



# MORGAN AND MORECAMBE OFFSHORE WIND FARMS: TRANSMISSION ASSETS

## Environmental Statement

Volume 3, Annex 3.1: Onshore ecology desk study technical report



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## Glossary

Term	Meaning
Applicants	Morgan Offshore Wind Limited (Morgan OWL) and Morecambe Offshore Windfarm Ltd (Morecambe OWL).
Biodiversity benefit	<p>An approach to development that leaves biodiversity in a better state than before. Where a development has an impact on biodiversity, developers are encouraged to provide an increase in appropriate natural habitat and ecological features over and above that being affected.</p> <p>For the Transmission Assets, biodiversity benefit will be delivered within identified biodiversity benefit areas within the Onshore Order Limits. Further qualitative benefits to biodiversity are proposed via potential collaboration with stakeholders and local groups, contributing to existing plans and programmes, both within and outside the Order Limits.</p>
EIA Scoping Report	A report setting out the proposed scope of the Environmental Impact Assessment process. The Transmission Assets Scoping Report was submitted to The Planning Inspectorate (on behalf of the Secretary of State) for the Morgan and Morecambe Offshore Windfarms Transmission Assets in October 2022.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a project. This requires consideration of the likely changes to the environment, where these arise as a consequence of a project, through comparison with the existing and projected future baseline conditions.
Environmental Statement	The document presenting the results of the Environmental Impact Assessment process.
European Protected Species	Species (such as bats, great crested newts, otters and dormice) which receive full protection under The Conservation of Species and Habitats Regulations 2017 and Conservation of Offshore Marine Habitats and Species Regulations 2017.
Expert Working Group	A forum for targeted engagement with regulators and interested stakeholders through the Evidence Plan process.
Mean High Water Springs	The height of mean high water during spring tides in a year.
Morgan and Morecambe Offshore Wind Farms: Transmission Assets	<p>The offshore and onshore infrastructure connecting the Morgan Offshore Wind Project and the Morecambe Offshore Windfarm to the national grid. This includes the offshore export cables, landfall site, onshore export cables, onshore substations, 400 kV grid connection cables and associated grid connection infrastructure such as circuit breaker compounds.</p> <p>Also referred to in this report as the Transmission Assets, for ease of reading.</p>
Potential Special Protection Areas	A site identified as potentially qualifying for Special Protection Area classification and for which a decision to classify has yet to be taken pending consultation.
Preliminary Environmental Information Report	A report that provides preliminary environmental information in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017. This is information that enables consultees to understand the likely significant environmental effects of a project and which helps to inform consultation responses.
Protected species	A species of animal or plant which it is forbidden by law to harm or destroy.

Term	Meaning
Ramsar sites	Wetlands of international importance that have been designated under the criteria of the Ramsar Convention. In combination with Special Protection Areas and Special Areas of Conservation, these sites contribute to the national site network.
Special Areas of Conservation	A site designation specified in the Conservation of Habitats and Species Regulations 2017. Each site is designated for one or more of the habitats and species listed in the Regulations. The legislation requires a management plan to be prepared and implemented for each SAC to ensure the favourable conservation status of the habitats or species for which it was designated. In combination with Special Protection Areas and Ramsar sites, these sites contribute to the national site network.
Special Protection Areas	A site designation specified in the Conservation of Habitats and Species Regulations 2017, classified for rare and vulnerable birds, and for regularly occurring migratory species. Special Protection Areas contribute to the national site network.
Survey area	The area within which each survey has been undertaken. This may differ from the Study Area as a Survey Area will be based on species or survey-specific guidance on the extent of survey required, which may be limited by, for example, habitat conditions, or be defined in terms of buffer areas around an area of potential impact.
Transmission Assets	See Morgan and Morecambe Offshore Wind Farms: Transmission Assets (above).
Onshore Order Limits	The area within which all components of the Transmission Assets landward of Mean Low Water Springs will be located, including areas required on a temporary basis during construction and/or decommissioning (such as construction compounds).

## Acronyms

Acronym	Meaning
ASNW	Ancient Semi-natural Woodland
BHS	Biological Heritage Site
Bonn2	Bonn Convention on the Conservation of Migratory Species of Wild Animals, Appendix 2
CR	IUCN Red List of Threatened Species - Critically Endangered
DD	IUCN Red List of Threatened Species - Data Deficient
Defra	Department for Environment, Food & Rural Affairs
EA	Environment Agency
EIA	Environmental Impact Assessment
ES	Environmental Statement
EN	IUCN Red List of Threatened Species - Endangered
EU	European Union
EWG	Expert Working Group
EX	IUCN Red List of Threatened Species - Extinct
GCN	Great Crested Newt
HRegs2	European protected species under The Conservation of Habitats and Species Regulations 2017, Schedule 2
INNS	Invasive Non-native Species
IUCN	International Union for Conservation of Nature
JNCC	Joint Nature Conservation Committee
LBAP	Local Biodiversity Action Plan
LC	IUCN Red List of Threatened Species - Least Concern
LCC	Lancashire County Council
LERN	Lancashire Environmental Records Network
LNR	Local Nature Reserve
LWS	Local Wildlife Sites
MAGIC	The Multi Agency Geographic Information for the Countryside
MCZ	Marine Conservation Zone
NE	Natural England
NERC	Natural Environment and Rural Communities Act 2006
NNR	National Nature Reserve
NT	IUCN Red List of Threatened Species - Near Threatened

Acronym	Meaning
OSPAR	Species listed as threatened under assessment carried out for the convention for the Protection of the Marine Environment of the North-East Atlantic 1992
PAWS	Plantation On Ancient Woodland Sites
PEIR	Preliminary Environmental Information Report
pSAC	Possible Special Area of Conservation
pSPA	Potential Special Protection Area
RDB	Red Data Book
RDB-N	Red Data Book listing – Nationally Notable
RDB-NNA	Red Data Book listing - Nationally Notable A
RDB-NNB	Red Data Book listing - Nationally Notable B
RDB-NR	Red Data Book listing - Nationally Rare
RDB-NS	Red Data Book listing - Nationally Scarce
S41	Species and habitats listed under Section 41 of the Natural Environment and Rural Communities Act (2006) as being of principal importance for nature conservation.
SAC	Special Area of Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UK	United Kingdom
VU	IUCN Red List of Threatened Species - Vulnerable
WCA1	Wildlife and Countryside Act 1981 Schedule 1
WCA5	Wildlife and Countryside Act 1981 Schedule 5
WCA8	Wildlife and Countryside Act 1981 Schedule 8
WCA9	Wildlife and Countryside Act 1981 Schedule 9

## Units

Unit	Description
ha	Hectare
km	Kilometre
km <sup>2</sup>	Square kilometre
m	Metre



# 1 Onshore ecology desk study technical report

## 1.1 Introduction

### 1.1.1 Overview

1.1.1.1 This document forms Volume 3, Annex 3.1 ecology desk study of the Environmental Statement (ES) prepared for the Morgan and Morecambe Offshore Wind Farms: Transmission Assets (referred to hereafter as ‘the Transmission Assets’). The ES presents the findings of the Environmental Impact Assessment (EIA) process for the Transmission Assets.

1.1.1.2 The purpose of this technical report is to present the methodology and results of the onshore ecology desk study undertaken in 2024 for the Transmission Assets. The results of the desk study have been used to inform Volume 3, Chapter 3: Onshore ecology and nature conservation of the ES.

1.1.1.3 The onshore ecology desk study technical report excludes bird records. All matters relating to onshore and intertidal ornithology are considered in Volume 3, Chapter 4: Onshore and intertidal ornithology of the ES.

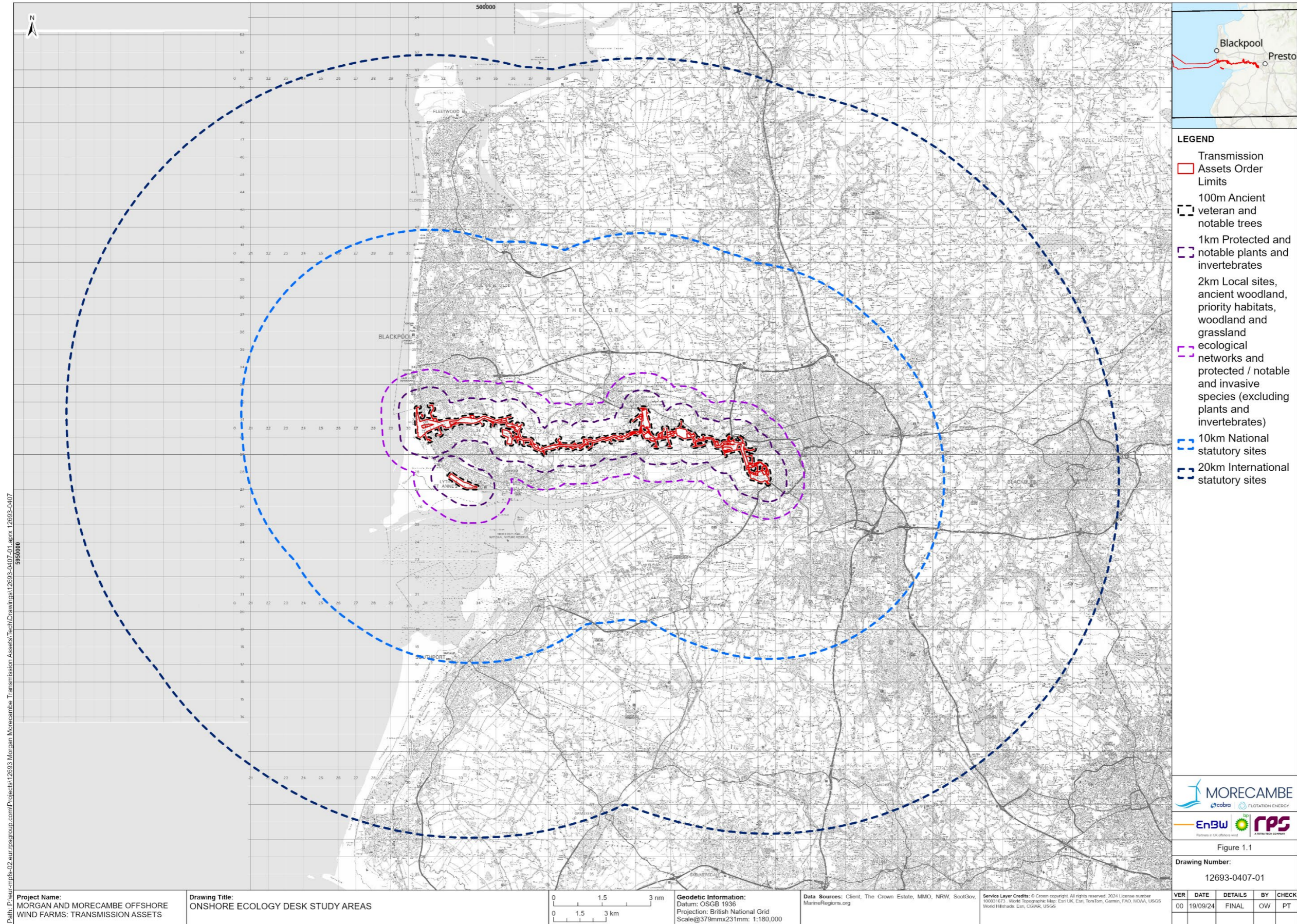
### 1.1.2 Study area

1.1.2.1 The study area comprises the Onshore Order Limits and buffer which varies depending on the ecological resource. The buffers for different ecological receptors are based on industry standard practice. They are informed by professional judgement of the distance at which impacts may be experienced taking into account the nature and extent the receptor, the geographical scale of their value, and the nature of the development proposals. For the purpose of the onshore ecology desk study the study area covers:

- international statutory designated sites located within 20 kilometres (km) of the Onshore Order Limits including Special Areas of Conservation (SACs), possible SACs, Special Protection Areas (SPAs), potential SPAs, Ramsar sites and Marine Conservation Zones (MCZ);
- national statutory designated sites located within 10 km of the Onshore Order Limits, including Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs);
- local designated sites located within 2 km of the Onshore Order Limits, including Local Nature Reserves (LNRs), Local Wildlife Sites and Biological Heritage Sites (BHSs);
- Ancient Woodland Inventory Sites within 2 km of the Onshore Order Limits;
- records of Priority Habitats within 2 km of the Onshore Order Limits;
- Woodland Ecological Networks within 2 km of the Onshore Order Limits;
- Grassland Ecological Networks within 2 km of the Onshore Order Limits;

- records of protected or notable species (excluding plants and invertebrates) and invasive species within 2 km of the Onshore Order Limits;
- records of protected or notable plants, invertebrates and aquatic invertebrates within 1 km of the Onshore Order Limits; and
- records of ancient, veteran and notable trees from the Ancient Tree Inventory within 100 m of the Onshore Order Limits.

1.1.2.2 The location and geographic extent of the onshore ecology desk study area, as defined above, are presented in **Figure 1.1** of this technical report.



**Figure 1.1: Onshore ecology desk study area(s)**

## 1.1.3 Relevant legislation, guidelines and published lists

1.1.3.1 Protected or notable species comprise of any species protected or listed under the following legislation or identified as being of nature conservation concern in the lists referred to below. Legislation related to protected species includes:

- The Conservation of Habitats and Species Regulations 2017 (Annex 2) (European Protected Species) (HRegs2);
- Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (referred to as WCA1, WCA5 and WCA8 respectively);
- The Protection of Badgers Act 1992;
- The Eels (England and Wales) Regulations 2009; and
- Salmon and Freshwater Fisheries Act 1975.

1.1.3.2 Legislation, policy and published lists related to other notable habitats and species include:

- habitats and species listed as being of principal importance for conservation in England under section 41 of the Natural Environment and Rural Communities Act 2006 (NERC Act 2006), referred to as S41 species and Priority Habitats;
- red list based on the International Union for Conservation of Nature (IUCN) guidelines – Critically Endangered (CR), Data Deficient (DD), Endangered (EN), Extinct (EX), Least Concern (LC), Near Threatened (NT), Rare (R), Vulnerable (VU);
- rare and scarce species not based on IUCN criteria, Red Data Book (RDB) species – Nationally Notable (RDB-NN), Nationally Notable A (RDB-NNA), Nationally Notable B (RDB-NNB), Nationally Scarce (RDB-NS) and Nationally Rare (RDB-NR);
- species listed in Appendix 2 of the Bonn Convention on the Conservation of Migratory Species of Wild Animals (Bonn2); and
- species listed on the Birds of Conservation Concern (BoCC) red list (high concern) or amber list (medium concern).

1.1.3.3 Published lists related to local features includes:

- Guidelines for the Selection of Biological Heritage Sites (2006);
- Lancashire Local Biodiversity Action Plan (LBAP) species; and
- Lancashire LBAP long list species (species of significance within Lancashire under the previously published Lancashire LBAP criteria).

1.1.3.4 Lancashire key species are species protected under the legislation listed in **paragraph 1.1.3.1**, or listed on the lists identified under **paragraph 1.1.3.2**, former Lancashire Biodiversity Action Plan (BAP) species and species listed on the Lancashire Guidelines for Selection of Biological Heritage Sites (2006).

- 1.1.3.5 Lancashire Grassland and Woodland Ecological networks are networks comprised of core woodland or grassland sites with known ecological value (such as Biological Heritage Sites) along with interconnecting linear corridors of other habitats in a relatively natural condition. The interconnecting habitat support the ecological function of the woodland or grassland sites by providing supporting habitat along which woodland or grassland species can feed disperse and reproduce and act as stepping stones between core sites.
- 1.1.3.6 Ancient woodland sites provided by Lancashire Environmental Records Network (LERN) vary in nature, with the following types of woodland noted according to the Ancient Woodland Inventory (Natural England, 2023).
- Ancient semi natural woodland – broadleaf woodlands comprising mainly native tree and shrub species which are believed to have been in existence for over 400 years.
  - Plantation on ancient woodland sites – sites which are believed to have been continuously wooded for over 400 years and currently have a canopy cover of more than 50% non-native conifer tree species.
  - Ancient wood pasture- woodlands where the trees are managed with use of a long-established tradition of grazing, characteristically with at least some veteran trees or shrubs.
- 1.1.3.7 Trees listed on the Woodland Trusts Ancient Tree Inventory can be recorded and submitted by anyone following the guidance provided on the website (Natural England, 2023). The inventory lists trees under three different age classes: notable, veteran and ancient as follows.
- Ancient trees are trees in their third and final stage of life for that species. They are some of the oldest trees for their species and possess features of biological/wildlife and sometimes cultural value. Typically, this includes reduced crown, hollow trunk, cavities on trunk and limbs, rough or creviced bark, fungal fruiting bodies from dead wood, and deadwood in the crown.
  - Veteran trees are not as old as ancient trees. They are veteran because they possess some of the feature of ancient trees which have value for wildlife, and which have developed because of the trees life or environment rather than just age. This includes deadwood, cavities, and water filled hollows.
  - Notable trees are trees notable for their size (for their species) and may be especially large or prominent but lack the features of age and decay that characterise veteran and ancient trees.
- 1.1.3.8 Biodiversity road verges are a non-statutory designation applied to by Lancashire County Council to road verges which are recognised for their biodiversity value.
- 1.1.3.9 Local Plans were also reviewed to identify relevant policies and designated areas that could be of value for ecology and biodiversity. Following this review, requests were made to the three local authorities covering the Onshore Order Limits for information on the following relevant areas specified in their respective Local Plans.

- South Ribble Local Plan - Wildlife Corridors and Green Infrastructure;
- Preston Local Plan - Wildlife Corridors, Green Infrastructure and Existing Woodland; and
- Fylde Local Plan - Semi-natural Green Spaces.

## 1.1.4 Consultation

- 1.1.4.1 On 28 October 2022, the Applicants submitted an EIA Scoping Report to the Planning Inspectorate, which described the scope and methodology for the technical studies being undertaken to provide an assessment of any likely significant effects for the construction, operation and maintenance and decommissioning phases of the Transmission Assets.
- 1.1.4.2 Subsequent to the submission of the EIA Scoping Report the first onshore ecology and onshore and intertidal ornithology Expert Working Group (EWG) was held in March 2023 to consult on all relevant aspects of onshore ecology and intertidal ornithology. Full details on this and all subsequent consultations along with responses and where they have been addressed in the EIA can be found within Volume 3, Chapter 3: Ecology and nature conservation of the ES.

## 1.2 Methodology

- 1.2.1.1 A combination of desk studies and field surveys were undertaken to ascertain the presence or likely absence of notable habitats and species within their respective study and survey areas.
- 1.2.1.2 The results of the desk study are presented in this technical report. However, additional detail related to desk studies, specific to each species, can be found within Volume 3, Annex 3.4 to Annex 3.14 of the ES.

### 1.2.2 Sources of information

- 1.2.2.1 Information on onshore ecology within the study area was collected through a detailed desktop review of existing studies and datasets. These sources were chosen based on best industry practice and are summarised at **Table 1.1** below.

**Table 1.1: Summary of key desktop sources for the onshore ecology desk study**

Organisation	Source	Date of data request/access	Author	Data obtained
Lancashire Environmental Records Network (LERN).	LERN data share site	March 2024	LERN	Records of protected or notable species, statutory designated sites, non-statutory designated sites, ancient woodland and Priority Habitats (see <b>paragraph 1.1.3.2</b> ) from the last 10 years.
Department for Environment, Food & Rural Affairs (Defra).	Multi-Agency Geographic Information for the Countryside (MAGIC)	July 2024	Defra	Locations and extent of statutory sites designated for nature conservation, including SPAs, SACs, NNRs, SSSIs and LNRs located within the study area.
UK Protected Area Joint Nature Conservation Committee (JNCC).	JNCC website	July 2024	JNCC	Citations and information on statutory sites designated for nature conservation, including SPAs, SACs, NNRs, SSSIs and LNRs located within the study area.
The Woodland Trusts	The Woodland Trust Ancient Tree Inventory Website	July 2024	The Woodland Trust	Ancient, veteran and notable trees within 100 m of the Onshore Order Limits.
Lancashire County Council	Lancashire County Council Website	July 2024	Lancashire County Council	Grassland and Woodland Networks within 2 km of the Onshore Order Limits.
Environment Agency	Ecology and fish data explorer	2024	Environment Agency	Data for the Ribble Estuary contains records from 2002-2023.
Fyde District Council	Email request to planning department	July 2024	Fyde District Council	Location and extent of Semi-natural Green Spaces as defined in the Local Plan.
Preston City District Council	Email request to planning department	July 2024	Preston City District Council	Location and extent of Wildlife Corridors, Green Infrastructure and Existing Woodland as defined in the Local Plan.
South Ribble District Council	Email request to planning department	July 2024	South Ribble District Council	Location and extent of Wildlife Corridors and Green Infrastructure as defined in the Local Plan.

## 1.2.3 Confidential records

1.2.3.1 Record of badger and otter should be treated as confidential and not distributed publicly. This is because of the risk of persecution if records of badger setts are made publicly available.

1.2.3.2 The records of badgers are presented separately in the following confidential annexes: Volume 3, Annex 3.13 Badger survey technical report; and Volume 3, Annex 3.12. Otter survey technical report of this ES.

## 1.2.4 Limitations

- 1.2.4.1 The desktop sources used to inform this technical report comprise third party controlled data, purchased for use for this project. The Applicants cannot be held liable for any inaccuracies in this data.
- 1.2.4.2 Desk study species data shows where species have been recorded. The absence of records, however, may be due to the absence of surveys in that area or a lack of reporting of results and incidental sighting.
- 1.2.4.3 The absence of data does not therefore mean an absence of a species. The findings of this technical report have not been relied upon alone to determine species presence or absence but have been used in conjunction with phase 1 habitat surveys (see Volume 3, Annex 3.3: Phase 1 habitat, national vegetation classification and hedgerow survey technical report of the ES) and habitat and species specific surveys (see Volume 3, Annexes 3.5 to 3.14 of the ES).

## 1.3 Results

### 1.3.1 Internationally designated sites

- 1.3.1.1 The desk study identified nine internationally designated sites located within 20 km of the Onshore Order Limits. The name, designation, distance, and description of these internationally designated sites is provided in **Table 1.2** below. One site is located partly within the Onshore Order Limits.
- 1.3.1.2 Qualifying features for designated sites may be described as either ‘primary reasons for designation’ or as ‘features present as qualifying features but not as primary reasons for designation’. These two separate categories differ in the extent and representativeness of the feature present within the site. However, all features are equally protected under law.
- 1.3.1.3 The location and geographic extent of these internationally designated sites in relation to the study area is presented in **Figure 1.2**.

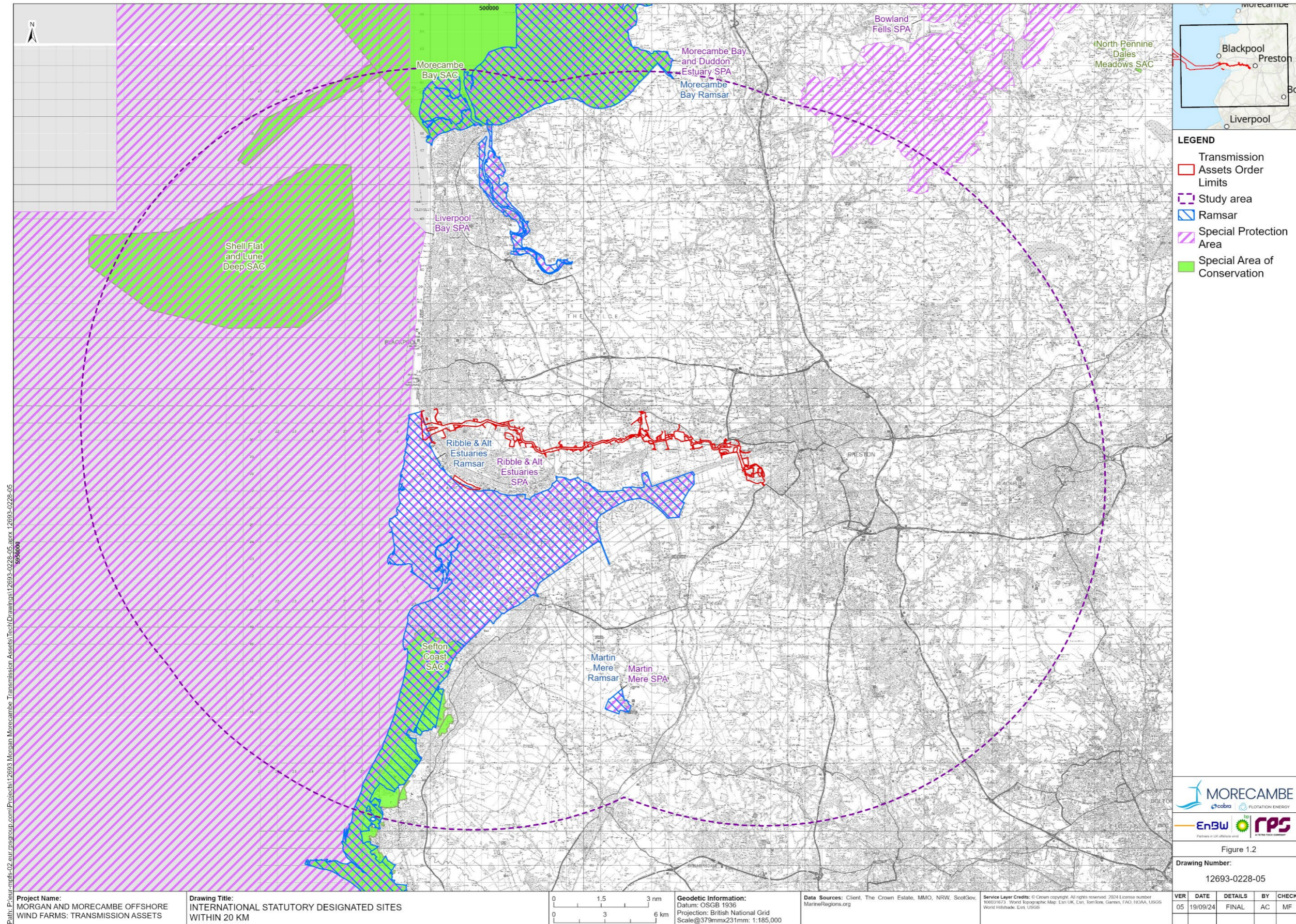


**Table 1.2: Internationally designated sites located within 20 km of the Onshore Order Limits**

Site name	Designation	Distance to Onshore Order Limits (km)	Description
Ribble and Alt Estuaries	SPA, Ramsar	Partly within Onshore Order Limits	The coastal habitats of this SPA and Ramsar support many nesting and migrating birds. The specific designation of this site relates to the presence of an internationally important waterbird and seabird assemblage alongside several breeding and non-breeding bird species in Annex I of the Wild Birds Directive (Article 4.1). The site is Ramsar designated for supporting up to 40% of the Great Britain population of natterjack toad <i>Bufo calamita</i> . A baseline characterisation of this SPA and Ramsar site can be found in Volume 3, Chapter 4 and intertidal ornithology of the ES.
Liverpool Bay	SPA	0.70	Liverpool Bay, also known as Bae Lerpwl, lies to the east of the Irish Sea, bordering the coastlines of North West England and North Wales. It is classified for the protection of an internationally important waterbird assemblage and several breeding and non-breeding bird species in Annex I of the Wild Birds Directive (Article 4.1). A baseline characterisation of this SPA can be found in Volume 3, Chapter 4 and intertidal ornithology of the ES.
Shell Flat and Lune Deep	SAC	8.28	Shell Flat and Lune Deep is designated as a SAC for the following habitats listed in Annex 1 of the Habitats Directive (Article 4.1): sandbanks which are slightly covered by sea water all the time; and reefs. The sandbank forms a continuous 15 km long structure of shell bank. This particular shell bank is comprised of mud and sand sediments (silts, clays through to coarse sands). Although this habitat has low biodiversity, it supports a high biomass which supports the foraging of many over wintering birds.
The Sefton Coast	SAC	8.63	<p>The Sefton Coast is designated as a SAC following habitats listed in Annex 1 of the Habitats Directive (Article 4.1):</p> <ul style="list-style-type: none"> <li>embryonic shifting dunes (one of the best examples of this habitat in the UK);</li> <li>shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes');</li> <li>fixed coastal dunes with herbaceous vegetation ('grey dunes') (a priority feature);</li> <li>dunes with <i>Salix repens ssp. argentea</i> (<i>Salicion arenariae</i>); and</li> <li>humid dune slacks.</li> </ul> <p>The following Annex 1 habitat is listed as a qualifying feature but not a primary reason for designation.</p>

Site name	Designation	Distance to Onshore Order Limits (km)	Description
			<ul style="list-style-type: none"> <li>Atlantic decalcified fixed dunes Calluno-Ulicetea (a priority feature).</li> </ul> <p>The site is also designated for petalwort <i>Petalophyllum ralfsii</i> as a primary reason for designation, and for Great Crested Newt (GCN) <i>Triturus cristatus</i>, with both species listed in Annex II of the Habitats Directive (Article 4.1).</p>
Morecambe Bay and Duddon Estuary	SPA	8.81	Morecambe Bay and Duddon Estuary were originally classified as separate SPAs, but in 2019 these sites were designated as a single SPA as both support internationally important populations of breeding seabirds and non-breeding waterbirds listed in Annex I of the Wild Birds Directive (Article 4.1) in Annex I of the Wild Birds Directive (Article 4.1). A baseline characterisation of this SPA can be found in Volume 3, Chapter 4 and intertidal ornithology of the ES.
Morecambe Bay	Ramsar	8.81	The Morecambe Bay Ramsar site fall wholly with the Morecambe Bay and Duddon Estuary SPA, and is designated for its internationally important numbers of ringed plover <i>Charadrius hiaticula</i> , and many other breeding and migratory bird species in Annex I of the Wild Birds Directive (Article 4.1). A baseline characterisation of this Ramsar site can be found in Volume 3, Chapter 4 and intertidal ornithology of the ES.
Martin Mere	SPA and Ramsar	14.12	The Martin Mere site is designated as a SPA due to the abundance of non-breeding bird species that are listed as qualifying features in Annex I of the Wild Birds Directive (Article 4.1). The site is Ramsar designated for its wintering bird assemblage and for spring/autumn and winter populations of five bird species. A baseline characterisation of this SPA can be found in Volume 3, Chapter 4 and intertidal ornithology of the ES.
Morecambe Bay	SAC	15.48	<p>The qualifying features of this SAC are the following habitat listed in Annex 1 of the Habitats Directive (Article 4.1):</p> <ul style="list-style-type: none"> <li>estuaries;</li> <li>mudflats and sandflats not covered by seawater at low tide;</li> <li>large shallow inlets and bays;</li> <li>perennial vegetation of stony banks;</li> <li>salicornia and other annuals colonizing mud and sand;</li> <li>atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>);</li> <li>shifting dunes along the shoreline with <i>Ammophila arenaria</i> ('white dunes');</li> </ul>

Site name	Designation	Distance to Onshore Order Limits (km)	Description
			<ul style="list-style-type: none"> <li>• fixed coastal dunes with herbaceous vegetation ('grey dunes'); and</li> <li>• humid dune slacks.</li> </ul> <p>The site is also designated for GCN which is listed in Annex II of the Habitats Directive (Article 4.1). The following Annex 1 habitats are present as qualifying features but not primary reasons for designation:</p> <ul style="list-style-type: none"> <li>• sandbanks which are slightly covered by sea water all the time;</li> <li>• coastal lagoons (a priority feature);</li> <li>• reefs;</li> <li>• embryonic shifting dunes;</li> <li>• atlantic decalcified fixed dunes (<i>Calluno-Ulicetea</i>) (a priority feature); and</li> <li>• dunes with <i>Salix repens</i> ssp. <i>Argentea</i> (<i>Salix arenariae</i>).</li> </ul>
Bowland Fells	SPA	17.57	<p>The primary reasons for the designation of Bowland Fells as a SPA is the presence of breeding hen harrier <i>Circus cyaneus</i>, merlin <i>Falco columbarius</i> and lesser black-backed gull <i>Larus fuscus</i>, all species listed in Annex I of the Wild Birds Directive (Article 4.1). A baseline characterisation of this SPA can be found in Volume 3, Chapter 4 and intertidal ornithology of the ES.</p>



**Figure 1.2: International statutory designated sites within 20 km**

## 1.3.2 Nationally designated sites

1.3.2.1 The desk study identified 12 nationally designated sites located within 10 km of the Onshore Order Limits. The name, designation, distance, and description of these nationally designated sites is provided in **Table 1.3** below. The location and geographic extent of these nationally designated sites in relation to the Onshore Order Limits is presented in **Figure 1.3**.

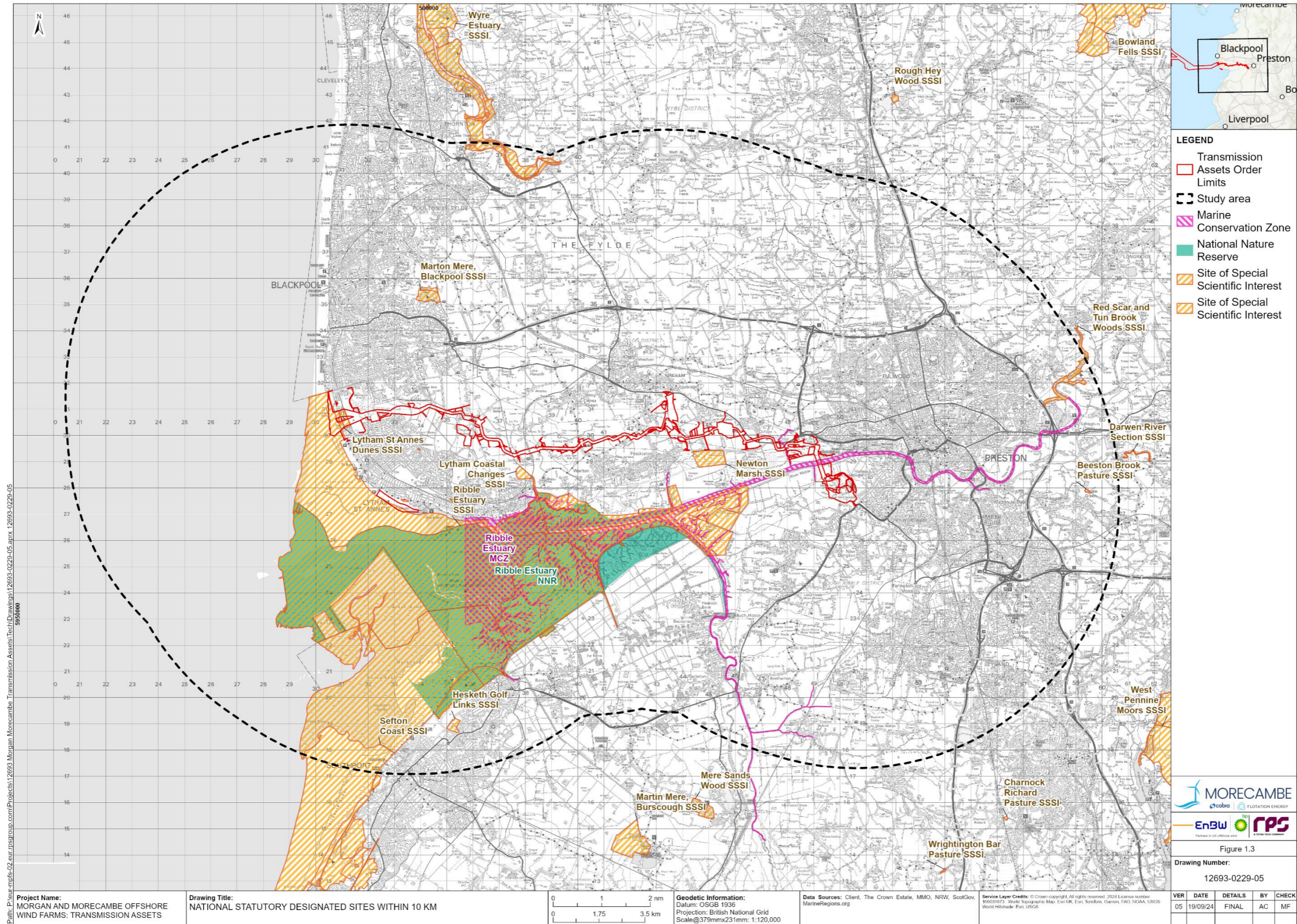
1.3.2.2 Of the 12 nationally designated sites located within the study area, three sites are located partly within the Onshore Order Limits.

**Table 1.3: Nationally designated sites within 10 km of the Onshore Order Limits**

Site name	Designation	Distance to Transmission Assets (km)	Description
Ribble Estuary	MCZ	Partly within Onshore Order Limits at the River Ribble crossing.	The site is designated for its population of smelt <i>Osmerus eperlanus</i> which migrate into fresh water to spawn. Smelt is a species of principal importance for conservation in England under Section 41 of the Natural Environment and Rural Communities Act (2006).
Lytham St Annes Dunes	SSSI (and LNR)	Partly within Onshore Order Limits.	<p>This site is of special scientific interest as it is what remains of the once extensive sand dune system along the Fylde Coast.</p> <p>The dunes show classic features of dune formation and succession including foredune, yellow dune, dune grassland, acid dune grassland, dune scrub, and dune slacks. The dune grassland and dune slacks in particular are herb rich with variations depending on soil characteristics and the degree of moisture retention.</p> <p>The dunes support over 230 species of higher plants, including rare species such as dune fescue <i>Vulpia membranacea</i>, dune helleborine <i>Epipactis dunensis</i>, seaside centaury <i>Centaureum littorale</i>, variegated horsetail <i>Equisetum variegatum</i>, round-leaved wintergreen <i>Pyrola rotundifolia</i>, and locally scarce species such as common broomrape <i>Orobancha minor</i>, Danish scurvy-grass <i>Cochlearia danica</i>, blue fleabane <i>Erigeron acer</i>, bee orchid <i>Ophrys apifera</i> and pyramidal orchid <i>Anacamptis pyramidalis</i>.</p> <p>Over 150 species of butterfly and moth have been recorded, including nationally important species, dark tussock moth <i>Dicailomera fascelina</i> and the Portland moth <i>Ochropleura praecox</i>. The sandhill rustic moth <i>Luperina nickerlii gueneei</i> has been recently rediscovered in the area after it was thought to be locally extinct. Supplementary information on the SSSI is provided in Appendix B.</p>
Ribble Estuary	SSSI, NNR	Partly within Onshore Order Limits.	This site provides important sand and mudflats habitat for invertebrates, as well as saltmarsh habitat which provides nursery grounds for a variety of fish. The site is part of a chain of estuaries along the west coast of Britain and is therefore an important migratory route

Site name	Designation	Distance to Transmission Assets (km)	Description
			for birds travelling from their breeding grounds in the far north to their wintering grounds further south. The numbers of wildfowl and waders at this site is of international importance. The site is also a stronghold for water vole <i>Arvicola amphibius</i> . A baseline characterisation of the ornithology importance of this designated site can be found in Volume 3, Chapter 4 and intertidal ornithology of the ES.
Newton Marsh	SSSI	0.02	This site is near to the Ribble Estuary SSSI/NNR and was formerly a saltmarsh habitat. It is now an area of grazed and improved pasture, but many pools and ditches remain. This relatively undisturbed habitat provides additional refuge and protection from high tides for many migratory birds. Over 100 bird species have been recorded here, with the area supporting around 10,000 individuals each winter. Notable species include golden plover <i>Pluvialis apricaria</i> , lapwing <i>Vanellus vanellus</i> , snipe <i>Gallinago gallinago</i> , and black-tailed godwit <i>Limosa limosa</i> . Rare flowering rush <i>Butomus umbellatus</i> and spiked sedge <i>Carex spicata</i> have been recorded here.
Lytham Coastal Changes	SSSI	0.12	This SSSI is designated for its geological importance and is therefore not considered further within this annex or Volume 3, Chapter 3 ecology and nature conservation of the ES. Baseline characterisation of geological SSSIs can be found in Volume 3, Chapter 1: Geology, hydrogeology and ground conditions of the ES.
Ribble Estuary	NNR	0.68	The Ribble Estuary NNR falls wholly within the Ribble Estuary SSSI and is designated for the same habitats and species (see above).
Marton Mere	SSSI	3.78	This site is a freshwater lake of 44 acres with surrounding patches of reed and other marginal plants such as yellow flag <i>Iris pseudacorus</i> , and, rarer to the area, lesser reed mace <i>Typha angustifolia</i> . The site provides important habitat for 35 species of breeding birds and is also situated along a major migration route and offers an important resting site for over 140 bird species. A baseline characterisation of the ornithology importance of this designated site can be found in Volume 3, Chapter 4 and intertidal ornithology of the ES.
Red Scar and Tun Brook Woods	SSSI	7.83	Red Scar and Tun Brook Woods is one of the largest areas of deciduous woodland in Lancashire, providing important refuge for wildlife near the urban areas of Preston. Notable plant species found here include pendulous sedge <i>Carex pendula</i> , which is scarce in Lancashire, and yellow archangel <i>Lamium galeobdolon</i> , which is also uncommon in the area and close to its northern limit. The site and surrounding woods are the only areas in North West England where the white-letter hairstreak butterfly <i>Satyrrium w-</i>

Site name	Designation	Distance to Transmission Assets (km)	Description
			<i>album</i> is found. Similarly, the oak bush-cricket <i>Meconema thalassinum</i> is rare in the area but has been recorded in these woods.
Hesketh Golf Links	SSSI	8.01	This site includes the Priority Habitats of fixed dune and dune heath, and there are also mobile dunes, dune slacks, dune grasslands, ponds, scrub, semi-natural woodlands and conifer plantations. These habitats support a population of the protected sand lizard <i>Lacerta agilis</i> .
Sefton Coast	SSSI	8.63	Sefton Coast has an array of habitats including beaches, woodland and different types of dune systems many of which are rare and some of the best in the UK. Red squirrel, natterjack toad <i>Epidalea calamita</i> and sand lizard are present.
Beeston Brook Pasture	SSSI	8.70	This site is one of the only remaining unimproved, herb-rich pastures in this area of Lancashire. These pastures are becoming increasingly scarce nationally and have been greatly reduced in Lancashire due to agricultural intensification. The site comprises a species-rich neutral grassland community, scattered scrubland, and areas of rush pastures where the ground is more wet. Lowland neutral grassland (MG5).
Wyre Estuary	SSSI	8.81	The Wyre Estuary is an important part of Morecambe Bay, the second largest intertidal estuarine flat in Britain, which is of international and national significance for wintering birds. The estuary contains the largest area of ungrazed saltmarsh in North West England and supports hundreds of wintering birds such as black-tailed godwit, turnstone <i>Arenaria</i> , teal <i>Anas crecca</i> , and many golden plover and lapwing which roost here at low tide. The saltmarshes here contain rich plant communities and the nationally scarce lax-flowered sea-lavender <i>Limonium humile</i> has also been recorded.



**Figure 1.3: National statutory designated sites within 10 km**



### 1.3.3 Local designated sites

1.3.3.1 The desk study identified two LNRs, 37 BHSs and six Biodiversity Roadside Verges within 2 km of the Onshore Order Limits. These are described in **Table 1.4**. The location and geographic extent of LNRs and BHSs in relation to the Onshore Order Limits are presented in **Figure 1.4** to **Figure 1.10**. One LNR 13 BHSs and one Biodiversity Road Verge are located partly within the Onshore Order Limits. There are no non-statutory Local Wildlife Sites (LWS) within 2 km of the Onshore Order Limits.

**Table 1.4: LNRs, BHSs and Biodiversity Road Verges located within 2 km of the Onshore Order Limits**

Site name	Designation	Distance to Transmission Assets (km)	Features/reason for designation
Lytham St Annes	LNR (forms part of Lytham St Annes Dunes SSSI)	Partly within the Onshore Order Limits.	The site forms part of the larger Lytham St Annes SSSI and is designated for its species rich sand dunes.
Fishwick Bottoms	LNR	0.03	The site is a mix of semi-natural broadleaved woodland, grassland ponds and ditches.
Booth's Plantation	BHS	Partly within the Onshore Order Limits.	The site comprises an area of oak woodland situated on the south slope of Mill Brook Valley which has characteristics of being ancient woodland although the site is not listed on the Natural England Ancient Woodland Inventory.
Freshfield Farm Pond, North	BHS	Partly within the Onshore Order Limits.	A field pond with a rich diversity of plants and animals including nationally scarce invertebrates, common frog and smooth newt <i>Lissotriton vulgaris</i> . The site is designated for a rare liverwort <i>Riccia fluitans</i> , present in only one other location in Lancashire and for its population of nationally scarce scavenger water beetle <i>Cercyon convexiusculus</i> . The pond also qualifies as a S41 habitat.
Freshfield Farm Pond, South	BHS	Partly within the Onshore Order Limits.	A field pond, formerly a marl pit, supporting a bog community including open water and sphagnum. The pond supports nationally scarce invertebrates and common frog <i>Rana temporaria</i> . The site is designated for its population of the nationally scarce water beetle <i>Ilybius guttiger</i> , and the mud pond snail <i>Lymnea glabra</i> .
Howick Hall Ponds	BHS	Partly within the Onshore Order Limits.	A cluster of field ponds and surrounding terrestrial habitat supporting diverse aquatic flora and breeding populations of four amphibian species (GCN, smooth newt <i>Lissotriton vulgaris</i> , common toad <i>Bufo bufo</i> and common frog). The site is designated for its amphibian assemblage, three nationally scarce water beetles ( <i>Ilybius guttiger</i> , <i>Cercyon ustulatus</i> and <i>Helochares lividus</i> ) and for six species of aquatic plants which are classed as sensitive or vulnerable in Lancashire and of which the site supports significant county populations.

Site name	Designation	Distance to Transmission Assets (km)	Features/reason for designation
			(lesser marshwort <i>Apium inundatum</i> , horned pondweed, white water-lily, greater spearwort <i>Ranunculus lingua</i> , water-soldier <i>Stratiotes aloides</i> and galingale <i>Cyperus longus</i> ). The ponds qualify as a S41 habitat due to the presence of GCN and three nationally scarce invertebrates.
Lea Marsh	BHS	Partly within the Onshore Order Limits.	Grazing marsh including a tidal section of Savick Brook and several creeks. Supports a good assemblage of salt marsh and freshwater flush plant species including nationally scarce species. The site is designated for the nationally scarce long stalked orache <i>Atriplex longipes</i> , the county endangered meadow barley <i>Hordeum secalinum</i> and for its coastal saltmarsh habitat.
Lytham Foreshore Dunes and Saltmarsh	BHS	Partly within the Onshore Order Limits.	<p>10 km of coastal habitat including sand dunes, dune grassland, saltmarsh, foreshore with shingle, sand and mudflats. The sand dunes support diverse plant and invertebrate communities.</p> <p>The site is designated for its coastal habitats of saltmarsh, shingle sand dunes and mudflats, three nationally scarce plants, (Isle of Man cabbage <i>Coincya monensis</i> subsp. <i>monensis</i>, Portland spurge <i>Euphorbia portlandica</i> and dune fescue <i>Vulpia fasciculata</i>), 12 species in the Provisional Lancashire Red Data List of Vascular Plants (pyramidal orchid, sea spurge <i>Euphorbia paralias</i>, common broomrape, bloody crane's-bill <i>Geranium sanguineum</i>, marsh helleborine <i>Epipactis palustris</i>, sea holly <i>Eryngium maritimum</i>, sand cat's-tail <i>Phleum arenarium</i>, hound's-tongue <i>Cynoglossum officinale</i>, spring vetch <i>Vicia lathyroides</i>, early forget-me-not <i>Myosotis ramosissima</i>, saltmarsh flat-sedge <i>Blysmus rufus</i> and sea kale <i>Crambe maritima</i>), the moss <i>Tortula ruralis</i> ssp. <i>Ruraliformis</i> (rare in Lancashire), the nationally rare wainscot moth <i>Mythimna litoralis</i> and the striped snail, <i>Ceriuella virgata</i>, which has restricted distribution in Lancashire.</p>
Lytham Moss	BHS	Partly within the Onshore Order Limits.	283 ha of farmland designated for wintering pink footed goose <i>Anser brachyrhynchus</i> and whooper swan <i>Cygnus cygnus</i> .
Mason's Wood	BHS	Partly within the Onshore Order Limits.	<p>Broadleaved woodland on a steep south facing bank, dissected by ditches. The ground flora includes ancient woodland indicator species.</p> <p>The site is designated for its broad-leaved woodland with field evidence indicating it is ancient although it is not listed on the Natural England Ancient Woodland inventory despite being larger than the 2 hectare threshold for inclusion.</p>

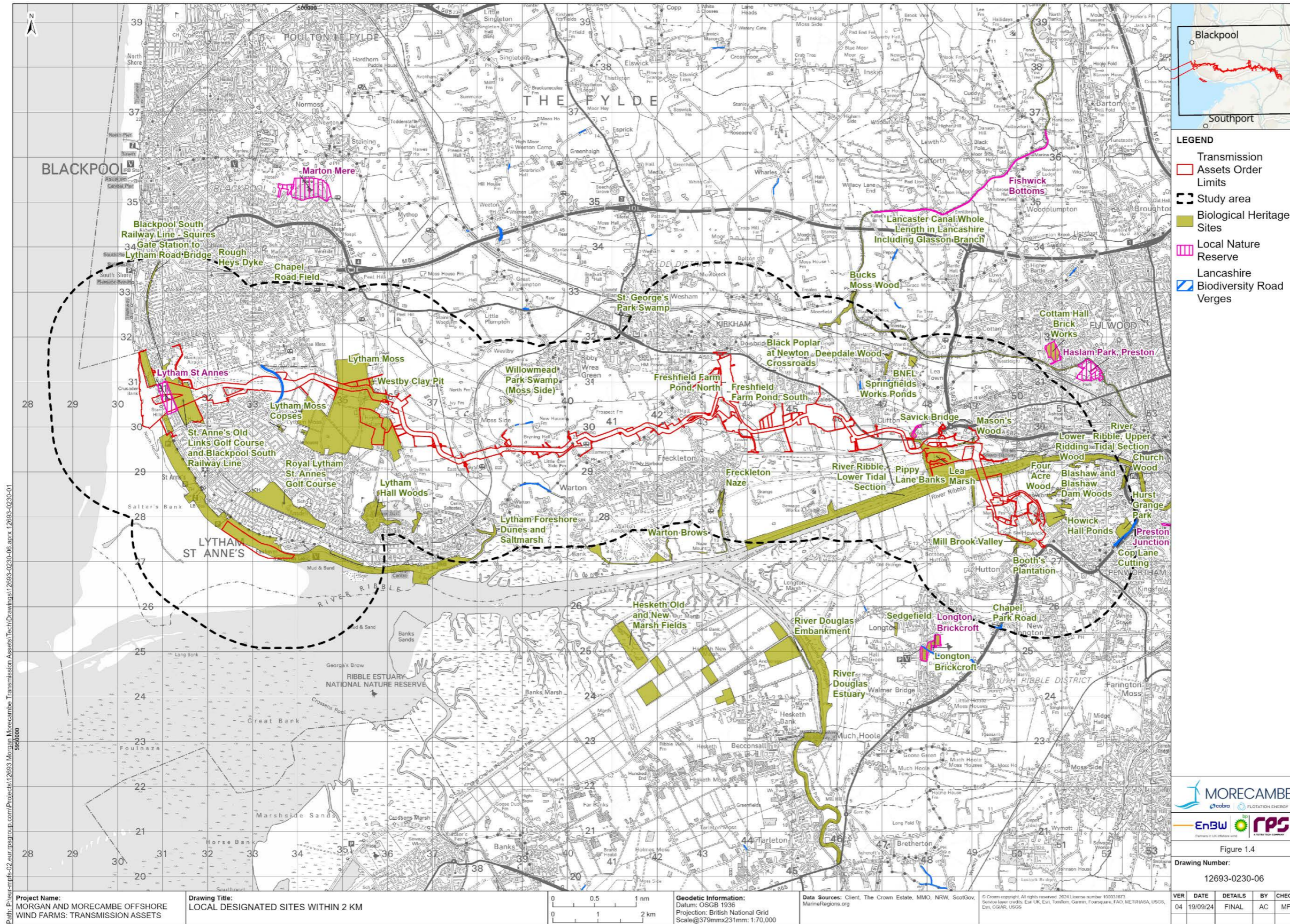
Site name	Designation	Distance to Transmission Assets (km)	Features/reason for designation
Mill Brook Valley	BHS	Partly within the Onshore Order Limits.	<p>Species rich neutral grassland with scattered scrub either side of a brook.</p> <p>The site is designed for its old established neutral grassland with at least 10 indicator species from the Lancashire BHS neutral grassland selection criteria.</p>
River Ribble, Lower Tidal Section	BHS	Partly within the Onshore Order Limits.	<p>The site comprises the tidal length of the River Ribble and associated habitats not included in the adjoining Ribble Estuary SSSI. Habitats present include rivers and streams, saltmarsh, grassland, trees and scrub, and sand dune.</p> <p>The site is designated for the river and streams, coastal saltmarsh, species-rich grassland and mudflats, artificial habitats (former sand and silt dredgings), unspecified semi-natural habitat mosaic, nationally scarce long-stalked orache and spiny restharrow <i>Ononis spinosa</i> which is classed as threatened in Lancashire.</p>
Savick Bridge	BHS	Partly within the Onshore Order Limits.	<p>A short tidal section of Savick Brook with associated tall herb, swamp, scrub and deciduous woodland.</p> <p>The site is designated for its swamp and fen habitat and for the nationally scarce long-stalked orache.</p>
St. Annes Old Links Golf Course and Blackpool South Railway Line	BHS	Partly within the Onshore Order Limits.	<p>A mosaic of relict dune grassland, dune heath and sand dune within the wider golf course. The site is a fragment of the much larger Fylde dune system prior to the 19th and 20th century resort development.</p> <p>The site is designated for its coastal sand dune, yellow bartsia <i>Parentucellia viscosa</i> and chaffweed <i>Anagallis minima</i> (both classed as endangered in Lancashire), Grass-of-parnasus <i>Parnassia palustris</i> (classed as vulnerable in Lancashire) and trailing St. John's-wort <i>Hypericum humifusum</i> classed as sensitive in Lancashire and with a significant county population within the site.</p>
Westby Clay Pit	BHS	Partly within the Onshore Order Limits.	<p>A former clay pit now supporting a mosaic of ponds, marsh, grassland, scrub and hedgerows. The site is recognised for its diverse flora as well as its value for amphibians, dragonflies, damsel flies and butterflies.</p> <p>The site is designated for its good population of GCN and for its assemblage of amphibians which also includes common toad, common frog, smooth new and palmate newt <i>Lissotriton helveticus</i>, although there are no recent records for the latter two species. The site is also designated; for Brackish water-crowfoot <i>Ranunculus baudotii</i> (classed as vulnerable in Lancashire and with a significant county population within the site), and</p>

Site name	Designation	Distance to Transmission Assets (km)	Features/reason for designation
			for nationally scarce invertebrates (unspecified). Ponds within the site qualify as S41 habitat due to the presence of GCN.
Queensway	Biodiversity Road Verge	Partly within Onshore Order limits	Grassland road verge.
Pippy Lane Banks	BHS	0.04	The site comprises a linear mosaic of tall hedgerows, grazed and rank grassland with scrub, trees and a pond.  The site is designated for a former flood embankment classified as an artificial habitat, and for breeding long-eared owl <i>Asio otus</i> shelduck <i>Tadorna tadorna</i> and yellowhammer <i>Emberiza citrinella</i> .
Bryning Hall Lane	Biodiversity Road Verge	0.21	Grassland road verge.
Blackpool South Railway Line - Squires Gate Station to Lytham Road Bridge	BHS	0.24	The site is designated for its relic coastal sand dune which support grassland and scrub alongside a railway line. The site supports notable species including several helleborine and orchid species.
Four Acre Wood	BHS	0.25	The site is designated for Ancient semi-natural woodland on the southern terrace of the River Ribble floodplain, and is also listed on the Natural England Ancient Woodland Inventory.
Blashaw and Blashaw Dam Woods	BHS	0.29	Two areas of semi-natural woodland with two ponds along the course of two brooks. Plant species of local interest have been recorded along with GCN.  The site is designated for broadleaved woodland with field indicators of being ancient (although it is not listed on the Natural England Ancient Woodland Inventory), and for greater spearwort which is present in an onsite pond and is classed as sensitive in Lancashire with a significant county population within the site. The ponds within the site qualify as S41 habitats due to the presence of GCN.
Willowmead Park Swamp (Moss Side)	BHS	0.59	A triangle of low-lying swamp and marshy grassland bordered by a small brook. The site designated as it is a regular breeding site for harvest mouse <i>Micromys minutus</i> .
Clifton Lane	Biodiversity Road Verge	0.60	Grassland Road Verge.

Site name	Designation	Distance to Transmission Assets (km)	Features/reason for designation
Lytham Moss Copses	BHS	0.72	Two small copses in an arable setting.
Black Poplar at Newton Crossroads	BHS	0.73	The site, and its reason for designation, is a single mature female native black poplar <i>Populus nigra</i> , one of only two female trees in the county.
Royal Lytham St. Annes Golf Course	BHS	0.73	<p>The site is a mosaic of species-rich dune grassland, heath and scrub alongside the golf course. The grassland is species-rich with several species of local interest.</p> <p>The site is designated for its coastal sand dunes and for three plant species listed as vulnerable in Lancashire and with significant county populations within the site: fine-leaved sheep's-fescue <i>Festuca filiformis</i>, slender parsley-piert <i>Aphanes australis</i> and sand cat's-tail.</p>
River Ribble, Upper Tidal Section	BHS	0.78	<p>The site comprises a section of the River Ribble and supports habitats including tidal mud flats, saltmarsh, strandline, running water, river shingle, tall-herb scrub, parkland trees and grassland. The site supported four plant species of local interest.</p> <p>The site is designated for the river and stream habitats and for four plant species classed as sensitive in Lancashire, and for which there are significant county populations within the site (toothwort <i>Lathraea squamaria</i>, stream water-crowfoot <i>Ranunculus fluitans</i> sand leek <i>Allium scorodprasum</i> and bee orchid <i>Ophrys apifera</i>).</p>
Lytham Hall Woods	BHS	0.99	<p>The site comprises a large area of mostly semi-natural broadleaved woodland with two ponds and some grassland; and a second small area of semi-natural broadleaved woodland. The site is also of interest for birds, dragonflies and damselflies, and butterflies.</p> <p>The site is designated for: broadleaved woodland with five or more species estimated to be over 200 years old; groups of scattered broadleaved trees with individuals estimated to be over 200 years old; and its lowland farmland breeding bird assemblage.</p>
Freckleton Naze	BHS	0.99	<p>The site comprises a long strip of semi-natural broadleaved woodland and mature scrub interspersed with species-rich grassland. The site also includes a section of tidal creek and saltmarsh. The grassland includes several plant species of local interest.</p> <p>The site is designated for its neutral grassland and associated scrub, saltmarsh, and for two plant species spiny restharrow and greater knapweed <i>Centaurea scabiosa</i>, both species being classed</p>

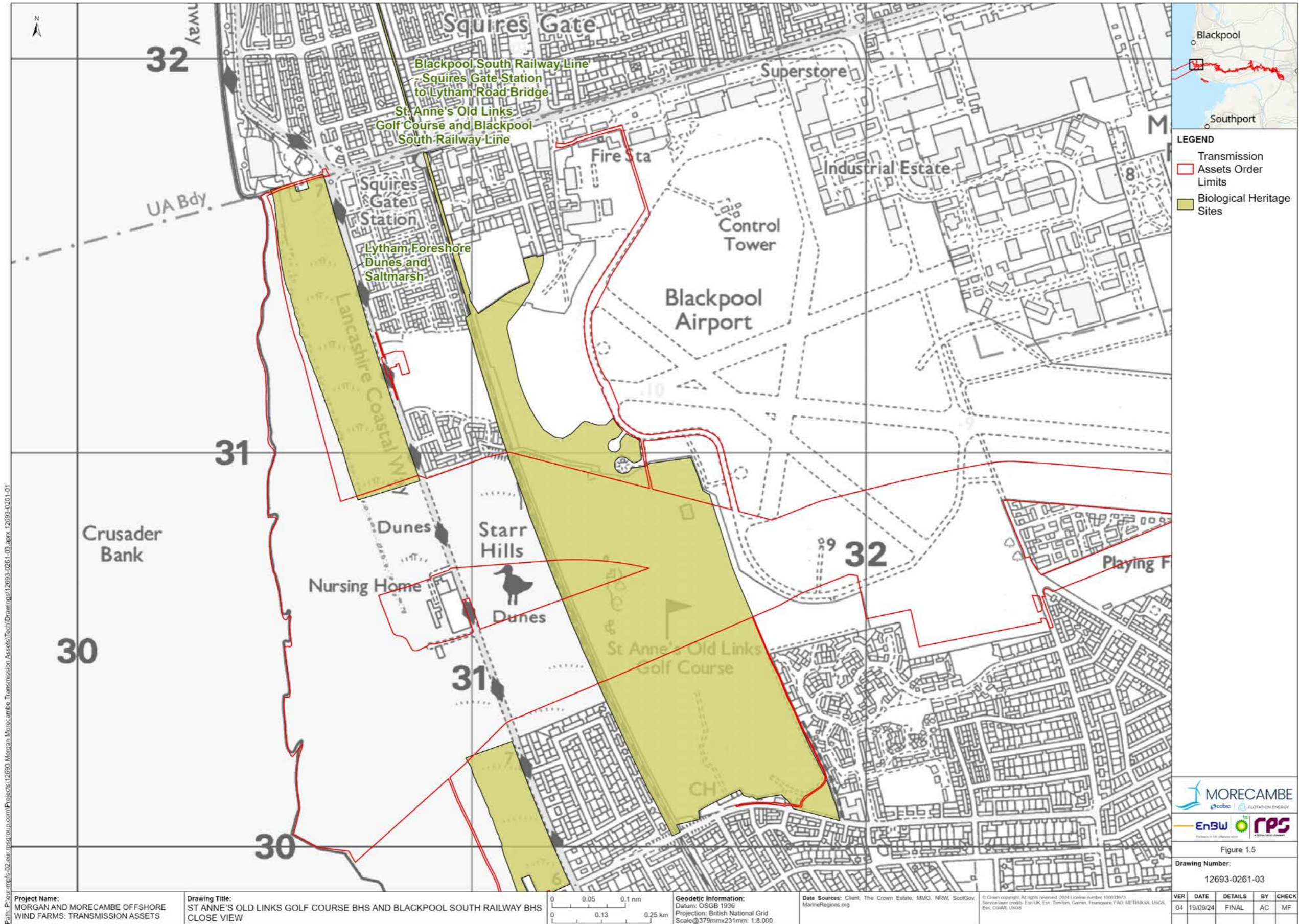
Site name	Designation	Distance to Transmission Assets (km)	Features/reason for designation
			as vulnerable in Lancashire and of which there are significant county populations within the site.
Deepdale Lane	Biodiversity Road Verge	1.01	Grassland road verge.
Lower Ridding Wood	BHS	1.03	The site comprises and is designated for two distinct patches of ancient semi-natural woodland. The site is not listed on the Natural England Ancient Woodland Inventory because they are small than the 2 hectare threshold for inclusion.
Deepdale Wood	BHS	1.12	The site comprises and is designated for two parcels of semi-natural woodland part of which is considered to be ancient. The site is not listed on the Natural England Ancient Woodland Inventory because they are small than the 2 ha threshold for inclusion.
Bucks Moss Wood	BHS	1.29	The site comprises and is designated for its broadleaved semi-natural woodland (not ancient) along a stream.
BNFL Springfields Works Ponds	BHS	1.43	The site comprises undeveloped land with a water filled trench surrounded by grassland. The site is designated for its good population of GCN, and its amphibian assemblage of four amphibian species (GCN, common frog, common toad and smooth newt). The ponds qualify as S41 habitats due to the presence of GCN.
Lancaster Canal Whole Length in Lancashire Including Glasson Branch	BHS	1.49	The site comprises the entire length of the Lancaster Canal in Lancashire. This is the largest and most species rich waterbody in the county with around 250 aquatic and semi-aquatic plant species. The site also has value for various bird, invertebrates as well as being a valuable foraging area for bats.  The site is designated for its canal habitat, and numerous aquatic plant species listed either as endangered in Lancashire, or sensitive or vulnerable in Lancashire and for which there are significant county populations within the site.
Cop Lane Cutting	BHS and Biodiversity Road Verge	1.52	The site comprises and is designated for a roadside verge embankment of species-rich neutral grassland, trees and scrub.
Rough Heys Dyke	BHS	1.90	No information provided.
Chapel Park Road	BHS and Biodiversity Road Verge	1.90	The site comprises and is designated for roadside verges which support species-rich neutral grassland.
Hurst Grange Park	BHS	1.55	The site comprises former agricultural grassland with five ponds now managed as a public open space. The grassland is species-rich while the

Site name	Designation	Distance to Transmission Assets (km)	Features/reason for designation
			<p>ponds support amphibians, and a good diversity of plants and aquatic invertebrates including many species of local interest.</p> <p>The site is designated for its neutral grassland with at least 10 indicator species.</p>
Church Wood	BHS	1.76	The site comprises, and is designated for ancient, semi-natural woodland (based on field evidence) with a diverse ground flora. The woodland is not listed on the Natural England Ancient Woodland Inventory.
Chapel Road Field	BHS	1.93	<p>The site comprises a length of hedgerow and adjoining field edge.</p> <p>The site is designated for a population of meadow-rue <i>Thalictrum flavum</i> which is scarce in the county.</p>
Warton Brows	BHS	1.95	No information provided.
St. George's Park Swamp	BHS	2.00	The site comprises a small area of wooded swamp and is designated for greater pond sedge <i>Carex riparia</i> which is uncommon in Lancashire.

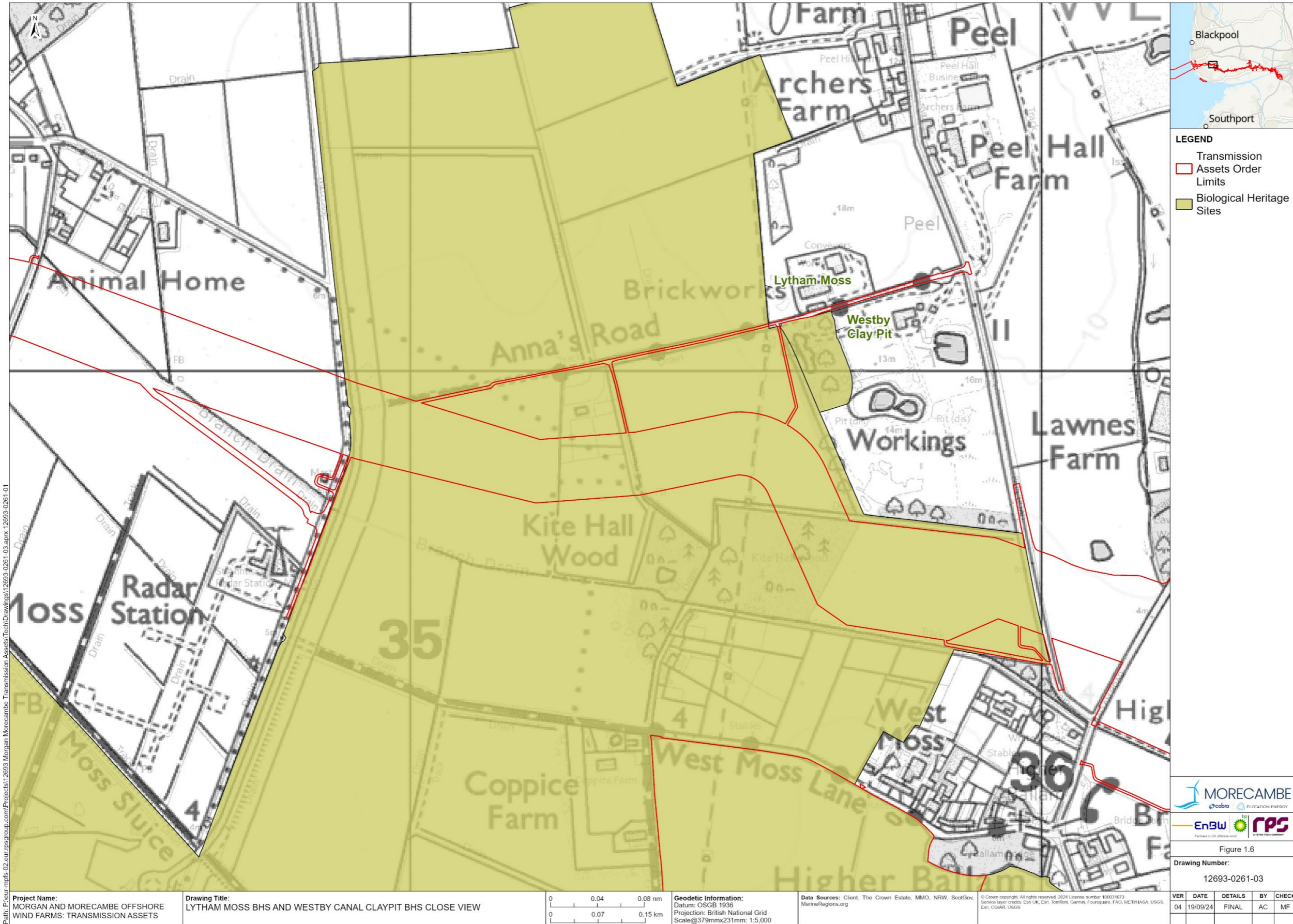


**Figure 1.4: Local designated sites within 2 km**

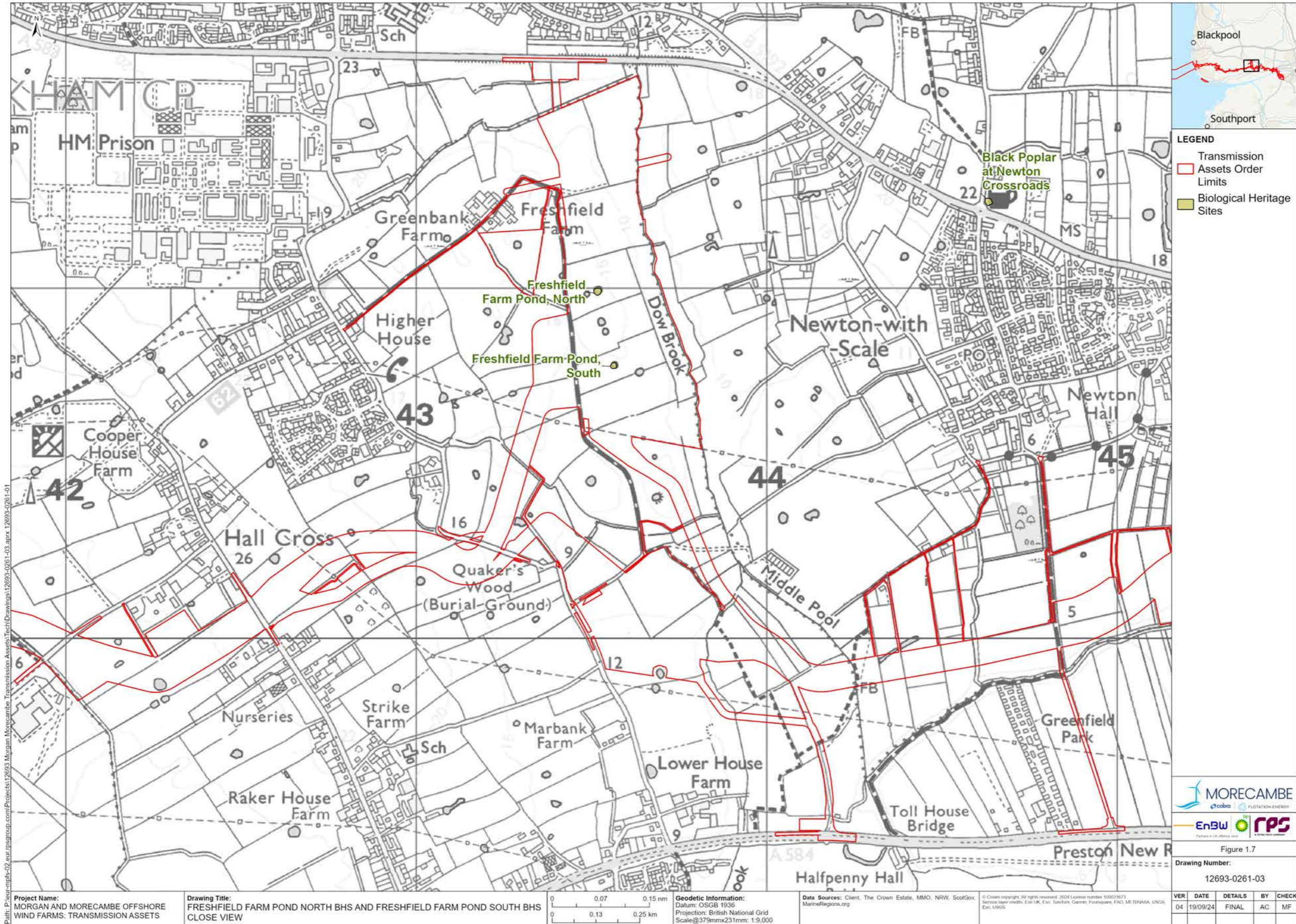




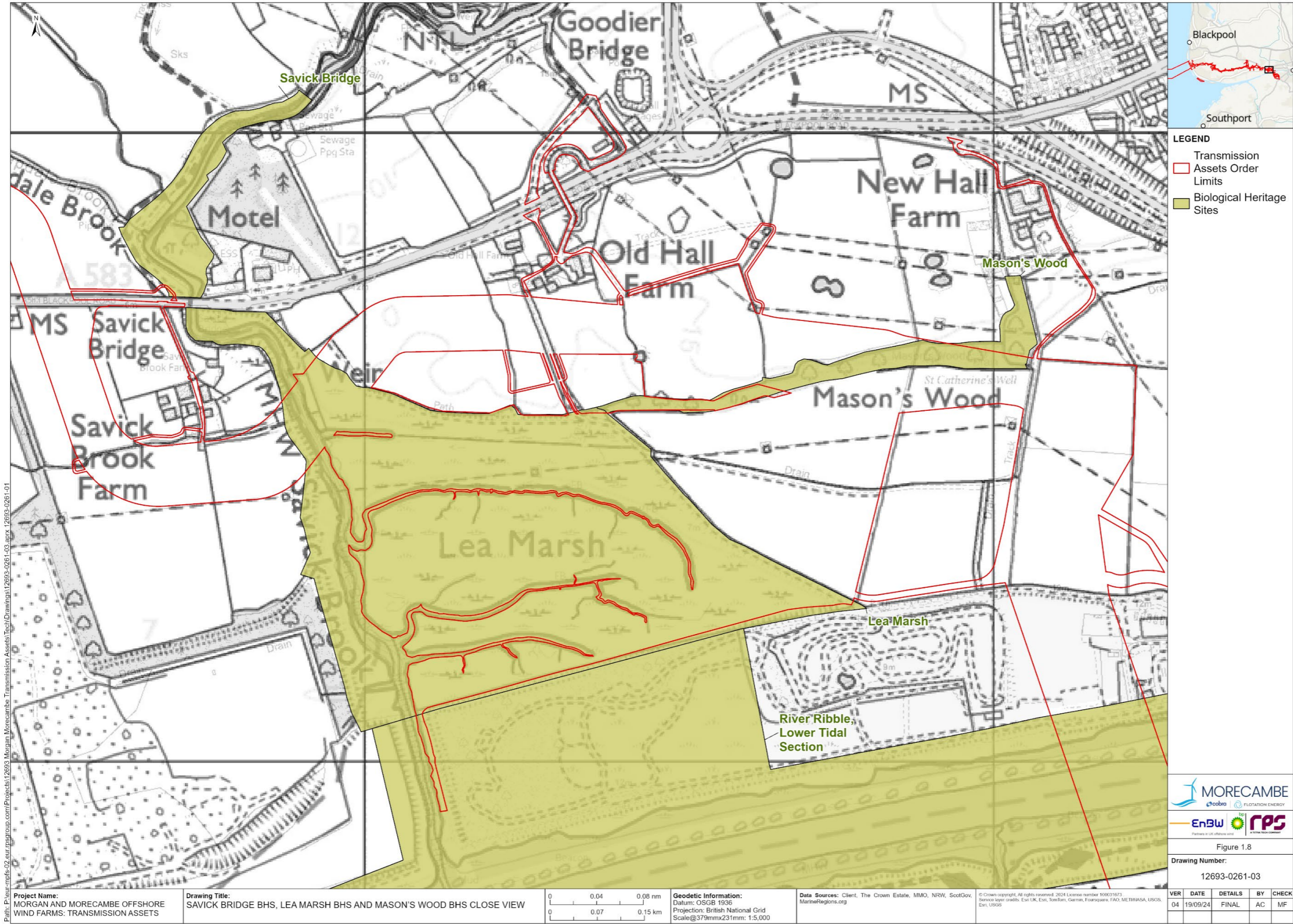
**Figure 1.5: St Annes Old Links Golf Course BHS and Blackpool South Railway BHS close view**



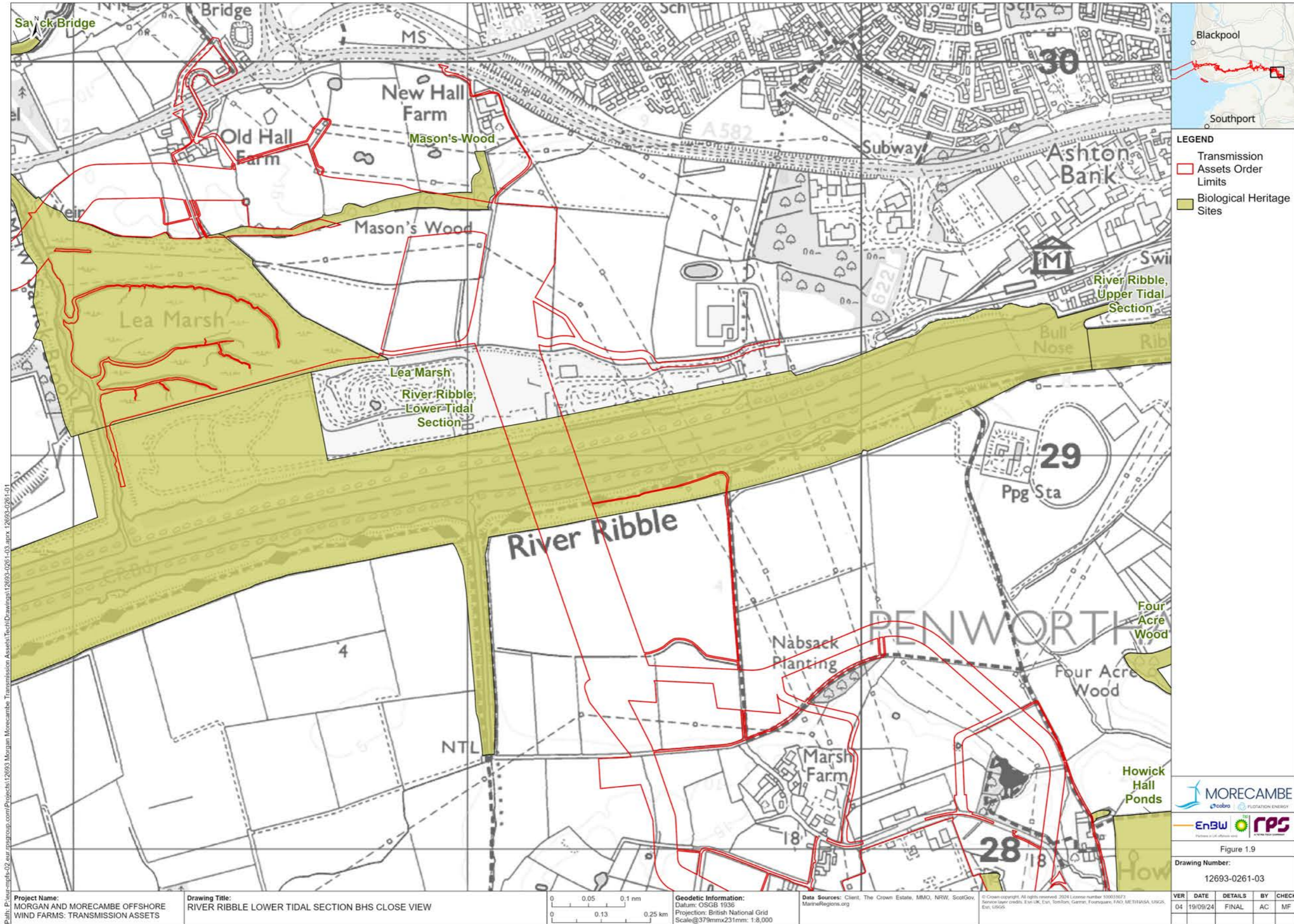
**Figure 1.6: Lytham Moss BHS and Westby Canal Claypit BHS close view**



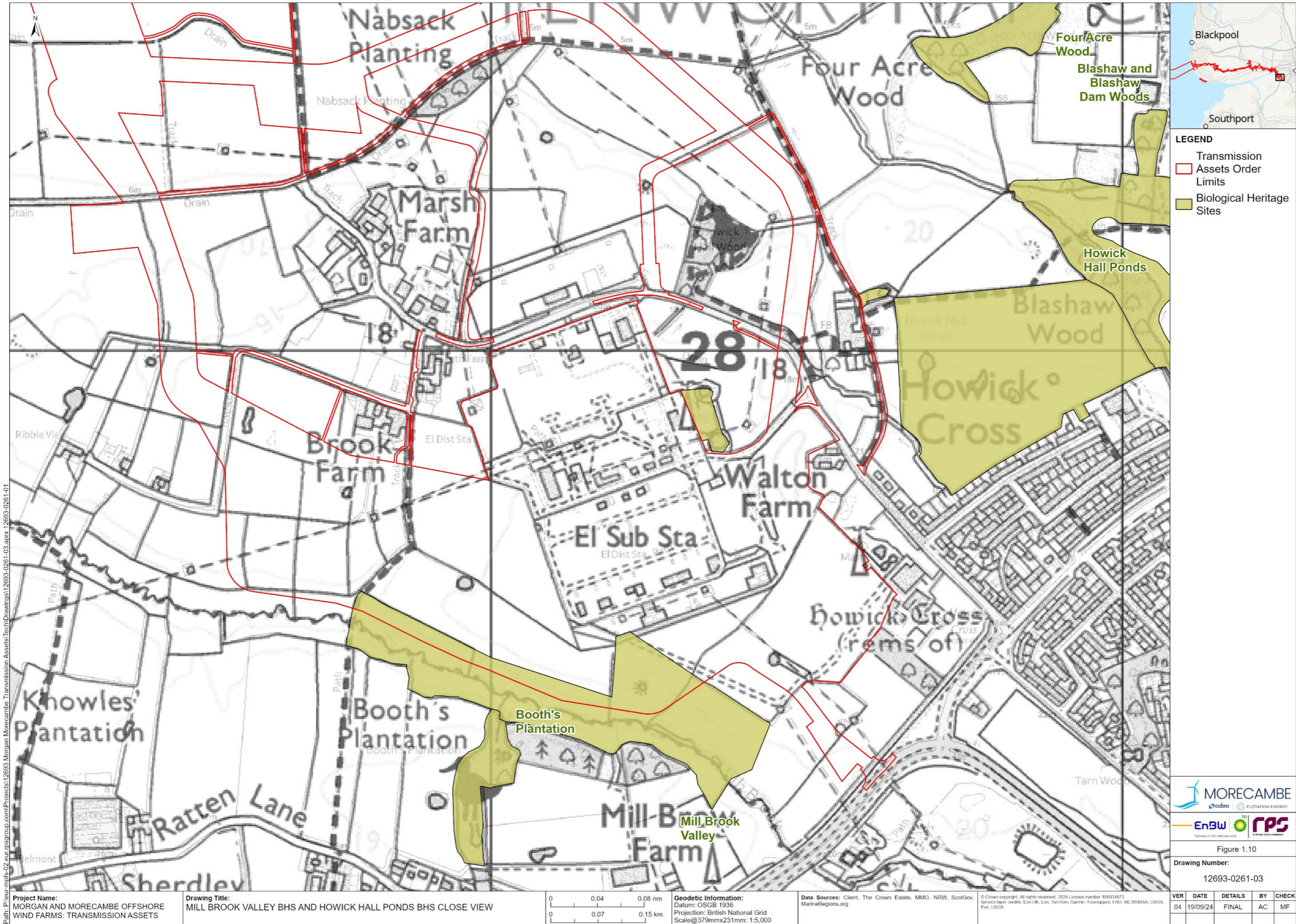
**Figure 1.7: Freshfield Farm Pond North BHS and Freshfield Farm Pond South BHS close view**



**Figure 1.8: Savick Bridge BHS, Lea Marsh BHS and Mason's Wood BHS close view**



**Figure 1.9: River Ribble Lower Tidal Section BHS close view**



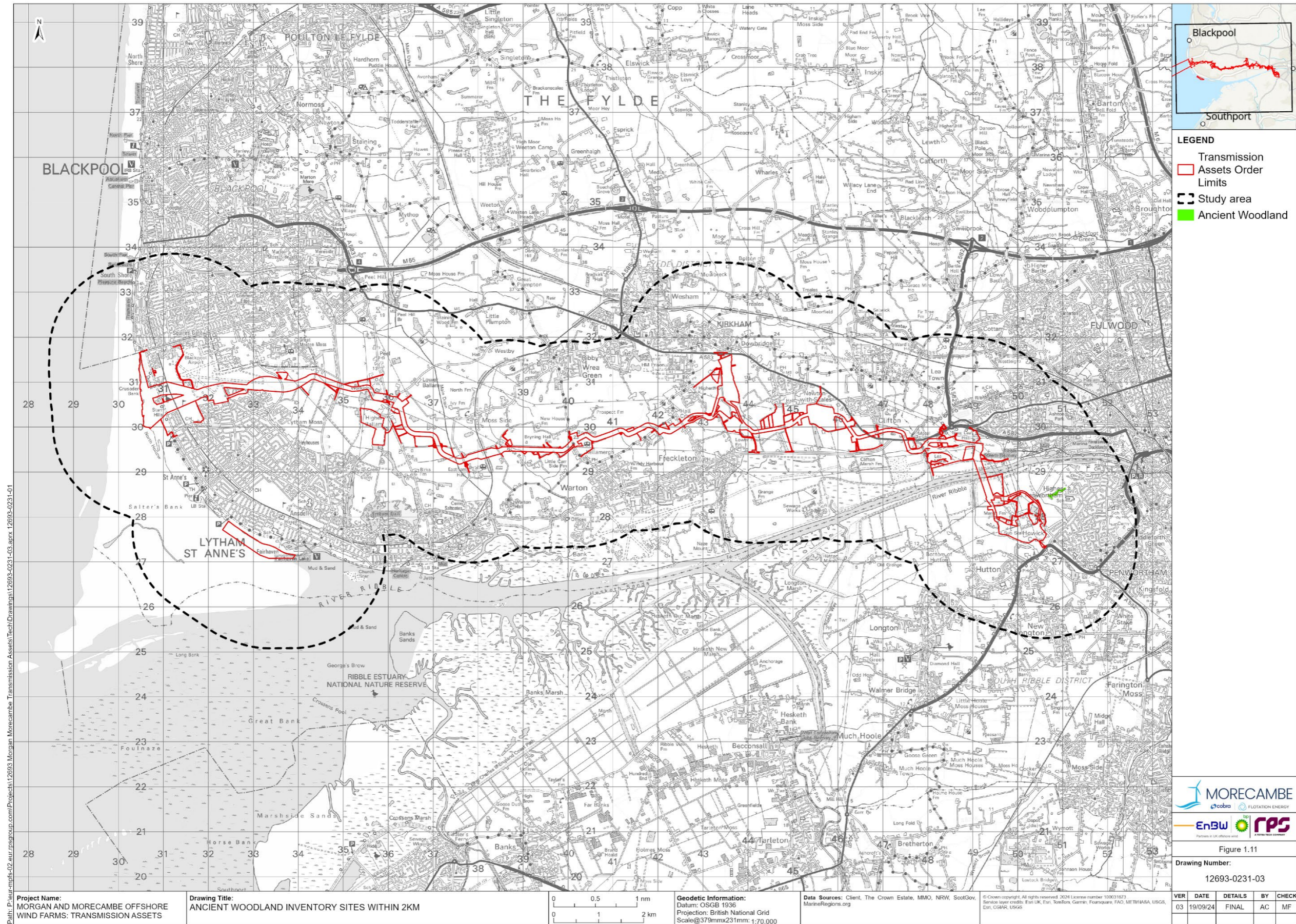
**Figure 1.10: Mill Brook Valley BHS and Howick Hall Ponds BHS close view**

### 1.3.4 Ancient woodland

- 1.3.4.1 One ancient woodland inventory site is located within 2 km of the Onshore Order Limits and is situated 250 m to the east of the Onshore Order Limits. The location and geographic extent of the site in relation to the Onshore Order Limits is presented in **Figure 1.11**.
- 1.3.4.2 The ancient woodland within 2 km of the Onshore Order Limits is classified as ancient semi-natural woodland.

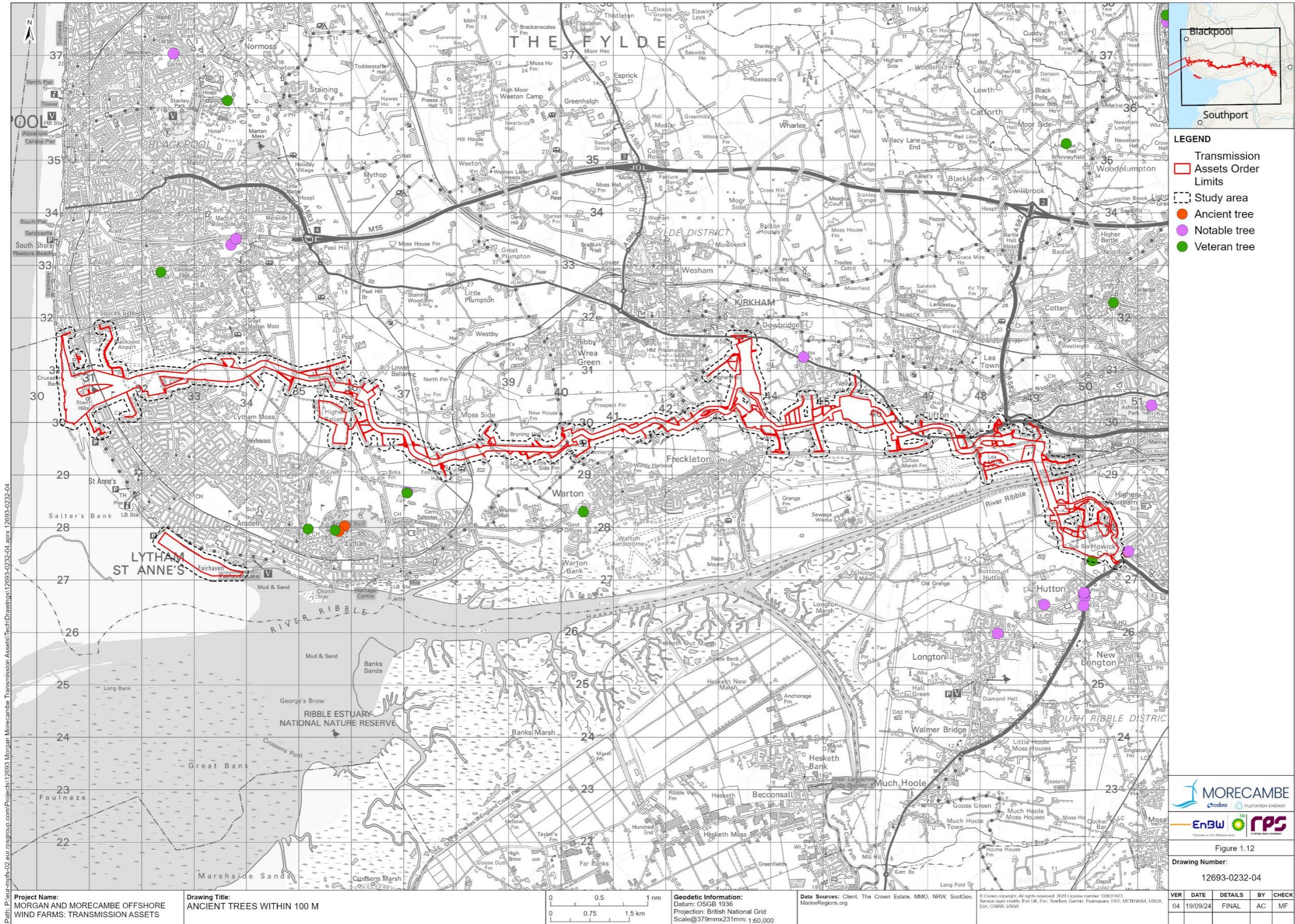
### 1.3.5 Ancient tree inventory

- 1.3.5.1 Twenty-nine ancient tree inventory trees are located within 2 km of the Onshore Order Limits four ancient, 11 veteran and 14 notable trees. the locations of the trees are shown in **Figure 1.12**.
- 1.3.5.2 There are no ancient, veteran or notable trees within 100 m of the Onshore Order Limits.



**Figure 1.11: Ancient woodland inventory sites within 2 km**





**Figure 1.12: Ancient, veteran and notable trees within 100 m**

## 1.3.6 Priority habitat

- 1.3.6.1 Priority Habitats are habitats that have been deemed as of principle importance for conserving biodiversity under section 41 of the NERC Act 2006.
- 1.3.6.2 The desk study identified seven Priority Habitat types within the Onshore Order Limits that cover a total area of 139.69 ha.
- 1.3.6.3 The desk study identified a total area of 222.27 ha of Priority Habitats within the 2 km search radius around the Onshore Order Limits, that includes four additional habitat types.
- 1.3.6.4 A summary of the results of the Priority Habitats search is presented in **Table 1.5**.
- 1.3.6.5 The location and geographic extent of Priority Habitat sites in relation to the Onshore Order Limits is presented in **Figure 1.13**. Descriptions of where these habitats fall within the Onshore Order Limits are given below.

**Table 1.5: Priority habitats located in and within 2 km of the Onshore Order Limits (ha)**

Priority Habitat	Within the Onshore Order Limits	Within 2 km of the Onshore Order Limits
Coastal and floodplain grazing marsh	92.05	1240.19
Coastal saltmarsh	24.43	164.91
Coastal sand dunes	18.62	5.59
Deciduous woodland	1.44	282.57
Good quality semi-improved grassland	2.25	6.37
Lowland fens	0.00	1.97
Mudflats	0.90	54.29
No main habitat but additional habitats present	0.00	60.3
Lowland meadows	0.00	4.37
Traditional orchard	0.00	6.03
Ponds	1 BHS sites containing one qualifying pond.	3 BHS sites containing qualifying ponds.

### Coastal and floodplain grazing marsh

- 1.3.6.6 Coastal and flood plain grazing marsh sites are present in several locations within the Onshore Order Limits. This habitat is present:
- at the western end of the Onshore Order Limits just east of Blackpool Airport;

- in several locations around Moss Side and Higher Ballam in the centre-west of the Onshore Order Limits;
- across most of the Onshore Order Limits between the eastern end of Freckleton and extending east past the junction between the A583 and Preston New Road;
- at the eastern end of the Onshore Order Limits, between the River Ribble and the junction between the A583 and Edith Rigby Way; and
- at the eastern end of the Onshore Order Limits and south of the proposed River Ribble crossing between the River Ribble and Hutton to the south.

### Coastal saltmarsh

- 1.3.6.7 The coastal saltmarsh sites within the Onshore Order Limits are located on both banks of the River Ribble at the eastern end of the Transmission Assets within and to the west of the where the 400 kV grid connection cable corridor is proposed to cross the River Ribble.

### Coastal sand dunes

- 1.3.6.8 The coastal sand dune sites within the Onshore Order Limits are located within Lytham St Annes LNR and SSSI at the western end of the Onshore Order Limits.

### Deciduous woodland

- 1.3.6.9 Deciduous woodland sites are present at scattered locations within the Onshore Order Limits:
- at the western end of the Onshore Order Limits just east of Blackpool Airport;
  - at western end of the Onshore Order Limits at Higher Ballam;
  - adjoining the Onshore Order Limits at several points along the central stretch between Higher Ballam and Clifton;
  - at the eastern end of the Onshore Order Limits, between the River Ribble and the junction between the A583 and Edith Rigby Way; and
  - in several locations at the eastern end of the Onshore Order Limits south of the River Ribble.

### Good quality semi-improved grassland

- 1.3.6.10 Good quality semi-improved grassland is present in one location at the eastern end of the Onshore Order Limits, just north of Hutton.

### Mudflats

- 1.3.6.11 Mudflats are present within Onshore Order Limits at the eastern end on both sides of the River Ribble around the proposed river crossing point and also

along a creek within the Onshore Order Limits west of the proposed river crossing.

### **Ponds**

- 1.3.6.12 One priority habitat pond is present within the Onshore Order Limits: the Freshfield Farm Pond North BHS.

### **Lowland fens**

- 1.3.6.13 Lowland fen is not present within the Onshore Order Limits.

### **No main habitat but additional habitats present.**

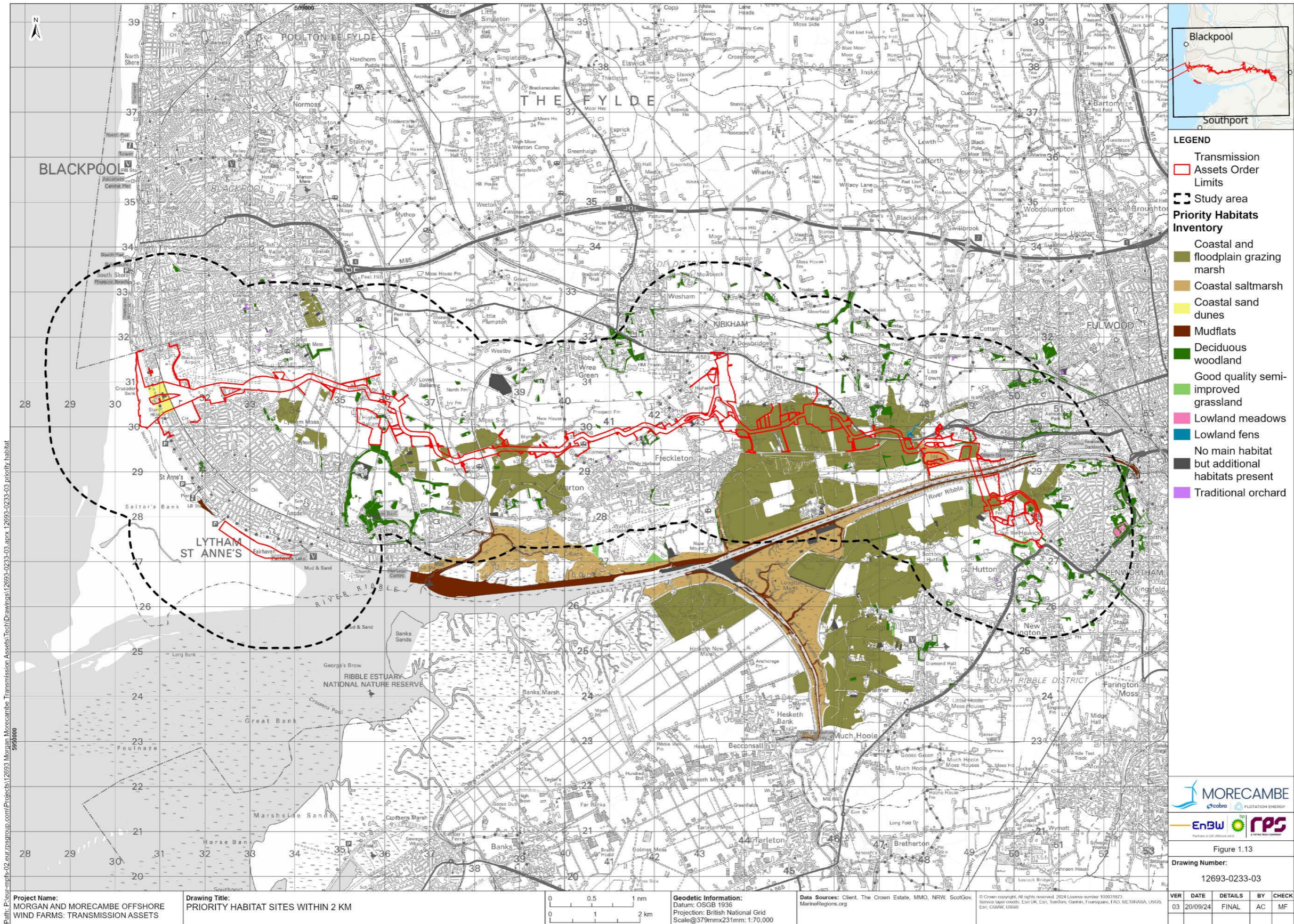
- 1.3.6.14 Sites described as having no main habitat but with additional habitat present, are not present within the Onshore Order Limits.

### **Lowland meadows**

- 1.3.6.15 There are no lowland meadows sites within the Onshore Order Limits.

### **Traditional orchard**

- 1.3.6.16 There are no traditional orchard sites within the Onshore Order Limits.



**Figure 1.13: Priority habitats located in and within 2 km of the Onshore Order Limits**

### 1.3.7 Woodland ecological network

1.3.7.1 The Lancashire Woodland Ecological Network is a network of woodland sites connected by linear corridors of other semi-natural habitats that contribute to the ecological function of the woodlands. The map of the network was produced following an analysis of suitable sites by the Lancashire Wildlife Trust. The Woodland Ecological Network overlaps the Onshore Order Limits in several locations.

1.3.7.2 Due to the importance of woodland connectivity from a landscape scale in facilitating movement of protected and notable species, this has been included within the desk study.

1.3.7.3 The location and geographic extent of the Lancashire woodland ecological network in relation to the Onshore Order Limits is presented in **Figure 1.14**.

### 1.3.8 Grassland ecological network

1.3.8.1 The Grassland Ecological Network is a network of grassland sites connected by linear corridors of other semi-natural habitats that contribute to the ecological function of the grasslands. The map of the network was produced following an analysis of suitable sites by the Lancashire Wildlife Trust. The Grassland Ecological Network overlaps the Onshore Order Limits in several locations.

1.3.8.2 Due to the importance of connectivity of grassland habitat at a landscape scale in facilitating movement of protected and notable species, this has been included within the desk study.

1.3.8.3 The location and geographic extent of the Lancashire grassland ecological network in relation to the Onshore Order Limits is presented in **Figure 1.15**.

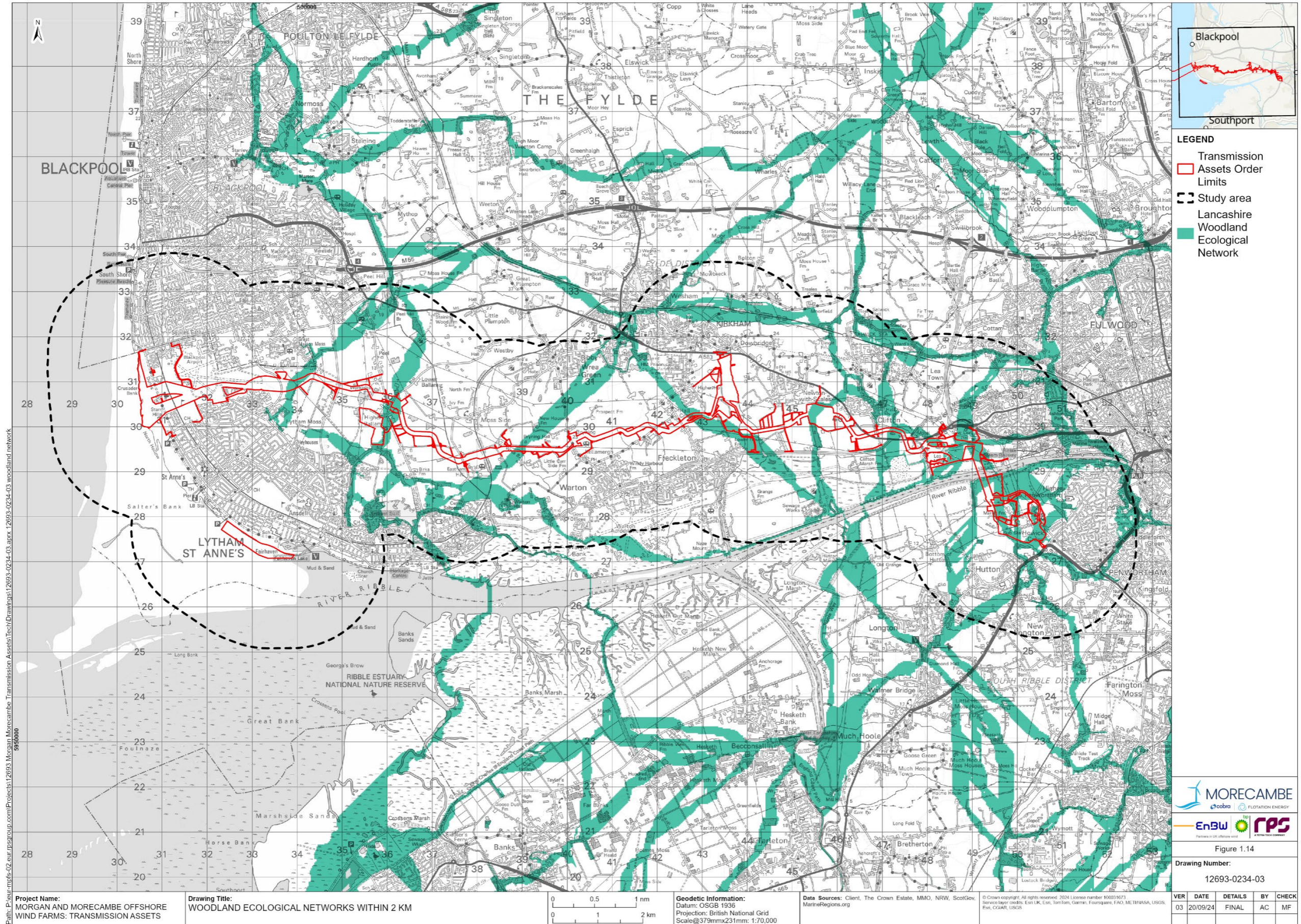
### 1.3.9 Local development plan policy areas

1.3.9.1 Relevant policy areas from the Fylde, South Ribble and Preston Local Plans are shown on **Figure 1.16**.

1.3.9.2 There are 37 sites designated as semi-natural green space in the Fylde Local Plan, within 2 km of the Onshore Order Limits. Of these, the following seven are located adjoining or partly within the Onshore Order Limits.

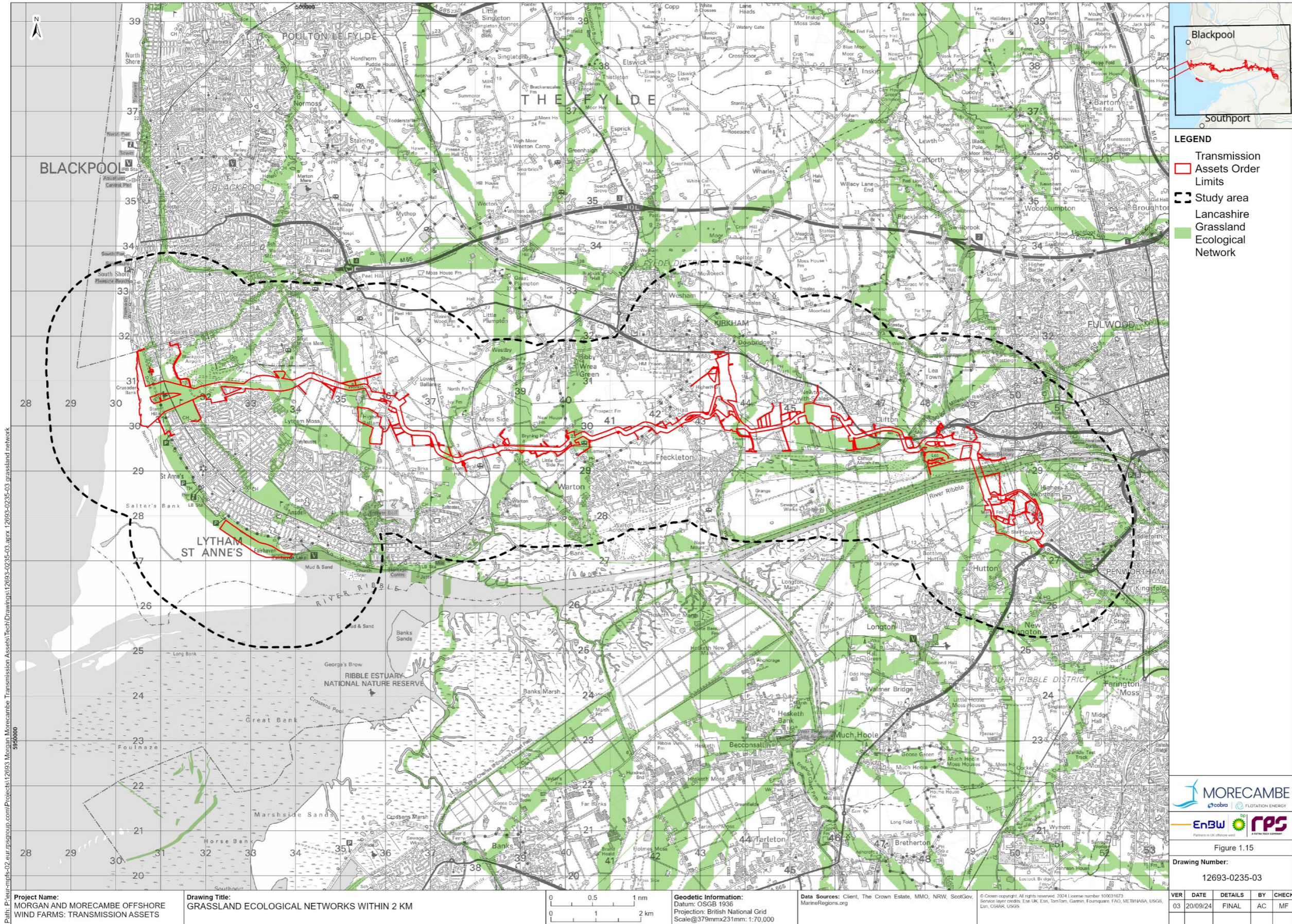
- Four adjoining areas comprising sand dunes and beach partly within the western end of the Onshore Order Limits which partly overlap with the Ribble and Alt Estuaries Ramsar, Lytham Foreshore Dunes and Saltmarsh BHS and St Annes LNR.
- One area with the same boundary as Westby Clay Pits BHS which adjoins the Onshore Order Limits.
- One area which encompasses part of the river channel and bankside habitats of Savick Brook and falls within the Lea Marsh BHS.
- One area which encompasses part of the river channel and bankside habitats of Savick Brook and falls within the Savick Bridge BHS.

- 1.3.9.3 There are two Wildlife Corridors, one Woodland site and 26 Green Infrastructure Sites designated in the Preston City Local Plan within 2km of the Onshore Order Limits. Of these, only one is located partly within the Onshore Order Limits, specifically a wildlife corridor which encompasses the river channel and bankside habitats along Savick brook and incorporating parts of Savick Bridge and Lea Marsh BHSs.
- 1.3.9.4 There are 79 Green Infrastructure sites and three wildlife corridor sites designated in the South Ribble Local Plan, within 2 km of the Onshore Order Limits.
- 1.3.9.5 One of the Wildlife Corridors lies partly within the Onshore Order Limits where it crosses the River Ribble. A second Wildlife Corridor lies partly within the Onshore Order Limits at its southern end close to the existing substation. The wildlife Corridor in this location comprises a woodland block a roadside hedgerow and a filed boundary hedgerow with trees. The third wildlife corridor is located approximately 1.23 km from the Onshore Order Limits.
- 1.3.9.6 The 79 Green Infrastructure site comprises a mix of mainly public open space such as playing fields, play areas, school grounds, allotments churchyards, and other leisure facilities. They also include some areas of priority habitat and nature conservation designations, such as BHSs . These are considered separately in **Sections 1.3.1 to 1.3.6.**

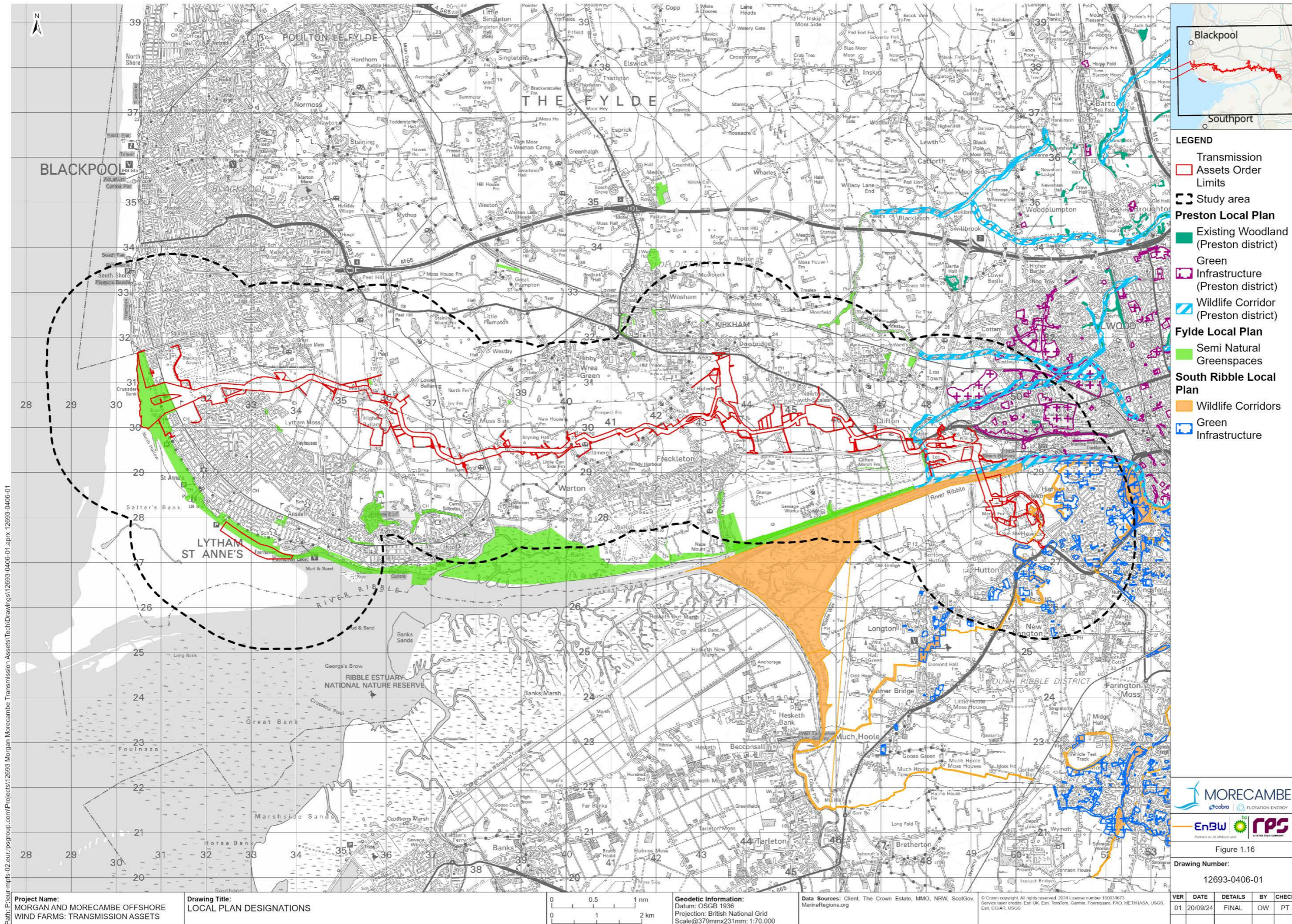


**Figure 1.14: Woodland ecological networks within 2 km**





**Figure 1.15: Grassland ecological networks within 2 km**



**Figure1.16: Local plan policy areas within 2 km**

## 1.3.10 Protected or notable plant and invertebrate species

### Flora (see Appendix A, table A1.1)

- 1.3.10.1 The LERN species data contained records 107 protected or otherwise notable plant species within 1 km of the Onshore Order Limits comprising 102 flowering plants, two ferns, two horsetails and one moss. None of the species recorded were S41 species.
- 1.3.10.2 Of the 107 species recorded, 51 were recorded within the Onshore Order Limits. Of these 51 species, six are nationally scarce, three are national notable and four are listed on one or more red lists.
- 1.3.10.3 The location of protected or otherwise notable plant records within the study area are presented in **Figure 1.17**.

### Terrestrial invertebrates (see Appendix A, table A1.2)

- 1.3.10.4 The desk study identified 31 species of invertebrate within 1 km of the Onshore Order Limits comprising two species of beetle, 12 species of butterfly, three species of dragonfly, four species of moth, one species of cricket, three species of fly, two species of bee, three species of mollusc and one crustacean.
- 1.3.10.5 Of the 31 species recorded, six (all butterflies) were recorded within the Onshore Order Limits. Of these, three are S41 species and listed on one or more redlists: Dark green fritillary *Argynna aglaja*, Small heath *Coenonympha pamphilus* and Grayling *Hipparchia semele*. The locations of protected or otherwise notable terrestrial invertebrate records within the study area are shown in **Figure 1.17-Figure 1.20**.

## 1.3.11 Protected or notable vertebrate species

### Amphibian and reptile species (See appendix A, table A1.3)

- 1.3.11.1 The data contained records of three reptile species and five amphibian species within 2 km of the Onshore Order Limits.
- 1.3.11.2 Five amphibian species including GCN have been recorded within the Transmission Assess Order Limits as well as at other locations within the 2 km search radius.
- 1.3.11.3 Eggs or juvenile GCN indicating breeding populations of GCN have been recorded in two ponds located approximately 495 m and 775 m from the Onshore Order Limits.  
  
Three species of reptile, including sand lizard *Lacerta agilis* have been recorded within 2 km of the Onshore Order Limits. Of these species, sand lizard and common lizard *Zootoca vivipara* have been recorded within the Onshore Order Limits, in sand dunes close to Lytham St Annes, at the western end of the Onshore Order Limits.
- 1.3.11.4 The location of protected or otherwise notable amphibian and reptile records within the study area is presented in **Figure 1.21-Figure 1.24**

## Bats

- 1.3.11.5 Six species of bat were identified within 2 km of the Onshore Order Limits. There were also records of unidentified bats (of which the genus was unknown), unidentified *Myotis* bats, unidentified *Nyctalus* bats and unidentified pipistrelle bats. The total number of species therefore could be more than the six species identified. Of all the bat species recorded, only two: Noctule *Nyctalus noctula* and unidentified pipistrelle bat have been recorded within the Onshore Order Limits.
- 1.3.11.6 The species of bat identified from the last ten years is shown in **Table 1.6** (see also **Appendix A**, Table A1.4).

**Table 1.6: Bat data records within 2 km of Onshore Order Limits in the last ten years**

Taxon name	Common name	Date range of records	Number of records
<i>Chiroptera</i>	Bat (unidentified)	2014 to 2019	7
<i>Myotis sp.</i>	Myotis bat (unidentified species)	2014 to 2019	10
<i>Myotis daubentonii</i>	Daubenton's bat	2018	2
<i>Nyctalus noctula</i>	Noctule bat	2015 to 2019	29 (2 within the Onshore Order Limits)
<i>Nyctalus sp.</i>	Nyctalus bat	2015 to 2019	2
<i>Pipistrellus sp.</i>	Pipistrelle bat (unidentified species)	2014 to 2020.	87 (1 within the Onshore Order Limits)
<i>Pipistrellus nathusii</i>	Nathusius' pipistrelle	2019.	6
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	2014 to 2020.	54
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle bat	2016 to 2019.	9
<i>Plecotus auritus</i>	Brown long-eared bat	2014 to 2019.	16

- 1.3.11.7 The location of protected or otherwise notable bat records within the study area is presented in **Figure 1.25-Figure 1.28**.

### Other mammals (See Appendix A, Table A1.4)

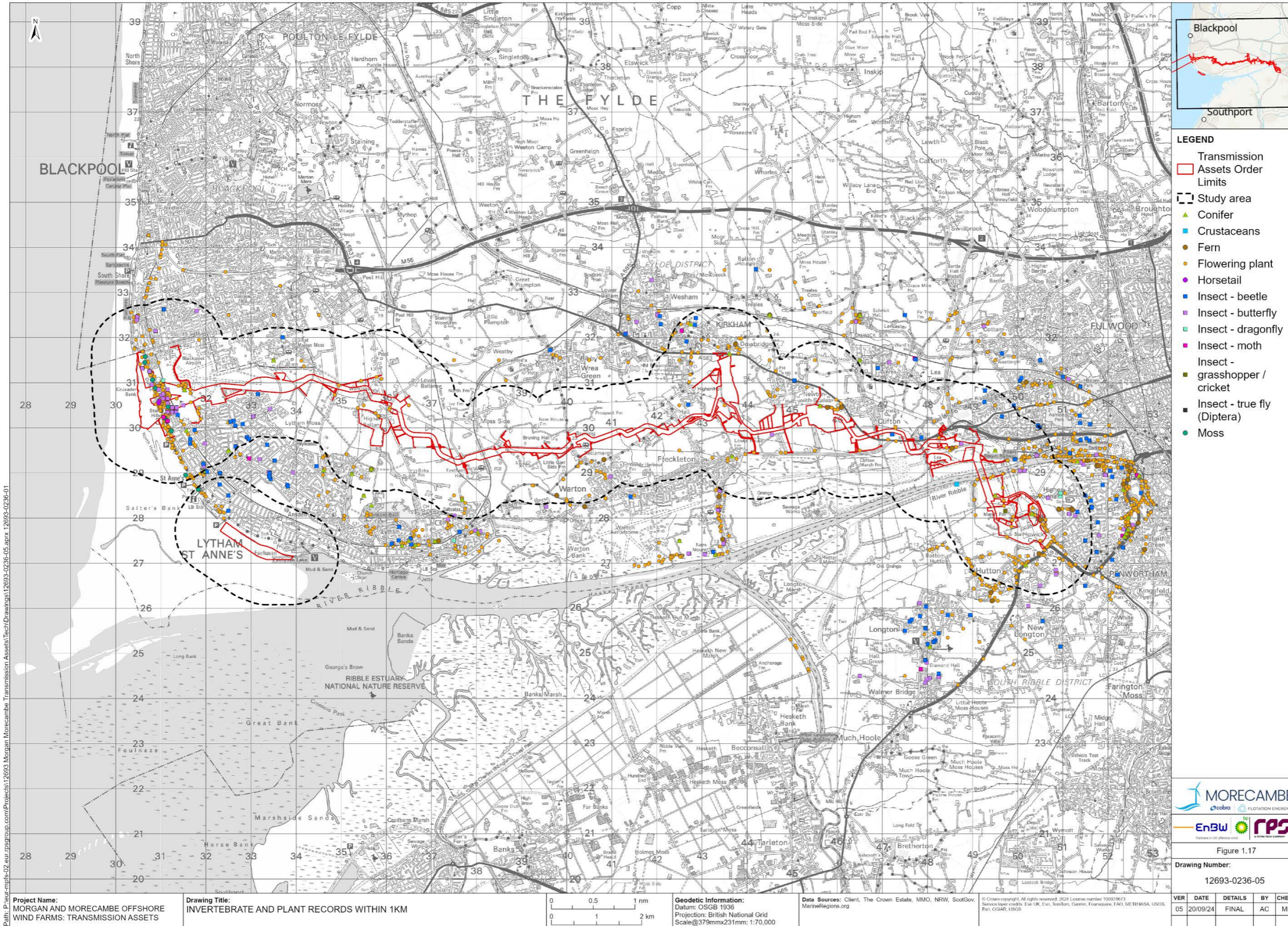
- 1.3.11.8 Three other species of protected or otherwise notable mammals (excluding badger and otter) were identified within the study area. Of these, hedgehog and brown hare have been recorded within the Onshore Order Limits.
- 1.3.11.9 No records of hazel dormouse *Muscardinus avellanarius* were identified within the study area.
- 1.3.11.10 The location of protected or otherwise notable mammal records within the study area is presented in **Figure 1.29** (water voles) and **Figure 1.30-Figure 1.33** (other mammals).

### Fish (See Appendix A, Table A1.5)

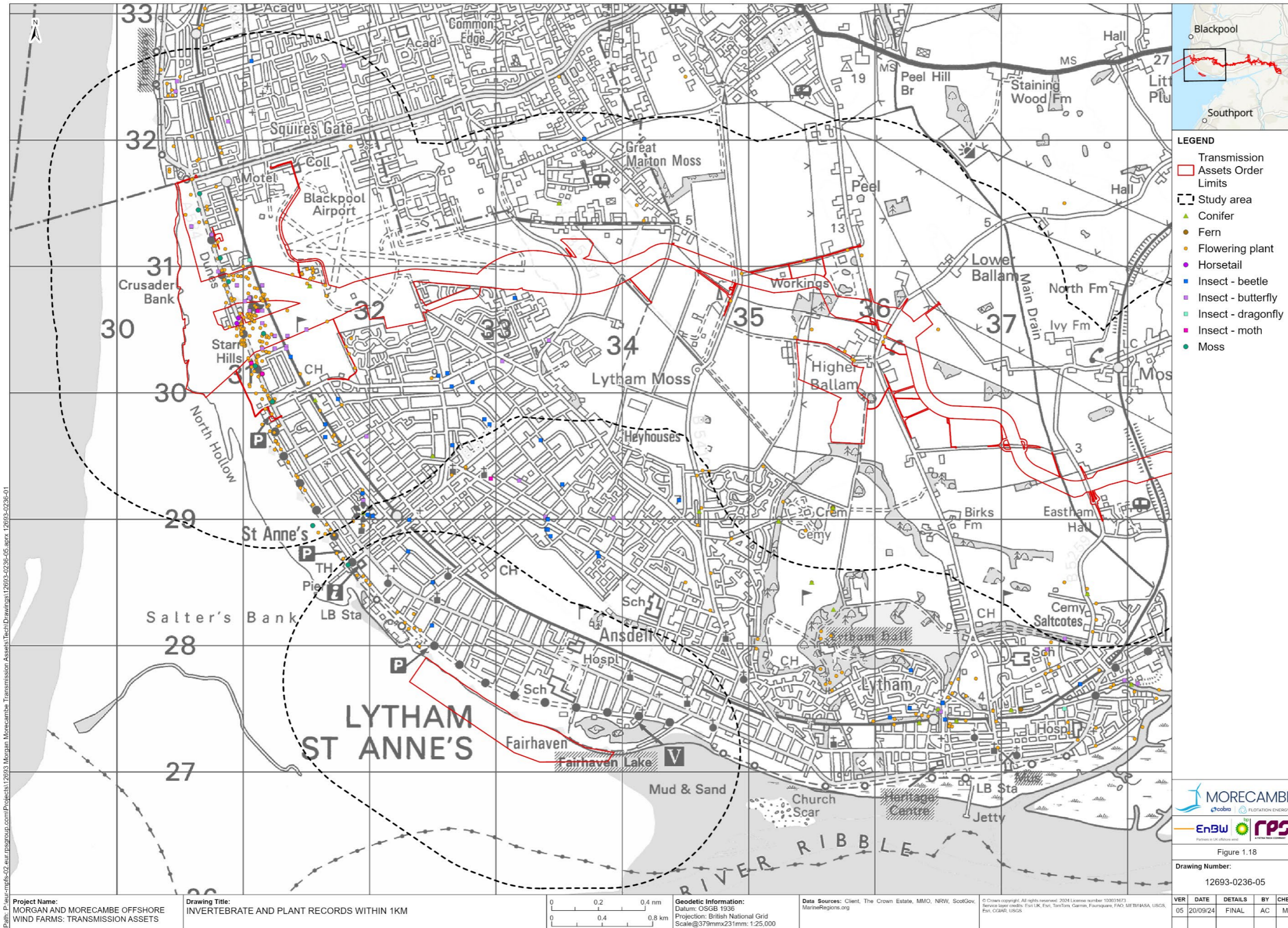
- 1.3.11.11 The desk study identified eight species of fish within 2 km of the Onshore Order Limits, including European eel *Anguilla anguilla* which is listed as critically endangered and six S41 species.
- 1.3.11.12 The location of protected or otherwise notable aquatic invertebrate and fish records within the study area is presented in **Figure 1.34**.

### Invasive Non-native Species (See Appendix A, Table A1.6)

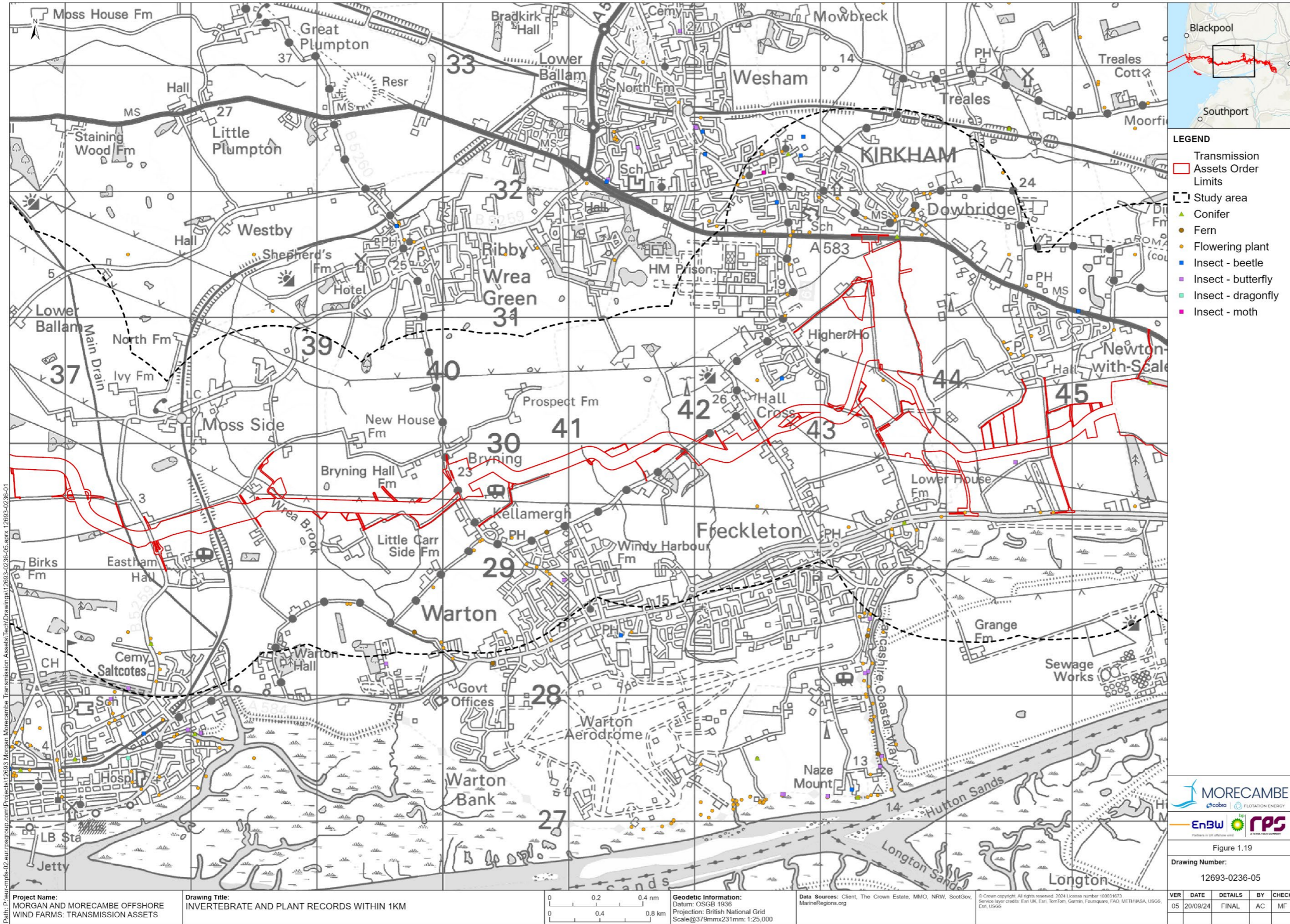
- 1.3.11.13 The desk study returned records of 91 Invasive Non-native Species (INNS) comprising two mammals, three birds, three insects, 78 flowering plants and five conifers. Of these 26 have been recorded within the Onshore Order Limits, of which seven (one bird and six flowering plants are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (WCA9).



**Figure 1.17: Invertebrate and plant records within 1 km (1 of 4)**

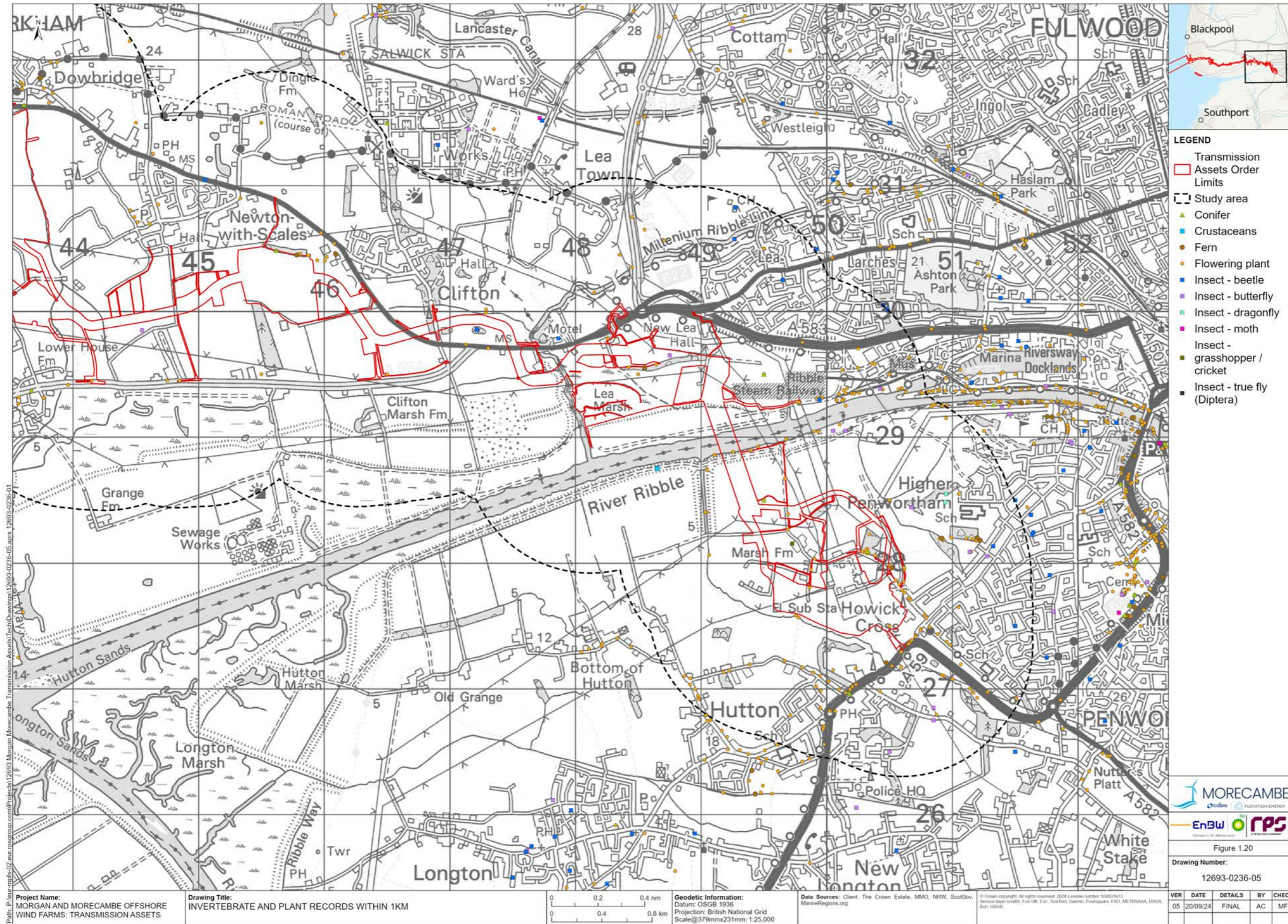


**Figure 1.18: Invertebrate and plant records within 1 km (2 of 4)**

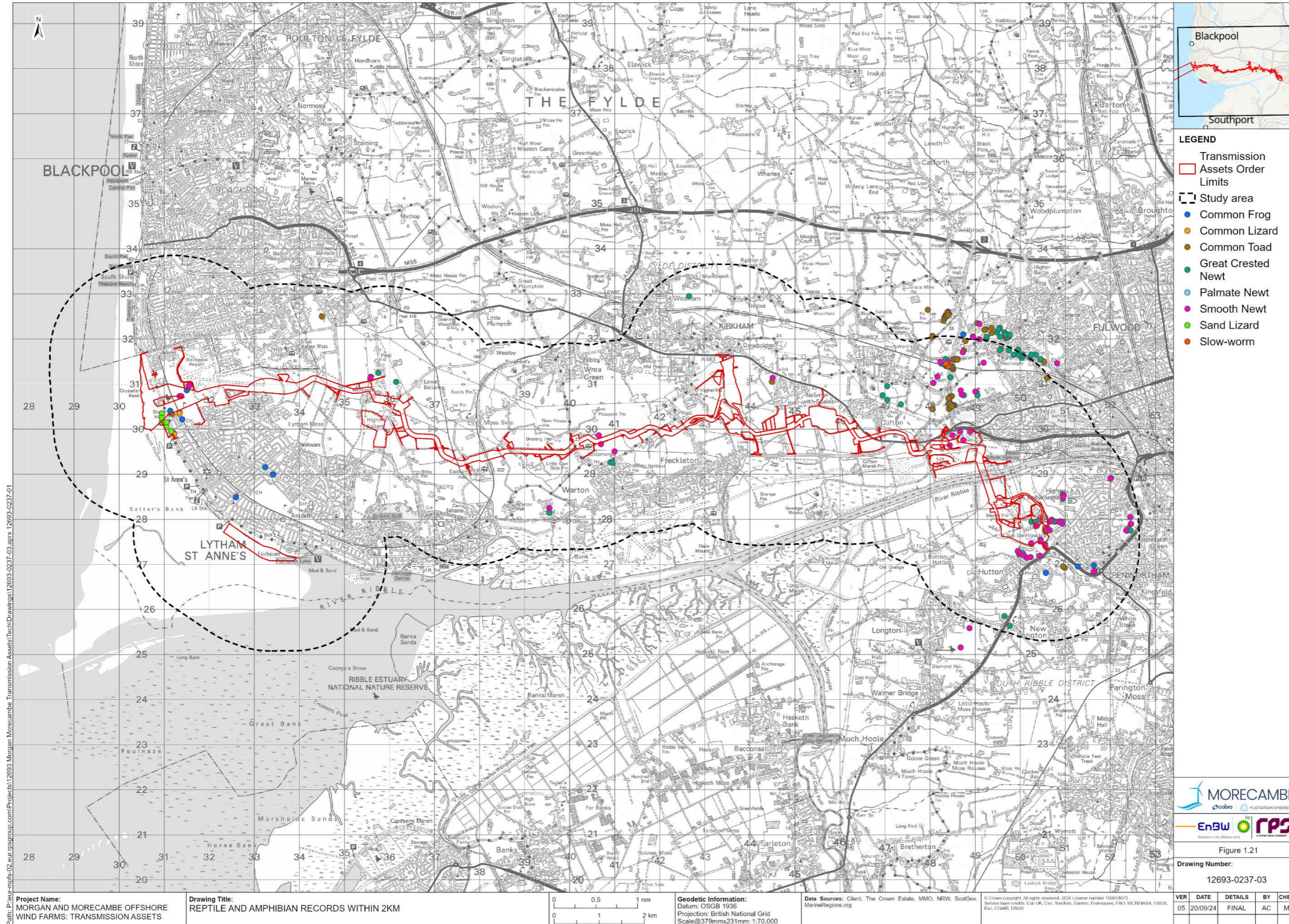


**Figure 1.19: Invertebrate and plant records within 1 km (3 of 4)**

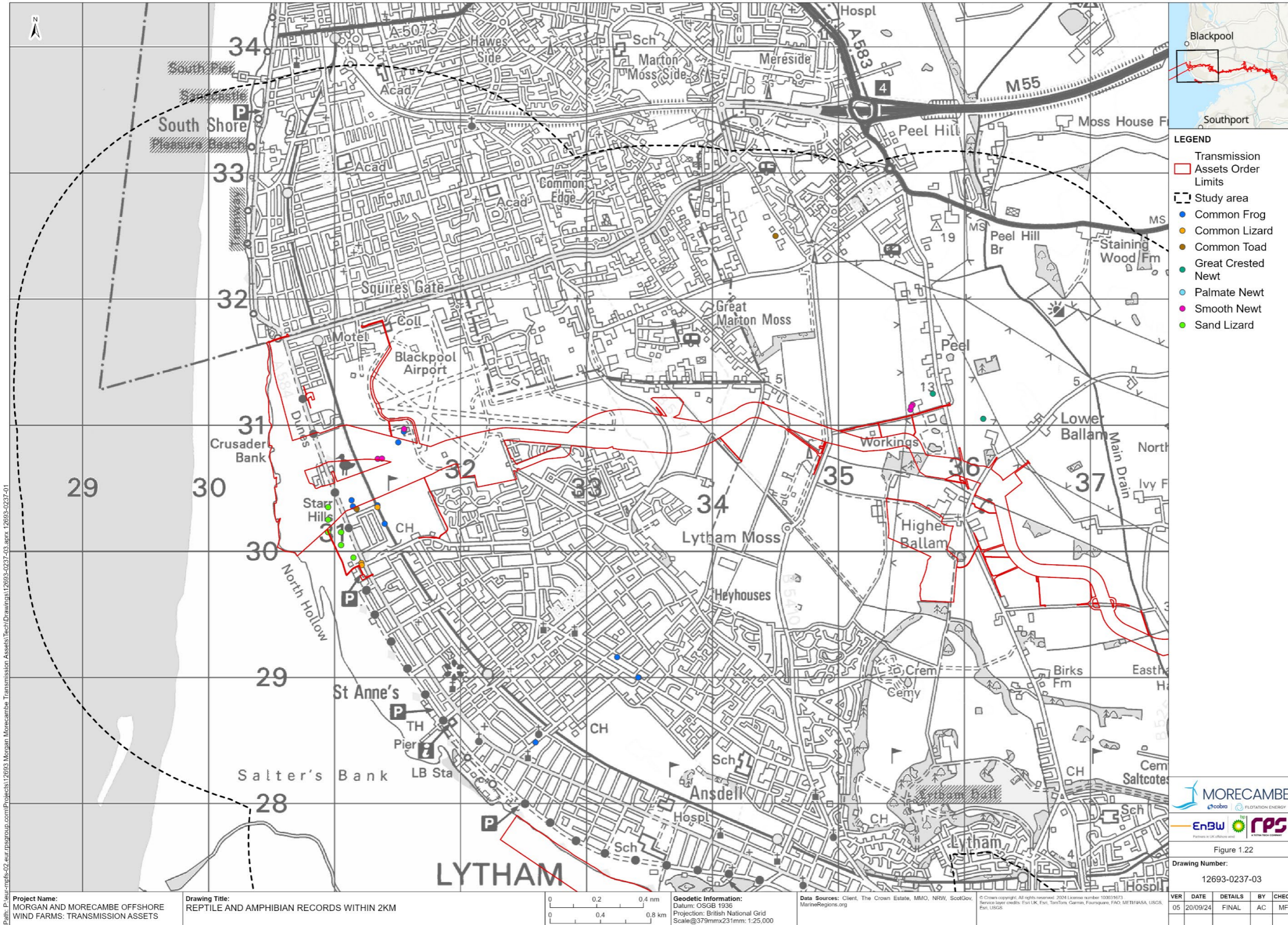




**Figure 1.20: Invertebrate and plant records within 1 km (4 of 4)**



**Figure 1.21: Reptile and amphibian records within 2 km (1 of 4)**



**Figure 1.22: Reptile and amphibian records within 2 km (2 of 4)**

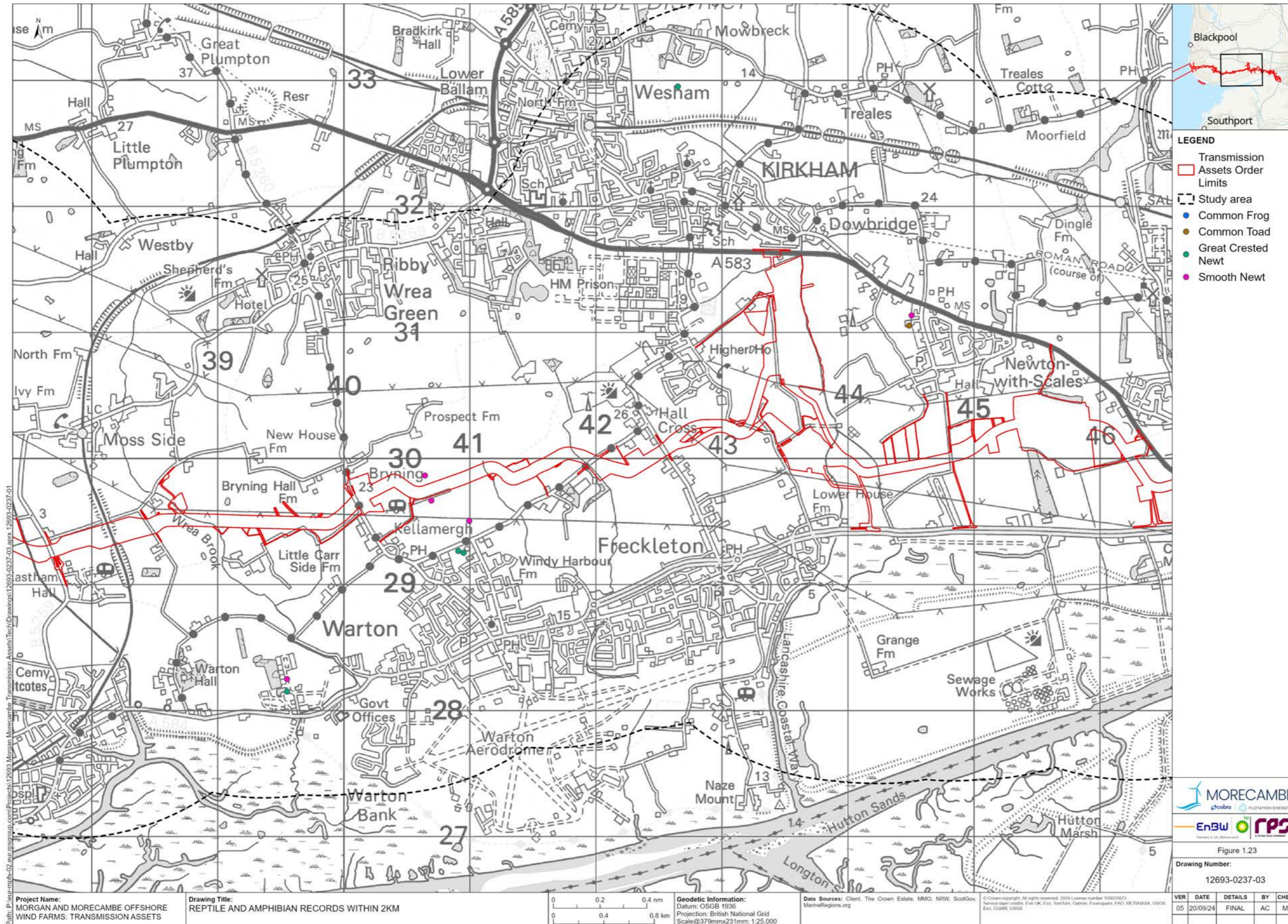
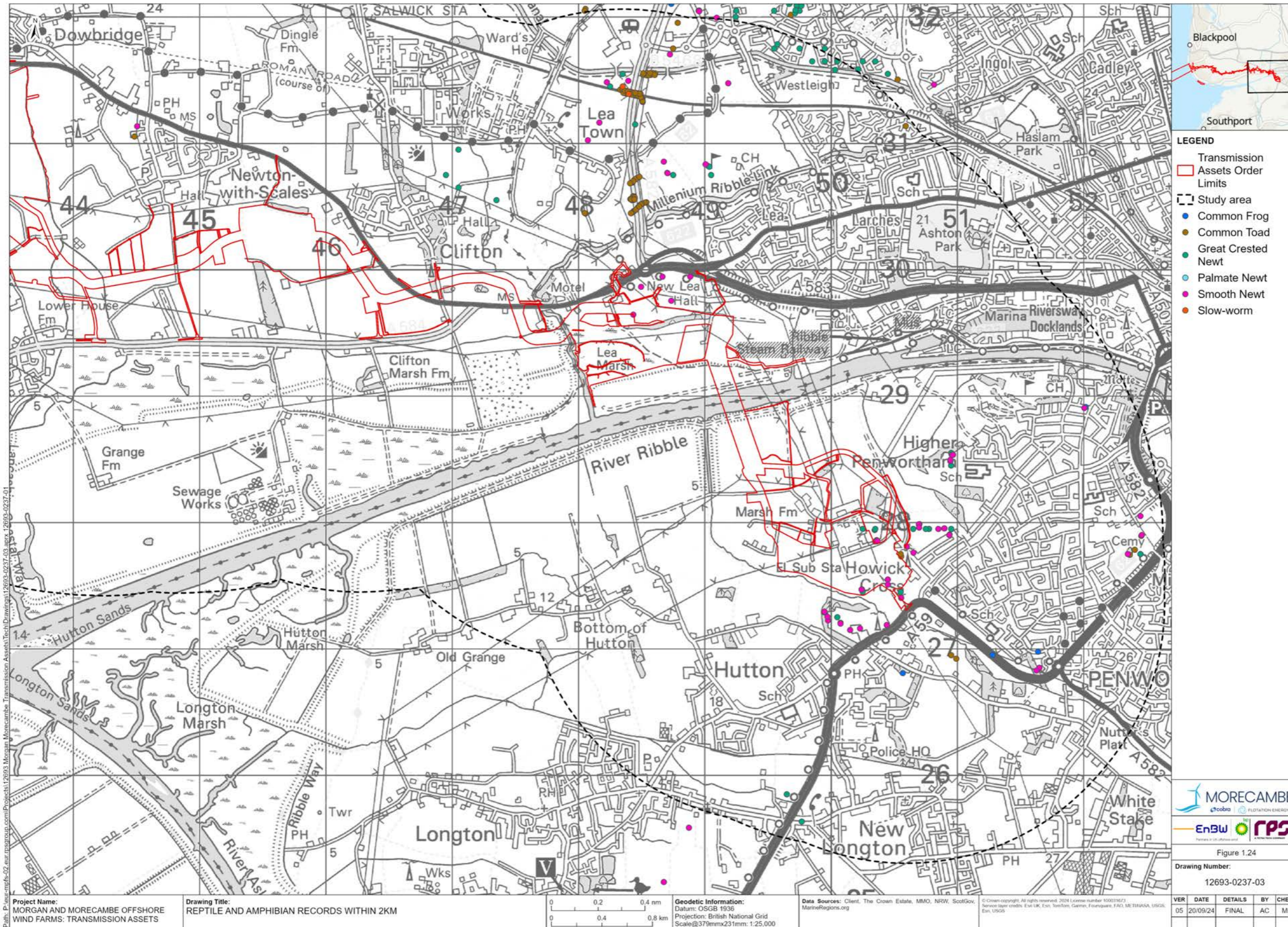
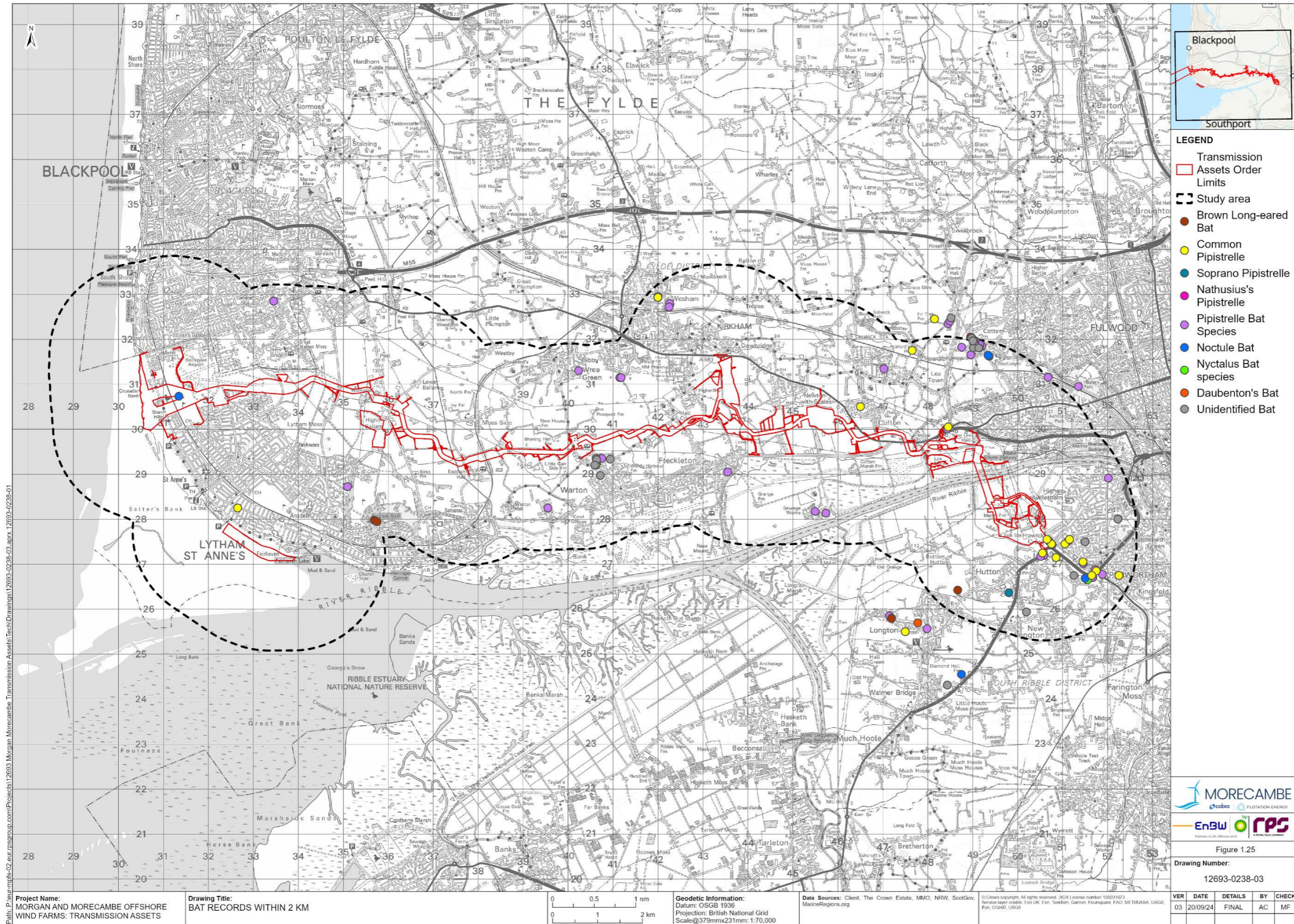


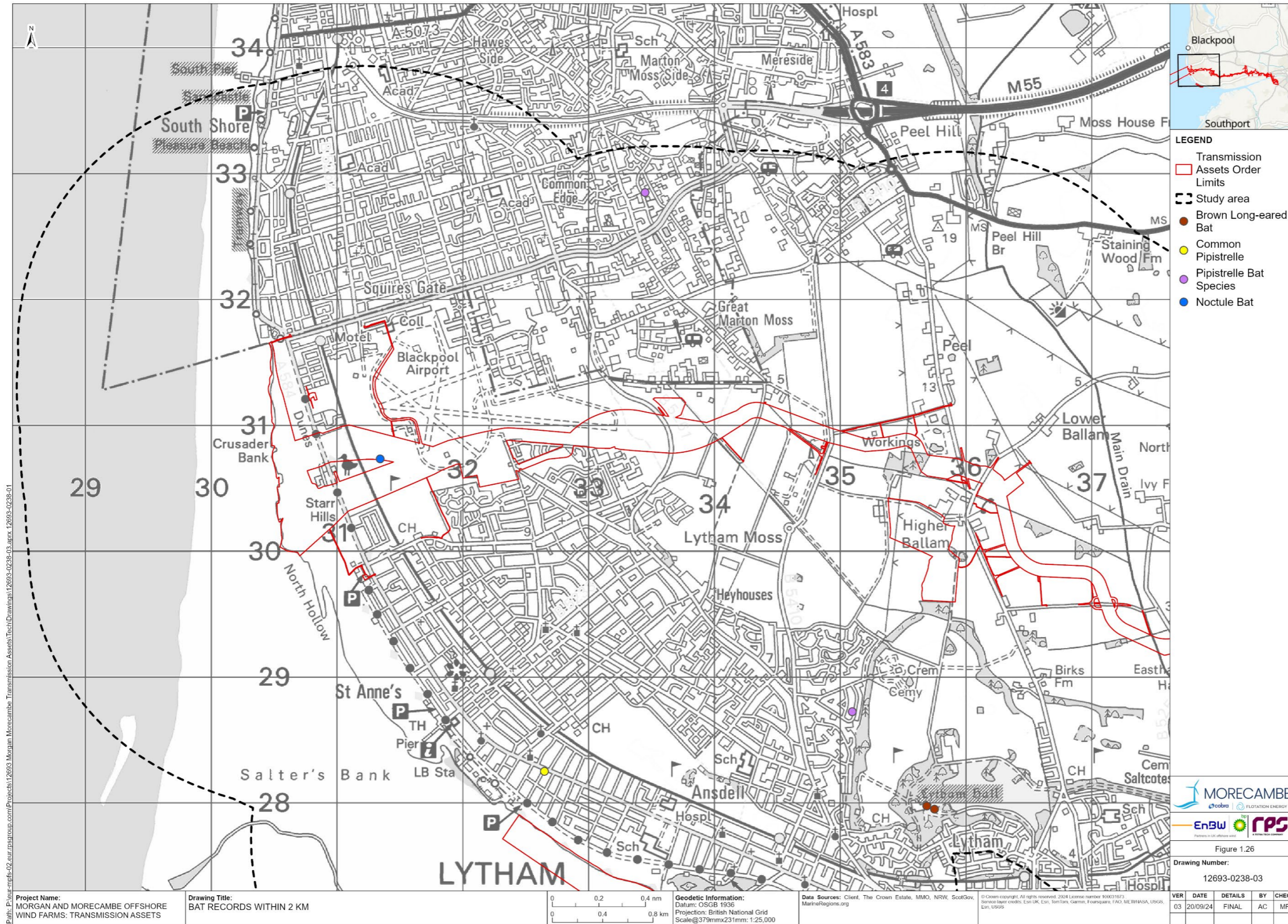
Figure 1.23: Repto and amphibian records within 2km (3 of 4)



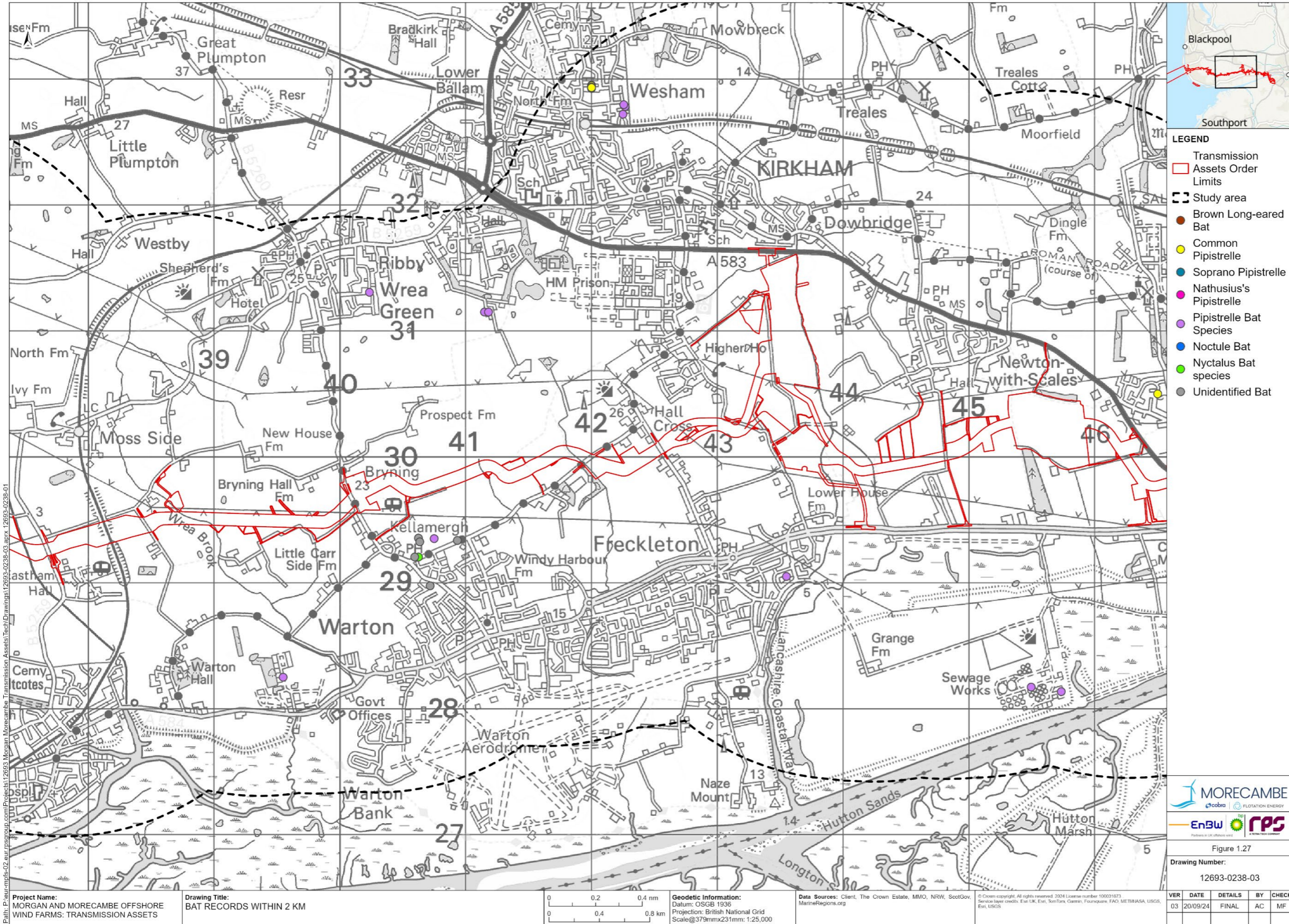
**Figure 1.24: Reptile and amphibian records within 2 km (4 of 4)**



**Figure 1.25: Bat records within 2 km (1 of 4)**



**Figure 1.26: Bat records within 2 km (2 of 4)**



**Figure 1.27: Bat records within 2 km (3 of 4)**



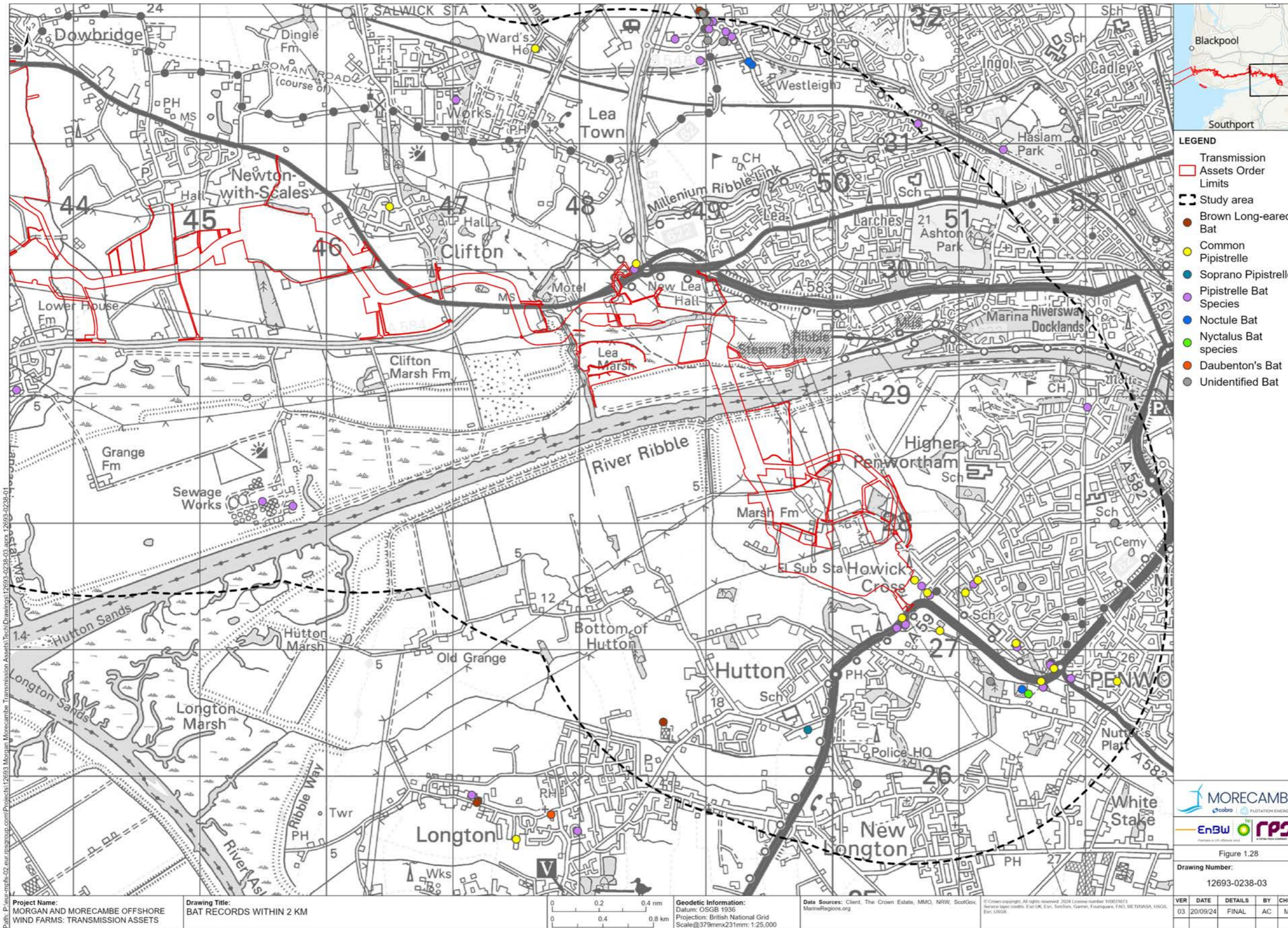
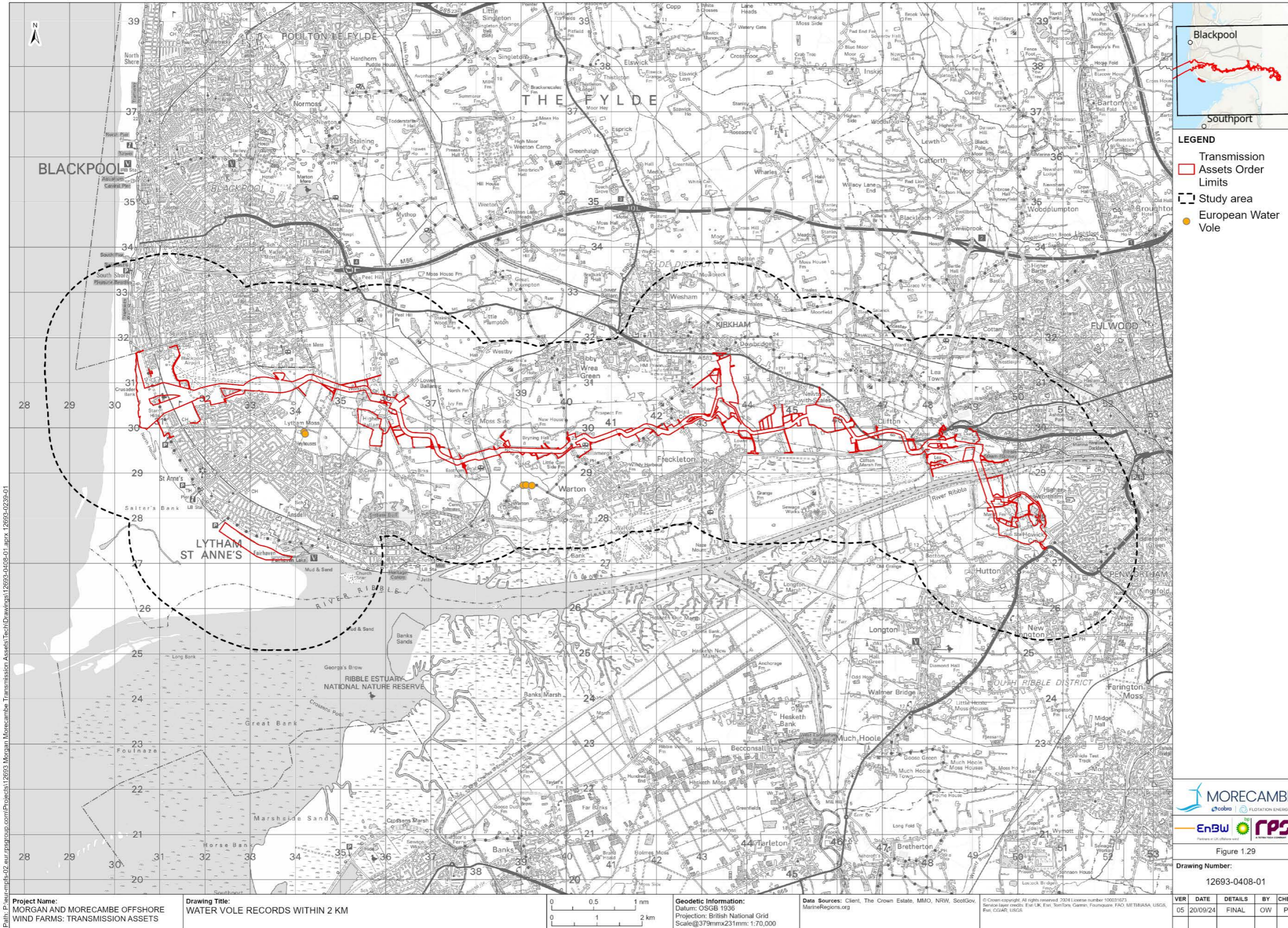
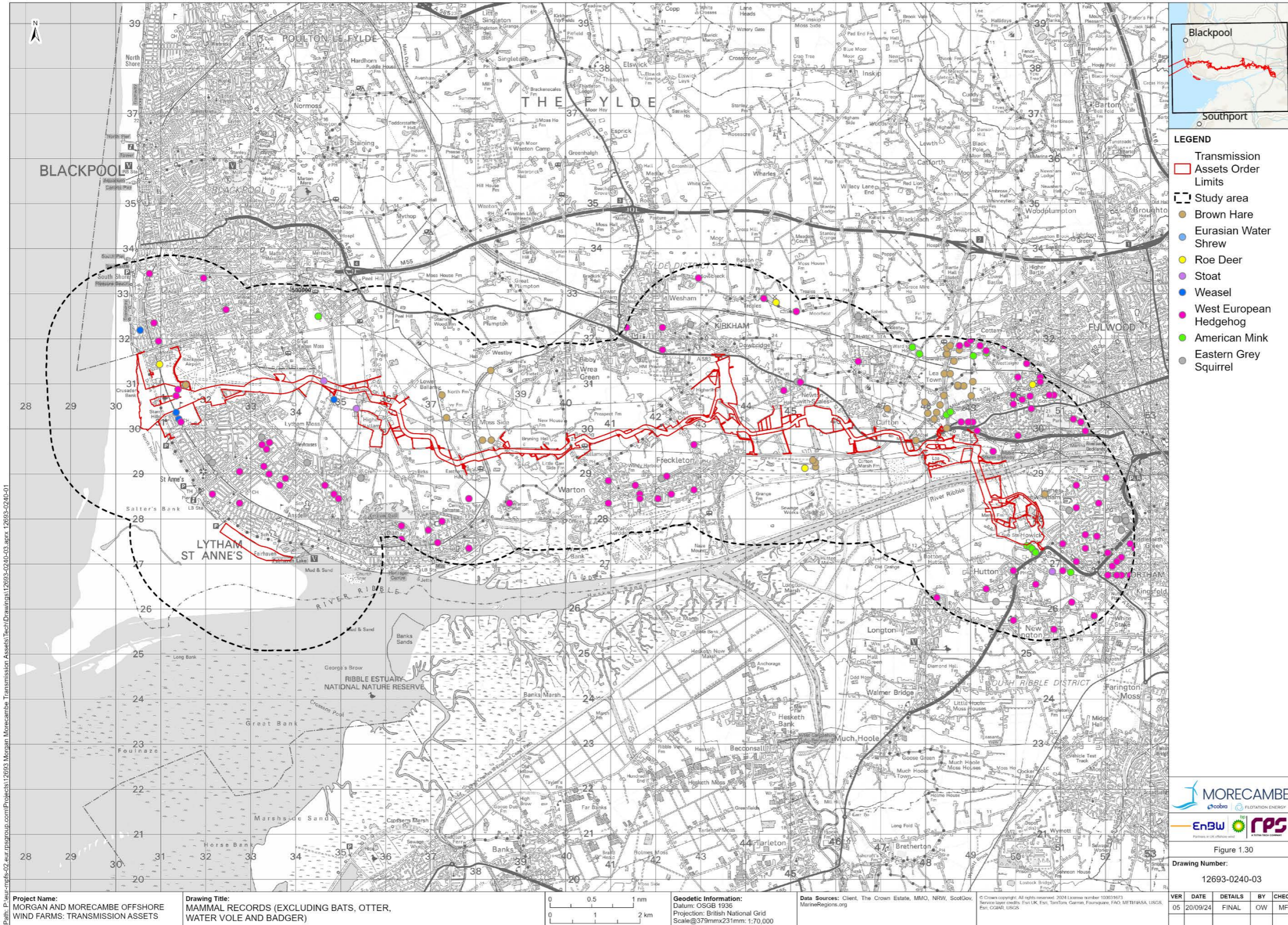


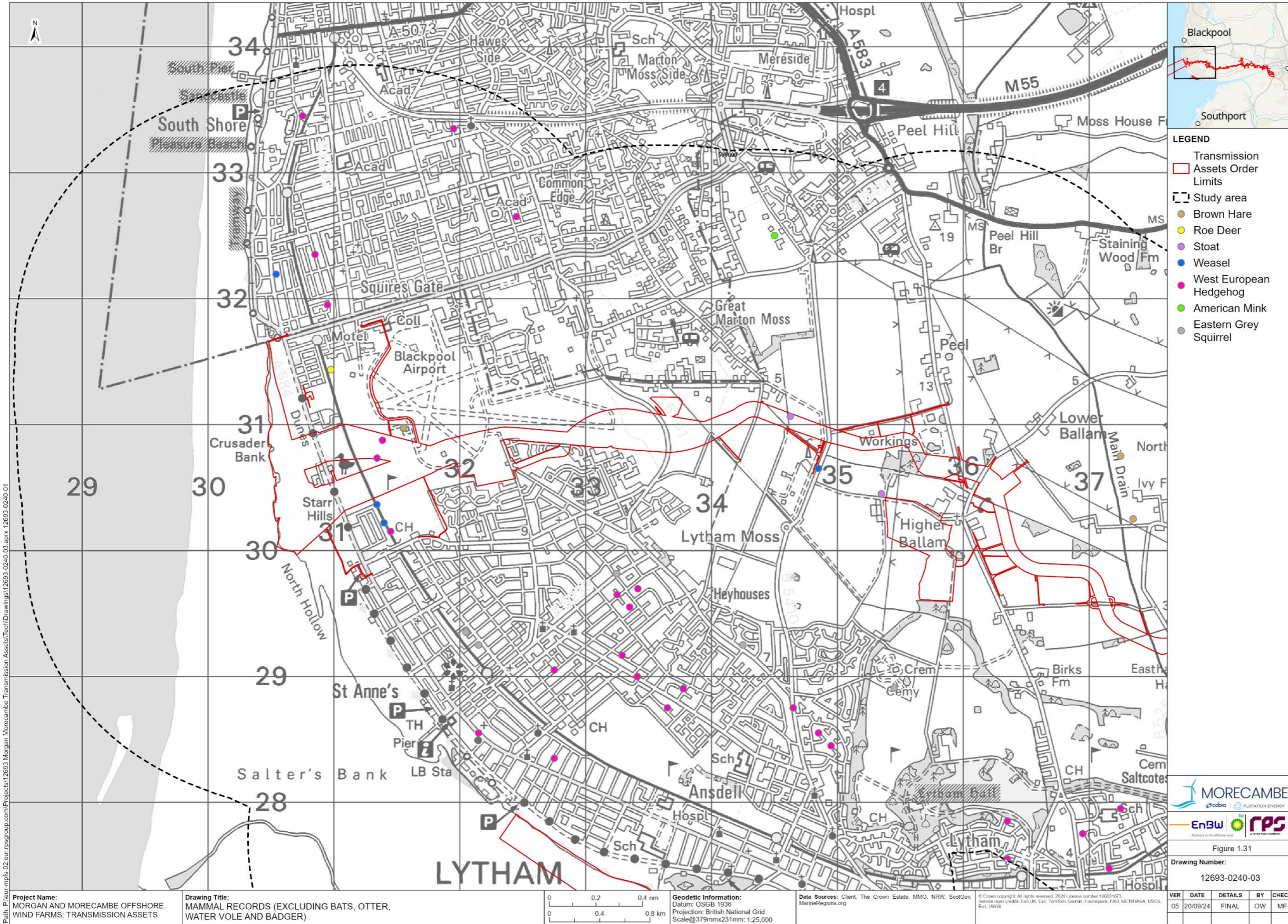
Figure 1.28: Bat records within 2 km (4 of 4)



**Figure 1.29: Water vole records within 2 km**



**Figure 1.30: Mammal records (excluding bats, otter, water vole and badger) within 2 km (1 of 4)**



**Figure 1.31: Mammal records (excluding bats, otter, water vole and badger) within 2 km (2 of 4)**

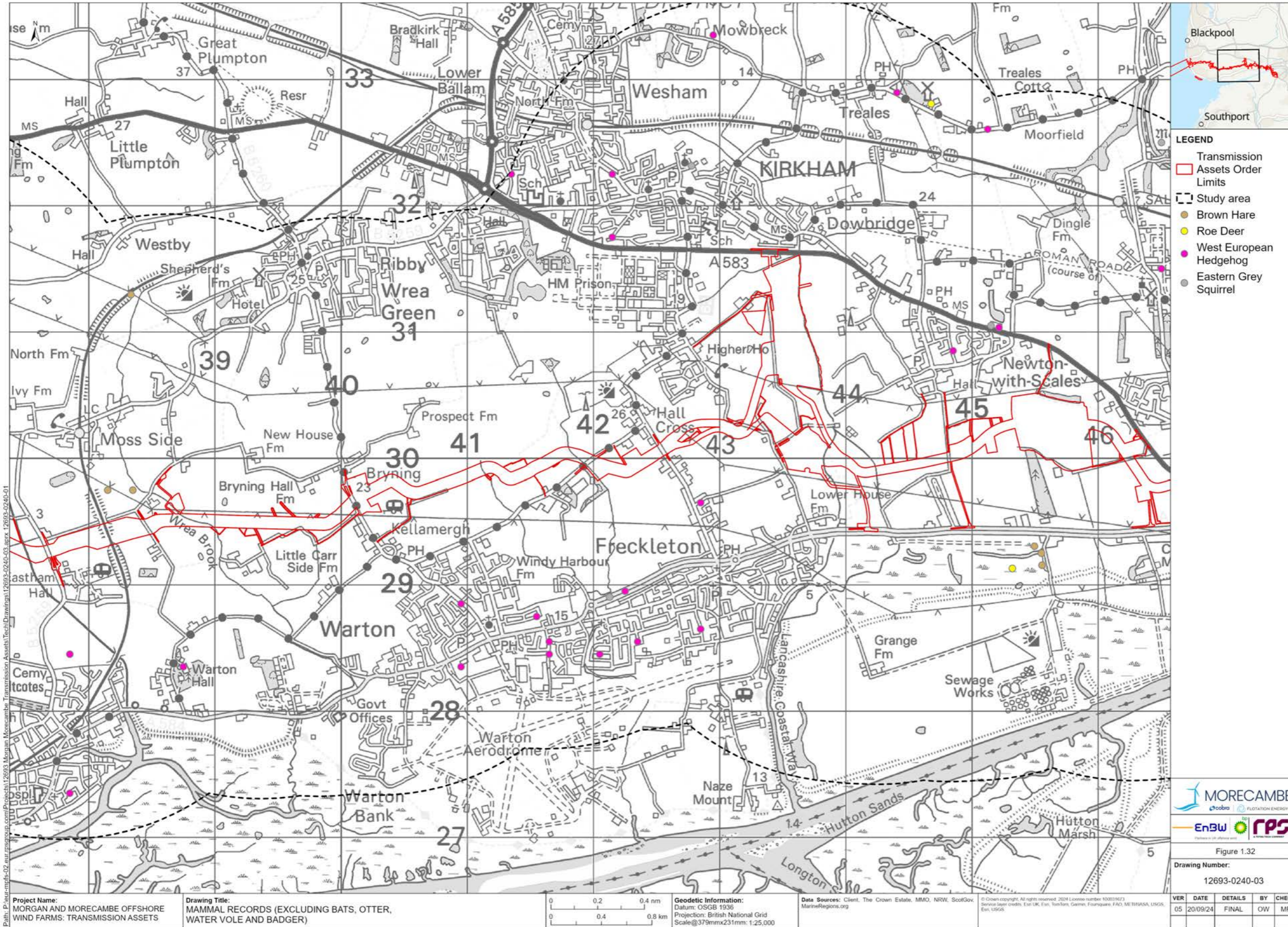
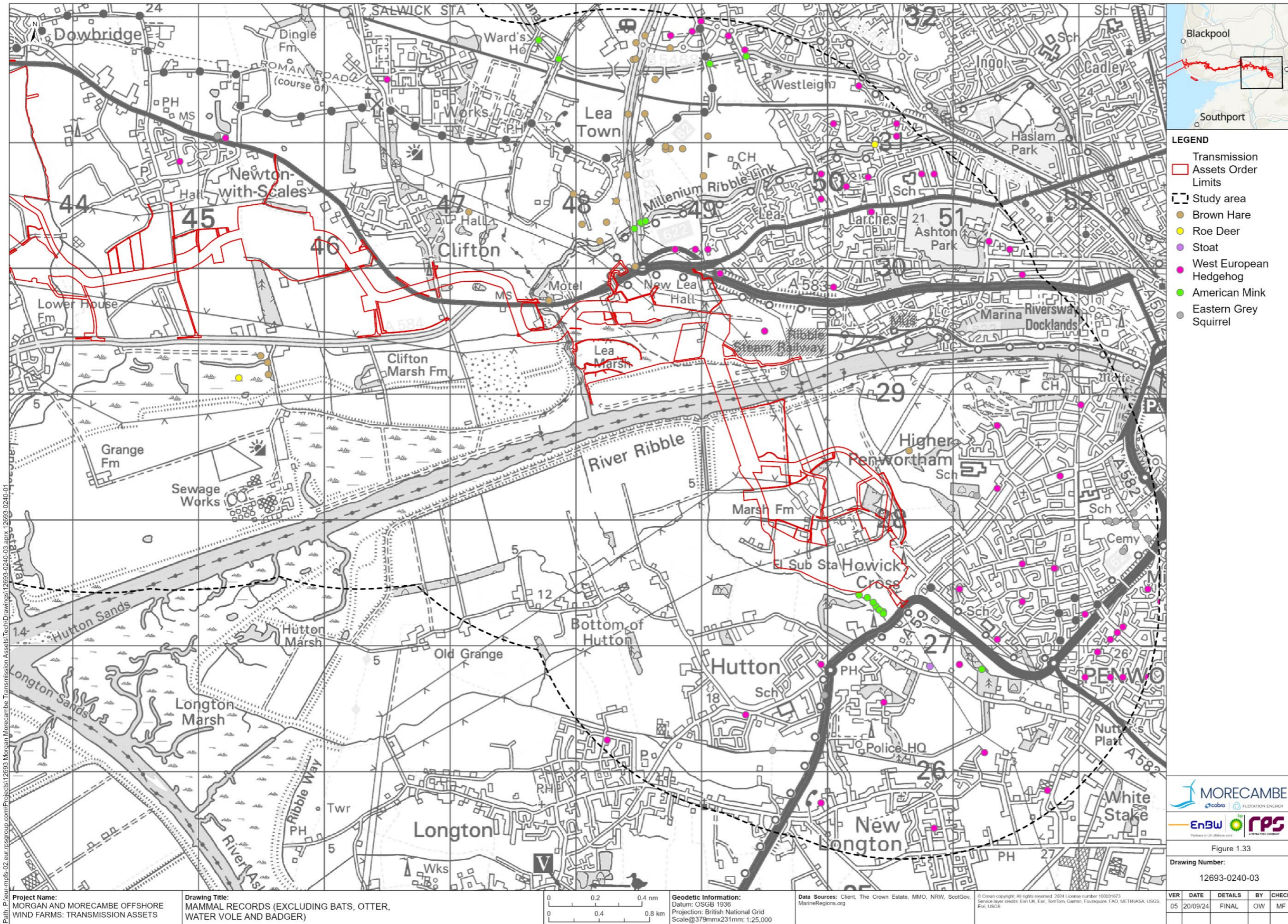
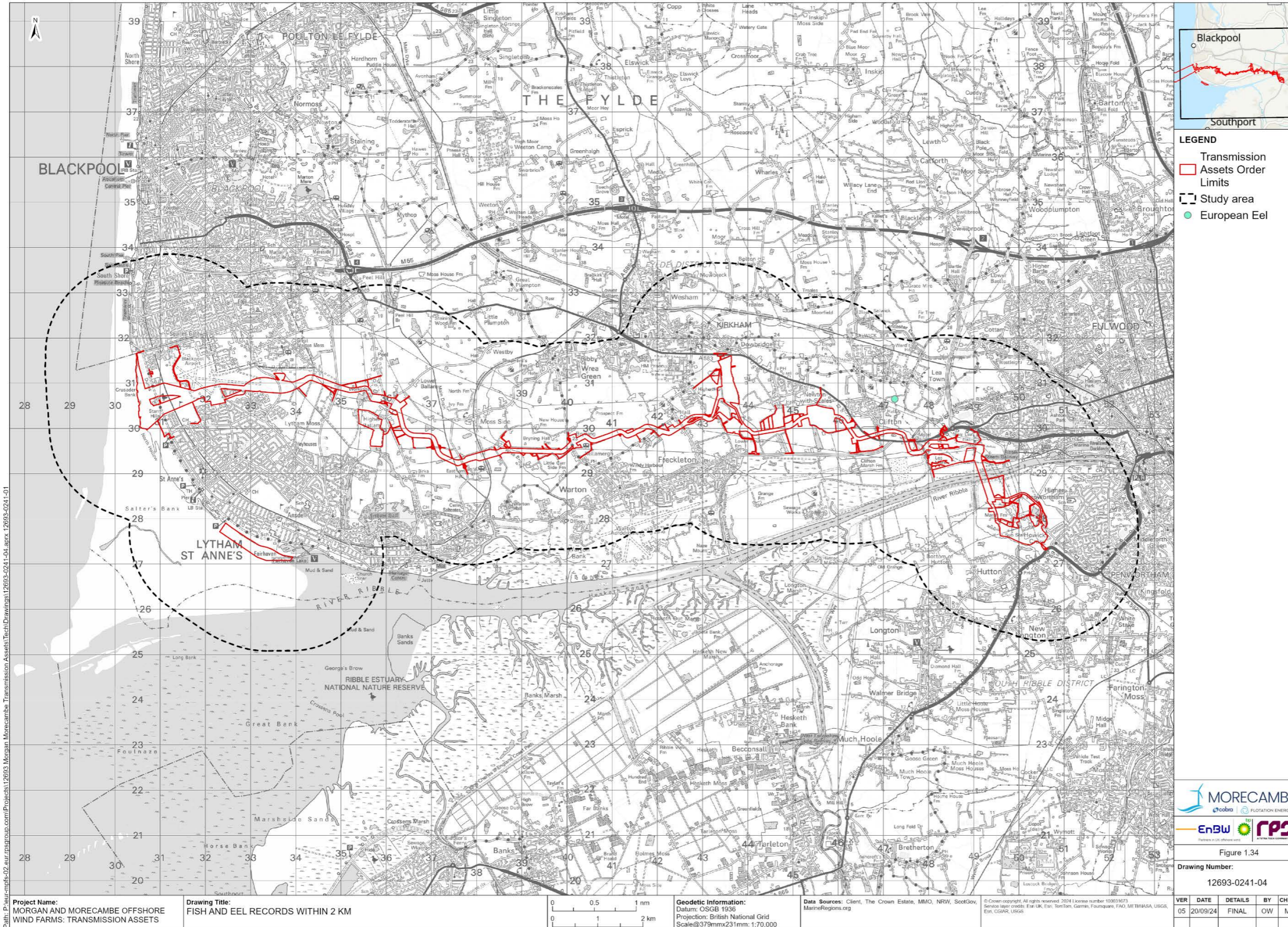


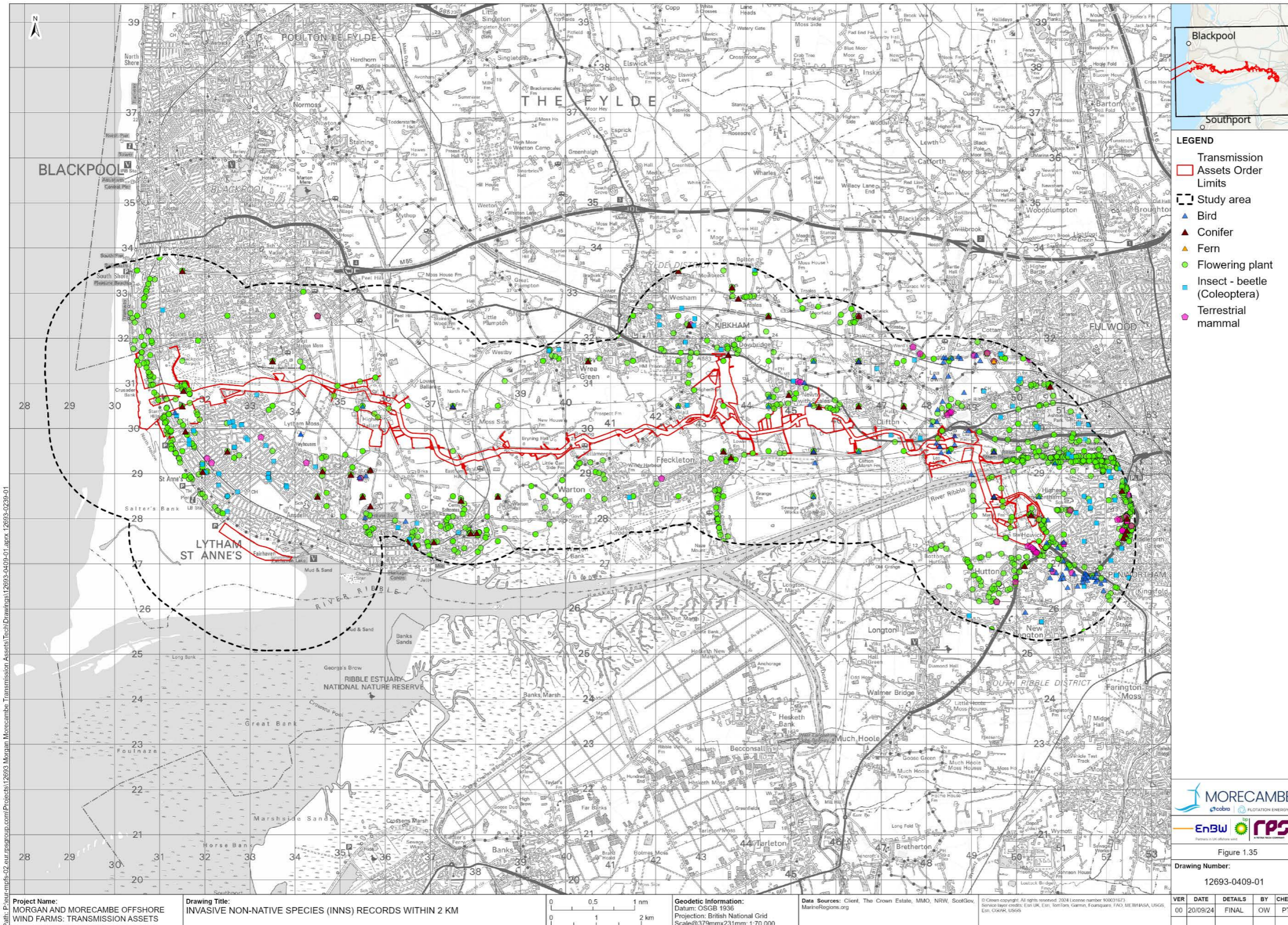
Figure 1.32: Mammal records (excluding bats, otter, water vole and badger) within 2 km (3 of 4)



**Figure 1.33: Mammal records (excluding bats, otter, water vole and badger) within 2 km (4 of 4)**



**Figure 1.34: Fish and eel records within 2 km**



**Figure 1.35: Invasive non-native species within 2 km**



## 1.4 Summary

- 1.4.1.1 The onshore ecology desk study has identified the following nature conservation designations and habitats within the study area.
- Nine international nature conservation designations within 20 km of which one, The Ribble and Alt Estuaries SPA and Ramsar falls partly within the Onshore Order Limits.
  - 12 nationally designated nature conservation designations within 10 km, of which three, Lytham St Annes Dunes SSSI (and LNR), Ribble Estuary SSSI and NNR, and the Ribbel Estuary MCZ are located partly within the Onshore Order Limits.
  - 45 local nature conservation designations of which 14 (one LNR and 12 BHSs and one Biodiversity Road Verge) are located partly within the Onshore Order Limits.
  - One ancient woodland site within 2 km of the Onshore Order Limits.
  - No ancient veteran or notable trees within 2 km of the Onshore Order Limits.
  - Seven priority habitat types covering a total area of 139.69 ha within the Onshore Order Limits: Coastal floodplain grazing marsh, Coastal saltmarsh, Coastal sand dunes, Deciduous woodland, Good quality semi-improved grassland, Mudflats, and ponds.
  - Four additional priority habitat types within 2 km of the Onshore Order Limits: Lowland meadow, Traditional orchard, Lowland fens and habitat with no main habitat type but additional habitats present.
- 1.4.1.2 The Onshore Order Limits is dissected by many Lancashire Grassland and Woodland ecological networks along its length.
- 1.4.1.3 The desk study identified 37 sites designated as semi-natural green space in the Fylde Local Plan, within 2 km of the Onshore Order Limits. Of these seven are located adjoining or partly within the Onshore Order Limits.
- 1.4.1.4 There are two Wildlife Corridors, one Woodland site and 26 Green Infrastructure Sites designated in the Preston City Local Plan within 2 km of the Onshore Order Limits. Of these, one is located partly within the Transmission Assets Order Limits.
- 1.4.1.5 There are 79 Green Infrastructure sites and three wildlife corridor sites designated in the South Ribble Local Plan, within 2 km of the Onshore Order Limits. Of these, two lie partly within the Onshore Order Limits.
- 1.4.1.6 The Onshore Ecology Desk Study has identified the following records of legally protected or otherwise notable species within the study area.
- 107 plants of which 51 occur within the Onshore Order Limits.
  - 31 terrestrial invertebrates of which six occur within the Onshore Order Limits.
  - Three reptile species of which two occur within the Onshore Order Limits.

- Five amphibian species all of which occur within the Onshore Order Limits.
- At least six bat species of which two occur within the Onshore Order Limits.
- Three species of mammals excluding bats, badger and otter, of which two occur within the Onshore Order Limits.
- Eight fish species within 2km of the Onshore Order Limits.
- 91 INNS including seven Wildlife and Countryside Act 1981 Schedule 9 species (including Japanese knotweed and giant hogweed) within the Onshore Order Limits.

## 1.5 References

Defra (2024) Magic Map Application. Available: <https://magic.defra.gov.uk/MagicMap.aspx>. Accessed: September 2024.

Environment Agency (2024) Ecology and fish data explorer. Available: <https://environment.data.gov.uk/ecology/explorer/> Accessed: September 2024

JNCC (2024) UK Protected Areas Available: <https://jncc.gov.uk/our-work/uk-protected-areas/> Accessed: September 2024.

Natural England (2023) Ancient Woodland Inventory (England)

The Woodland Trusts (2024) The Woodland Trust Ancient Tree Inventory Website

## Appendix A: Species records

### Acronyms and Abbreviations used in appendix tables.

BHS: species listed on the Lancashire Criteria for Biological heritage Site Selection

CR: IUCN Red List of Threatened Species - Critically Endangered

DD: IUCN Red List of Threatened Species - Data Deficient

EN: IUCN Red List of Threatened Species - Endangered

HDir5: EC Habitats Directive Annex 5 species

HRegs2: Habitats and Species Regulations Annex 2 species

LBAP: Local Biodiversity Action Plan Species

LC: IUCN Red List of Threatened Species - Least Concern

NT: IUCN Red List of Threatened Species - Near Threatened

OSPAR: Species listed as threatened under assessment carried out for the convention for the Protection of the Marine Environment of the North-East Atlantic 1992

RDB-N: Red Data Book listing – Nationally Notable

RDB-NNA: Red Data Book listing – Nationally Notable A

RDB-NNB: Red Data Book listing – Nationally Notable B

RDB-NR: Red Data Book listing – Nationally Rare

RDB-NS: Red Data Book listing – Nationally Scarce

S41: Species and habitats listed under Section 41 of the Natural Environment and Rural Communities Act (2006) as being of principal importance for nature conservation

VU: IUCN Red List of Threatened Species - Vulnerable

WCA 1: Wildlife and Countryside Act 1981 Schedule 1 Species

WCA 5: Wildlife and Countryside Act 1981 Schedule 5 Species

WCA 8: Wildlife and Countryside Act 1981 Schedule 8 Species

WCA 9: Wildlife and Countryside Act 1981 Schedule 9 Species

## A.1.1 Plant records within 1 km of the Onshore Order Limits

Group	Scientific Name	Common Name	Date Range of Records	Number of records	Conservation Status
Flowering plant	<i>Allium scorodoprasum</i>	Sand Leek	2020	1	BHS, LBAP
Flowering plant	<i>Althaea officinalis</i>	Marsh-mallow	2016	1	RDB-NS
Flowering plant	<i>Anacamptis pyramidalis</i>	Pyramidal Orchid	2014 to 2020	31 (18 records within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Anthriscus caucalis</i>	Bur Chervil		1	BHS
Flowering plant	<i>Aphanes australis</i>	Slender parsley-piert		1	BHS
Flowering plant	<i>Apium graveolens</i>	Wild Celery	2020	2	BHS, LBAP
Flowering plant	<i>Apium inundatum</i>	Lesser Marshwort	2020	1	BHS
Flowering plant	<i>Aquilegia vulgaris</i>	Columbine	2015 to 2021	2	BHS
Flowering plant	<i>Arenaria serpyllifolia</i> subsp. <i>leptoclados</i>	Slender sandwort	2017	1	BHS
Flowering plant	<i>Atriplex laciniata</i>	Frosted orache	2014 - 2017	8	BHS

Group	Scientific Name	Common Name	Date Range of Records	Number of records	Conservation Status
Flowering plant	<i>Atriplex littoralis</i>	Grass-leaved orache	2014 - 2020	8 (1 within the Onshore Order Limits)	BHS
Flowering plant	<i>Blackstonia perfoliata</i>	Yellow-wort	2014 to 2019	13 (9 records within the Onshore Order Limits)	BHS
Flowering plant	<i>Blysmus compressus</i>	Flat sedge	2015 – 2016	3	BHS, LBAP, VU, S41
Flowering plant	<i>Brassica oleracea</i>	Wild Cabbage	2017 to 2020	2	BHS, LBAP, RDB-NS
Flowering plant	<i>Bromus secalinus</i>	Rye Brome	2015	1 (within the Onshore Order Limits)	RDB-NS,VU
Flowering plant	<i>Buxus sempervirens</i>	Box	2021	1	RDB-NR
Flowering plant	<i>Carex elata</i>	Tufted-sedge	2017 to 2017	1 (within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Carex extensa</i>	Long-bracted sedge	2020	2 (1 within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Catapodium marinum</i>	Sea Fern-grass	2016 to 2020	4	BHS, LBAP
Flowering plant	<i>Centaureum littorale</i>	Seaside Centaury	2014 to 2019	6	BHS, LBAP, RDB-NS
Flowering plant	<i>Cerastium arvense</i>	Field mouse-ear	2015 – 2017	4	BHS, LBAP
Flowering plant	<i>Cerastium semidecandrum</i>	Little Mouse-ear	2014 to 2016	3 (1 within the Onshore Order Limits)	BHS
Flowering plant	<i>Coincya monensis subsp. monensis</i>	Isle-of-Man Cabbage	2014 to 2020	40 (8 records within the Onshore Order Limits)	BHS, LBAP, RDB-N
Flowering plant	<i>Convallaria majalis</i>	Lily-of-the-valley	2014 to 2015	4	BHS, LBAP

Group	Scientific Name	Common Name	Date Range of Records	Number of records	Conservation Status
Flowering plant	<i>Cynoglossum officinale</i>	Hound's-tongue	2014 – 2020	15 (2 records within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Cyperus longus</i>	Galingale	2017	1	RDB-NS
Flowering plant	<i>Dactylorhiza incarnata</i>	Early Marsh-orchid	2017 to 2019	8 (4 records within the Onshore Order Limits)	BHS
Flowering plant	<i>Dactylorhiza incarnata subsp. coccinea</i>	Early Marsh-orchid	2019 to 2019	4 (1 record within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Dactylorhiza purpurella</i>	Northern Marsh-orchid	2015 to 2019	9 (6 records within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Dianthus armeria</i>	Deptford Pink	2015 to 2017	2	RDB-NS, EN, S41, WCA8
Flowering plant	<i>Eleocharis quinqueflora</i>	Few-flowered Spike-rush	2014	3 (within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Epipactis dunensis</i>	Dune Helleborine	2014 to 2020	59 (38 records within the Onshore Order Limits)	BHS, LBAP, RDB-N
Flowering plant	<i>Epipactis palustris</i>	Marsh Helleborine	2014 to 2019	17 ( 10within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Epipactis phyllanthes</i>	Green-flowered Helleborine	2014 to 2016	14 (12 records within the Onshore Order Limits)	BHS, LBAP, RDB-NS
Flowering plant	<i>Epipactis phyllanthes var. pendula</i>	None	2014 to 2015	10 (8 records within the Onshore Order Limits)	BHS, LBAP, RDB-NS
Flowering plant	<i>Erodium lebelii</i>	Sticky Stork's-bill	2015 to 2016	2	BHS, LBAP, RDB-NS

Group	Scientific Name	Common Name	Date Range of Records	Number of records	Conservation Status
Flowering plant	<i>Erodium moschatum</i>	Musk Stork's-bill	2018 to 2018	1	LBAP
Flowering plant	<i>Eryngium maritimum</i>	Sea-holly	2015 to 2020	39 (3 records within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Euonymus europaeus</i>	Spindle	2017	1	BHS
Flowering plant	<i>Euphorbia paralias</i>	Sea Spurge	2014 to 2020	32 (4 records within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Euphorbia portlandica</i>	Portland Spurge	2015 - 2020	8 (2 records within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Euphrasia tetraquetra</i>	Eyebright	2014	13 (8 records within the Onshore Order Limits)	BHS, DD
Flowering plant	<i>Festuca brevipila</i>	Hard fescue	2014	3	LBAP
Flowering plant	<i>Festuca filiformis</i>	Fine-leaved Sheep's-fescue	2017	1	BHS, LBAP
Flowering plant	<i>Festuca rubra subsp. Juncaea</i>	Festuca rubra subsp. Juncaea	2020	1	LBAP
Flowering plant	<i>Fumaria bastardii</i>	Tall Ramping-fumitory	2014	1	BHS
Flowering plant	<i>Fumaria purpurea</i>	Purple ramping fumitory	2014 – 2020	8	BHS, LBAP, RDB-NS, S41
Flowering plant	<i>Geranium sanguineum</i>	Bloody Crane's-bill	2014 to 2020	26 (2 records within the Onshore Order Limits)	BHS
Flowering plant	<i>Glebionus segetum</i>	Glebionus segetum	2019 -2020	2	VU
Flowering plant	<i>Hippuris vulgaris</i>	Mare's-tail	2017	1 (within the Onshore Order Limits)	BHS

Group	Scientific Name	Common Name	Date Range of Records	Number of records	Conservation Status
Flowering plant	<i>Hottonia palustris</i>	Water-violet	2014	3	BHS
Flowering plant	<i>Hyacinthoides non-scripta</i>	Bluebell	2015 to 2021	10 (1 record within the Onshore Order Limits)	WCA8
Flowering plant	<i>Hypericum androsaemum</i>	Tutsan	2014to 2020	15	BHS
Flowering plant	<i>Hypericum humifusum</i>	Trailing St John's-wort	2017	4 (1 within the Onshore Order Limits)	BHS
Flowering plant	<i>Hypericum perforatum x maculatum</i>	Des Etang's St John's-wort	2014	1	BHS
Flowering plant	<i>Juncus balticus x inflexus</i>	Rush	2014 to 2020	4 (3 records within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Lamiasstrum galeobdolon subsp. montanum</i>	Yellow Archangel	2018	1	BHS
Flowering plant	<i>Lepidium campestre</i>	Field Pepperwort	2014	1	LBAP
Flowering plant	<i>Limonium humile</i>	Lax-flowered Sea Lavender	2015 - 2020	4	BHS, LBAP, RDB-NS
Flowering plant	<i>Limonium vulgare</i>	Common sea-lavender	2020	1	BHS
Flowering plant	<i>Lonicera xylosteum</i>	Fly Honeysuckle	2015	2	RDB-NR
Flowering plant	<i>Lotus subbiflorus</i>	Hairy Bird's-foot-trefoil	2015	1	RDB-NR
Flowering plant	<i>Meconopsis cambrica</i>	Welsh Poppy	2014 to 2018	2 (1 record within the Onshore Order Limits)	RDB-NS
Flowering plant	<i>Myosotis ramosissima</i>	Early Forget-me-not	2014 to 2019	13 (2 within the Onshore Order Limits)	BHS



Group	Scientific Name	Common Name	Date Range of Records	Number of records	Conservation Status
Flowering plant	<i>Nymphaea alba</i>	White Water-lily	2017	2(1 record within the Onshore Order Limits)	BHS
Flowering plant	<i>Ononis spinosa</i>	Spiny Restharrow	2020	4 (1 record within the Onshore Order Limits)	BHS
Flowering plant	<i>Ophrys apifera</i>	Bee Orchid	2014 to 2020	23 (6 records within the Onshore Order Limits)	BHS
Flowering plant	<i>Ophrys apifera</i> var. <i>apifera</i>	Ophrys apifera var. apifera	2015	1 (within the Onshore Order Limits)	BHS
Flowering plant	<i>Orobanche minor</i>	Common broomrape	2014 – 2019	10	BHS, LBAP
Flowering plant	<i>Parapholis strigosa</i>	Hard-grass	2015-2020	10 (2 record within the Onshore Order Limits)	LBAP
Flowering plant	<i>Parnassia palustris</i>	Grass-of-Parnassus	2014 to 2019	25 (13 records within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Phleum arenarium</i>	Sand Cat's-tail	2014 to 2020	17 (2 records within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Polygonum oxyspermum</i>	Ray's Knotgrass	2014 - 2020	8 (1 record within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Populus nigra</i> subsp. <i>betulifolia</i>	Black Poplar	2019 to 2021	3	BHS, LBAP
Flowering plant	<i>Puccinellia distans</i>	Reflexed Saltmarsh-Grass	2015	4	BHS
Flowering plant	<i>Pyrola rotundifolia</i>	Round-leaved Wintergreen	2014	4 (within the Onshore Order Limits)	LBAP

Group	Scientific Name	Common Name	Date Range of Records	Number of records	Conservation Status
Flowering plant	<i>Pyrola rotundifolia subsp. maritima</i>	Wintergreen	2014 to 2019	6 (within the Onshore Order Limits)	BHS, LBAP, RDB-N
Flowering plant	<i>Rhinanthus minor subsp. stenophyllus</i>	Yellow-Rattle	2014	1 (within the Onshore Order Limits)	BHS
Flowering plant	<i>Rosa rubiginosa</i>	Sweet-briar	2014 to 2020	6 (1 within the Onshore Order Limits)	BHS
Flowering plant	<i>Rosa spinosissima</i>	Burnet Rose	2014 to 2020	3	BHS
Flowering plant	<i>Ruppia maritima</i>	Beaked Tasselweed	2020	1	BHS, LBAP
Flowering plant	<i>Salix viminalis x cinerea x repens = S. x angusensis</i>	Willow	2015	1 (within the Onshore Order Limits)	LBAP
Flowering plant	<i>Salix viminalis x repens = S. x friesiana</i>	Willow	2014 to 2017	7 (within the Onshore Order Limits)	LBAP
Flowering plant	<i>Salsola kali</i>	Saltwort	2014 to 2020	3	BHS
Flowering plant	<i>Salsola kali subsp. kali</i>	Prickly Saltwort	2019	1	BHS, VU, S41
Flowering plant	<i>Samolus valerandi</i>	Brookweed	2014 to 2019	16	BHS
Flowering plant	<i>Sedum telephium</i>	Orpine	2015	1	BHS
Flowering plant	<i>Spergula arvensis</i>	Corn Spurrey	2017 - 2020	5	VU
Flowering plant	<i>Spirodela polyrhiza</i>	Greater Duckweed	2014 to 2014	1	BHS
Flowering plant	<i>Stellaria pallida</i>	Lesser Chickweed	2014 to 2020	4	BHS

Group	Scientific Name	Common Name	Date Range of Records	Number of records	Conservation Status
Flowering plant	<i>Thalictrum minus</i>	Lesser Meadow-rue	2015 to 2020	21.	LBAP
Flowering plant	<i>Tilia platyphyllos</i>	Large-leaved Lime	2014	1 (within the Onshore Order Limits)	RDB-NS
Flowering plant	<i>Trifolium micranthum</i>	Slender Trefoil	2017	3	BHS
Flowering plant	<i>Trifolium striatum</i>	Knotted Clover	2017	3	BHS, LBAP
Flowering plant	<i>Valerianella locusta</i>	Common Cornsalad	2014 to 2016	3	BHS, LBAP
Flowering plant	<i>Vicia lathyroides</i>	Spring Vetch	2015 to 2017	10 (1 within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Viola canina</i>	Heath Dog-violet	2014 to 2020	54 (31 within the Onshore Order Limits)	BHS, LBAP
Flowering plant	<i>Viola reichenbachiana</i>	Early Dog-violet	2021	2	BHS
Flowering plant	<i>Viola tricolor</i>	Wild Pansy	2014 to 2020	5 (1 within the Onshore Order Limits)	NT
Flowering plant	<i>Viola tricolor subsp. curtisii</i>	Seaside Pansy	2014 to 2019	14 (1 within the Onshore Order Limits)	BHS, LBAP, NT
Flowering plant	<i>Viola tricolor subsp. tricolor</i>	Pansy	2017	1	NT
Flowering plant	<i>Vulpia fasciculata</i>	Dune Fescue	2014 to 2016	10 (1 within the Onshore Order Limits)	BHS, LBAP, RDB-NS
Fern	<i>Polypodium interjectum</i>	Intermediate Polypody	2019	1	BHS
Fern	<i>Polystichum setiferum</i>	Soft Shield-fern	2015 to 2021	11 (2 records within the Onshore Oder Limits)	BHS

Group	Scientific Name	Common Name	Date Range of Records	Number of records	Conservation Status
Horsetail	<i>Equisetum variegatum</i>	Variegated Horsetail	2015 to 2019	3	BHS, LBAP, RDB-NS
Horsetail	<i>Hippuris vulgaris</i>	Mare's-tail	2017	1 (within the Onshore Order Limits)	BHS
Moss	<i>Syntrichia ruraliformis</i>	Sand-hill Screw-moss	2014 to 2020	14 (2 within the Onshore Order Limits)	BHS

## A.1.2 Terrestrial invertebrate records within 1 km of the Onshore Order Limits

Group Name	Scientific Name	Common name	Date ranges of Records	Number of Records	Conservation Status
Crustacean	<i>Trichoniscoides saeroeensis</i>	A woodlouse	2019	1	BHS
Insect - beetle	<i>Agelastica alni</i>	Alder leaf beetle	2019 to 2020	4	DD
Insect - beetle	<i>Hippodamia tredecipunctata</i>	13-spot Ladybird	2017	1	BHS
Insect - butterfly	<i>Argynnis aglaja</i>	Dark Green Fritillary	2020	1 (within the Onshore Order Limits)	LBAP, BHS
Insect - butterfly	<i>Aricia agestis</i>	Brown Argus	2018	1 (within the Onshore Order Limits)	BHS
Insect - butterfly	<i>Aricia artaxerxes</i>	Northern Brown Argus	2018	1 (within the Onshore Order Limits)	BHS, LBAP, VU, S41, WCA5
Insect - butterfly	<i>Callophrys rubi</i>	Green Hairstreak	2019	1	BHS
Insect - butterfly	<i>Coenonympha pamphilus</i>	Small Heath	2014 to 2019	28 (20 within the Onshore Order Limits)	S41, LBAP, NT
Insect - butterfly	<i>Gonepteryx rhamni</i>	Brimstone	2016	1	BHS
Insect - butterfly	<i>Hipparchia semele</i>	Grayling	2014 to 2020	22 (10 within the Onshore Order Limits)	BHS, LBAP, VU, S41
Insect - butterfly	<i>Lasiommata megera</i>	Wall	2014	2	LBAP, S41, NT, BHS
Insect - butterfly	<i>Pararge aegeria</i>	Speckled Wood	2014 to 2020	29 (8 within the Onshore Order Limits)	BHS

Group Name	Scientific Name	Common name	Date ranges of Records	Number of Records	Conservation Status
Insect - butterfly	<i>Polygonia c-album</i>	Comma	2014 to 2020	8	VU, S41
Insect - butterfly	<i>Pyrgus malvae</i>	Grizzled Skipper	2017	2	LBAP S41, EN, WCA5
Insect - butterfly	<i>Satyrrium w-album</i>	White-letter Hairstreak	2017	1	NT
Insect - dragonfly	<i>Libellula fulva</i>	Scarce Chaser	2018	2	BHS
Insect - dragonfly	<i>Sympetrum fonscolombii</i>	Red-veined Darter	2019	1	BHS
Insect - dragonfly	<i>Sympetrum sanguineum</i>	Ruddy Darter	2019	10	S41
Insect - moth	<i>Arctia caja</i>	Garden Tiger	2019	1	S41
Insect - moth	<i>Litologia literosa</i>	Rosy Minor	2014	2	S41
Insect - moth	<i>Scotopteryx chenopodiata</i>	Shaded Broad-bar	2018 - 2020	3	S41
Insect - moth	<i>Tyria jacobaeae</i>	Cinnabar	2014 to 2020	12 (1 within the Onshore Order Limits)	S41
Insect - cricket	<i>Meconema thalassinum</i>	Oak Bush-cricket	2017	1	BHS
Insect – True fly	<i>Beris fuscipes</i>	Short-horned Black Legionnaire	2017	1	BHS
Insect – True fly	<i>Hilara implicata</i>	Hilara implicata	2017	1	RDB-NS

Group Name	Scientific Name	Common name	Date ranges of Records	Number of Records	Conservation Status
Insect – True fly	<i>Platypalpus praicenctus</i>	Platypalpus praicenctus	2017	1	RDB-NS
Insect – Bees/Wasps/ Ants	<i>Bombus ruderatus</i>	Large Garden Bumblebee	2019	2	S41
Insect – Bees/Wasps/ Ants	<i>Colletes cunicularis</i>	Early Colletes	2017 - 2018	3	BHS
Mollusc	<i>Arctia islandica</i>	Icelandic Cyprine	2020	1	OSPAR
Mollusc	<i>Cerņuella virgata</i>	Striped Snail	2014	1	BHS
Mollusc	<i>Nucella lapillus</i>	Dog Whelk	2020	1	OSPAR

### A.1.3 Amphibians and reptile records within 2 km of the Onshore Order Limits

Group	Taxon Name	Common Name	Date Ranges of Records	Number of records	Conservation Status
Reptile	<i>Anguis fragilis</i>	Slow-worm	2015	6	LBAP, S41, WCA5
Reptile	<i>Zootoca vivipara</i>	Common lizard	2015 to 2019	4 (1 within the Onshore Order Limits)	WCA5
Reptile	<i>Lacerta agilis</i>	Sand lizard	2020	28 (within the Onshore Order Limits)	S41, HRegs2, LBAP, WCA5
Amphibian	<i>Triturus cristatus</i>	Great crested newt	2014 to 2020	490 (47 within the Onshore Order Limits)	BAP, HRegs2, WCA5
Amphibian	<i>Rana temporaria</i>	Common frog	2014 to 2020	81 (21 within the Onshore Order Limits)	HDir5, WCA5
Amphibian	<i>Bufo</i>	Common toad	2015 to 2019	142 (13 within the Onshore Order Limits)	WCA5
Amphibian	<i>Lissotriton helveticus</i>	Palmate newt	2015 to 2018	12 (10 within the Onshore Order Limits)	WCA5
Amphibian	<i>Lissotriton vulgaris</i>	Smooth newt	2015 to 2019	151 (25 within the Onshore Order Limits)	WCA5



## A.1.4 Terrestrial mammal records within 2 km of the Onshore Order Limits

Taxon Name	Common Name	Date Ranges of Records	Number of records	Conservation Status
<b>Bats</b>				
<i>Chiroptera</i>	Bat (unidentified)	2014 to 2019	7	Bonn2, HRegs2, LBAP, WCA5
<i>Myotis</i>	Myotis bat (unidentified species)	2014 to 2019	10	Bonn2, HRegs2, WCA5
<i>Myotis daubentonii</i>	Daubenton's bat	2018	2	Bonn2, HRegs2, WCA5
<i>Nyctalus noctula</i>	Noctule bat	2015 to 2019	29 (2 within the Onshore Order Limits)	S41, Bonn2, HRegs2, LBAP, WCA5
<i>Nyctalus sp.</i>	Nyctalus bat	2015 to 2019	2	Bonn2, HRegs2, LBAP, NT, WCA5
<i>Pipistrellus</i>	Pipistrelle bat (unidentified species)	2014 to 2020.	87 (1 within the Onshore Order Limits)	Bonn2, HRegs2, WCA5
<i>Pipistrellus nathusii</i>	Nathusius' pipistrelle	2019.	6	Bonn2, HRegs2, LBAP, NT, WCA5
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	2014 to 2020.	54	Bonn2, HRegs2, LBAPWCA5
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle bat	2016 to 2019.	9	S41, Bonn2, HRegs2, WCA5

Taxon Name	Common Name	Date Ranges of Records	Number of records	Conservation Status
<i>Plecotus auritus</i>	Brown long-eared bat	2014 to 2019.	16	S41, Bonn2, HRegs2, WCA5
<b>Other terrestrial mammals</b>				
<i>Arvicola amphibius</i>	European water vole	2014 to 2020	5	BHS, EN, LBAP, S41, WCA5
<i>Erinaceus europaeus</i>	West European hedgehog	2014 to 2020	124 (2 within the Onshore Order Limits)	S41, LBAP
<i>Lepus europaeus</i>	Brown hare	2014 to 2020	36	S41, LBAP

## A.1.5 Fish records within 2 km of the Onshore Order Limits

Group	Taxon Name	Common Name	Date Ranges of Records	Number of Records	Conservation Status
Bony fish <i>Actinopterygii</i>	<i>Anguilla anguilla</i>	European eel	2014	2	S41, CR, LBAP, OSPAR
Bony fish	<i>Clupea harengus</i>	Herring	2015	4	S41
Bony fish	<i>Merlangus merlangus</i>	Whiting	2014 – 2015	4	S41
Bony fish	<i>Osmerus eperlanus</i>	Smelt	2014	2	S41, LBAP
Bony fish	<i>Pleuronectes platessa</i>	Plaice	2015	4	S41
Bony fish	<i>Salmo trutta</i>	Brown/Sea Trout	2015	2	S41, LBAP
Bony fish	<i>Solea solea</i>	Dover Sole	2015	2	S41
Cartilagenous fish	<i>Raja montagui</i>	Spotted Ray	2020	1	OSPAR

## A.1.6 Invasive non-native species records within 2 km of the Onshore Order Limits

Group	Taxon Name	Common Name	Date Ranges of Records	Number of records	Conservation Status
Terrestrial mammal	<i>Neovison vison</i>	American mink	2014 to 2019	18	Lancashire INNS
Terrestrial mammal	<i>Sciurus carolinensis</i>	Eastern grey squirrel	2014 to 2021	26	Lancashire INNS, WCA9
Bird	<i>Phasianus colchicus</i>	Pheasant	2014 to 2020	54 (6 within the Onshore Order Limits)	Lancashire INNS
Bird	<i>Alectoris rufa</i>	Red-legged partridge	2014 to 2019	3 (2 within the Transmission Assets Order Limits)	Lancashire INNS
Bird	<i>Branta canadensis</i>	Canada goose	2015 to 2021	21 (2 within the Onshore Order Limits)	Lancashire INNS, WCA9
Insect-beetle	<i>Harmonia axyridis</i>	Harlequin ladybird	2014 to 2020	153	Lancashire INNS
Insect-beetle	<i>Harmonia axyridis form spectabilis</i>	Harmonia axyridis form spectabilis	2014 to 2018	12	Lancashire INNS
Insect-beetle	<i>Harmonia axyridis form succinea</i>	Harmonia axyridis form succinea	2018	4	Lancashire INNS
Flowering plant	<i>Acaena novae-zelandiae</i>	Pirri-pirri-bur	2020	1	Lancashire INNS
Flowering plant	<i>Acer pseudoplatanus</i>	Sycamore	2014 to 2021	178 (7 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Acorus calamus</i>	Sweet-flag	2020 to 2021	2	Lancashire INNS
Flowering plant	<i>Aegopodium podagraria</i>	Ground-elder	2014 to 2021	67	Lancashire INNS

Group	Taxon Name	Common Name	Date Ranges of Records	Number of records	Conservation Status
Flowering plant	<i>Aesculus hippocastanum</i>	Horse-chestnut	2014 to 2021	61 (1 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Ailanthus altissima</i>	Tree-of-heaven	2020	1	Lancashire INNS
Flowering plant	<i>Alchemilla mollis</i>	Garden Lady's-mantle	2014 to 2020	6	Lancashire INNS
Flowering plant	<i>Allium paradoxum</i>	Few-flowered garlic	2014 to 2018	5	Lancashire INNS
Flowering plant	<i>Allium triquetrum</i>	Three-cornered garlic	2014 to 2019	14 (1 within the Onshore Order Limits)	Lancashire INNS, WCA9
Flowering plant	<i>Alnus cordata</i>	Italian alder	2014 to 2020	19 (1 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Alnus incana</i>	Grey alder	2014 to 2019	7	Lancashire INNS
Flowering plant	<i>Aster lanceolatus</i>	Narrow-leaved Michaelmas Daisy	2014	1	Lancashire INNS
Flowering plant	<i>Aster novi-belgii x lanceolatus = A. x salignus</i>	Common Michaelmas-daisy	2018	1	Lancashire INNS
Flowering plant	<i>Aucuba japonica</i>	Spotted-laurel	2014 to 2021	16	Lancashire INNS
Flowering plant	<i>Berberis thunbergii</i>	Thunberg's barberry	2014 to 2020	2	Lancashire INNS
Flowering plant	<i>Brassica rapa</i>	Turnip	2014 to 2020	41 (3 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Bromus sterilis</i>	Barren brome	2014 to 2021	51 (1 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Buddleja davidii</i>	Butterfly-bush	2014 to 2021	48	Lancashire INNS

Group	Taxon Name	Common Name	Date Ranges of Records	Number of records	Conservation Status
Flowering plant	<i>Calystegia silvatica</i>	Large bindweed	2014 to 2020	41 (2 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Campanula poscharskyana</i>	Trailing bellflower	2014 to 2020	22	Lancashire INNS
Flowering plant	<i>Claytonia perfoliata</i>	Springbeauty	2014 to 2020	10	Lancashire INNS
Flowering plant	<i>Claytonia sibirica</i>	Pink Purslane	2018	1	Lancashire INNS
Flowering plant	<i>Conyza canadensis</i>	Canadian fleabane	2014 to 2020	37	Lancashire INNS
Flowering plant	<i>Cornus alba</i>	White dogwood	2014 to 2020	22	Lancashire INNS
Flowering plant	<i>Cotoneaster sp.</i>	Cotoneaster	2014 to 2020	22 (1 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Cotoneaster bullatus</i>	Hollyberry cotoneaster	2015 to 2020	5	Lancashire INNS, WCA9
Flowering plant	<i>Cotoneaster dielsianus</i>	Diels' cotoneaster	2014 to 2020	9	Lancashire INNS
Flowering plant	<i>Cotoneaster frigidus x salicifolius = C. x watereri</i>	Waterer's cotoneaster	2019	1	Lancashire INNS
Flowering plant	<i>Cotoneaster horizontalis</i>	Wall cotoneaster	2016 to 2020	6	Lancashire INNS, WCA9
Flowering plant	<i>Cotoneaster integrifolius</i>	Entire-leaved cotoneaster	2020	1	Lancashire INNS, WCA9
Flowering plant	<i>Cotoneaster rehderi</i>	Bullate cotoneaster	2018 to 2020	4	Lancashire INNS

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Flowering plant	<i>Cotoneaster simonsii</i>	Himalayan cotoneaster	2020	1	Lancashire INNS, WCA9
Flowering plant	<i>Crassula helmsii</i>	New Zealand pigmyweed	2014 to 2015	2	Lancashire INNS
Flowering plant	<i>Crocsmia pottsii x aurea = C. x crocosmiiflora</i>	Montbretia	2014 to 2021	62 (2 within the Onshore Order Limits)	Lancashire INNS, WCA9
Flowering plant	<i>Elodea canadensis</i>	Canadian waterweed	2014	1	Lancashire INNS, WCA9
Flowering plant	<i>Erigeron glaucus</i>	Seaside daisy	2014 to 2020	19 (1 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Fallopia baldschuanica</i>	Russian-vine	2016	3	Lancashire INNS
Flowering plant	<i>Reynoutria japonica</i>	Japanese knotweed	2014 to 2020	28 (1 within the Onshore Order Limits)	Lancashire INNS, WCA9
Flowering plant	<i>Reynoutria japonica japonica x sachalinensis = F. x bohémica</i>	Knotweed	2014 to 2020	10	Lancashire INNS, WCA9
Flowering plant	<i>Gunnera tinctoria</i>	Giant-rhubarb	2016	1	Lancashire INNS, WCA9
Flowering plant	<i>Hedera hibernica</i>	Atlantic ivy	2014 to 2021	41 (1 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Heracleum mantegazzianum</i>	Giant hogweed	2014 to 2020	20 (1 within the Onshore Order Limits))	Lancashire INNS, INNS, WCA9

Group	Taxon Name	Common Name	Date Ranges of Records	Number of records	Conservation Status
Flowering plant	<i>Hippophae rhamnoides</i>	Sea-buckthorn	2014 to 2020	52 (5 within the Onshore Order Limits)	Lancashire INNS, RDB-NS
Flowering plant	<i>Hyacinthoides hispanica</i>	Spanish bluebell	2014 to 2021	38	Lancashire INNS
Flowering plant	<i>Hyacinthoides non-scripta x hispanica = H. x massartiana</i>	Bluebell	2014 to 2021	106 (4 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Impatiens glandulifera</i>	Indian balsam	2014 to 2021	59 (2 within the Onshore Order Limits)	Lancashire INNS, WCA9
Flowering plant	<i>Lagarosiphon major</i>	Curly waterweed	2014 to 2015	3	Lancashire INNS, INNS, WCA9
Flowering plant	<i>Lamium galeobdolon subsp. argentatum</i>	Yellow archangel	2014 to 2020	12	BHS, Lancashire INNS, WCA9
Flowering plant	<i>Lemna minuta</i>	Least duckweed	2014 to 2019	5	Lancashire INNS
Flowering plant	<i>Lonicera pileata</i>	Box-leaved honeysuckle	2014 to 2021	26	Lancashire INNS
Flowering plant	<i>Mimulus</i>	Monkeyflower	2018	1	Lancashire INNS
Flowering plant	<i>Mimulus guttatus</i>	Monkeyflower	2017	1	Lancashire INNS
Flowering plant	<i>Myriophyllum aquaticum</i>	Parrot's-feather	2014 to 2015	2	Lancashire INNS, INNS, WCA9
Flowering plant	<i>Myrrhis odorata</i>	Sweet cicely	2014 to 2020	3	Lancashire INNS
Flowering plant	<i>Narcissus agg.</i>	Narcissus agg.	2021	17 (1 within the Onshore Order Limits)	Lancashire INNS



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Flowering plant	<i>Petasites fragrans</i>	Winter Heliotrope	2015 to 2020	2	Lancashire INNS
Flowering plant	<i>Pilosella aurantiaca</i>	Fox-and-cubs	2014 to 2021	8	Lancashire INNS
Flowering plant	<i>Populus alba</i>	White poplar	2014 to 2020	28	Lancashire INNS
Flowering plant	<i>Populus alba x tremula</i> = <i>P. x canescens</i>	Grey Poplar	2014 to 2021	12	Lancashire INNS
Flowering plant	<i>Populus balsamifera x deltoides</i> = <i>P. x jackii</i>	Balm-of-Gilead	2016 to 2017	2	Lancashire INNS
Flowering plant	<i>Pseudosasa japonica</i>	Arrow bamboo	2014 to 2017	3	Lancashire INNS
Flowering plant	<i>Quercus cerris</i>	Turkey oak	2014 to 2021	41	Lancashire INNS
Flowering plant	<i>Rhododendron ponticum</i>	Rhododendron	2014 to 2021	18	Lancashire INNS, WCA9
Flowering plant	<i>Rosa rugosa</i>	Japanese rose	2014 to 2020	75 (5 within the Onshore Order Limits)	Lancashire INNS, WCA9
Flowering plant	<i>Rubus armeniacus</i>	Bramble	2014 to 2021	106 (2 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Rubus spectabilis</i>	Salmonberry	2018	1	Lancashire INNS
Flowering plant	<i>Rubus tricolor</i>	Chinese bramble	2020 to 2021	4	Lancashire INNS
Flowering plant	<i>Senecio sarracenicus</i>	Broad-leaved ragwort	2017	1	Lancashire INNS
Flowering plant	<i>Smyrniium olusatrum</i>	Alexanders	2015 to 2020	9	Lancashire INNS, WCA9

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Flowering plant	<i>Solidago canadensis</i>	Canadian goldenrod	2014 to 2020	9	Lancashire INNS
Flowering plant	<i>Solidago gigantea</i>	Early goldenrod	2014 to 2020	12	Lancashire INNS
Flowering plant	<i>Spartina anglica</i>	Common cord-grass	2014 to 2020	29 (2 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Spiraea alba x douglasii = S. x billardii</i>	Billard's bridewort	2014	1	Lancashire INNS
Flowering plant	<i>Spiraea salicifolia x douglasii = S. x pseudosalicifolia</i>	Confused bridewort	2020	1	Lancashire INNS
Flowering plant	<i>Stratiotes aloides</i>	Water-soldier	2014 to 2015	6	BHS, Lancashire INNS, RDB-NR
Flowering plant	<i>Symphoricarpos albus</i>	Snowberry	2014 to 2021	53 (1 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Symphoricarpos microphyllus x orbiculatus = S. x chenaultii</i>	Hybrid coralberry	2014 to 2020	9	Lancashire INNS
Flowering plant	<i>Symphytum officinale x asperum = S. x uplandicum</i>	Russian comfrey	2014 to 2020	26 (1 within the Onshore Order Limits)	Lancashire INNS
Flowering plant	<i>Tellima grandiflora</i>	Fringecups	2014 to 2020	20	Lancashire INNS
Conifer	<i>Chamaecyparis lawsoniana</i>	Lawson's cypress	2015 to 2021	2	Lancashire INNS

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Conifer	<i>Pinus contorta</i>	Lodgepole Pine	2020	3	Lancashire INNS
Conifer	<i>Pinus nigra</i>	Corsican pine	2014 to 2021	19	Lancashire INNS
Conifer	<i>Pinus sylvestris</i>	Scots pine	2014 to 2020	24 (1 within the Onshore Order Limits)	Lancashire INNS