

# DOGGER BANK D WIND FARM

## Preliminary Environmental Information Report

Volume 2

Appendix 23.2 Preliminary Ecological Appraisal Report

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APPENDIX 23.2 PRELIMINARY ECOLOGICAL APPRAISAL REPORT

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# Preliminary Ecological Appraisal Report Dogger Bank D

Royal HaskoningDHV

Ecus Ltd.  
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Bristol Business Park  
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May 2025



## Ecus Ltd

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## Summary

The Applicant commissioned Ecus Limited (Ecus) to undertake a Preliminary Ecological Appraisal (PEA) (Chartered Institute of Ecology and Environmental Management (CIEEM), 2017) of a proposed 'Onshore Development Area' associated with the proposed Dogger Bank D (DBD) Offshore Wind Farm.

The Onshore Development Area covers an approximately 55 km long cable route and runs through a predominantly agricultural landscape with dispersed rural settlements and is located within East Riding of Yorkshire.

In this report the Onshore Development Area is referred to as 'the site'. A 50 m buffer around the site boundary was also surveyed, hereafter referred to as 'the Survey Area'.

The PEA focussed on the habitats which may be directly impacted by the onshore works (see Volume 1 Chapter 4 Project Description).

The PEA identified several ecological constraints to the proposed works requiring the following additional surveys:

- Great crested newt *Triturus cristatus* (GCN) eDNA surveys, on ponds containing water at the time of survey;
- GCN Habitat Suitability Index (HSI) surveys on ponds not surveyed;
- Badger *Meles meles* surveys of suitable habitats to identify any setts;
- Ground Level Tree Assessments (GLTA) and Preliminary Bat Roost Assessments (PBRA) on any trees / buildings and trees that may be directly impacted by the works. Further surveys may be required following these;
- Automated detector surveys and bat nighttime walkover surveys for foraging and commuting bats in areas of suitable habitat, such as woodland and hedgerows;
- Breeding bird surveys;
- Overwintering and passage bird surveys;
- Otter *Lutra lutra* surveys of all suitable watercourses;
- Water vole *Arvicola amphibius* surveys of all suitable watercourses; and,
- Invasive non-native species (INNS) pre-works survey prior to the works, to identify any INNS.

Mitigation measures and enhancements are excluded from the scope of this PEA, so have not been included within the report.

The 'Statutory Biodiversity Metric' (DEFRA, 2024a) calculation of the baseline biodiversity value of the site is not presented in this report. Condition assessments of the habitats recorded within the site have been completed to inform future Statutory Biodiversity Metric calculations, excluding those requiring River Condition Assessment.



### Legend

Onshore Development Area

Survey area

No access areas

New unsurveyed areas - added 31.03.2025

Target notes relating to

INNS

Bat features

Birds

Other species

Areas with specific recommendations

Bat survey on building

Ground Level Tree Assessment for roosting bats

Badger surveys

Habitats of Principal Importance within Site and Survey boundary

w1f - lowland mixed deciduous woodland

c1a5 - arable field margins - tussocky

c1a6 - arable field margins - pollen and nectar

Designated sites

Local Nature Reserve (LNR)

Royal HaskoningDHV

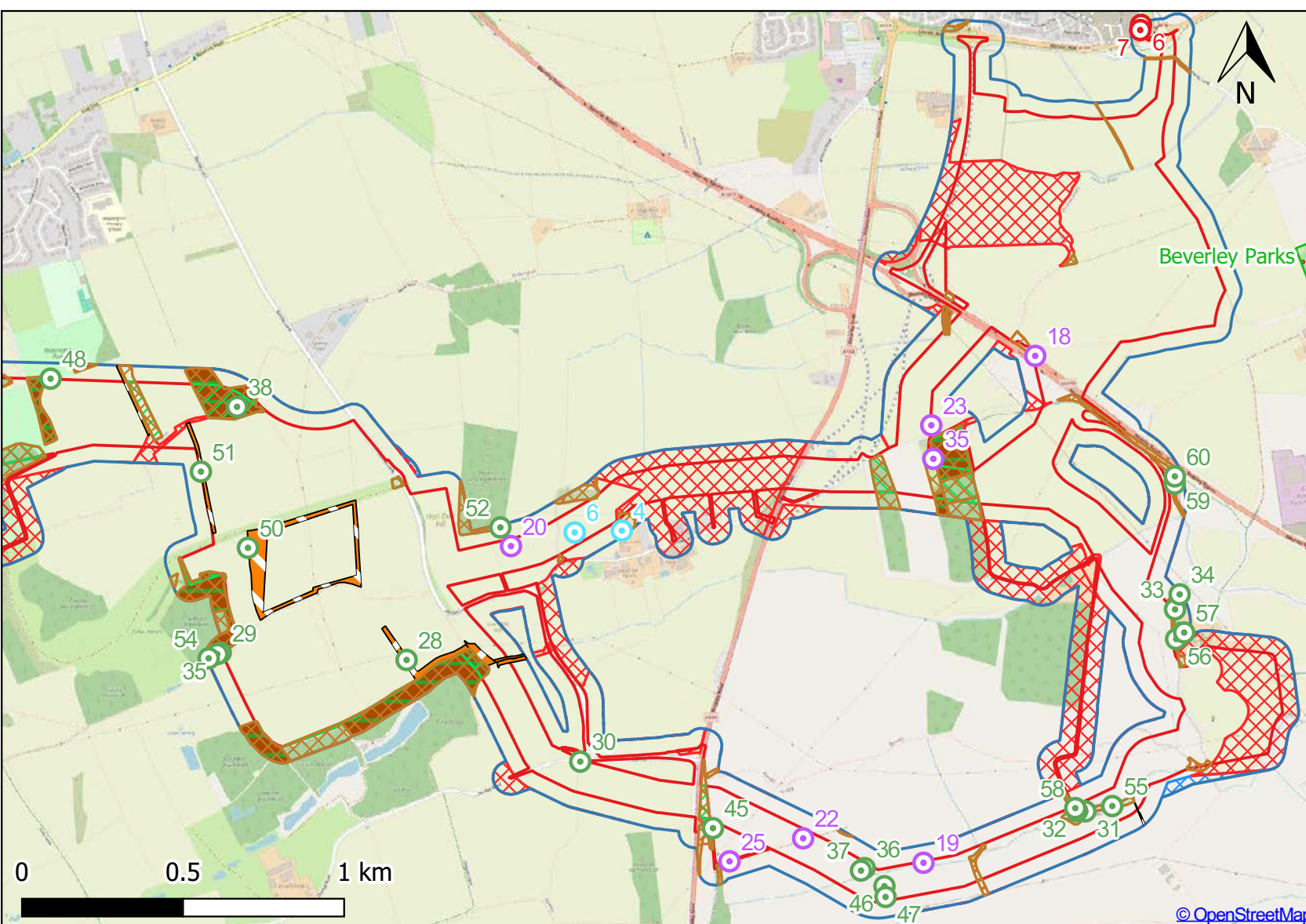
Dogger Bank D

Preliminary Ecological Appraisal

Ecological Constraints Plan

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	RJJ
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ

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### The following surveys / actions are required across the whole Site

- HRA
- Habitat surveys on areas not accessed
- Overwintering and passage bird surveys
- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



### Legend

Onshore Development Area

Survey area

No access areas

Target notes relating to

Bat features

Birds

Other species

Areas with specific recommendations

Bat survey on building

Ground Level Tree Assessment for roosting bats

Badger surveys

Habitats of Principal Importance within Site and Survey boundary

w1c - lowland beech and yew woodland

w1f - lowland mixed deciduous woodland

c1a - arable field margins

c1a5 - arable field margins - tussocky

c1a6 - arable field margins - pollen and nectar

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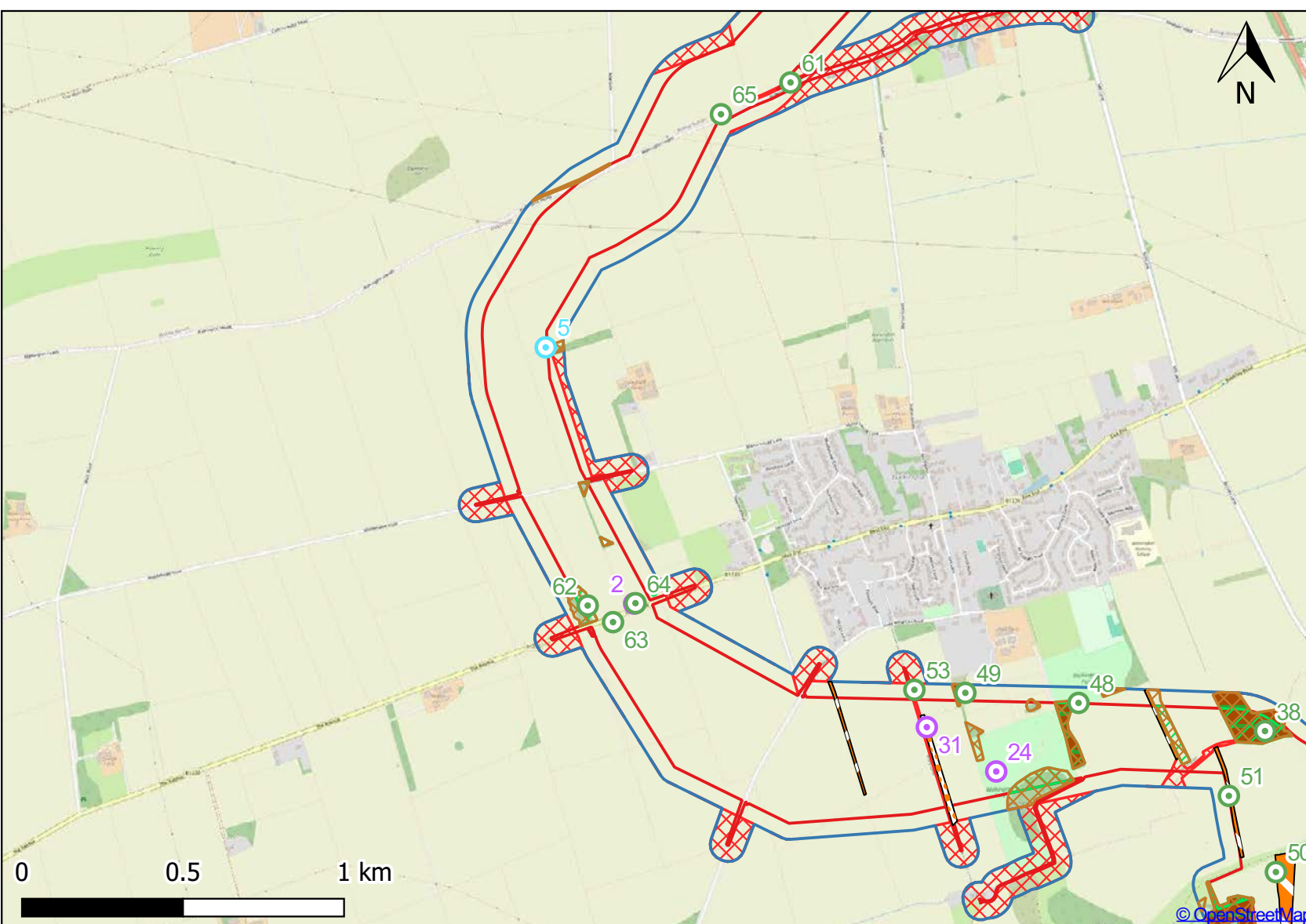
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- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



### Legend

Onshore Development Area

Survey area

No access areas

Target notes relating to

INNS

Badgers

Bat features

Other species

Areas with specific recommendations

Bat survey on building

Ground Level Tree Assessment for roosting bats

Badger surveys

Habitats of Principal Importance within Site and Survey boundary

w1f - lowland mixed deciduous woodland

c1a6 - arable field margins - pollen and nectar

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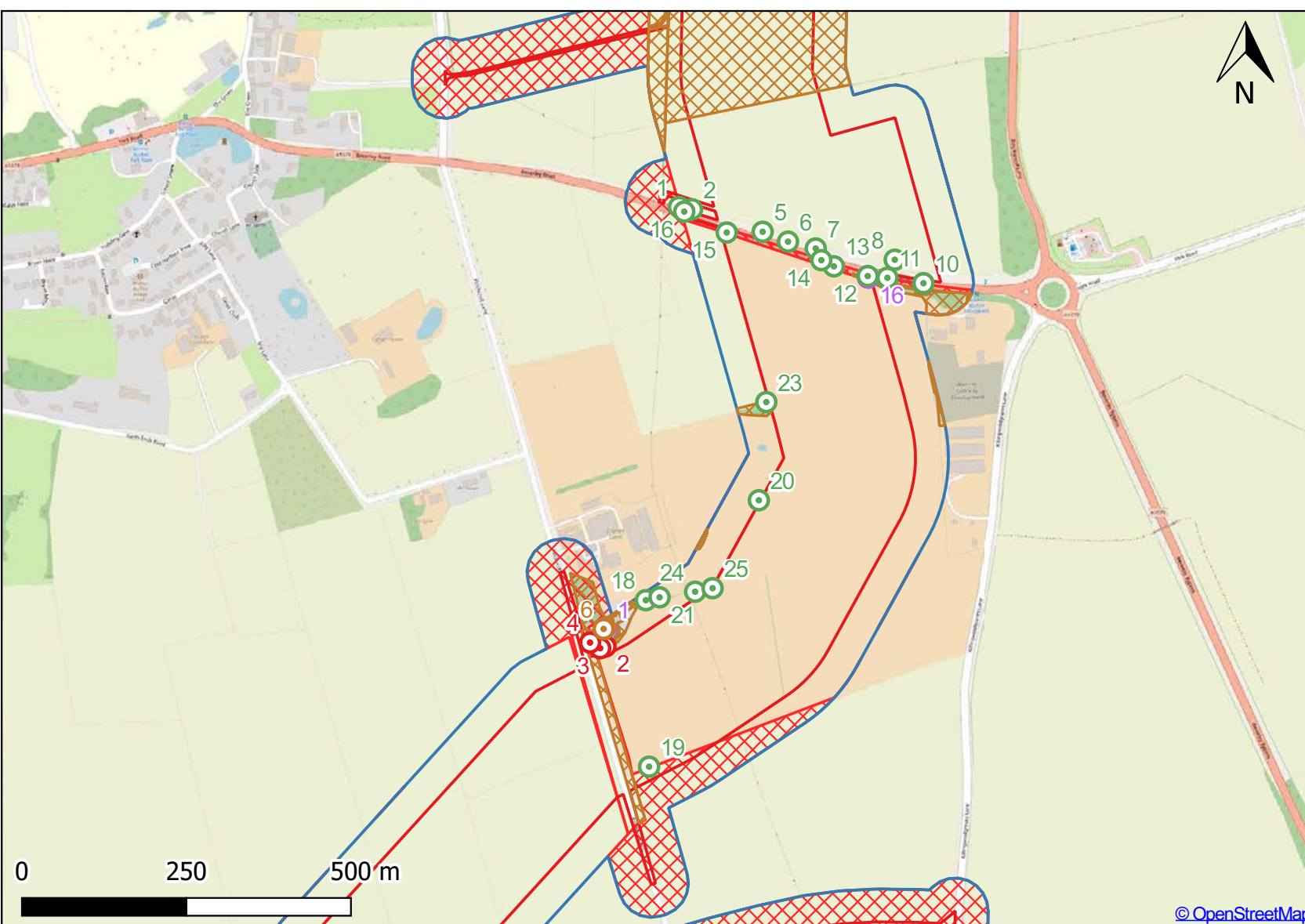
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- Habitat surveys on areas not accessed
- Overwintering and passage bird surveys
- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



### Legend

  Onshore Development Area

  Survey area

  No access areas

Target notes relating to

  Badgers

  INNS

  Bat features

  Birds

  Other species

Areas with specific recommendations

  Bat survey on building

  Ground Level Tree Assessment for roosting bats

  Badger surveys

Habitats of Principal Importance within Site and Survey boundary

  w1f - lowland mixed deciduous woodland

  c1a5 - arable field margins - tussocky

  c1a6 - arable field margins - pollen and nectar

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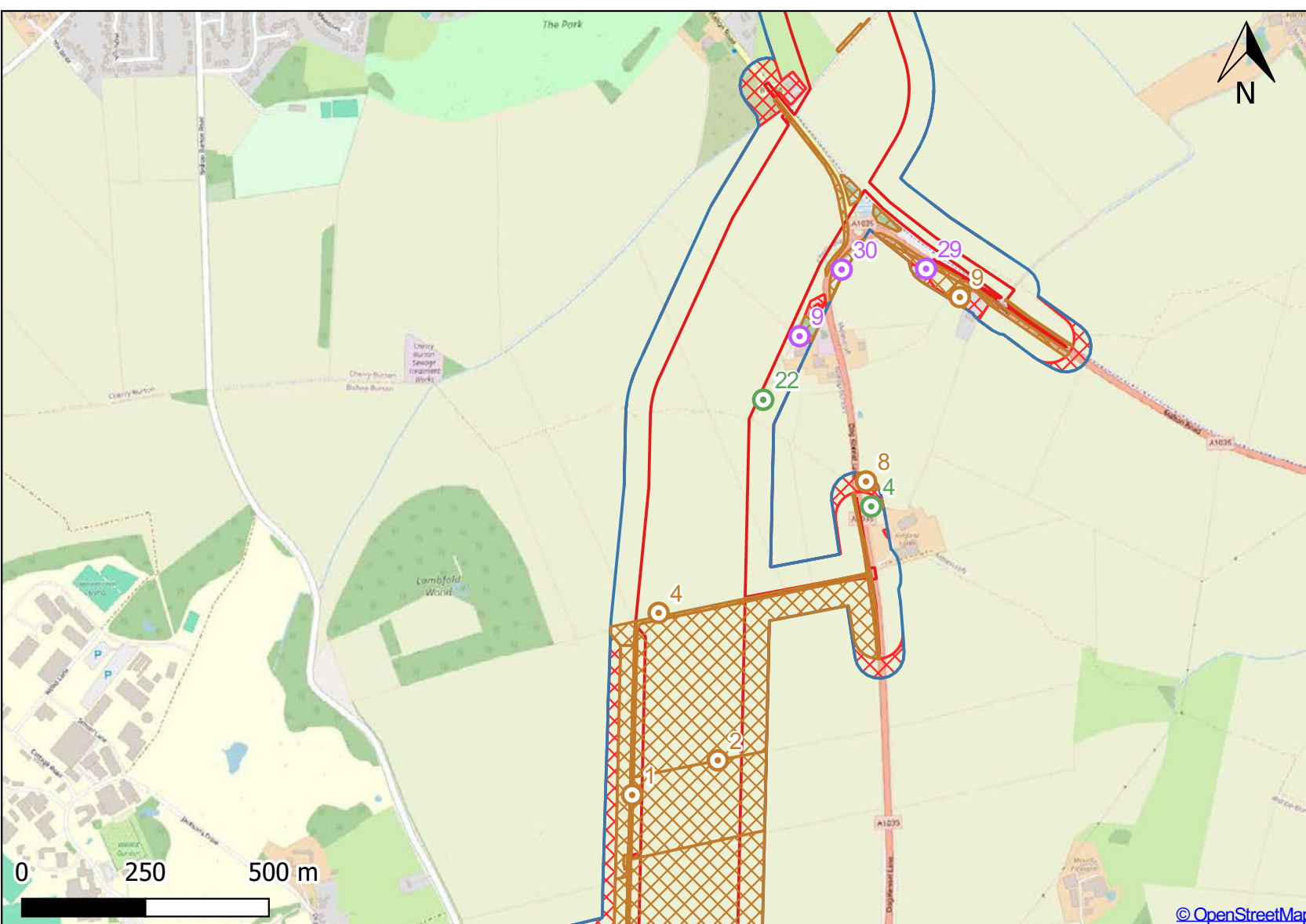
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### The following surveys / actions are required across the whole Site

- HRA
- Habitat surveys on areas not accessed
- Overwintering and passage bird surveys
- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



## Legend

- Onshore Development Area
- Survey area
- No access areas

## Target notes relating to

- Badgers
- INNS
- Bat features
- Birds
- Other species

## Areas with specific recommendations

- Bat survey on building
- Ground Level Tree Assessment for roosting bats
- Badger surveys

## Habitats of Principal Importance within Site and Survey boundary

- w1f - lowland mixed deciduous woodland
- c1a5 - arable field margins - tussocky
- c1a6 - arable field margins - pollen and nectar
- Dried up pond

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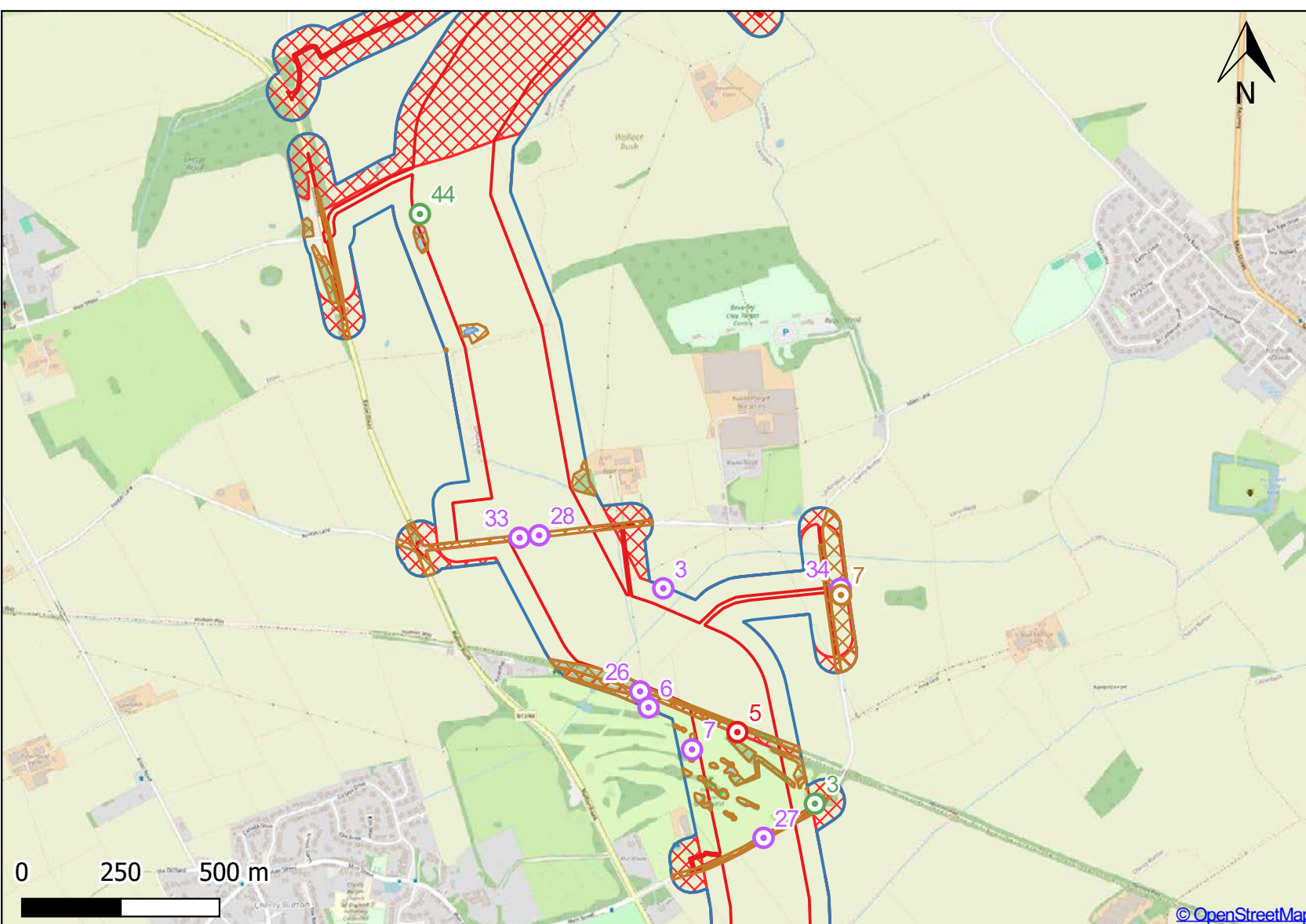
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- Overwintering and passage bird surveys
- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



## Legend

- Onshore Development Area
- Survey area
- No access areas

## Target notes relating to

- INNS
- Bat features
- Birds
- Other species

## Areas with specific recommendations

- Bat survey on building
- Ground Level Tree Assessment for roosting bats
- Further badger surveys
- Otter / water vole surveys

## Habitats of Principal Importance within Site and Survey boundary

- w1f - lowland mixed deciduous woodland
- c1a5 - arable field margins - tussocky
- c1a6 - arable field margins - pollen and nectar

## Designated sites

- Sites of Special Scientific Interest (SSSI)

## Royal HaskoningDHV

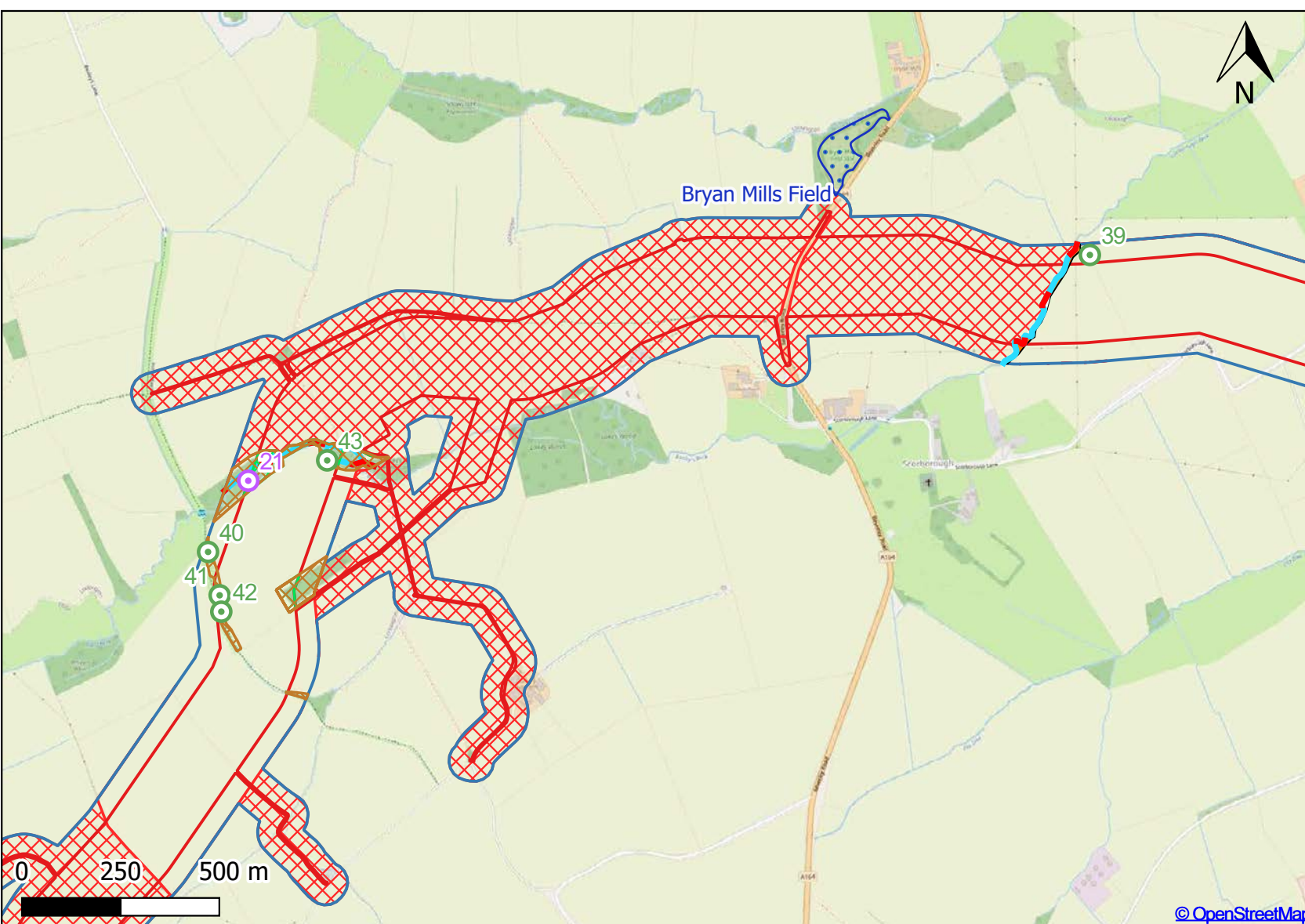
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- Overwintering and passage bird surveys
- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



## Legend

- Onshore Development Area
- Survey area
- No access areas

## Target notes relating to

- INNS
- Bat features
- Birds
- Other species

## Areas with specific recommendations

- Bat survey on building
- Ground Level Tree Assessment for roosting bats
- Further badger surveys
- Otter / water vole surveys

## Habitats of Principal Importance within Site and Survey boundary

- w1f - lowland mixed deciduous woodland
- c1a5 - arable field margins - tussocky
- c1a6 - arable field margins - pollen and nectar

## Designated sites

- Sites of Special Scientific Interest (SSSI)

## Royal HaskoningDHV

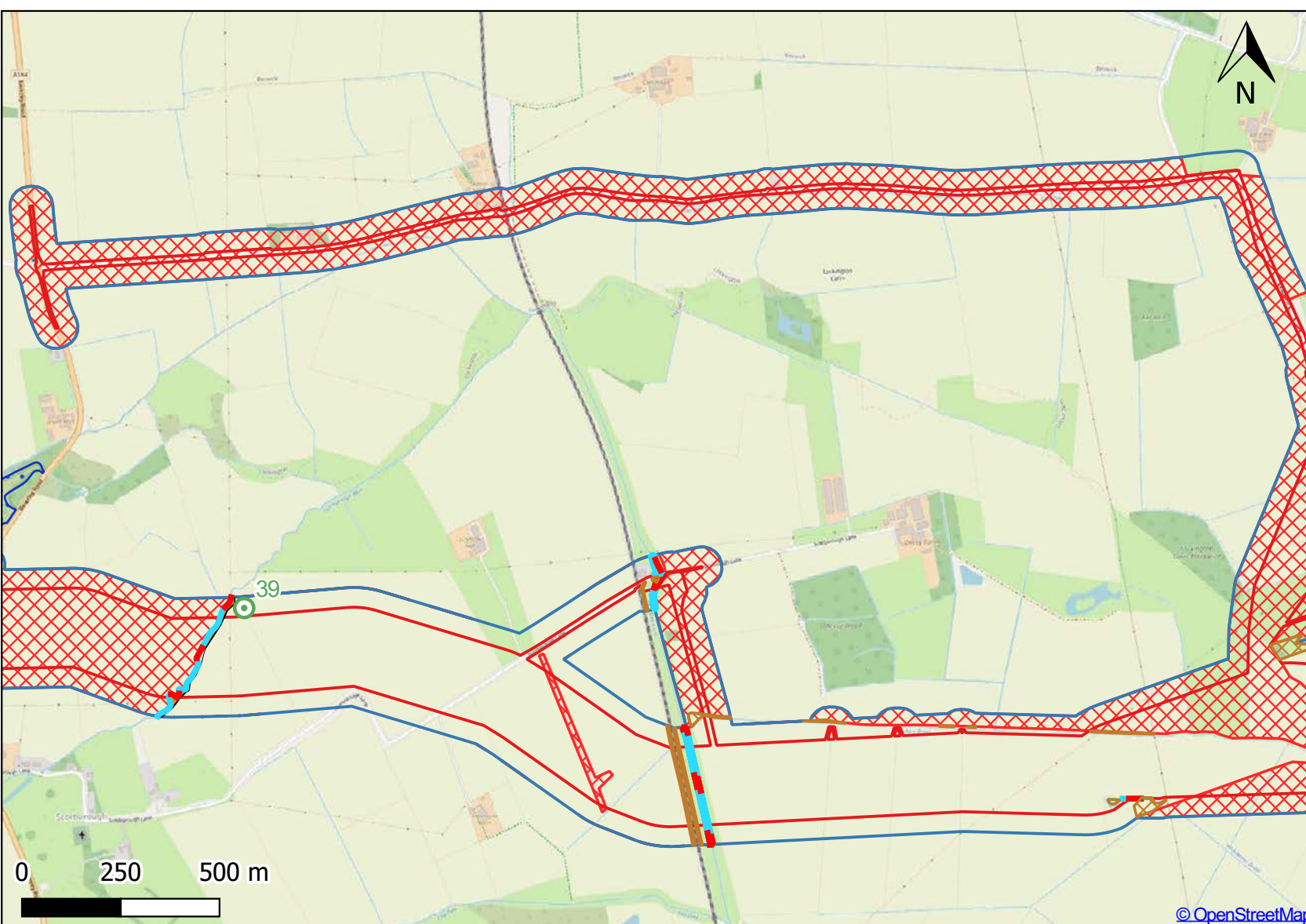
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## The following surveys / actions are required across the whole Site

- HRA
- Habitat surveys on areas not accessed
- Overwintering and passage bird surveys
- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



## Legend

Onshore Development Area

Survey area

No access areas

Target notes relating to

Badgers

INNS

Bat features

Birds

Other species

Areas with specific recommendations

Badger surveys

Bat survey on building

Ground Level Tree Assessment for roosting bats

Otter / water vole surveys

Habitats of Principal Importance within Site and Survey boundary

w1d - wet woodland

w1f - lowland mixed deciduous woodland

c1a5 - arable field margins - tussocky

c1a6 - arable field margins - pollen and nectar

Designated sites

Sites of Special Scientific Interest (SSSI)

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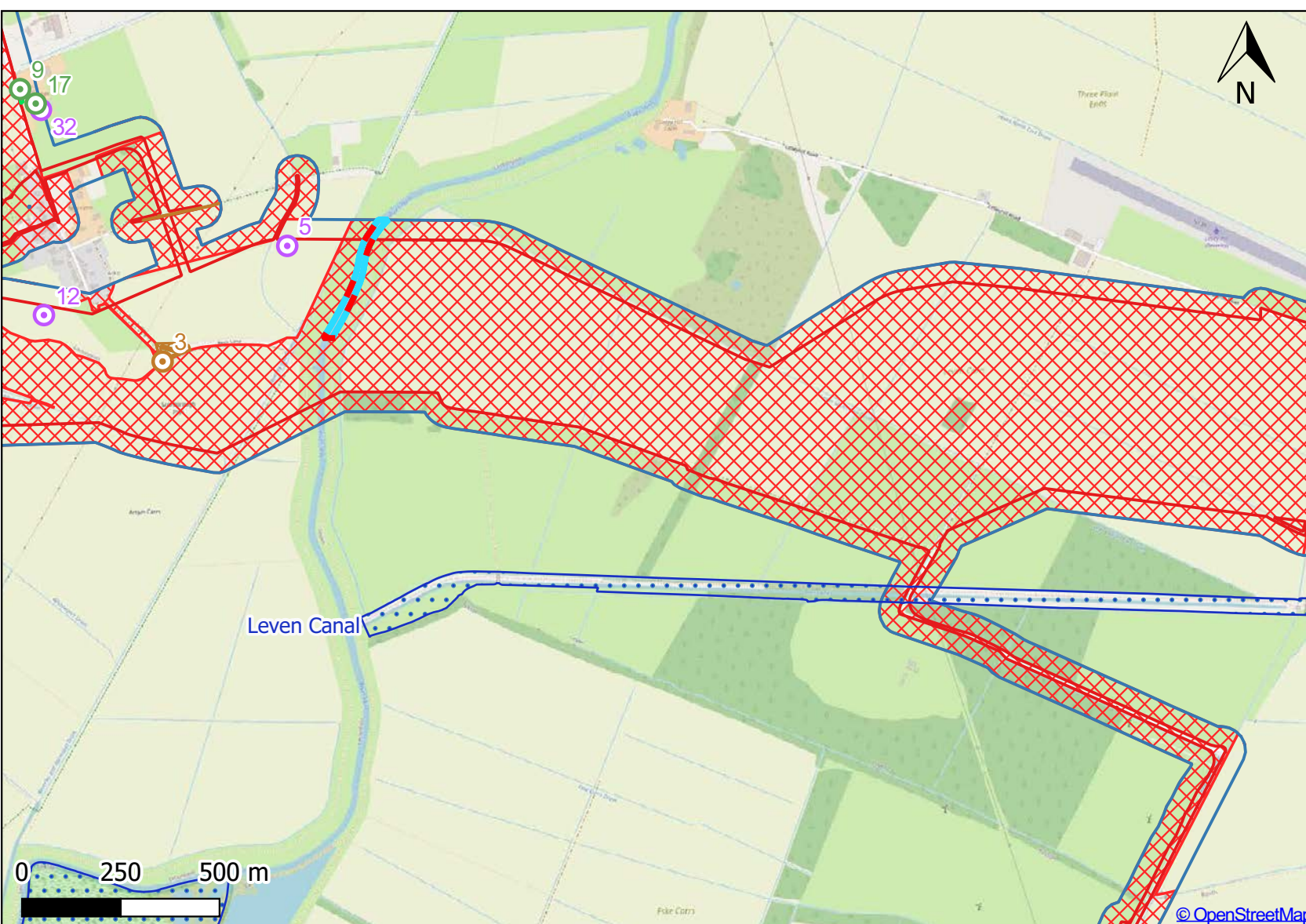
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- HRA
- Habitat surveys on areas not accessed
- Overwintering and passage bird surveys
- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



## Legend

  Onshore Development Area

  Survey area

  No access areas

Areas with specific recommendations

  Badger surveys

  Ground Level Tree Assessment for roosting bats

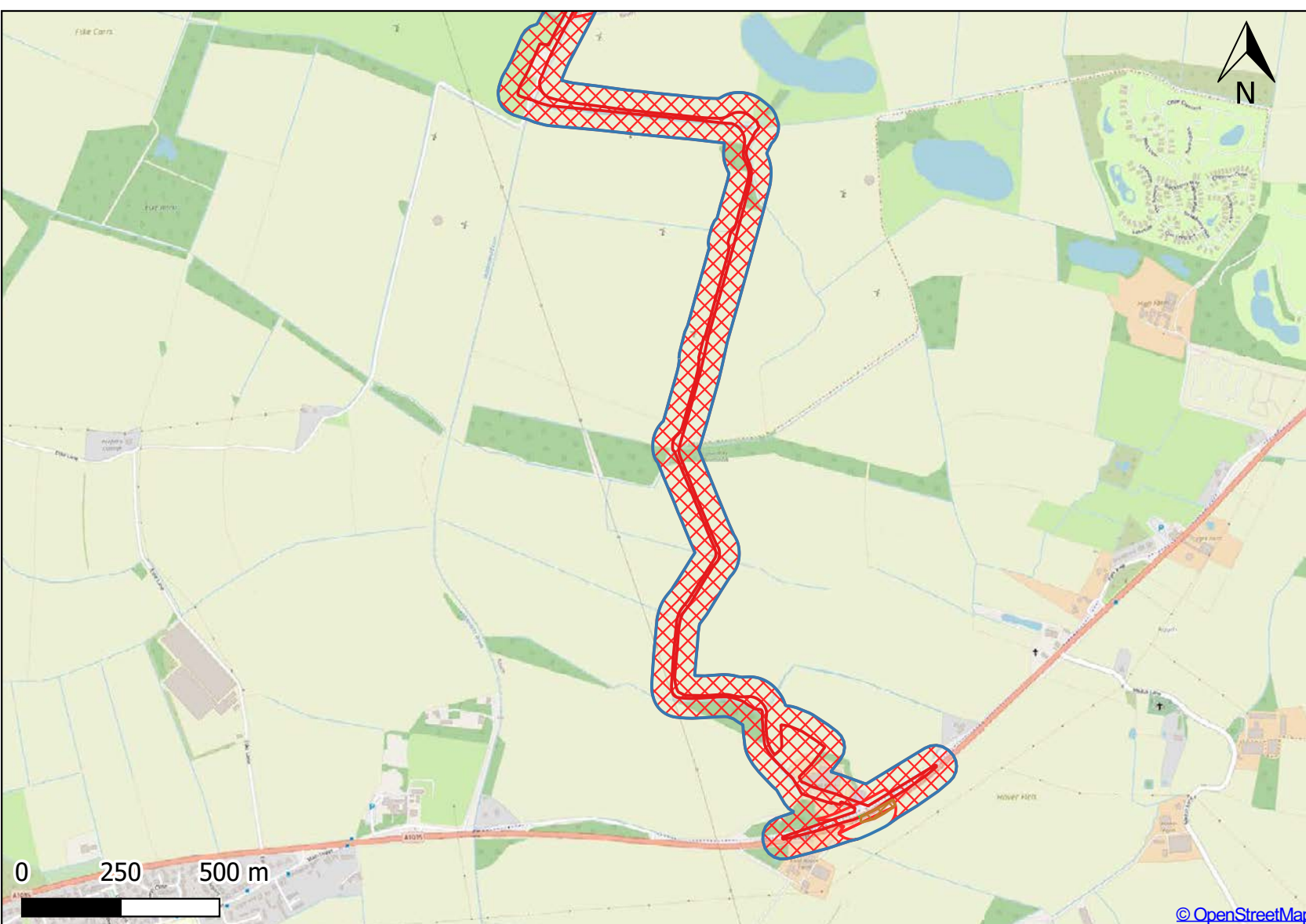
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- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



## Legend

- Onshore Development Area
- Survey area
- X No access areas
- Target notes relating to
  - Other species
- Areas with specific recommendations
  - X Badger surveys
  - X Bat survey on building
  - X Ground Level Tree Assessment for roosting bats
- Habitats of Principal Importance within Site and Survey boundary
  - c1a5 - arable field margins - tussocky
  - c1a6 - arable field margins - pollen and nectar
- Designated sites
  - Site of Special Scientific Interest (SSSI)

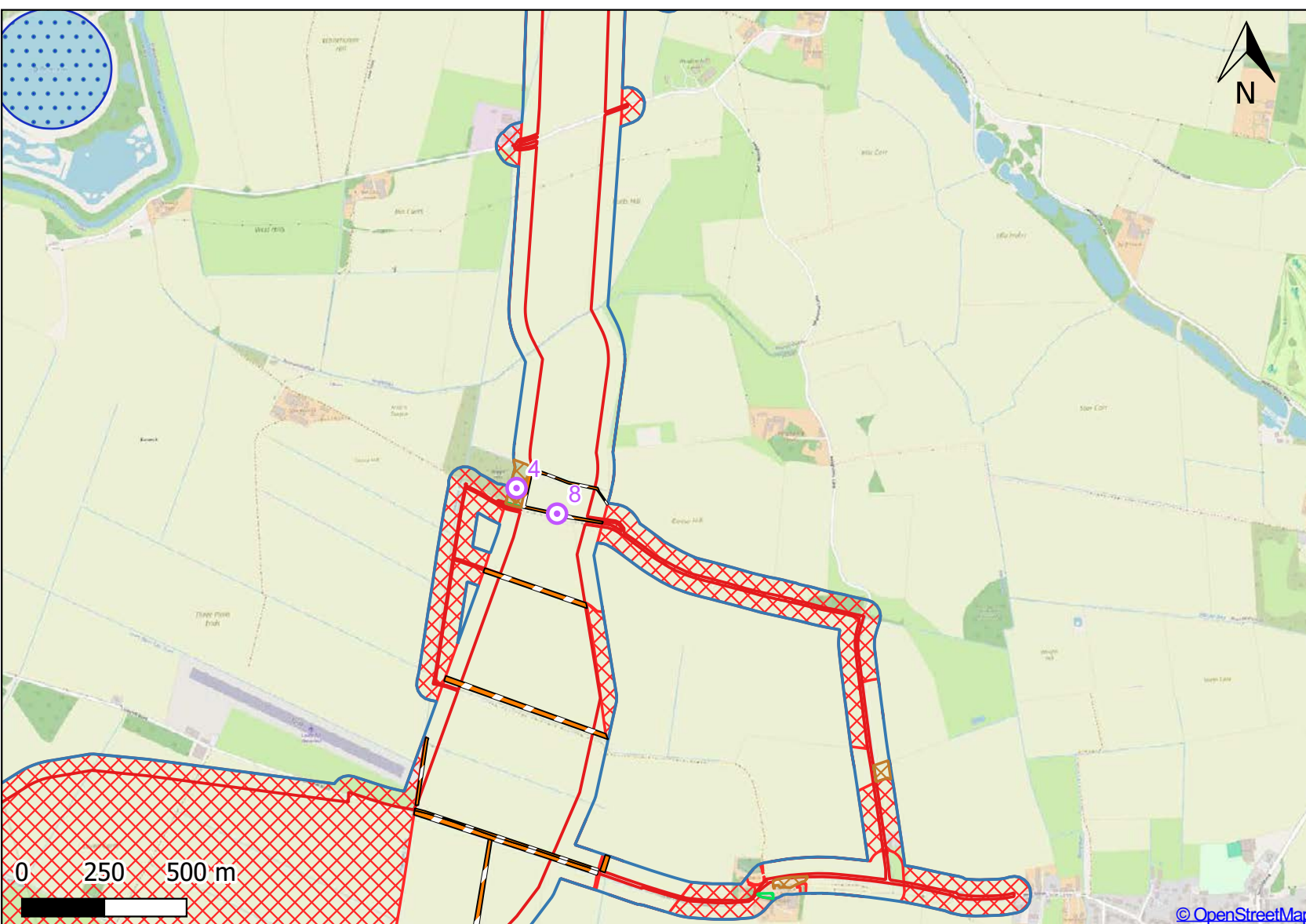
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- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



### Legend

Onshore Development Area

Survey area

No access areas

Target notes relating to

● INNS

● Bat features

● Birds

● Others

Areas with specific recommendations

Ground Level Tree Assessment for roosting bats

Further badger surveys

— — Otter / water vole surveys

Habitats of Principal Importance within Site and Survey boundary

w1f - lowland mixed deciduous woodland

f2e - reedbeds

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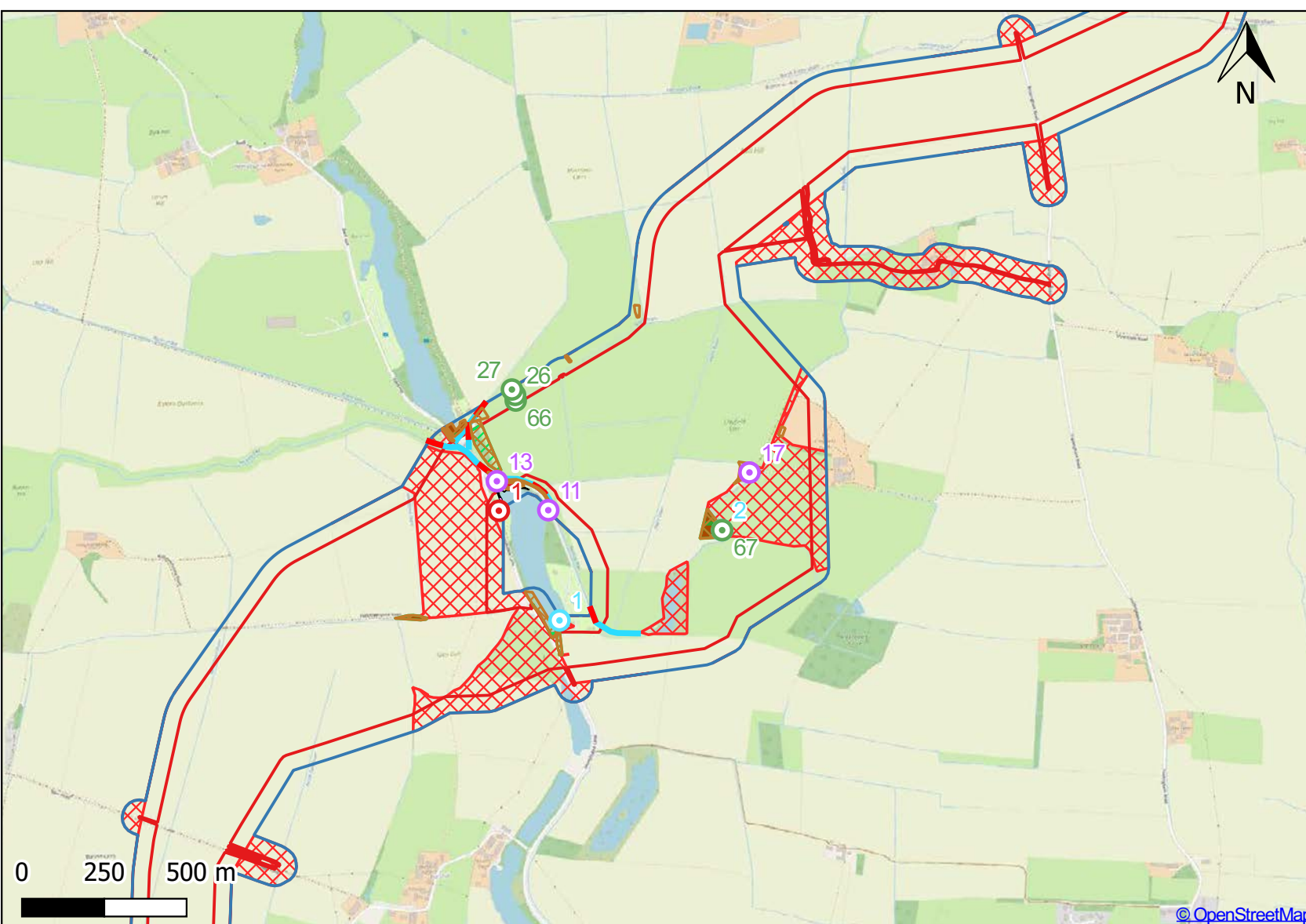
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- Breeding bird surveys
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### Legend

Onshore Development Area

Survey area

No access areas

Target notes relating to

○ Other species

Areas with specific recommendations

Badger surveys

Ground Level Tree Assessment for roosting bats

Habitats of Principal Importance within Site and Survey boundary

c1a5 - arable field margins - tussocky

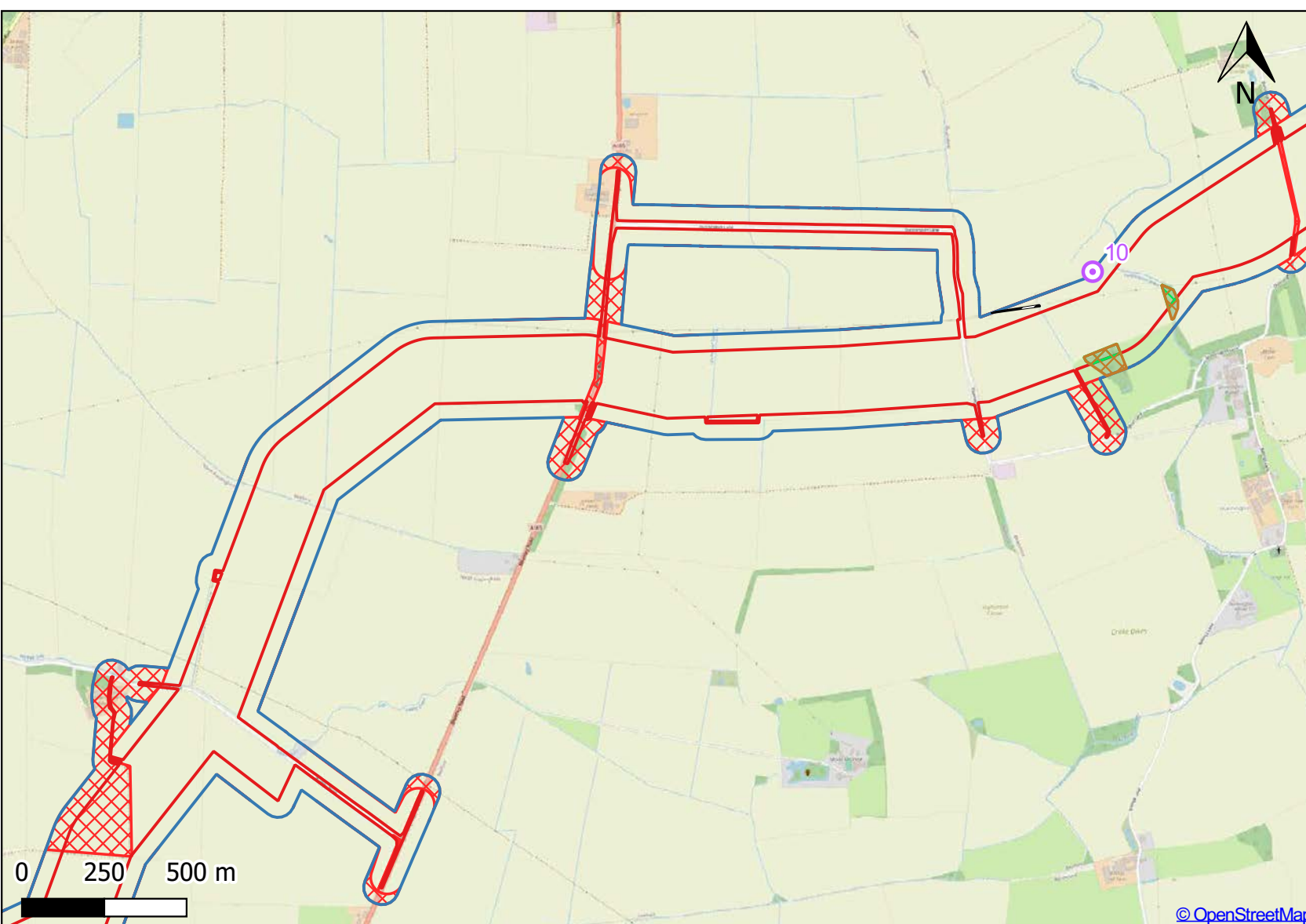
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### Legend

Onshore Development Area

Survey area

No access areas

Areas with specific recommendations

Badger surveys

Ground Level Tree Assessment for roosting bats

Otter / water vole surveys

Habitats of Principal Importance within Site and Survey boundary

c1a5 - arable field margins - tussocky

Designated sites

Sites of Special Scientific Interest (SSSI)

Special Protection Area (SPA)

**Royal HaskoningDHV**

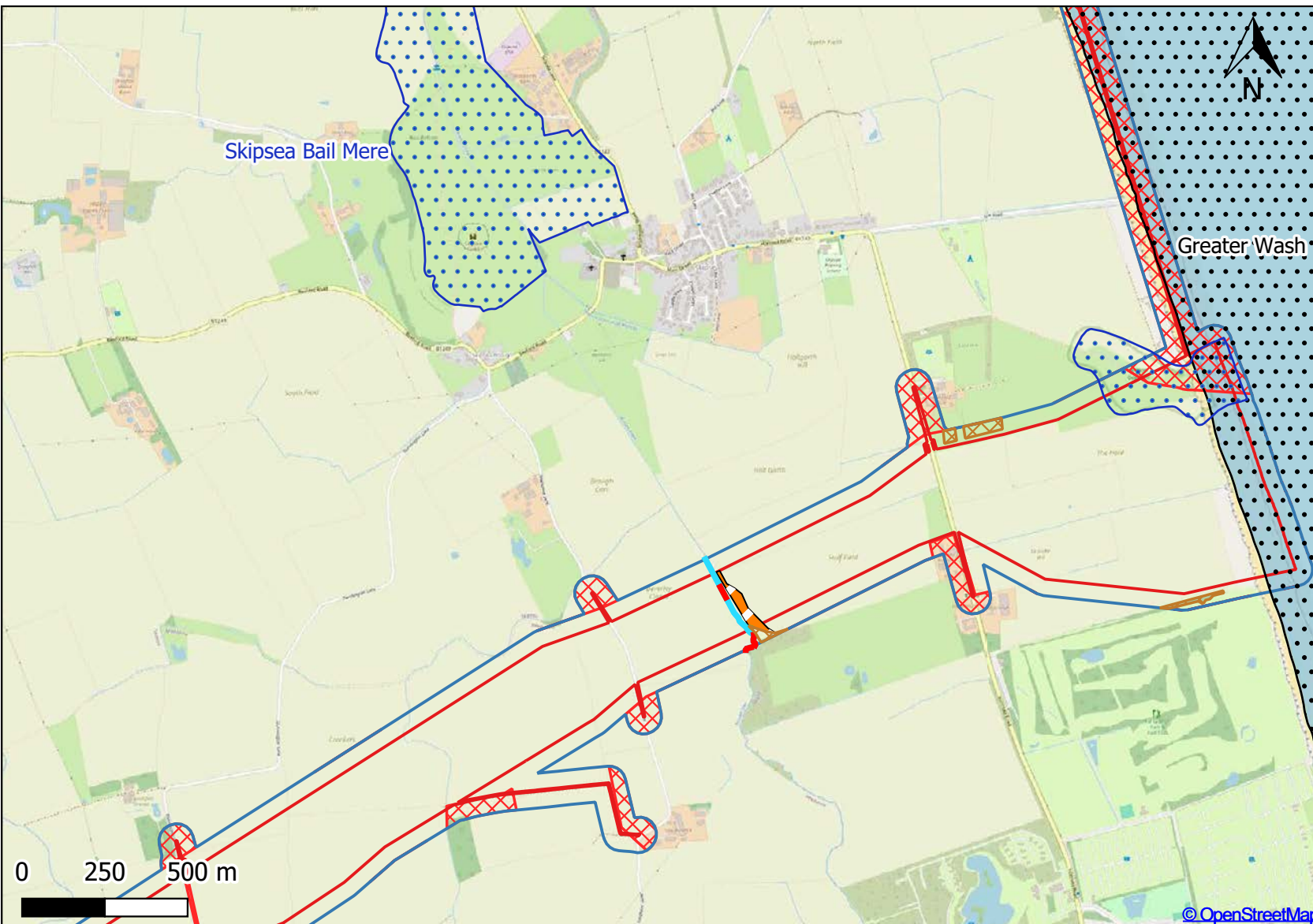
**Dogger Bank D**

**Preliminary Ecological Appraisal**

**Ecological Constraints Plan**

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	RJJ
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ

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### The following surveys / actions are required across the whole Site


- HRA
- Habitat surveys on areas not accessed
- Overwintering and passage bird surveys
- Breeding bird surveys
- Bat activity surveys
- GCN eDNA surveys on all ponds, and HSI surveys on ponds not assessed



#### Legend

 Onshore Development Area

 Survey area

 No access areas

#### Designated sites

 Sites of Special Scientific Interest (SSSI)

 Special Protection Area (SPA)

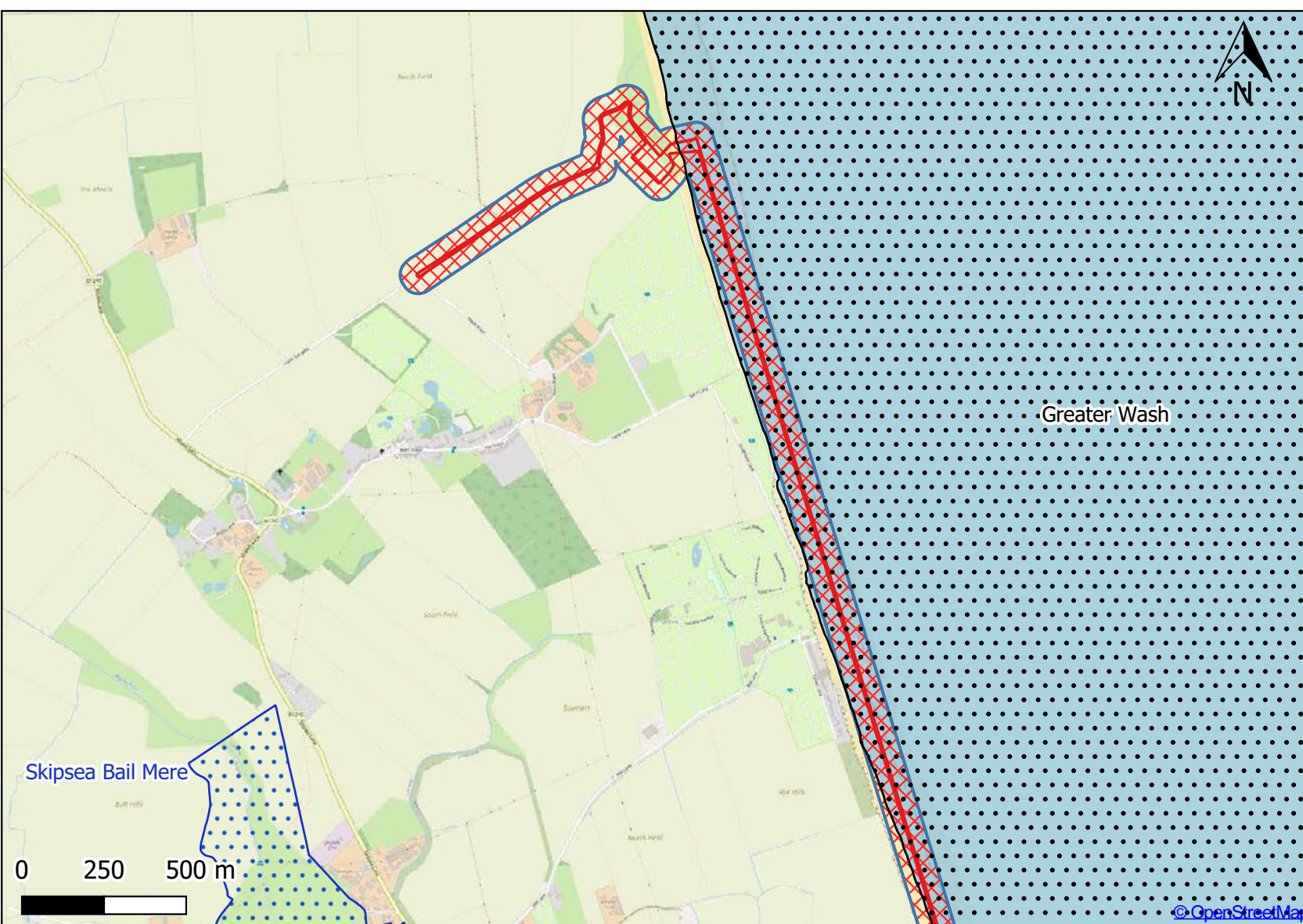
#### Royal HaskoningDHV

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## 1. Introduction

- 1.1.1 The applicant commissioned Ecus Limited (Ecus) to undertake a Preliminary Ecological Appraisal (PEA) (Chartered Institute of Ecology and Environmental Management (CIEEM), 2017) of a proposed Onshore Development Area, associated with the proposed Dogger Bank D (DBD) Offshore Wind Farm.
- 1.1.2 The Onshore Development Area covers an approximately 55 km long cable route and runs through a predominantly agricultural landscape with dispersed rural settlements and is located within East Riding of Yorkshire.
- 1.1.3 In this report the Onshore Development Area is referred to as 'the site'. A 50 m buffer around the site was also surveyed, hereafter referred to as 'the Survey Area'.
- 1.1.4 The PEA focussed on the habitats which may be directly impacted by the onshore works (see **Volume 1 Chapter 4 Project Description**). This report details the findings of a data consultation, and the habitat surveys and protected species assessments carried out between 5 August 2024 and 8 October 2024. The report also details the habitat condition results of the Biodiversity Net Gain (BNG) baseline assessment. The methodologies employed and all survey findings are described along with an evaluation and assessment of the ecological importance of the site. Any requirement for further survey work and/or mitigation/enhancement is also detailed as required.

### 1.2 Site description and project scope

- 1.2.1 The site is in the East Riding of Yorkshire, covering approximately 1,240 ha. The Survey Area comprising a 50 m buffer around the site boundary was surveyed (approximately 2,105 ha, including the site) (see **Volume 1 Chapter 4 Project Description**).
- 1.2.2 The site boundary and Survey Area extent can be viewed in Figure 1. The habitat map is illustrated in Figure 2 and the site photographs can be viewed in Appendix 1.
- 1.2.3 The onshore elements of the Project forming the Onshore Development Area (the site boundary) will include landfall, onshore export cables within the onshore export cable corridor (ECC) and the Onshore Converter Station (OCS) and Energy Storage and Balancing Infrastructure (ESBI). A full description of the Project is provided in **Volume 1, Chapter 4 Project Description**.
- 1.2.4 Works within the site will involve varying levels of vegetation clearance and light and noise disturbance during the construction phase. These will range from total clearance and high disturbance to minimal clearance and low disturbance. Within this report, the highest level of clearance and disturbance have been assumed and assessments made accordingly.
- 1.2.5 Mitigation recommendations are presented within **Volume 1, Chapter 23 Onshore Ecology and Ornithology** of the Preliminary Environmental Information Report (PEIR). Recommendations for further surveys have also been included where relevant.

### 1.3 Quality assurance

- 1.3.1 The habitat survey and protected species assessments were completed by suitably experienced ecologists as per the CIEEM Competency Framework and accompanying ecologists:
  - Principal Ecologist RJJ BSc (Hons) MSc;



- Senior Ecologist RNJ BSc (Hons);
- Senior Ecologist JA BSc (Hons) MCIEEM;
- Senior Ecologist HC BSc (Hons) MSc;
- Consultant Ecologist LS BSc (Hons) MSc;
- Consultant Ecologist EH BSc (Hons) MSc;
- Consultant Ecologist SA BSc (Hons) MSc;
- Assistant Ecologist GT BSc (Hons) MSc;
- Assistant Ecologist ZC BSc (Hons);
- Graduate Ecologist EP BSc (Hons) MSc;
- Graduate Ecologist DH BSc (Hons);
- Graduate Ecologist RL BSc (Hons);
- Graduate Ecologist BH BSc (Hons)
- Graduate Ecologist AB BSc (Hons); and,
- Graduate Ecologist JB BSc (Hons) MSc.

1.3.2 The associated PEA report was written (LS), reviewed (RJJ) and approved (SS) by suitably experienced ecologists as per the CIEEM Competency Framework and in accordance with Ecus' Quality Assurance policy.



## **2. Legislation**

2.1.1 The primary purpose of the PEA was to identify any ecological constraints to the proposed works, including designated sites, habitats and species protected by legislation, namely, but not limited to:

- The Wildlife & Countryside Act 1981 (as amended) (“the WCA 1981”);
- The Conservation of Habitats and Species Regulations 2017 (as amended) (“the Habitats Regulations”);
- The Protection of Badgers Act 1992;
- The Natural Environment and Rural Communities Act 2006 (“the NERC Act”);
- The Environment Act 2021;
- Eels (England and Wales) Regulations 2009; and
- Salmon and Freshwater Fisheries Act 1975 (“SAFFA”).

2.1.2 Further details for species protected by the above legislation are provided in Appendix 2.



### **3. Methodology**

#### **3.1 Data consultation**

- 3.1.1 Obtaining existing biological records is an important part of the PEA process, as it provides additional information that may not be apparent during a site visit and provides a baseline from which to inform recommendations and mitigation.
- 3.1.2 The North & East Yorkshire Ecological Data Centre (NEYEDC) was approached for data consultation by Royal HaskoningDHV, to provide recent (within the past 10 years) biological records within 2 km of the site (Figure 3). A 2 km Search Area was appropriate for the majority of species likely to be within the site. Furthermore, for the majority of species the impact area will be localised within the site.
- 3.1.3 The data obtained from NEYEDC includes records of protected and notable species, invasive non-native species (INNS) and non-statutory designated sites for nature conservation.
- 3.1.4 In addition, Ecus used the Multi-Agency Geographical Information for the Countryside (MAGIC) website (MAGIC, 2024) to identify statutory designated sites of international and European nature conservation importance within 10 km of the site (Figure 4), national statutory designated sites within 5 km of the site (Figure 5), and sites of local importance and any records of European Protected Species (EPS) mitigation licences granted within 2 km of the site.
- 3.1.5 Fish and eel records were also collected from the Environment Agency (freshwater fish surveys (NFPD), 2024) and have been included where relevant.
- 3.1.6 Information obtained from the Environment Agency, MAGIC, and NEYEDC is included within the report where appropriate.

#### **3.2 Site survey**

Habitat surveys and protected species assessments were completed in accordance with industry guidelines (CIEEM, 2017, UKHab Ltd, 2023 and DEFRA, 2024) between 5 August 2024 and 8 October 2024. The surveys and assessment were carried out by suitability experienced ecologists as per the CIEEM Competency Framework (as per Section 1.3 of this report).

- 3.2.1 The surveys were completed during the day. Weather conditions and visibility were suitable for the purpose of the survey throughout.
- 3.2.2 Botanical species were recorded by level of abundance and a species list was noted. Habitat type was categorised using the UKHab methodology (UKHab Ltd, 2023) and condition was assessed according to the Statutory Biodiversity Metric (DEFRA, 2024), where applicable.
- 3.2.3 This survey method aims to characterise habitats and communities present and is not intended to provide a complete list of all plants occurring across the site.
- 3.2.4 Evidence of protected species, species of nature conservation importance, and notable, rare, or scarce species was recorded if field signs were present at the time of survey. Any evidence recorded is included within the report as appropriate and represented as Targets Notes (TN) in the Ecological Constraints Plan (ECP) figure, provided within the summary section as well as in Appendix 3. Photographs were taken of each habitat type and any features with potential to support



protected or notable species, a selection can be seen in Appendix 1.

3.2.5 Habitat type was digitised on-site using the Coreo app, then imported into 'QGIS' (QGIS Development Team, 2024) (see Figure 2 in this document).

3.2.6 Any habitats present which are listed under Section 41 of the NERC Act were noted.

### **3.3 Biodiversity Net Gain baseline assessment**

3.3.1 The Statutory Biodiversity Metric uses a classification system based mainly on the UK Habitat Classification System (UKHab Ltd, 2023). Where applicable, habitats were subject to a condition assessment in accordance with the Condition Assessment Sheets included within the Statutory Biodiversity Metric Condition Assessment Sheets (DEFRA, 2024). The condition of each habitat was assessed and scored as either good, moderate, or poor. If a habitat type varied in condition this was recorded and mapped. Some habitat types such as urban and cropland are not required to have condition assessments, these have been recorded as "not applicable".

3.3.2 Habitat measurements have been taken using digital mapping software (QGIS Geographic Information System version 3.34).

3.3.3 A full biodiversity net gain assessment has not been included within the report as it was outside of the scope. However, the habitats, areas, and condition assessments are detailed within Section 4.6.

### **3.4 Protected species**

3.4.1 Any evidence of, or potential for protected or otherwise notable species encountered during the survey was recorded. This included observations of field signs and an assessment of the suitability of the habitats present to support protected species.

#### ***Amphibians including great crested newt***

3.4.2 A desk-based assessment was undertaken using a 1:25,000 scale OS map to identify all waterbodies within 500 m of the site that are not separated by a significant barrier to amphibian dispersal (such as a major road or watercourse).

3.4.3 As garden ponds within residential properties are often absent from OS map sources, aerial photography was also used to search for additional ponds.

3.4.4 Habitats present within the site were assessed for their suitability to support amphibians including great crested newt (GCN) *Triturus cristatus*. The connectivity of any suitable habitat within the site to other habitat within the surrounding area was assessed during the site visit and through visual analysis of aerial imagery.

3.4.5 Habitat Suitability Index (HSI) assessments were undertaken, where possible. The full methodology and results are detailed in the GCN Technical Advice Note (Appendix 4).

#### ***Badger***

3.4.6 Where possible, field signs of badger *Meles meles* within the Survey Area were recorded in accordance with the standard methodology outlined by Harris et al. (1989), which includes surveying for setts and for field signs such as latrines, hairs, foraging signs, and pathways.



### **Bats**

- 3.4.7 Where possible, in accordance with the Bat Conservation Trust's (BCT) best practice guidelines (Collins, 2023), the suitability of habitat features within the Survey Area to support roosting bats was categorised as negligible, low, moderate, or high for buildings/structures. This was based on the number and type of roosting features and surrounding landscape character. The suitability of trees was assessed using none, further assessment required (FAR), and potential roosting features (PRFs) in accordance with the BCT's best practice guidelines (Collins, 2023).
- 3.4.8 Where possible, any accessible structures and trees present within the Survey Area were subject to an external visual assessment, undertaken from ground-level using binoculars. This approach permitted a search for the presence of PRFs which could be used by roosting bats. It was outside the scope of the commission to undertake a survey of all trees within the Survey Area.
- 3.4.9 An individual tree or structure may have several PRFs associated with it. It is not always possible to confirm if a feature is used by bats, as bats may not use the feature frequently.
- 3.4.10 Habitats within the Survey Area were also assessed for their suitability to support foraging and commuting bats.

### **Birds**

- 3.4.11 Species of birds noted incidentally during the survey were recorded where possible, and details of suitable habitats for nesting birds were noted, including those species with enhanced statutory protection.

### **Fish**

- 3.4.12 Where possible, any watercourses present within the Survey Area were assessed for their suitability to support protected and notable fish species such as Atlantic salmon *Salmo salar*, brown trout *S. trutta* and European eel *Anguilla anguilla*.

### **Hazel dormouse**

- 3.4.13 Hazel dormouse *Muscardinus avellanarius* have been scoped out of the assessment as their known range does not extend into the site and the surrounding areas, therefore they have been excluded from the report.
- 3.4.14 However, if they are identified on site then the impacts of the proposed works on hazel dormouse will need to be re-assessed.

### **Invertebrates including white-clawed crayfish**

- 3.4.15 Habitats were assessed for their potential to support notable or protected terrestrial and aquatic invertebrates.
- 3.4.16 Where possible, watercourses any watercourses within the Survey Area were assessed for their suitability to support white-clawed crayfish *Austropotamobius pallipes*.

### **Otter**

- 3.4.17 Watercourses and waterbodies within the Survey Area were assessed for their suitability to support otter *Lutra lutra*. This involved recording incidental sightings of field signs such as: droppings (spraints), footprints, feeding remains, lying-up areas, holts, areas of habitat suitable, and actual



observations (Chanin, 2003).

- 3.4.18 Terrestrial habitats present within the Survey Area were also assessed for their suitability to support otter and for their connectivity to watercourses and other suitable habitat within the surrounding area.

#### **Reptiles**

- 3.4.19 The habitats present within the Survey Area were assessed for their suitability to support basking, foraging and hibernating reptiles. The connectivity of any suitable habitat within the Survey Area to other habitat within the surrounding area was assessed during the survey and through studying aerial imagery. Any incidental reptile encounters made during the survey were recorded.
- 3.4.20 Due to their southern distribution ranges, it is unlikely that either of the two EPS reptile species (smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis*) would be found within the site or the surrounding areas. Therefore, they have been excluded from this report.

#### **Water vole**

- 3.4.21 Where possible, watercourses and waterbodies within the Survey Area were assessed for their suitability to support water vole *Arvicola amphibious*. Any incidental evidence of water vole was recorded, such as: burrows, latrines, footprints, runs in the vegetation, grazed 'lawns', feeding remains, and actual sightings (Dean *et al*, 2016).
- 3.4.22 Terrestrial habitats present within the Survey Area were also assessed for their suitability to support water voles and for their connectivity to watercourses and other suitable habitat within the surrounding area.

#### **Other protected and notable species**

- 3.4.23 Habitats were additionally assessed for their potential to support other protected species, nationally or locally scarce species, or notable species.

#### **Invasive non-native species (INNS)**

- 3.4.24 Any evidence of invasive non-native plant species listed under Schedule 9 of the WCA 1981 was recorded during the survey including, but not limited to: Japanese knotweed *Reynoutria japonica*, hybrid knotweed *R. x bohemica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera*.
- 3.4.25 Incidental evidence of invasive non-native animal species was also noted.

### **3.5 Limitations**

- 3.5.1 Every effort has been made to provide a comprehensive description of the site, but the specific limitations outlined below apply to this appraisal.
- 3.5.2 The survey undertaken was intended to provide a rapid assessment of the habitats present within the site and was not intended to replace detailed vegetation or protected species surveys (for example for badgers). Where a greater level of information is necessary to inform an assessment, recommendations have been made to undertake further detailed survey.
- 3.5.3 Surveys of this type provide a snapshot of the site at the time of the survey.
- 3.5.4 Approximately 682 ha of land in total could not be accessed due to various reasons, which is



approximately 32% of the Survey Area boundary. The reasons this land could not be accessed are as follows:

- Approximately 185 ha (~27%) of land was not surveyed due to the additional areas added during the route refinement.
- A further 480 ha (~70%) was not surveyed as land access was not granted.
- The remaining 17 ha (~3%) were not surveyed due to various reasons, including health and safety (e.g. roads or land parcels with cows with calves) and limited accessibility. Some areas could not be accessed but could be surveyed from adjacent fields using binoculars. Some areas of dense vegetation, such as scrub and woodland, could not always be entirely accessed due to health and safety reasons.

- 3.5.5 As a result, priority habitats, plant species and/or signs of protected species (such as badger setts) may have been missed. This is a significant limitation. Therefore, it is recommended that access to these areas is attempted again in the next suitable ecological survey season. Surveys of these areas are scheduled to take place in April – May 2025 and the results of which will be presented at the ES stage.
- 3.5.6 The areas which have not been surveyed have been excluded from this PEA. Any potential protected species within these areas could not be accounted for; therefore, the impacts identified within this report should be treated as a minimum and reassessed further once information is obtained.
- 3.5.7 Condition assessments have not been provided for river habitats where a River Condition Assessment (RCA) is required. RCA was excluded from the scope of these surveys. This is a significant limitation to the BNG assessment, but not to the PEA. These RCA surveys are scheduled to take place in 2025 and the results will be presented at the ES stage.
- 3.5.8 The PEA does not include an extensive list of the species found within each habitat type due to the size of the site. This is not a significant limitation as the key and the most dominant species were recorded for all habitat types.
- 3.5.9 Due to the surveys being completed over a long period of time (August 2024 to the start of October 2024) some crop areas were recorded as cereal crops and others as winter stubble, depending on when the fields were surveyed and when the land was harvested. This is not a significant limitation because the broad habitat could be determined, and it does not affect any BNG condition assessments.



## 4. Results and discussion

### 4.1 Statutory designated sites

#### International / European sites

- 4.1.1 There were four sites designated at the international and/or European level located within 10 km of the site, as detailed within Appendix 5 and Figure 4.
- 4.1.2 The Humber Estuary is a Ramsar site, Special Area of Conservation (SAC) and a Special Protection Area (SPA). The other three sites are Greater Wash SPA, Hornsea Mere SPA, and Flamborough Head SAC. The Greater Wash SPA is within the site boundary (Figure 4, Appendix 5).
- 4.1.3 Due to proximity, scope of works, and mobile designated species, the designated sites for international and/or European importance are a constraint to the works.

#### National sites

- 4.1.4 There were six statutory designated sites relating to nature conservation of national or less than national importance located within 2 km of the site, as detailed within Appendix 6 and Figure 5.
- 4.1.5 Five of these are Sites of Special Scientific Interest (SSSI), which are Leven Canal, Bryan Mills Field, Burton Bushes, Tophill Low and Pulfin Bog. The final site was a Local Nature Reserve (LNR), which is Beverley Parks.
- 4.1.6 Two further SSSI sites within 2 km of the site boundary (Skipsea Bail Mere and Withow Gap Skipsea) are only designated for geological reasons only, so are not included within this report.
- 4.1.7 The Leven Canal SSSI is within the site boundary, so could be directly impacted by the works and therefore is a constraint to the proposed works.
- 4.1.8 Tophill Low SSSI and Pulfin Bog SSSI are designated for a number of bird species (Appendix 6), including but not limited to reed warbler *Acrocephalus scirpaceus* and shoveler *Anas clypeata*, that are also designated under the international sites listed above (i.e. Hornsea Mere SPA). Therefore, Tophill Low SSSI and Pulfin Bog SSSI are constraints to the proposed works.
- 4.1.9 The remaining national statutory designated sites are unlikely to be impacted by the works due to the immobile designated features, and / or the distance from the site.

### 4.2 Non-statutory designated sites

- 4.2.1 There were 46 non-statutory designated sites for nature conservation within 2 km of the site, as detailed within Figure 6 and Appendix 7. Forty-four of these are Local Wildlife Sites (LWS) and two are Yorkshire Wildlife Trust (YWT) sites.
- 4.2.2 Birkhill Wood is adjacent to the site and is designated for 10 species of overwintering birds that are of conservation concern. The remaining sites are all designated for immobile features including, but not limited to, woodland and grassland habitats.
- 4.2.3 Of the 46 sites returned, eight are within or partially within the site boundary, and eight are within the Survey Area, including seven adjacent to the site boundary, and one within 10 m of the site



boundary (Appendix 7).

4.2.4 The eight sites within the site boundary could therefore be directly impacted by the works if vegetation clearance is required. The eight sites within the Survey Area and 12 sites connected hydrologically could be impacted by the proposed works indirectly i.e. through accidental pollution events or through not establishing root protection zones.

4.2.5 As such, 28 non-statutory designated sites are constraints to the proposed works.

### 4.3 Other important habitats

#### *Ancient woodland*

4.3.1 MAGIC results confirmed the presence of seven sites within 2 km of the site listed within the Ancient Woodland Inventory (AWI), as seen in Table 1 below and Figure 7.

**Table 1: Woodland classified within the Ancient Woodland Inventory within 2 km of the site.**

Woodland name	Closest to site (approximate distance from site)	Site description
Leman Wood	Adjacent to the west of the site	Ancient and semi-natural woodland.
Birkhill Wood	Adjacent to the east of the site	Ancient, semi-natural woodland, and ancient replanted woodland.
Bygot Wood	60 m east of the site	Ancient, semi-natural woodland, and ancient replanted woodland.
Bentley Moor Wood	300 m north of the site	Ancient and semi-natural woodland.
Jillywoods	370 m north-east of the site	Ancient and replanted woodland.
Burton Bushes	800 m east of the site	Ancient and semi-natural woodland.
Cote Wood	1.8 km south of the site	Ancient and semi-natural woodland.

4.3.2 None of the ancient woodland sites are within the site boundary, so there will be no direct impacts through habitat loss. However, those adjacent to the site (Leman Wood and Birkhill Wood) could be impacted due to the close proximity to the site, for example damage to tree roots from ground compaction.

4.3.3 The remaining ancient woodland sites are unlikely to be impacted by the proposed works, due to the distance from the site and immobile features.

4.3.4 Therefore, only Leman Wood and Birkhill Wood are constraints to the proposed works.

#### *Habitats of Principal Importance*

4.3.5 Multiple Habitats of Principal Importance (HPIs) were included within the Natural England Priority Habitats Inventory database within 2 km of the site, as detailed in Table 2 below, and Figure 8.



**Table 2: Habitats of Principal Importance (HPI) within 2 km of the site.**

HPI	No. of parcels within 2 km of the site	Closest to site (approximate distance from site)
Lowland mixed deciduous woodland	277	Ten are within the site boundary
Maritime cliff and slope	5	Two are within the site boundary
Traditional orchard	37	One is within the site boundary
Coastal and floodplain grazing marsh	184	Six are within the site boundary
Lowland fens	9	Five are within the site boundary
Reedbeds	3	Adjacent to the north-west of the site boundary

4.3.6 As the proposed works comprise vegetation clearance and breaking ground, the HPIs within the site boundary are a constraint to the works as they could be directly impacted through habitat loss or degradation, for example through root damage. The HPIs within close proximity to the site or hydrologically connected (approximately 200 parcels, including all the HPIs listed in Table 2 above) could also be indirectly impacted by the works through release of pollution or soil runoff. As such, all of the HPIs listed above are a constraint to the proposed works.

#### ***Aquatic habitats***

4.3.7 Details of aquatic habitats identified within 500 m of the site are listed within the GCN technical note (Appendix 4).

4.3.8 A total of 20 ponds were located within the site boundary (Appendix 4), these could all be directly impacted as a result of the works.

4.3.9 Another 107 were within 250 m of the site boundary, and a further 163 were within 500 m of the site boundary (Appendix 4). These could be indirectly impacted through accidental release of pollution or soil runoff in the absence of mitigation measures.

4.3.10 There is a complex network of interlinked ditches across the site and within 500 m of the site. As well as watercourses, such as rivers. Those within the site could be directly impacted by the works, those within 500 m could be indirectly impacted through accidental release of pollution or soil runoff in the absence of mitigation measures.

4.3.11 Therefore, aquatic habitats are a constraint to the proposed works.

## **4.4 Habitat assessment**

4.4.1 The habitats within the Survey Area are detailed below in order of size (largest area to smallest



area). The descriptions should be read with reference to Figure 2 and the photographs in Appendix 1.

4.4.2 Secondary codes referenced can also be viewed on the UKHab map (Figure 2).

**c1c7 – Other cereal crops**

Secondary codes: 510 bare ground; 516 active management; 600 ploughed; 604 whole-field fallow; and 609 cover crops.

4.4.3 This habitat covers an area of approximately 339.74<sup>1</sup> ha and was present in large patches throughout the south-western most and north-western most aspects of the Survey Area, with occasional, isolated fields towards the centre of the Survey Area. Some individual areas of this habitat were associated with the secondary codes listed above wherever other cereal crops intended for harvest were not actively being grown at the time of survey.

4.4.4 This habitat included, but was not limited to, the species: bread wheat *Triticum aestivum*, six-rowed barley *Hordeum vulgare*, fat-hen *Chenopodium album*, common orache *Atriplex patula*, and common fiddleneck *Amsinckia micrantha*.

4.4.5 'Other cereal crops' is not listed as a HPI under Section 41 of the NERC Act, or within the Local Biodiversity Action Plan (LBAP) (East Riding of Yorkshire Council, 2010).

4.4.6 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.7 'Other cereal crops' is not a constraint to the proposed works.

**c1c5 – Winter stubble**

Secondary codes: None recorded.

4.4.8 This habitat covers an area of approximately 269.72 ha and was located in patches of consecutive, adjoining fields which occurred consistently throughout the length of the Survey Area.

4.4.9 This habitat included, but was not limited to, the species bread wheat and six-rowed barley. Non crop species included scentless mayweed *Tripleurospermum inodorum*, and an individual tree of pedunculate oak *Quercus robur*.

4.4.10 'Winter stubble' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.11 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.12 'Winter stubble' is not a constraint to the proposed works.

**c1 – Arable and horticulture**

Secondary codes: 510 bare ground; 600 ploughed; and 604 whole field – fallow.

4.4.1 This habitat covers an area of approximately 168.12 ha and was present in small, regular patches throughout the south-western most and north-western most aspects of the Survey Area.

4.4.2 One land parcel of this habitat included but was not limited to curled dock *Rumex crispus*, creeping

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<sup>1</sup> All figures have been rounded to two decimal places



thistle *Cirsium arvense*, great willowherb *Epilobium hirsutum*, false oat-grass *Arrhenatherum elatius*, and common reed *Phragmites australis*.

- 4.4.3 This habitat also includes freshly ploughed fields where crop species were not present at the time of survey.
- 4.4.4 'Arable and horticulture' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.5 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.6 'Arable and horticulture' is not a constraint to the proposed works.

#### **c1d8 – Other non-cereal crops**

Secondary codes: 10 scattered scrub, 125 flower forage abundant, 507 nutrient enriched substrate, 510 bare ground, 517 recent management, 604 whole-field fallow, 609 cover crops, and 839 track.

- 4.4.7 This habitat covers an area of approximately 145.01 ha and was located in small patches, generally of single fields, which occurred consistently throughout the length of the Survey Area. These were most frequent within the south-western most area and occurred in a cluster towards the centre of the Survey Area.
- 4.4.8 This habitat included but was not limited to broad bean *Vicia faba*, pale flax *Linum bienne*, buckwheat *Fagopyrum esculentum*, beet *Beta vulgaris*, potato *Solanum tuberosum*, rape *Brassica napus*, and sunflower *Helianthus annuus*. As well as white clover *Trifolium repens*, ribbed melilot, and scentless mayweed.
- 4.4.9 'Other non-cereal crops' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.10 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.11 'Other non-cereal crops' is not a constraint to the proposed works.

#### **g4 – Modified grassland**

Secondary codes: 10 scattered scrub, 14 scattered rushes, 16 tall forbs, 27 traditional orchards, 32 scattered trees, 50 ditch, 84 wind farm, 101 cattle grazed, 102 sheep grazed, 103 horse grazed, 104 other grazed, 106 mown, 107 mown and collected, 108 frequently mown, 109 hay, 507 nutrient-enriched substrate, 510 bare ground, 511 compacted substrate, 528 walking or cycling route, 529 golf course, 617 agroforestry, 801 road verge or island, 819 residential premises open space, 827 garden, 839 track.

- 4.4.12 This habitat covers an area of approximately 114.94 ha and was located sporadically, though inconsistently throughout the entire Survey Area. These generally occurred in consecutive, adjoining clusters of fields used for grazing, and where this was not the case, this habitat most frequently occurred as small, unconnected road-side verges. Multiple secondary codes, listed above, applied to individual areas of this habitat, though some areas were associated with no secondary codes.
- 4.4.13 This habitat included, but was not limited to, the species: perennial rye grass *Lolium perenne*,



canary-grass *Phalaris canariensis*, common couch *Elymus repens*, red fescue *Festuca rubra*, common bent *Agrostis capillaris*, common nettle *Urtica dioica*, false oat-grass *Arrhenatherum elatius*, oat *Avena sativa*, spear thistle *Cirsium vulgare*, white clover, Yorkshire fog *Holcus lanatus*, ribwort plantain *Plantago lanceolata*, *Jacobaea* sp., hogweed *Heracleum sphondylium*, creeping buttercup *Ranunculus repens*, cock's foot *Dactylis glomerata*, bread wheat and creeping thistle,

- 4.4.14 'Modified grassland' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.15 The secondary code '27 - traditional orchard' was used on two parcels. There is traditional orchard within the site boundary. This is a HPI under Section 41 of the NERC Act and is within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.16 One area was located at approximately OS NGR TA 01899 36039, the majority of which is outside of the site boundary but within the Survey Area. The second area was located at approximately OS NGR TA 132805 2939 and is wholly outside the site, but within the Survey Area.
- 4.4.17 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).
- 4.4.18 'Modified grassland' is not a constraint to the proposed works.
- 4.4.19 The areas with the secondary code traditional orchard are a constraint to the proposed works as they could be impacted by vegetation clearance or damage to roots as there is traditional orchard within the site boundary.

#### **c1c – Cereal crops**

Secondary codes: 10 scattered scrub; 110 silage and haylage; 510 bare ground; and 600 ploughed.

- 4.4.20 This habitat covers an area of approximately 103.17 ha and was located in small patches sporadically through the south-western and northern most parts of the Survey Area. One larger area of this habitat occurred over 10 fields in the west of the Survey Area.
- 4.4.21 This habitat included, but was not limited to, bread wheat, and six-rowed barley. Non crop species recorded included, but was not limited, to pineapple weed *Matricaria discoidea*, scentless mayweed, and common bent.
- 4.4.22 'Cereal crops' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.23 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.24 'Cereal crops' is not a constraint to the proposed works.

#### **c1d – Non-cereal crops**

Secondary codes: 10 scattered scrub; 507 nutrient-enriched substrate; 510 bare ground; and 600 ploughed

- 4.4.25 This habitat covers an area of approximately 45.13 ha and occurred as sporadic, isolated fields throughout the Survey Area.



- 4.4.26 This habitat included, but was not limited to, the species: broad bean, elephant grass *Cenchrus purpureus*, turnip *Brassica rapa*, and flax *Linum usitatissimum*.
- 4.4.27 'Non-cereal crops' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.28 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.29 'Non-cereal crops' is not a constraint to the proposed works.

**g3c – Other neutral grassland**

Secondary codes: 10 scattered scrub, 14 scattered rushes, 16 tall forbs, 106 mown, 100 grazed, 101 cattle grazed, 102 sheep grazed, 103 horse grazed, 106 mown, 108 frequently mown, 110 silage and haylage, 116 flailed hedgerow, 200 tree, 502 seasonally wet, and 801 road verge or island.

- 4.4.30 This habitat covers an area of approximately 41.33 ha. This habitat generally consisted of small strips next to agricultural fields, occurring frequently within the western section of the Survey Area and infrequently throughout the remainder of the Survey Area.
- 4.4.31 This habitat included, but was not limited to, the species: Yorkshire fog, cock's foot, perennial rye grass, false oat-grass, tufted hair grass *Deschampsia cespitosa*, red fescue, common bent, elephant grass, meadow barley *Hordeum secalinum*, oat, spear thistle, white clover, and creeping buttercup.
- 4.4.32 'Other neutral grassland' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.33 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).
- 4.4.34 'Other neutral grassland' is not a constraint to the proposed works.

**c1b6 – Legume-rich ley**

Secondary codes: None recorded

- 4.4.35 This habitat covers an area of approximately 33.88 ha and occurred as several adjoining fields at the centre of the Survey Area, with one small, isolated area occurring at the western most aspect.
- 4.4.36 This habitat included, but was not limited to, the species: red clover *Trifolium pratense*, white clover, bread wheat, and false oat-grass.
- 4.4.37 'Legume-rich ley' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.38 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.39 'Legume-rich ley' is not a constraint to the proposed works.



### **c – Cropland**

Secondary codes: 510 bare ground and 600 ploughed

- 4.4.40 This habitat covers an area of approximately 14.81 ha, which occurred as two separate areas towards the centre of the Survey Area near Brandesburton.
- 4.4.41 No species were recorded for this habitat. As this habitat was commonly ploughed it would majority be bare ground with no or very limited vegetation present.
- 4.4.42 'Cropland' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.43 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.44 'Cropland' is not a constraint to the proposed works.

### **w1g – Other broadleaved woodland**

Secondary codes: 12 scattered bracken, 29 plantation, 30 semi-natural woodland, 33 line of trees, 50 ditch, 81 ruderal or ephemeral, 112 earthbank, 201 young trees – planted, 523 non-native, 529 golf course, 532 scattered grass, 611 soil erosion, 801 road verge or island, and 839 track.

- 4.4.45 This habitat covers an area of approximately 13.84 ha and was present in small patches throughout the Survey Area, most frequent within the southern and western aspects and becoming infrequent within the east and north aspects.
- 4.4.46 This habitat included, but was not limited to, the species: ash *Fraxinus excelsior*, aspen *Populus tremula*, beech *Fagus sylvatica*, crack willow *Salix fragilis*, eastern balsam-poplar *Populus balsamifera*, evergreen oak *Quercus ilex*, field maple *Acer campestre*, grey poplar *Populus alba*, hawthorn *Crataegus monogyna*, Scots pine *Pinus sylvestris*, silver birch *Betula pendula*, sycamore *Acer pseudoplatanus*, bramble *Rubus fruticosus agg.*, cow parsley *Anthriscus sylvestris*, dog's mercury *Mercurialis perennis*, common bent, common nettle, false oat-grass, red fescue, spear thistle, white clover, pedunculate oak, and Yorkshire fog.
- 4.4.47 'Other broadleaved woodland' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.48 A condition assessment was required for this habitat, the results are in Table 5 and 6 (Section 4.6 below) (DEFRA, 2024).
- 4.4.49 'Other broadleaved woodland' is not a constraint to the proposed works.

### **g3c8 – Holcus-Juncus neutral grassland**

Secondary codes: 14 scattered rushes

- 4.4.50 This habitat covers an area of approximately 13.57 ha, which occurred solely as one large field at the north-eastern most section of the Survey Area.
- 4.4.51 This habitat included, but was not limited to, the species: Yorkshire fog, creeping thistle, and common ragwort *Jacobaea vulgaris*.
- 4.4.52 'Holcus-Juncus neutral grassland' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).



4.4.53 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).

4.4.54 'Holcus-Juncus neutral grassland' is not a constraint to the proposed works.

***u1b – Developed land sealed surface***

Secondary codes: 10 scattered scrub, 528 walking or cycling route, 800 road, 818 residential buildings, 827 garden, and 833 barn.

4.4.55 This habitat covers an area of approximately 12.70 ha, which included roads and walking or cycling routes.

4.4.56 No species were recorded within these areas.

4.4.57 'Developed land sealed surface' not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.58 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.59 'Developed land sealed surface' is not a constraint to the proposed works.

***t2h – Beach***

Secondary codes: None recorded

4.4.60 This habitat covers an area of approximately 11.36 ha and occurred solely at the eastern most part of the Survey Area, partially within the Withow Gap SSSI.

4.4.61 No species were recorded for this habitat type.

4.4.62 'Beach' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.63 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).

4.4.64 'Beach' is not a constraint to the proposed works.

***w1f – Lowland mixed deciduous woodland***

Secondary codes: 30 semi-natural woodland, 33 line of trees, 516 active management, 112 earthbank, and 203 mature tree.

4.4.65 This habitat covers an area of approximately 11.38 ha, which are located within the site and the Survey Area.

4.4.66 This habitat included, but was not limited to, beech *Fagus sylvatica*, field maple *Acer campestre*, horse-chestnut *Aesculus hippocastanum*, pedunculate oak, sycamore, hawthorn, common ivy *Hedera helix*, and common nettle.

4.4.67 'Lowland mixed deciduous woodland' is listed as a HPI under Section 41 of the NERC Act and is within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.68 A condition assessment was required for this habitat, the results are in Table 5 and 6 (Section 4.6 below) (DEFRA, 2024).



4.4.69 'Lowland mixed deciduous woodland' is a constraint to the proposed works where it is located within the site due to the expected vegetation clearance. Areas within the Survey Area but outside of the site boundary, are not a constraint to the proposed works.

**c1b5 – Rye-grass and clover ley**

Secondary codes: 102 Sheep grazed; and 106 Mown

4.4.70 This habitat covers an area of approximately 11.35 ha, which occurred in small clusters within the north-east and the south aspects, and two larger areas at the south-western aspect of the Survey Area.

4.4.71 This habitat included, but was not limited to, the species: perennial rye grass, white clover, and dandelion *Taraxacum spp.*

4.4.72 'Rye-grass and clover ley' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.73 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.74 'Rye-grass and clover ley' is not a constraint to the proposed works.

**c1d5 - Miscanthus**

Secondary codes: None recorded

4.4.75 This habitat covers an area of approximately 11.11 ha, which occurred as a single cluster of several habitats within the western aspect of the Survey Area near Beverley.

4.4.76 This habitat included, but was not limited to, the species elephant grass.

4.4.77 'Miscanthus' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.78 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.79 'Miscanthus' is not a constraint to the proposed works.

**c1f5 – Annuals horticulture**

Secondary codes: 10 scattered scrub.

4.4.80 This habitat covers an area of approximately 9.3 ha, which occurred as one large field at the western aspect of the Survey Area near Beverley.

4.4.81 This habitat included, but was not limited to, the species broad beans.

4.4.82 'Annuals horticulture' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.83 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.84 'Annuals horticulture' is not a constraint to the proposed works.



### **c1a5 – Arable field margins tussocky**

Secondary codes: 81 Ruderal or ephemeral; and 521 Unmanaged

- 4.4.85 This habitat covers an area of approximately 6.25 ha, which occurred within the site and the Survey Area.
- 4.4.86 Species within this habitat included, but was not limited to, the species perennial rye grass, great willowherb, Yorkshire fog, false oat grass, crested dog's tail, cock's foot, common knapweed *Centaurea nigra*, common reed *Phragmites australis*.
- 4.4.87 'Arable field margins' is listed as a HPI under Section 41 of the NERC Act and the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.88 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.89 Due to the expected vegetation clearance, 'arable field margins tussocky' is a constraint to the proposed works where it is within the site. Areas within the 50 m site buffer are not a constraint to the proposed works.

### **u1e – Built linear feature**

Secondary codes: 612 fence, 800 road, 802, railway, and 839 track.

- 4.4.90 This habitat covers an area of 6.06 ha and a length of approximately 6.23 km.
- 4.4.91 This habitat included but was not limited to hawthorn, blackthorn, and greater plantain *Plantago major*.
- 4.4.92 'Built linear features' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.93 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.94 'Built linear features' is not a constraint to the proposed works.

### **u1c – Artificial unvegetated – unsealed surface**

Secondary codes: 10 scattered scrub, 32 scattered trees, 510 bare ground, 511 compacted substrate, 800 road, 805 development site, 818 residential building, and 839 track.

- 4.4.95 This habitat covers an area of approximately 5.59 ha, which occurred frequently within the south-west and west aspects of the Survey Area, and infrequently throughout the remainder of the Survey Area.
- 4.4.96 This habitat included, but was not limited to, completely unvegetated surfaces. As well as areas of mostly unvegetated surfaces with some minimal plant species such as, perennial rye grass, pineapple weed, dandelions, hawthorn, butterfly-bush *Buddleja davidii*, and crack willow.
- 4.4.97 'Artificial unvegetated – unsealed surface' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.98 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).



4.4.99 'Artificial unvegetated – unsealed surface' is not a constraint to the proposed works.

**u1 – Built up areas and gardens**

Secondary codes: 510 bare ground, 805 development, and 833 barn.

4.4.100 This habitat covers an area of approximately 2.96 ha, which is made up of, but not limited to, barn buildings and gardens within the south-western aspect of the Survey Area.

4.4.101 No species were recorded within these areas.

4.4.102 'Built up areas and gardens' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.103 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.104 'Built up areas and gardens' is not a constraint to the proposed works.

**c1a6 – Arable field margins pollen and nectar**

Secondary codes: None recorded

4.4.105 This habitat covers an area of approximately 2.75 ha and is located within the site.

4.4.106 Species within this habitat included, but was not limited to, the species: red fescue, crested dog's tail, common bird's foot trefoil *Lotus corniculatus*, and common knapweed.

4.4.107 'Arable field margins pollen and nectar' is listed as a HPI under Section 41 of the NERC Act and the LBAP (East Riding of Yorkshire Council, 2010).

4.4.108 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.109 Due to the expected vegetation clearance, 'arable field margins pollen and nectar' is a constraint to the proposed works, where it lies within the site.

**h3h - Mixed scrub**

Secondary codes: 14 scattered rushes, 16 tall forbs, 32 scattered trees, 50 ditch, 83 solar panel array, 112 earthbank, 521 unmanaged, 523 non-native, 529 golf course, 801 road verge or island, 803 railside, and 839 track.

4.4.110 This habitat covers an area of approximately 2.68 ha, which comprised several separate habitat areas across the Survey Area.

4.4.111 This habitat included, but was not limited to, black-grass *Alopecurus myosuroides*, bracken *Pteridium aquilinum*, hedge bindweed *Calystegia sepium*, large bindweed *C. silvatica* hoary willowherb, *Epilobium parviflorum*, meadow thistle *Cirsium dissectum*, rosebay willowherb *Chamaenerion angustifolium*, hawthorn *Crataegus monogyna*, silver birch, common nettle, creeping thistle, false oat grass, great willowherb, red fescue, scentless mayweed, ash, hogweed, bramble, and spear thistle.

4.4.112 'Mixed scrub' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.113 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below)



(DEFRA, 2024).

4.4.114 'Mixed scrub' is not a constraint to the proposed works.

***u1b6 – Other developed land***

Secondary codes: 516 active management, 800 road, and 839 track.

4.4.115 This habitat covers an area of approximately 2.64 ha and included roads and tracks.

4.4.116 No species were recorded within these areas.

4.4.117 'Other developed land' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.118 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.119 'Other developed land' is not a constraint to the proposed works.

***w1h5 – Other woodland – mixed – mainly broadleaved***

Secondary codes: 29 plantation, 33 line of trees, 50 ditch, 201 young trees – planted, and 517 recent management.

4.4.120 This habitat covers an area of approximately 2.31 ha.

4.4.121 This habitat included but was not limited to elder *Sambucus nigra*, field maple *Acer campestre*, evergreen oak, beech, and bramble.

4.4.122 'Other woodland – mixed – mainly broadleaved' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.123 A condition assessment was required for this habitat, the results are in Table 5 and 6 (Section 4.6 below) (DEFRA, 2024).

4.4.124 'Other woodland – mixed – mainly broadleaved' is not a constraint to the proposed works.

***h3d – Bramble scrub***

Secondary codes: 10 scattered scrub, 16 tall forbs, 50 ditch, 32 scattered trees, 106 mown, 108 frequently mown, 200 tree, 203 mature tree, 206 felled, 510 bare ground, 801 road verge or island, and 803 railside.

4.4.125 This habitat covers an area of approximately 1.99 ha.

4.4.126 This habitat included, but was not limited to, bramble, cow parsley, false oat-grass, perennial rye grass, red fescue, blackthorn, common nettle.

4.4.127 'Bramble scrub' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.128 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.129 'Bramble scrub' is not a constraint to the proposed works.



### **c1b – Temporary grass and clover leys**

Secondary codes: 10 scattered scrub; and 604 Whole-field fallow.

- 4.4.130 This habitat covers an area of approximately 1.89 ha.
- 4.4.131 This habitat included but was not limited to white clover.
- 4.4.132 'Temporary grass and clover leys' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.133 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.134 'Temporary grass and clover leys' is not a constraint to the proposed works.

### **w2c – Other coniferous woodland**

Secondary codes: 29 plantation and 33 line of trees.

- 4.4.135 This habitat covers an area of approximately 1.55 ha. The habitat is within the site boundary and the Survey Area.
- 4.4.136 This habitat included but was not limited to sitka spruce *Picea sitchensis*, western hemlock-spruce *Tsuga heterophylla*, hawthorn, common nettle and Yorkshire fog.
- 4.4.137 'Other coniferous woodland' is not listed as a HPI under Section 41 of the NERC Act. However coniferous woodland is listed within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.138 A condition assessment was required for this habitat, the results are in Table 5 and 6 (Section 4.6 below) (DEFRA, 2024).
- 4.4.139 'Other coniferous woodland' is a constraint to the proposed works.

### **u1d – Suburban mosaic of developed land and natural surface**

Secondary codes: 10 scattered scrub, 32 scattered trees, 818 residential buildings, 819 residential premises open space, 827 garden, 828, vegetated garden, and 829 unvegetated garden.

- 4.4.140 This habitat covers an area of approximately 1.24 ha.
- 4.4.141 This habitat included, but was not limited to, beech, bramble, hazel *Corylus avellana*, and pedunculate oak.
- 4.4.142 'Suburban mosaic of developed land and natural surface' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.143 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.144 'Suburban mosaic of developed land and natural surface' is not a constraint to the proposed works.

### **g3 – Neutral grassland**

Secondary codes: 32 scattered trees and 101 cattle grazed

- 4.4.145 This habitat covers an area of approximately 1.13 ha.
- 4.4.146 This habitat included, but was not limited to, false oat-grass, cock's foot, timothy *Phleum pratense*, and Yorkshire fog.



4.4.147 'Neutral grassland' not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.148 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).

4.4.149 'Neutral grassland' is not a constraint to the proposed works.

***s – Sparsely vegetated land***

Secondary codes: None recorded.

4.4.150 This habitat covers an area of approximately 0.98 ha. The habitat is along the coastline and is within the site and 50 m Survey Area.

4.4.151 No species were recorded within these areas.

4.4.152 'Sparsely vegetated land' is not a HPI under Section 41 of the NERC Act or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.153 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).

4.4.154 This habitat is therefore, not a constraint to the proposed works.

***r1 – Standing open water and canals***

Secondary codes: 50 ditch

4.4.155 This habitat is approximately 1.54 km in length (c. 0.99ha), of which c.1.18 km is within the site boundary and the remainder is within the Survey Area.

4.4.156 This habitat included but was not limited to bulrush *Typha latifolia* and common nettle.

4.4.157 'Standing open water and canals' is not listed as a HPI under Section 41 of the NERC Act.

4.4.158 'Standing open water and canals' is listed within the LBAP (East Riding of Yorkshire Council, 2010), under canals and drainage dykes.

4.4.159 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).

4.4.160 In the absence of appropriate mitigation measures, 'standing open water and canals' could be negatively impacted, therefore it is a constraint to the proposed works.

***w1h6 – Other woodland – mixed – mainly conifer***

Secondary codes: 29 plantation and 517 recent management

4.4.161 This habitat covers an area of approximately 0.98 ha. The habitat is within the site boundary.

4.4.162 This habitat included, but was not limited to, European larch *Larix decidua*, ash, beech, sycamore and bracken.

4.4.163 'Other woodland – mixed – mainly conifer' is not listed as a HPI under Section 41 of the NERC Act. However, coniferous woodland is within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.164 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).



4.4.165 'Other woodland – mixed – mainly conifer' is a constraint to the proposed works.

**w2b – Other Scot's pine woodland**

Secondary codes: 29 plantation, 33 line of trees, and 81 ruderal or ephemeral.

4.4.166 This habitat covers an area of approximately 0.94 ha. The habitat is within the site boundary.

4.4.167 This habitat included but was not limited to Scots pine, spear thistle, and Yorkshire fog.

4.4.168 'Other Scot's pine woodland' is not listed as a HPI under Section 41 of the NERC Act. However, coniferous woodland is within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.169 A condition assessment was required for this habitat, the results are in Table 5 and 6 (Section 4.6 below) (DEFRA, 2024).

4.4.170 'Other Scot's pine woodland' is a constraint to the proposed works.

**h3a6 – Other blackthorn scrub**

Secondary codes: 10 scattered scrub and 16 tall forbs.

4.4.171 This habitat covers an area of approximately 0.75 ha.

4.4.172 This habitat included, but was not limited to, blackthorn, common nettle, and hawthorn.

4.4.173 'Other blackthorn scrub' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.174 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).

4.4.175 'Other blackthorn scrub' is not a constraint to the proposed works.

**r2a6 – Other priority habitat rivers**

4.4.176 This habitat covers approximately 0.57 ha.

4.4.177 This habitat included but was not limited to common reed, *Salix* sp. and *Carex* sp.

4.4.178 'Other priority habitat rivers' is listed as a subset of a HPI under Section 41 of the NERC Act.

4.4.179 'Other priority habitat rivers' is listed within the LBAP (East Riding of Yorkshire Council, 2010), under the category of rivers and streams.

4.4.180 An RCA is required to assess the condition of this habitat (DEFRA, 2024), which is outside the scope of this PEA.

4.4.181 In the absence of appropriate mitigation measures, 'other priority habitat rivers' could be negatively impacted; therefore it is a constraint to the proposed works.

**h3f – Hawthorn scrub**

Secondary codes: 10 scattered scrub, 16 tall forbs, and 803 railside.

4.4.182 This habitat covers an area of approximately 0.47 ha.

4.4.183 This habitat included, but was not limited to, hawthorn, blackthorn, common nettle, and field maple.

4.4.184 'Hawthorn scrub' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).



4.4.185 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).

4.4.186 'Hawthorn scrub' is not a constraint to the proposed works.

***u1f – Sparsely vegetated urban land***

Secondary codes: 10 scattered scrub, 81 ruderal or ephemeral, 112, earth bank, 510 bare ground, 511 compacted substrate.

4.4.187 This habitat covers an area of approximately 0.45 ha. This comprised an area of bare ground with an area of scrub and ruderal.

4.4.188 This habitat included but was not limited to creeping bent and Yorkshire fog.

4.4.189 'Sparsely vegetated urban land' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.190 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.191 'Sparsely vegetated urban land' is not a constraint to the proposed works.

***u1b5 – Buildings***

Secondary codes: 815 commercial buildings and 833 barn.

4.4.192 This habitat covers an area of approximately 0.37 ha.

4.4.193 No species were recorded within these areas.

4.4.194 'Buildings' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.195 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.196 'Buildings' is not a constraint to the proposed works.

***r2b – Other rivers and streams***

Secondary codes: 47 freshwater - natural, 50 ditch, and 521 unmanaged.

4.4.197 This habitat covers an area of approximately 0.31 ha and a length of approximately 4.62 km.

4.4.198 This habitat included but was not limited to common reed, wild gladiolus *Gladiolus Ilyricus*, common duckweed *Lemna minor*, great willowherb, common nettle, and false oat-grass.

4.4.199 Other rivers and streams are for those that do not meet the HPI criteria, therefore they are not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.200 A condition assessment was not possible for this habitat as a full RCA is required.

4.4.201 Therefore, 'other rivers and streams' are not a constraint to the proposed works.



### ***h3j – Willow scrub***

Secondary codes: 502 – seasonally wet.

- 4.4.202 This habitat covers an area of approximately 0.24 ha.
- 4.4.203 This habitat included but was not limited to goat willow, bramble, common nettle and common reed.
- 4.4.204 'Willow scrub' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.205 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).
- 4.4.206 'Willow scrub' is not a constraint to the proposed works.

### ***h3a – Blackthorn scrub***

Secondary codes: None recorded

- 4.4.207 This habitat covers an area of approximately 0.19 ha.
- 4.4.208 This habitat included but was not limited to blackthorn and false oat-grass.
- 4.4.209 'Blackthorn scrub' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.210 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).
- 4.4.211 'Blackthorn scrub' is not a constraint to the proposed works.

### ***g3c5 – Arrhenatherum neutral grassland***

Secondary codes: 801 road verge or island.

- 4.4.212 This habitat covers an area of approximately 0.13 ha.
- 4.4.213 This habitat included but was not limited to common bent, false oat-grass, red fescue, and spear thistle.
- 4.4.214 'Arrhenatherum neutral grassland' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.215 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).
- 4.4.216 'Arrhenatherum neutral grassland' is not a constraint to the proposed works.

### ***f2e – Reedbeds***

Secondary codes: 15 rushes dominant and 32 scattered trees.

- 4.4.217 This habitat covers an area of approximately 0.09 ha. The habitat is within the site boundary.
- 4.4.218 This habitat included but was not limited to common club-rush *Schoenoplectus lacustris*, common reed, great willow-herb, and yellow iris *Iris pseudacorus*.
- 4.4.219 'Reedbeds' is listed as a HPI under Section 41 of the NERC Act, and within the LBAP (East Riding of Yorkshire Council, 2010).



4.4.220 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).

4.4.221 Due to vegetation clearance, 'reedbeds' is a constraint to the proposed works as they are an HPI.

***c1a – Arable field margins***

Secondary codes: None recorded

4.4.222 This habitat covers an area of approximately 0.05 ha. The habitat is within the site boundary.

4.4.223 Species within this habitat included but was not limited to false oat-grass, hogweed, ribwort plantain, and white clover.

4.4.224 'Arable field margins' is listed as a HPI under Section 41 of the NERC Act and the LBAP (East Riding of Yorkshire Council, 2010).

4.4.225 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.226 Due to the expected vegetation clearance, 'arable field margins' is a constraint to the proposed works.

***w1c – Lowland beech and yew woodland***

Secondary codes: 29 plantation and 201 young trees - planted

4.4.227 This habitat covers an area of approximately 0.05 ha. The habitat is within the site boundary.

4.4.228 No species were recorded for this habitat type.

4.4.229 'Lowland beech and yew woodland' is listed as a HPI under Section 41 of the NERC Act and is listed within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.230 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).

4.4.231 As vegetation clearance will be required this habitat is a constraint to the proposed works, as it is fully within the site.

***w1 – Broadleaved and mixed woodland***

Secondary codes: 33 line of trees.

4.4.232 This habitat covers an area of approximately 0.02 ha.

4.4.233 This habitat included but was not limited to crack willow, sycamore, and bramble.

4.4.234 'Broadleaved and mixed woodland' could be listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010). However, it is not known for sure due to the high level of the habitat type.

4.4.235 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).

4.4.236 'Broadleaved and mixed woodland' might be a constraint to the proposed works, if it qualifies as a HPI or LBAP habitat.



### **w1d – Wet woodland**

Secondary codes: None recorded.

- 4.4.237 This habitat covers an area of approximately 0.01 ha. The habitat is within the site boundary.
- 4.4.238 This habitat included but was not limited to grey willow *S. cinerea*, and hawthorn.
- 4.4.239 'Wet woodland' is listed as a HPI under Section 41 of the NERC Act and is within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.240 A condition assessment was required for this habitat, the results are in Table 5 (Section 4.6 below) (DEFRA, 2024).
- 4.4.241 As vegetation clearance will be required within the site boundary, wet woodland is a constraint to the proposed works, as it is fully within the site.

### **h2a6 – Other native hedgerow**

Secondary codes: 10 scattered scrub, 11 hedgerow with trees, 16 tall forbs, 32 scattered trees, 50 ditch, 103 horse grazed, 116 flailed hedgerow, 516 active management, 517 recent management, 518 neglected, 521 unmanaged, and 801 road verge or island.

- 4.4.242 This habitat covers a length of approximately 56.65 km, and there are 235 other native hedgerows recorded. Approximately 50 km of this is within the site, the remainder is within the 50 m Survey Area.
- 4.4.243 This habitat included but was not limited to cow parsley, dogwood *Cornus sanguinea*, hawthorn, ash, blackthorn, bramble, cock's foot, common nettle, elder, false-oat grass, field bindweed *Convolvulus arvensis*, great willowherb, perennial rye grass, red fescue, spear thistle, and Yorkshire fog.
- 4.4.244 'Other native hedgerow' is a subset of a HPI under Section 41 of the NERC Act and is within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.245 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).
- 4.4.246 Where vegetation clearance is expected, other native hedgerows will be a constraint to the proposed work as they qualify as a HPI.

### **r1g - Other standing water**

Secondary codes: 50 ditch

- 4.4.247 This habitat covers a length of approximately 10.42 km (c.0.06 ha).
- 4.4.248 This habitat included but was not limited to common reed, great willowherb, water figwort *Scrophularia auriculata*, *Nasturtium officinale*, hawthorn, false oat-grass, spear thistle, and common nettle.
- 4.4.249 'Other standing water' is not a HPI under Section 41 of the NERC Act and as this is a ditch is not within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.250 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).



4.4.251 'Other standing water' is not a constraint to the proposed works.

***h2a - Native hedgerow***

Secondary codes: 11 hedgerow with trees, 32 scattered trees, 50 ditch, 516 active management, and 517 recent management.

4.4.252 This habitat covers a length of approximately 5.51 km, and there are 28 hedgerows. Approximately 4.14 km is within the site boundary, and the remainder is within the Survey Area.

4.4.253 This habitat included but was not limited to blackthorn, elder, field maple, hawthorn, ash, buckthorn *Rhamnus cathartica*, bramble, common nettle, false oat-grass, field maple, great willow herb, hedge bindweed and unidentified *Rumex spp.*

4.4.254 'Native hedgerow' is a subset of a HPI under Section 41 of the NERC Act and is within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.255 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).

4.4.256 Where vegetation clearance is expected, other native hedgerows will be a constraint to the proposed work as they qualify as a HPI.

***r1f6 – Other temporary ponds and scrapes***

Secondary codes: 50 ditch.

4.4.257 This habitat covers a length of approximately 1.50 km.

4.4.258 This habitat included but was not limited to common reed and perennial rye grass.

4.4.259 'Other temporary ponds and scrapes' is not a HPI under Section 41 of the NERC Act and is not within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.260 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).

4.4.261 'Other temporary ponds and scrapes' is not a constraint to the proposed works.

***w1g – Other broadleaved woodland***

Secondary codes: 30 semi-natural woodland, 33 line of trees, 81 ruderal or ephemeral, and 801 road verge or island.

4.4.262 This habitat covers a length of approximately 1.39 km. This habitat was recorded 13times.

4.4.263 This habitat included but was not limited to ash, aspen, beech, crack willow, Eastern balsam-poplar, grey poplar, evergreen oak, field maple, blackthorn, hawthorn, pedunculate oak, Scots pine, silver birch, sycamore, bramble, ground ivy *Glechoma hederacea*, spear thistle, red fescue, false oat-grass, common bent, common nettle, cow parsley, white clover, and Yorkshire fog.

4.4.264 'Other broadleaved woodland' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.265 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).

4.4.266 'Other broadleaved woodland' is not a constraint to the proposed works.



### ***h2a5 – Species-rich native hedgerow***

Secondary codes: 11 hedgerow with trees, 50 ditch, and 517 recent management

- 4.4.267 This habitat covers a length of approximately 1.27 km, and there are seven species-rich native hedgerows. Approximately 1.21 km is within the site boundary and the remainder is within the 50 m Survey Area.
- 4.4.268 This habitat included but was not limited to hawthorn, blackthorn, bramble, common nettle, and hazel.
- 4.4.269 'Species rich native hedgerow' is a subset of a HPI under Section 41 of the NERC Act and is within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.270 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).
- 4.4.271 Where vegetation clearance is expected, 'species rich native hedgerows' will be a constraint to the proposed work as they qualify as a HPI.

### ***r1e – Canals***

Secondary codes: None recorded.

- 4.4.272 This habitat covers a length of approximately 0.83 km. All of the canal length is within the site boundary, none is within the 50 m Survey Area.
- 4.4.273 This habitat included but was not limited to perennial rye grass and *Potamogeton spp.*
- 4.4.274 'Canals' is not a HPI under Section 41 of the NERC Act. However, it is within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.275 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).
- 4.4.276 As it is listed in the LBAP, canals are a constraint to the proposed works, where they are within the site boundary.

### ***u1c – Artificial unvegetated – unsealed surface***

Secondary codes: 839 track.

- 4.4.277 This habitat covers a length of approximately 0.31 km.
- 4.4.278 This habitat included but was not limited to perennial rye grass and pineapple weed.
- 4.4.279 'Artificial unvegetated – unsealed surface' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).
- 4.4.280 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).
- 4.4.281 'Artificial unvegetated – unsealed surface' is not a constraint to the proposed works.

### ***u1b6 – Other developed land***

Secondary codes: 800 road

- 4.4.282 This habitat covers a length of approximately 0.29 km.



4.4.283 This habitat included but was not limited to daisy *Bellis perennis*.

4.4.284 'Other developed land' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.285 A condition assessment was not required for this habitat as it is of negligible value for biodiversity (DEFRA, 2024).

4.4.286 'Other developed land' is not a constraint to the proposed works.

***h2b – Non-native and ornamental hedgerow***

Secondary codes: None recorded

4.4.287 This habitat covers a length of approximately 0.20 km, and there was one non-native and ornamental hedgerow recorded.

4.4.288 This habitat included but was not limited to Leyland cypress *Cupressus x leylandii*, and hawthorn.

4.4.289 'Non-native and ornamental hedgerow' is not listed as a HPI under Section 41 of the NERC Act. The LBAP (East Riding of Yorkshire Council, 2010) only covers priority hedgerows, therefore the ornamental hedgerows are not included within the LBAP.

4.4.290 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).

4.4.291 'Non-native and ornamental' is not a constraint to the proposed works.

***h2 - Hedgerow***

Secondary codes: None recorded.

4.4.292 This habitat covers a length of approximately 0.19 km, and there are two 'hedgerows'. The whole of both this hedgerows were within the site boundary, and none were within the 50 m Survey Area.

4.4.293 This habitat included but was not limited to hawthorn and bramble.

4.4.294 'Hedgerow' could be a HPI but at this level it cannot be determined. Hedgerows are within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.295 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).

4.4.296 Where vegetation clearance is expected, 'hedgerow' might be a constraint to the proposed work as they qualify as an HPI or LBAP habitat.

***w1h5 – Other woodland – mixed – mainly broadleaved***

Secondary codes: 33 line of trees

4.4.297 This habitat covers a length of approximately 0.05 km.

4.4.298 This habitat included but was not limited to beech, sycamore, and dog's mercury.

4.4.299 'Other woodland – mixed – mainly broadleaved' is not listed as a HPI under Section 41 of the NERC Act, or within the LBAP (East Riding of Yorkshire Council, 2010).

4.4.300 A condition assessment was required for this habitat, the results are in Table 6 (Section 4.6 below) (DEFRA, 2024).



4.4.301 'Other woodland – mixed – mainly broadleaved' is not a constraint to the proposed works.

## 4.5 Protected species assessment

### ***Amphibians, including great crested newt***

- 4.5.1 NEYEDC returned 20 records for GCN within 2 km of the site. The closest record for GCN was located approximately 200 m to the east of the site.
- 4.5.2 NEYDEC returned no records of common amphibians within 2 km of the site.
- 4.5.3 According to MAGIC, there were two granted EPS licences relating to GCN located within 2 km of the site, as detailed in Table 3 below.
- 4.5.4 Natural England identified five GCN class survey licence returns, all five returned positive presence of GCN. Two returns were located approximately 1 km to the east of the site. The remaining three returns were located at approximately 1.3 km to the west of the site.

**Table 3: GCN licences within 2 km of the site**

Licence number	Distance and direction from the site	Licence impacts	Date
EPSM2012-5084	0.3 km south-west of the site	Destruction of a resting place.	08/08/2013 - 20/06/2015
EPSM2011-3216	0.65 km north-west of the site	Destruction of a resting place.	05/08/2011 - 31/10/2011

- 4.5.5 The waterbodies identified and the HSI results are outlined within the GCN Technical Advice Note (Appendix 4).
- 4.5.6 The waterbodies and surrounding landscape provide suitable habitat for breeding, commuting, and foraging GCN. The site covers both green and amber GCN risk zones, as outlined within the GCN Technical Advice Note (Appendix 4).
- 4.5.7 During the surveys, potential refugia and hibernacula locations were recorded including piles of bricks and vegetation including some suitable for sheltering GCN and other amphibian species. A common frog *Rana temporaria* was also observed during the field surveys.
- 4.5.8 GCN are likely to be impacted by habitat loss, as vegetation clearance and breaking ground is required and there are potential impacts to 20 ponds identified within the site boundary. Therefore, GCN and other amphibians are constraint to the proposed works.

### ***Badger***

- 4.5.9 NEYEDC returned two records of badger within 2 km of the site. Both records were located approximately 1.8 km to the south-east of the site. The records related to a disused badger sett with three collapsed holes, and a live sighting.
- 4.5.10 Multiple habitats on site are suitable for sett creation and foraging, including but not limited to, the agricultural fields, woodland, and hedgerows.
- 4.5.11 During the survey, the following evidence of badger was identified: active badger setts; latrines;



badger faeces; possible snuffle holes; unconfirmed badger digging and mammal paths (Badger Target Notes 1 – 7).

- 4.5.12 Badgers are a mobile species that could pass through the site or dig a sett at any time. As such, badgers are therefore, a constraint to the proposed works.

### **Bats**

- 4.5.13 NEYEDC returned 13 records of bats within 2 km of the site. The records related to common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *P. pygmaeus*, an unidentified pipistrelle species *Pipistrellus* spp., an unidentified myotis species *Myotis* spp., and an unidentified bat.
- 4.5.14 Three of the records returned related to day roosts for common pipistrelle. The closest record is 20 m south of the site. The other two records are both west of the site boundary one is 800 m and the other is 400 m.
- 4.5.15 According to MAGIC, there were 14 granted EPS licences relating to bats located within 2 km of the site (Appendix 8). The closest record was located 400 m west of the site, this licence was for common pipistrelle, Natterer's bat and brown long-eared bat.
- 4.5.16 The presence of EPS mitigation licences and records within 2 km indicate likely presence of a range of bat species within the site. They are highly mobile species, so could use the site at any time for foraging, commuting, and roosting.
- 4.5.17 Habitats suitable for roosting bats included wooded areas and line of trees as well as any structures such as barns, sheds and buildings. Trees have been highlighted where features were observed, these can be seen on the ECP map provided in the summary section (Bats Target Notes 1 – 67). Habitats suitable for foraging and commuting include hedgerows, woodland, ponds, the open spaces of agricultural fields, and grassland provide low suitability for foraging and commuting bats.
- 4.5.18 The proposed works include vegetation clearance and disturbance around habitats on site including hedgerows, lines of trees, and ponds which could impact bats directly through killing and injury of bats, loss of roosts, or indirect impacts such as loss of or fragmentation to suitable foraging and commuting habitats. Open areas such as cropland have low suitability for bats, and if there are no trees or structures will have no roosting potential. As such, foraging, commuting, and roosting bats are a constraint to the proposed works.

### **Birds**

- 4.5.19 NEYEDC returned 95 records of 31 bird species from within 2 km of the site. These included four species that are protected under Schedule 1 of the WCA 1981, seven species listed as Species of Principal Importance (SPI) under Section 41 of the NERC Act, and 18 species listed as Red or Amber in the Birds of Conservation Concern (BoCC) (Stanbury *et al.*, 2021), as detailed in Appendix 9.
- 4.5.20 During the surveys, a range of species were recorded, including: swallow *Hirundo rustica* (mostly involving multiple birds); buzzard *Buteo buteo*; woodpigeon *Columba palumbus*; goldfinch *Carduelis carduelis*, including a flock of approximately 40 birds; magpie *Pica pica*, yellowhammer *Emberiza citrinella*, meadow pipit *Anthus pratensis*, lapwing *Vanellus Vanellus*, pheasant *Phasianus colchicus*, blackbird *Turdus merula*, crow *Corvus corone*, starling *Sturnus vulgaris*, house martin *Delichon urbica*, grey partridge *Perdix perdix*, blue tit *Cyanistes caeruleus*, red kite



*Milvus milvu*, robin *Erithacus rubecula*, chiffchaff *Phylloscopus collybita*, unidentified owl species, reed warbler *Acrocephalus scirpaceus*, long tailed tit *Aegithalos caudatus*, pied wagtail *Motacilla alba*, sand martin *Riparia riparia*, kestrel *Falco tinnunculus*, barn owl *Tyto alba*, and grey heron *Ardea cinerea*.

- 4.5.21 Of the bird species recorded incidentally during the surveys, barn owl is listed as Schedule 1 in the WCA 1981, There were two barn owl boxes recorded (Birds Target Notes 3 and 6). There was also a compost toilet, which the landowner said that barn owls fly in and out of occasionally (Birds Target Note 4). Potential kingfisher *Alcedo atthis* holes were identified at Target Note 1. Kingfisher are also listed as Schedule 1. Given the proximity to the proposed works, Schedule 1 bird species could be disturbed during the proposed works.
- 4.5.22 An unidentified owl was seen flying out of the woodland (Birds Target Note 5). An owl pellet under a tree and potential nest area in the woodland was also identified at this location.
- 4.5.23 All the habitats on site could support a range of breeding birds, including but not limited to agricultural fields for ground nesting birds. Woodland, hedgerows, and scrub for nesting birds. Watercourses for water birds and other species that utilise the habitat such as kingfisher using riverbanks.
- 4.5.24 The site also has the potential to support overwintering and migratory bird species across the site, particularly considering the location of three SPAs within 10 km of the site, including Greater Wash SPA, Hornsea Mere SPA and Humber Estuary SPA.
- 4.5.25 There is expected to be vegetation clearance and ground disturbance as part of the works over several years. As such, nesting birds could be impacted through vegetation clearance or noise and vibration disturbance during the works. Overwintering and migratory bird species associated with the SPAs may be impacted through habitat loss or noise and vibration disturbance.
- 4.5.26 Therefore, birds are a constraint to the proposed works.

### **Fish**

- 4.5.27 NEYEDC returned one record of protected fish species within 2 km of the site. This related to European eel which was located 1.2 km to the north-west of the site.
- 4.5.28 The Environment Agency returned 60 records of eight species within 2 km of the site. These related to bullhead *Cottus gobio*, brown/sea trout, European eels > elvers. The remaining are unidentified species: *Lampetra sp.*, *Lampetra sp.* > ammocoete, *Lampetra sp.* ammocoetes, lamprey sp., and lamprey sp. Ammocoetes.
- 4.5.29 The closest record is located 225 m south of the site at Scarborough Beck. The record relates to multiple records including two protected species: unidentified lamprey and bullhead.
- 4.5.30 There are also multiple watercourses that intersect the site that could provide suitable habitat for these species and provide hydrological connectivity to other suitable watercourses in the surrounding areas.
- 4.5.31 The route crosses multiple watercourses, therefore in the absence of mitigation, protected fish species are a constraint to the proposed works.



***Invertebrates including white-clawed crayfish***

White-clawed crayfish

- 4.5.32 NEYDEC and the Environment Agency returned no records of white-clawed crayfish within 2 km of the site.
- 4.5.33 White-clawed crayfish have a very limited distribution in the UK and are unlikely to be present on the site or Survey Area.
- 4.5.34 White-clawed crayfish are unlikely to be present within the watercourses on site and are therefore not a constraint to the proposed works.

Other protected invertebrates

- 4.5.35 NEYEDC returned no records of protected invertebrate species from within 2 km of the site.
- 4.5.36 During the surveys, refugia and standing deadwood were identified that could provide suitable habitat for terrestrial invertebrates, including dead trees with small holes likely made by invertebrates. Further sightings included: cinnabar moth caterpillar *Tyria jacobaeae*; butterflies; dragonflies; damselflies; and ladybirds with pupae.
- 4.5.37 The site provides suitable habitat such as woodland and hedgerows for terrestrial invertebrates. Habitats such as buildings and cropland provide limited suitability.
- 4.5.38 The proposed works include vegetation clearance of suitable invertebrate habitat. However, as the majority of the habitat is cropland, and the surrounding areas have similar habitats, and vegetation clearance is anticipated to be temporary invertebrates are not a constraint to the works.

***Otter***

- 4.5.39 NEYEDC returned six records of otter within 2 km of the site. The closest record was located 760 m to the south-east of the site.
- 4.5.40 According to MAGIC, there were no granted EPS licences relating to otter located within 2 km of the site.
- 4.5.41 No evidence of otter was recorded during the survey. However, the watercourses and ponds provide suitable habitat for otter.
- 4.5.42 There is a complex network of ditches across the site and within the Survey Area that could be used by otter for holt creation, and other activities such as resting places and foraging.
- 4.5.43 The larger watercourses and streams such as River Hull, Aike Beck Diversion, Roam Drain, Mickley Dike, Stream Dike, Scarborough Beck, Bealey's Beck, Whitewater Drain will likely provide greater suitability for otter holt creation, and other activities such as resting places and foraging, than the smaller ditches and ditch network.
- 4.5.44 Large ponds such as pond 80 could also be used by otter for holt creation, and other activities such as resting places and foraging.
- 4.5.45 Otter could be directly and/or indirectly impacted by the works. For example, through destruction of holts and/or noise and vibration disturbance.
- 4.5.46 Therefore, otters are a constraint to the proposed works.



### **Reptiles**

- 4.5.47 NEYEDC returned two records of reptiles within 2 km of the site, these related grass snake *Natrix helvetica*. The closest record was located 850 m north-west of the site.
- 4.5.48 During the surveys, hibernacula suitable for reptiles were recorded including discarded metal that could be used for basking.
- 4.5.49 The habitats on site including, but not limited to, grassland, woodland, and hedgerows within the site provide suitable habitat for common reptiles, offering opportunities for refuge, foraging and basking.
- 4.5.50 The majority of the site was comprised of agricultural fields which has low suitability for reptiles. However, the surrounding hedgerows and woodland provide a higher suitability than the fields and could support larger numbers of reptiles.
- 4.5.51 As such, the common reptile species are a constraint to the proposed works.

### **Water vole**

- 4.5.52 NEYEDC returned two records of water vole within 2 km of the site. The closest record was located approximately 1.4 km to the north-east of the site.
- 4.5.53 No evidence of water vole was recorded during the survey.
- 4.5.54 There was a complex network of ditches across the site with little flow that could be suitable for water vole. The faster flowing rivers and streams are less suitable for water vole. Therefore the site and Survey Area could be used by water vole for burrow creation, and other activities.
- 4.5.55 Water vole could be directly and/or indirectly impacted by the works. For example, through destruction of burrows and/or noise and vibration disturbance.
- 4.5.56 Therefore, water voles are a constraint to the proposed works.

### **Other protected and notable species**

#### Brown hare

- 4.5.57 NEYEDC returned 11 records of brown hare *Lepus europaeus* within 2 km of the site. The closest record was located approximately 50 m to the north of the site.
- 4.5.58 Brown hare were recorded in multiple locations on site during the surveys, predominantly in arable fields. The habitats on site offer suitable habitat for brown hare, particularly the agricultural fields.
- 4.5.59 There will be vegetation clearance and breaking of ground as part of the works. As such, brown hares are a constraint to the proposed works.

#### European hedgehog

- 4.5.60 NEYEDC returned 123 records of European hedgehog *Erinaceus europaeus* within 2 km of the site. The closest record was located within the site.
- 4.5.61 The habitats on site offers suitable opportunities for hedgehog including, but not limited to, woodland, hedgerows, scrub and grassland.
- 4.5.62 The works require clearance of suitable habitat. As such, hedgehogs are a constraint to the proposed works.



4.5.63 The desk study did not return records of any other protected or notable species.

#### ***Invasive non-native species***

4.5.64 NEYEDC returned 114 records of invasive non-native species (INNS) listed under Schedule 9 of the WCA 1981 within 2 km of the site.

4.5.65 These records related to marsh frog *Pelophylax ridibundus*, Japanese rose *Rosa rugosa*, Japanese knotweed *Fallopia japonica*, Canadian waterweed *Elodea canadensis*, Jenkin's spire snail *Potamopyrgus antipodarum*, and wall cotoneaster *Cotoneaster horizontalis*.

4.5.66 None of these records were located within the site. The closest record of Japanese knotweed was approximately 1.7 km to the north of the site.

4.5.67 During the surveys, there were recordings of variegated yellow archangel *Lamium galeobdolon*, an unknown cotoneaster species *Cotoneaster* spp., cherry laurel *Prunus laurocerasus*, and montbretia *Crocsmia x crocosmiiflora* (INNS Target Notes 1 – 7).

4.5.68 The proposed works have the potential to cause the spread of INNS into the wild. Furthermore, precautions should also be taken to ensure that no INNS enter the site, such as Japanese knotweed from surrounding areas. As such, INNS species are a constraint to the proposed works.

## **4.6 The site biodiversity baseline**

4.6.1 For this assessment the baseline habitat types and areas have been taken from the habitat survey carried out as part of the PEA for the site (Figure 2).

4.6.2 The total area of polygon habitats has been calculated at 1408.79<sup>2</sup> ha. The total length of linear features has been calculated at 89.87 km.

4.6.3 The habitat type, condition, and area / length are provided within Table 4 for area-based habitats and Table 5 for linear habitats below.

**Table 4: Condition assessment results of the habitats within the site boundary.**

Habitat Type (UKHab)	Condition	Area (ha) to 2d.p
<b>Grassland (g)</b>		
g3 – Neutral grassland	Unable to access	0.41
	Poor	0.72
g3c – Other neutral grassland	Unable to access	1.36
	Poor	28.63
	Moderate	3.71
	Good	7.62
g3c5 - <i>Arrhenatherum</i> neutral grassland	Unable to access	0.13

<sup>2</sup> Rounded to two decimal places



Habitat Type (UKHab)	Condition	Area (ha) to 2d.p
g3c8 – <i>Holcus-Juncus</i> neutral grassland	Poor	13.57
g4 – Modified grassland	Unable to access	0.8
	Poor	106.08
	Moderate	0.97
	Good	7.09
Traditional orchard (mapped as modified grassland on Figure 2)	Moderate	0.40
<b>Woodland (w)</b>		
w1 – Broadleaved and mixed woodland	Moderate	0.02
w1c – Lowland beech and yew woodland	Unable to access	0.05
w1d – Wet woodland	Moderate	0.01
w1f – Lowland mixed deciduous woodland	Poor	2.38
	Moderate	9
w1g – Other broadleaved woodland	Poor	6.07
	Moderate	6.61
	Good	1.16
w1h5 – Other woodland – mixed – mainly broadleaved	Poor	0.43
	Moderate	1.9
w1h6 – Other woodland – mixed – mainly conifer	Poor	0.98
w2b – Other Scot's pine woodland	Poor	0.02
	Moderate	0.92
w2c – Other coniferous woodland	Poor	1.55
<b>Heathland and scrub (h)</b>		
h3a – Blackthorn scrub	Poor	0.08
	Moderate	0.11
h3a6 – Other blackthorn scrub	Poor	0.75
h3d – Bramble scrub	Not applicable	1.99
h3f – Hawthorn scrub	Poor	0.47



Habitat Type (UKHab)	Condition	Area (ha) to 2d.p
h3h – Mixed scrub	Poor	1.71
	Moderate	0.64
	Good	0.33
h3j – Willow scrub	Poor	0.24
<b>Wetland (f)</b>		
f2e - Reedbeds	Good	0.09
<b>Cropland (c)</b>		
c – Cropland	Not applicable	14.81
c1 – Arable and horticulture	Not applicable	168.12
c1a – Arable field margins	Not applicable	0.05
c1a5 – Arable field margins tussocky	Not applicable	6.25
c1a6 – Arable field margins pollen and nectar	Not applicable	2.75
c1b – Temporary grass and clover leys	Not applicable	1.89
c1b5 – Rye-grass and clover ley	Not applicable	11.35
c1b6 – Legume-rich ley	Not applicable	33.88
c1c – Cereal crops	Not applicable	102.98
c1c5 – Winter stubble	Not applicable	269.72
c1c7 – Other cereal crops	Not applicable	339.74
c1d – Non-cereal crops	Not applicable	45.13
c1d5 - Miscanthus	Not applicable	11.11
c1d8 – Other non-cereal crops	Not applicable	145.01
c1f5 – Annuals horticulture	Not applicable	9.3
<b>Urban (u)</b>		
u1 – Built up areas and gardens	Not applicable	2.96
u1b – Developed land sealed surface	Not applicable	12.7
u1b5 – Buildings	Not applicable	0.37
u1b6 – Other developed land	Not applicable	2.64



Habitat Type (UKHab)	Condition	Area (ha) to 2d.p
u1c – Artificial unvegetated – unsealed surface	Not applicable	5.59
u1d – Suburban mosaic of developed land and natural surface	Not applicable	1.24
u1e – Built linear features	Not applicable	6.06
u1f – Sparsely vegetated urban land	Not applicable	0.45
<b>Sparsely vegetated land (s)</b>		
s – Sparsely vegetated land	Good	0.98
<b>Marine inlets and transitional waters (t)</b>		
t2h - Beach	Good	11.36
<b>Rivers and lakes (r)</b>		
r1 – Standing open water and canals (lakes)	Good	0.82
r1 – Standing open water and canals (ditch)	Poor	0.12
r1g – Other standing water	Not recorded due to technical issues	0.01
	Moderate	0.05
r2a6 - Other priority habitat rivers	Requires an RCA to be completed	0.57
r2b – Other rivers and streams	Requires an RCA to be completed	0.31

**Table 5: Condition assessment results of the linear habitats within the site boundary.**

Habitat Type (UKHab)	Condition	Length (km) to 2 d.p.
<b>Heathland and scrub (h)</b>		
h2 - Hedgerows	Moderate	0.19
h2a – Native hedgerow	Unable to access	0.36
	Poor	1.65
	Moderate	2.11
	Good	1.38
h2a5 – Species-rich native hedgerow	Unable to access	0.31
	Poor	0.43



Habitat Type (UKHab)	Condition	Length (km) to 2 d.p.
	Moderate	0.16
	Good	0.37
h2a6 – Other native hedgerow	Poor	9.28
	Moderate	22.17
	Good	25.20
h2b – Non-native ornamental hedgerow	Poor	0.20
<b>Urban (u)</b>		
u1b6 – Other developed land	Not applicable	0.29
u1c – Artificial unvegetated – unsealed surface	Not applicable	0.31
u1e – Built linear features	Not applicable	6.23
<b>Rivers and lakes (r)</b>		
r1 – Standing open water and canals	Poor	0.99
r1e – Canals	Requires an RCA to be completed	0.82
r1g – Other standing water	Poor	5.91
	Moderate	4.51
r2b – Other rivers and streams	Requires an RCA to be completed	4.62
<b>Woodland (w)</b>		
w1g – Other broadleaved woodland	Poor	0.82
	Moderate	0.70
w1h5 – Other woodland – mixed – mainly broadleaved	Moderate	0.05



## **5. Ecological constraints and further surveys**

### **5.1 Potential impacts and effects**

5.1.1 The proposed works as detailed in Section 1.3 have the potential to result in the following direct and indirect impacts including, but not limited to:

- Installation and operation of onshore components;
- Increased artificial lighting during construction and operation of Onshore Converter Station and Energy Storage and Balancing Infrastructure;
- Noise and vibration disturbance during construction;
- Varying levels of temporary and permanent vegetation clearance; and,
- Potential pollution events through the accidental release of pollutants or unwanted materials, such as soil runoff, into surrounding watercourses.

5.1.2 These impacts may result in the following effects, but are not limited to:

- Habitat loss and/or degradation of HPis;
- Impacts on designated features of the designated sites within 10 km of the site;
- Disturbance to GCN, roosting, foraging and commuting bats, otter, and Schedule 1 nesting birds through increased temporary artificial lighting;
- Habitat loss to breeding, overwintering or migratory birds during construction;
- Killing and injury of GCN, badgers, roosting bats, otter, water vole, reptiles, hedgehog, and brown hare if present, at the site during construction;
- Destruction/obstruction/disturbance of GCN breeding ponds, badger setts, bat roosts, otter holts, water vole burrows, and active bird nests; and,
- Potential for pollution incidents of nearby waterbodies, in the absence of appropriate mitigation measures, which could harm protected fish, otter, water vole, and the Leven Canal SSSI.

### **5.2 Further surveys / actions**

5.2.1 Further recommended surveys or actions are recommended in Table 6 on the following pages, which is to be read in conjunction with the ECP provided in the Summary Section.

5.2.2 The information contained within this report is valid for a period of 18 months from the date of the most recent survey visit (CIEEM, 2019).

5.2.3 As the works are likely to commence in 2029, which exceeds the validity of this report, repeat surveys should be completed to re-assess the site and determine if there have been any significant changes. Detailed mitigation and enhancements are excluded from the scope of this PEA as they will be addressed in the Ecological Impact Assessment.



**Table 6: Ecological Constraints (to be read in conjunction with the ECP for recommended survey locations)**

Feature/Constraint	Potential Impact and Effect	Action Required	Deliverable	Survey timings
<b>Designated sites</b>				
European/International designated sites - Greater Wash Special Protection Area (SPA), Hornsea Mere SPA, Flamborough Head Special Area of Conservation (SAC), Humber Estuary SPA, SAC, and Ramsar	The works have the potential to impact the European/international designated sites within 10 km of the site.	It is recommended that a Habitat Regulation Assessment (HRA) screening assessment is undertaken for all the international designated sites. Where necessary a HRA Appropriate Assessment (AA) must also be undertaken.	HRA screening assessment and HRA AA.	Prior to the works commencing.
Greater Wash SPA	The works have the potential to impact the designated site as it is within the site boundary. If the habitats are sensitive to disturbance the works could impact the designated features, such as bird populations.	National Vegetation Classification (NVC) survey should be undertaken on the SPA within the site to determine habitat community type.	NVC survey	Prior to the works commencing.
Leven Canal Site of Special Scientific Interest (SSSI)	The works have the potential to directly impact the Leven Canal SSSI as it is within the site boundary and is designated partly for habitat type.	SSSI assent must be undertaken as the Leven Canal is within the site boundary.	SSSI assent	Prior to the works commencing.



Feature/Constraint	Potential Impact and Effect	Action Required	Deliverable	Survey timings
		NVC survey should be undertaken on the SSSI within the site to determine habitat community type.	NVC survey	Prior to the works commencing.
Tophill Low and Pulfin Bog SSSI	The works have the potential to impact features associated with these SSSIs	Natural England should be consulted to determine if a SSSI assent is required	Consultation with NE, possible SSSI assent	Prior to the works commencing.
Non-statutory designated sites	The works have the potential to indirectly impact 20 non-statutory designated sites	Consultation with appropriate authorities should be undertaken and mitigation identified within the EcIA.		
Ancient Woodland sites (AWS)	The works have the potential to indirectly impact 2 AWS	Consultation with appropriate authorities should be undertaken and mitigation identified within the EcIA.		
Habitats				
w1, w1d, w1f, c1a, c1a5, c1a6, f2e, s2a6, h2, h2a, h2a5, h2a6, r1e, and traditional orchard are all habitats of principal importance (HPI).	The works have the potential to directly impact the habitats through vegetation clearance and other works within the site.	No further surveys are required within accessed areas. Mitigation will be required and will be identified within the EcIA.		



Feature/Constraint	Potential Impact and Effect	Action Required	Deliverable	Survey timings
w2c, w1h6, w2b and r1 are all also listed as LBAP habitats under coniferous woodland.				
Aquatic habitats				
Protected species				
Great crested newts	The works could disturb, injure, or kill GCN and result in the loss of aquatic and terrestrial GCN habitats, if present at the site.	Further survey work is recommended on the identified waterbodies. This should include HSI assessments of ponds not surveyed and environmental DNA (eDNA) on all suitable waterbodies.	HSI and eDNA surveys	In advance of the works. The water samples for the eDNA survey must be taken between 15 April and 30 June to be valid.
Badger	Badgers are a mobile species that could pass through the site or dig a sett in the site at any given time. As such, badgers could be impacted by killing or injury of individuals.	It is recommended that badger surveys are undertaken on habitats suitable for sett creation, to identify any setts that could be impacted by the works.  Especially in areas where setts and field signs were identified during the PEA. The locations can be seen on ECP map.	Badger surveys	In advance of the works. Any time, although winter is more suitable when vegetation cover is reduced.
Bats (roosting in buildings)	The works could disturb, injure or kills roosting bats, if present on site within buildings.	It is recommended that any buildings within the site or within 30 m are re assessed by a Preliminary Bat Roost Assessment (PBRA), prior to construction to assess any changes.	PBRA	In advance of the works. Any time.



Feature/Constraint	Potential Impact and Effect	Action Required	Deliverable	Survey timings
		Further surveys may be required if roosting opportunities are identified and could lead to disturbance of bats during the works.		
Bats (roosting in trees)	The works could disturb, injure or kills roosting bats, if present on site within trees or buildings. If bat roosts are identified in trees to be removed, the works could result in loss of roosts.	<p>It is recommended that further survey is completed on all identified suitable trees that will be directly impacted by the works. These will be in the form of Ground Level Tree Assessments (GLTA), and if required, aerial tree inspections.</p> <p>Some land parcels have already had the need for GLTAs, however this is not the only suitability across the site.</p>	GLTA	In advance of the works. Any time, although winter is more suitable when leaf cover on trees is reduced.
Bats (foraging and commuting)	The works could disturb foraging and commuting bats due to temporary or permanent loss of suitable habitats.	It is recommended that automated bat detector and bat nighttime walkover surveys are completed on all suitable habitats to be impacted by the works that are suitable for foraging and commuting bats, such as hedgerows and other linear features that act as flight paths for bats. Especially where those linear features will be temporarily or permanently removed as part of the proposed works (as detailed on the ECP map).	Automated detector surveys	<p>In advance of the works. April - October.</p> <p>Data is to be collected for a minimum of five consecutive nights. For low habitats this will be per season, and for moderate – high habitats this will be per month throughout the active season.</p>
			Bat nighttime	In advance of the works.



Feature/Constraint	Potential Impact and Effect	Action Required	Deliverable	Survey timings
			walkover surveys.	Minimum three surveys one each season (spring, summer, and autumn). Further surveys may be required if these visits or the automated detector surveys reveal activity of interest that requires more observation.
Breeding birds	The works could injure or kill birds if present at the site at the time of construction. The works could result in temporary or permanent habitat loss for breeding birds.	It is recommended that breeding bird surveys are undertaken across as much of the site as possible, especially in areas where vegetation clearance is expected to be undertaken, and where Schedule 1 birds were noted during the PEA surveys.	Breeding bird surveys	In advance of the works. Six surveys March – July.
Breeding birds (Schedule 1)	The works could injure or kill birds if present at the site at the time of construction. The works could result in temporary or permanent habitat loss for Schedule 1 breeding birds.  Schedule 1 breeding birds were identified and potentially identified on site. Including barn owl and Kingfisher.	It is recommended that specific stage 1 and 2 barn owl surveys are undertaken in areas flagged on the ECP map target notes.	Specific schedule 1 breeding bird surveys.	Barn owl surveys. Stage 1 surveys optimally timed between late autumn and early spring. Stage 2 surveys possibly year round, spring to autumn optimal.
		It is recommended that kingfisher surveys are undertaken around suitable watercourses and waterbodies. Such as pond 80 where potential kingfisher burrows		Kingfisher two surveys between April and June (A Waterways Breeding Bird Survey)



Feature/Constraint	Potential Impact and Effect	Action Required	Deliverable	Survey timings
		were identified within the banks.		
Overwintering and passage birds	The works could injure or kill wintering birds if present at the site at the time of construction. The works could result in temporary or permanent habitat loss to overwintering or passage bird species, in particular those designated under the SPAs.	Overwintering and passage bird surveys have already commenced, with methodology agreed with Natural England.	Overwintering and passage bird surveys	In progress, due to be completed by May 2025
Otter	Works have the potential to indirectly and directly impact watercourses, suitable for otter.	It is recommended that otter surveys are undertaken on all identified suitable watercourses and waterbodies, that will be impacted by the proposed works.	Otter surveys	<p>In advance of the works.</p> <p>Two surveys which can be undertaken at any time of the year but should be separated to cover different times of the year.</p> <p>They should not be undertaken after heavy rainfall.</p> <p>They can be undertaken in conjunction with the water vole surveys.</p>
Reptiles (excluding	The works have the potential to impact reptile species (excluding EPS), however no further surveys are recommended. Mitigation will be			



Feature/Constraint	Potential Impact and Effect	Action Required	Deliverable	Survey timings
EPS)	required and will be identified within the EcIA.			
Water vole	Works have the potential to indirectly and directly impact watercourses, suitable for water vole.	It is recommended that water vole surveys are undertaken on all identified suitable watercourses and waterbodies, that will be impacted by the proposed works.	Water vole surveys	In advance of the works. Two surveys – first mid-April – June, second July – September.  They can be undertaken in conjunction with the other surveys.
INNS	INNS can spread at any time. Some species were identified on the site during the PEA surveys. The works could result in the spreading of INNS.	It is recommended a repeat survey is undertaken in advance of the works commencing to determine if any INNS are present in the works area. This will inform the production of an INNS method statement prior to construction.	INNS pre-works checks	In advance of the works, during summer months.
Fish, brown hare, and Hedgehog	No further surveys are required for these species as they are not needed to determine likely impacts arising from the works. Mitigation will be required and will be identified within the EcIA.			



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## **Figure 1: Site location plan**



## Legend

- Onshore Development Area
- Survey area

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 1  
Site Location Plan

Revision	Date	Drawn by	Checked by
A	11/12/2024	RJJ	LS
B	01/04/2025	SW	RJ

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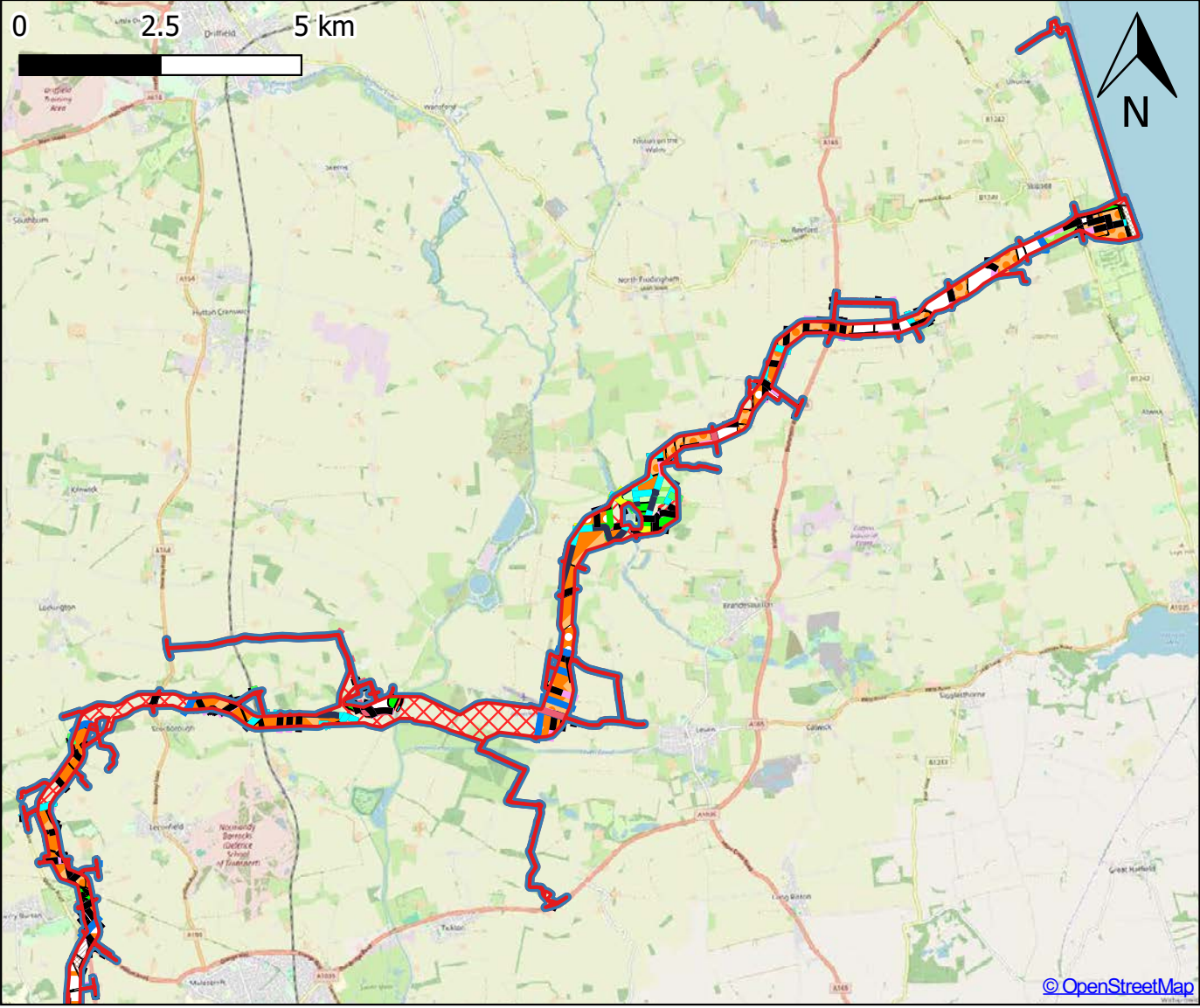






## **Figure 2: UKHab map**





Legend

- Onshore Development Area
- Survey area
- No access areas
- h2 - hedgerow
- h2a - native hedgerow
- h2b - non-native and ornamental hedgerow
- u1e - built linear feature
- r1e - canal
- r2b - other rivers and streams
- h2a6 - other native hedgerow
- r1g - other standing water
- w1g - other broadleaved woodland
- w1h5 - other woodland - mixed - mainly broadleaved
- r1 - standing open water and canals (ditches)
- u1b6 - other developed land
- g3 - neutral grassland
- g3c - other neutral grassland
- g3c8 - Holcus-Juncus neutral grassland
- g4 - modified grassland
- w1 - broadleaved mixed and yew woodland
- w1d - wet woodland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- w1h5 - other woodland; mixed; mainly broadleaved
- w1h6 - other woodland; mixed; mainly conifer
- w2b - other scots pine woodland
- w2c - other coniferous woodland
- h3a - blackthorn scrub
- h3a6 - other blackthorn scrub
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3f - hawthorn scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- f2e - reedbeds
- c - cropland
- c1 - arable and horticulture
- c1a5 - arable field margins - tussocky
- c1a6 - arable field margins - pollen and nectar
- c1b - temporary grass and clover leys
- c1b5 - rye-grass and clover ley
- c1b6 - legume-rich ley
- c1c - cereal crops
- c1c5 - winter stubble
- c1c7 - other cereal crops
- c1d - non-cereal crops
- c1d5 - Miscanthus
- c1d8 - other non-cereal crops
- c1f5 - annuals horticulture
- u1b - developed land; sealed surface
- u1b5 - buildings
- u1b6 - other developed land
- u1c - artificial unvegetated, unsealed surface
- u1d - suburban mosaic of developed and natural surface
- u1e - built linear features
- u1f - Sparsely vegetated urban land
- s - sparsely vegetated land
- r1 - standing open water and canals
- r1g - other standing water
- r2a6 - other priority habitat rivers
- r2b - other rivers and streams
- t2h - beach



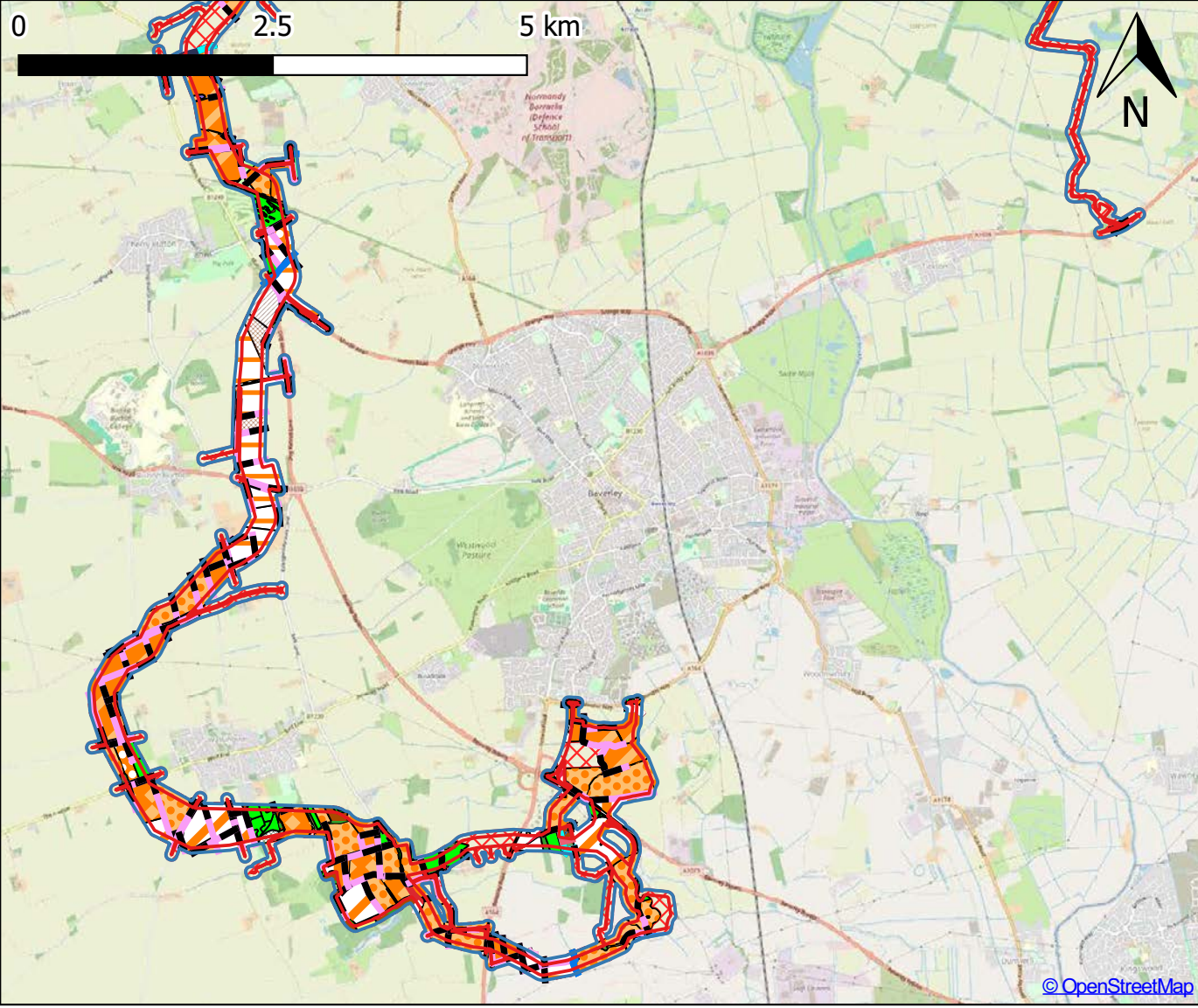
Royal HaskoningDHV  
Dogger Bank D  
Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ

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Legend

- Onshore Development Area
- Survey area
- No access areas
- New unsurveyed areas - added 31.03.2025
- h2a - native hedgerow
- h2b - non-native and ornamental hedgerow
- u1e - built linear feature
- r2b - other rivers and streams
- h2a5 - species-rich native hedgerow
- h2a6 - other native hedgerow
- r1g - other standing water
- w1g - other broadleaved woodland
- u1b6 - other developed land
- u1c - artificial unvegetated - unsealed surface
- g3 - neutral grassland
- g3c - other neutral grassland
- g3c5 - Arrhenatherum neutral grassland
- g4 - modified grassland
- w1 - broadleaved mixed and yew woodland
- w1c - lowland beech and yew woodland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- w1h5 - other woodland; mixed; mainly broadleaved
- w1h6 - other woodland; mixed; mainly conifer
- w2b - other scots pine woodland
- w2c - other coniferous woodland
- h3a - blackthorn scrub
- h3a6 - other blackthorn scrub
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3f - hawthorn scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c - cropland
- c1 - arable and horticulture
- c1a - arable field margins
- c1a5 - arable field margins - tussocky
- c1a6 - arable field margins - pollen and nectar
- c1b - temporary grass and clover leys
- c1b5 - rye-grass and clover ley
- c1b6 - legume-rich ley
- c1c - cereal crops
- c1c5 - winter stubble
- c1c7 - other cereal crops
- c1d - non-cereal crops
- c1d5 - Miscanthus
- c1d8 - other non-cereal crops
- c1f5 - annuals horticulture
- u1 - built-up areas and gardens
- u1b - developed land; sealed surface
- u1b5 - buildings
- u1b6 - other developed land
- u1c - artificial unvegetated, unsealed surface
- u1d - suburban mosaic of developed and natural surface
- u1e - built linear features
- u1f - Sparsely vegetated urban land
- r1g - other standing water



Royal HaskoningDHV  
Dogger Bank D  
Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ

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### Legend

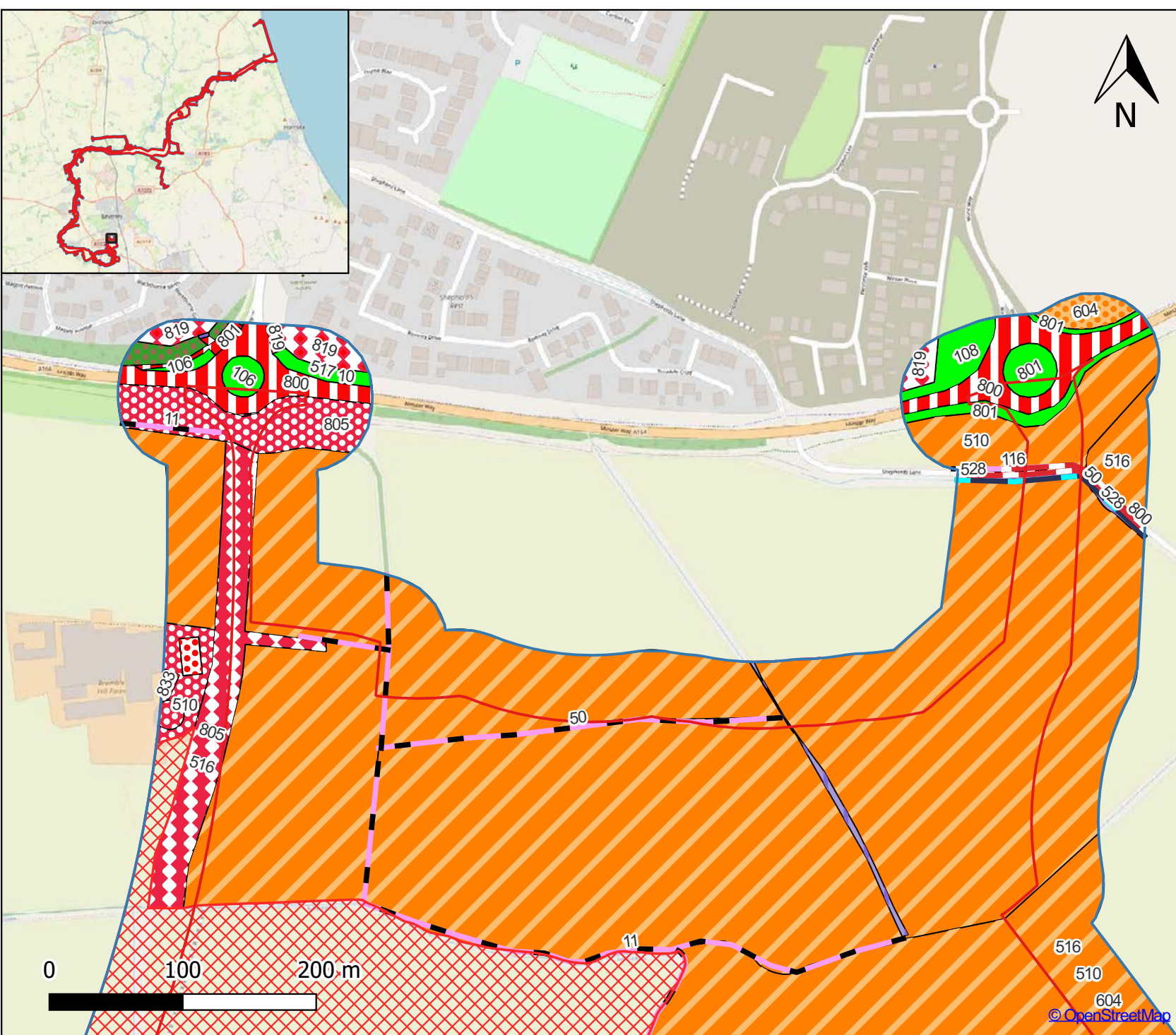
- Onshore Development Area
- Survey area
- No access areas
- g4 - modified grassland
- w1g - other broadleaved woodland
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1c5 - winter stubble
- c1c7 - other cereal crops
- u1b - developed land; sealed surface
- u1b5 - buildings
- u1b6 - other developed land
- u1c - artificial unvegetated, unsealed surface
- u1d - suburban mosaic of developed and natural surface

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g4 - modified grassland
- w1g - other broadleaved woodland
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- c1b5 - rye-grass and clover ley
- c1c5 - winter stubble
- c1c7 - other cereal crops
- u1b - developed land; sealed surface

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3f - hawthorn scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1 - arable and horticulture
- c1b5 - rye-grass and clover ley
- c1c5 - winter stubble
- c1c7 - other cereal crops
- u1b - developed land; sealed surface
- u1b6 - other developed land
- u1c - artificial unvegetated, unsealed surface

## Royal HaskoningDHV Dogger Bank D

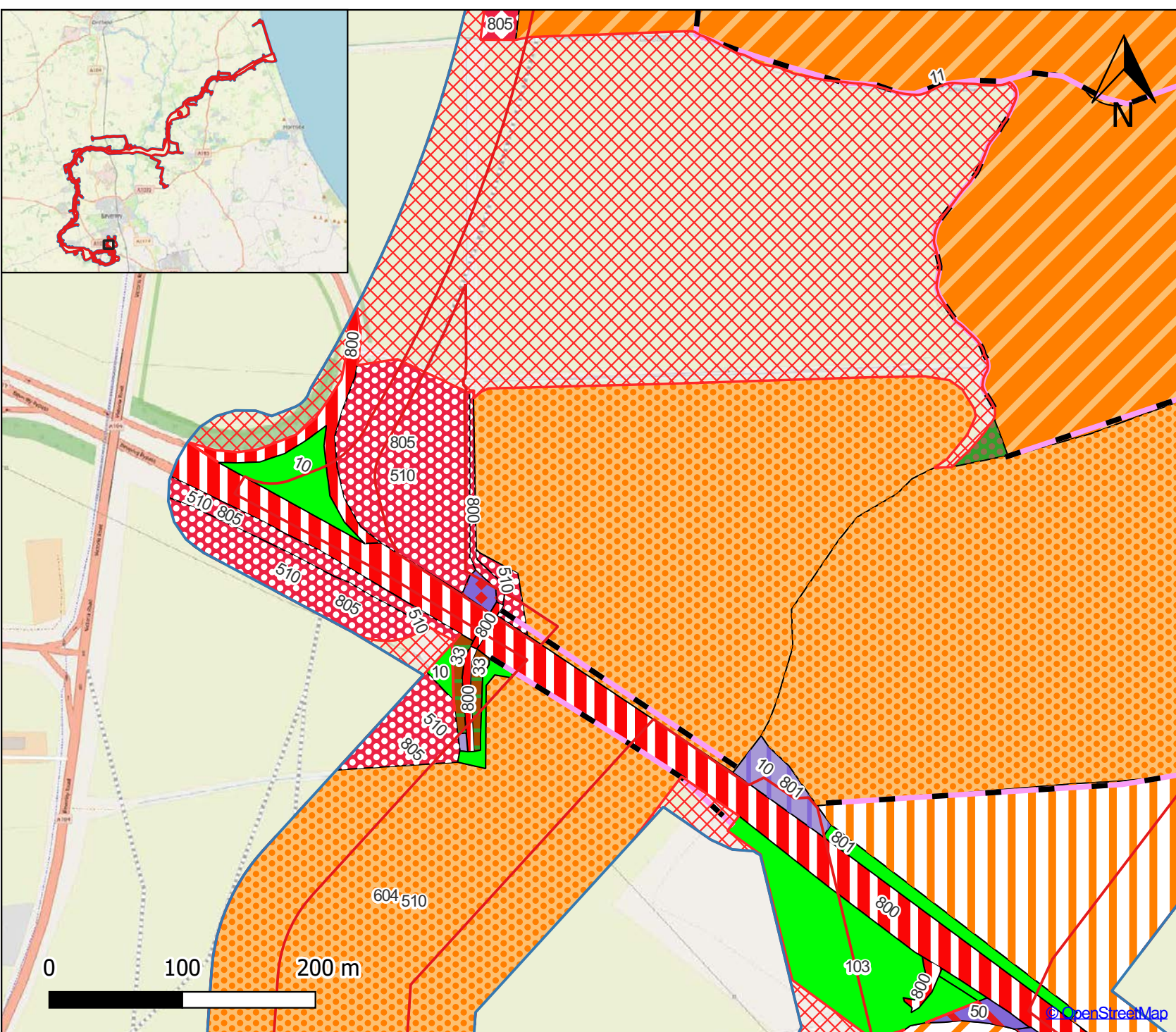
### Preliminary Ecological Appraisal

#### Figure 2

#### UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ

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### Legend

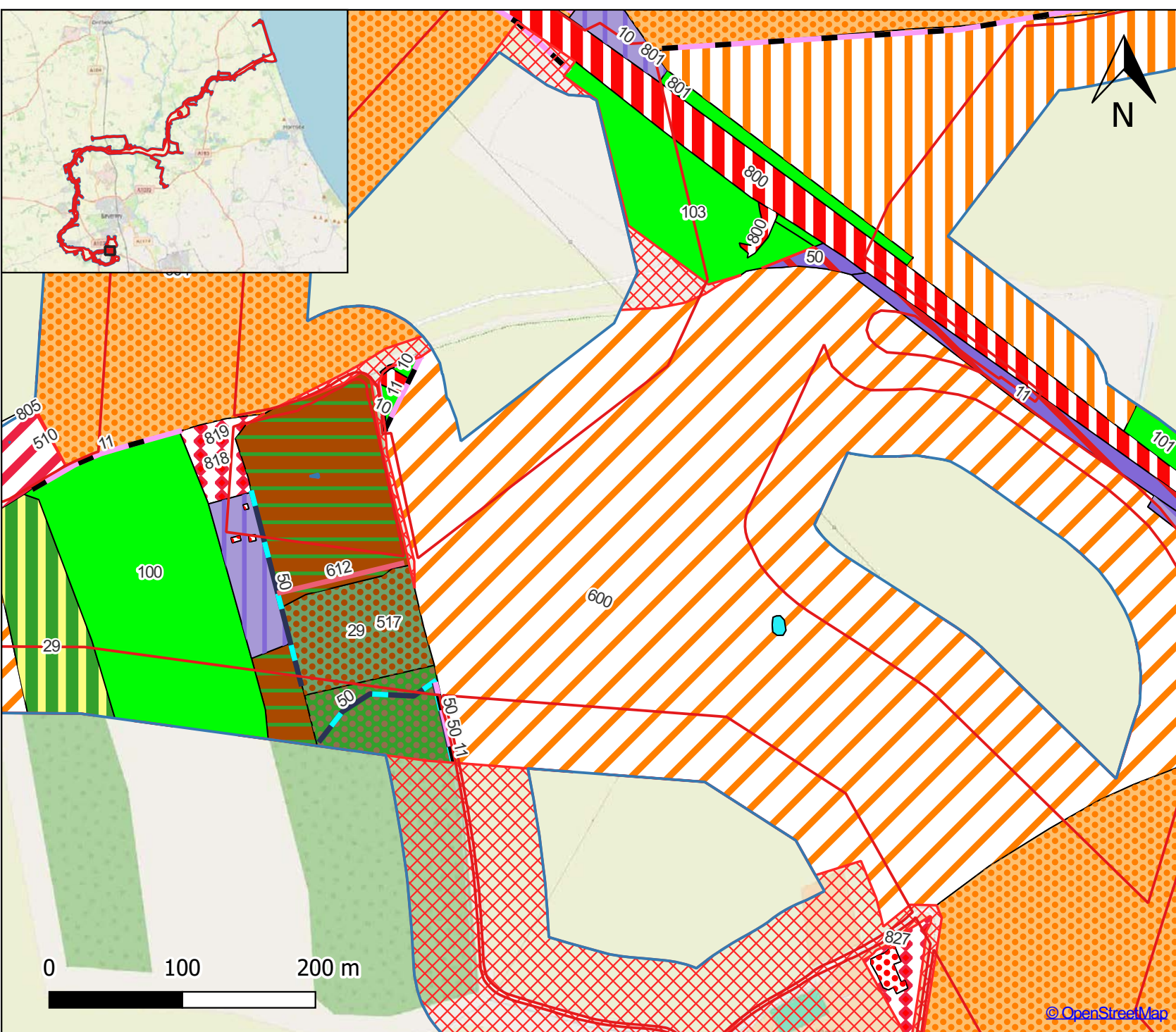
- Onshore Development Area
- Survey area
- No access areas
- u1e - built linear feature
- h2a5 - species-rich native hedgerow
- h2a6 - other native hedgerow
- r1g - other standing water
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- w1h6 - other woodland; mixed; mainly conifer
- w2b - other scots pine woodland
- h3a - blackthorn scrub
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1 - arable and horticulture
- c1b5 - rye-grass and clover ley
- c1c7 - other cereal crops
- u1 - built-up areas and gardens
- u1b - developed land; sealed surface
- u1b5 - buildings
- u1c - artificial unvegetated, unsealed surface
- u1d - suburban mosaic of developed and natural surface
- r1g - other standing water

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
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# Legend

- Onshore Development Area
- Survey area
- No access areas
- New unsurveyed areas - added 31.03.2025
- h2a5 - species-rich native hedgerow
- h2a6 - other native hedgerow
- g4 - modified grassland
- w1g - other broadleaved woodland
- w1h5 - other woodland; mixed; mainly broadleaved
- h3h - mixed scrub
- h3j - willow scrub
- c1a5 - arable field margins - tussocky
- c1c7 - other cereal crops
- u1b - developed land; sealed surface
- u1f - Sparsely vegetated urban land

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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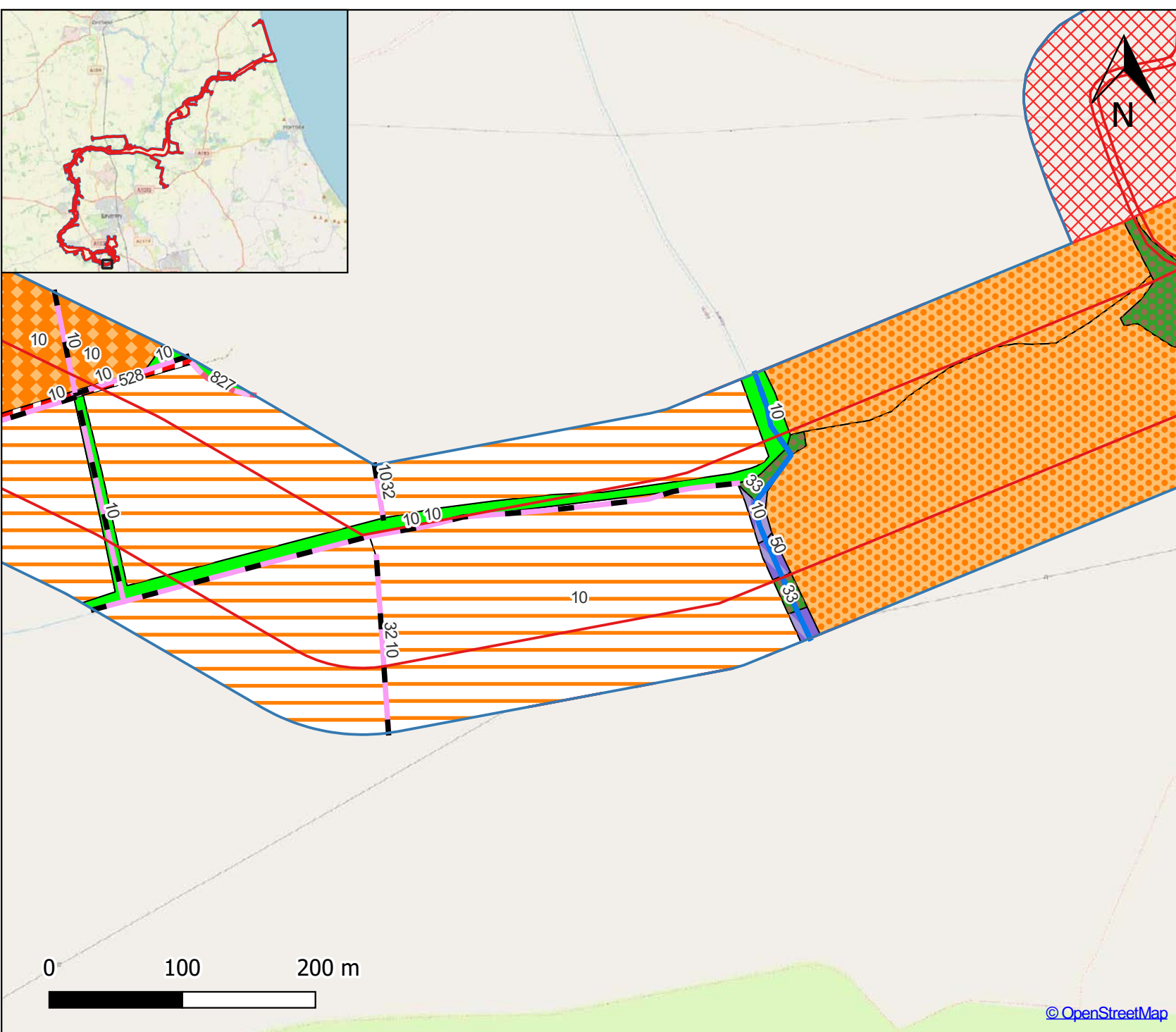
- Onshore Development Area
- Survey area
- No access areas
- h2b - non-native and ornamental hedgerow
- r2b - other rivers and streams
- h2a6 - other native hedgerow
- g4 - modified grassland
- w1g - other broadleaved woodland
- h3a - blackthorn scrub
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- c1c - cereal crops
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- u1b - developed land; sealed surface

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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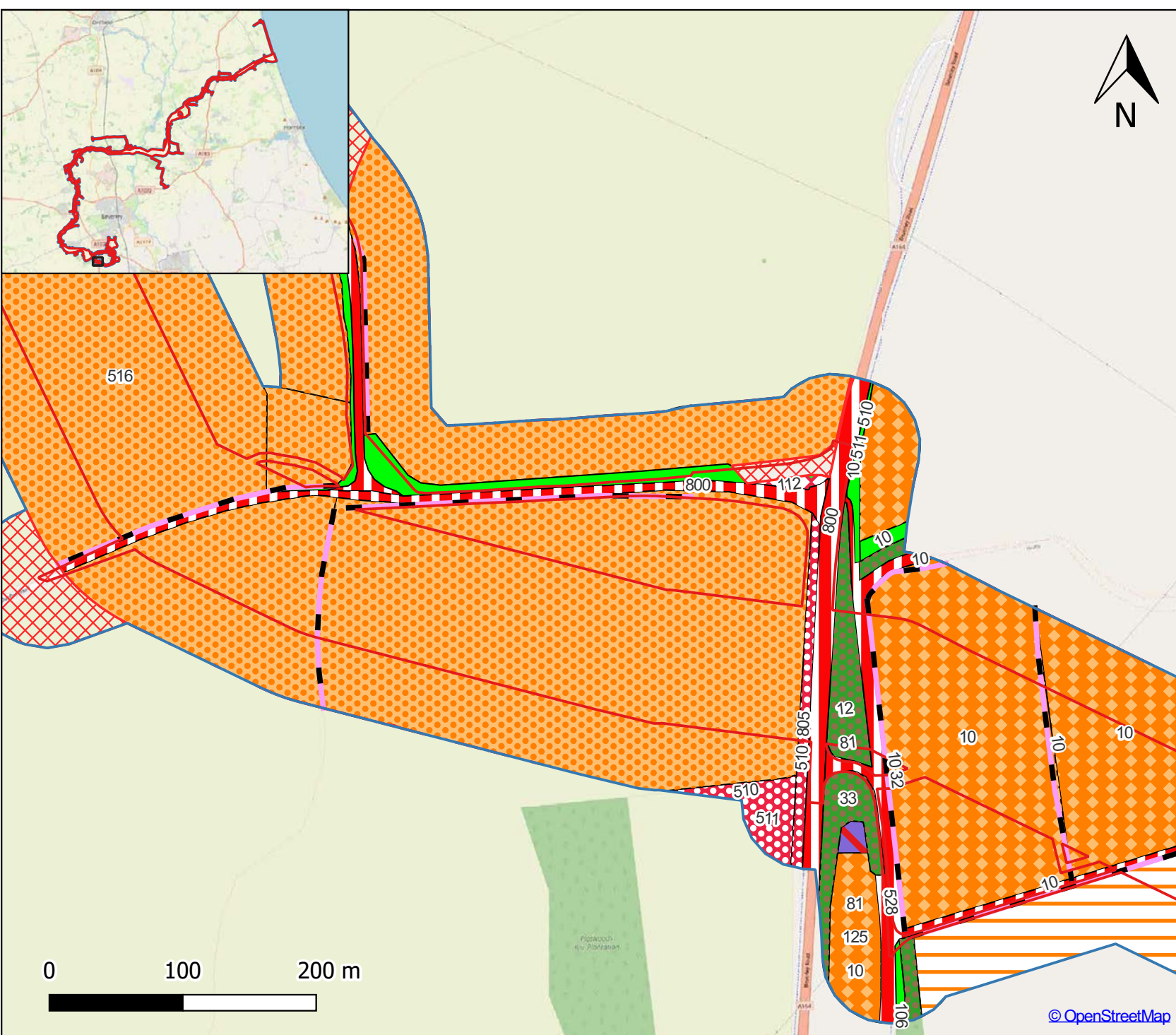
- Onshore Development Area
- Survey area
- No access areas
- h2a5 - species-rich native hedgerow
- h2a6 - other native hedgerow
- g4 - modified grassland
- w1g - other broadleaved woodland
- h3h - mixed scrub
- h3j - willow scrub
- c1a5 - arable field margins - tussocky
- c1c - cereal crops
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- u1b - developed land; sealed surface
- u1c - artificial unvegetated, unsealed surface
- u1f - Sparsely vegetated urban land

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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### Legend

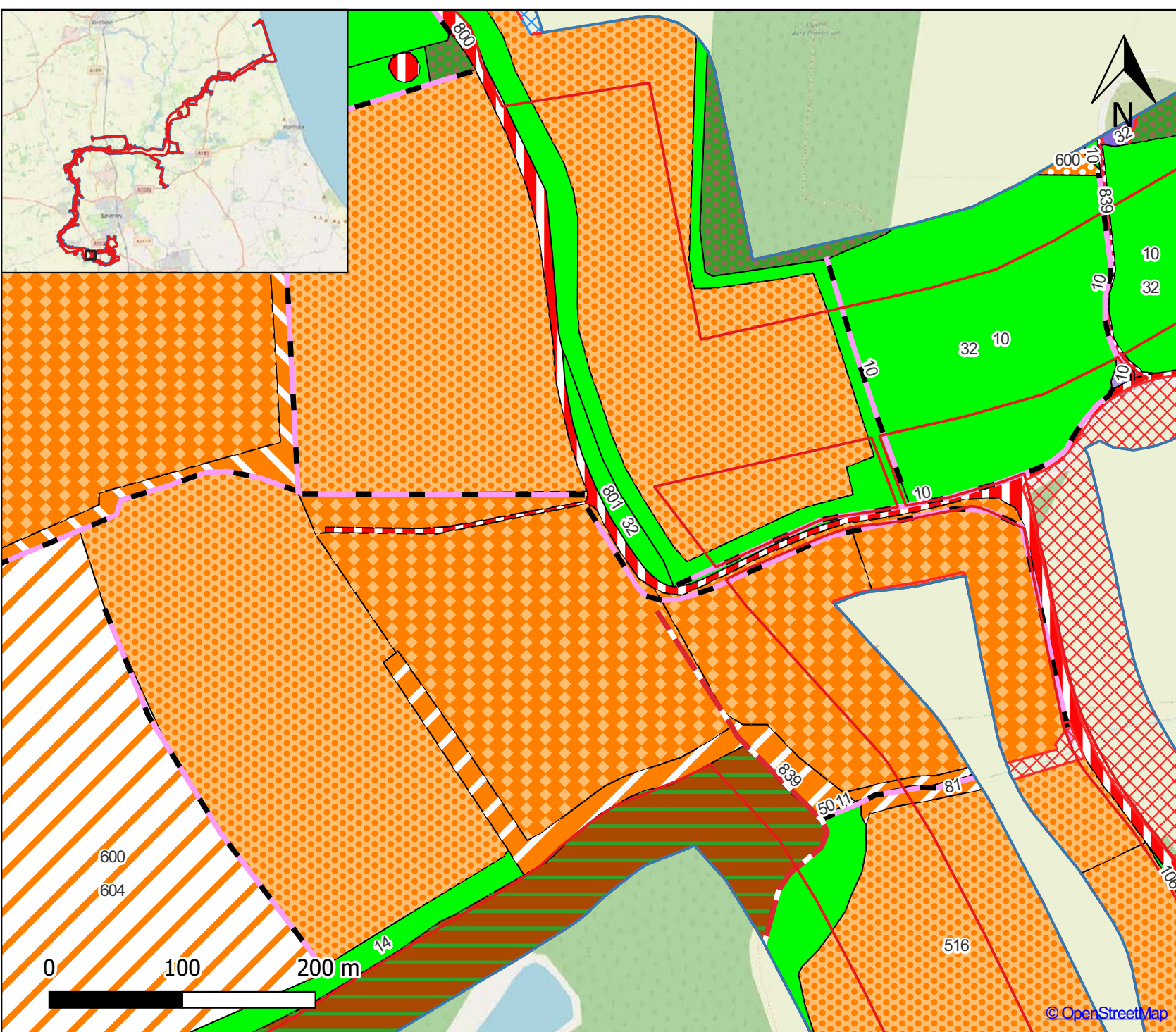
- Onshore Development Area
- Survey area
- No access areas
- New unsurveyed areas - added 31.03.2025
- h2a5 - species-rich native hedgerow
- h2a6 - other native hedgerow
- u1c - artificial unvegetated - unsealed surface
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1 - arable and other crops
- c1a5 - arable field - tussocky
- c1a6 - arable field - pollen and ne...
- c1c7 - other ce...
- c1d - non-cere...
- c1d8 - other no...
- u1b - develop...
- u1c - artificial l...
- u1c - artificial l...

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map












Revision	Date	Drawn by	Checked by
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#### Legend

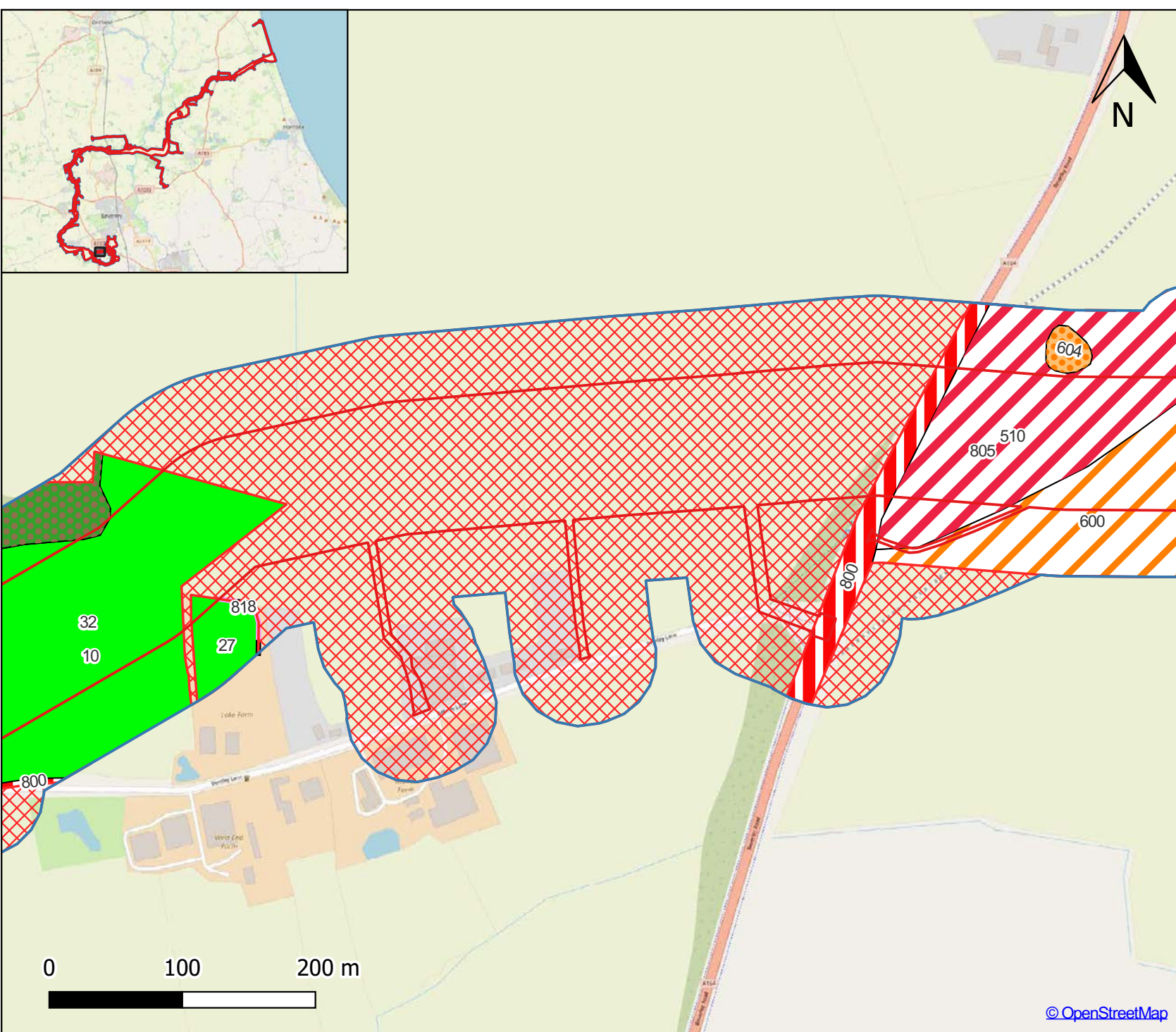
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  g4 - modified grassland
-  w1g - other broadleaved woodland
-  c1 - arable and horticulture
-  c1c7 - other cereal crops
-  u1 - built-up areas and gardens
-  u1b - developed land; sealed surface
-  u1c - artificial unvegetated, unsealed surface

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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### Legend

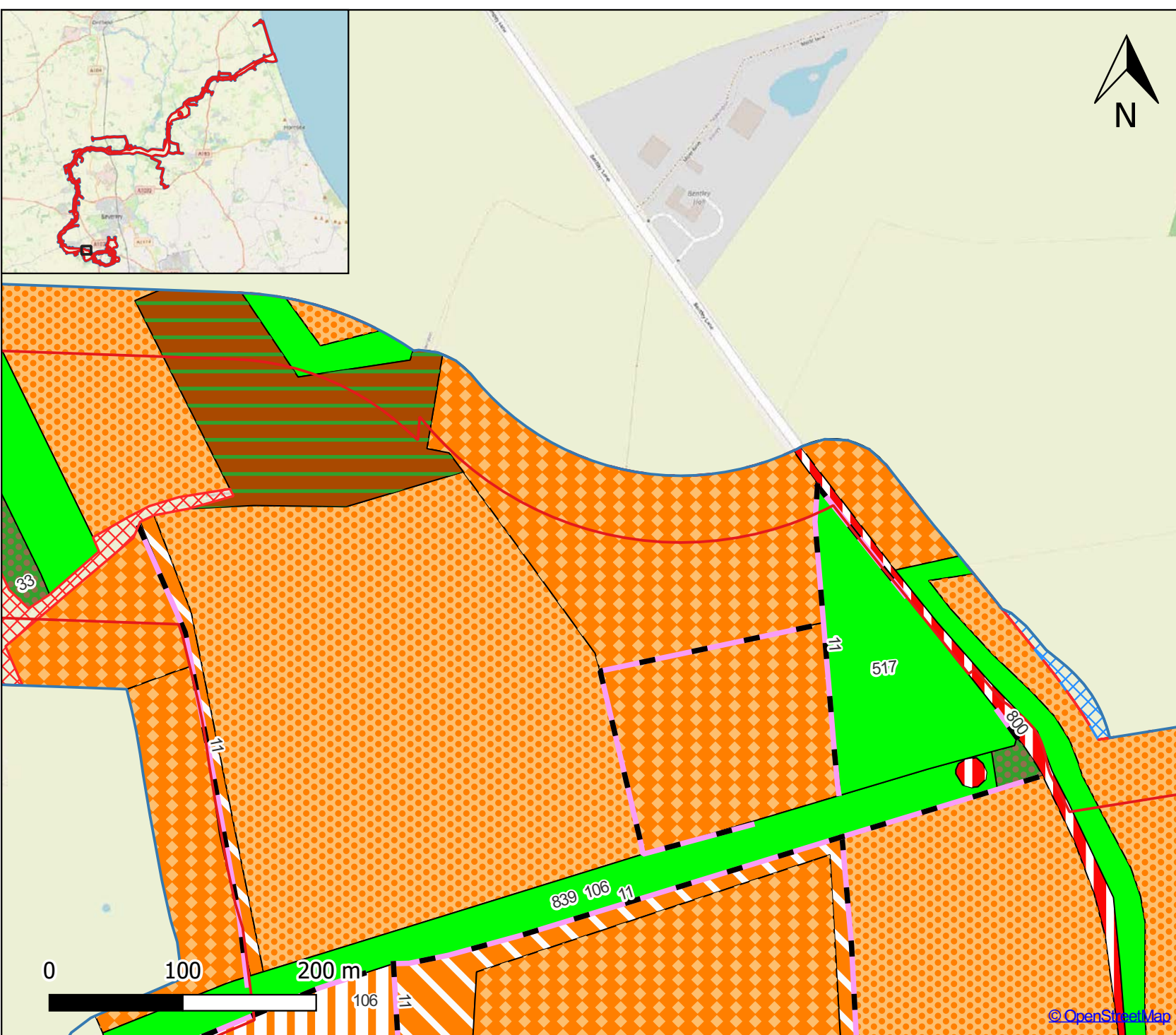
- Onshore Development Area
- Survey area
- No access areas
- New unsurveyed areas - added 31.03.2025
- h2a5 - species-rich native hedgerow
- h2a6 - other native hedgerow
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- c1a6 - arable field margins - pollen and nectar
- c1b5 - rye-grass and clover ley
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- u1b - developed land; sealed surface

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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# Legend

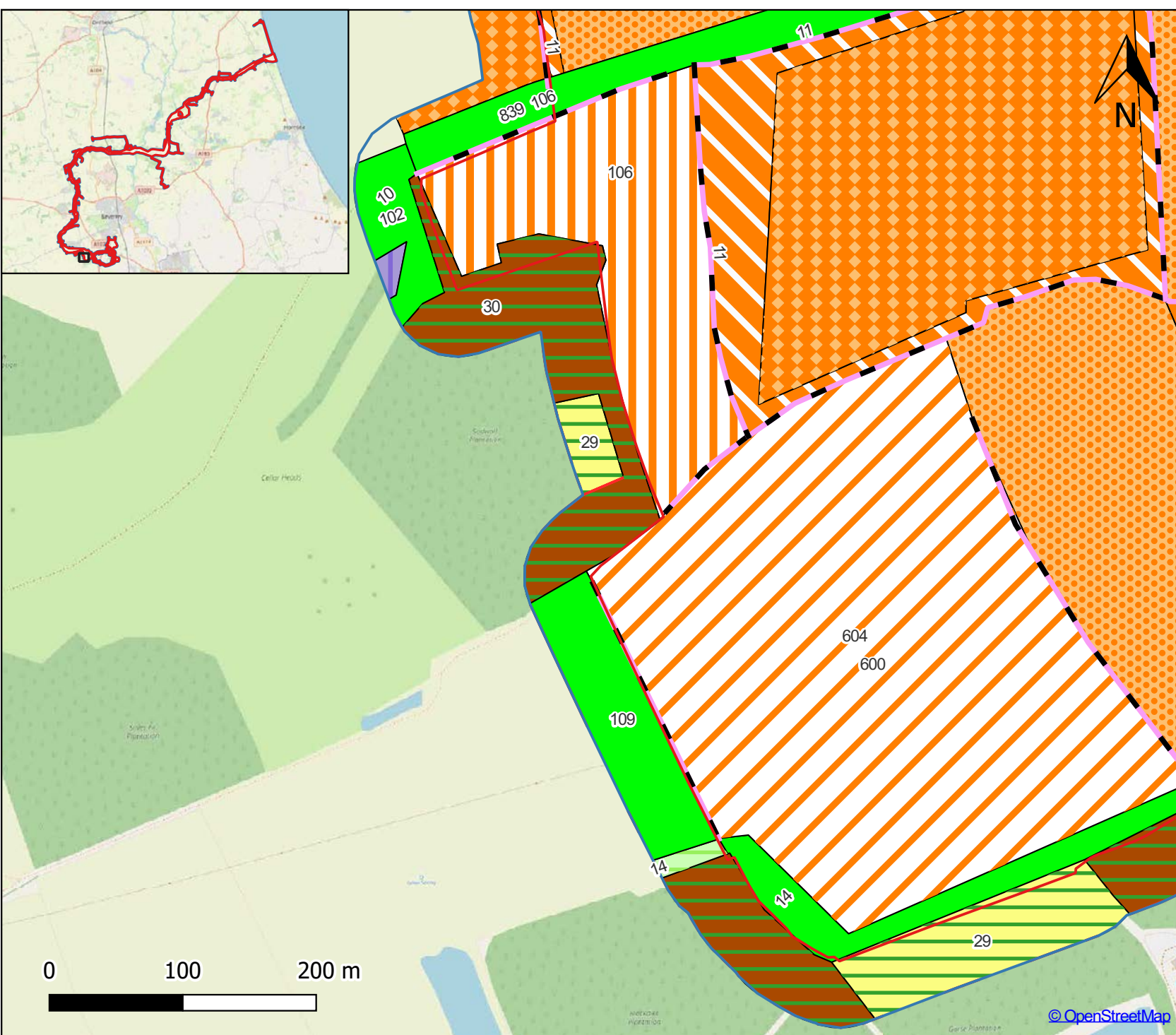
- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w2c - other coniferous woodland
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- c1 - arable and horticulture
- c1a6 - arable field margins - pollen and nectar
- c1b5 - rye-grass and clover ley
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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## Legend

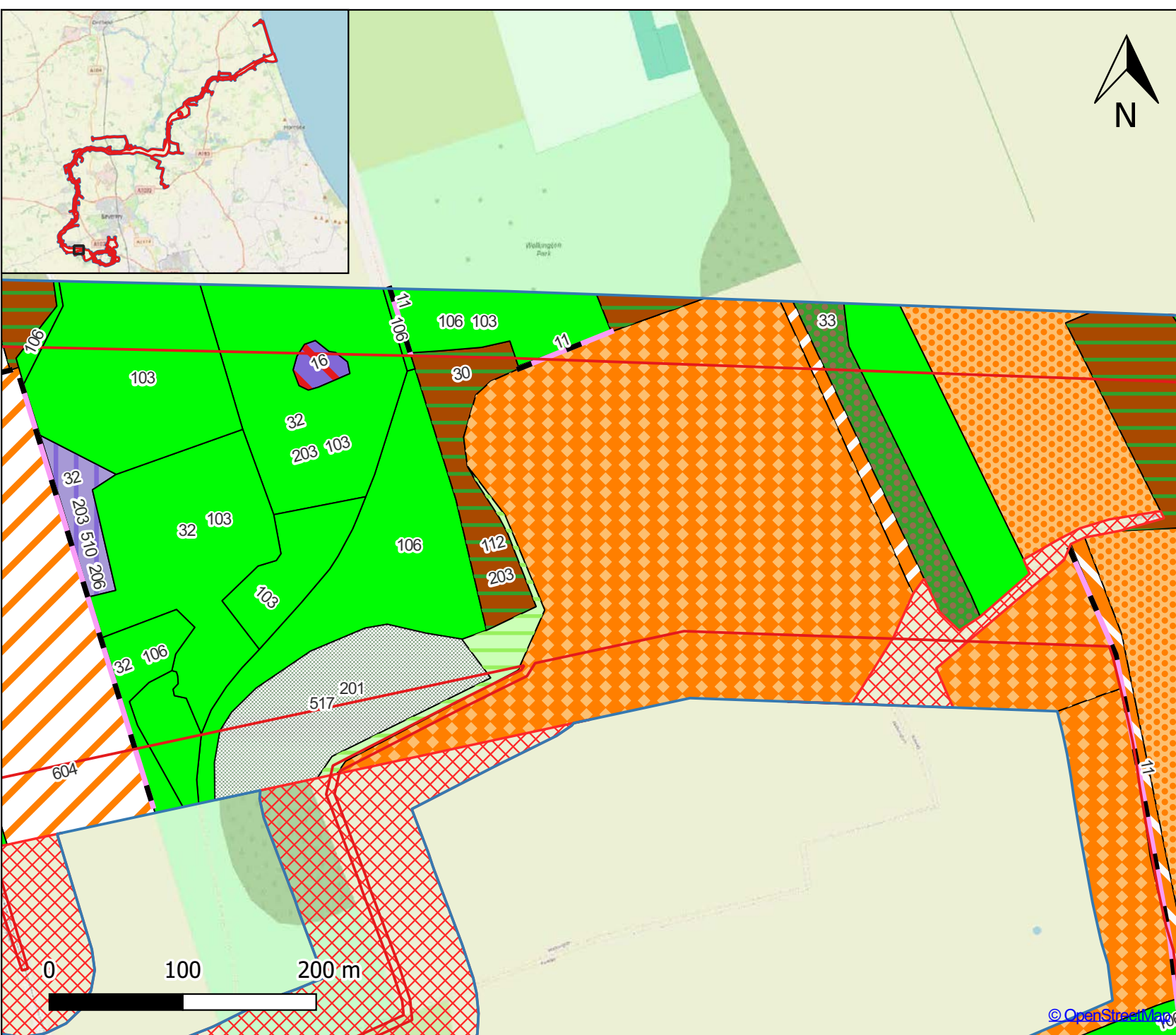
- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- w1h5 - other woodland; mixed; mainly broadleaved
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1 - arable and horticulture
- c1a5 - arable field margins - tussocky
- c1a6 - arable field margins - pollen and nectar
- c1b5 - rye-grass and clover ley
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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D	02/04/2025	SW	RJJ

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# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- u1e - built linear feature
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w1h5 - other woodland; mixed; mainly broadleaved
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1 - arable and horticulture
- c1a - arable field margins
- c1a5 - arable field margins - tussocky
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- u1b - developed land; sealed surface
- u1e - built linear features

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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0 75 150 m

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### Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- h2a5 - species-rich native hedgerow
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- g3c5 - Arrhenatherum neutral grassland
- g4 - modified grassland
- w1g - other broadleaved woodland
- c1 - arable and horticulture
- c1a5 - arable field margins - tussocky
- c1c7 - other cereal crops
- c1d - non-cereal crops
- c1d8 - other non-cereal crops
- u1e - built linear features

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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0 100 200 m

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### Legend

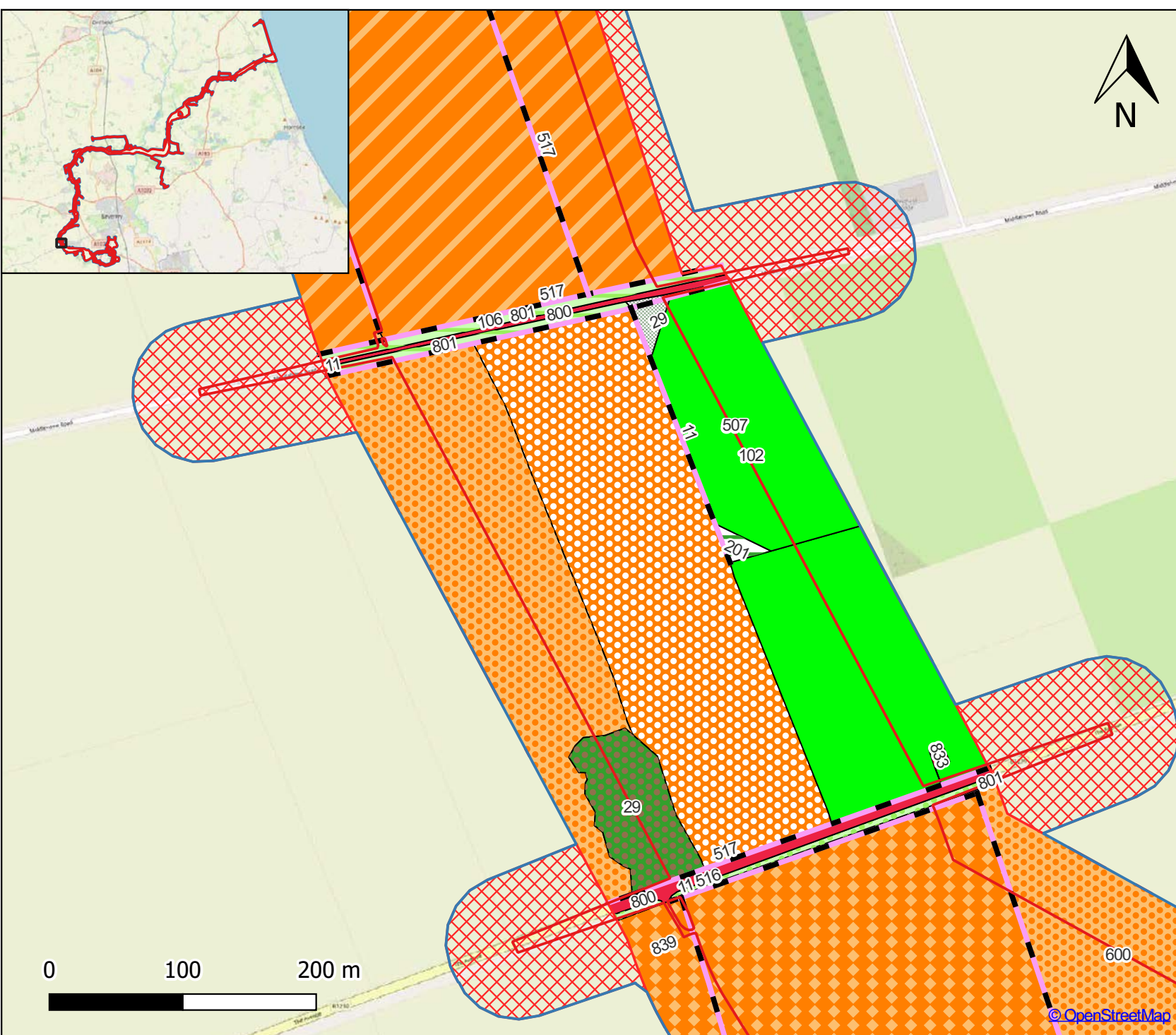
- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- h2a5 - species-rich native hedgerow
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- g3c5 - Arrhenatherum neutral grassland
- g4 - modified grassland
- w1c - lowland beech and yew woodland
- w1g - other broadleaved woodland
- w1h5 - other woodland; mixed; mainly broadleaved
- c1c5 - winter stubble
- c1c7 - other cereal crops
- c1d - non-cereal crops
- c1d8 - other non-cereal crops
- u1 - built-up areas and gardens
- u1e - built linear features

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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D	02/04/2025	SW	RJJ

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#### Legend

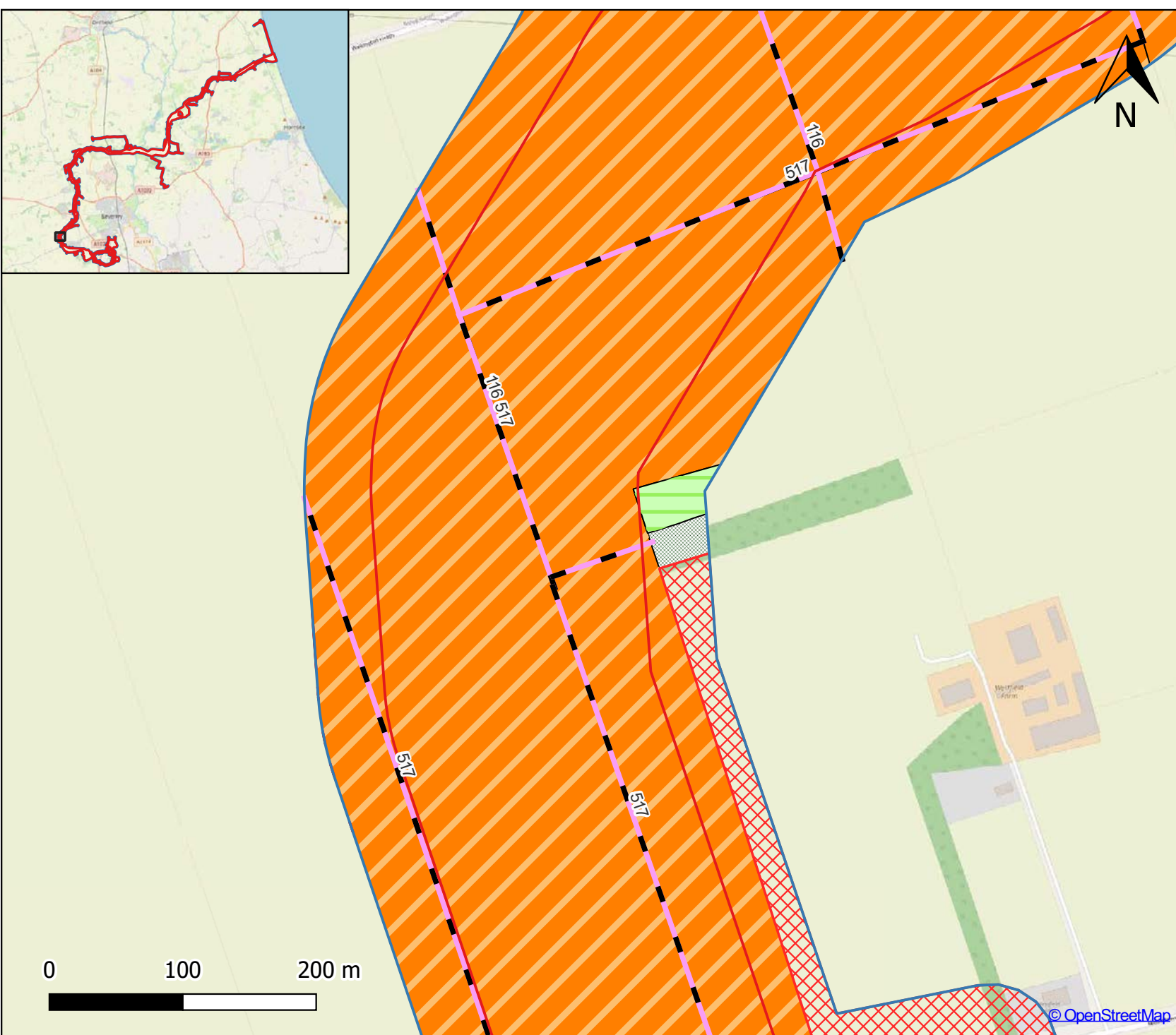
- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- w1h5 - other woodland; mixed; mainly broadleaved
- c1c5 - winter stubble

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map









Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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C	15/01/2025	SW	LS
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#### Legend

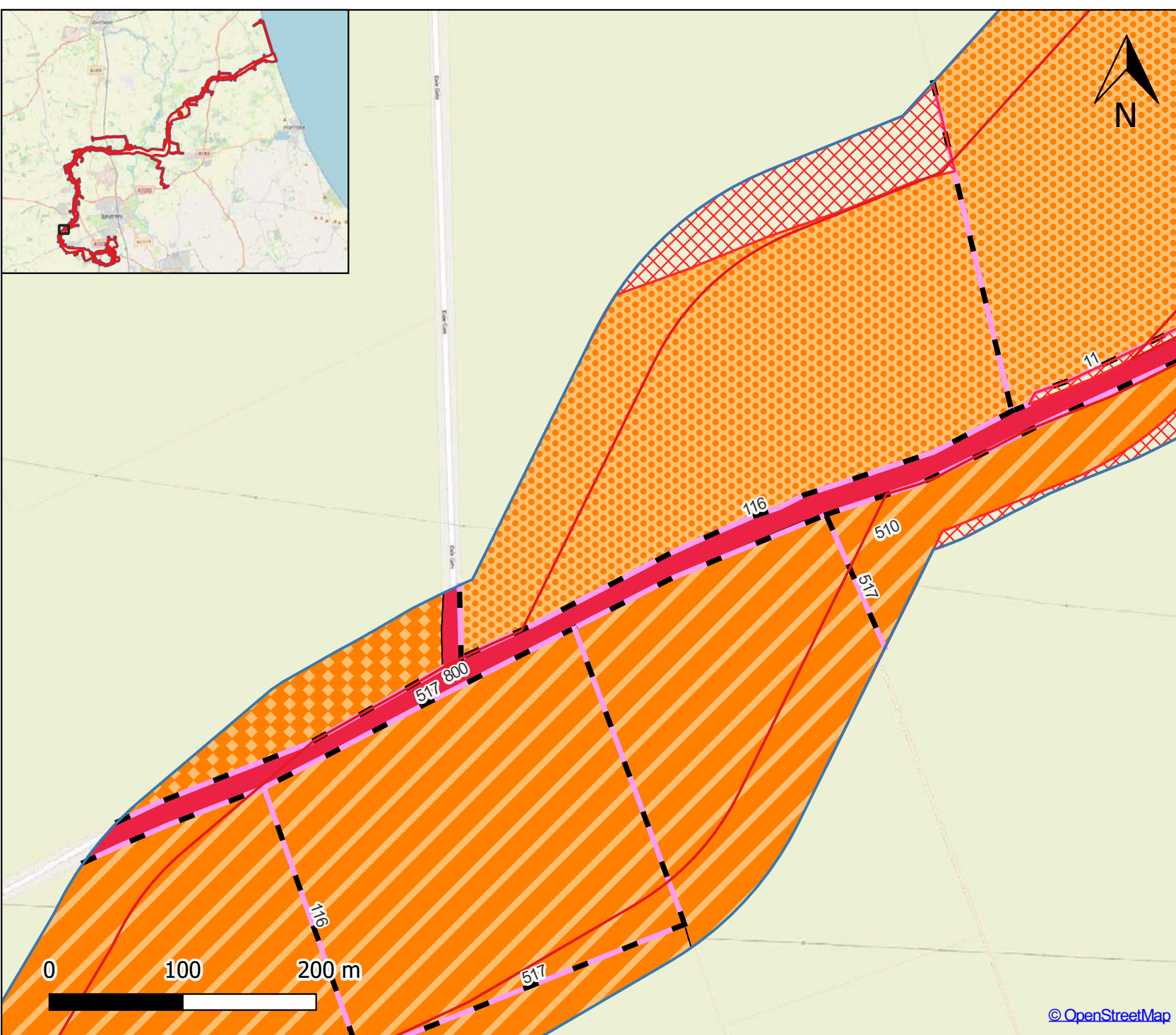
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  c1c5 - winter stubble
-  c1c7 - other cereal crops
-  c1d8 - other non-cereal crops
-  u1e - built linear features

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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#### Legend

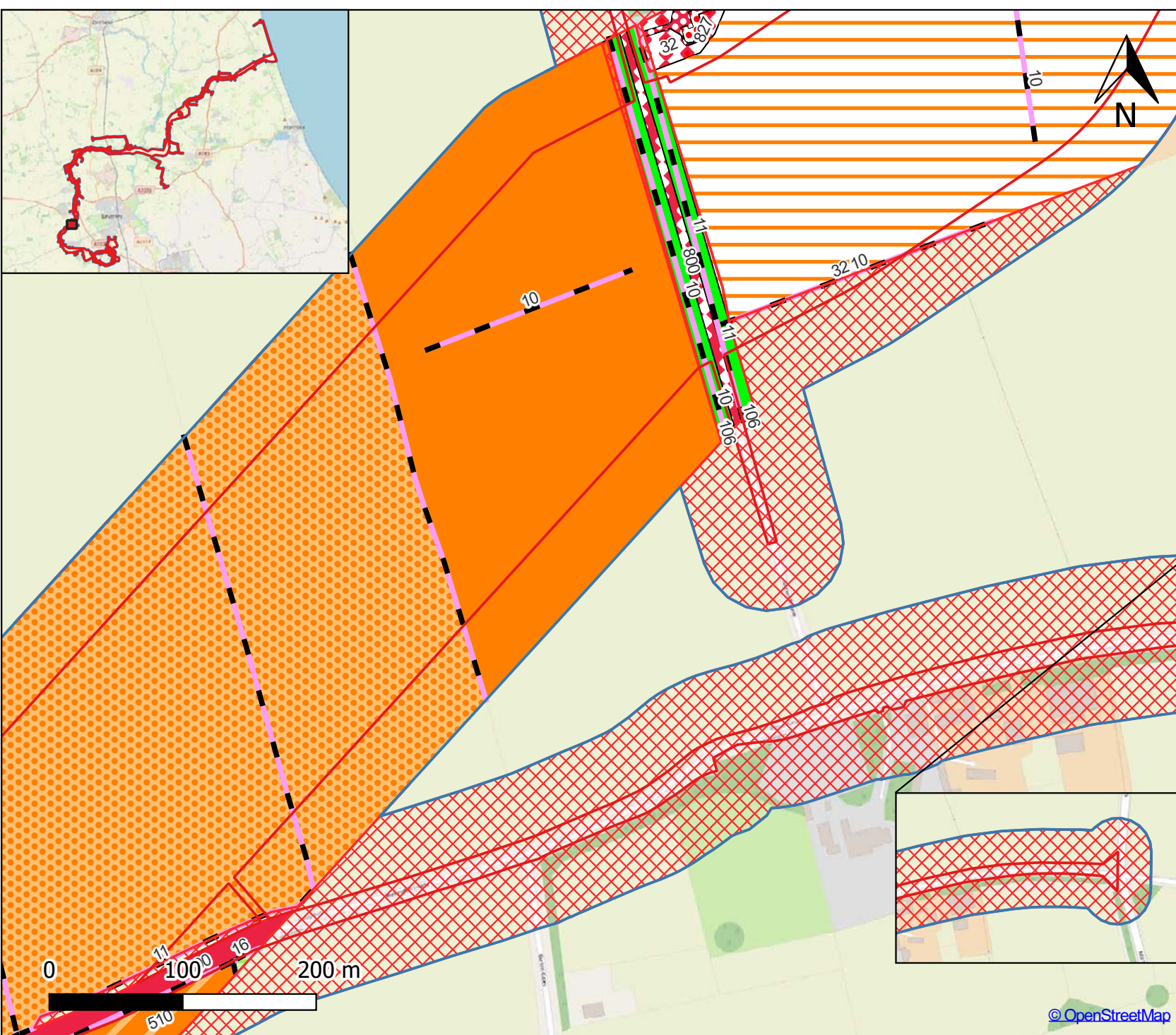
- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- g4 - modified grassland
- c - cropland
- c1c - cereal crops
- c1c5 - winter stubble
- c1c7 - other cereal crops
- u1b5 - buildings
- u1b6 - other developed land
- u1c - artificial unvegetated, unsealed surface
- u1d - suburban mosaic of developed and natural surface
- u1e - built linear features

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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B	11/12/2024	SW	SS
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D	02/04/2025	SW	RJJ

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### Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g4 - modified grassland
- w1g - other broadleaved woodland
- w2c - other coniferous woodland
- h3h - mixed scrub
- h3j - willow scrub
- c1c - cereal crops
- c1d8 - other non-cereal crops
- u1b5 - buildings
- u1b6 - other developed land
- u1c - artificial unvegetated, unsealed surface
- u1d - suburban mosaic of developed and natural surface

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map









Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ

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#### Legend

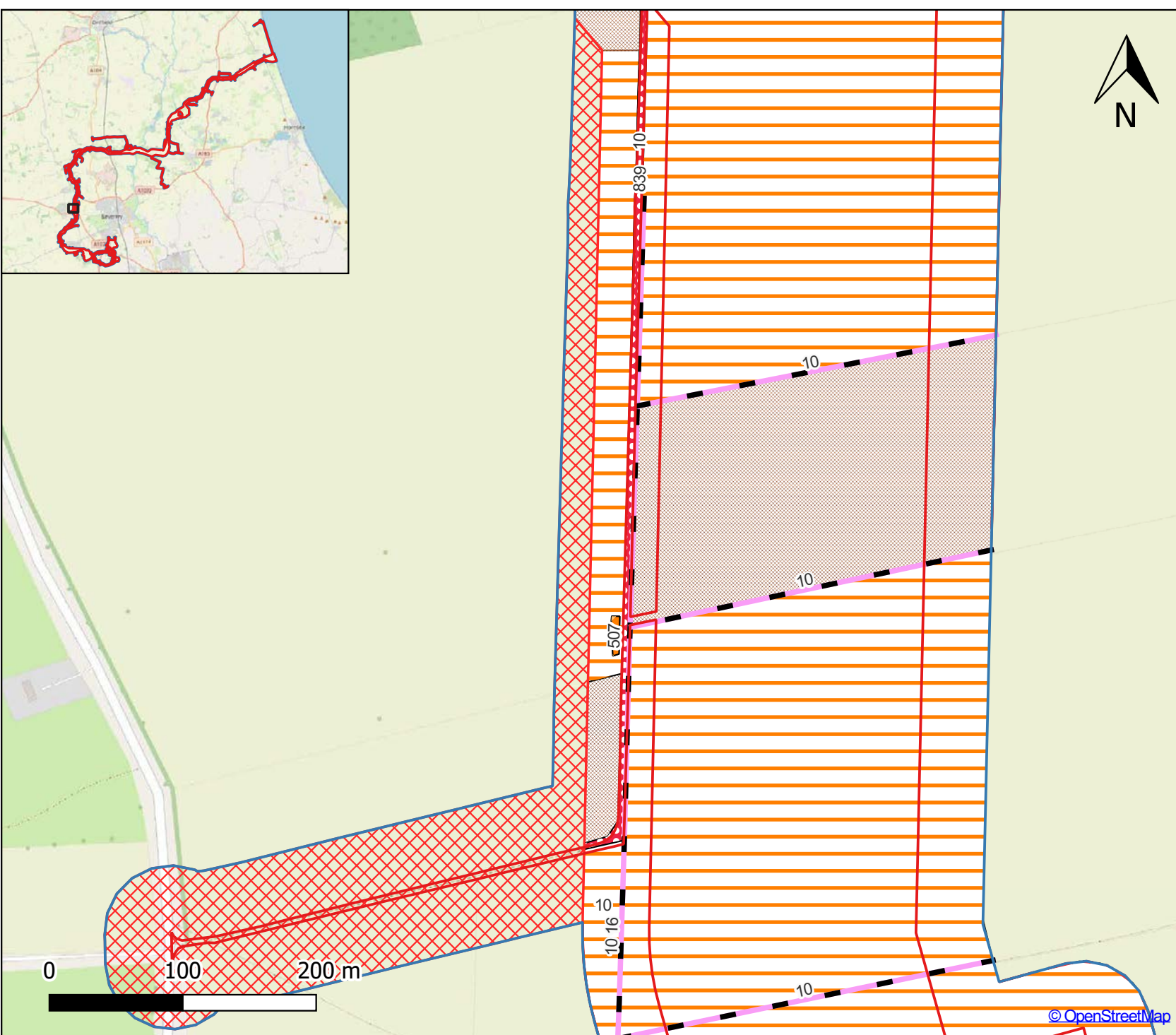
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  c1c - cereal crops
-  c1d5 - Miscanthus
-  c1d8 - other non-cereal crops
-  u1c - artificial unvegetated, unsealed surface

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ

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Legend

**Royal HaskoningDHV**  
Dogger Bank D  
Preliminary Ecological Appraisal



# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- r2b - other rivers and streams
- h2a6 - other native hedgerow
- w1g - other broadleaved woodland
- g4 - modified grassland
- w1g - other broadleaved woodland
- h3a6 - other blackthorn scrub
- h3f - hawthorn scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1c - cereal crops
- c1d5 - Miscanthus
- c1f5 - annuals horticulture
- u1b - developed land; sealed surface
- u1b5 - buildings
- u1c - artificial unvegetated, unsealed surface

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
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# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- u1e - built linear feature
- r2b - other rivers and streams
- h2a6 - other native hedgerow
- w1g - other broadleaved woodland
- g3 - neutral grassland
- g3c - other neutral grassland
- g4 - modified grassland
- w1g - other broadleaved woodland
- w2b - other scots pine woodland
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1c - cereal crops
- c1d - non-cereal crops
- c1f5 - annuals horticulture
- u1b - developed land; sealed surface
- u1b5 - buildings
- u1c - artificial unvegetated, unsealed surface

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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### Legend

- Onshore Development Area
- Survey area
- No access areas
- r2b - other rivers and streams
- h2a6 - other native hedgerow
- w1g - other broadleaved woodland
- g3c - other neutral grassland
- g4 - modified grassland
- w1 - broadleaved mixed and yew woodland
- w1g - other broadleaved woodland
- w1h5 - other woodland; mixed; mainly broadleaved
- h3h - mixed scrub
- h3j - willow scrub
- c1c - cereal crops
- c1c5 - winter stubble
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- u1b - developed land; sealed surface

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map




Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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# Legend

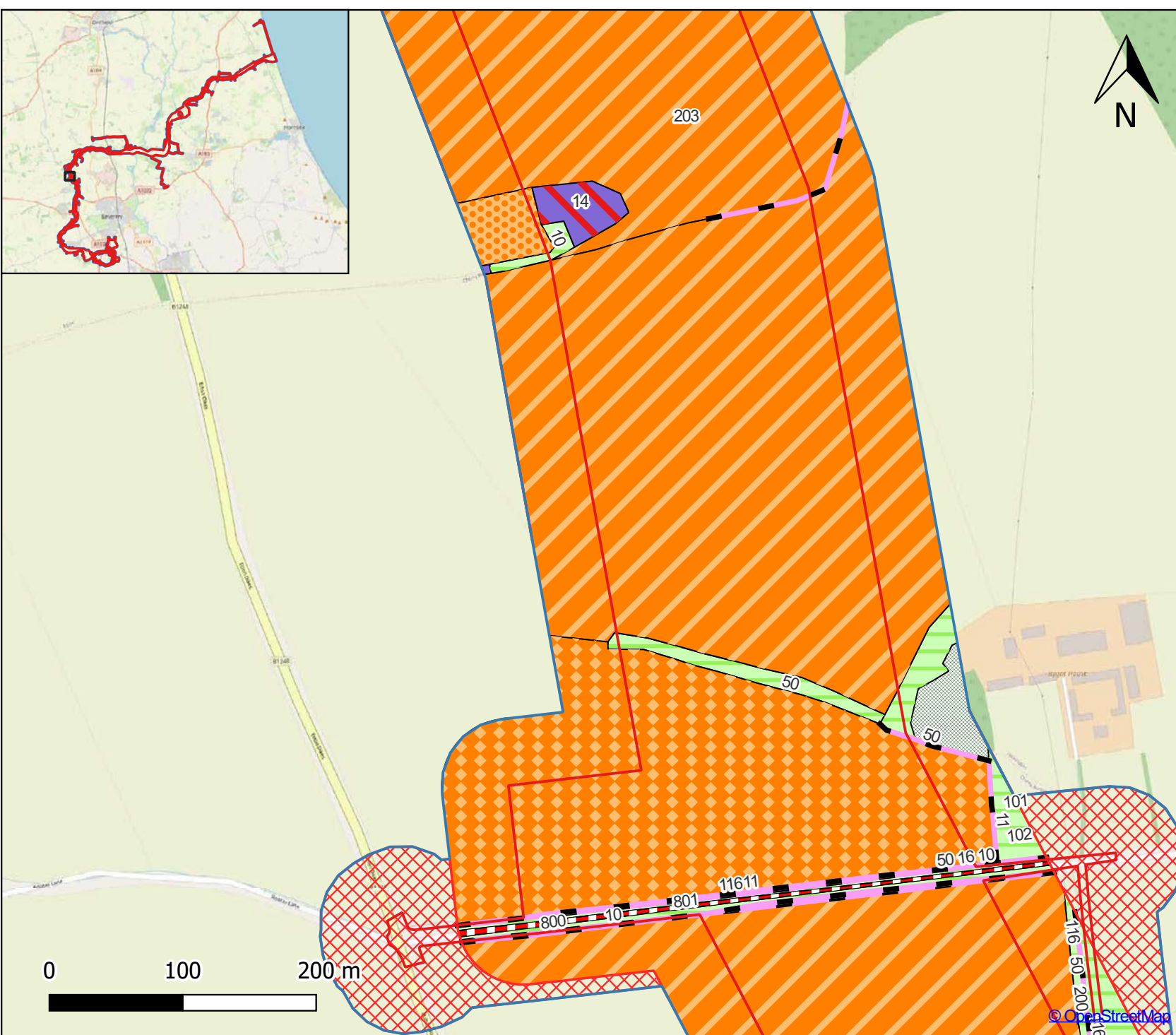
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  w1g - other broadleaved woodland
-  g3c - other neutral grassland
-  w1g - other broadleaved woodland
-  w1h5 - other woodland; mixed; mainly broadleaved
-  h3h - mixed scrub
-  h3j - willow scrub
-  c1c5 - winter stubble
-  c1c7 - other cereal crops
-  c1d8 - other non-cereal crops
-  u1b - developed land; sealed surface

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- r1g - other standing water
- w1g - other broadleaved woodland
- g3c - other neutral grassland
- w1g - other broadleaved woodland
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1b6 - legume-rich ley
- c1c5 - winter stubble
- c1c7 - other cereal crops
- u1b - developed land; sealed surface

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal




Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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#### Legend

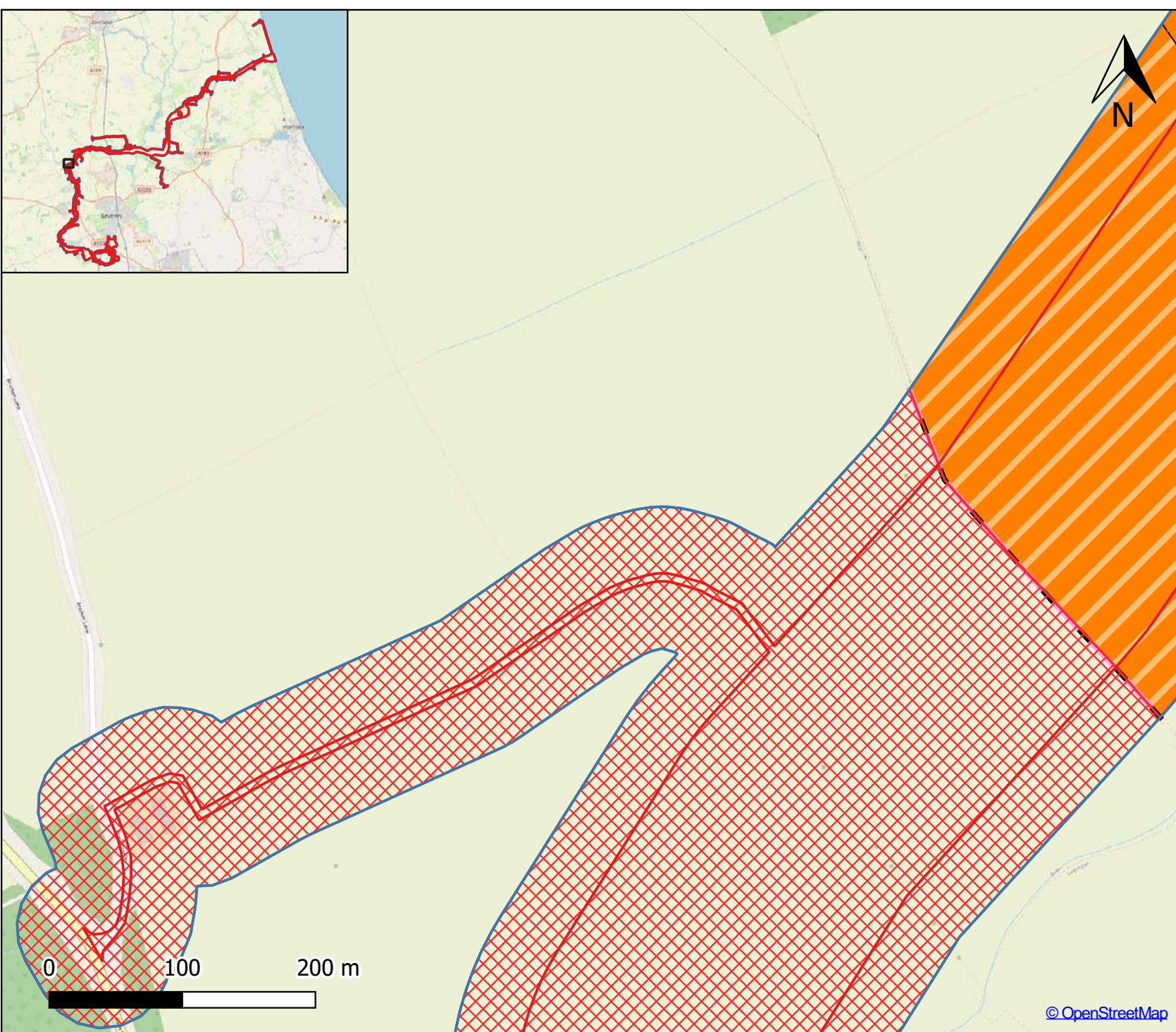
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  c1c5 - winter stubble
-  c1d8 - other non-cereal crops

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- w1g - other broadleaved woodland
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3g - rhododendron scrub
- c1c5 - winter stubble
- c1d8 - other non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map













Revision	Date	Drawn by	Checked by
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# Legend

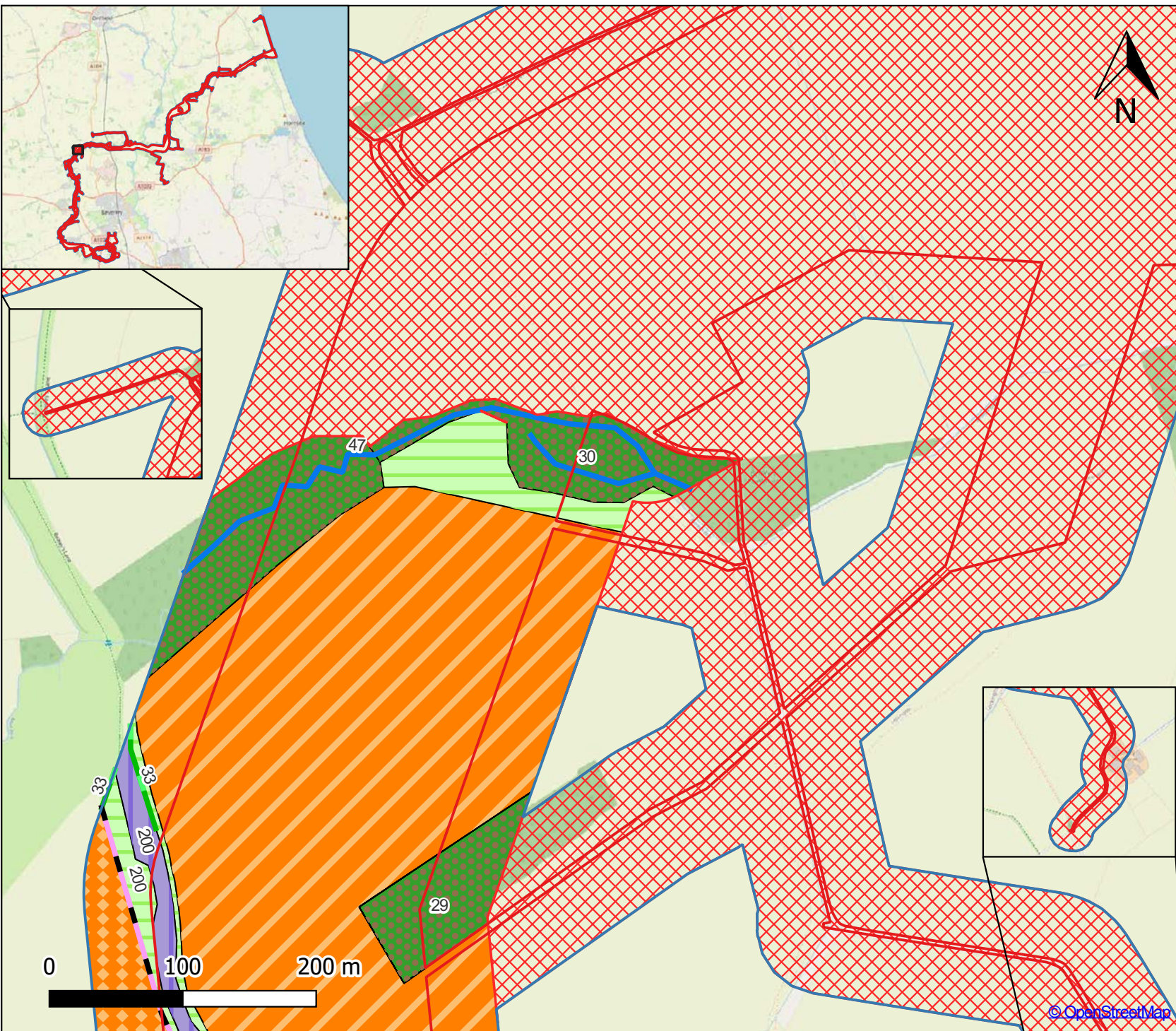
-  Onshore Development Area
-  Survey area
-  No access areas
-  r2b - other rivers and streams
-  h2a6 - other native hedgerow
-  w1g - other broadleaved woodland
-  g3c - other neutral grassland
-  w1g - other broadleaved woodland
-  h3c6 - other sea buckthorn scrub
-  h3d - bramble scrub
-  h3e - gorse scrub
-  h3g - rhododendron scrub
-  c1c5 - winter stubble
-  c1d8 - other non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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#### Legend

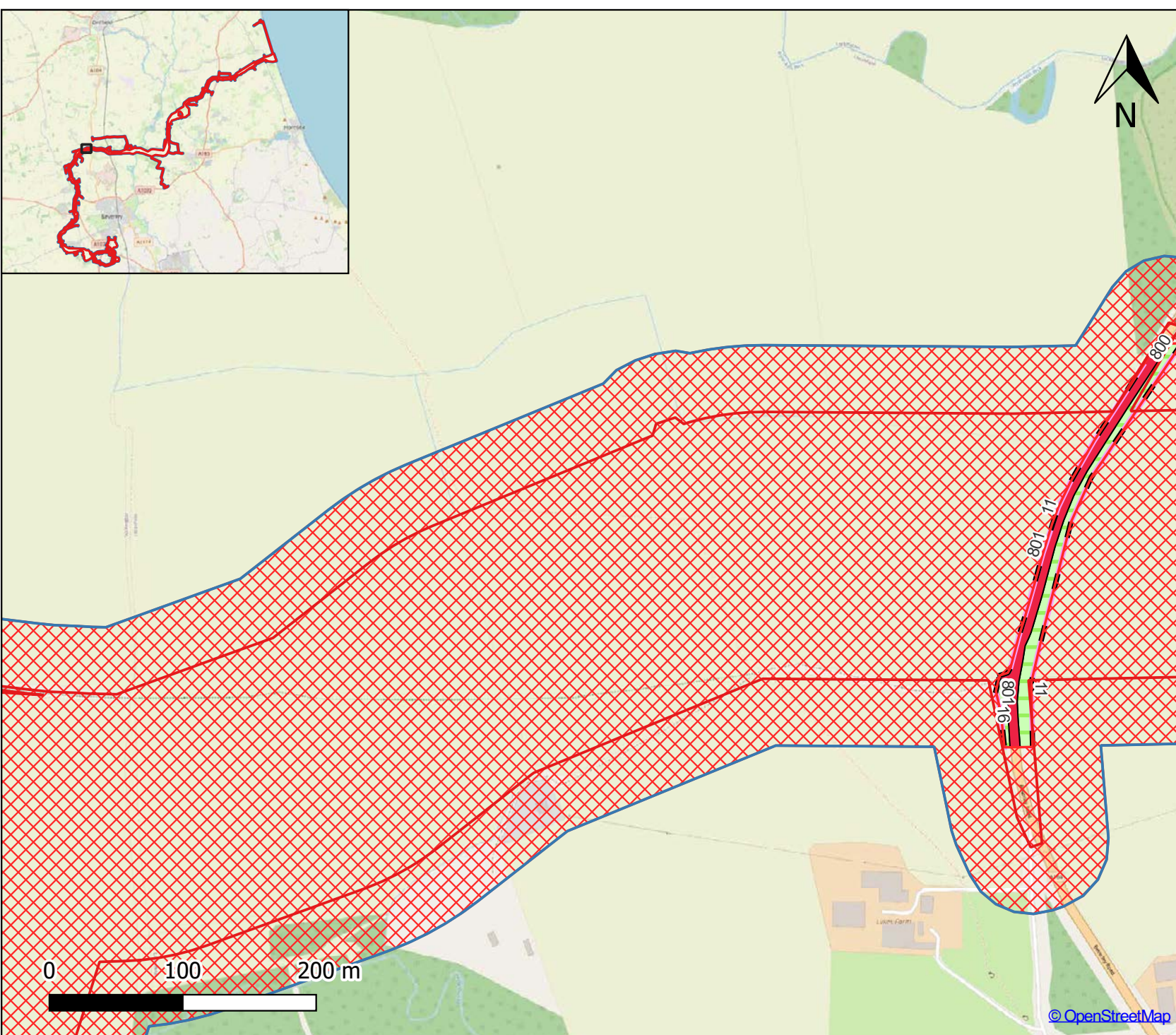
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  g3c - other neutral grassland
-  u1e - built linear features

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
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#### Legend

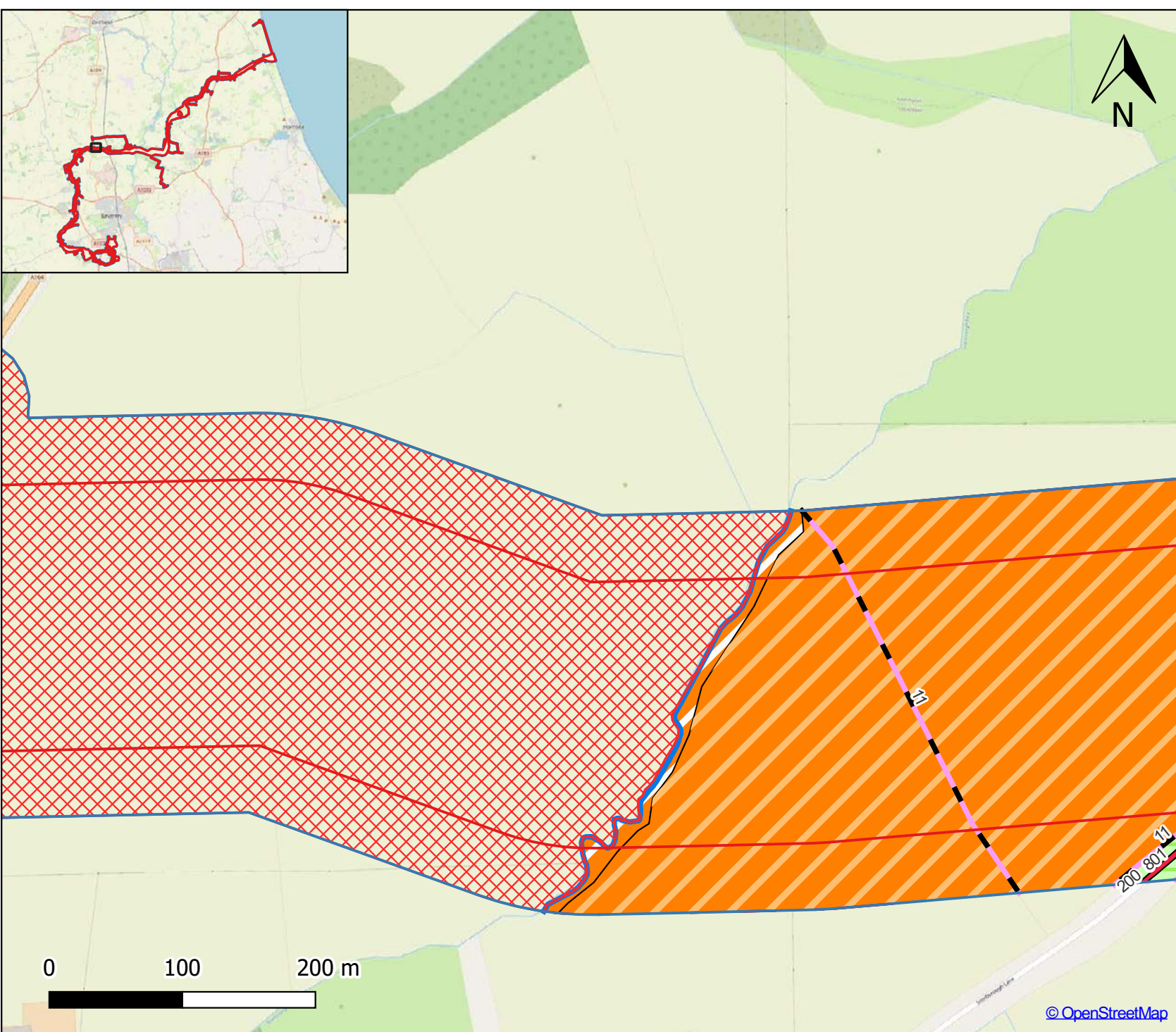
- Onshore Development Area
- Survey area
- No access areas
- r2b - other rivers and streams
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- g4 - modified grassland
- c1a5 - arable field margins - tussocky
- c1c5 - winter stubble
- u1e - built linear features

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
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# Legend

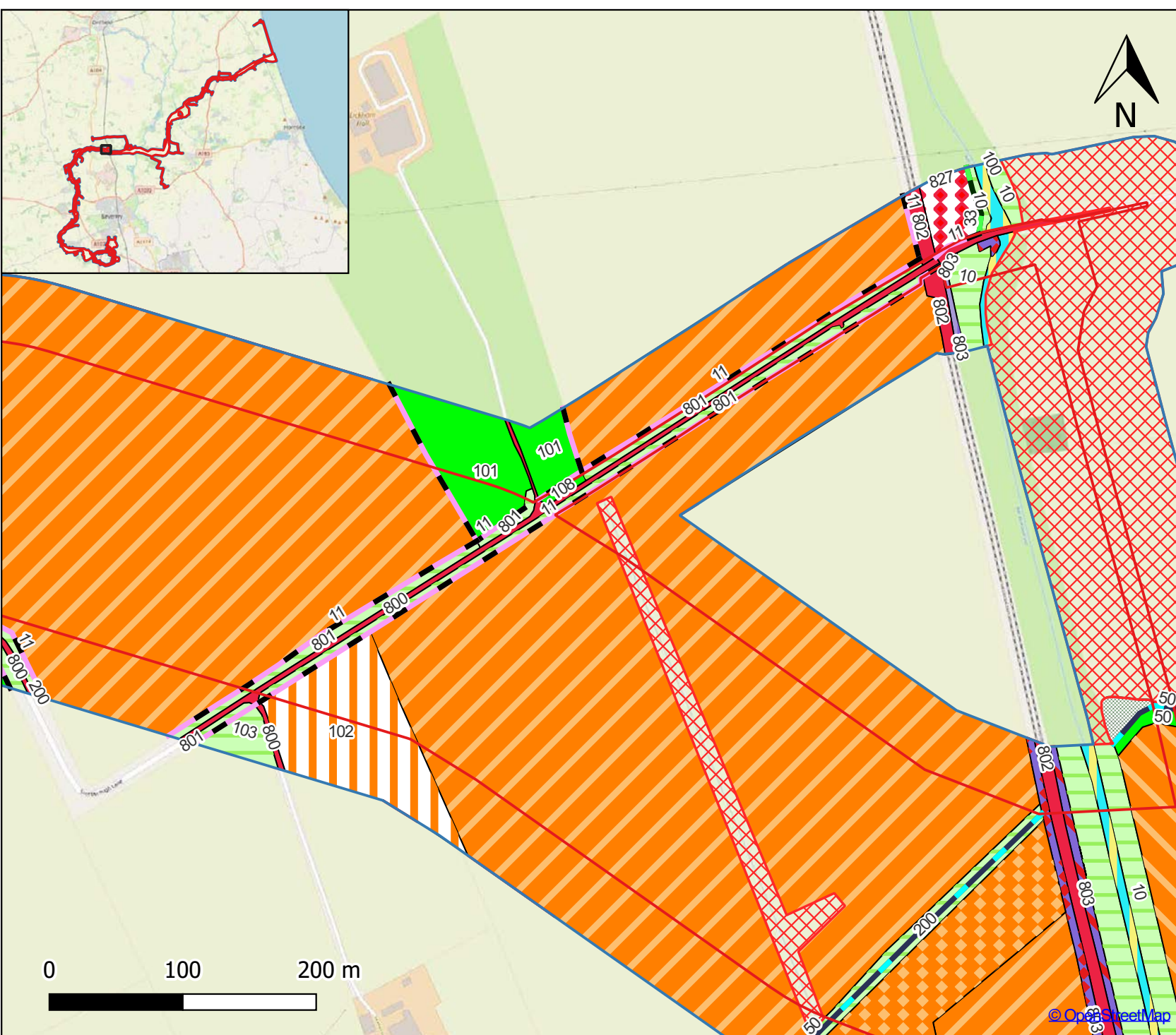
- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- h2a6 - other native hedgerow
- r1g - other standing water
- w1h5 - other woodland - mixed - mainly broadleaved
- g3c - other neutral grassland
- g4 - modified grassland
- w1h5 - other woodland; mixed; mainly broadleaved
- h3c6 - other sea buckthorn scrub
- h3d - bramble scrub
- h3e - gorse scrub
- h3f - hawthorn scrub
- h3g - rhododendron scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1b5 - rye-grass and clover ley
- c1b6 - legume-rich ley
- c1c5 - winter stubble
- c1d8 - other non-cereal crops
- u1d - suburban mosaic of developed and natural surface
- u1e - built linear features
- r2b - other rivers and streams

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
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#### Legend

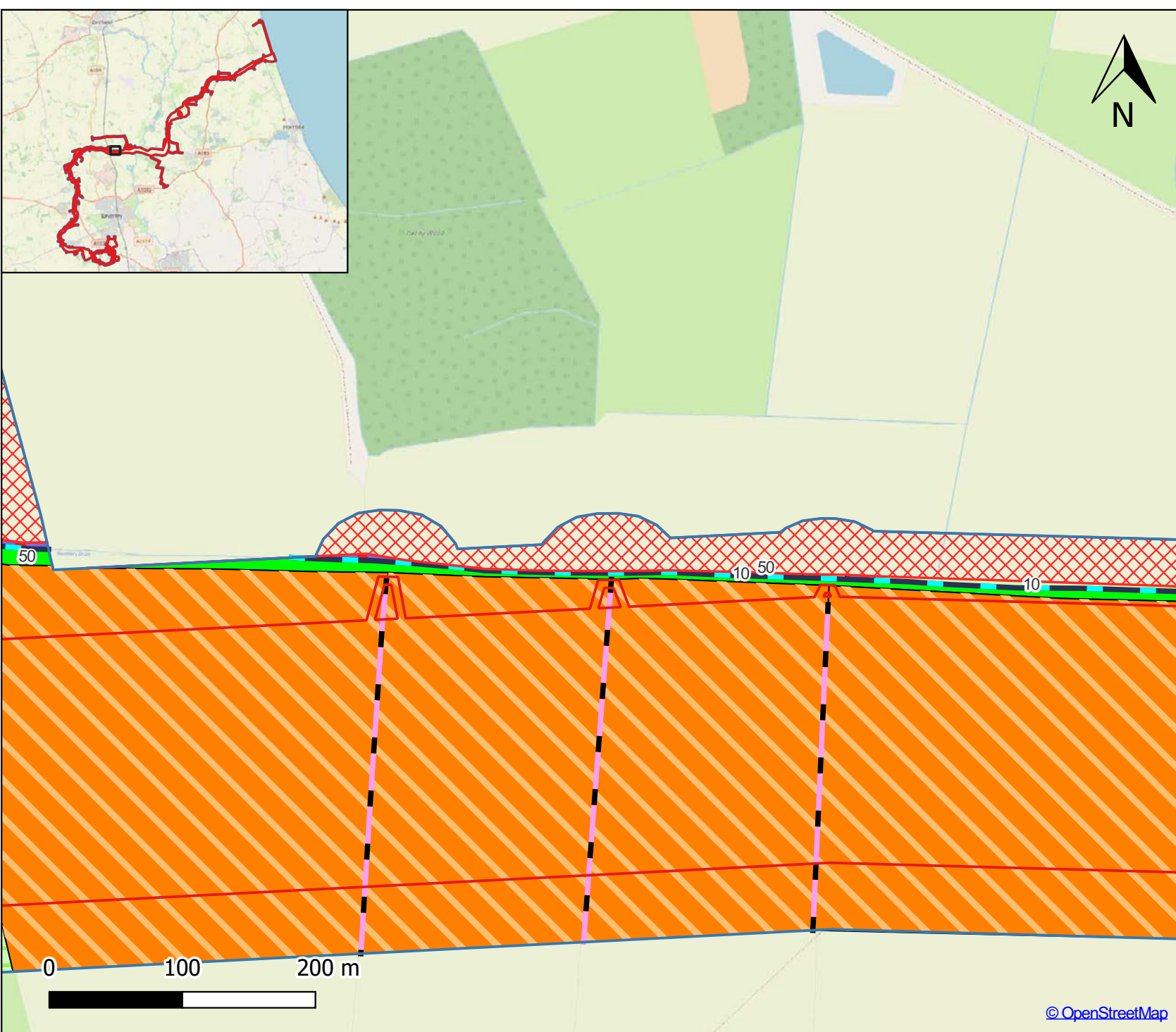
- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- h2a6 - other native hedgerow
- r1g - other standing water
- g3c - other neutral grassland
- g4 - modified grassland
- h3f - hawthorn scrub
- h3h - mixed scrub
- h3j - willow scrub
- c1b6 - legume-rich ley

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
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# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2 - hedgerow
- h2a - native hedgerow
- u1e - built linear feature
- h2a6 - other native hedgerow
- r1g - other standing water
- g3c - other neutral grassland
- g4 - modified grassland
- w1g - other broadleaved woodland
- h3f - hawthorn scrub
- c1b6 - legume-rich ley
- u1b - developed land; sealed surface
- u1c - artificial unvegetated, unsealed surface
- u1e - built linear features
- r1 - standing open water and canals
- r1g - other standing water

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map





Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ

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#### Legend

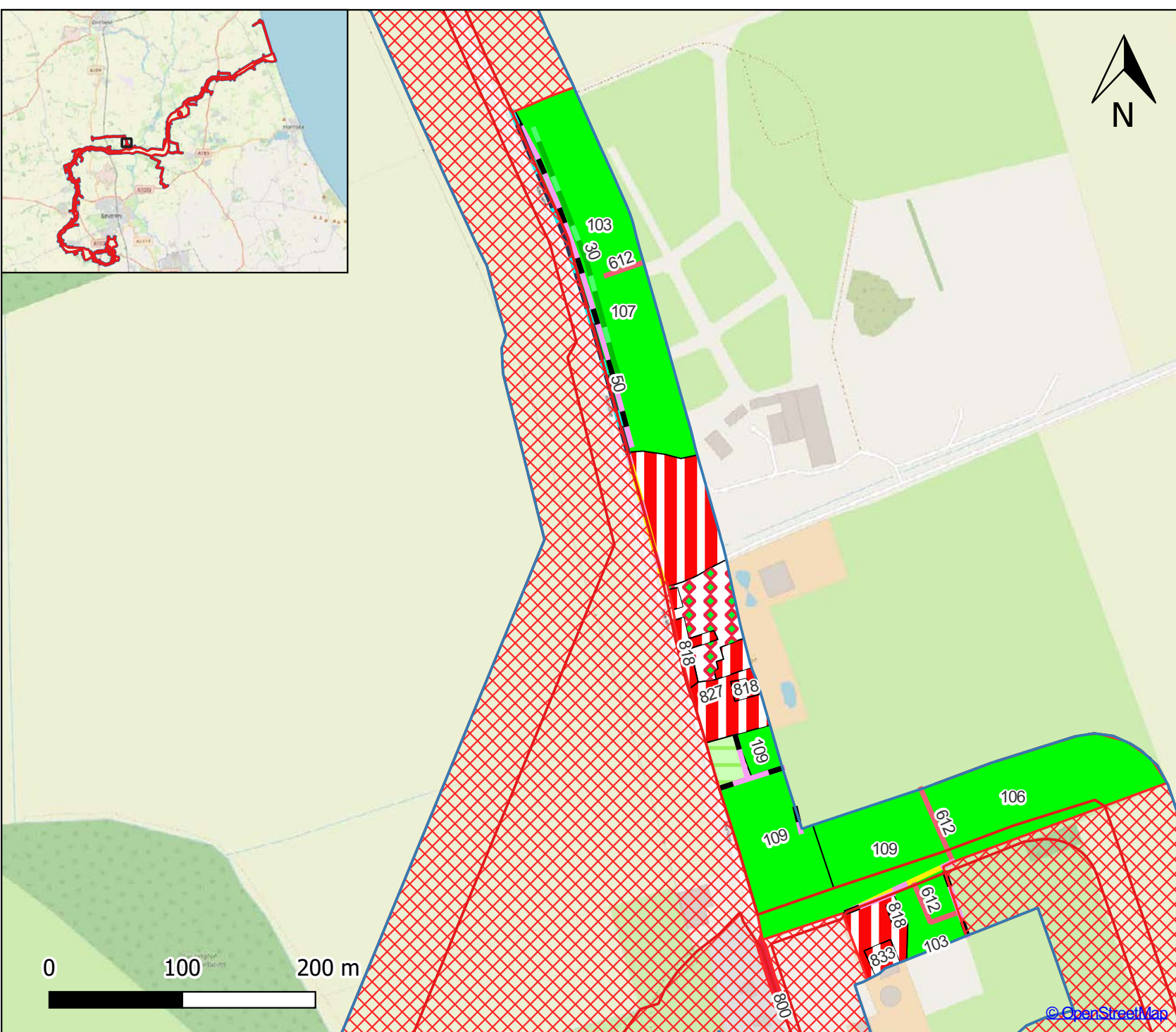
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2 - hedgerow
-  h2a - native hedgerow
-  u1e - built linear feature
-  r1g - other standing water
-  w1g - other broadleaved woodland
-  g3c - other neutral grassland
-  g4 - modified grassland
-  u1b - developed land; sealed surface
-  u1e - built linear features
-  u1f - Sparsely vegetated urban land

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
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# Legend

-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a - native hedgerow
-  u1e - built linear feature
-  r1g - other standing water
-  w1g - other broadleaved woodland
-  g3 - neutral grassland
-  g4 - modified grassland
-  c1c5 - winter stubble

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal




Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
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#### Legend

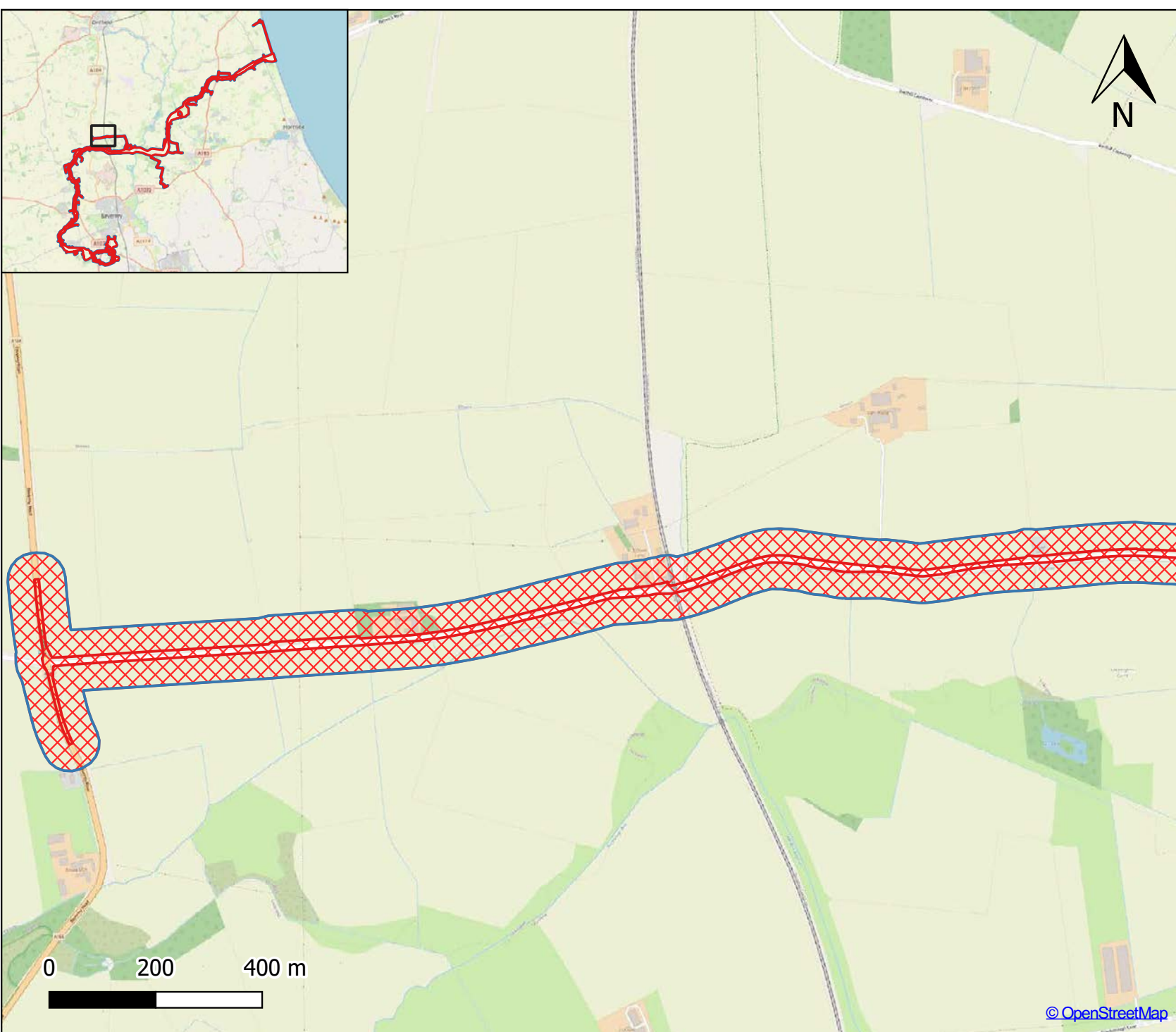
-  Onshore Development Area
-  Survey area
-  No access areas

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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### Legend

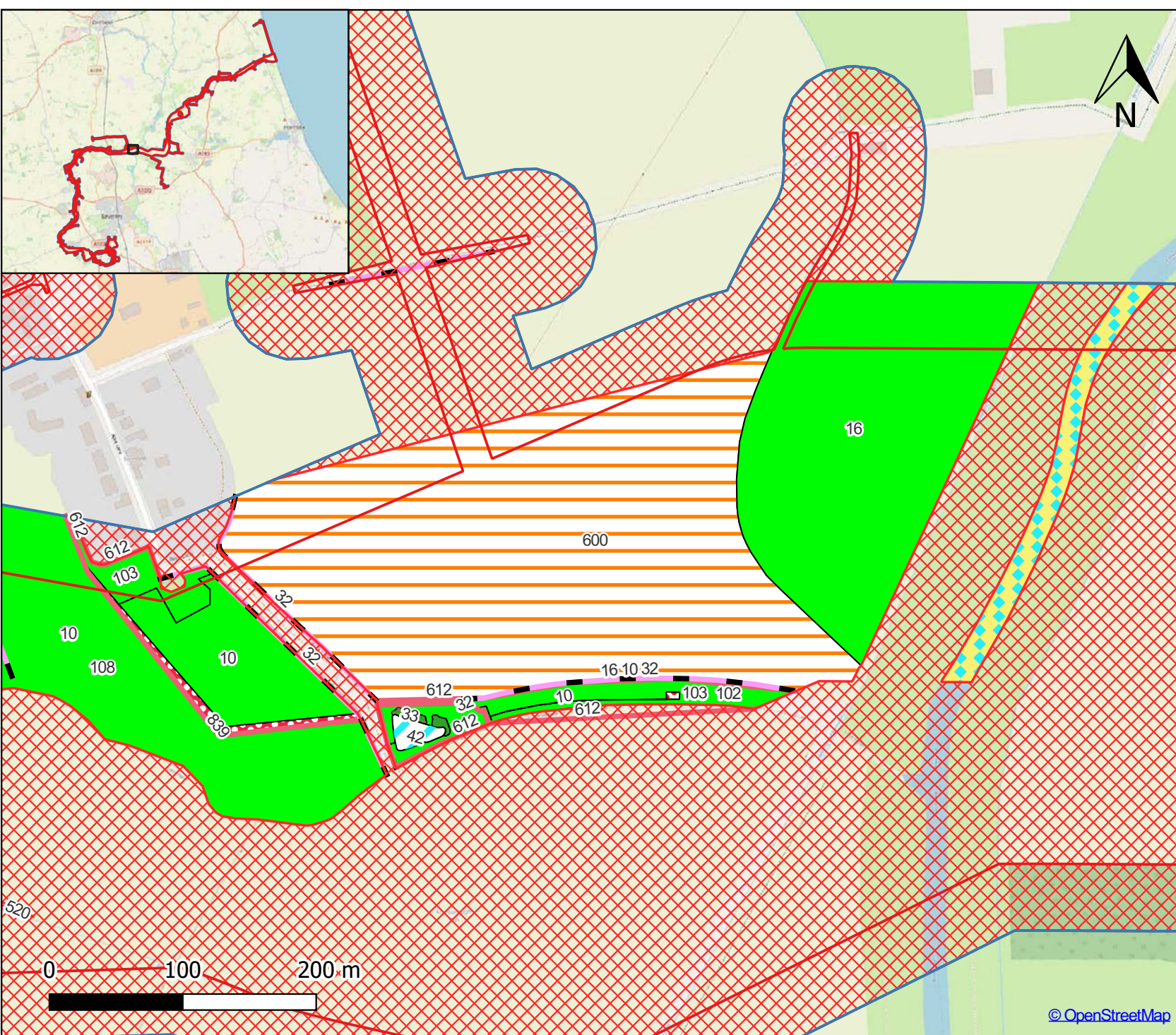
- Onshore Development Area
- Survey area
- No access areas
- h2 - hedgerow
- h2a - native hedgerow
- u1e - built linear feature
- h2a6 - other native hedgerow
- g4 - modified grassland
- w1d - wet woodland
- w1g - other broadleaved woodland
- c1c - cereal crops
- u1b - developed land; sealed surface
- u1b5 - buildings
- u1c - artificial unvegetated, unsealed surface
- u1e - built linear features
- r1 - standing open water and canals
- r2a6 - other priority habitat rivers

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map





Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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# Legend

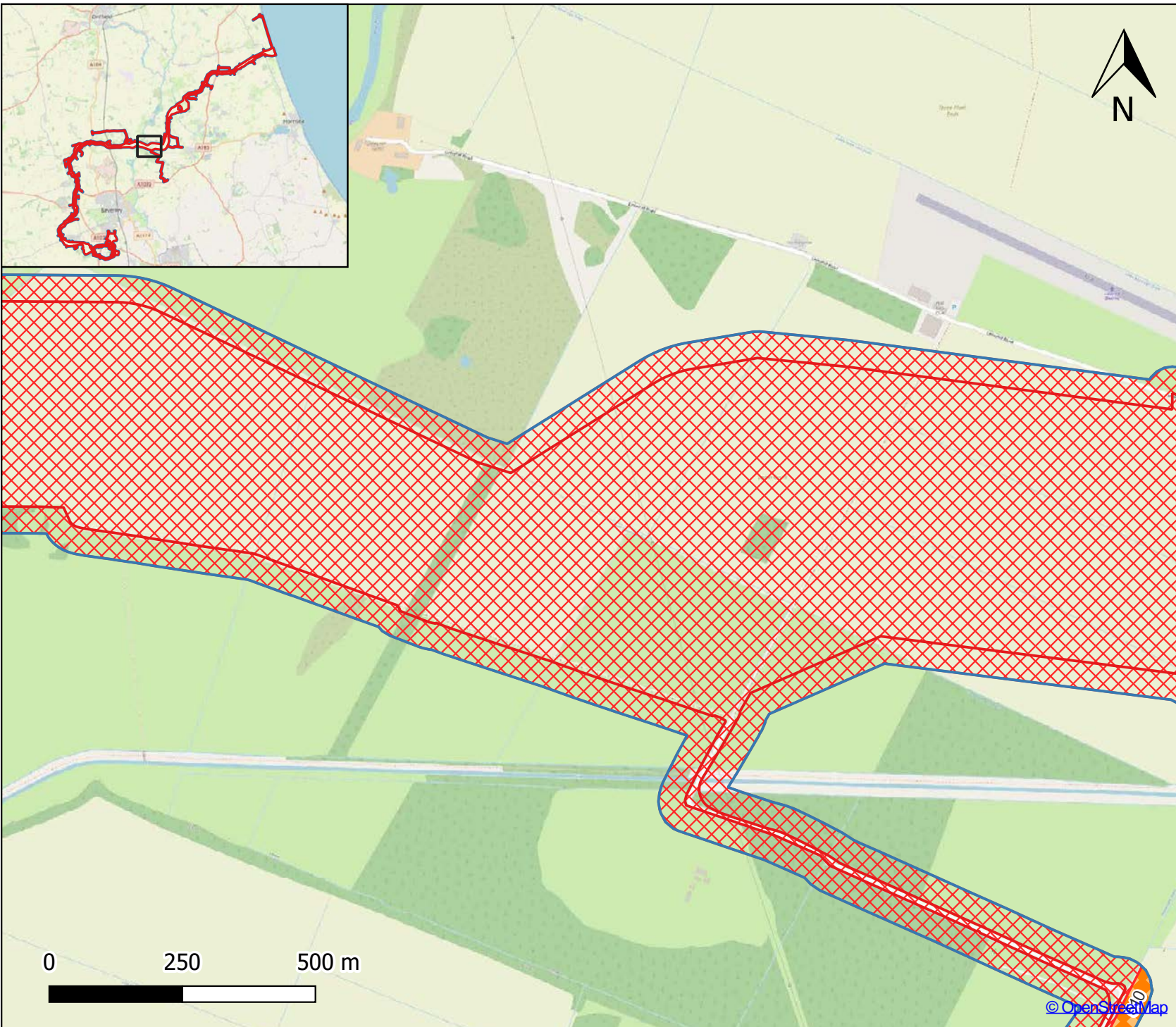
-  Onshore Development Area
-  Survey area
-  No access areas
-  c1d8 - other non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map





Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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# Legend

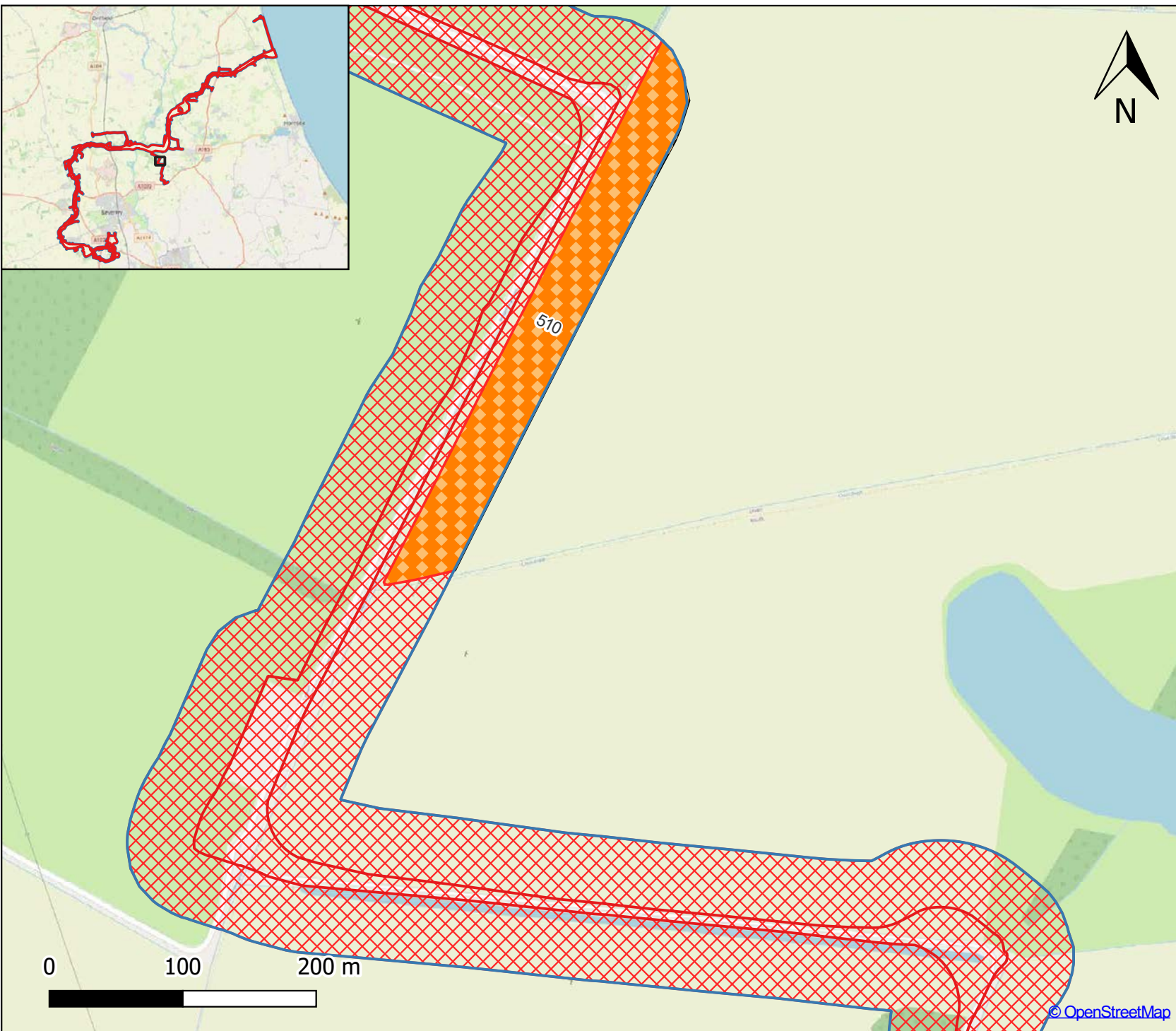
-  Onshore Development Area
-  Survey area
-  No access areas
-  c1d8 - other non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map




Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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#### Legend

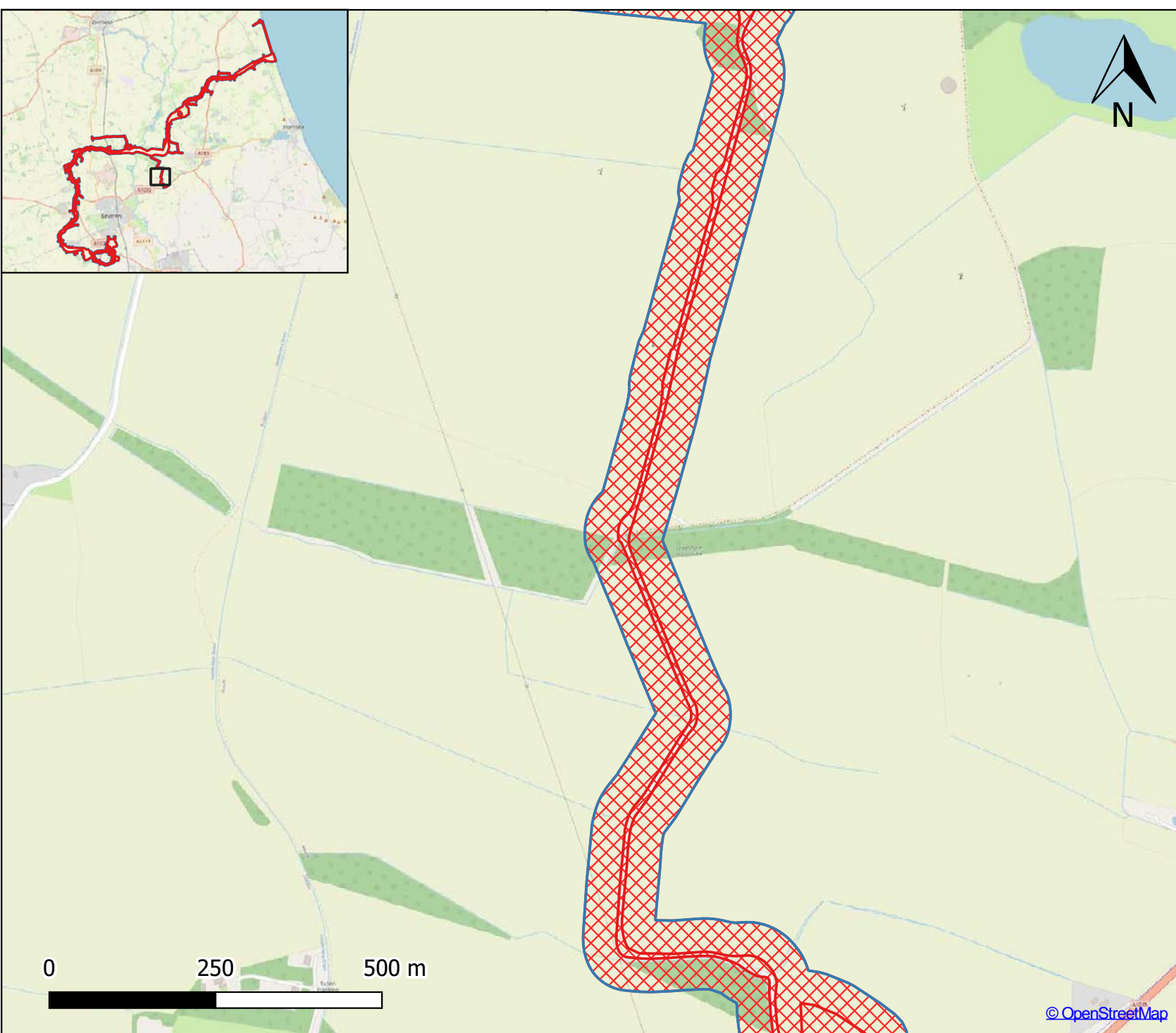
-  Onshore Development Area
-  Survey area
-  No access areas

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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#### Legend

-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  g3c - other neutral grassland
-  g4 - modified grassland
-  w1g - other broadleaved woodland
-  c1c7 - other cereal crops
-  u1e - built linear features

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map




Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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#### Legend

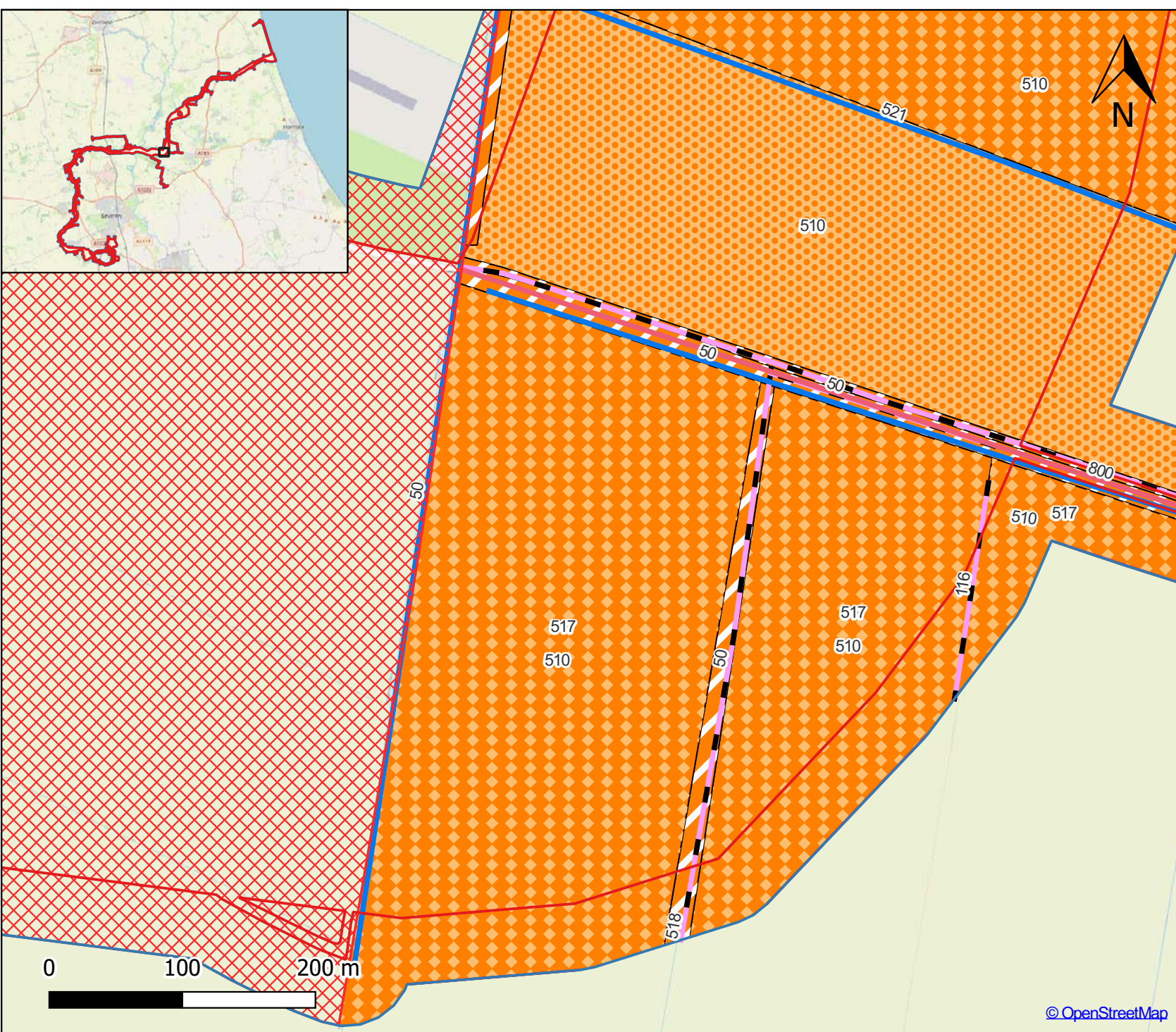
-  Onshore Development Area
-  Survey area
-  No access areas
-  u1e - built linear feature
-  r2b - other rivers and streams
-  h2a6 - other native hedgerow
-  c1a5 - arable field margins - tussocky
-  c1c7 - other cereal crops
-  c1d8 - other non-cereal crops

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ

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### Legend

- Onshore Development Area
- Survey area
- No access areas
- u1e - built linear feature
- r2b - other rivers and streams
- h2a6 - other native hedgerow
- g4 - modified grassland
- h3h - mixed scrub
- h3j - willow scrub
- c - cropland
- c1a5 - arable field margins - tussocky
- c1b - temporary grass and clover leys
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- u1b - developed land; sealed surface
- u1b5 - buildings
- u1b6 - other developed land

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map




Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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#### Legend

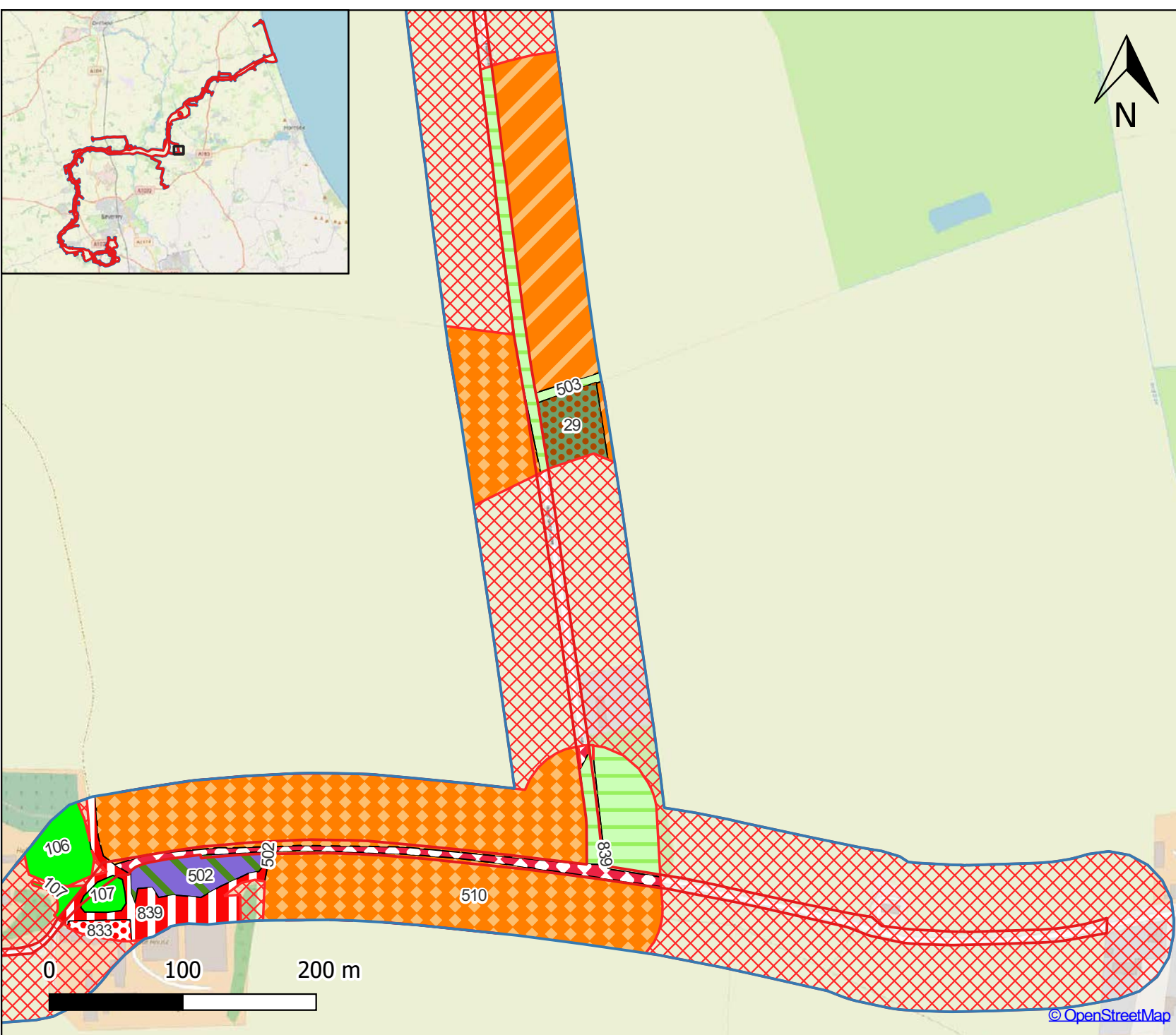
-  Onshore Development Area
-  Survey area
-  No access areas
-  g3c - other neutral grassland
-  g4 - modified grassland
-  w1h6 - other woodland; mixed; mainly conifer
-  h3h - mixed scrub
-  h3j - willow scrub
-  c1c5 - winter stubble
-  c1d8 - other non-cereal crops
-  u1b - developed land; sealed surface
-  u1b5 - buildings
-  u1b6 - other developed land

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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# Legend

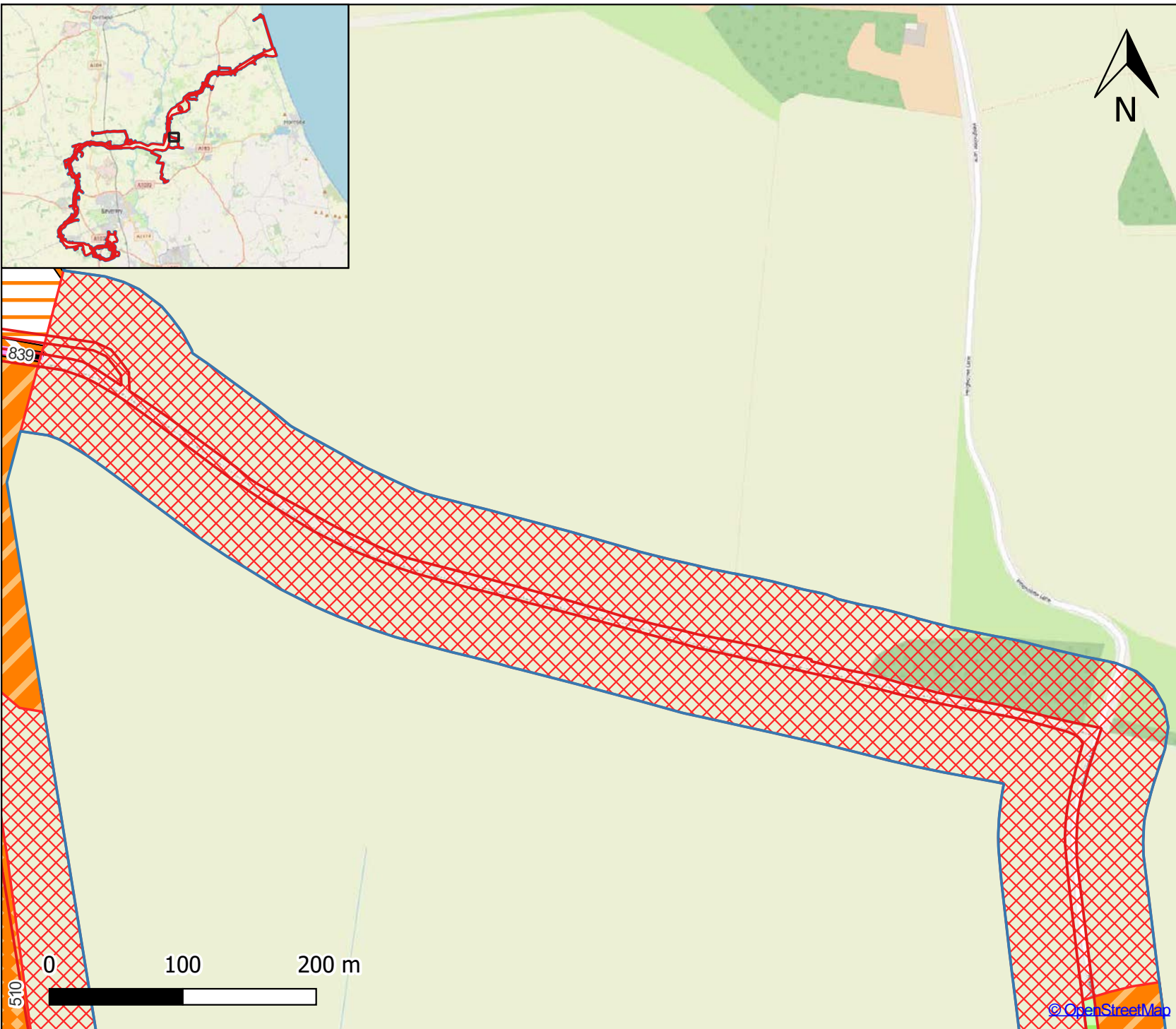
- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- c1a5 - arable field margins - tussocky
- c1a6 - arable field margins - pollen and nectar
- c1c - cereal crops
- c1c5 - winter stubble
- c1d - non-cereal crops
- c1d8 - other non-cereal crops
- u1e - built linear features

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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#### Legend

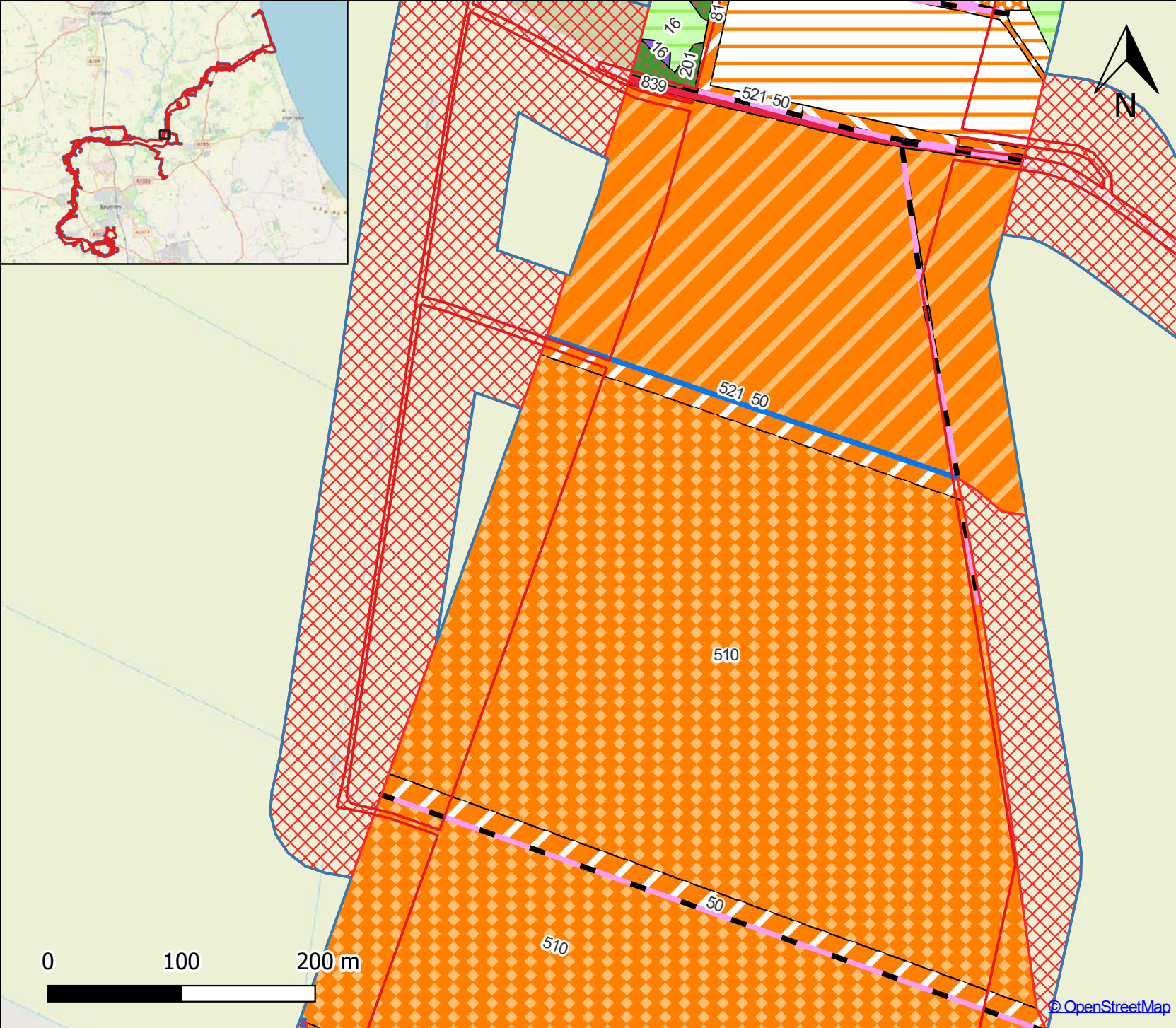
- Onshore Development Area
- Survey area
- No access areas
- r2b - other rivers and streams
- h2a6 - other native hedgerow
- g3c - other neutral grassland
- w1g - other broadleaved woodland
- h3h - mixed scrub
- h3j - willow scrub
- c1a5 - arable field margins - tussocky
- c1a6 - arable field margins - pollen and nectar
- c1c - cereal crops
- c1c5 - winter stubble
- c1c7 - other cereal crops
- c1d - non-cereal crops
- c1d8 - other non-cereal crops
- u1e - built linear features

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map












Revision	Date	Drawn by	Checked by
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# Legend

-  Onshore Development Area
-  Survey area
-  No access areas
-  r2b - other rivers and streams
-  h2a6 - other native hedgerow
-  g3c - other neutral grassland
-  w1g - other broadleaved woodland
-  c1a5 - arable field margins - tussocky
-  c1c - cereal crops
-  c1c5 - winter stubble
-  c1d - non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map


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#### Legend

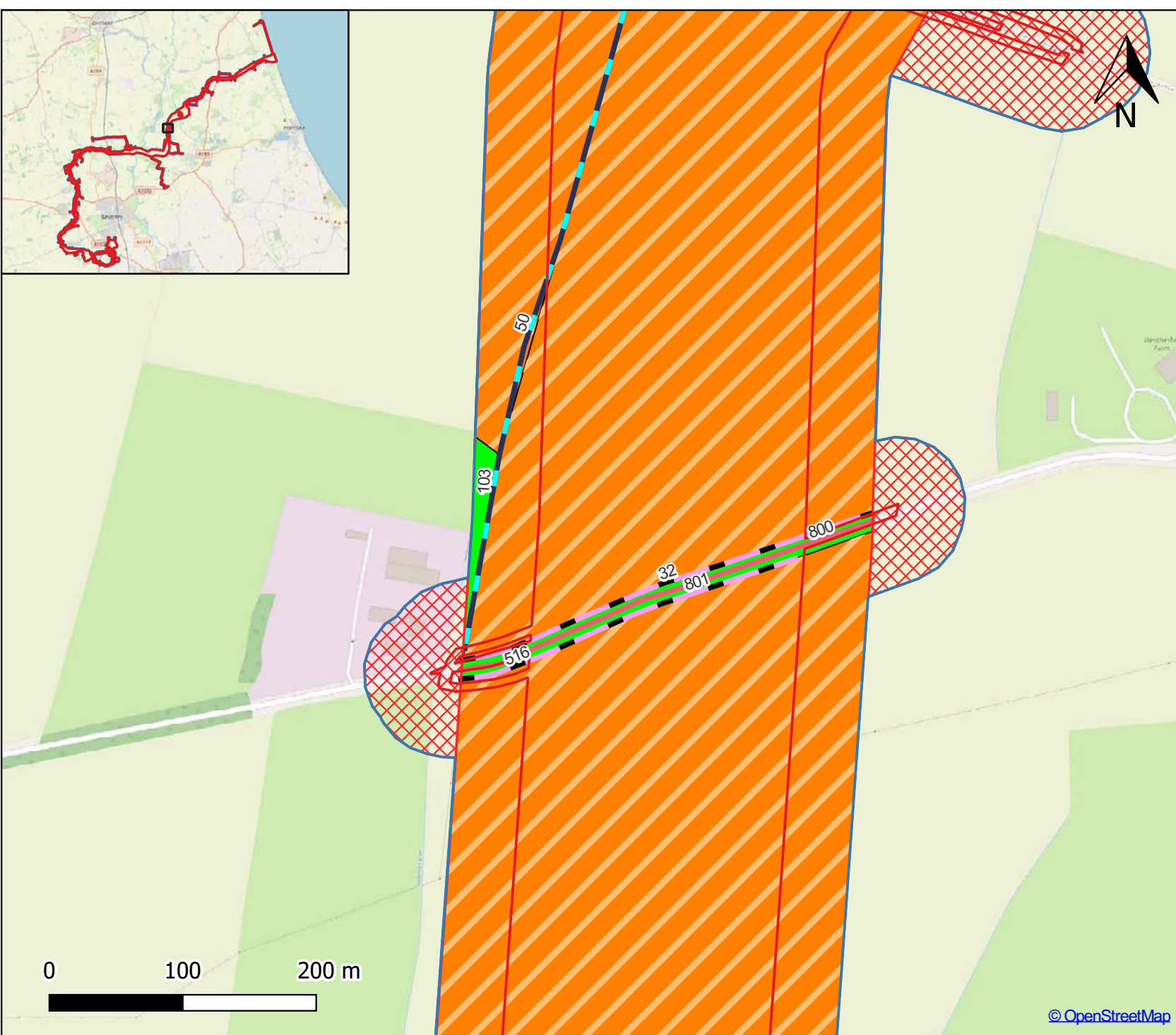
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a - native hedgerow
-  u1e - built linear feature
-  r1g - other standing water
-  g4 - modified grassland
-  c1c5 - winter stubble

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map





Revision	Date	Drawn by	Checked by
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#### Legend

-  Onshore Development Area
-  Survey area
-  No access areas
-  u1e - built linear feature
-  r1g - other standing water
-  r1 - standing open water and canals (ditches)
-  g4 - modified grassland
-  c - cropland
-  c1c5 - winter stubble
-  c1d - non-cereal crops
-  u1e - built linear features

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- u1e - built linear feature
- r1e - canal
- h2a6 - other native hedgerow
- r1g - other standing water
- w1g - other broadleaved woodland
- r1 - standing open water and canals (ditches)
- g3c - other neutral grassland
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- h3h - mixed scrub
- h3j - willow scrub
- f2e - reedbeds
- c1c5 - winter stubble
- c1d - non-cereal crops
- u1c - artificial unvegetated, unsealed surface
- u1e - built linear features
- r1 - standing open water and canals

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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# Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- r1e - canal
- h2a6 - other native hedgerow
- r1g - other standing water
- w1g - other broadleaved woodland
- g3c - other neutral grassland
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- h3f - hawthorn scrub
- h3h - mixed scrub
- h3j - willow scrub
- f2e - reedbeds
- c1c5 - winter stubble
- c1c7 - other cereal crops
- u1b5 - buildings
- u1c - artificial unvegetated, unsealed surface
- u1e - built linear features
- r1 - standing open water and canals

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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#### Legend

- Onshore Development Area
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- No access areas
- h2a - native hedgerow
- h2a6 - other native hedgerow
- r1g - other standing water
- w1g - other broadleaved woodland
- g3c - other neutral grassland
- g4 - modified grassland
- w1f - lowland mixed deciduous woodland
- w1g - other broadleaved woodland
- h3h - mixed scrub
- h3j - willow scrub
- c1c5 - winter stubble
- u1b5 - buildings
- u1b6 - other developed land
- u1c - artificial unvegetated, unsealed surface
- r1 - standing open water and canals

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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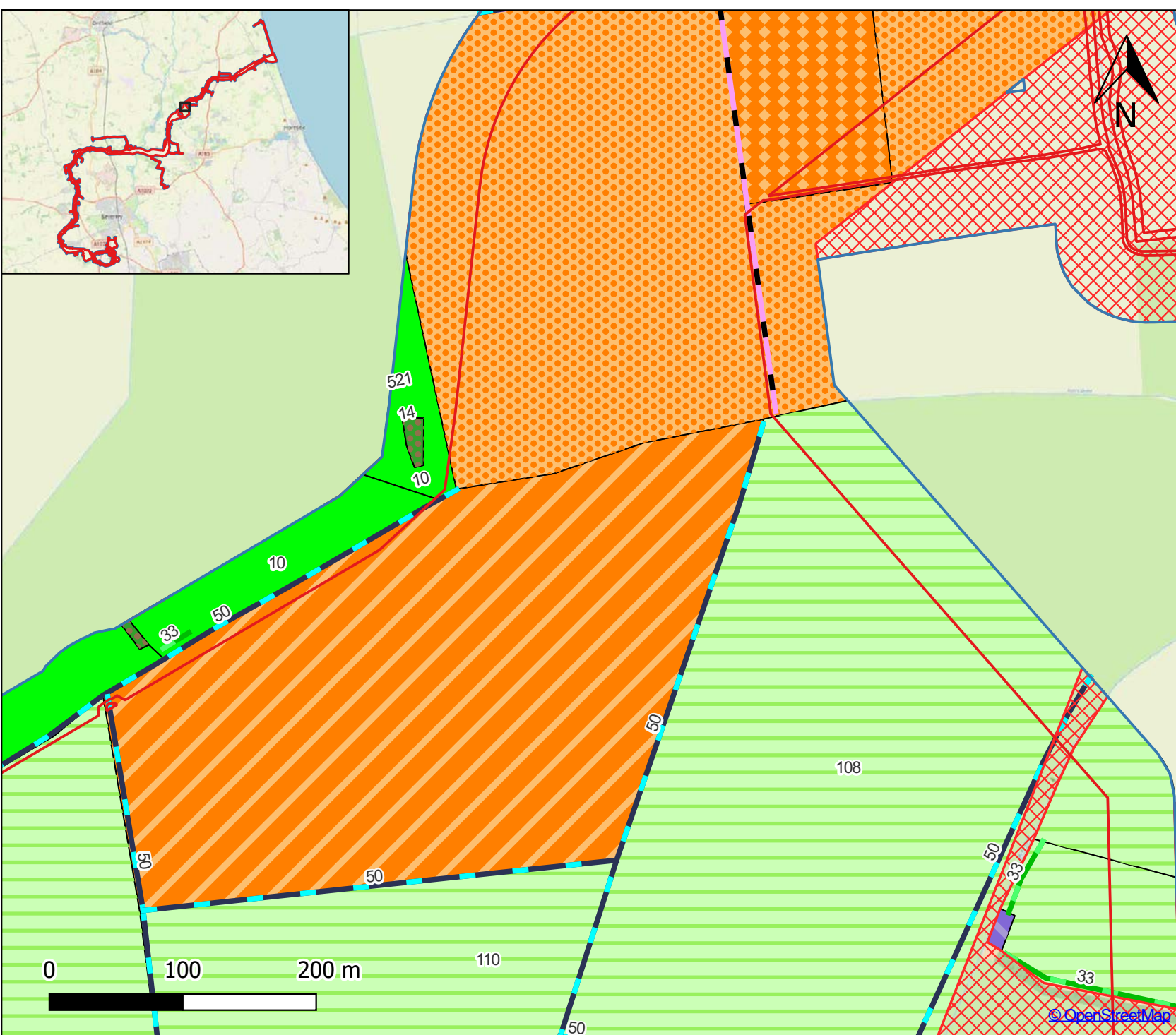
- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- r1g - other standing water
- w1g - other broadleaved woodland
- g3c - other neutral grassland
- g4 - modified grassland
- w1g - other broadleaved woodland
- h3a - blackthorn scrub
- c1c5 - winter stubble
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map








Revision	Date	Drawn by	Checked by
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# Legend

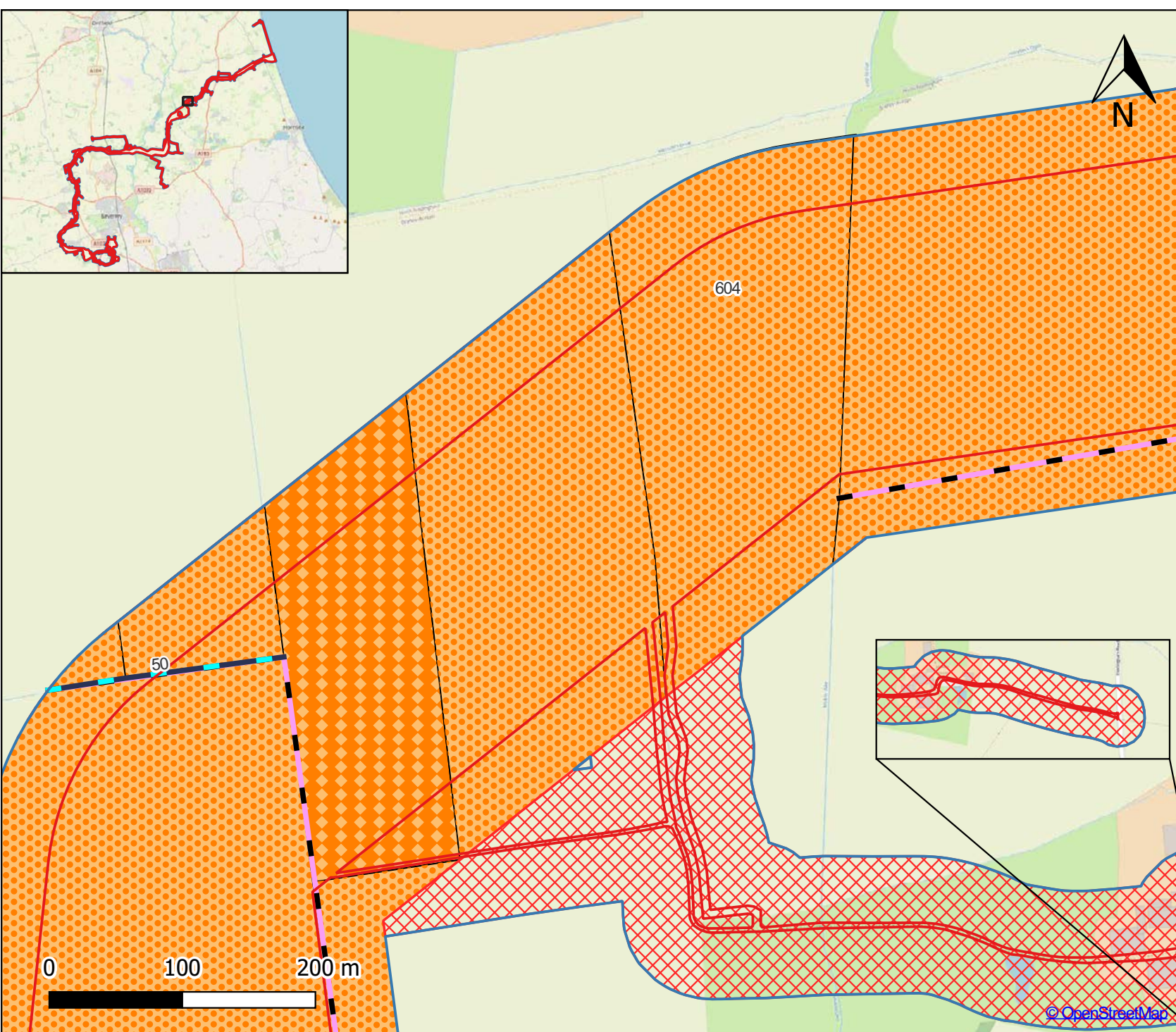
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  r1g - other standing water
-  c1c7 - other cereal crops
-  c1d8 - other non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map








Revision	Date	Drawn by	Checked by
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#### Legend

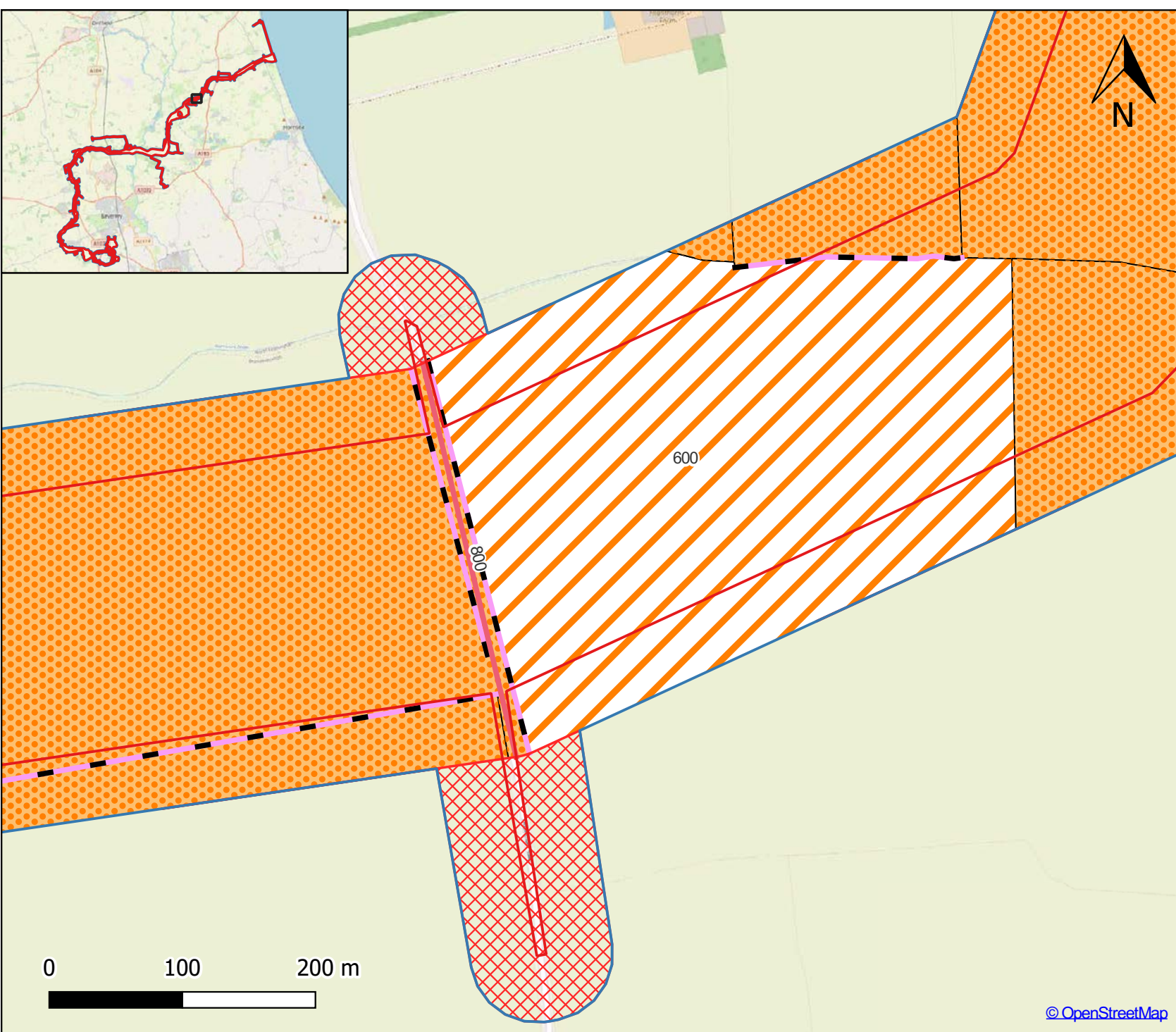
-  Onshore Development Area
-  Survey area
-  No access areas
-  u1e - built linear feature
-  h2a6 - other native hedgerow
-  c1 - arable and horticulture
-  c1c7 - other cereal crops

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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#### Legend

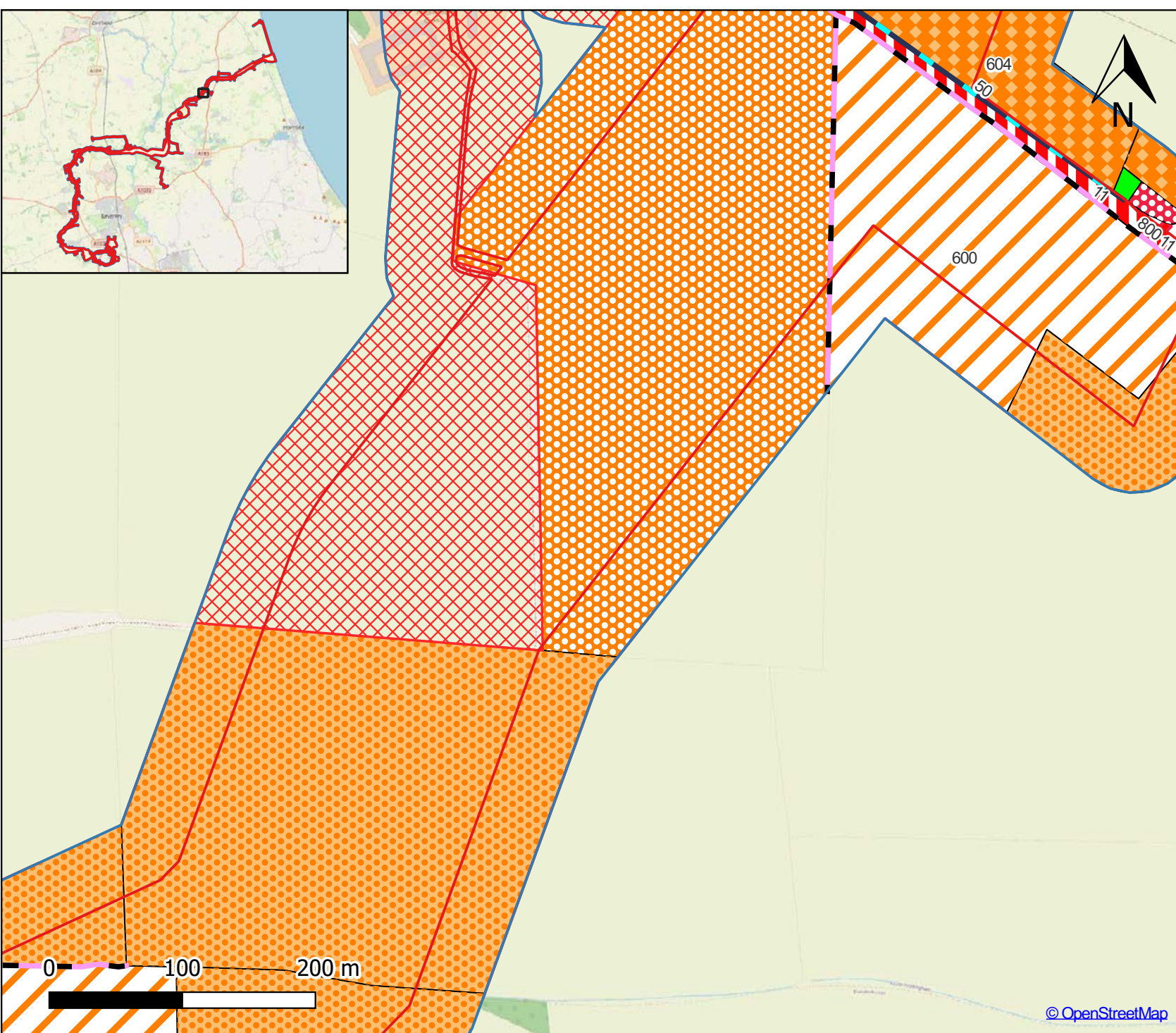
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  r1g - other standing water
-  g4 - modified grassland
-  c1 - arable and horticulture
-  c1c7 - other cereal crops
-  c1d - non-cereal crops
-  c1d8 - other non-cereal crops
-  u1b - developed land; sealed surface
-  u1c - artificial unvegetated, unsealed surface
-  u1d - suburban mosaic of developed and natural surface

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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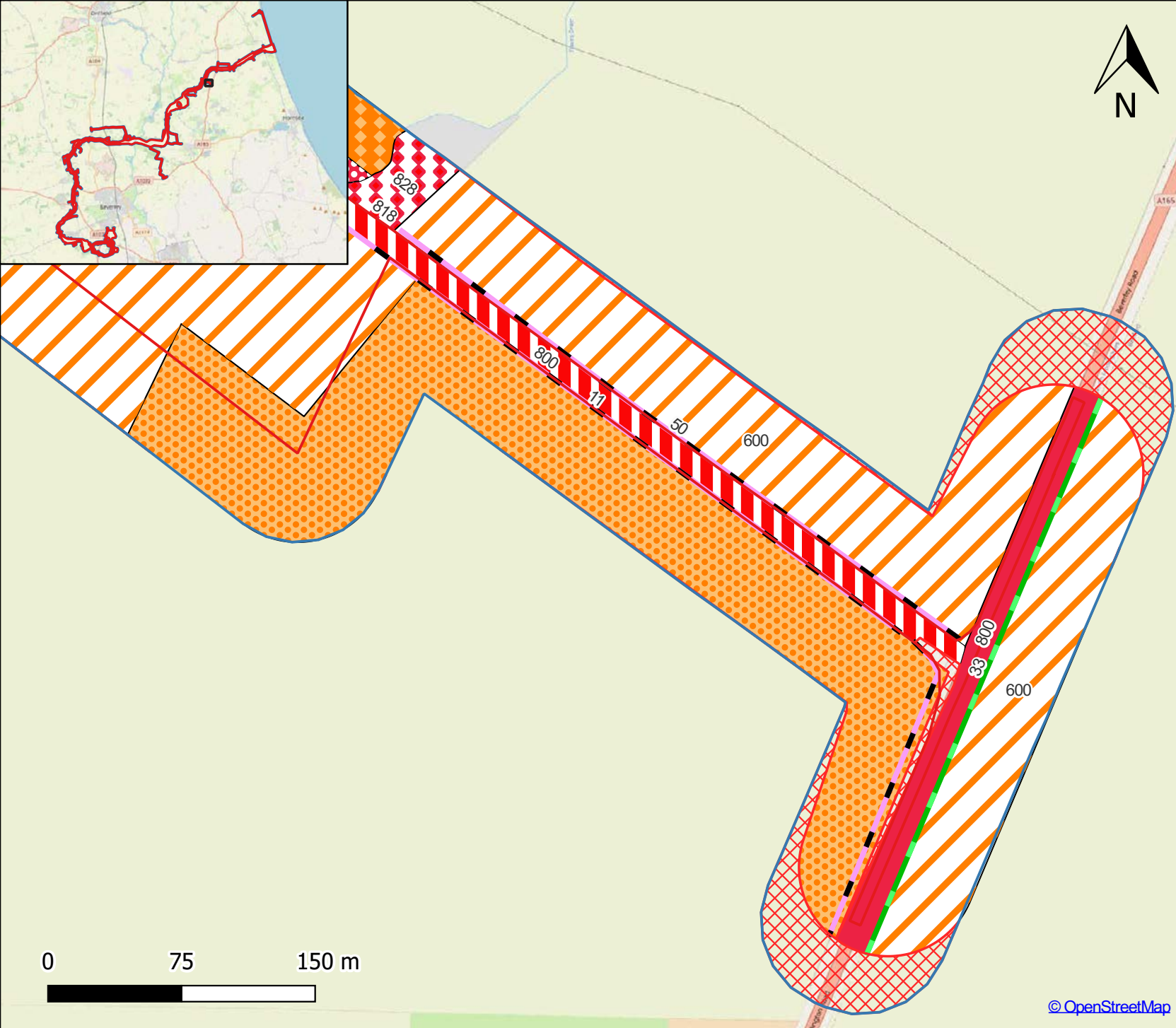
- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- h2a6 - other native hedgerow
- r1g - other standing water
- w1g - other broadleaved woodland
- g4 - modified grassland
- c1 - arable and horticulture
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- u1b - developed land; sealed surface
- u1c - artificial unvegetated, unsealed surface
- u1d - suburban mosaic of developed and natural surface
- u1e - built linear features

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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




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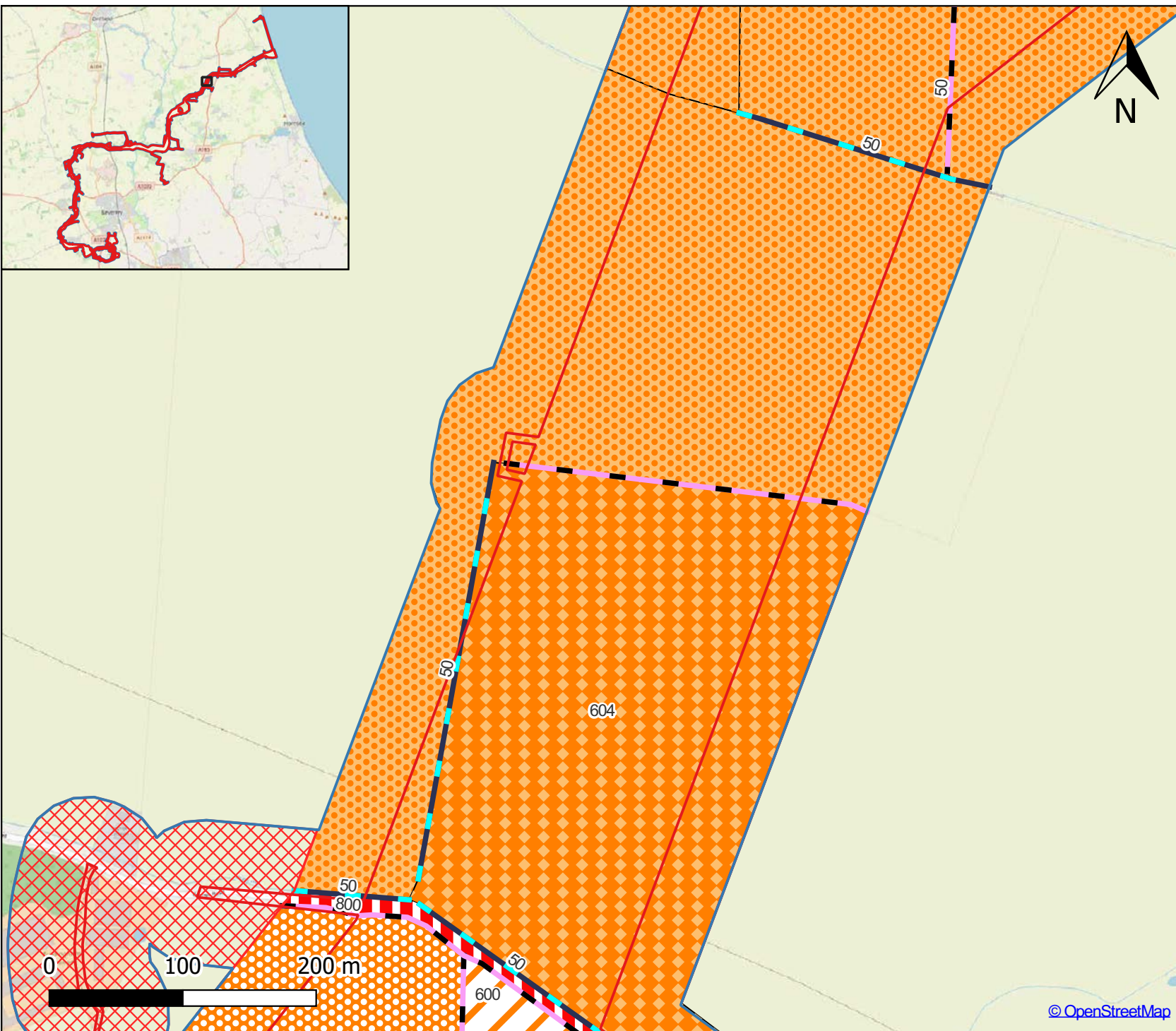
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  r1g - other standing water
-  c1 - arable and horticulture
-  c1c7 - other cereal crops
-  c1d - non-cereal crops
-  c1d8 - other non-cereal crops
-  u1b - developed land; sealed surface

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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#### Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g4 - modified grassland
- c1b5 - rye-grass and clover ley
- c1c7 - other cereal crops

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map













Revision	Date	Drawn by	Checked by
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# Legend

-  Onshore Development Area
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-  u1e - built linear feature
-  h2a6 - other native hedgerow
-  g4 - modified grassland
-  c1 - arable and horticulture
-  c1b5 - rye-grass and clover ley
-  c1c5 - winter stubble
-  c1c7 - other cereal crops
-  c1d8 - other non-cereal crops
-  u1b - developed land; sealed surface

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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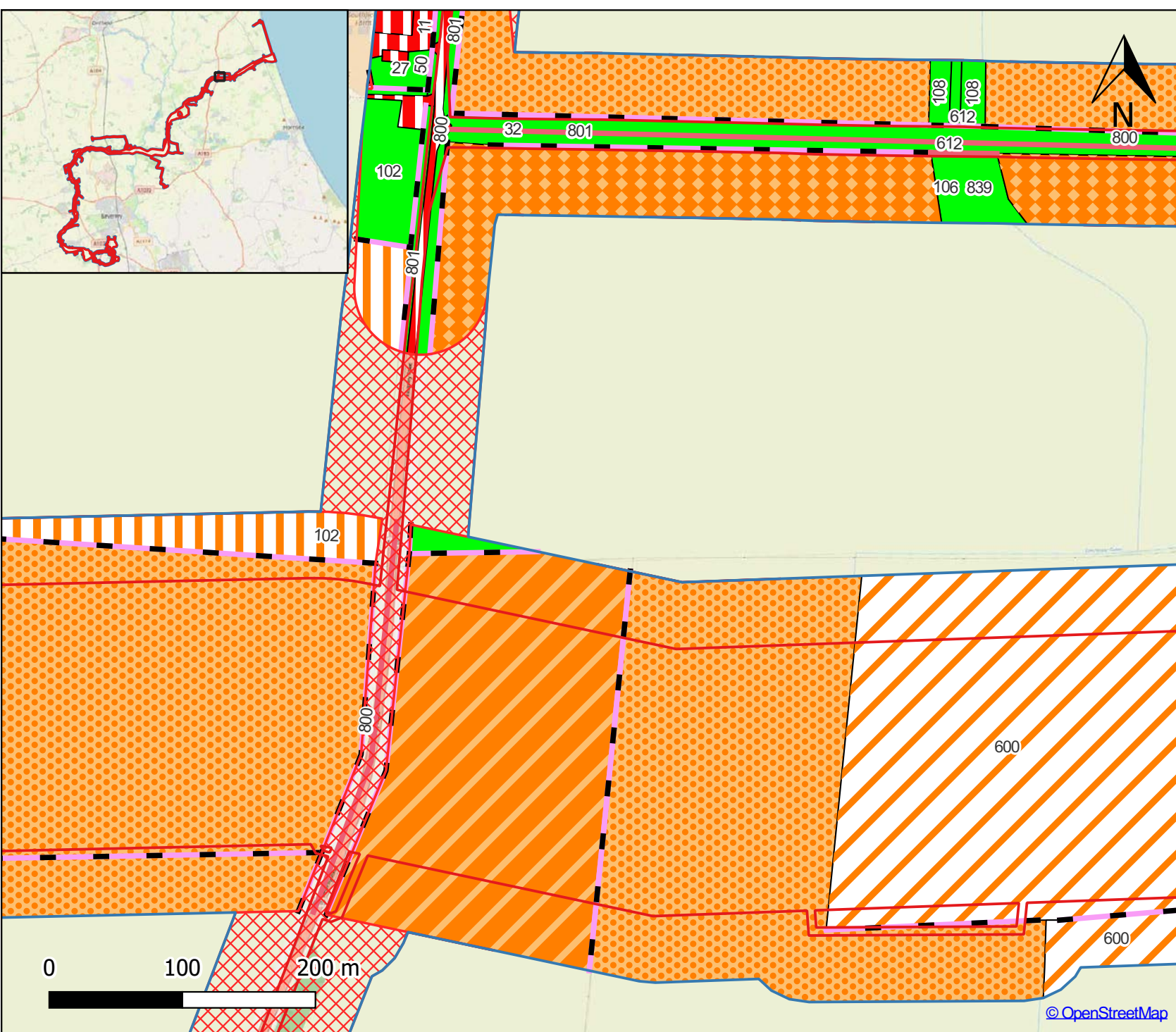
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- u1e - built linear feature
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- g4 - modified grassland
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- c1b5 - rye-grass and clover ley
- c1c5 - winter stubble
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- u1b - developed land; sealed surface

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

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UKHab map

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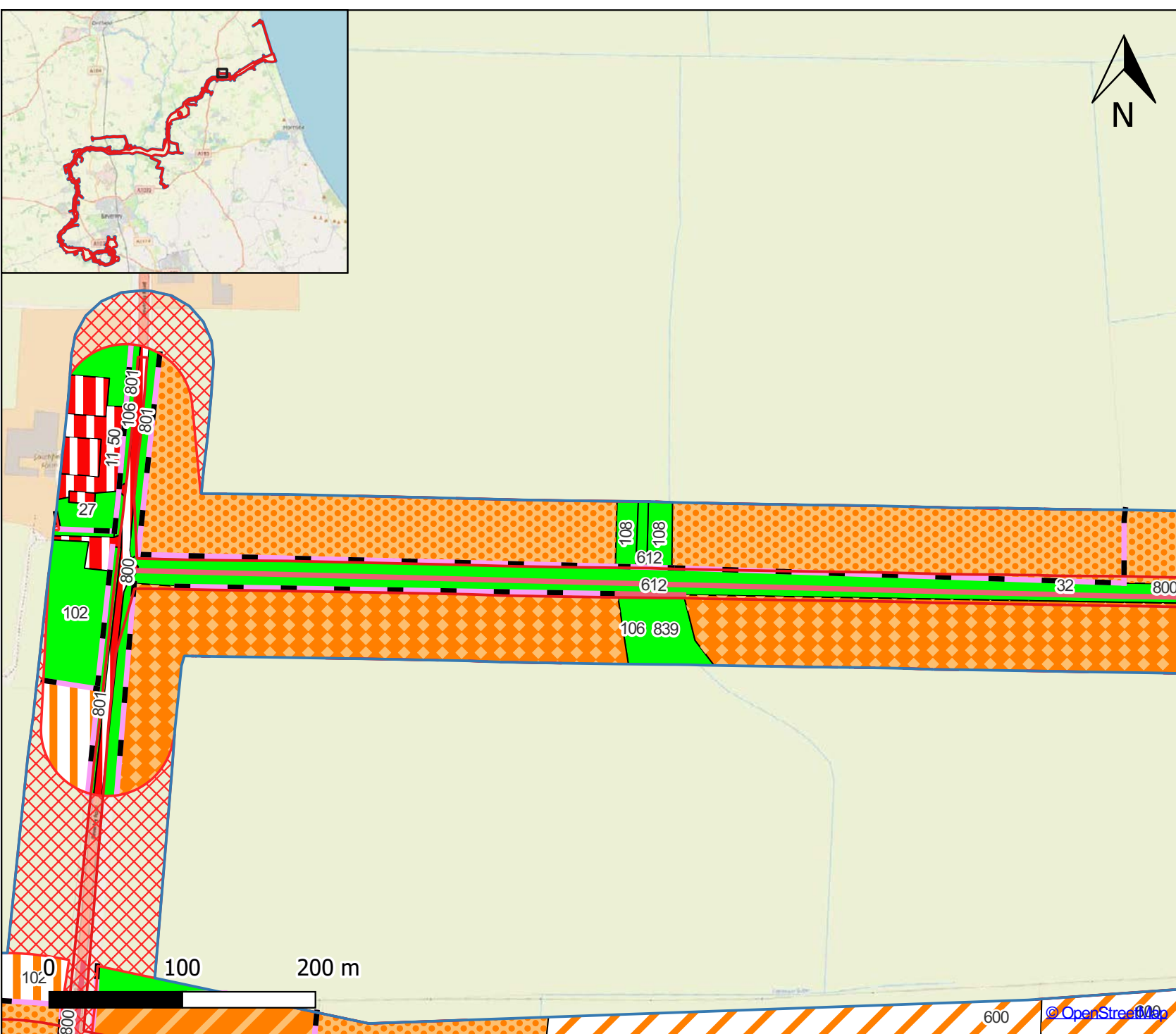
- Onshore Development Area
- Survey area
- No access areas
- u1e - built linear feature
- h2a6 - other native hedgerow
- r1g - other standing water
- g4 - modified grassland
- c1 - arable and horticulture
- c1b5 - rye-grass and clover ley
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### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

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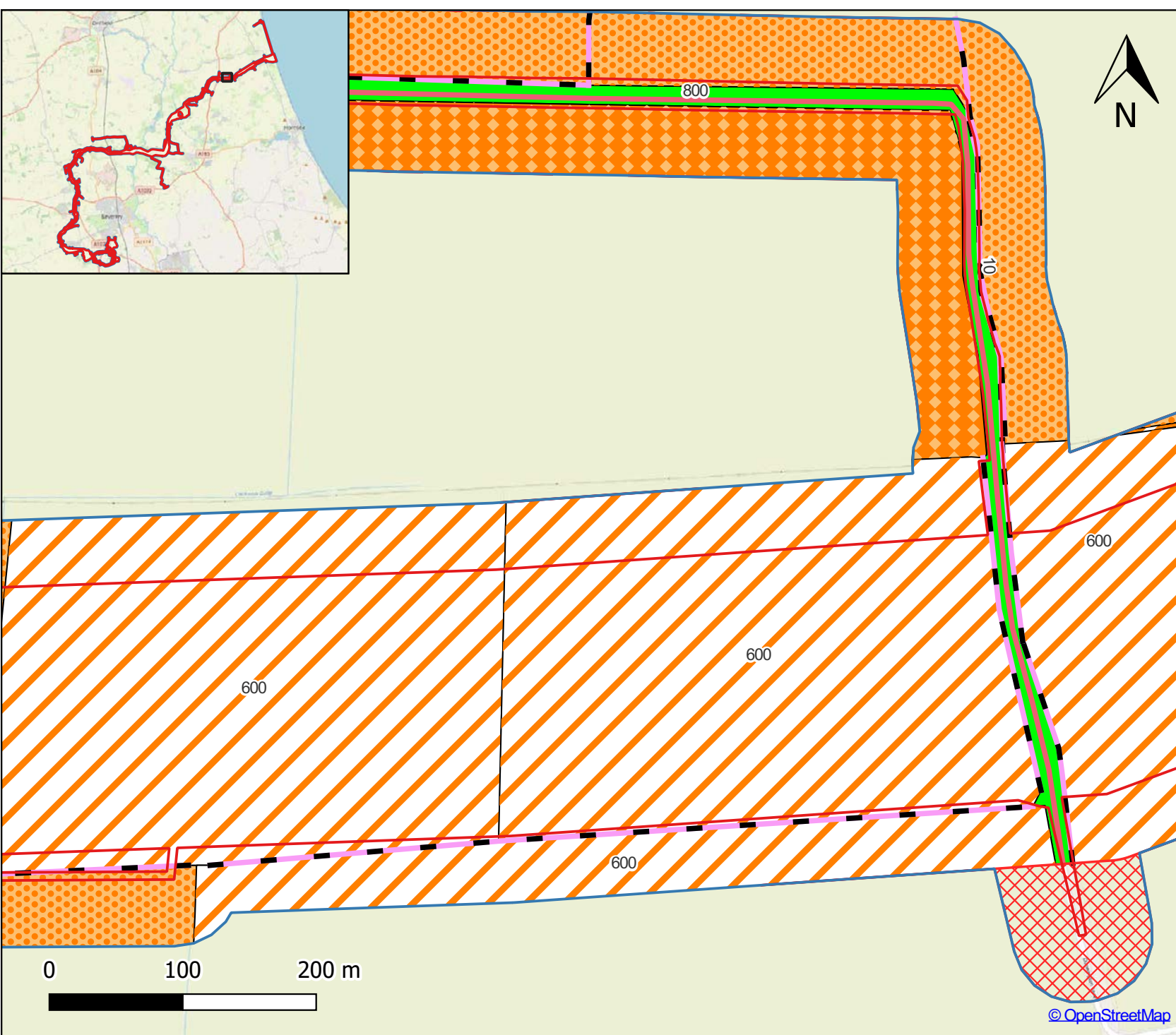
- Onshore Development Area
- Survey area
- No access areas
- u1e - built linear feature
- h2a6 - other native hedgerow
- g4 - modified grassland
- c1 - arable and horticulture
- c1a5 - arable field margins - tussocky
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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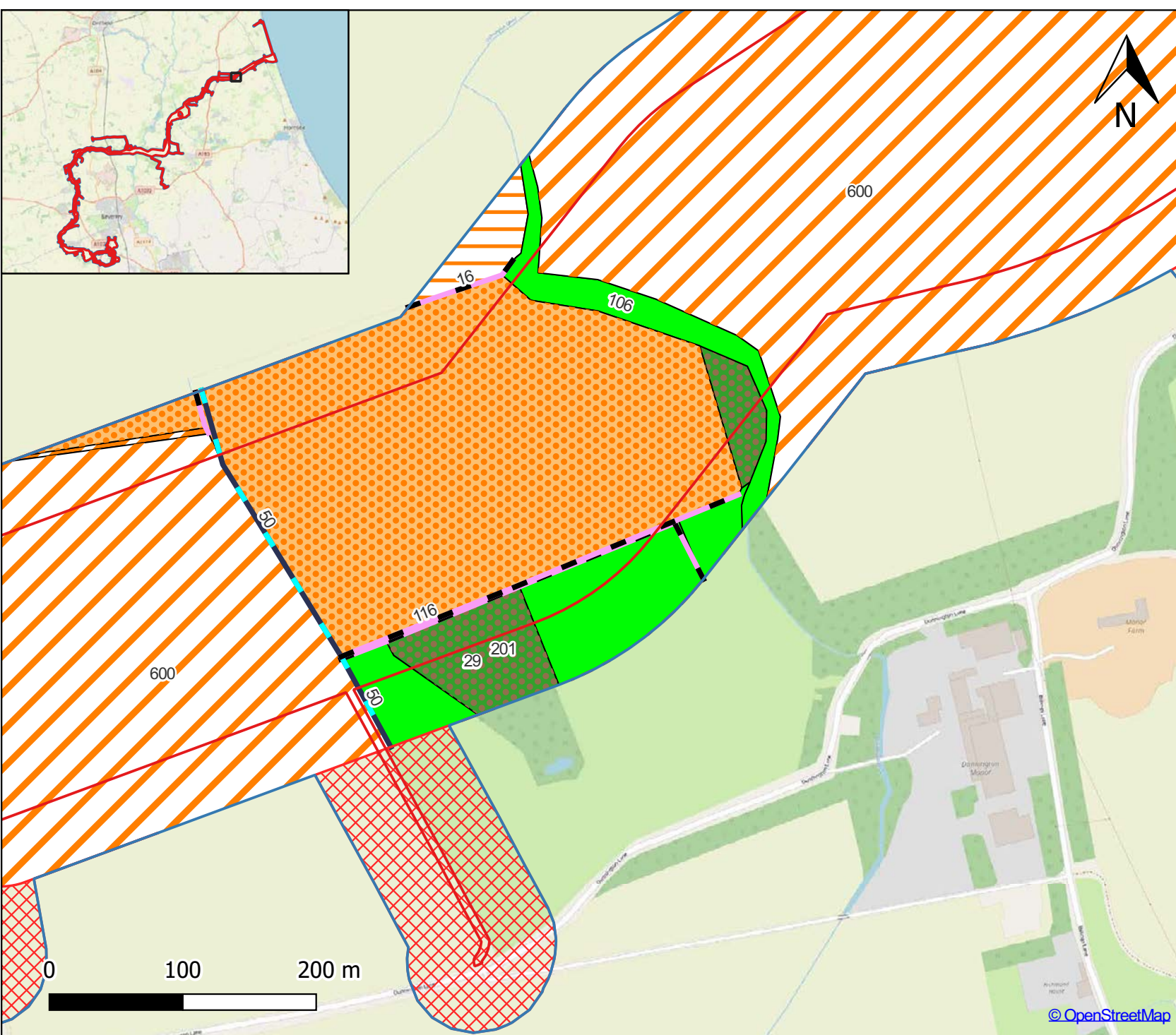
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a - native hedgerow
-  h2a6 - other native hedgerow
-  r1g - other standing water
-  g4 - modified grassland
-  w1g - other broadleaved woodland
-  c1 - arable and horticulture
-  c1a5 - arable field margins - tussocky
-  c1c - cereal crops
-  c1c7 - other cereal crops

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
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C	15/01/2025	SW	LS
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#### Legend

- Onshore Development Area
- Survey area
- No access areas
- h2a6 - other native hedgerow
- g4 - modified grassland
- c1 - arable and horticulture
- c1c7 - other cereal crops

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map










Revision	Date	Drawn by	Checked by
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# Legend

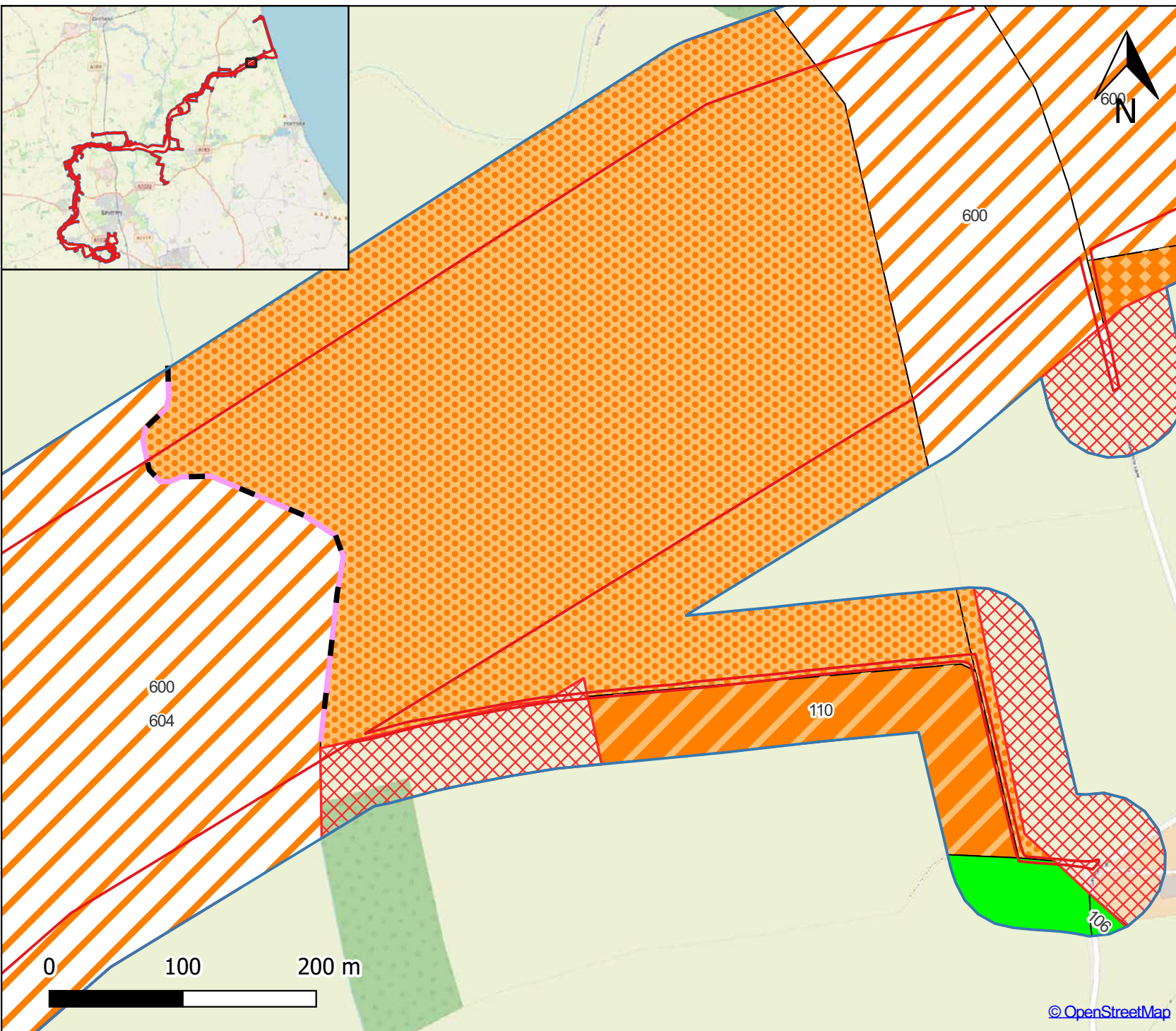
-  Onshore Development Area
-  Survey area
-  No access areas
-  h2a6 - other native hedgerow
-  g4 - modified grassland
-  c1 - arable and horticulture
-  c1c5 - winter stubble
-  c1c7 - other cereal crops
-  c1d8 - other non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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D	02/04/2025	SW	RJJ

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# Legend

- Onshore Development Area
- Survey area
- No access areas
- r2b - other rivers and streams
- h2a6 - other native hedgerow
- g3c8 - Holcus-Juncus neutral grassland
- w1g - other broadleaved woodland
- c1 - arable and horticulture
- c1a5 - arable field margins - tussocky
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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#### Legend

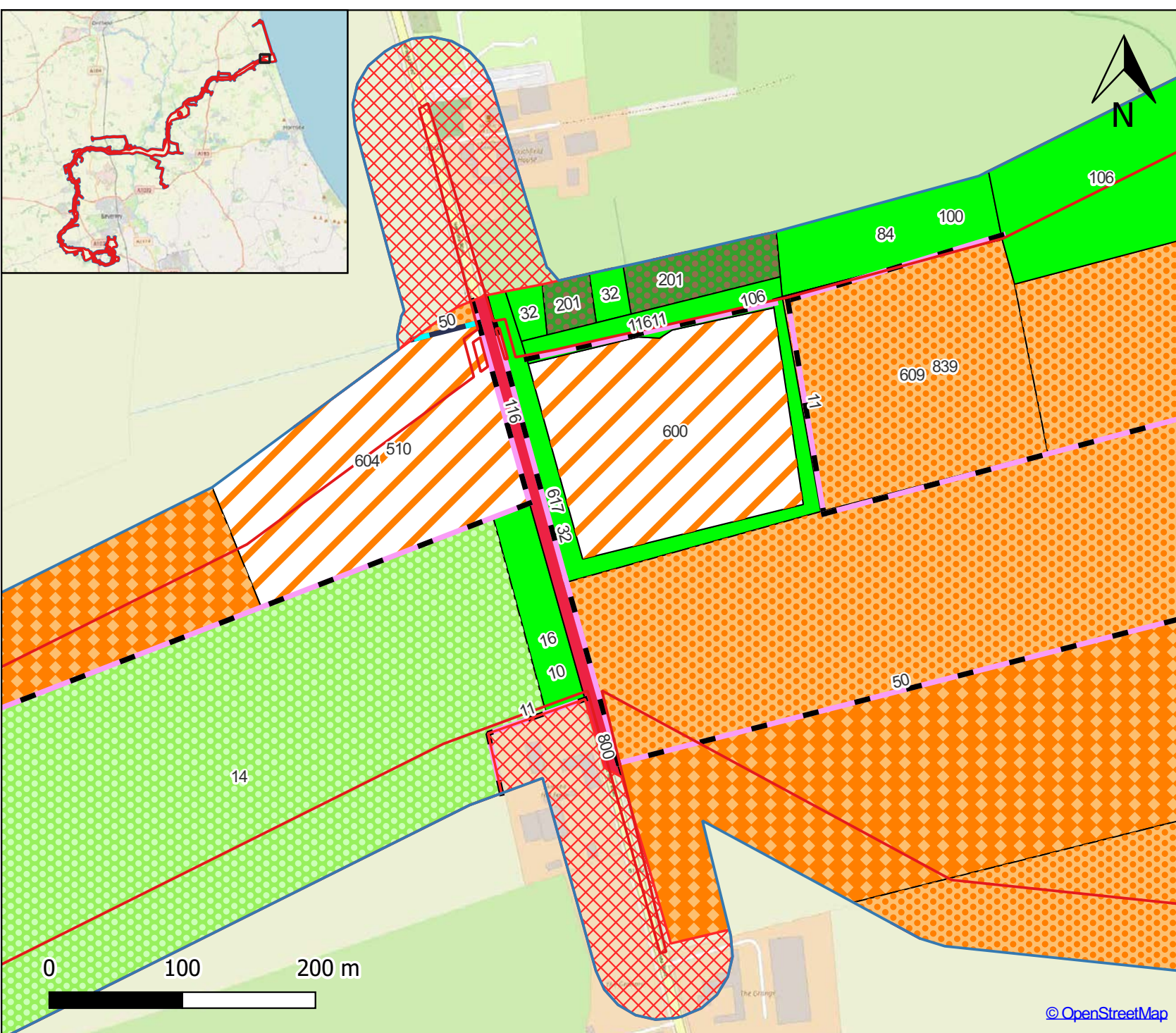
- Onshore Development Area
- Survey area
- No access areas
- h2a - native hedgerow
- h2a6 - other native hedgerow
- r1g - other standing water
- g3c8 - Holcus-Juncus neutral grassland
- g4 - modified grassland
- w1g - other broadleaved woodland
- c1 - arable and horticulture
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- u1e - built linear features

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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# Legend

- Onshore Development Area
- Survey area
- X No access areas
- h2a6 - other native hedgerow
- r1g - other standing water
- g3c - other neutral grassland
- g4 - modified grassland
- w2c - other coniferous woodland
- c1c7 - other cereal crops
- c1d8 - other non-cereal crops
- s - sparsely vegetated land
- t2h - beach

## Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

Revision	Date	Drawn by	Checked by
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#### Legend

-  Onshore Development Area
-  Survey area
-  No access areas

### Royal HaskoningDHV Dogger Bank D Preliminary Ecological Appraisal

Figure 2  
UKHab map

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0 250 500 m





### **Figure 3: Biological Records within 2 km of the site**



### Legend

- Onshore Development Area
- 2 km buffer
- ▲ Great Crested Newts
- ▲ Great Crested Newt (GCN) Positive Licence Returns
- ▲ Badger
- ▲ Otter
- ▲ Water Vole
- Reptile
- Hedgehog
- Hare
- ▲ Fish
- Invertebrates
- Invasive Non-Native Species (INNS)

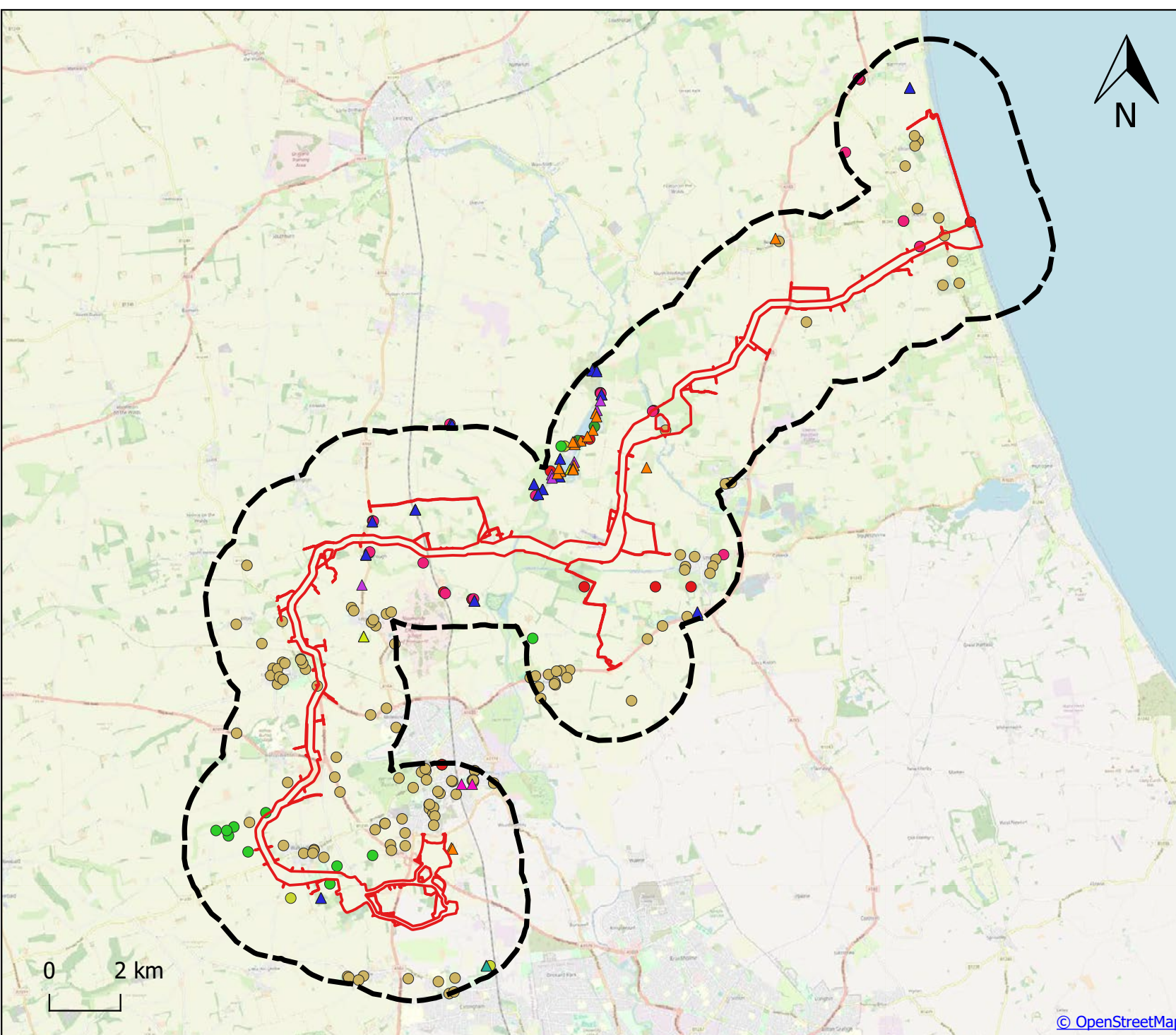
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Figure 3  
Biological Records with 2 km

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**Figure 4: Statutory designated sites of international or European importance within 10 km of the site**



#### Legend

- Onshore Development Area
- 10 km buffer
- Ramsar
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)

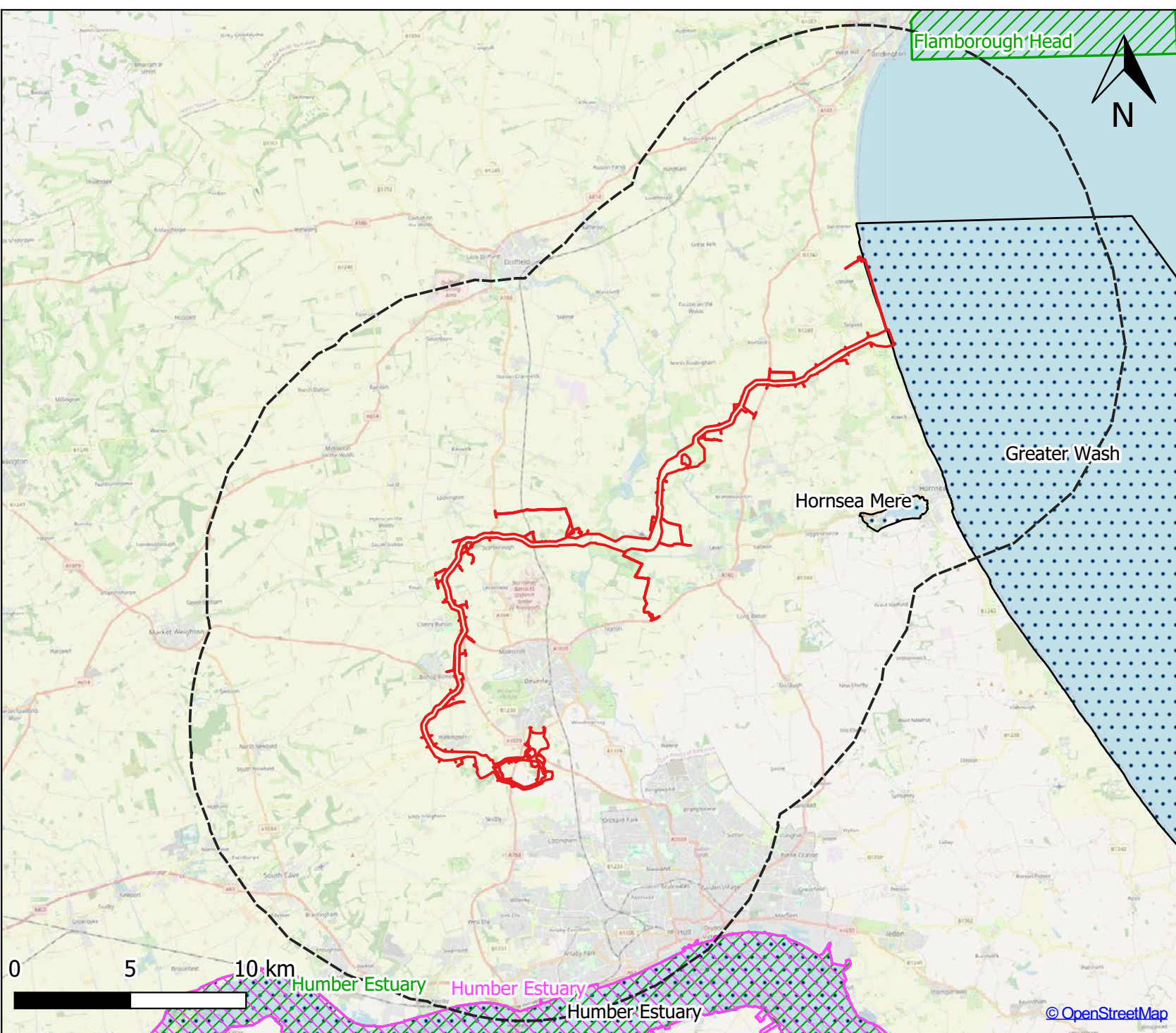
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**Figure 4**  
**International/ European Statutory**  
**Designated Sites within 10 km**

Rev	Date	Drawn by	Checked by
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**Figure 5: Statutory designated sites of national or less than national importance within 2 km of the site**



#### Legend

- Onshore Development Area
- 5 km buffer
- Sites of Special Scientific Interest (SSSI)
- Local Nature Reserves (LNR)

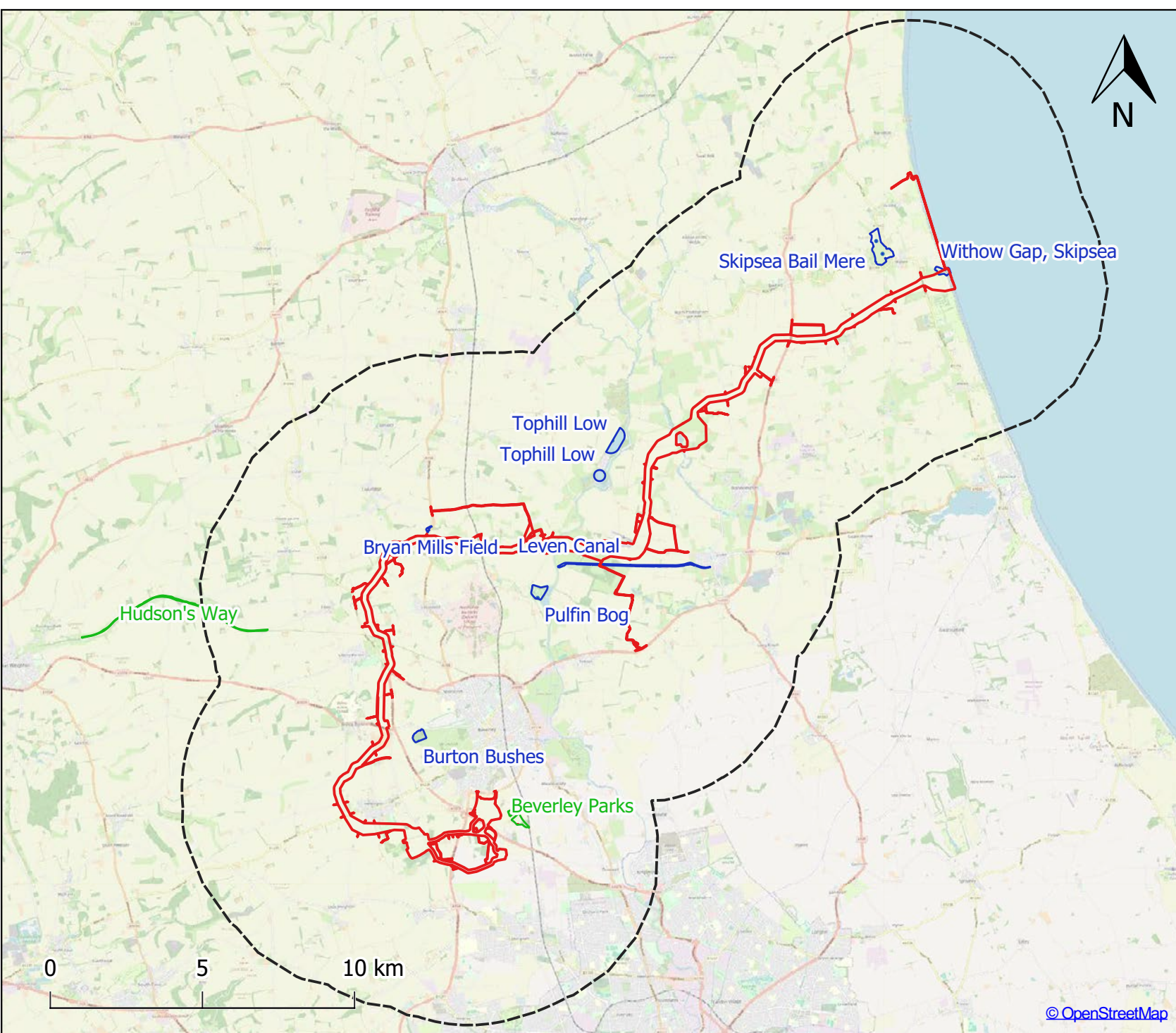
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Figure 5  
National Statutory Designated Sites  
within 5 km

Rev	Date	Drawn by	Checked by
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#### Legend

- Onshore Development Area
- 5 km buffer
- Sites of Special Scientific Interest (SSSI)
- Local Nature Reserves (LNR)

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Figure 5  
National Statutory Designated Sites  
within 5 km

Rev	Date	Drawn by	Checked by
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#### Legend

- Onshore Development Area
- 5 km buffer
- Sites of Special Scientific Interest (SSSI)
- Local Nature Reserves (LNR)

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Figure 5  
National Statutory Designated Sites  
within 5 km

Rev	Date	Drawn by	Checked by
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#### Legend

- Onshore Development Area
- 5 km buffer
- Sites of Special Scientific Interest (SSSI)
- Local Nature Reserves (LNR)

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Figure 5  
National Statutory Designated Sites  
within 5 km

Rev	Date	Drawn by	Checked by
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## **Figure 6: Non-statutory designated sites within 2 km of the site**



## Legend

-  Site Boundary
-  2 km buffer
-  Yorkshire Wildlife Trust (YWT)
-  Local Wildlife Sites (LWS)

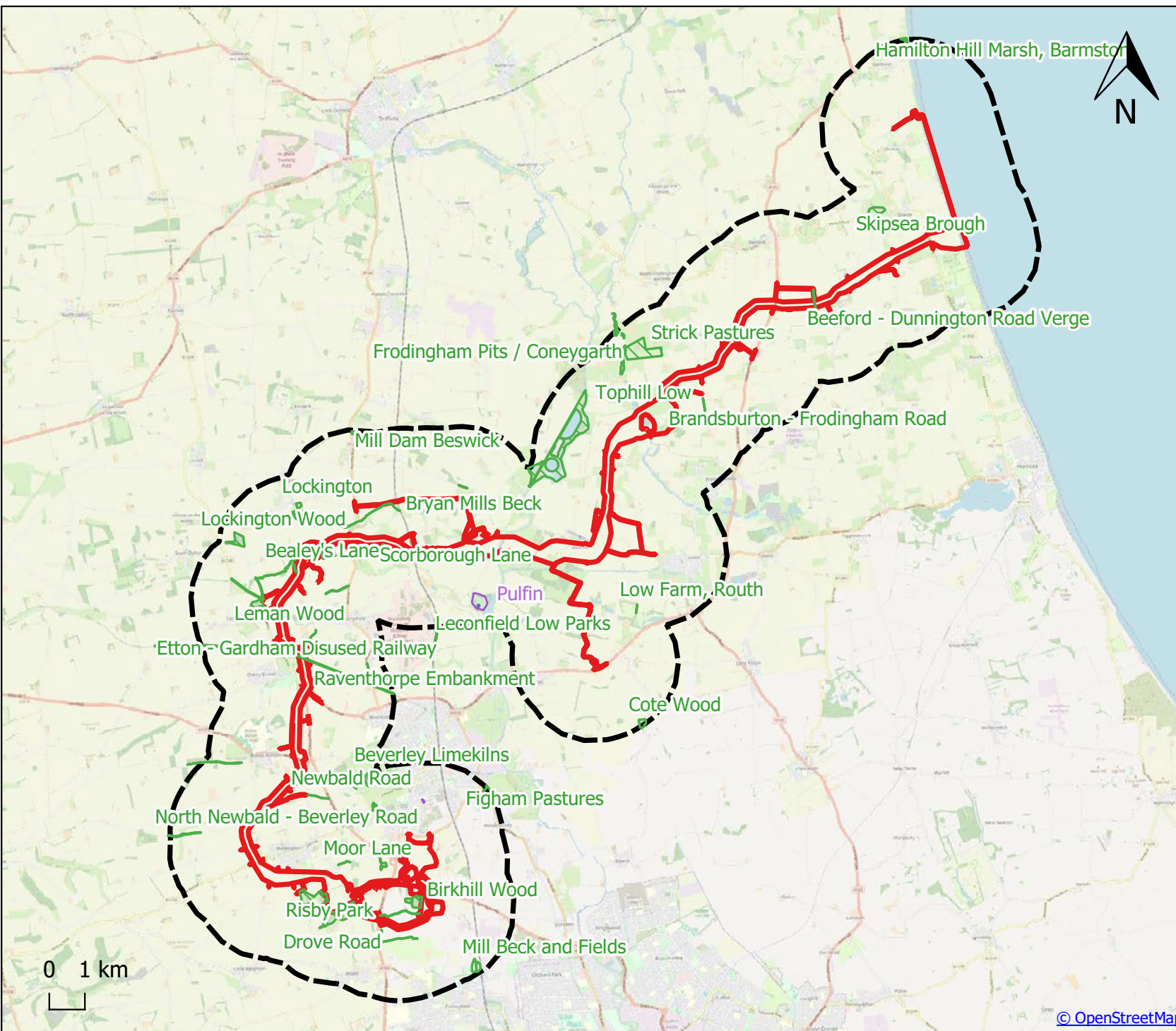
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Figure 6  
Non-Statutory Designated Sites  
within 2 km

Revision	Date	Drawn by	Checked by
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## Legend

- Site Boundary
- 2 km buffer
- Local Wildlife Sites (LWS)

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Figure 6  
Non-Statutory Designated Sites  
within 2 km

Revision	Date	Drawn by	Checked by
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## Legend

- Site Boundary
- 2 km buffer
- Yorkshire Wildlife Trust (YWT)
- Local Wildlife Sites (LWS)

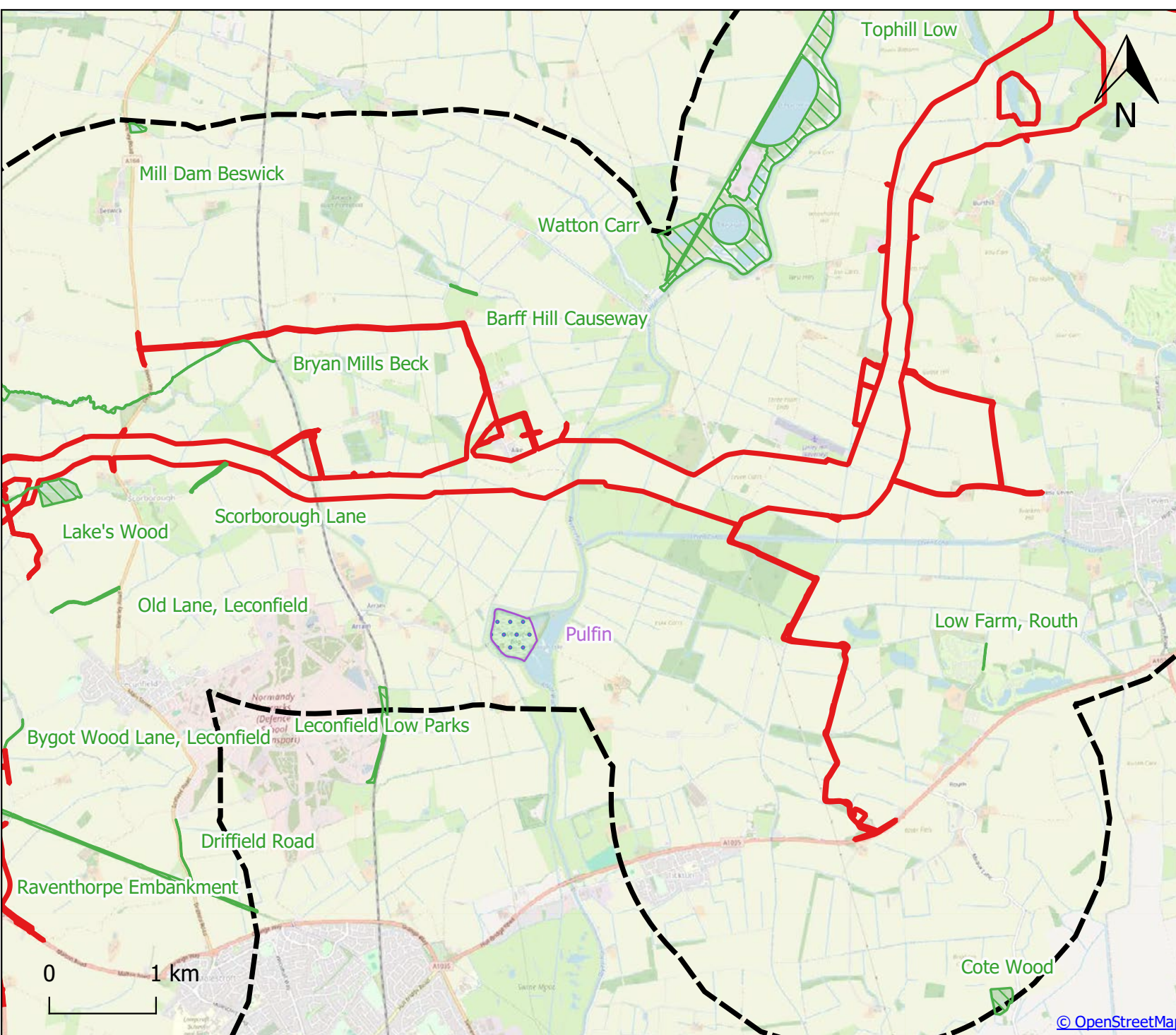
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Figure 6  
Non-Statutory Designated Sites  
within 2 km





Revision	Date	Drawn by	Checked by
A	10/12/2024	SW	RJJ
B	11/12/2024	SW	SS
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## Legend

-  Site Boundary
-  2 km buffer
-  Yorkshire Wildlife Trust (YWT)
-  Local Wildlife Sites (LWS)

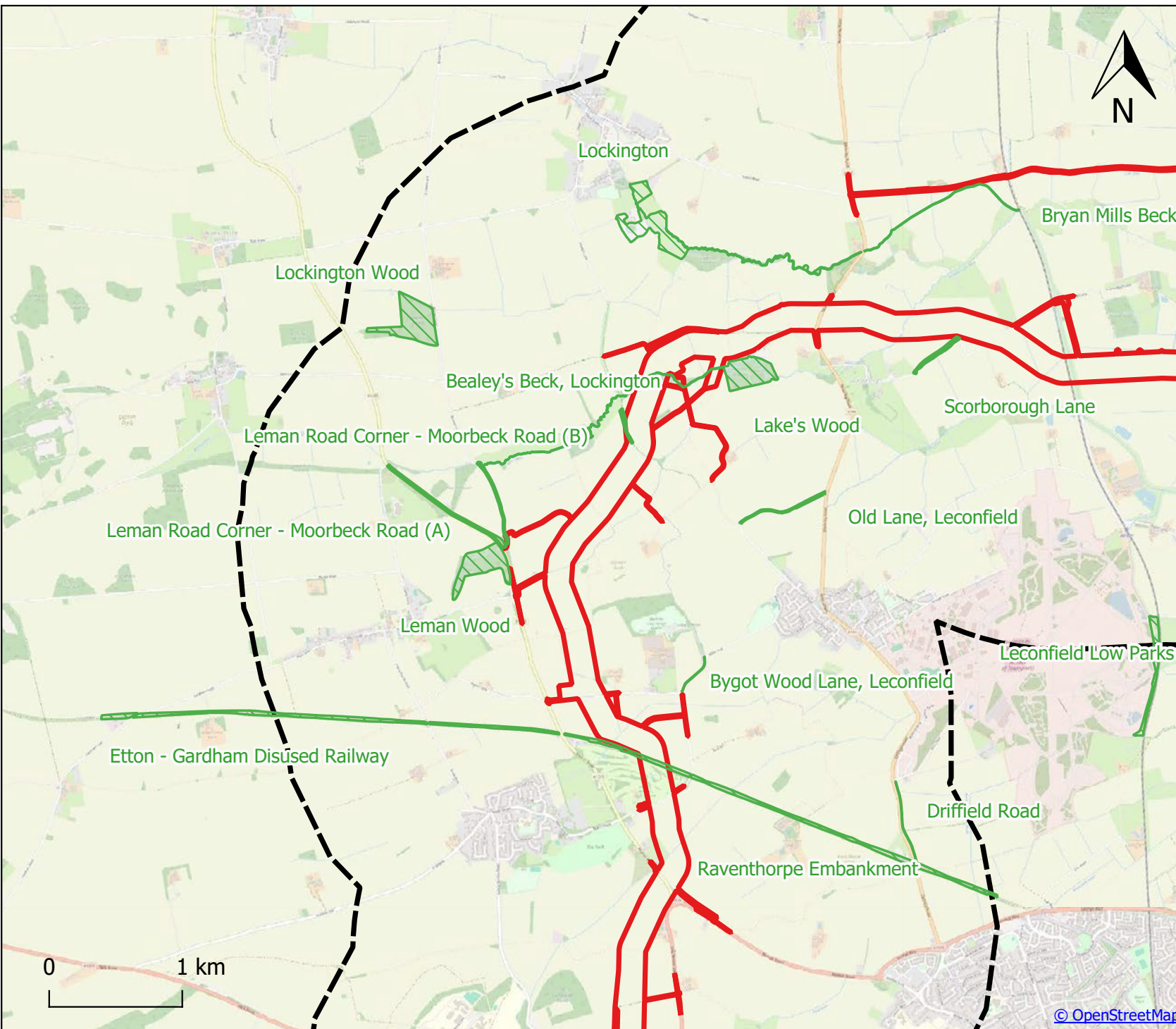
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Figure 6  
Non-Statutory Designated Sites  
within 2 km





Revision	Date	Drawn by	Checked by
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B	11/12/2024	SW	SS
C	15/01/2025	SW	LS
D	02/04/2025	SW	RJJ
E	07/05/2025	SW	RJJ

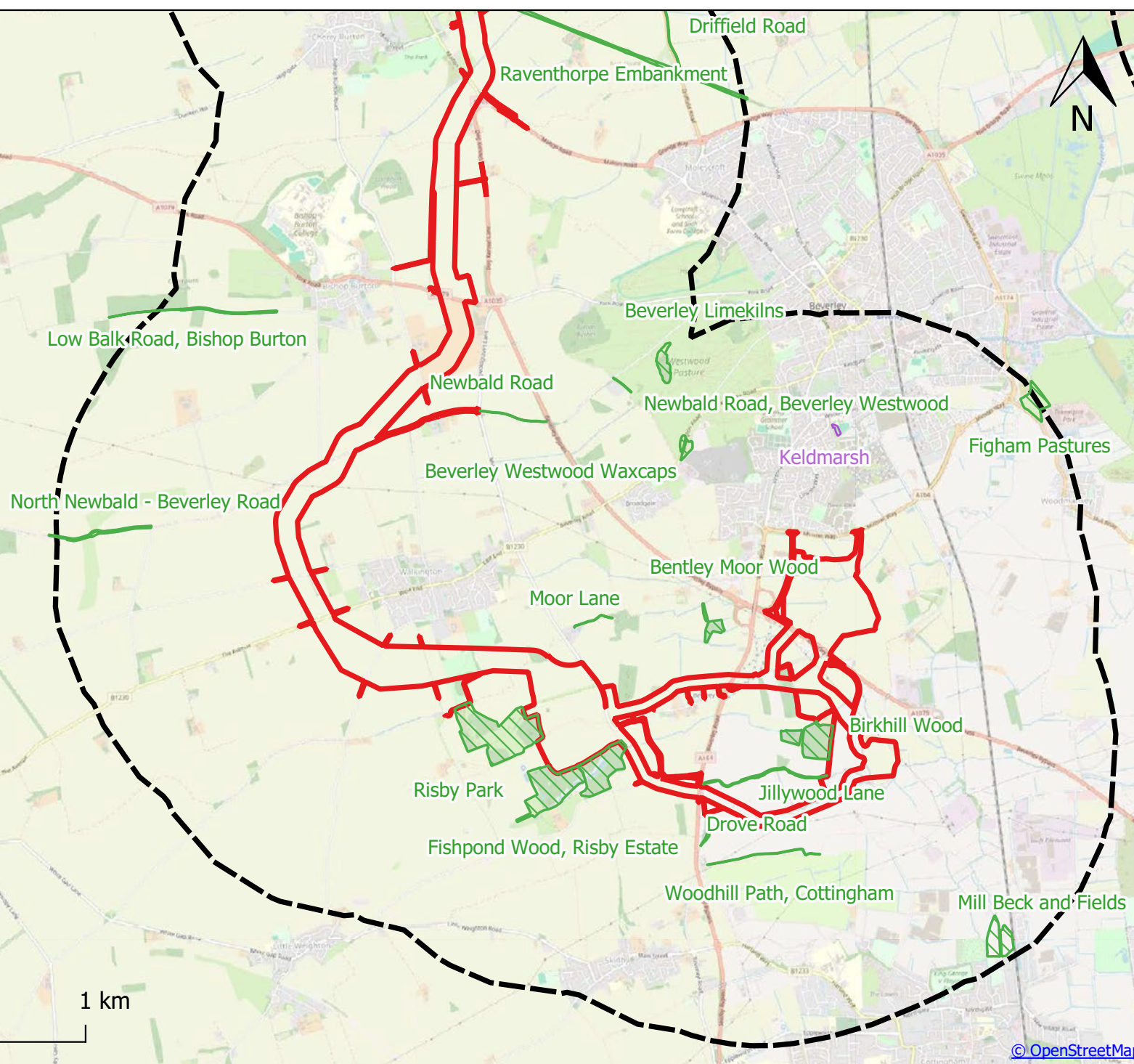
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## Legend

-  Site Boundary
-  2 km buffer
-  Yorkshire Wildlife Trust (YWT)
-  Local Wildlife Sites (LWS)



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Figure 6  
Non-Statutory Designated Sites with  
2 km

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---

**Figure 7: Ancient Woodland Inventory sites within 2 km of the site**



#### Legend

- Onshore Development Area
- 2 km buffer
- Ancient woodland

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**Figure 7**  
**Ancient Woodland Sites within 2 km**

Rev	Date	Drawn by	Checked by
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#### Legend

 Onshore Development Area

 2 km buffer

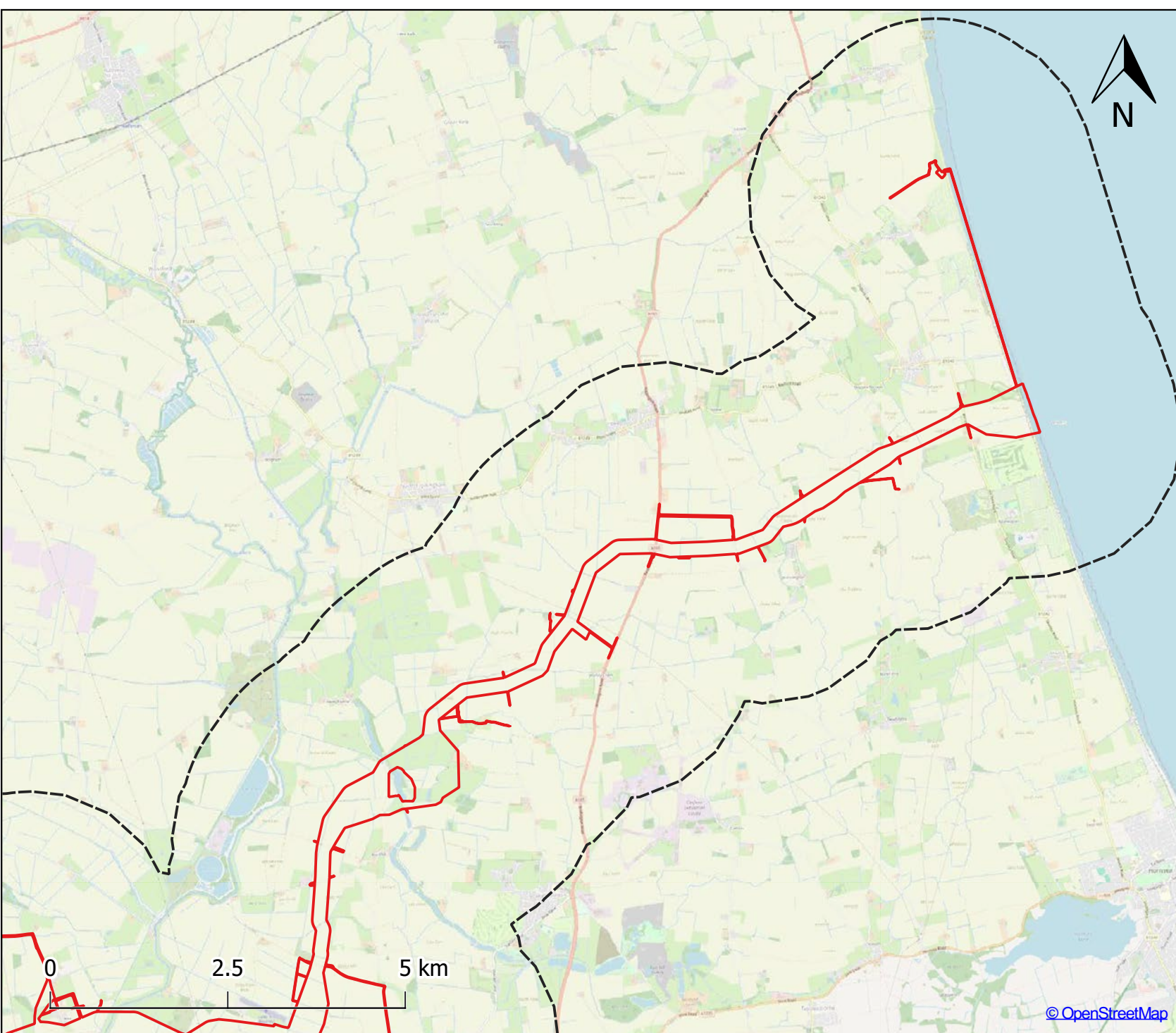
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Figure 7  
Ancient Woodland Sites within 2 km

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#### Legend

- Onshore Development Area
- 2 km buffer
- Ancient woodland

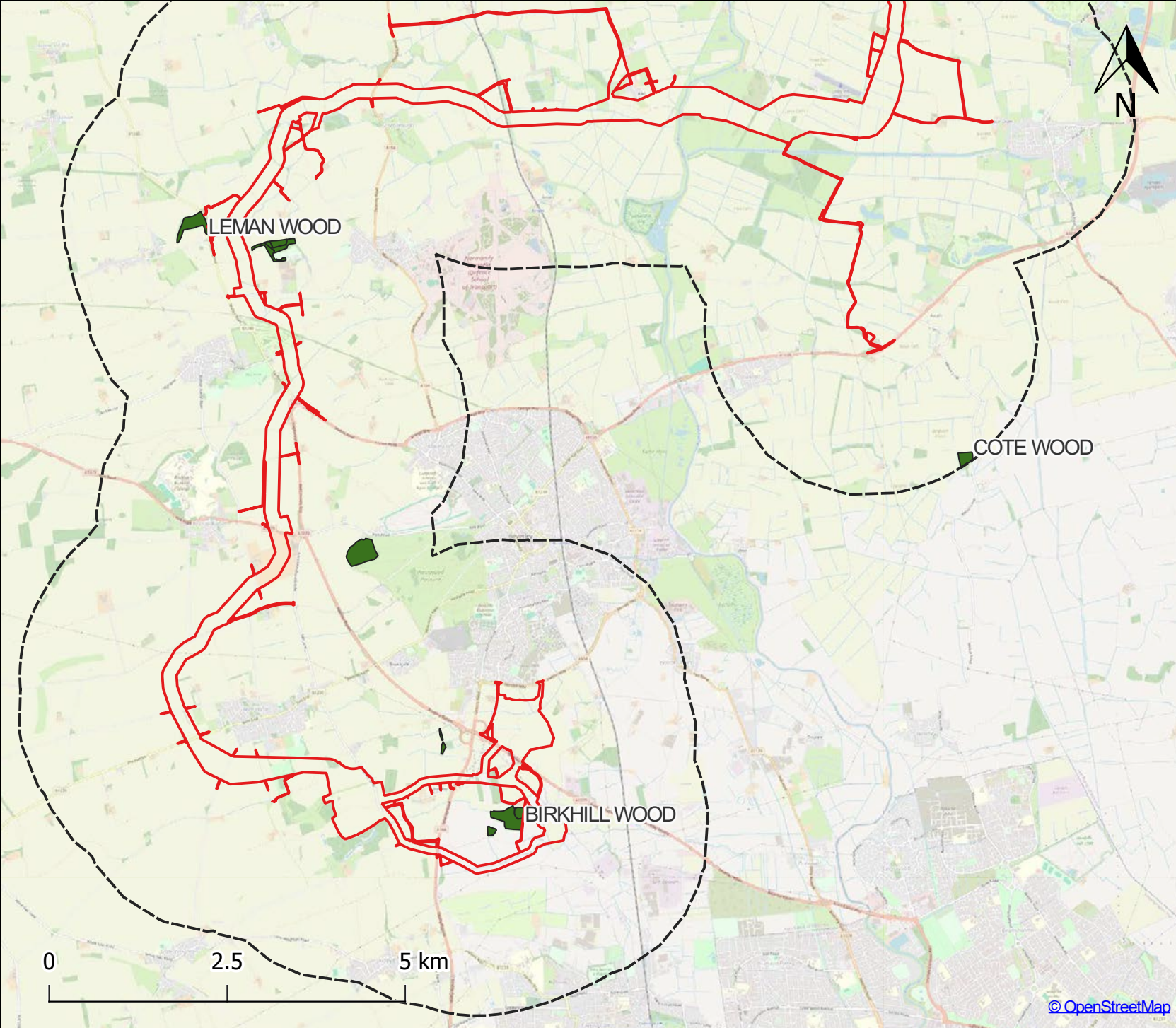
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Figure 7  
Ancient Woodland Sites within 2 km

Rev	Date	Drawn by	Checked by
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## **Figure 8: Habitats of Principal Importance sites within 2 km of the site**



#### Legend

- Onshore Development Area
- 2 km buffer
- Coastal and floodplain grazing marsh
- Lowland fens
- Lowland mixed deciduous woodland
- Traditional orchard
- Maritime cliff and slope
- Reedbeds

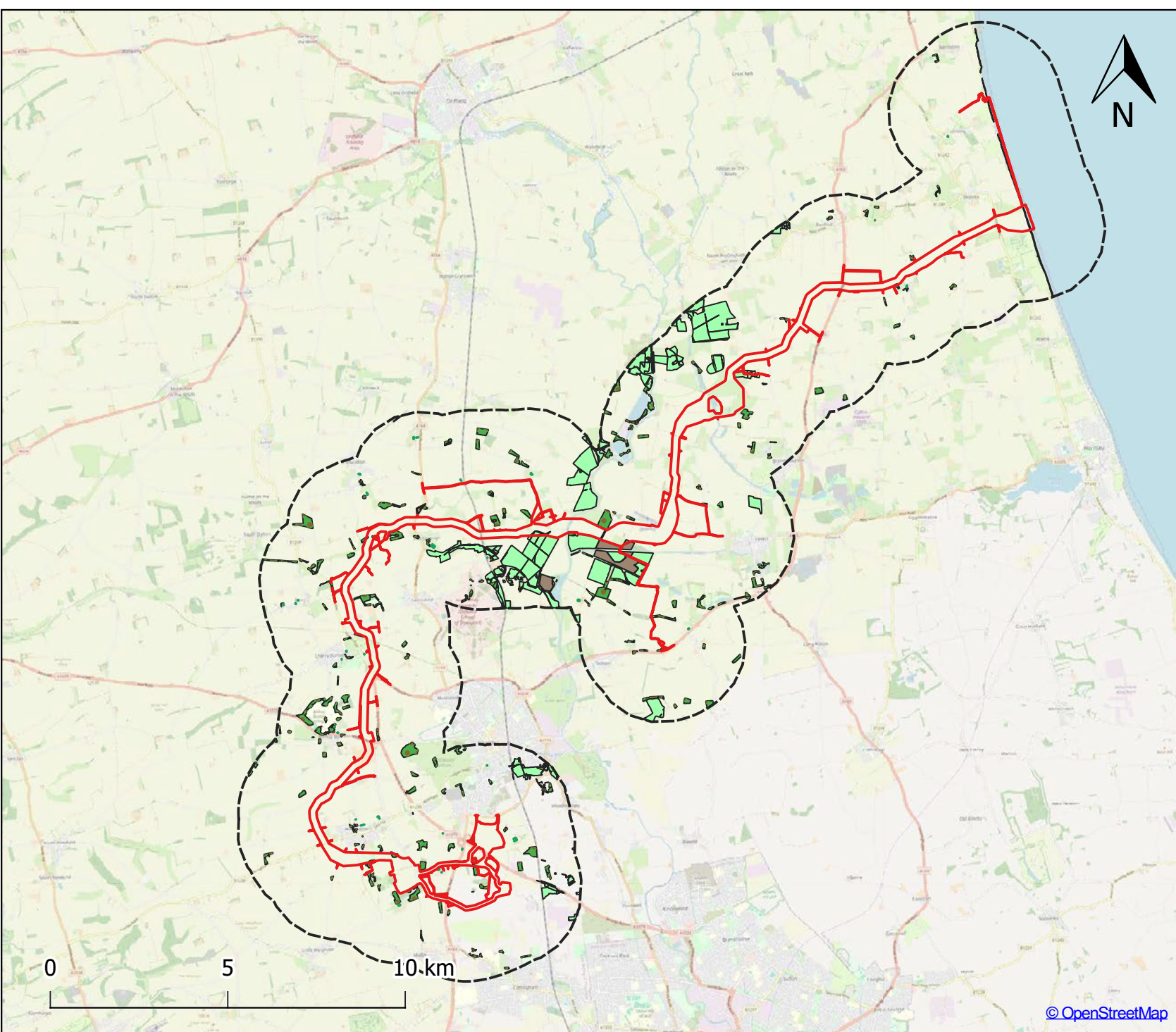
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**Figure 8**  
Habitats of Principal Importance with  
2 km

Rev	Date	Drawn by	Checked by
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#### Legend

- Onshore Development Area
- 2 km buffer
- Coastal and floodplain grazing marsh
- Lowland mixed deciduous woodland
- Traditional orchard
- Maritime cliff and slope

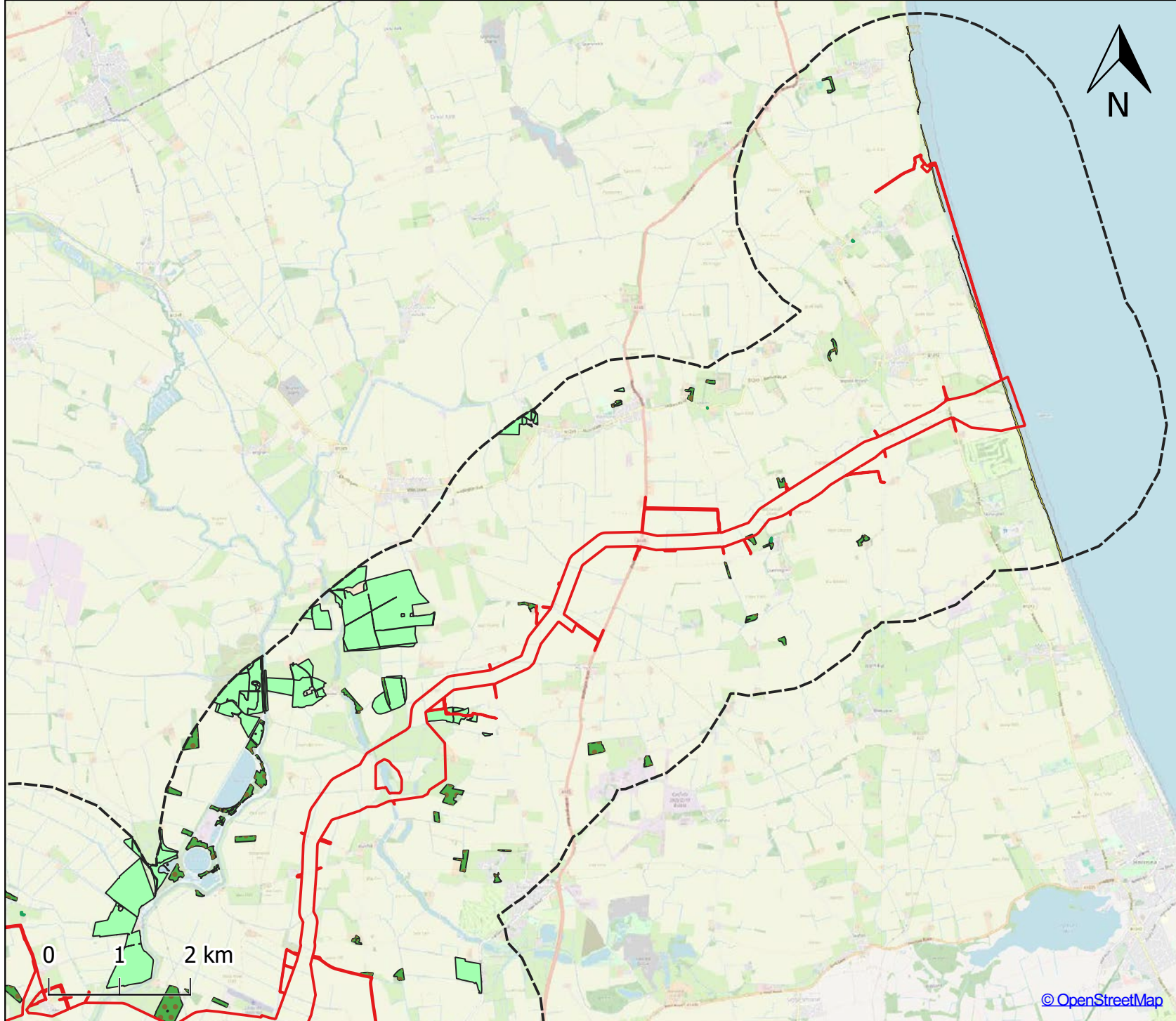
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**Figure 8**  
**Habitats of Principal Importance with**  
**2 km**

Rev	Date	Drawn by	Checked by
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#### Legend

- Onshore Development Area
- 2 km buffer
- Coastal and floodplain grazing marsh
- Lowland fens
- Lowland mixed deciduous woodland
- Traditional orchard
- Reedbeds

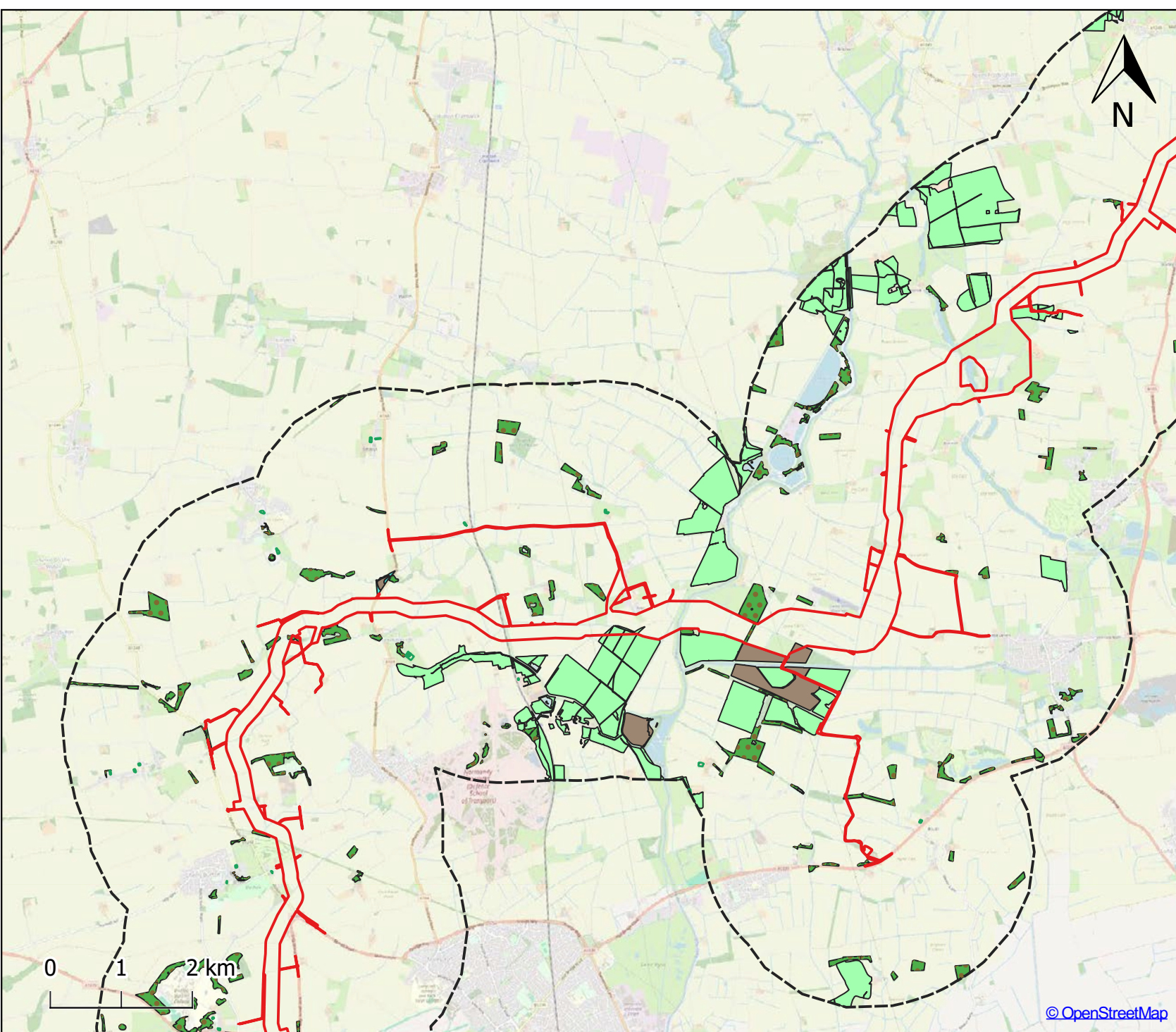
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**Figure 8**  
Habitats of Principal Importance with  
2 km

Rev	Date	Drawn by	Checked by
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#### Legend

- Onshore Development Area
- 2 km buffer
- Coastal and floodplain grazing marsh
- Lowland mixed deciduous woodland
- Traditional orchard

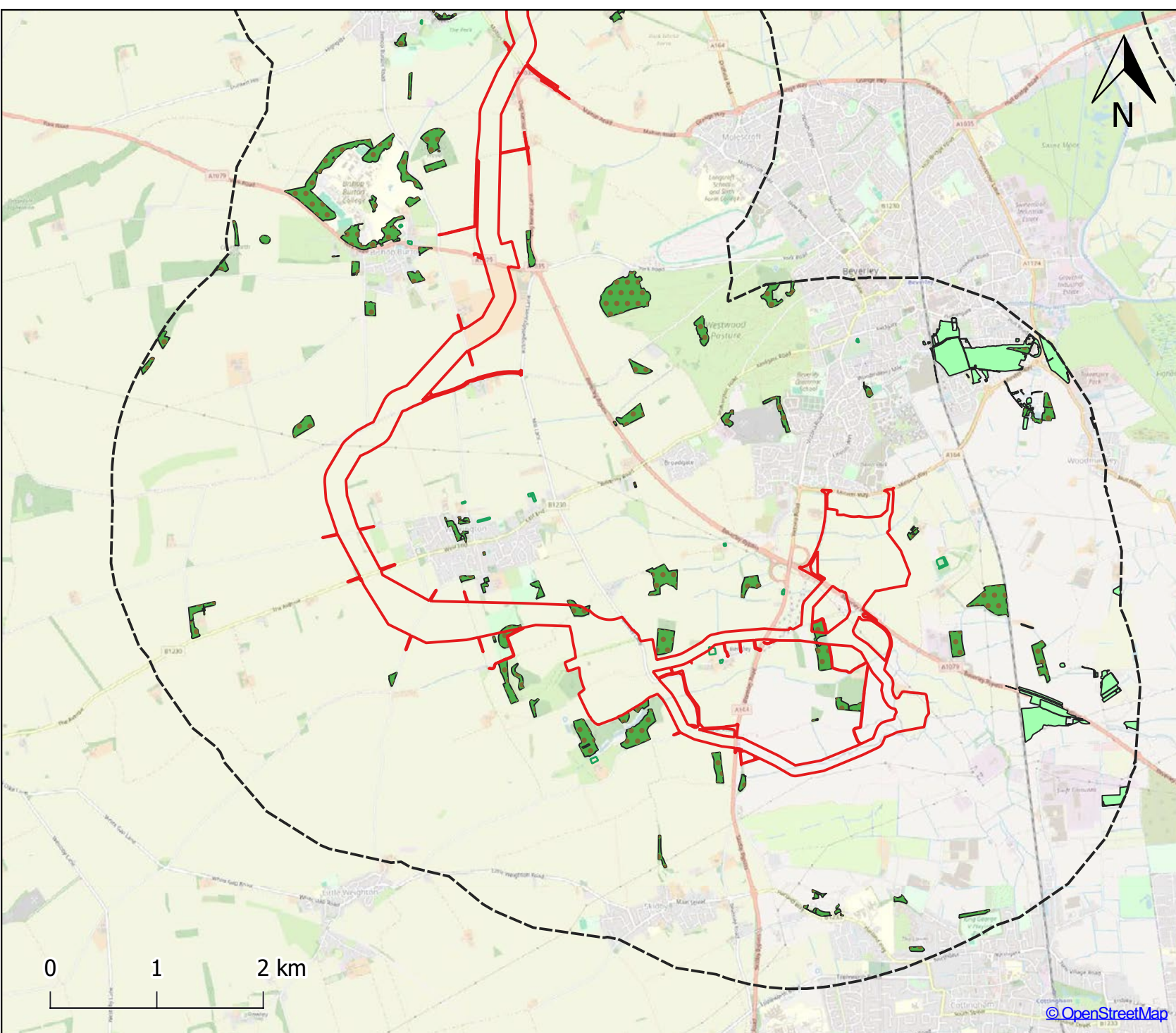
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**Figure 8**  
**Habitats of Principal Importance with 2 km**

Rev	Date	Drawn by	Checked by
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## **Appendix 1: Site Photographs**





- 1 Example of neutral grassland (g3)
- 2 Example of lowland meadow (g3a)
- 3 Example of other neutral grassland (g3c)
- 4 Example of Arrhenatherum neutral grassland (g3c5)

December 2024

Drg. Ref: JB/23696/A1

Royal HaskoningDHV

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Appendix 1: Site Photographs

Ecus Ltd.

Building 350, Bristol Business Park, The Crescent, Stoke Gifford,  
BS16 1EJ





- 5 Example of Holcus-Juncus neutral grassland (g3c8)
- 6 Example of modified grassland (g4)
- 7 Example of modified grassland with traditional orchard (g4 27)
- 8 Example of wet woodland (w1d)

December 2024

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Royal HaskoningDHV

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Appendix 1: Site Photographs

Ecus Ltd.

Building 350, Bristol Business Park, The Crescent, Stoke Gifford,  
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- 9 Example of lowland mixed deciduous woodland (w1f)
- 10 Example of other lowland mixed deciduous woodland (w1f7)
- 11 Example of other broadleaved woodland (w1g)
- 12 Example of other mixed woodland (w1h)

December 2024

Drg. Ref: JB/23696/A1

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Appendix 1: Site Photographs

Ecus Ltd.

Building 350, Bristol Business Park, The Crescent, Stoke Gifford,  
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- 13 Example of other woodland, mixed; mainly broadleaved (w1h5)
- 14 Example of other woodland, mixed; mainly conifer (w1h6)
- 15 Example of Scot's pine woodland (w2b)
- 16 Example of other coniferous woodland (w2c)





- 17 Example of a native hedgerow (h2a)
- 18 Example of a species-rich native hedgerow (h2a5)
- 19 Example of a native hedgerow with trees (h2a 11)
- 20 Example of a non-native and ornamental hedgerow (h2b)

December 2024

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Appendix 1: Site Photographs

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- 21 Example of blackthorn scrub (h3a)
- 22 Example of bramble scrub (h3d)
- 23 Example of hawthorn scrub (h3f)
- 24 Example of mixed scrub (h3h)

December 2024

Drg. Ref: JB/23696/A1

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Appendix 1: Site Photographs

Ecus Ltd.

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- 25 Example of willow scrub (h3j)
- 26 Example of reedbeds (f2e)
- 27 An example of an arable field margin (c1a)
- 28 An example of arable field margins tussocky (c1a5)





- 29 An example of arable field margins pollen and nectar (c1a6)
- 30 Example of rye-grass and clover ley (c1b5)
- 31 Example of legume-rich ley (c1b6)
- 32 Example of cereal crops (c1c)

December 2024

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Appendix 1: Site Photographs

Ecus Ltd.

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- 33 Example of winter stubble (c1c5)
- 34 Example of other cereal crop (c1c7)
- 35 Example of non-cereal cropland (c1d)
- 36 Example of miscanthus non-cereal crop (c1d5)

December 2024

Drg. Ref: JB/23696/A1

Royal HaskoningDHV

23696 Dogger Bank D  
Preliminary Ecological Appraisal

Appendix 1: Site Photographs

Ecus Ltd.

Building 350, Bristol Business Park, The Crescent, Stoke Gifford,  
BS16 1EJ





- 37 Example of other non-cereal cropland (c1d8)
- 38 Example of annuals horticulture (c1f5)
- 39 Example of developed land sealed surface (u1b)
- 40 Example of buildings (u1b5)

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- 41 An example of artificial unvegetated, unsealed surface (u1c) with secondary codes development site (805) and bare ground (501)
- 42 An example of suburban mosaic of developed and natural surface (u1d)
- 43 Example of a built linear feature (u1e) (railway 801)
- 44 Example of a built linear feature (u1e) (fence 612)





- 45 An example of a canal (r1e)
- 46 An example of other standing water (r1g) (ditch 50)
- 47 An example of other priority habitat rivers (r2a6)
- 48 An example of other rivers and streams (r2b)

December 2024

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## Appendix 2: Legislation

This Appendix is intended as a brief guide to some of the relevant offences associated with protected species which are common constraints associated with development projects.

For full details of legislation relating to all habitats and species discussed within this report visit <http://www.legislation.gov.uk>.

### ***Amphibians including great crested newt***

Great crested newt *Triturus cristatus* (GCN) is protected under the Wildlife & Countryside Act 1981 (as amended) ("the WCA 1981") and the Conservation of Habitats and Species Regulations 2017 (as amended) ("the Habitats Regulations") and is therefore a European Protected Species (EPS).

It is illegal to kill, injure, capture, handle or disturb GCN, and the places they use for breeding, resting, shelter and protection are protected from being damaged or destroyed.

Natterjack toad *Epidalea calamita* is also an EPS and is afforded the same protection.

GCN, natterjack toad and common toad *Bufo bufo* are Priority Species under the Natural Environment and Rural Communities Act 2006 ("the NERC Act").

### ***Badger***

Badgers *Meles meles* and their setts are protected under the Protection of Badgers Act 1992 ("the PBA 1992"). It is an offence to kill, injure or take a badger from the wild. It is also an offence to destroy, damage or obstruct an active badger sett, or to disturb badgers within the sett.

### ***Bats***

All species of bat occurring within the UK are included in Schedule 2 of the Habitats Regulations. Under Regulation 43, bats are protected from deliberate capture, injury or killing, from deliberate disturbance and from damage or destruction of a breeding site or resting place (roost).

All UK bats are also included on Schedule 5 of the WCA 1981. It is an offence to intentionally or recklessly disturb bats while they are occupying a structure or place used for shelter or protection, or to obstruct access to any such place.

Bats are also listed as Priority Species under Section 41 of the NERC Act and certain species are Priority Species under the NERC Act.

### ***Birds***

All wild birds are protected under the WCA 1981 against destruction of the active nest.

It is illegal to kill, injure or 'take' any wild bird, take or damage the nest of any wild bird whilst in use or being built. The eggs of all wild birds are also protected.

The birds listed in Schedule 1 of the WCA 1981 are protected against disturbance whilst actively nesting.

Competent authorities must have regard for all bird species listed under Section 41 of the NERC Act which have potential to be impacted by proposed works.

In 2021, a re-assessment of Birds of Conservation Concern (BoCC) was published by Stanbury et al. (2021), which defined rare and threatened bird species on two lists (Red and Amber) describing the level of threat to each species of concern.



'Red' is the highest conservation priority, with species needing urgent action due to either a historical decline in breeding population, severe (>50%) decline in breeding or non-breeding population, or severe decline in breeding range over 50 years or more.

'Amber' is the next most critical group, with species qualifying for this status as a result of either recovery from red list criterion, being classed as rare breeders in the UK, moderate (>25%) decline in breeding or non-breeding population or moderate decline in breeding range over 25 years or more.

These categories are followed by 'Green', indicating that the species is not experiencing population declines. A species can be green-listed but can also be listed under Schedule 1 of the WCA 1981 due to risk of persecution.

### **Freshwater and migratory fish**

Various freshwater and migratory fish species and their habitats are afforded legal protection under the WCA 1981, Salmon and Freshwater Fisheries Act 1975 and Eels (England and Wales) Regulations 2009.

The following fish receive various levels of protection under the WCA 1981: allis shad *Alosa alosa*, twaite shad *Alosa fallax*, vendace *Coregonus albula*, whitefish *Coregonus lavaretus* and Atlantic sturgeon *Acipenser sturio*. Atlantic sturgeon are also EPS.

Special areas of conservation (SACs), sites of special scientific interest (SSSIs) or Ramsar sites have features of special interest for freshwater or migratory fish, such as: Atlantic salmon *Salmo salar*, bullhead *Cottus gobio*, lamprey (brook, river and sea) (*Petromyzontiformes*), spined loach *Cobitis taenia*, European eel *Anguilla anguilla*.

Atlantic salmon, brown/sea trout *Salmo trutta*, river lamprey and European eel are listed as priority species under Section 41 of the NERC Act.

Eels are also protected by the Eels (England and Wales) Regulations 2009.

### **Hazel dormouse**

Hazel dormouse *Muscardinus avellanarius* is protected under Schedule 5 of the WCA 1981, and under Schedule 2 of the Habitats Regulations, giving this species the same protection as GCN and bats.

Hazel dormouse is also listed as a Priority Species under the Section 41 of the NERC Act.

### **Otter**

Otter *Lutra lutra* is protected under Schedule 5 of the WCA 1981, and under Schedule 2 of the Habitats Regulations, giving this species the same protection as GCN and bats.

Otters are listed as Priority Species under the Section 41 of the NERC Act.

### **Reptiles**

All UK reptile species are protected under Schedule 5 of the WCA 1981 against intentional killing or injuring.

Sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca* are further protected under Schedule 2 of the Habitats Regulations.

Slow worm *Anguis fragilis*, sand lizard, common lizard *Zootoca vivipara*, grass snake *Natrix helvetica* and adder *Vipera berus* are also listed as Priority Species under the Section 41 of the NERC Act.



### **Water vole**

Water vole *Arvicola amphibius* is fully protected under Schedule 5 of the WCA 1981 making it an offence to intentionally kill, injure or take a water vole, intentionally or recklessly damage or destroy a place of shelter or protection, intentionally or recklessly disturb a water vole when it is occupying such a place, or intentionally or recklessly obstruct such a place.

Water vole are listed as Priority Species under the Section 41 of the NERC Act.

### **White-clawed crayfish**

White-clawed crayfish *Austropotamobius pallipes* are partially protected under Schedule 5 of the WCA 1981, which makes it illegal to intentionally take them.

White-clawed crayfish are listed as Priority Species under the Section 41 of the NERC Act.

### **Invasive non-native species**

Certain species of plants and animals that do not naturally occur in the UK have become established in the wild and represent a threat to the natural fauna and flora.

The WCA 1981 is the principal piece of legislation in the UK regarding invasive non-native species. It is an offence under Section 14 (2) to plant or otherwise cause to grow in the wild any species listed on Schedule 9, Part II of the Act. Schedule 9, Part II includes knotweed species *Fallopia* spp., Himalayan balsam *Impatiens glandulifera*, giant hogweed *Heracleum mantegazzianum*, cotoneaster species *Cotoneaster* spp., montbretia *Crocasmia* × *crocosmiiflora* and Rhododendron species *Rhododendron* spp. Section 14 also controls the spread of various animal species.

In accordance with Section 33 and 34 of the Environmental Protection Act 1990, if taken from their place of origin, any plant listed on Schedule 9, Part II of the WCA 1981 and their associated material (e.g. soil and ash) are classed as controlled waste.



## Appendix 3: Target notes

Target note number	Description
<b>Badger</b>	
1	Potential badger <i>Meles meles</i> sett or day rest hole freshly dug within hedgerow. Mammal paths.
2	Potential badger sett under hedgerow between two fields of parcel. Mammal paths.
3	Potential snuffle holes - no signs of rabbit droppings, also found along hedgerow.
4	Hole, could be rabbit.
5	Badger sett.
6	Possible badger poo, opposite sett.
7	Suitable badger connectivity habitat.
8	Hedgerow and open ground suitable for badger connectivity and commuting.
9	Hedgerow and open ground suitable for badger connectivity and commuting.
<b>Invasive non-native species (INNS)</b>	
1	Cotoneaster <i>Cotoneaster</i> sp. species.
2	Cotoneaster species – in ornamental garden.
3	Cherry laurel <i>Prunus laurocerasus</i> – in ornamental garden. (Not listed as Schedule 9 WCA 1981, but is a non-native invasive species)
4	Montbretia <i>Crocasmia x crocosmiiflora</i> – in ornamental garden.
5	Variegated yellow archangel <i>Lamium galeobdolon argentatum</i> – patch.
6	Cotoneaster species.
7	Montbretia.
<b>Bats</b>	
1	<p>Ash <i>Fraxinus excelsior</i> tree with multiple PRF cavities.</p> <p>Tree is heavily covered with ivy <i>Hedera helix</i> that has been managed and killed, but ivy still remains wrapped all over trunk and branches.</p> <ol style="list-style-type: none"> <li>1. Main trunk cracks upward, 5-7 cm wide and 1 m long.</li> <li>2. First main lower limb, bark lifted and created a large crack access running along entire tree limb, 1-1.5 m.</li> </ol>



Target note number	Description
	If tree is to be removed, further survey will be necessary due to limited visibility from ivy and more Potential Roost Features (PRFs) likely present. If indirectly impacted i.e. disturbance, precautionary measures will be required.
2	Ash tree within hedgerow encased in ivy around drain trunk and limbs, some branches. PRF-I - Knot hole from lost limb creating a small cavity on first branch. Limitation - cannot clearly view tree PRF due to ivy cladding the tree at most areas. If tree is to be affected during works, i.e. removed, further assessment will be required for any additional PRFs and emergence on tree for PRF. If indirectly affected, i.e. disturbance from noise vibration or light, precautionary best practice measures required.
3	Ash tree. PRF-I - Limb loss knot in tree creating a slim cavity of approximately between 10-15cm long, 5cm wide. Located up above orange fungi on tree on main tree trunk. If tree is to be directly impacted, further assessment will be required.
4	No clear PRFs on ash tree. Has several managed cut limbs which could possibly have PRFs. Limitation to access to tree, no access to tree (land parcel) as on a residential property and nowhere safe to park or cross to get closer observation of tree. Due to minor limitation, clear viewing of likely PRFs were not possible. If tree is to be affected/removed, further assessment will be required.
5	Heavily ivy clad ash tree. Tree within hedgerow alongside road. PRF I - Main branch snapped off causing it to crack apart into two and allow limb cavity access, unknown depth. Limitation - due to heavily ivy clad tree, clear visibility of the PRFs was not possible. If direct impact is required, further assessment will be necessary due to limitation.
6	Ash tree with heavy ivy cladding. Cannot clearly view tree for visible PRFs, thus is a limitation to the survey and assessments. Further assessment required if there are direct impacts to tree.
7	Heavily ivy clad ash tree. No clearly visible PRFs can be seen, thus a limitation to the survey and assessment. If direct impact is required, further assessment will be necessary due to limitation.
8	Heavily ivy clad rear (northern most) trunk of ash tree. No clearly visible PRFs can be seen due to ivy, thus a limitation to the survey and assessment. If direct impact is required, further assessment will be necessary due to limitation.
9	Partially renovated building, north wing suitable as night roost due to open windows and doors, but currently being renovated so likely high levels of disturbance. Southern wing has some gaps under pan tiles.



Target note number	Description
10	No clear visibility of crowded trees along roadside. PRFs seem unlikely from what can be seen. However, visibility is a limitation to the survey and assessment. If direct impact is required, further assessment will be necessary due to limitation.
11	Tall ash tree with no ivy. The entire expanse of height could not be seen, which is a limitation. PRF-M: PRF 1. Knot cavity in top of first limb of tree, possibly deeper cavity. Cavity is 20x20cm circumference. PRF 2. Open cavity from unknown cause, where bark have stripped away, and hollow centre can be seen of unknown depth. Cavity is 15-20cm long and 7cm wide. If direct impact is required, further assessment will be necessary.
12	Large ash tree within hedgerow alongside road. PRF I - small fissure, 10cm from along base of high-level branch. Unknown depth or cavity structure.
13	Large ash tree within hedgerow alongside road. PRF I - Knot cavity from lost branch limb, pointing westward. Unknown depth. 6x6cm circumference.
14	Large ash tree within hedgerow on grassland roadside verge. PRF M: PRF 1. Fissure running up tree on secondary trunk. 1m long and 20cm wide. PRF 2. Branched off lost limb, cavity knot hole. 5x6cm circumference. PRF 3. Large branched off lost limb, cavity knot hole. All unknown depths.
15	Large ash tree within hedgerow alongside road and verge. PRF M: PRF 1. Snapped off uncleaned limb, jagged edge. Cobwebs seen inside, unlikely use at this moment. Unknown depth. 6x6cm circumference. Based on main trunk. PRF 2. Lost limb knot hole cavity. 5x5cm circumference. Smooth edging. Based on east main trunk.
16	Heavily ivy clad ash tree. No clearly visible PRFs can be seen due to ivy, thus a limitation to the survey and assessment. If direct impact is required, further assessment will be necessary due to limitation.
17	Landowner stated that he is aware of four bats roosting in his roof.
18	Large ash tree within hedgerow of field. PRF I - large fissure crack within split lost limb. Unknown depth. fissure could have possible roosting cavity as well as small hole just below it within same fissure.



Target note number	Description
	Crack/fissure is 1m long 2cm wide and hole is 3-4cm in circumference.
19	Large ash tree within hedgerow between two arable crops of different parcels. PRF I - Lost limb knot hole on one of the main trunks, 20-30cm long and 15cm wide. Tree is too tall, heavily leaved and encompassed to easily view other PRFs. If direct impact is required, further assessment will be necessary due to limitation.
20	Large sycamore <i>Acer pseudoplatanus</i> tree within centre of arable field. Tree is too tall with too much vegetative cover to be able to clearly see any PRFs. If direct impact is required, further assessment will be necessary due to limitation.
21	Medium ash tree within hedgerow bordering two crop fields. PRF M: PRF 1. Limb crack and broken off creating fissure cavity into tree branch. 50cm long and 10cm wid. PRF 2. Knot hole on end of branch far southeast side. 5x5cm circumference.
22	Large ash tree in hedgerow of horse pasture. PRF M: PRF 1. Broken off snapped limb with knot hole, unknown depth. 4cmx4cm circumference. PRF 2. Burned off possible, broken limb, creating large crevice down into tree. Unknown depth. 50cm wide and 1m long. PRF 3. Large knot hole on main trunk. Unknown depth. 10x15cm wide.
23	Large ash tree within hedgerow neighbouring next field of barley. PRF I. Knot hole on outer branch. Unknown depth. 5cm circumference.
24	Medium ash tree within hedgerow of arable field. PRF-M: PRF 1. Possibly bored holes from bird or insect creating cavity into sawn off trunk. PRF 2. Board holes in chopped off trunk at the top and bottom possibly by insect or bird. Unknown depth. Whole width all around one centimetre to up to 5cm.
25	Large ash tree within end of hedgerow beside barley arable crop. PRF-M: PRF 1. Sawn off trunk stemming from main trunk. Bore holes from either bird or insect running along in entirety of trunk. Unknown depth. Holes are approximately 3cm wide. PRF 3. Of main trunks going straight up displays bark crack creating fissure cavity. Unknown depth. 40cm long 3cm wide.
26	Building or structure with PRF(s).



Target note number	Description
27	Building or structure with PRF(s).
28	Three mature trees along field requiring GLTA.
29	Standing dead tree with loose bark and several small holes. If direct impact is required, further assessment will be necessary.
30	Mature field maple with knot holes and pruning cuts. If direct impact is required, further assessment will be necessary.
31	Mature oak with loose bark, tears in branches, and potential other not visible features. If direct impact is required, further assessment will be necessary due to limitation.
32	Dead standing tree with loose bark and small holes. If direct impact is required, further assessment will be necessary due to limitation.
33	Three ash trees with potential dieback. Each has several pruning cut holes or knot holes, and one has tear in large branch. If direct impact is required, further assessment will be necessary due to limitation.
34	Mature oak with pruning cut(s) potentially suitable for individual bats. Possible other features obscured by tree canopy. If direct impact is required, further assessment will be necessary due to limitation.
35	Two standing dead trees with loose bark and multiple small holes, on edge of woodland. If direct impact is required, further assessment will be necessary due to limitation.
36	<p>Smaller neighbouring oak <i>Quercus robur</i> tree to larger oak tree, in centre of wheat crop field.</p> <p>PFR I - large knot hole in base trunk third branch at base. Knot hole is 10 cm long and 5 cm wide. Knot is likely from historic branch loss.</p> <p>If direct impact is required, further assessment will be necessary due to limitation.</p>
37	<p>Large oak tree within centre of wheat crop field.</p> <p>PRF M:</p> <p>PRF 1: First main branch towards end, large fissure underneath running 1.5m long, 30cm wide.</p> <p>PRF 2. Up main trunk large fissure running 2m up creating unknown depth cavity. Likely created from previously snapped limb splitting trunk. Possibly 50cm wide.</p> <p>PRF 3. First main branch off of main trunk, 1.5m from base, knot hole with unknown cavity depth. Knot hole is eye shaped, 5cm long and 2cm wide.</p>
38	Whole area needs to have GLTA on mature trees.



Target note number	Description
39	Large crab apple <i>Malus sylvestris</i> tree with large cavity in trunk. Suitable for roosting bats, further survey required.
40	Very old oak with very large cavity in trunk. If direct impact is required, further assessment will be necessary.
41	Tree with PRF(s). If direct impact is required, further assessment will be necessary.
42	Tree with PRF(s). If direct impact is required, further assessment will be necessary.
43	Dead tree fallen slightly. Long split up trunk / stem of tree through the middle approximately 5m long up. Can see in the section at the bottom but could provide suitable feature for bats. If direct impact is required, further assessment will be necessary.
44	Large oak tree in middle of field. If direct impact is required, further assessment will be necessary.
45	Large ash tree, heavily ivy clad therefore PRFs not possible to see. Tree is positioned within a hedgerow bordering a public pathway and a neighbouring parcel arable crop. If direct impact is required, further assessment will be necessary.
46	Large ash tree within tree line of crop field. PRF M: PRF 1. Along main trunk, large smooth split up trunk creating possible crevices under bark within fissure. It is running 1m long and 40cm wide. PRF 2. Dead split/cracked removed limb leading off of primary trunk. Split is 70cm long and up to 10cm wide in places. Tree is very large and vegetation abundant, therefore further surveys likely required if tree is to be impacted directly by works. The expanse of the tree could easily hide other PRFs.
47	Large oak tree within large blackthorn hedge between two crop fields. Large volume of vegetation on tree, causing limitations of PRF visibility. No clear PRFs visible from GLTA. If direct impact is required, further assessment will be necessary.
48	Possibly veteran Horse chestnut <i>Aesculus hippocastanum</i> tree with tear out in trunk, was multi stemmed, tear out caused by second stem falling down. If direct impact is required, further assessment will be necessary.
49	Mature and veteran trees need further assessment.
50	Further assessment needed for trees along hedgerow.



Target note number	Description
51	Further assessment needed for trees along hedgerow.
52	Dead wood standing tree on south edge of woodland parcel. Heavily ivy clad dead tree. No clearly visible PRFs can be seen due to ivy, thus a limitation to the survey and assessment. If direct impact is required, further assessment will be necessary.
53	Hole in deadwood branch 4m off ground on west aspect of mature pedunculate oak 1m DBH. Tree part of hedgerow. Other potential features on tree. If direct impact is required, further assessment will be necessary.
54	PRF hole in mature ash needs further assessment for bats.
55	Mature oak with knot holes and tears in branches. If direct impact is required, further assessment will be necessary.
56	Old decrepit red brick farm buildings with internal voids, lifted tiles, holes in rooves, walls, and under soffits/fascias. Moderate suitability for roosting bats.
57	Wooden building with corrugated metal roof, potentially dark void inside. Several gaps in wood for bats to enter through. Appears to be disused. Moderate suitability for roosting bats.
58	One deadwood and three other mature oaks needing GLTA. Deadwood has loose bark. If direct impact is required, further assessment will be necessary.
59	Mature ash with at least two holes in trunk on southern facing aspect approximately 0.5m at diameter breast height (DBH). Two mature horse chestnut and oak with split down trunk also requiring further assessment due to numerous PRFs.
60	Collection of mature chestnut and ash trees with multiple PRFs including knot holes and tear outs. If direct impact is required, further assessment will be necessary.
61	Mature hawthorn, only visible PRF is some ivy cover. Ash with snapped branch knot hole 5m high facing west PRF-I.
63	Four ash trees about 10m between each one, ivy cover possibly hiding PRFs.
64	Ash tree 80cm DBH in roadside hedge, ivy cover may be hiding PRFs.
65	Old hawthorn <i>Crataegus monogyna</i> DBH 20cm in hedge with a couple branch cavities facing north.



Target note number	Description
66	Outbuilding potentially suitable for roosting bats and nesting birds. Further assessment required.
67	Large nesting box. Tree also has some bat features.
<b>Birds</b>	
1	Potential kingfisher <i>Alcedo atthis</i> nest holes
2	Large nesting box. Tree also has some bat features.
3	Barn owl <i>Tyto alba</i> box. No evidence identified at time of survey.
4	Compost toilet, landowner says she has seen barn owls fly in and out occasionally.
5	Owl flew out of woodland area. Pellet found under tree. Possible hole / nest area seen but this was only seen in the woodland from edge due to fence.
6	Barn owl box
<b>Other species</b>	
1	Dead wood suitable for invertebrates.
2	Old log pile.
3	Log piles, brash piles, timber piles, block piles, suitable for reptiles etc.
4	Juvenile frog.
5	Well-worn path potentially mammals.
6	Multiple species log pile.
7	Rabbit warren, a lot of holes.
8	Mammal paths.
9	Rubble pile on edge of woodland
10	Mammal track, digging potential badger or deer.
11	A couple of log piles of dead stumps could be used as hibernacula by multiple sp.
12	Mammal path.
13	Log piles and scrap metal for basking. Could also be used as hibernaculum.



Target note number	Description
14	Refugia – amphibians.
15	Refugia – inverts.
16	Refugia – reptiles.
17	Rubble pile - potential for small mammals, amphibians, and basking reptiles.
18	Cinnabar moth <i>Tyria jacobaeae</i> caterpillar.
19	Mammal path possible leading to neighbouring parcel. Too narrow for badger.
20	Brown hare <i>Lepus europaeus</i> spotted galloping over grassland pasture northward.
21	Several mammal burrows in woodland, disused. Look too small for badger.
22	Central hedgerow between four arable fields, a 20-30 cm circumference mammal path.
23	Several brown hares living or foraging/sheltering in field which has been left fallow.
24	Brown hare running under beech trees.
25	Rabbit/hare digging on side of gravel driveway, alongside hedge on grassland.
26	Mammal path.
27	Mammal path.
28	Mammal path.
29	Mammal path.
30	Mammal path.
31	Mammal path.
32	Amphibian.
33	Hedgerow provides hibernation and corridor for common amphibians.
34	Lots of vegetation for hibernation habitat.
35	Pile of old bricks covered in ivy – suitable refugia for amphibians.



## **Appendix 4: Great Crested Newt Technical Note**

The Great Crested Newt Technical Note document has been provided separately.



## Appendix 5: Statutory designated sites of International or European importance within 10 km of the site

Site name	Designation	Distance from the site at closest point	Reasons for designation
Greater Wash	Special Protection Area (SPA)	Within the site	<p>The Greater Wash SPA covers c. 3,536 km<sup>2</sup> and is designated for important areas of sea used by waterbirds throughout the year.</p> <p>The site is designated for three non-breeding species: red-throated diver <i>Gavia stellata</i>, little gull <i>Hydrocoloeus minutus</i>, and common scoter <i>Melanitta nigra</i>.</p> <p>The site is also designated for three breeding species: sandwich tern <i>Sterna sandvicencis</i>, little tern <i>S. albigrons</i>, and common tern <i>S. hirundo</i>.</p>
Hornsea Mere	SPA	6.4 km south of the site	<p>Designated for its ornithological importance, Hornsea Mere consists of a 120 ha shallow eutrophic lake with reed swamp, fen, and carr woodland.</p> <p>The mere is principally valued for its importance as a refuge and feeding area for duck species. Wintering species include mallard <i>Anas platyrhynchos</i>, teal <i>A. crecca</i>, wigeon <i>A. penelope</i>, pochard <i>Aythya farina</i>, tufted duck <i>A. fuligula</i>, scaup <i>A. marila</i>, goldeneye <i>Bucephala clangula</i>, goosander <i>Mergus merganser</i>, and long-tailed duck <i>Clangula hyemalis</i>.</p> <p>Breeding species include mallard, tufted duck, gadwall, pochard, teal, shoveler, reed warbler <i>Acrocephalus scirpaceus</i>, and coot <i>Fulica atra</i>.</p> <p>The reedbeds also support starling <i>Sturnus vulgaris</i> and hirundines roosts. Summering little gulls are also present on the mere.</p>
Flamborough Head	Special Area of Conservation (SAC)	8.6 km north of the site	<p>The site has hard and soft chalk cliffs with vegetation. The site has sublittoral and littoral reef habitats and are the most diverse in the UK. The site supports a range of marine species.</p> <p>Annex I habitats that are the primary reason for selection of this site: 1170 reefs, 1230 vegetated sea cliffs of the Atlantic and Baltic Coasts, and 8330 Submerged or partially submerged sea caves.</p>
Humber Estuary	SAC	9.4 km south of the site	<p>Annex I habitats that are a primary reason for selection of this site: 1130 estuaries, 1140 mudflats and sandflats not covered by seawater at low tide.</p>



Site name	Designation	Distance from the site at closest point	Reasons for designation
			<p>Annex I habitats present as a qualifying feature, but are not a primary reason for selection of the site: 1110 sandbanks which are slightly covered by sea water all the time, 1150 coastal lagoons (priority feature), 1310 Salicornia and other annual colonizing mud and sand, 1330 Atlantic salt meadows (<i>Glaucopuccinellietalis maritima</i>), 2110 Embryonic shifting dunes, 2120 "shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes")", 2130 "Fixed coastal dune with herbaceous vegetation ("grey dunes")", 2160 Dune with <i>Hippophia rhamnoides</i>.</p> <p>Annex II 1095 sea lamprey <i>Petromyzon marinus</i>, 1099 river lamprey <i>Lampetra fluviatilis</i>, and 1364 grey seal <i>Halichoerus grypus</i>.</p>
	SPA		<p>The Humber Estuary comprises extensive wetland and coastal habitats. The inner estuary supports extensive areas of reedbed, with areas of mature and developing saltmarsh backed by grazing marsh in the middle and outer estuary. On the north Lincolnshire coast, the saltmarsh is backed by low sand dunes with marshy slacks and brackish pools.</p> <p>The estuary supports important numbers of waterbirds (especially geese, ducks and waders) during the migration periods and in winter.</p> <p>In summer, it supports important breeding populations of bittern <i>Botaurus stellaris</i>, marsh harrier <i>Circus aeruginosus</i>, avocet <i>Recurvirostra avosetta</i> and little tern.</p>
	Ramsar		<p>An estuary with the tidal range exposing vast mud and sand flats at low tide. Vegetation includes extensive reedbeds, areas of mature and developing saltmarsh, backed by grazing marsh or low sand dunes with marshy slacks and brackish pools.</p> <p>The area regularly supports internationally important numbers of various species of breeding and wintering waterbirds. Many passage birds, notably internationally important populations of ringed plover, <i>Charadrius hiaticula</i>, and sanderling <i>Caldris alba</i> stage in the area.</p> <p>The site supports Britain's most southeasterly breeding colony of grey seal <i>Halichoerus grypus</i>.</p>



## Appendix 6: Statutory designated sites of national or less than national importance located within 2 km of the site

Site name	Designation	Distance from the site at closest point	Reasons for designation
Leven Canal	Site of Special Scientific Interest (SSSI)	Within the site	The SSSI supports wetland plants and is an important remnant of previously widespread vegetation.
Bryan Mills Field	SSSI	100 m north of the site	The site comprises a tall fen community which occupies the centre of a small ungrazed field, the surrounding drier areas of which have been planted with trees. This low-lying central area of the field is wet and apparently spring-fed. The fen area has developed over a complex of spring heads which create small areas of surface water.
Beverley Parks	Local Nature Reserve (LNR)	250 m east of the site	The site has four parts with a mixed broadleaved woodland, an orchard and two fields. It includes the largest recently planted non-commercial orchard of traditional northern apple varieties. The two fields are being restored as traditional parkland.
Burton Bushes	SSSI	800 m east of the site	This natural oak woodland over 200 years old. It is a good example of the woodland characteristic of Holderness Till soils. The undisturbed nature of the soil profile is an important feature of the site.
Tophill Low	SSSI	There are two sites, located 800 m and 1.2 km west of the site	Tophill Low consists of two artificial storage reservoirs. The site is important as one of few inland standing open water bodies suitable for wintering wildfowl in North Humberside. Tophill Low reservoirs support nationally important concentrations of gadwall, shoveler and tufted duck. As well as locally important populations of goldeneye, great crested grebe <i>Podiceps cristatus</i> , mallard, pochard, teal and wigeon.
Pulfin Bog	SSSI	1 km south of the site	The site is one of the last remnants of a fenland reed swamp community valued both for its botanical interest. The reedbed provides habitat for breeding birds including reed bunting <i>Emberiza schoeniclus</i> , reed warbler, sedge warblers <i>Acrocephalus schoenobaenus</i> .



## Appendix 7: Non-statutory designated sites within 2 km of the site

Site name	Designation	Distance from the site at closest point	Reason for designation
Bealey's Lane	Local Wildlife Site (LWS)	Partially within the site boundary	Old, established semi-natural neutral grassland.
Bealey's Beck, Lockington	LWS	Within the site boundary	Stream
Beeford - Dunnington Road Verge	LWS	Within the site boundary	Good quality established semi-natural verge.
Fishpond Wood, Risby Estate	LWS	Partially within the site boundary	Mosaic of semi-natural habitats including woodland and wetland that also supports field evidence of features of ancient or long-standing acid woodland.
Raventhorpe Embankment	LWS	Within the site boundary	Good quality established semi-natural linear grassland.
Risby Park	LWS	Within the site boundary	Mosaic of semi-natural habitats including woodland and grassland.
Leman Road Corner - Moorbeck Road (A)	LWS	Partially within the site boundary	Good quality established semi-natural verge.
Leman Road Corner - Moorbeck Road (B)	LWS	Partially within the site boundary	Good quality established semi-natural verge.
Lake's Wood	LWS	Adjacent to the south of the site	Ancient semi-natural woodland.
Jillywood Lane	LWS	Adjacent to the west of the site	Good quality hedgerow, medieval boundary and ancient woodland boundary.
Bryan Mills Beck	LWS	Adjacent to the south of the site	Nutrient rich standing water.
Leman Wood	LWS	Adjacent to the west of the site	Ancient semi-natural woodland with evidence of features to support this.



Site name	Designation	Distance from the site at closest point	Reason for designation
Scorborough Lane	LWS	Adjacent to the south of the site	Good quality 'vergescape' consisting of a hedgerow with seven woody species per 3 0m sample, and verge habitats.
Birkhill Wood	LWS	Adjacent to the west of the site	Ancient semi-natural woodland with evidence of features to support this.
Newbald Road	LWS	Adjacent to the southwestern site boundary	Good quality hedgerow with seven woody species per 30 m sample.
Bygot Wood Lane, Leconfield	LWS	8 m north of the site, hydrologically connected	Good quality established semi-natural verge.
Brandsburton - Frodingham Road	LWS	70 m south of the site, hydrologically connected	Good quality hedgerow with six woody species per 30 m sample.
Drove Road	LWS	110 m south of the Site	Semi-natural broadleaved woodland.
Woodhill Path, Cottingham	LWS	200 m south of the site	Good quality hedgerow with six woody species per 30 m sample.
Barff Hill Causeway	LWS	240 m north of the site, hydrologically connected	Nutrient rich standing water in roadside ditch.
Bentley Moor Wood	LWS	260 m west of the site, hydrologically connected	Ancient semi-natural woodland.
Moor Lane	LWS	315 m north-east of the site	Good quality hedgerow with six woody species per 30 m sample.
Old Lane, Leconfield	LWS	350 m east of the site	Good quality 'vergescape' consisting of a hedgerow with 6 woody species per 30 m sample, and verge habitats.
Lockington	LWS	500 m north of the site, hydrologically connected	Old, established semi-natural neutral grassland.



Site name	Designation	Distance from the site at closest point	Reason for designation
Strick Pastures	LWS	600 m north-west of the site, hydrologically connected	Mosaic of semi natural habitats including grassland and nutrient-rich standing water in the ditches.
Skipsea Brough	LWS	800 m north of the site, hydrologically connected	Old, established semi-natural neutral and calcareous grassland.
Keldmarsh	Yorkshire Wildlife Trust (YWT)	830 m north of the site	No information available.
Low Balk Road, Bishop Burton	LWS	1 km west of the site	Good quality established semi-natural verge.
Tophill Low	LWS	1 km west of the site, hydrologically connected	Mosaic of semi-natural habitats including grassland, fen and standing water. Has good examples of old, established semi-natural neutral and calcareous grassland, rich-fen and nutrient rich standing water habitats.
Beverley Westwood Waxcaps	LWS	1.1 km north-west of the site	Site supports an assemblage of eight or more species of waxcaps from multiple visits.
Pulfin Bog	YWT	1.1 km south of the site, hydrologically connected	Marsh habitat with a variety of marsh flowers.
North Newbald - Beverley Road	LWS	1.1 km west of the site	Good quality established semi-natural verge.
Frodingham Pits / Coneygarth	LWS	1.15 km south-east of the Site	Standing water.
Low Farm, Routh	LWS	1.2 km east of the site, hydrologically connected	Good quality hedgerow.
Newbald Road, Beverley Westwood	LWS	1.3 km south-east of the site	Good quality hedgerow.



Site name	Designation	Distance from the site at closest point	Reason for designation
Watton Carr	LWS	1.5 km north of the site, hydrologically connected	Wetland site that regularly supports significant populations of at least 10 species of overwintering water-birds of conservation concern.
Lockington Wood	LWS	1.5 km north-west of the site, hydrologically connected	Ancient semi-natural woodland.
Driffield Road	LWS	1.7 km east of the site	Good quality hedgerow with six woody species per 30 m sample.
Mill Beck and Fields	LWS	1.7 km south-east of the site, hydrologically connected	Old, established semi-natural neutral grassland.
Leconfield Low Parks	LWS	1.78 km east of the Site	Grassland, scrub and standing water.
Beverley Limekilns	LWS	1.8 km east of the site	Old, established semi-natural neutral and calcareous grassland.
Figbam Pastures	LWS	1.8 km north-east of the site	Mosaic of semi-natural habitats including grassland and wetland.
Cote Wood	LWS	1.8 km south-east of the site	Ancient semi-natural woodland that is also assigned to W8 NVC Community.
Etton - Gardham Disused Railway	LWS	1.8 km west of the site	Old, established semi-natural neutral and calcareous grassland.
Hamilton Hill Marsh, Barmston	LWS	1.9 km north of the site	Semi-natural coastal habitat which supports good examples of brackish fen and swamp and coastal sand dunes.
Mill Dam Beswick	LWS	1.9 km north of the site	Nutrient rich standing water.



## Appendix 8: Granted EPS licences for bats within 2 km of the site

Licence number	Species	Approximate distance and direction from the site	Licence impacts	Date
EPSM2012-4384	Common pipistrelle <i>Pipistrellus pipistrellus</i> , Natterer's <i>M. nattereri</i> , brown long-eared <i>Plecotus auritus</i>	400 m to the west	Destruction of a resting place	13/07/2012 - 31/07/2014
2018-37471-EPS-MIT	Common pipistrelle	600 m to the north	Destruction of a resting place	01/10/2018 - 31/10/2019
2019-43535-EPS-MIT			Destruction of a resting place	23/11/2019 - 31/05/2025
2018-34003-EPS-MIT	Common pipistrelle, natterers	600 m to the south-east	Destruction and damage to a resting place	03/04/2018 - 30/04/2023
EPSM2013-6091	Common pipistrelle, brown long-eared	1.3 km to the north-east	Destruction of a resting place	15/08/2013 - 31/10/2014
2018-35273-EPS-MIT	Common pipistrelle	1.9 km to the north-west	Destruction of a resting place	01/06/2018 - 31/07/2018
2018-35273-EPS-MIT-1			Destruction of a resting place	
2018-35273-EPS-MIT-2			Destruction of a resting place	07/06/2018 - 30/09/2019
2014-4452-EPS-MIT	Common pipistrelle, soprano pipistrelle <i>P. pygmaeus</i>	1.9 km to the north	Destruction and damage to a resting place	24/11/2014 - 30/03/2019
2014-4452-EPS-MIT-1			Destruction and damage to a resting place	04/12/2014 - 30/03/2019



Licence number	Species	Approximate distance and direction from the site	Licence impacts	Date
2014-4452-EPS-MIT-2	Brown long-eared, common pipistrelle and soprano pipistrelle		Destruction and damage to a resting place	04/12/2014 - 31/03/2019
2014-4452-EPS-MIT-3			Destruction and damage to a resting place	24/03/2015 - 30/03/2019
2014-4452-EPS-MIT-4			None	23/11/2015 - 30/03/2019
2014-4452-EPS-MIT-5			None	03/02/2017 - 03/02/2017



## Appendix 9: Notable bird species within 2 km of the site

Common name	Scientific name	Status
Whooper swan	<i>Cygnus cygnus</i>	Schedule 1, Amber
Barn owl	<i>Tyto alba</i>	Schedule 1, Green
Cetti's warbler	<i>Cettia cetti</i>	Schedule 1, Green
Red kite	<i>Milvus milvus</i>	Schedule 1, Green
Curlew	<i>Numenius arquata</i>	NERC S41, Red
House sparrow	<i>Passer domesticus</i>	NERC S41, Red
Marsh tit	<i>Poecile palustris</i>	NERC S41, Red
Skylark	<i>Alauda arvensis</i>	NERC S41, Red
Yellowhammer	<i>Emberiza citrinella</i>	NERC S41, Red
Dunnock	<i>Prunella modularis</i>	NERC S41, Amber
Song thrush	<i>Turdus philomelos</i>	NERC S41, Amber
Common whitethroat	<i>Sylvia communis</i>	Amber
Common gull	<i>Larus canus</i>	Amber
Kestrel	<i>Falco tinnunculus</i>	Amber
Pink-footed goose	<i>Anser brachyrhynchus</i>	Amber
Shoveler	<i>Anas clypeata</i>	Amber
Tawny owl	<i>Strix aluco</i>	Amber
Woodpigeon	<i>Columba palumbus</i>	Amber



