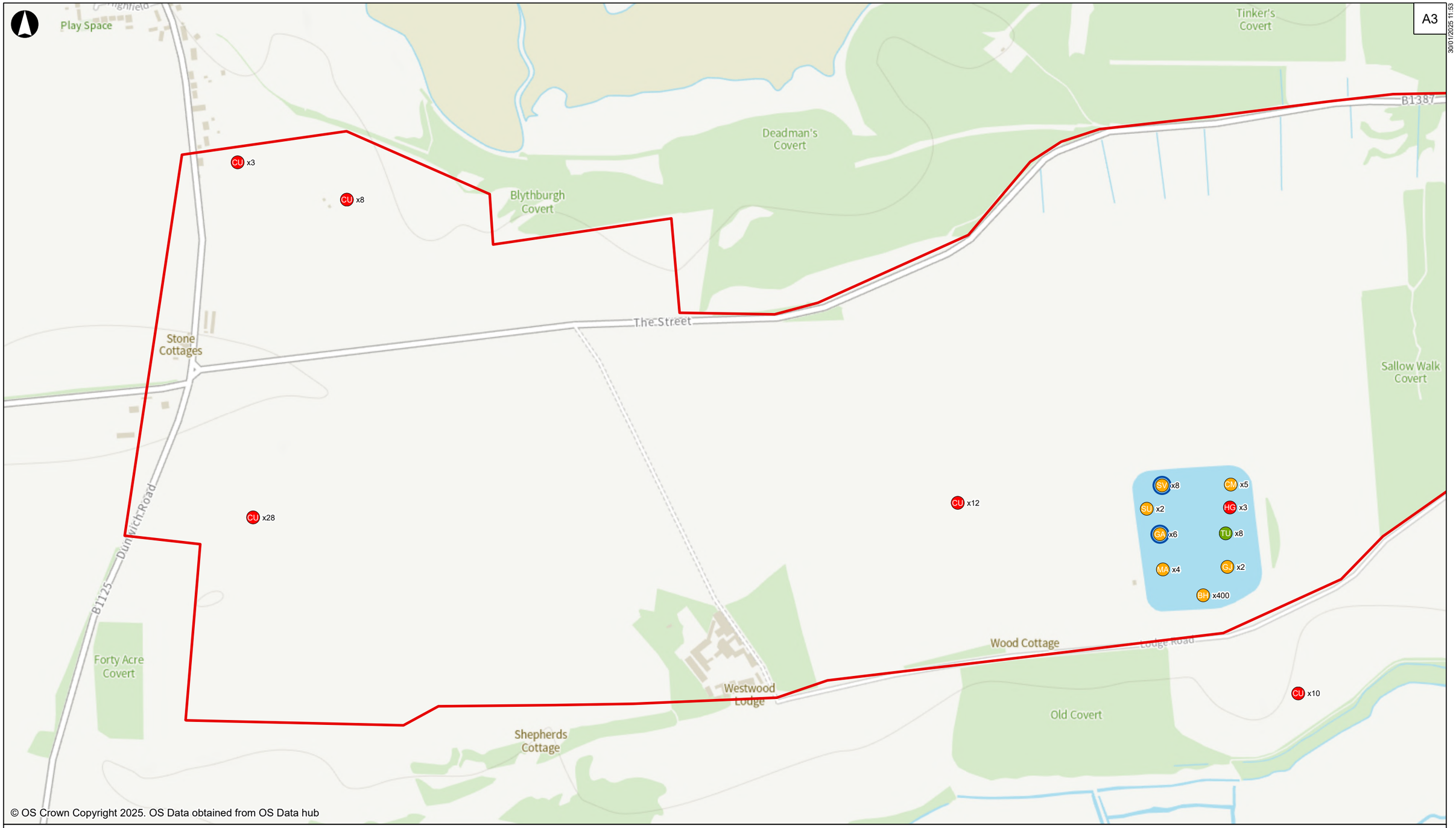
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Birds of Conservation Concern
- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

BH - Black-headed Gull	GA - Gadwall	SU - Shelduck
CM - Common Gull	GJ - Greylag Goose	SV - Shoveler
CU - Curlew	HG - Herring Gull	TU - Tufted Duck
	MA - Mallard	

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Project Name
LIONLINK
Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (West) March 2024

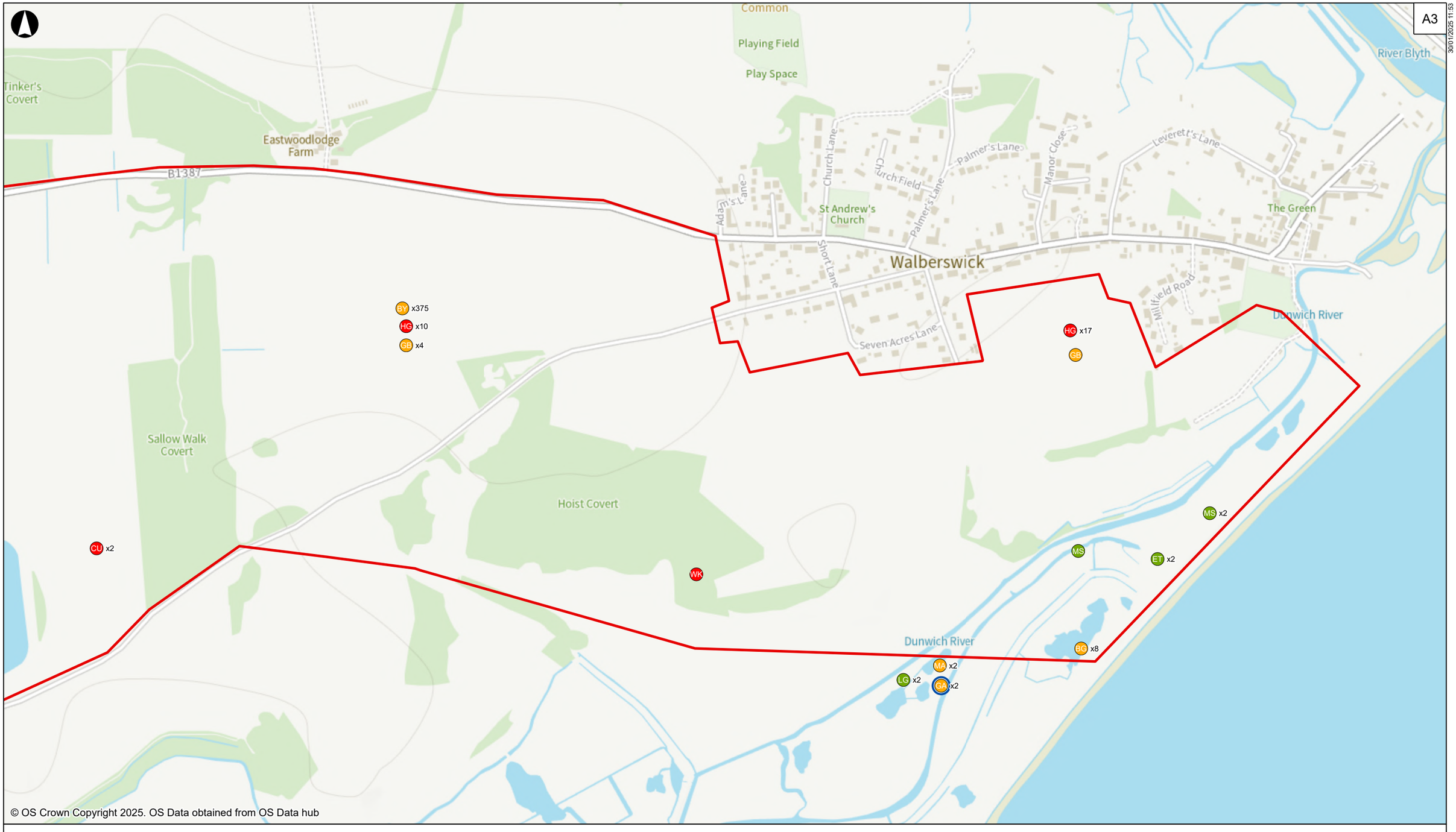
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Role
Ecology
Suitability
For Information
Project Number
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Rev
P01
Drawing Number
Figure 3.30

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Birds of Conservation Concern
- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

BG - Brent Goose	ET - Little Egret	LG - Little Grebe
BY - Barnacle Goose	GA - Gadwall	MA - Mallard
CU - Curlew	GB - Great Black-backed Gull	MS - Mute Swan
	HG - Herring Gull	WK - Woodcock

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Project Name
LIONLINK
Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (East) October 2023

Scale at A3
1:7,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

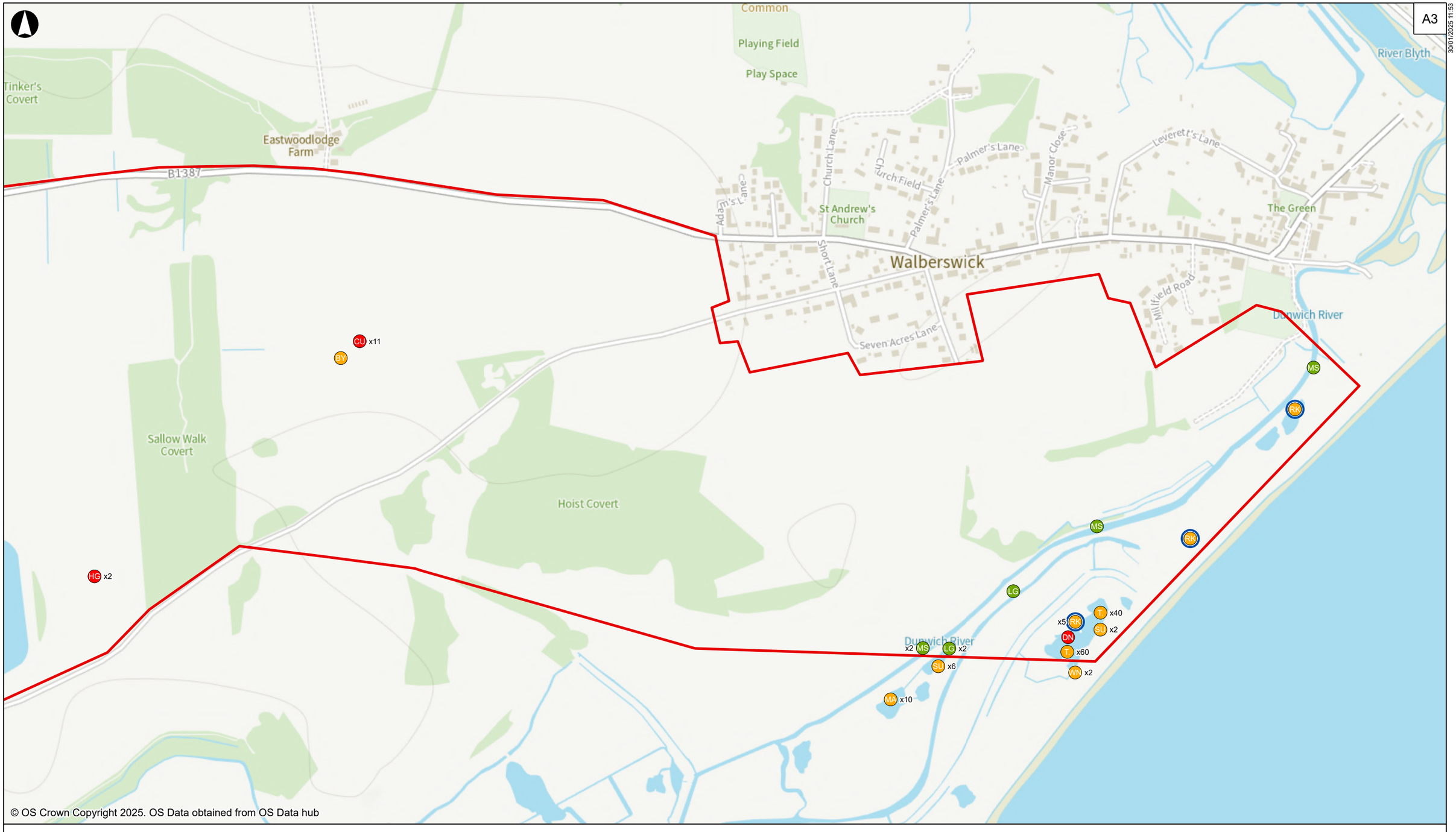
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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes		
BY - Barnacle Goose	LG - Little Grebe	SU - Shelduck
CU - Curlew	MA - Mallard	T. - Teal
DN - Dunlin	MS - Mute Swan	WN - Wigeon
HG - Herring Gull		RK - Redshank

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Project Name
LIONLINK
Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (East) November 2023

Scale at A3
1:7,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

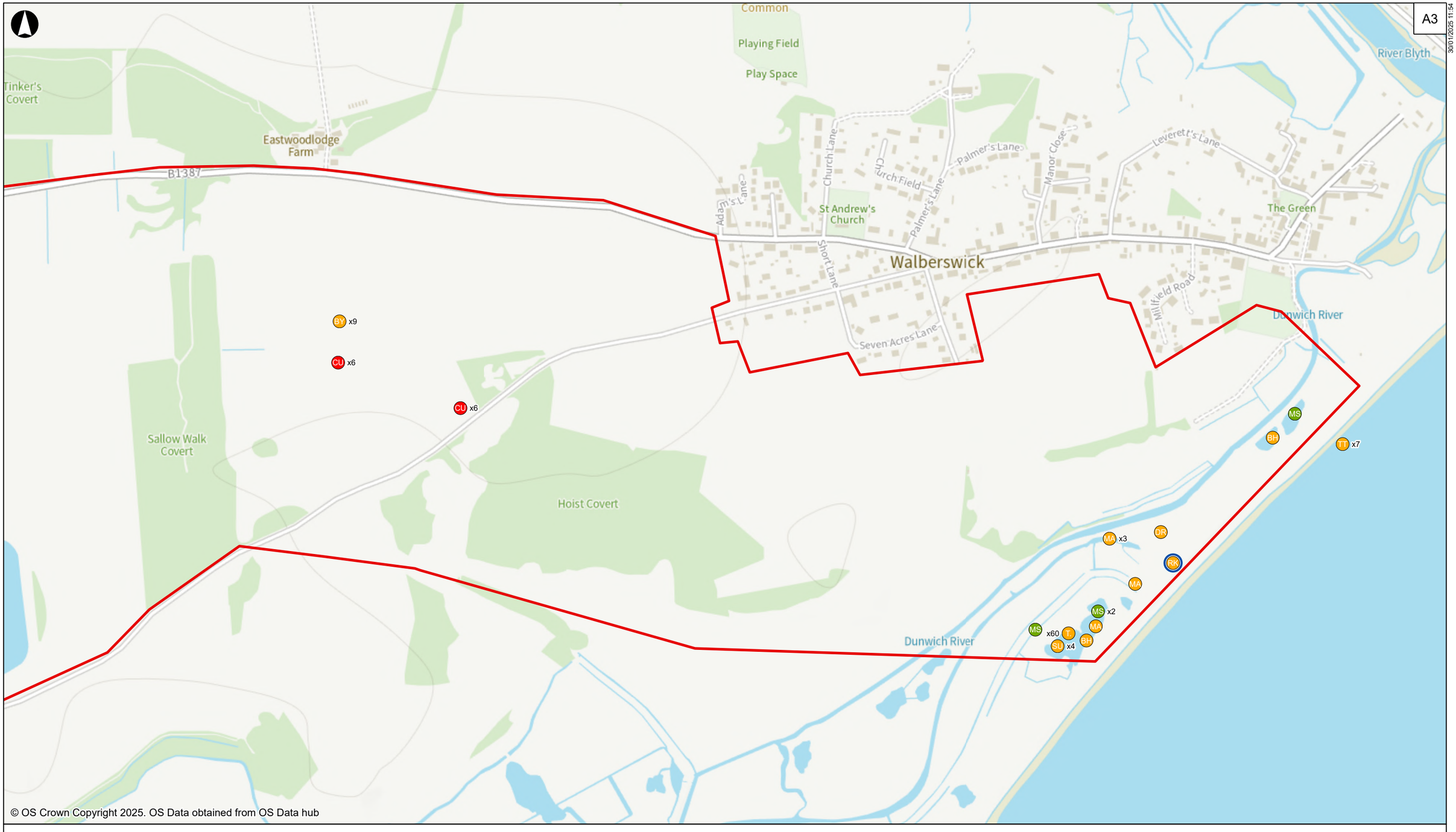
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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

BH - Black-headed Gull	MA - Mallard	T. - Teal
BY - Barnacle Goose	MS - Mute Swan	TT - Turnstone
CU - Curlew	RK - Redshank	
DR - Spotted Redshank	SU - Shelduck	

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Project Name
LIONLINK
Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (East) December 2023

Scale at A3
1:7,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

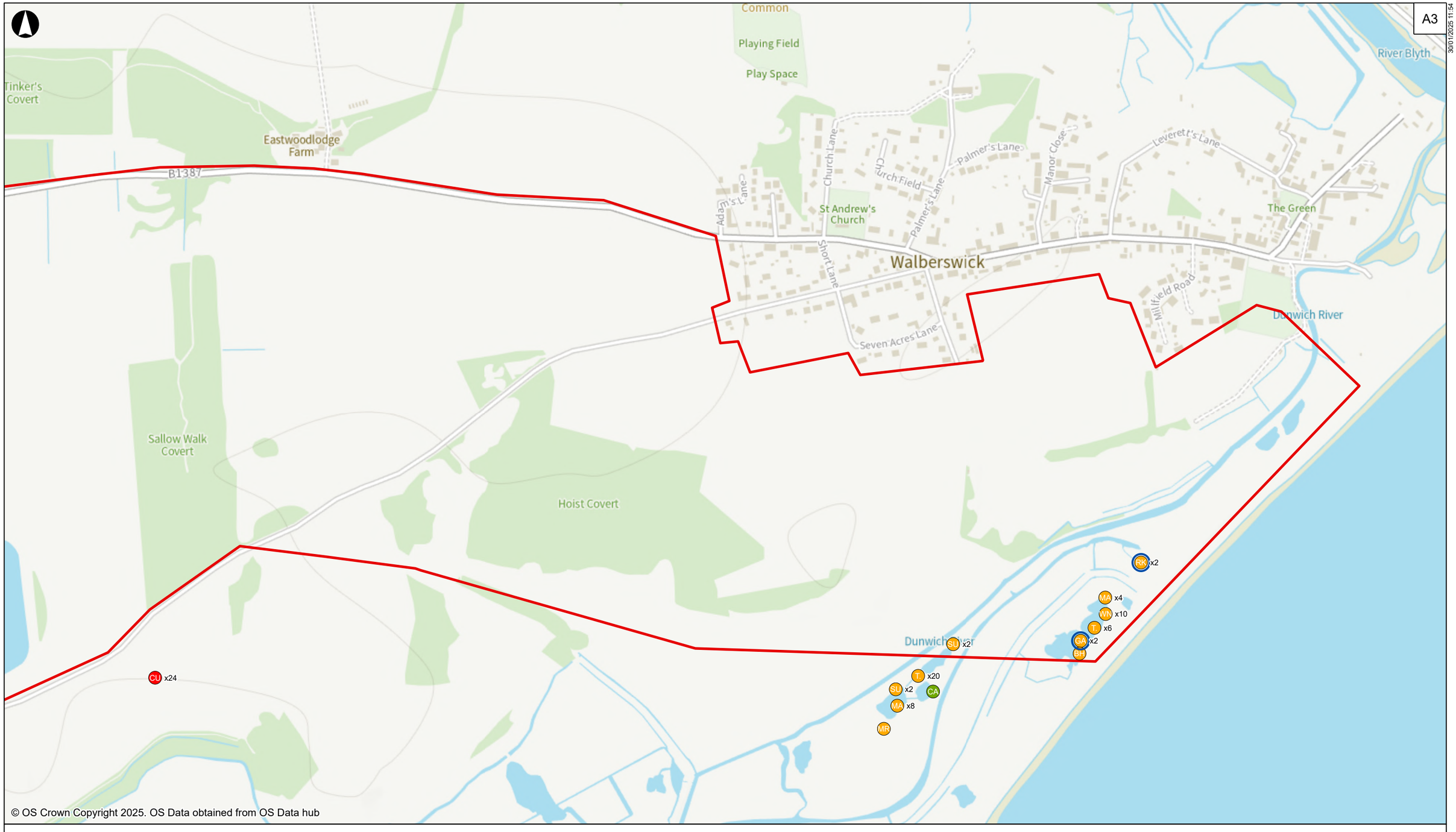
Drawing Number
Figure 3.33

K:\Projects\BIOME\LionLink\LionLink_ArcPro\LionLink_ArcPro_May2024.aprx

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A3

30/01/2025 11:54



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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes

BH - Black-headed Gull	MA - Mallard	SU - Shelduck
CA - Cormorant	MR - Marsh Harrier	T. - Teal
CU - Curlew	RK - Redshank	WN - Wigeon

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (East) January 2024

Scale at A3
1:7,000

Role
Ecology

Suitability
For Information

Project Number
287334

Rev
P01

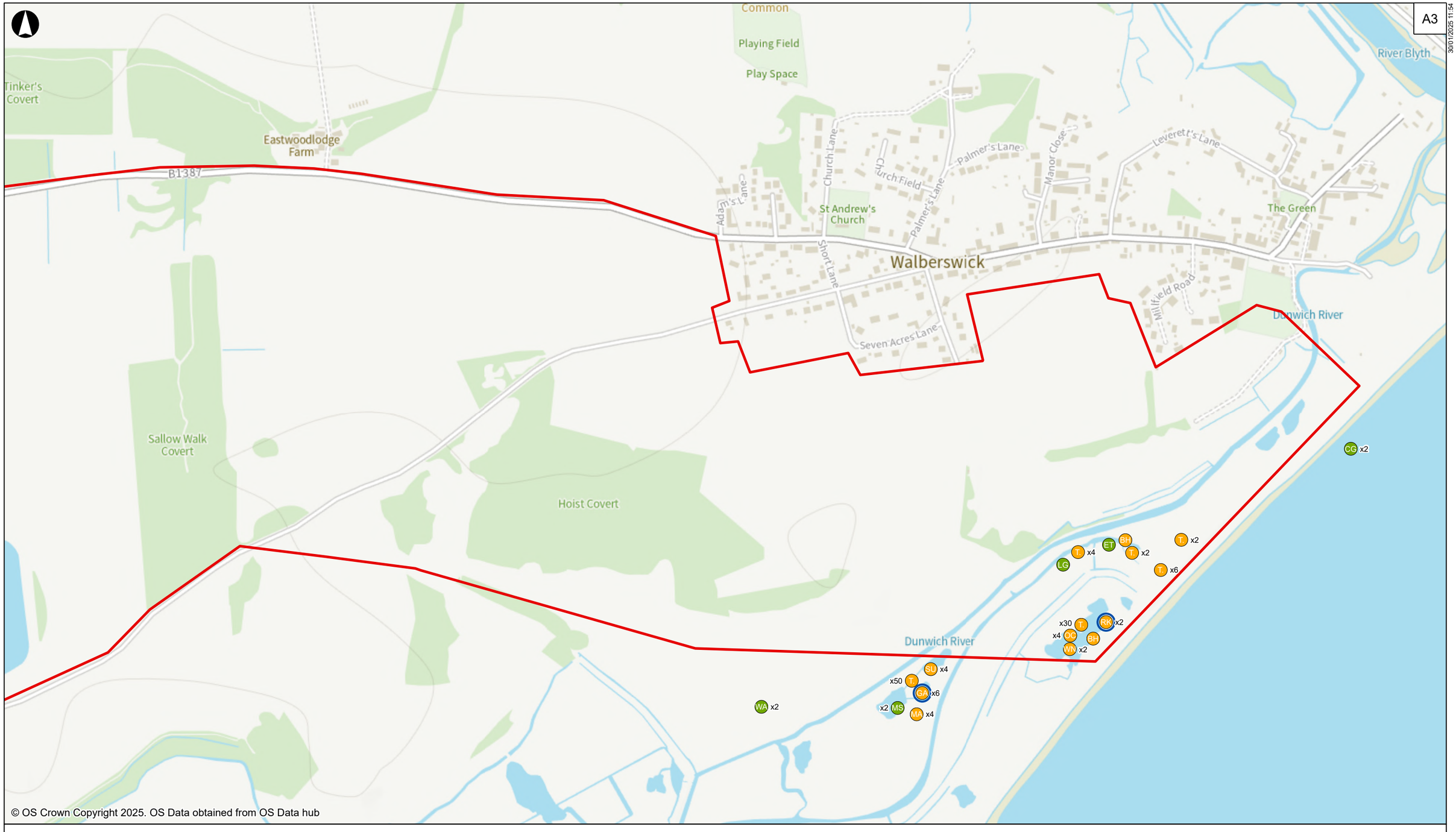
Drawing Number
Figure 3.34

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A3

30/01/2025 11:54



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Birds of Conservation Concern

- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes		
BH - Black-headed Gull	MA - Mallard	SU - Shelduck
CG - Canada Goose	MS - Mute Swan	T. - Teal
ET - Little Egret	OC - Oystercatcher	WA - Water Rail
GA - Gadwall	RK - Redshank	WN - Wigeon
	LG - Little Grebe	

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (East) February 2024

Scale at A3
1:7,000

Role
Ecology

Suitability
For Information

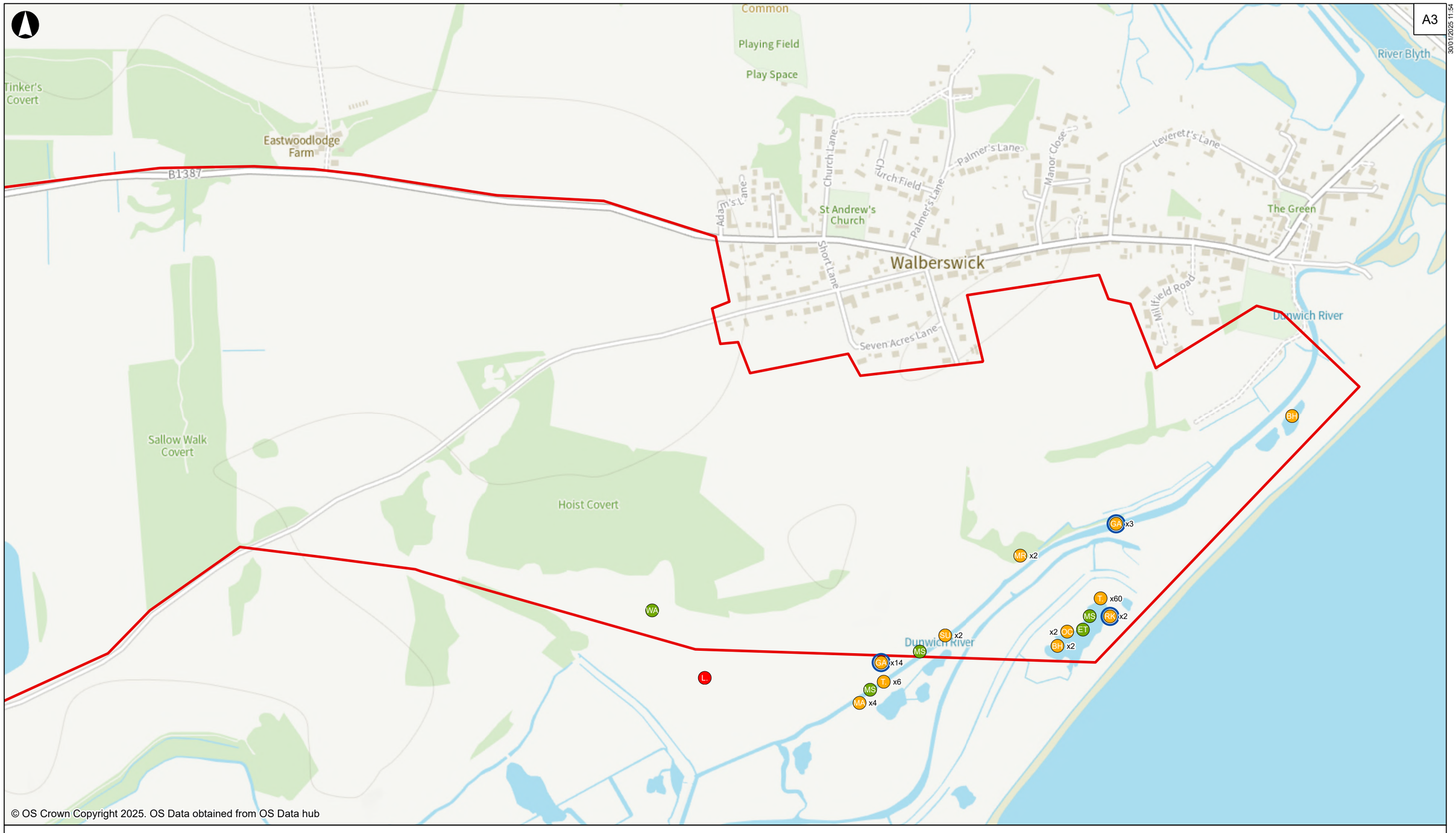
Project Number
287334

Rev
P01

Drawing Number
Figure 3.35

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Birds of Conservation Concern
- Red
- Amber
- Green
- Not Assessed
- Ramsar and SPA Designated Species
- Survey Areas

BTO Codes
BH - Black-headed Gull
ET - Little Egret
GA - Gadwall
L. - Lapwing
MA - Mallard
MR - Marsh Harrier
MS - Mute Swan
OC - Oystercatcher
RK - Redshank
SU - Shelduck
T. - Teal
WA - Water Rail

Metres
0 100 200
Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	30/01/2025	JG	DB	RM	AC

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Client
National Grid LionLink Limited (NGLLL)

Project Name
LIONLINK
Wintering Bird Survey 2023/2024

Drawing Title
Walberswick Corridor (East) March 2024

Scale at A3
1:7,000
Role
Ecology
Suitability
For Information
Project Number
287334
Rev
P01
Drawing Number
Figure 3.36

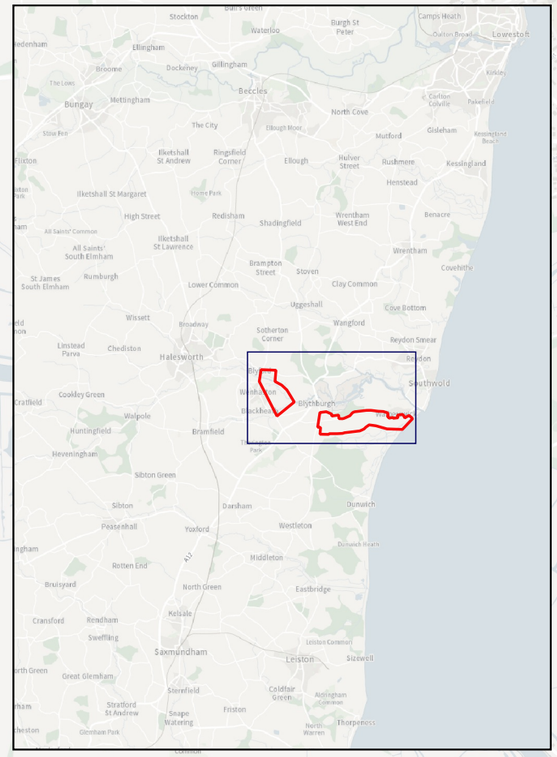
K:\Projects\BIOME\LionLink\LionLink_ArcPro\LionLink_ArcPro_May2024.aprx

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A3

Blythburgh Marshes

Walberswick Corridor



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Figure 1
Site Location

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

Search Area

0 0.5 1 km

Scale at A3: 1:20,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 1

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Client:
National Grid LionLink (NGLLL)

A3

CU x6
BH x3
LG
MR
SN
H.
ET
H.
GE
SN
CW
CW
BH x5
BH x12
CW
MR
BR x2
ET
GJ x2
GK
CG
GJ x8
CW
ET
CW
ET x2
MS x6
SN
WA
CW
ET
CW

Blyford
Wenhaston
Blackheath
Blythburgh

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Wintering Bird Survey Report 2024-25

Figure 3.1

Blythburgh Marshes Survey Results
October 2024

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

CG - Canada Goose
GJ - Greylag Goose
MS - Mute Swan
WA - Water Rail
LG - Little Grebe
CU - Curlew
SN - Snipe
GE - Green Sandpiper
GK - Greenshank
BH - Black-headed Gull
H. - Grey Heron
ET - Little Egret
MR - Marsh Harrier
BR - Bearded Tit
CW - Cetti's Warbler

0 250 500 m

Scale at A3: 1:12,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 3.1

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LionLink

Client:
National Grid LionLink (NGLLL)

A3

BH x16
CM x2
CU x3
CM
MH
RK
GE
SN
SN x2
CU x3
CU
CW
SN
CW
CW
CU
CW
MS x3
CW
ET
CW
LG
BR x4
RK
RK
RK
MR
CG x17
CW
CW
SN
MR
CW
SN
ET
ET
GE
L. x65

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Wintering Bird Survey Report 2024-25

Figure 3.2

Blythburgh Marshes Survey Results
November 2024

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

RK - Redshank
CG - Canada Goose
MS - Mute Swan
MH - Moorhen
LG - Little Grebe
L. - Lapwing
CU - Curlew
SN - Snipe
GE - Green Sandpiper
BH - Black-headed Gull
CM - Common Gull
ET - Little Egret
MR - Marsh Harrier
BR - Bearded Tit
CW - Cetti's Warbler

0 250 500 m

Scale at A3: 1:12,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 3.2

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www.arup.com

Client:
National Grid LionLink (NGLLL)

A3

CU x45

MS x3

CU x3

MS

CW

BR x2

LG

RK

CW

RK

SN

BR x2

CW

BH

MS

MA x3

PE

RK

MR x2

RK

MS x2

RK x2

ET

MR

H.

BH

Blyford

Wenhaston

Blackheath

Blythburgh

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Wintering Bird Survey Report 2024-25

Figure 3.3

Blythburgh Marshes Survey Results
December 2024

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

RK - Redshank
MS - Mute Swan
MA - Mallard
LG - Little Grebe
CU - Curlew
SN - Snipe
BH - Black-headed Gull
H. Grey Heron
ET - Little Egret
MR - Marsh Harrier
PE - Peregrine Falcon
BR - Bearded Tit
CW - Cetti's Warbler

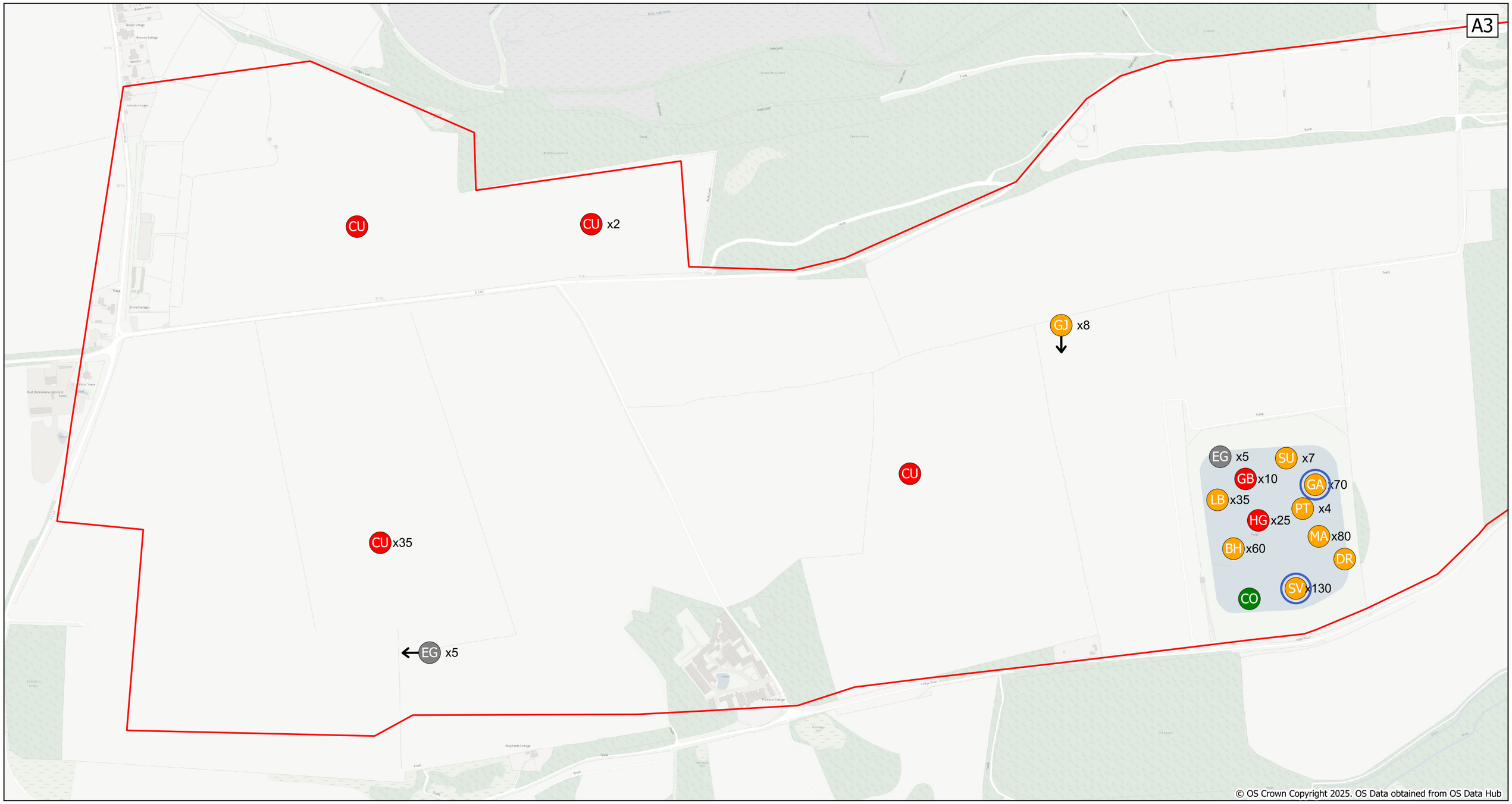
0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 3.3

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LionLink

Client:
National Grid LionLink (NGLLL)



Wintering Bird Survey Report 2024-25

Figure 4.01

Walberswick Corridor (West) Survey Results October 2024

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

SV - Shoveler
GA - Gadwall
RK - Redshank
GJ - Greylag Goose
EG - Egyptian Goose
SU - Shelduck
MA - Mallard
PT - Pintail
T. - Teal
CO - Coot
CU - Curlew
BW - Black-tailed Godwit
DN - Dunlin
DR - Spotted Redshank
BH - Black-headed Gull
GB - Great Black-backed Gull
HG - Herring Gull
LB - Lesser Black-backed Gull
H. - Grey Heron
HW - Great White Egret
ET - Little Egret

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.01

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LionLink

Client:
National Grid LionLink (NGLLL)

A3

BH

HW

BH x2

HW

RK x6

BW

ET

H.

T. x30

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Wintering Bird Survey Report 2024-25

Figure 4.02

Walberswick Corridor (East) Survey
Results October 2024

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

SV - Shoveler
GA - Gadwall
RK - Redshank
GJ - Greylag Goose
EG - Egyptian Goose
SU - Shelduck
MA - Mallard
PT - Pintail
T. - Teal
CO - Coot
CU - Curlew
BW - Black-tailed Godwit
DN - Dunlin
DR - Spotted Redshank
BH - Black-headed Gull
GB - Great Black-backed Gull
HG - Herring Gull
LB - Lesser Black-backed Gull
H. - Grey Heron
HW - Great White Egret
ET - Little Egret

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.02

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LIONLINK

Client:
National Grid LionLink (NGLLL)

A3

CU

CU x5

L. x28

CU x2

GB

GJ x100

MA x14

T. x2

BH x150

CM x20

LB x3

HG x10

CU x29

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Wintering Bird Survey Report 2024-25

Figure 4.03

Walberswick Corridor (West) Survey
Results November 2024

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

GA - Gadwall
RK - Redshank
GJ - Greylag Goose
MS - Mute Swan
MA - Mallard
T. - Teal
LG - Little Grebe
L. - Lapwing
CU - Curlew
BW - Black-tailed Godwit
BH - Black-headed Gull
CM - Common Gull
GB - Great Black-backed Gull
HG - Herring Gull
LB - Lesser Black-backed Gull
CA - Cormorant
H. - Grey Heron
HW - Great White Egret
ET - Little Egret
MR - Marsh Harrier
BR - Bearded Tit
CW - Cetti's Warbler

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.03

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LionLink

Client:
National Grid LionLink (NGLLL)

A3

CU x17

CW

ET

RK x3

BH

BR x10

BH

MS x2

CW

LG

T.

RK

BH x3

H.

HG

RK x8

T. x46

HW

BW

L. x19

BR x8

CA x11

CW

BR x6

GA x2

BR x2

BR x2

BR x2

CW x2

CW

MR

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Wintering Bird Survey Report 2024-25

Figure 4.04

Walberswick Corridor (East) Survey Results November 2024

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

GA - Gadwall
RK - Redshank
GJ - Greylag Goose
MS - Mute Swan
MA - Mallard
T. - Teal
LG - Little Grebe
L. - Lapwing
CU - Curlew
BW - Black-tailed Godwit
BH - Black-headed Gull
CM - Common Gull
GB - Great Black-backed Gull
HG - Herring Gull
LB - Lesser Black-backed Gull
CA - Cormorant
H. - Grey Heron
HW - Great White Egret
ET - Little Egret
MR - Marsh Harrier
BR - Bearded Tit
CW - Cetti's Warbler

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.04

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LionLink

Client:
National Grid LionLink (NGLLL)

A3

L. x7

L. x6

CU x26

CU x22

TU x26 HG x18

LB x6 SP x2

GA x2

BH x2

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Wintering Bird Survey Report 2024-25

Figure 4.05

Walberswick Corridor (West) Survey
Results December 2024

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

SV - Shoveler
GA - Gadwall
RK - Redshank
MS - Mute Swan
SU - Shelduck
WN - Wigeon
MA - Mallard
T. - Teal
TU - Tufted Duck
SP - Scaup
L. - Lapwing
CU - Curlew
BW - Black-tailed Godwit
BH - Black-headed Gull
HG - Herring Gull
LB - Lesser Black-backed Gull
H. - Grey Heron
MR - Marsh Harrier
BR - Bearded Tit

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.05

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Client:
National Grid LionLink (NGLLL)

A3

CU x2

CU x8

L. x20

BH x80

MS x2

BH x2

SV x5

SU x2

H.

BW x3

RK x3

BR x4

WN x20

GA x30

MR

T. x30

MA x24

MS

SU x2

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Wintering Bird Survey Report 2024-25

Figure 4.06

Walberswick Corridor (East) Survey Results December 2024

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

SV - Shoveler
GA - Gadwall
RK - Redshank
MS - Mute Swan
SU - Shelduck
WN - Wigeon
MA - Mallard
T. - Teal
TU - Tufted Duck
SP - Scaup
L. - Lapwing
CU - Curlew
BW - Black-tailed Godwit
BH - Black-headed Gull
HG - Herring Gull
LB - Lesser Black-backed Gull
H. - Grey Heron
MR - Marsh Harrier
BR - Bearded Tit

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.06

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Client:
National Grid LionLink (NGLLL)

A3

L. x3

L. x35

CM x7

TU x24 CM x6 GJ x80 SU x6 GA x4 MA x110 SV x10 BH x35 HG x9

BH x4 CA x3

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Wintering Bird Survey Report 2024-25

Figure 4.07

Walberswick Corridor (West) Survey Results January 2025

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

SV - Shoveler
GA - Gadwall
RK - Redshank
GJ - Greylag Goose
SU - Shelduck
WN - Wigeon
MA - Mallard
T. - Teal
TU - Tufted Duck
L. - Lapwing
CU - Curlew
BW - Black-tailed Godwit
DR - Spotted Redshank
BH - Black-headed Gull
CM - Common Gull
HG - Herring Gul
CA - Cormorantl
ET - Little Egret
MR - Marsh Harrier

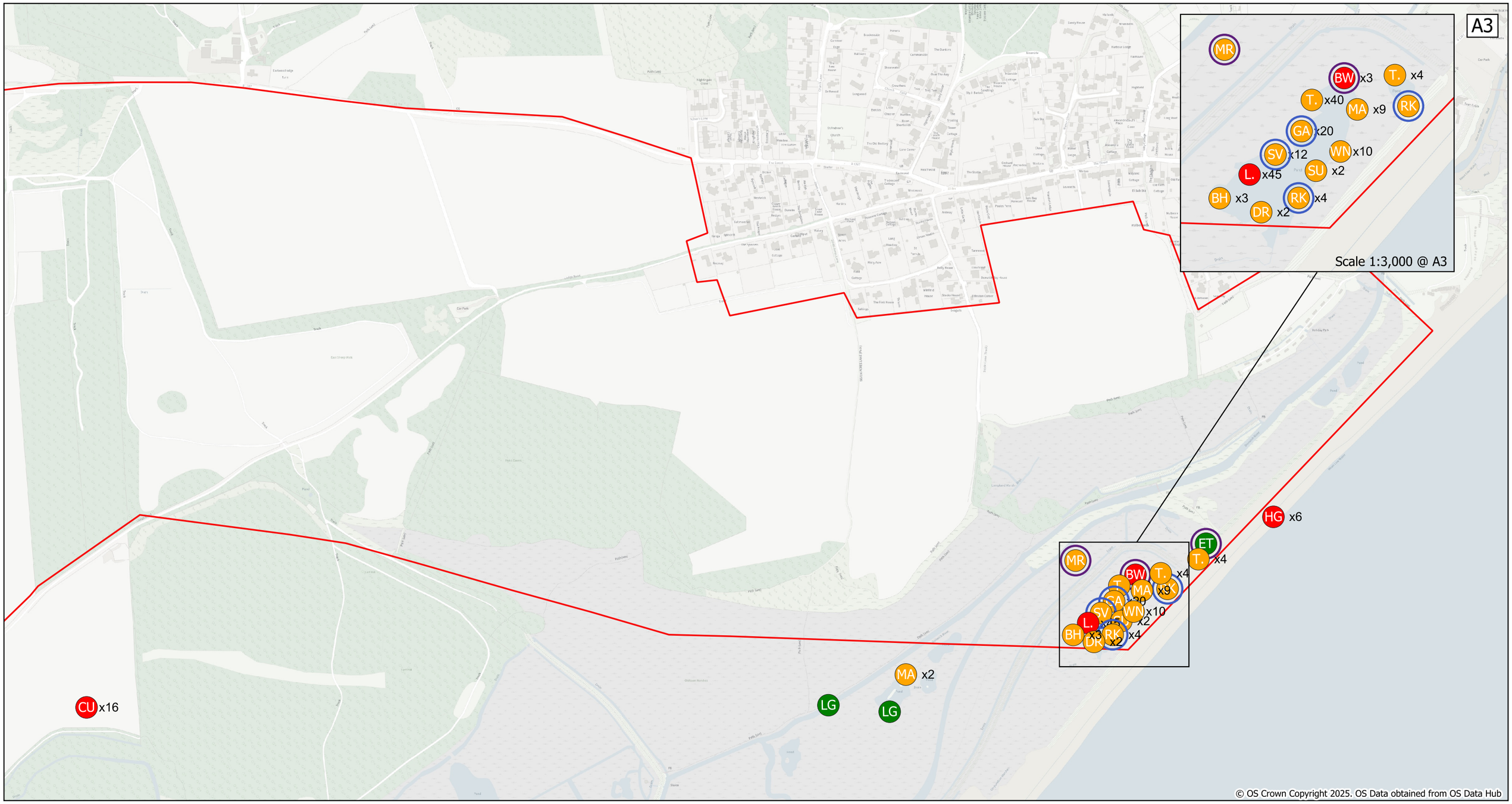
0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.07

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LionLink

Client:
National Grid LionLink (NGLLL)



Wintering Bird Survey Report 2024-25

Figure 4.08

Walberswick Corridor (East) Survey
Results January 2025

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

SV - Shoveler
GA - Gadwall
RK - Redshank
GJ - Greylag Goose
SU - Shelduck
WN - Wigeon
MA - Mallard
T. - Teal
TU - Tufted Duck
L. - Lapwing
CU - Curlew
BW - Black-tailed Godwit
DR - Spotted Redshank
BH - Black-headed Gull
CM - Common Gull
HG - Herring Gul
CA - Cormorantl
ET - Little Egret
MR - Marsh Harrier

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.08

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LIONLINK

Client:
National Grid LionLink (NGLLL)

A3

L. x25

CU x12

L. x2

CU x9

CU x40

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Wintering Bird Survey Report 2024-25

Figure 4.09

Walberswick Corridor (West) Survey Results February 2025

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

GA - Gadwall
RK - Redshank
SU - Shelduck
WN - Wigeon
MA - Mallard
T. - Teal
L. - Lapwing
CU - Curlew
BH - Black-headed Gull
CM - Common Gull
HG - Herring Gull
CA - Cormorant
MR - Marsh Harrier

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.09

ARUP
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www.arup.com

Client:
National Grid LionLink (NGLLL)

A3

BH x125
LB x6
CM x38
HG x4
CU x22
T. x5
MA x2
RK x2
HG x2
CU x11
MA x2
RK x7
WN x6
T. x50
WN x25
SU x2
GA x5
MR
RK

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Wintering Bird Survey Report 2024-25

Figure 4.10

Walberswick Corridor (East) Survey Results February 2025

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

GA - Gadwall
RK - Redshank
SU - Shelduck
WN - Wigeon
MA - Mallard
T. - Teal
L. - Lapwing
CU - Curlew
BH - Black-headed Gull
CM - Common Gull
HG - Herring Gull
CA - Cormorant
MR - Marsh Harrier

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.10

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Client:
National Grid LionLink (NGLLL)

A3

CU x3

BH x85

TU x36

GB x4

GA x18

LB x6

SV x2

SU x2

HG x30

BH x80

CU x9

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Figure 4.11

Walberswick Corridor (West) Survey Results March 2025

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

SV - Shoveler
GA - Gadwall
RK - Redshank
MS - Mute Swan
SU - Shelduck
MA - Mallard
T. - Teal
TU - Tufted Duck
CU - Curlew
BH - Black-headed Gull
GB - Great Black-backed Gull
HG - Herring Gull
LB - Lesser Black-backed Gull
MR - Marsh Harrier

0 250 m

Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.11

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A3

MS
MA x2
BH
T. x2
MS x2
MA x2
BH x2
RK
GA x2
BH
T. x6
GA x10
T. x62
GA x4
RK x12
SU x2
DN
BH x2
MR x2

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Figure 4.12

Walberswick Corridor (East) Survey Results March 2025

Rev	Date	By	Chkd	Appd	Authd
1	25/04/2025	DB	RM	RM	AC

Legend:

- Search Area
- Green List
- Amber List
- Red List
- Not Assessed
- Schedule 1/Annex 1
- SPA/Ramsar Qualifying Feature

BTO Species Codes:

SV - Shoveler
GA - Gadwall
RK - Redshank
MS - Mute Swan
SU - Shelduck
MA - Mallard
T. - Teal
TU - Tufted Duck
CU - Curlew
BH - Black-headed Gull
GB - Great Black-backed Gull
HG - Herring Gull
LB - Lesser Black-backed Gull
MR - Marsh Harrier

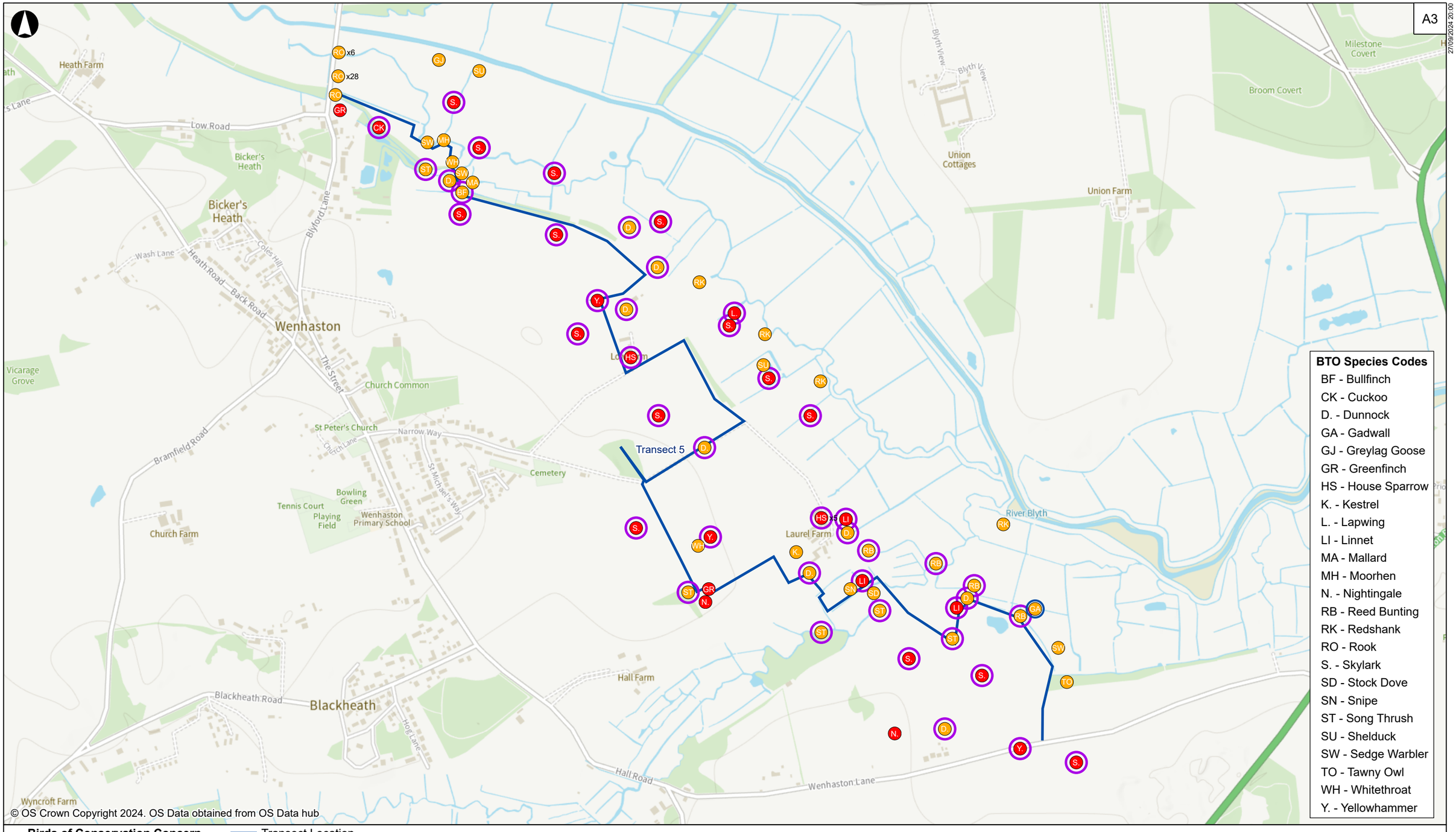
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Scale at A3: 1:6,000
Role: Ecology
Suitability: For Information
Project Number: 287334
Drawing Number: Figure 4.12

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Birds of Conservation Concern

- Red
- Amber
- SPA/Ramsar Qualifying Feature
- Section 41
- Annex 1

Transect Location

Metres: 0 100 200 400

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	27/09/2024	JG	DB	RM	AC

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Project Name: LIONLINK

Breeding Bird Survey 2024

Drawing Title: **Transect 5 Breeding Bird Survey Results (excluding Schedule 1 species)**

Scale at A3: **1:9,000**

Role: **Ecology**

Suitability: **For Information**

Project Number: **287334**

Rev: **P01**

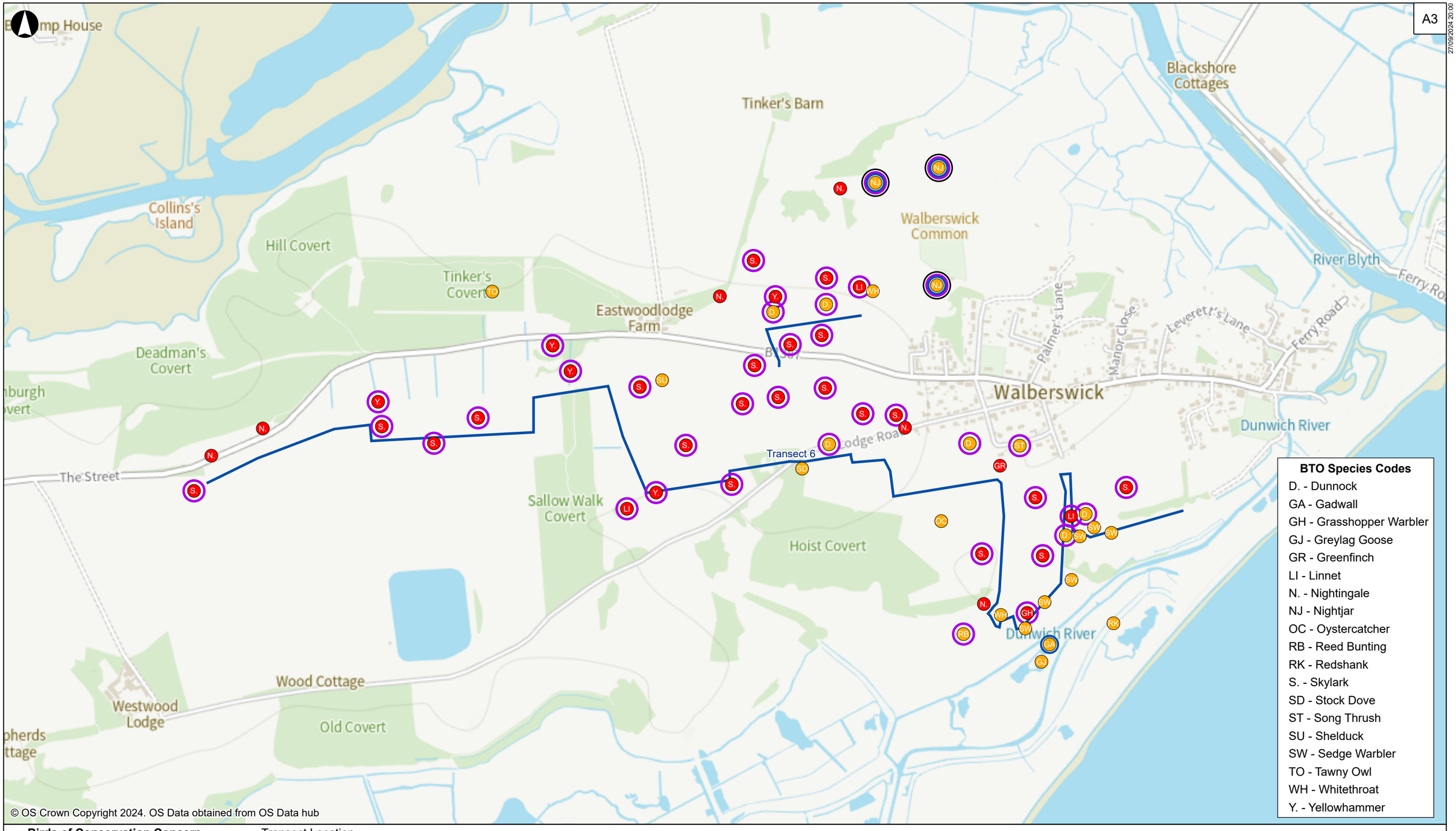
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BTO Species Codes

D. - Dunnock
GA - Gadwall
GH - Grasshopper Warbler
GJ - Greylag Goose
GR - Greenfinch
LI - Linnet
N. - Nightingale
NJ - Nightjar
OC - Oystercatcher
RB - Reed Bunting
RK - Redshank
S. - Skylark
SD - Stock Dove
ST - Song Thrush
SU - Shelduck
SW - Sedge Warbler
TO - Tawny Owl
WH - Whitethroat
Y. - Yellowhammer

Birds of Conservation Concern

- Red
- Amber
- SPA/Ramsar Qualifying Feature
- Section 41
- Annex 1

Transect Location

Metres
0 100 200 400

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	27/09/2024	JG	DB	RM	AC

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Breeding Bird Survey 2024

Drawing Title

Transect 6 Breeding Bird Survey Results (excluding Schedule 1 species)

Scale at A3
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Role
Ecology

Suitability
For Information

Project Number
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Rev
P01

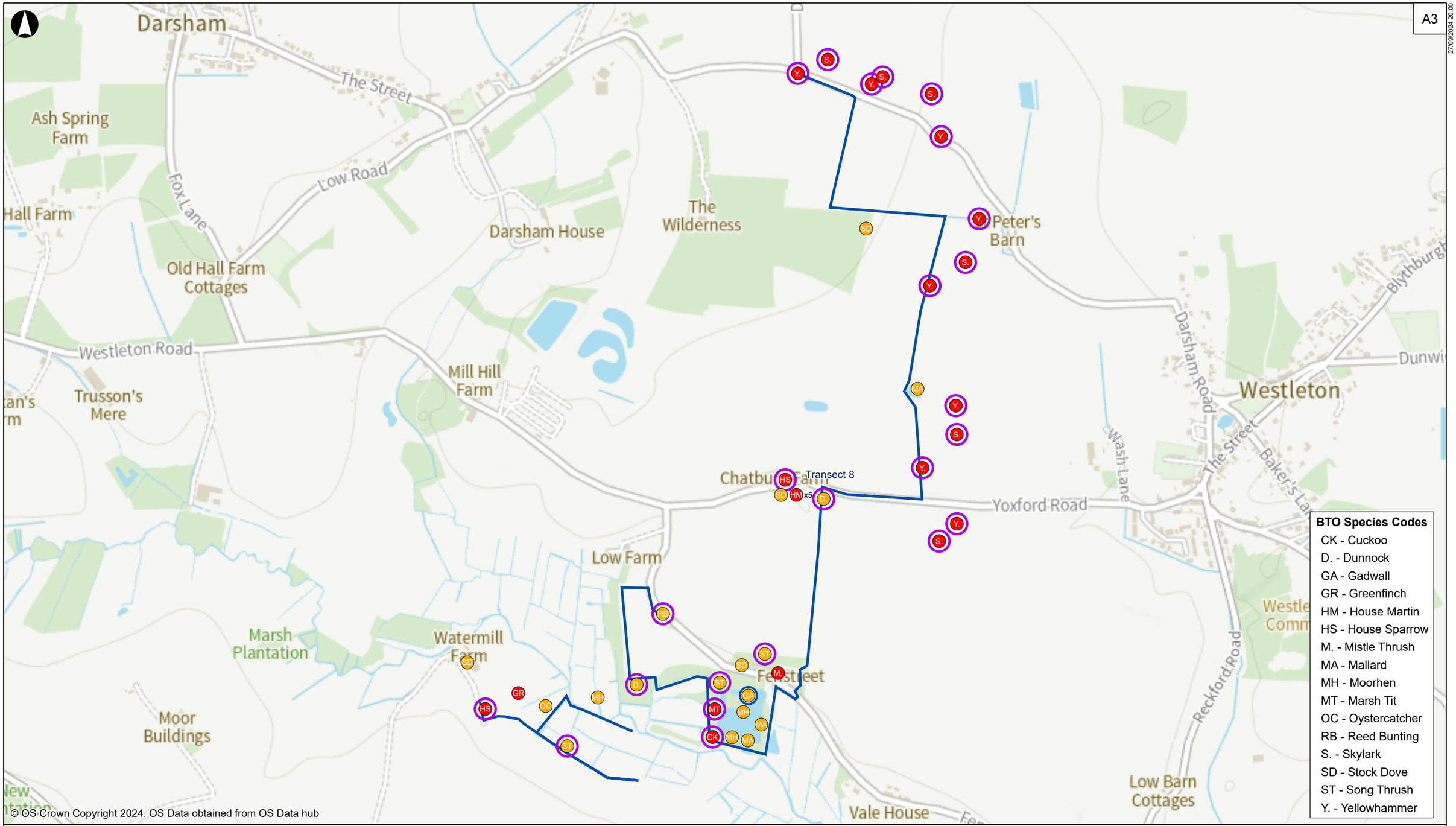
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BTO Species Codes

- CK - Cuckoo
- D. - Dunnock
- GA - Gadwall
- GR - Greenfinch
- HM - House Martin
- HS - House Sparrow
- M. - Mistle Thrush
- MA - Mallard
- MH - Moorhen
- MT - Marsh Tit
- OC - Oystercatcher
- RB - Reed Bunting
- S. - Skylark
- SD - Stock Dove
- ST - Song Thrush
- Y. - Yellowhammer

Birds of Conservation Concern

- Red
- Amber
- SPA/Ramsar Qualifying Feature
- Section 41
- Annex 1

Transect Location

Metres
0 100 200 400

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Drawing Title

Transect 8 Breeding Bird Survey Results (excluding Schedule 1 species)

Scale at A3

1:9,500

Role

Ecology

Suitability

For Information

Project Number

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Rev

P01

Drawing Number

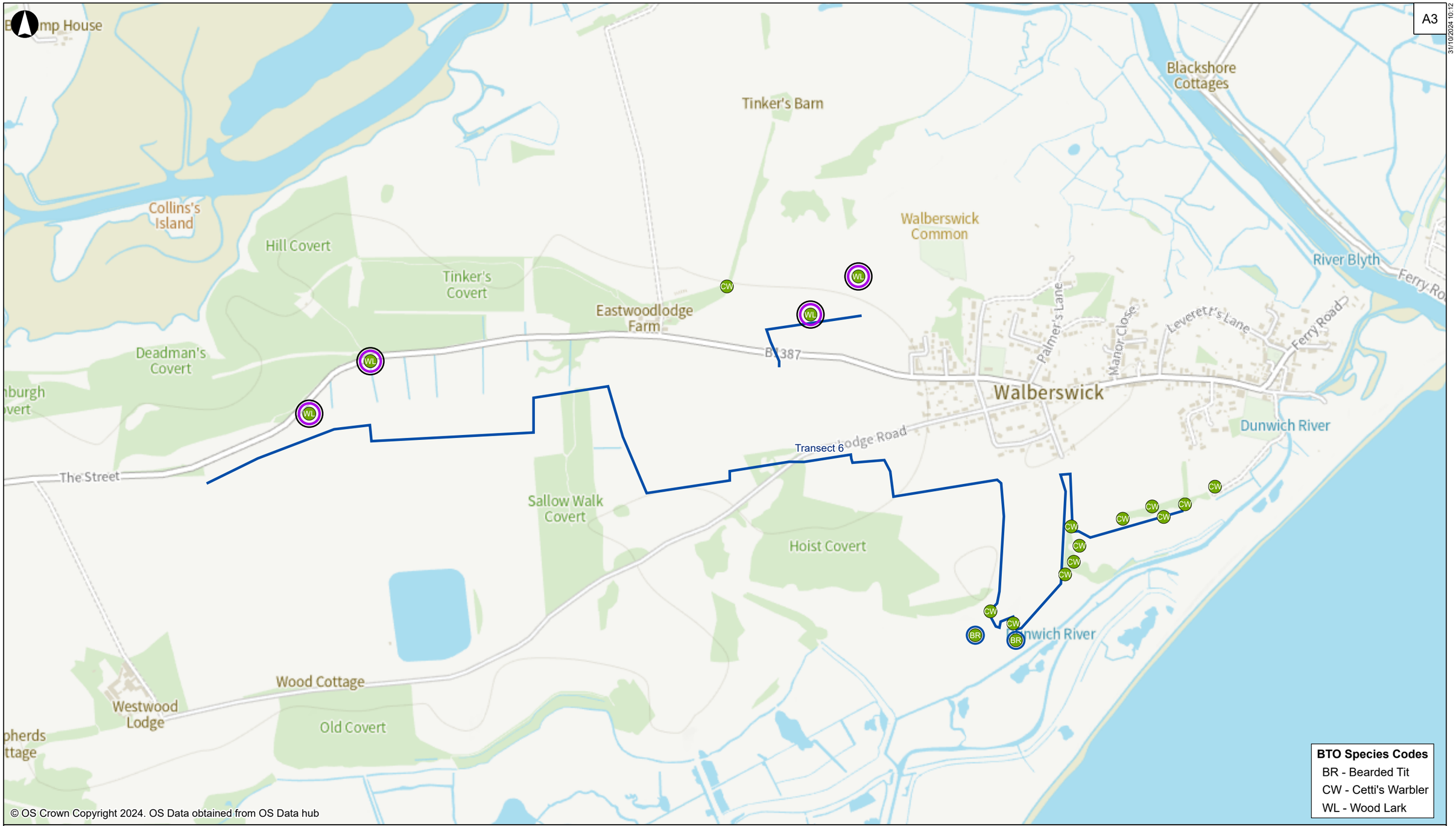
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BTO Species Codes

BR - Bearded Tit
CW - Cetti's Warbler
WL - Wood Lark

Birds of Conservation Concern

- Green
- SPA/Ramsar Qualifying Feature
- Section 41
- Annex 1

Transect Location

Metres
0 100 200 400

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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Drawing Title
Transect 6 Schedule 1 Breeding Bird Survey Results

Scale at A3
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Role
Ecology

Suitability
For Information

Project Number
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Rev
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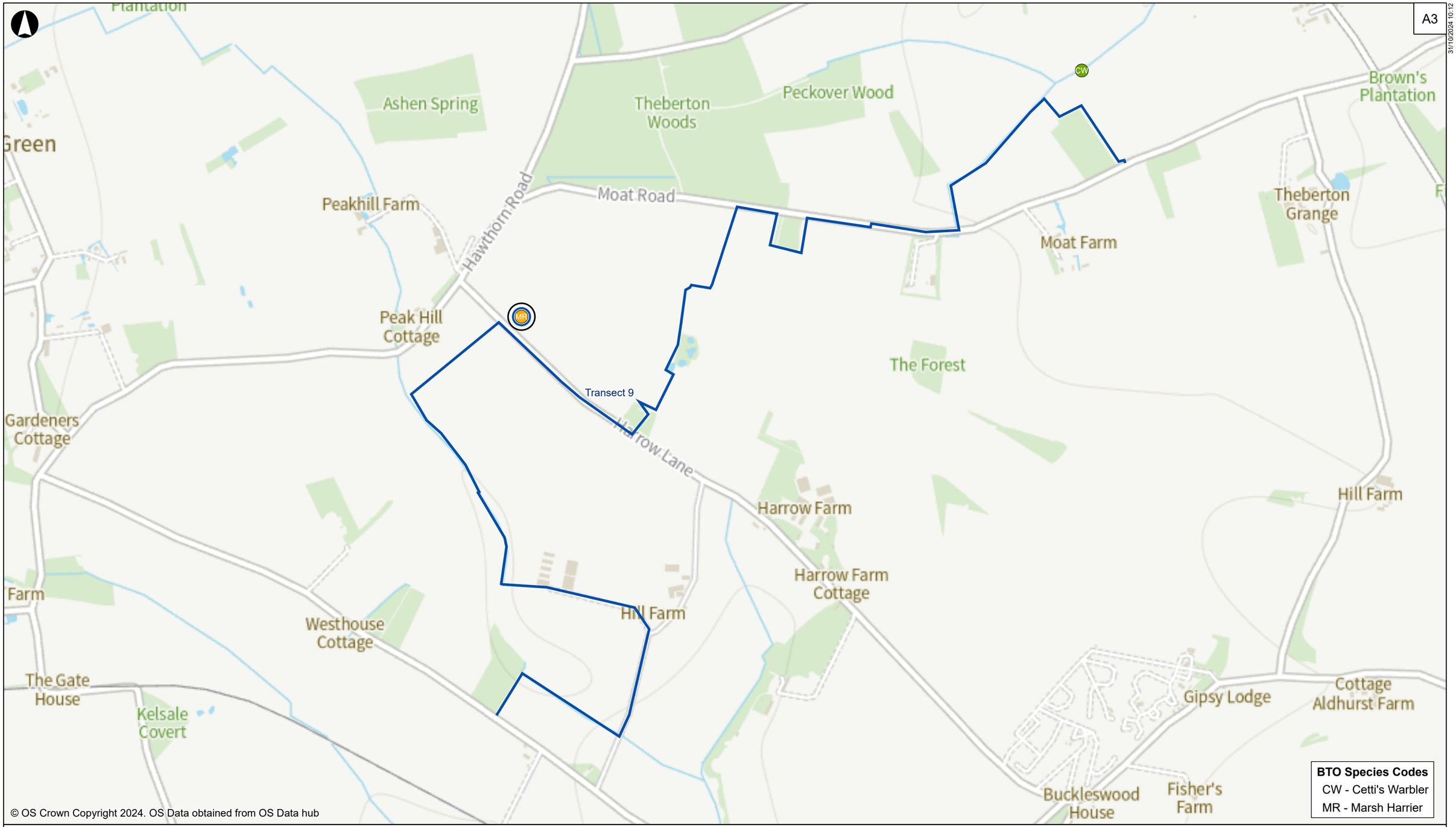
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BTO Species Codes
CW - Cetti's Warbler
MR - Marsh Harrier

Birds of Conservation Concern
- Amber
- Green
- SPA/Ramsar Qualifying Feature
- Annex 1

Transect Location

Metres
0 100 200 400

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
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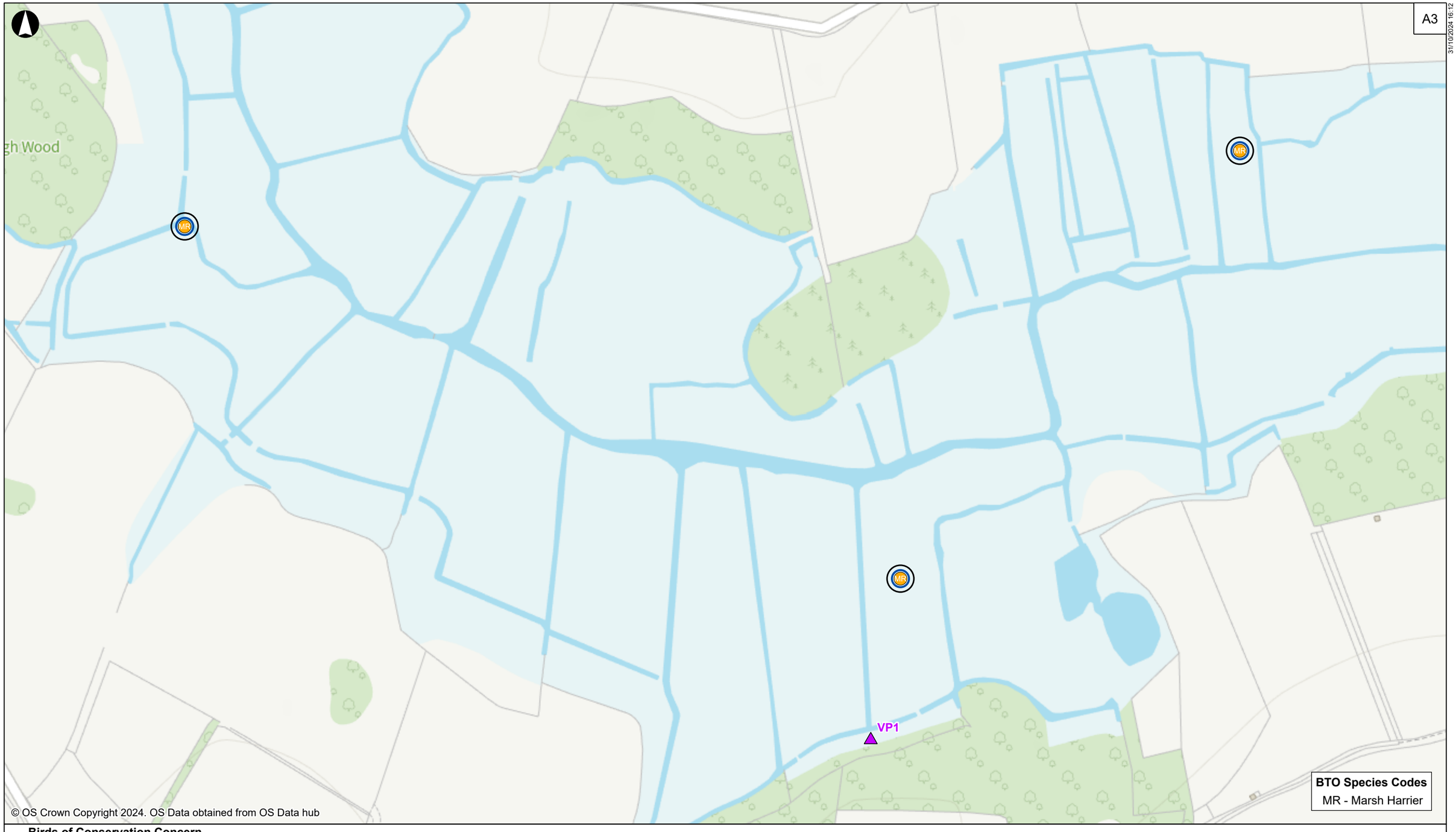
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Role
Ecology
Suitability
For Information
Project Number
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Rev
P01
Drawing Number
Figure 6.9

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Birds of Conservation Concern

- Amber
- SPA/Ramsar Qualifying Feature
- Annex 1
- VP Location

Metres
0 100 200

Coordinate System: British National Grid

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Drawing Title
VP1 Schedule 1 Breeding Bird Survey Results

Scale at A3
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Role
Ecology

Suitability
For Information

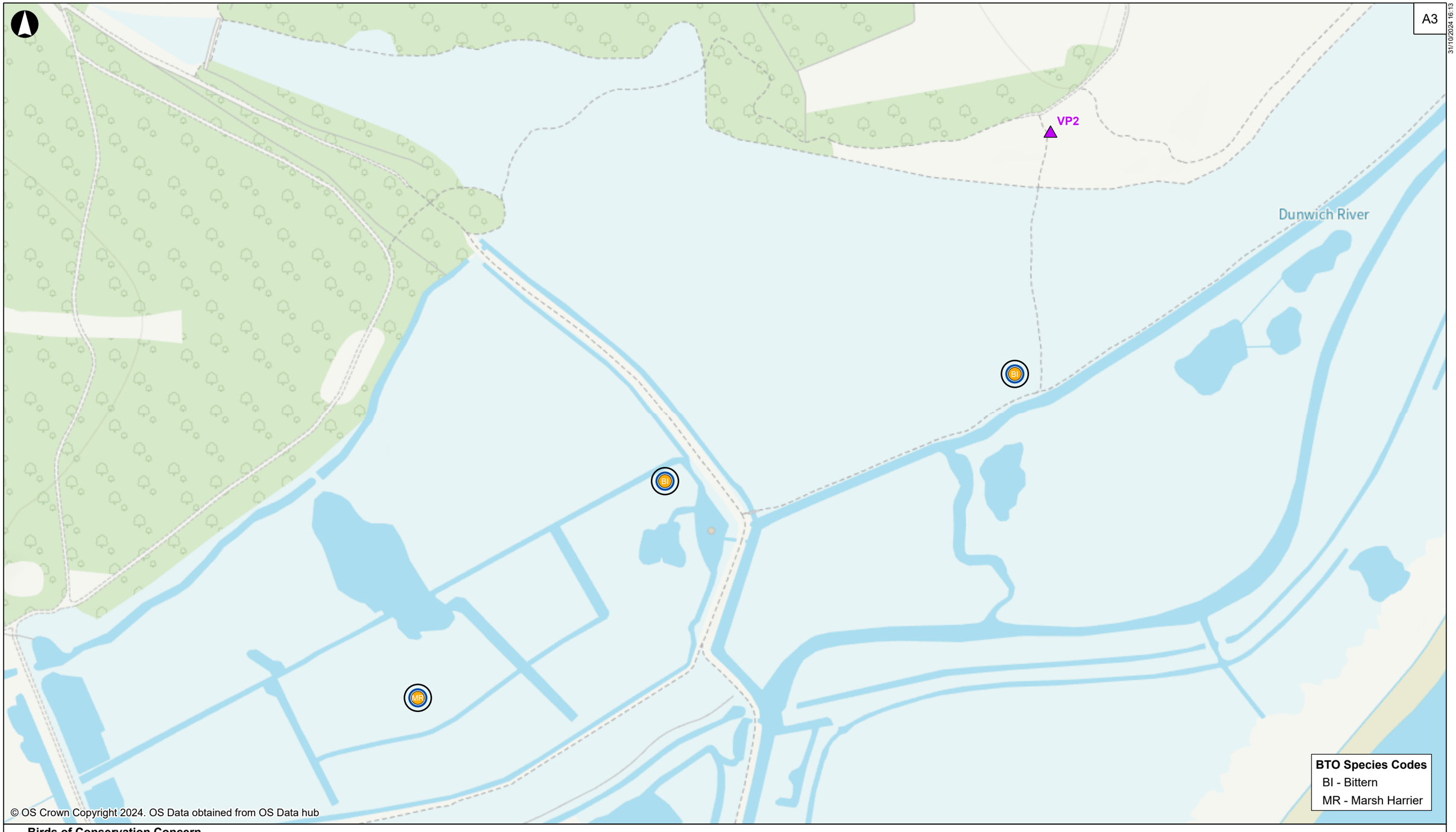
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Drawing Number
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Birds of Conservation Concern

- Amber
- SPA/Ramsar Qualifying Feature
- Annex 1
- VP Location

Metres
0 100 200

Coordinate System: British National Grid

Rev	Date	By	Chkd	Appd	Authd
1	31/10/2024	JG	DB	RM	AC

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Project Name
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Drawing Title
VP2 Schedule 1 Breeding Bird Survey Results

Scale at A3
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Role
Ecology

Suitability
For Information

Project Number
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Rev
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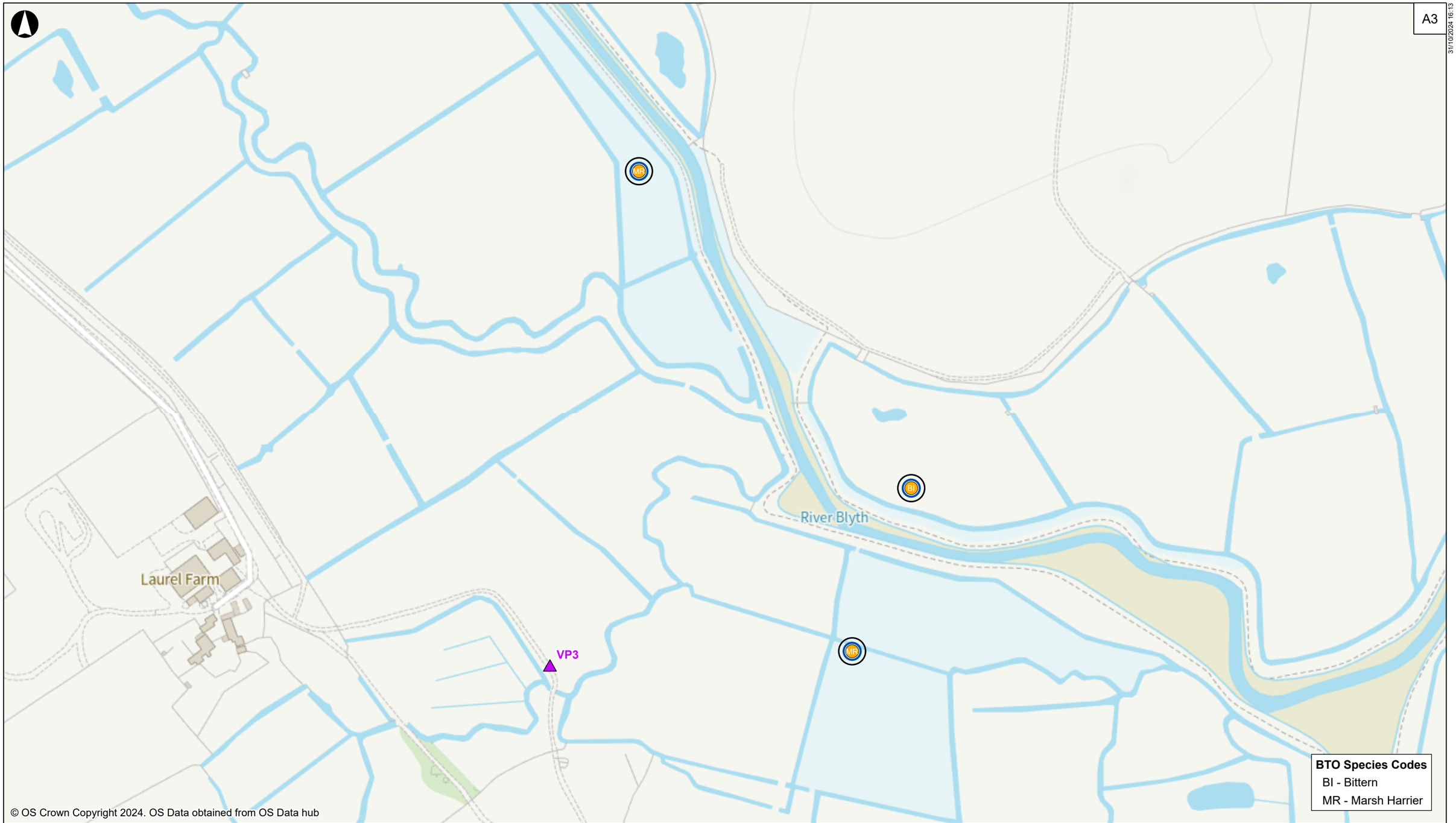
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BTO Species Codes
BI - Bittern
MR - Marsh Harrier

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Birds of Conservation Concern
- Amber
- SPA/Ramsar Qualifying Feature
- Annex 1
- VP Location

Metres
0 100 200

Coordinate System: British National Grid

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Project Name
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Drawing Title
VP3 Schedule 1 Breeding Bird Survey Results

Scale at A3
1:3,000
Role
Ecology
Suitability
For Information
Project Number
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Rev
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Drawing Number
Figure 7.3

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Topic Glossary

Acronym/Phrase/Abbreviation	Definition
AA	Appropriate Assessment
AEoI	Adverse Effect on site Integrity
ARN	Affected Road Network
Cefas	Centre for Environment, Fisheries and Aquaculture Science
CFE	Controlled Flow Excavator
CHSR	The Conservation of Habitats and Species Regulations 2017
CoCP	Code of Construction Practice
COMHS	The Conservation of Offshore Marine Habitats and Species Regulations
cSAC	Candidate Special Areas of Conservation
CWS	County Wildlife Site
DAS	Discretionary Advice Service
DECC	Department of Energy and Climate Change
DMR	Dedicated Metallic Return
DOL	Draft Order Limits
DP	Dynamic Position
EC	European Commission
EDR	Effective Deterrent Range
EEZ	Exclusive Economic Zones
EMF	Electro-Magnetic Fields
EMODNet	European Marine Observation and Data Network
EPS	European Protected Species
EU	European Union
ES	Environmental Statement
FCS	Favourable Conservation Status
FLL	Functionally linked land
GIS	Geographical Information System
GNS	Greater North Sea (Management unit)
GW	Gigawatt
Ha	Hectare
HDD	Horizontal Directional Drilling
HRA	Habitats Regulations Assessment

Acronym/Phrase/Abbreviation	Definition
HRGN	Habitats Regulation Guidance Note
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IROPI	Imperative reasons of over-riding public interest
IRZ	Impact Risk Zones
JNCC	Joint Nature Conservation Committee
Km	Kilometre
LSE	Likely Significant Effects
m	metre
MARLin	Marine Life Information Network
MFE	Mass Flow Excavator
MINNS	Marine Invasive Non-Native Species
MHWS	Mean High-Water Springs
MLAA	Marine License Application Area
MMO	
MU	Management Unit
NM	Nautical mile
NMRL	Non-mobile Reference Level
NE	Natural England
NS	North Sea
NSIP	Nationally Significant Infrastructure Project
OESEA4	Offshore Energy Strategic Environmental Assessment 4
ODPM	
OOS	Out of Service
OPRED	Offshore Petroleum Regulator for Environment and Decommissioning
OSPAR	Oslo and Paris Convention
OWF	Offshore Wind farm
PAH	Polycyclic Aromatic Hydrocarbons
PINS	Planning Inspectorate
PLGR	Pre-lay Grapnel Run
pSPA	Proposed Special Protection Area
PTS	Permanent Threshold Shift
RIAA	Report to Inform an Appropriate Assessment
ROV	Remotely Operated Vehicle

Acronym/Phrase/Abbreviation	Definition
RSBP	Royal Society for the Protection of Birds
SAC	Special Areas of Conservation
SCI	Sites of Community Importance
SD	Standard Deviation
SNCB	Statutory Nature Conservation Bodies
SPA	Special Protection Area
SSC	Suspended Sediment Concentrations
SSSI	Sites of Special Scientific Interest
SWT	Suffolk Wildlife Trust
TCC	Temporary Construction Compounds
TCE	The Crown Estate
TDOL	Target Depth of Lowering
TSDH	Trailing suction hopper dredger
TTS	Temporary Threshold Shift
UK	United Kingdom
UXO	Unexploded Ordnance
ZoI	Zone of Influence

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