

# **XLINKS MOROCCO-UK POWER PROJECT**

## **Preliminary Environmental Information Report**

**Volume 2, Appendix 1.2: Ecological Desk Study**



FOR ISSUE  
April 2024

## **Contents**

<b>1</b>	<b>ECOLOGICAL DESK STUDY .....</b>	<b>1</b>
1.1	Introduction .....	1
	Purpose and Scope of this Report .....	1
1.2	Methods .....	1
	Study Area .....	1
	Data Request .....	2
1.3	Results .....	4
	Consultation Responses .....	4
	Designated Sites .....	4
	Records of Protected and Notable Species .....	11
	Birds .....	12
	Mammals .....	15
	Herpetofauna .....	18
	Fish .....	18
	Invertebrates .....	20
	Plant Species .....	22
1.4	Conclusions .....	24
1.5	References .....	24

## **Tables**

Table 3.1:	Designated Sites within 5 km of the Onshore Infrastructure Area.....	7
Table 3.2:	Protected or other notable bird species records from the last 10 years within the 2 km study area. ....	13
Table 3.3:	Protected or other notable mammal species records from the last 10 years within the 2 km study area .....	15
Table 3.4:	Protected or other notable herpetofauna species records from the last 10 years within the 2 km study area.....	18
Table 3.5:	Protected or other notable invertebrate species records from the last 10 years within the 2 km study area.....	20
Table 3.6:	Protected or other notable plant species records from the last 10 years within the 2 km study area .....	22

## **Figures**

Figure 1.1:	Ecological desk study – 2km and 5km study areas .....	3
Figure 1.2:	Statutory designated sites within the 5 km study area .....	5
Figure 1.3:	Non-statutory designated sites within the 2 km study area.....	6
Figure 1.4:	Protected and notable bird species.....	14
Figure 1.5:	Protected and notable bat species.....	17
Figure 1.6:	Protected and notable herpetofauna and fish species .....	19
Figure 1.7:	Protected and notable invertebrate species.....	21
Figure 1.8:	Protected and notable plant species.....	23

## Glossary

Term	Meaning
Alverdiscott Substation Site	The National Grid Electricity Transmission substation site within which the Alverdiscott Substation sits.
Applicant	Xlinks 1 Limited.
Converter Site	The Converter Site is proposed to be located to the immediate west of the existing Alverdiscott Substation site in north Devon. The Converter Site would contain two converter stations (known as Bipole 1 and Bipole 2) and associated infrastructure, buildings and landscaping.
Converter station	Part of an electrical transmission and distribution system. Converter stations convert electricity from Direct Current (DC) to Alternating Current (AC), or vice versa.
Environmental Impact Assessment	The process of identifying and assessing the significant effects likely to arise from a Proposed Development. This requires consideration of the likely changes to the environment, where these arise as a consequence of a Proposed Development, through comparison with the existing and Proposed projected future baseline conditions.
Landfall	The proposed area in which the offshore cables make landfall in the United Kingdom (come on shore) and the transitional area between the offshore cabling and the onshore cabling. This term applies to the entire landfall area at Cornborough Range, Devon, between Mean Low Water Springs and the Transition Joint Bay inclusive of all construction works, including the offshore and onshore cable routes, and landfall compound(s).
Onshore HVDC Cable Corridor	The proposed corridor within which the onshore High Voltage Direct Current cables will be located.
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 Proposed Development and which helps to inform consultation responses.
Proposed Development	The element of the Xlinks Morocco-UK Power Project within the UK, which includes the offshore cables (from the UK Exclusive Economic Zone to landfall), landfall site, onshore Direct Current and Alternating Current cables, converter stations, road upgrade works and, based on current assumptions, the Alverdiscott Substation Connection Development.
Xlinks Morocco UK Power Project (the 'Project')	The overall scheme from Morocco to the national grid, including all onshore and offshore elements of the transmission network and the generation site in Morocco (referred to as the 'Project').

## Acronyms

Acronym	Meaning
ASNW	Ancient Semi-Natural Woodland
CWS	County Wildlife Site
DBRC	Devon Biodiversity Record Centre
EIA	Environmental Impact Assessment
IUCN	International Union for Conservation of Nature
HVDC	High Voltage Direct Current
JNCC	Joint Nature Conservation Committee

Acronym	Meaning
NERC	Natural Environments and Rural Communities
OSWI	Other Site of Wildlife interest
PAWS	Plantations on Ancient Woodland Sites
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SoCC	Species of Conservation Concern
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
UWS	Unconfirmed Wildlife Sites

## Units

Units	Meaning
km	Kilometre
ha	Hectares
m	Metres

# 1 ECOLOGICAL DESK STUDY

## 1.1 Introduction

### Purpose and Scope of this Report

- 1.1.1 This document forms Volume 2, Appendix 1.2: Ecological Desk Study of the Preliminary Environmental Information Report (PEIR) prepared for the UK elements of the Xlinks Morocco-UK Power Project (referred to hereafter as ‘the Proposed Development’). The PEIR presents the preliminary findings of the Environmental Impact Assessment (EIA) process for the Proposed Development.
- 1.1.2 RPS was commissioned by Xlinks 1 Ltd to undertake a series of ecological surveys of areas which could be affected by the Onshore High Voltage Direct Current (HVDC) Cable Corridor and Converter Site from Cornborough Range at the coast to the existing Alverdiscott Substation Site in north Devon. These elements of the Proposed Development are situated within the Onshore Infrastructure Area.
- 1.1.3 To support these ecological surveys, a desk study was undertaken, the results of which are outlined in this document.
- 1.1.4 The objectives of the ecological desk study were to:
- Locate records of protected or otherwise notable species from within a 2 km search area of the Onshore Infrastructure Area;
  - Locate records of bat and otter records from within a 10 km search area of the Onshore Infrastructure Area; and
  - Locate statutory designated sites within a 5 km search area of the Onshore Infrastructure Area; and
  - Locate non-statutory designated sites within a 2 km search area of the Onshore Infrastructure Area.
- 1.1.5 This report outlines the methods used in obtaining data, lists the consultees that were contacted and presents the data was obtained.
- 1.1.6 This report represents the findings of an ecological desk study undertaken in 2022. The design and footprint of the Proposed Development has been modified since this was initiated. A further study will be completed when final parameters for the Proposed Development have been finalised.

## 1.2 Methods

### Study Area

- 1.2.1 The ecological desk study has considered the following study areas:
- The study area for statutory designated sites extended up to 5 km from the boundary of the Onshore Infrastructure Area.
  - The non-statutory designated sites and for protected and notable species extended up to 2 km from the boundary of the Onshore Infrastructure Area.

- 1.2.2 In accordance with guidelines prescribed by the Bat Conservation Trust (2007), a search was carried out for statutory sites designated for bats located within 10 km of the Onshore Infrastructure Area. However, this search did not identify any statutory sites designated for bats within 10 km.
- 1.2.3 The location and geographic extent of the search areas used to inform this ecological desk study are presented in **Figure 1.1**.

### Data Request

- 1.2.4 Data was requested from Devon Biodiversity Record Centre (DBRC). To note, this data request was based upon a previous iteration of the Proposed Development footprint. A further information request has been made to DBRC, which is based upon the Draft Order Limits presented in this PEIR, and will be incorporated in the revised ecological desk study for the Environmental Statement.
- 1.2.5 In addition to the above data request, the Natural England and Multi-Agency Geographic Information for the Countryside (MAGIC map) websites were consulted for additional information regarding Special Areas of Conservation (SACs) and Sites of Special Scientific Interest (SSSIs). The Joint Nature Conservation Committee (JNCC) website was also consulted for details of any Special Protection Areas (SPAs) within 5 km of the Onshore Infrastructure Area.
- 1.2.6 The legal or conservation status of the species for which records were received was determined using the Spreadsheet of Conservation Designations for UK Taxa (JNCC, 2010).

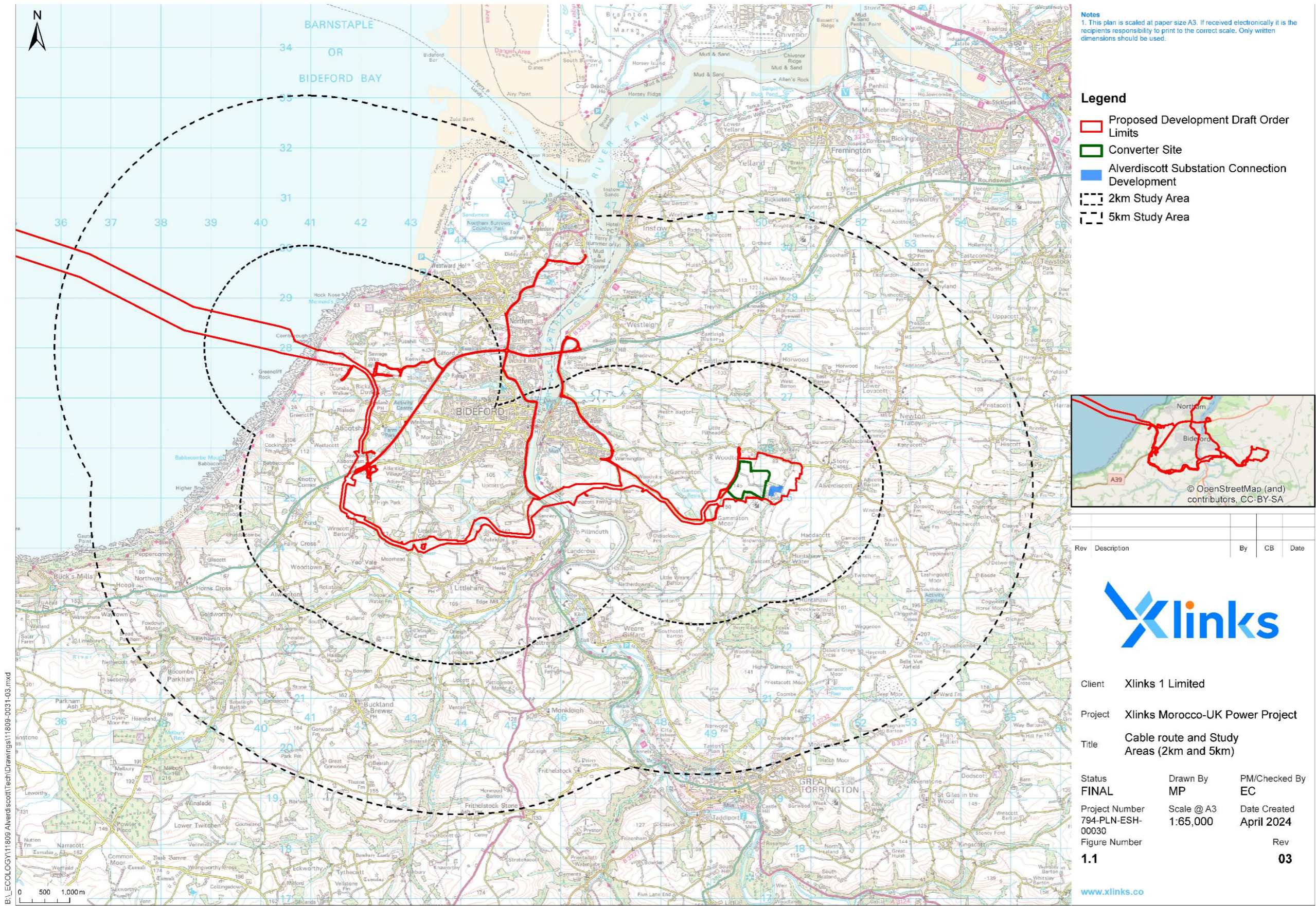


Figure 1.1: Ecological desk study – 2km and 5km study areas

## 1.3 Results

### Consultation Responses

- 1.3.1 DBRC provided a list of protected and notable species as well as information on statutory and non-statutory sites.
- 1.3.2 A number of species of conservation importance or otherwise notable were recorded within the 2 km search radius of the site. A summary of these records is provided in **Table 3.3** to **Table 3.6**.
- 1.3.3 To simplify the results, only records of species from the last 10 years are shown. In addition, only data with a 6-figure grid reference resolution or higher are provided since locations given at a lower resolution do not allow accurate calculation of distance to the site.

### Designated Sites

- 1.3.4 There are seven statutory designated sites for nature conservation value within 2 km of the Onshore Infrastructure Area and nine within 5 km. The closest of these are Mermaid's Pool to Rowden Gut SSSI and Kynoch's Foreshore Local Nature Reserve (LNR), both situated within the site. This figure is increased to 22 statutory designated sites when the radius is increased to 10 km. However, for the purposes of this report, only sites within 5 km are shown on the figures.
- 1.3.5 Numerous non-statutory sites are located within the 2 km search radius of the Onshore Infrastructure Area. The closest of these being Haddacott Moor County Wildlife Site (CWS), Lodge Plantation Unconfirmed Wildlife Sites (UWS), and Torridge Estuary CWS, all of which are located within the Onshore Infrastructure Area.
- 1.3.6 A summary of these sites is provided in **Table 3.1** below and the location of each site is detailed in **Figure 1.2** and **Figure 1.3**.



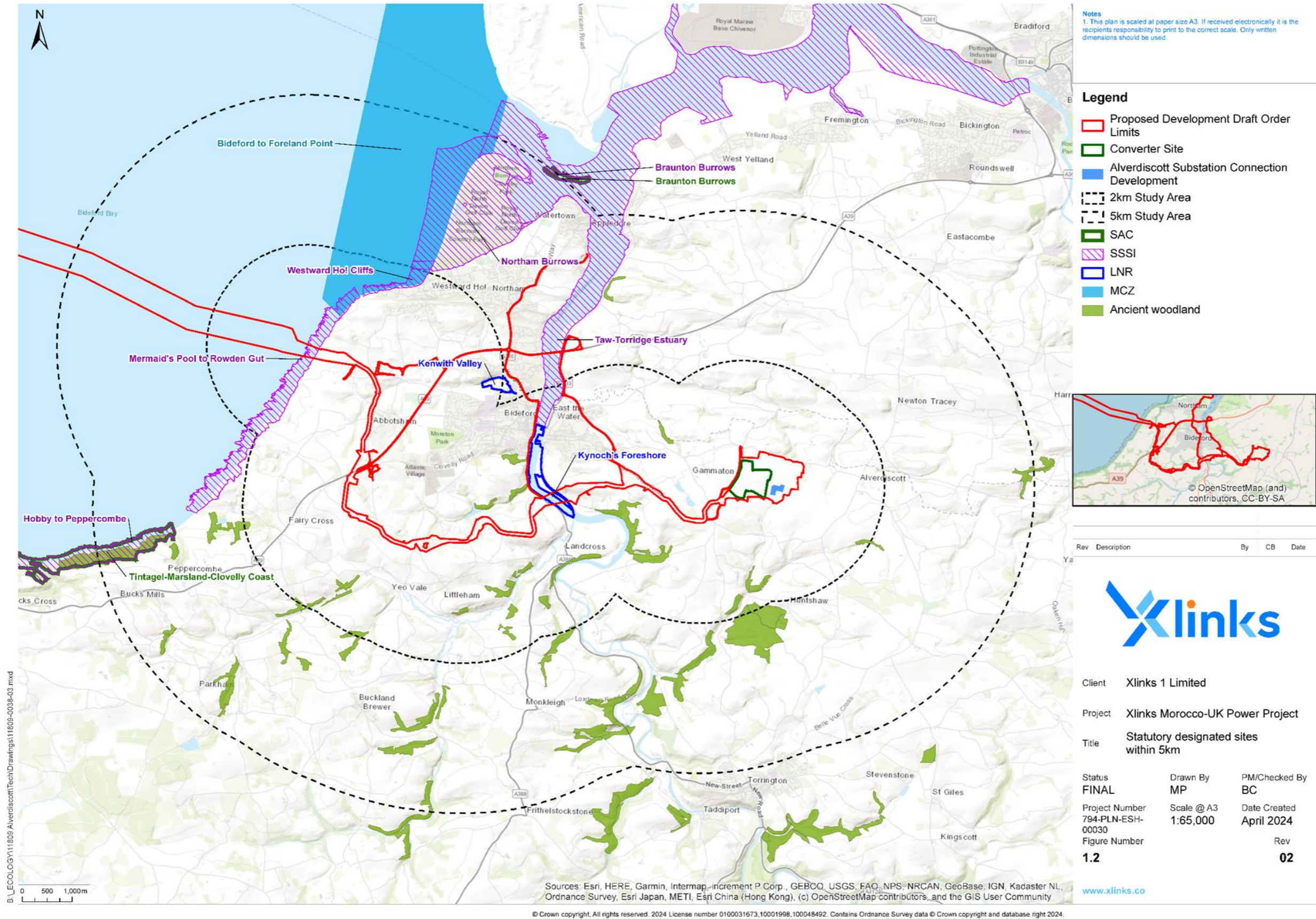


Figure 1.2: Statutory designated sites within the 5 km study area

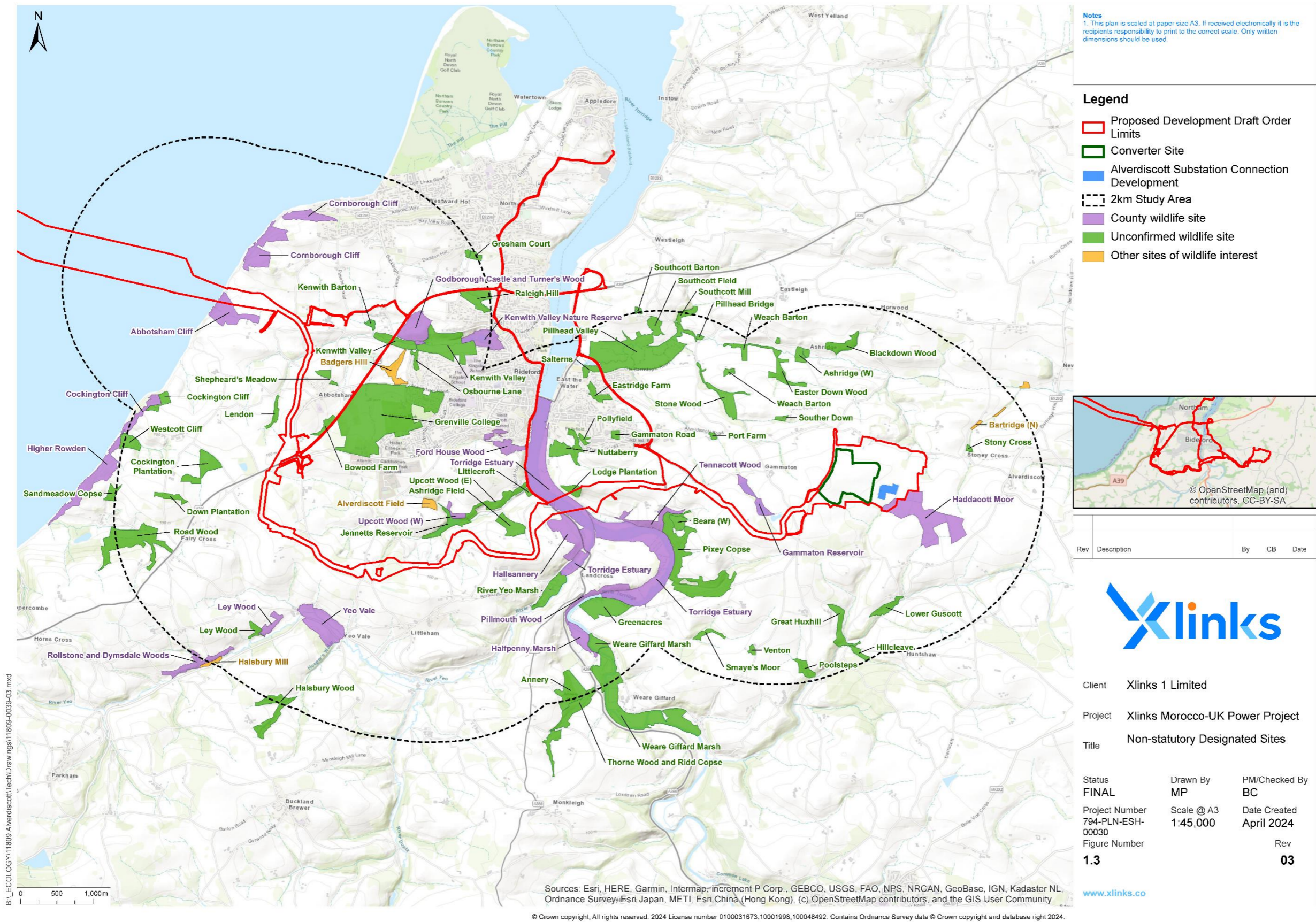


Figure 1.3: Non-statutory designated sites within the 2 km study area

**Table 3.1: Designated Sites within 5 km of the Onshore Infrastructure Area**

Site Name	Type	Approx area (ha)	Description	Distance from Onshore Infrastructure Area (km)
<b>Statutory Sites</b>				
Mermaid's Pool to Rowden Gut	SSSI	152.2	Complete sequence through the Bideford Formation.	0
Kynoch's Foreshore	LNR	37.4	The LNR includes the largest saltmarsh in Torridge istrict and one of the most significant areas of saltmarsh in the whole Taw Torridge Estuary complex.	0
Bideford to Foreland Point	MCZ	10400.0	An area containing a broad array of protected marine habitats and species.	0.72
Westward Ho! Cliffs	SSSI	28.7	Coastal geomorphology and Quaternary deposits	1.19
Taw/Torridge Estuary	SSSI	1375.2	Estuary with mudflats, beaches, and saltmarsh with bird interest	1.25
Kenwith Valley	LNR	10.6	Woodland and scrub with wetland birds and invertebrates	1.60
Northam Burrows	SSSI	418.2	Coastal habitats with plant and bird interest	1.96
Tintagel-Marsland-Clovelly Coast	SAC	2380.4	Vegetated sea cliffs with unusual sessile oak woodland and dry heaths.	3.39
Hobby to Peppercombe	SSSI	224.0	This 6 km section of the North Devon coast supports extensive sessile oak Quercus petraea woodlands which contain nationally important communities of Atlantic climate old-woodland lichens.	3.39
Braunton Burrows	SAC	1346.6	One of the largest dune systems in Britain, about 5 km long and 1.5 km wide, with lime-rich dunes up to 30 m high, and an extensive system of variably-flooded slacks, grassland and scrub, inland of a wide sandy foreshore.	4.88
Braunton Burrows	SSSI	1339.7	A key site for coastal geomorphology and its assemblage of nationally rare species.	4.88
<b>Non-Statutory Sites</b>				
Barton Farm	UWS	1.2	Rough grassland/tall herbs/scrub	N/A
Haycroft	UWS	12.3	Dry grassland/rough grassland/bracken/scrub/SNBW	N/A
Southcott Wood	UWS	2.8	Ancient semi-natural broadleaved woodland	N/A
Weare Wood	UWS	7.2	Semi-natural broadleaved woodland/scrub/bracken	N/A
Woodhouse Wood	UWS	5.1	Ancient semi-natural broadleaved woodland	N/A
Haddacott Moor	CWS	32.6	Culm grassland and semi-improved grassland (former Culm grassland)	0
Lodge Plantation	UWS	2.8	Old plantation - open canopy dry/rough grassland	0

## XLINKS MOROCCO – UK POWER PROJECT

Site Name	Type	Approx area (ha)	Description	Distance from Onshore Infrastructure Area (km)
Torrige Estuary	CWS	111.6	Estuary and saltmarsh habitats	0
Abbotsham Cliff	CWS	13.5	Mosaic of unimproved neutral and acidic grassland, coastal grassland, wet flushes and scrub	0.001
Hallsannery	CWS	13.1	Parkland with good numbers of veteran trees	0.003
Ashridge Field	UWS	6.4	Dry/rough grassland/scrub and possible wet woodland	0.06
Shepherd's Meadow	UWS	2.1	Dry grassland	0.11
Gammaton Reservoir	CWS	6	Open water, unimproved neutral grassland, culm grassland, semi-improved grassland, fen and scrub.	0.12
Lendon	UWS	2.4	Bracken and scrub	0.12
Jennetts Reservoir	UWS	6.2	Open water and fen/swamp habitats	0.13
Littlecroft	UWS	0.7	Dry/rough grassland/scrub	0.15
Bowood Farm	UWS	2.5	Dry grassland/scrub/SNBW	0.20
Upcott Wood (E)	pCWS	7.9	Semi-natural ancient woodland and secondary broadleaved woodland	0.22
Pixey Copse	pCWS	32.8	Semi-natural ancient woodland	0.23
Tennacott Wood	CWS	7.9	Ancient semi-natural broadleaved woodland	0.23
Kenwith Barton	UWS	1.2	Open water	0.24
Upcott Wood (W)	CWS	2	Ancient and secondary semi-natural broadleaved woodland	0.25
UPCOTT WOOD	ASNW	3.7	Ancient & Semi-Natural Woodland	0.27
Cornborough Cliff	CWS	23	Maritime grassland and heath, unimproved acid grassland, semi-improved grassland, scrub and bracken	0.29
Nuttaberry	UWS	9.1	Dry grassland/scrub/rough grassland/bracken	0.29
PIXEY COPSE	ASNW	34.8	Ancient & Semi-Natural Woodland	0.30
Beara (W)	UWS	3.4	Rough grassland/dry grassland/scrub	0.34
River Yeo Marsh	UWS	8	Potential saltmarsh	0.37
Kenwith Valley	UWS	27.9	Open water/dry grassland/marshy grassland/scrub et	0.43
Grenville College	UWS	88	Parkland with possible veteren trees, planted woodland and gardens	0.50
HEALE WOOD	ASNW	2.2	Ancient & Semi-Natural Woodland	0.50
Alverdiscott Field	OSWI	2.3	Semi-improved neutral grassland	0.51
Port Farm	UWS	0.8	Rough grassland	0.55
Pollyfield	UWS	1.2	Rough grassland/scrub	0.56
Yeo Vale	CWS	19.4	Parkland with good numbers of veteran and ancient trees	0.56

## XLINKS MOROCCO – UK POWER PROJECT

Site Name	Type	Approx area (ha)	Description	Distance from Onshore Infrastructure Area (km)
Cockington Plantation	UWS	8.9	Broadleaved woodland	0.60
Gammaton Road	UWS	1.4	Rough grassland	0.60
Godborough Castle and Turner's Wood	CWS	13.3	Mosaic of unimproved calcareous grassland, semi-improved grassland & broadleaved semi-natural woodland	0.71
Ford House Wood	CWS	6.9	Ancient semi-natural broadleaved woodland	0.75
FORD HOUSE WOOD	ASNW	4.8	Ancient & Semi-Natural Woodland	0.75
Badgers Hill	OSWI	5.7	Secondary broadleaved woodland, semi-improved neutral grassland, damp grassland and scattered scrub	0.77
PILLMOUTH WOOD	ASNW	6.7	Ancient & Semi-Natural Woodland	0.79
Pillmouth Wood	CWS	6.4	Ancient semi-natural broadleaved woodland. Heronry.	0.81
Souther Down	UWS	0.9	Dry grassland/scrub	0.81
NETHERCLEAVE WOOD	ASNW	2	Ancient & Semi-Natural Woodland	0.88
Greenacres	UWS	13.9	Brackish grazing marsh with ditches/Rough grassland	0.89
Ley Wood	CWS	3.6	Wet and dry ancient semi-natural broadleaved woodland	0.91
YEO VALE WOOD	ASNW	4.6	Ancient & Semi-Natural Woodland	0.91
Stone Wood	UWS	8.2	Ancient woodland	0.95
Easter Down Wood	UWS	6.2	Broadleaved woodland	0.96
Osbourne Lane	UWS	1.6	Rough grassland/dry grassland/scrub/SNBW	0.98
Halfpenny Marsh	CWS	6.4	Saltmarsh, coastal fen, reedbed, broadleaved woodland, disused canal and limekilns.	0.99
Down Plantation	UWS	2.7	Broadleaved woodland	1.00
Eastridge Farm	UWS	3.4	Scrub/dry grassland/SNBW	1.02
Great Huxhill	UWS	6.4	Dry grassland/scrub	1.06
Stony Cross	UWS	0.6	Mire/scrub/tall herbs/rough grassland	1.06
EDGE MILL WOOD	ASNW	3.4	Ancient & Semi-Natural Woodland	1.11
Pillhead Valley	UWS	48.4	Rushy pasture/grazing marsh	1.20
Ley Wood	pCWS	2	Semi-natural ancient woodland	1.24
Lower Guscott	UWS	4	Dry grassland (& Marshy grassland)	1.24
Ashridge (W)	UWS	3.2	Wet unimproved and semi-improved neutral grassland	1.27

## XLINKS MOROCCO – UK POWER PROJECT

Site Name	Type	Approx area (ha)	Description	Distance from Onshore Infrastructure Area (km)
Road Wood	UWS	22.8	Ancient semi-natural woodland and broadleaved wood	1.27
Bartridge (N)	OSWI	2.1	Wet & dry unimproved neutral grassland partly planted with conifers	1.28
Weare Giffard Marsh	UWS	49	Possible floodplain grazing marsh	1.28
Blackdown Wood	UWS	5.7	Broadleaved woodland	1.31
Weach Barton	UWS	5	Broadleaved woodland	1.39
Smaye's Moor	UWS	2.1	Rough/dry grassland	1.41
Salterns	UWS	2.4	Rough grassland/bracken/scrub/SNBW	1.43
Venton	UWS	1	Rough grassland	1.47
Cockington Cliff	UWS	3.3	Coastal grassland, bracken, scrub and heath	1.51
Annery	UWS	11.6	Parkland	1.60
Raleigh Hill	UWS	7.5	Dry/rough/marshy grassland	1.60
Kenwith Valley Nature Reserve	CWS	10	Open water, semi-improved grassland, planted broadleaved woodland, reedbed, marshy grassland and scrub. Bird & dragonfly interest.	1.61
Cockington Cliff	CWS	5.3	Maritime grassland and heath, scrub and bracken	1.62
Southcott Field	UWS	3.8	Semi-improved neutral grassland	1.65
Poolsteps	UWS	3.7	Rough grassland/dry grassland/scrub/Semi-natural broadleaved woodland	1.66
Pillhead Bridge	UWS	0.6	Unimproved acid grass and marshy grass	1.68
Rollstone and Dymdale Woods	CWS	8.4	Wet and dry ancient semi-natural broadleaved woodland	1.68
ROLLSTONE WOOD	ASNW	2.4	Ancient & Semi-Natural Woodland	1.68
Hillcleave	UWS	1.9	Dry grassland/scrub	1.71
GARNACOTT WOOD	ASNW	3	Ancient & Semi-Natural Woodland	1.74
Westcott Cliff	UWS	4.7	Coastal grassland and scrub	1.76
HALSBURY WOOD	ASNW	9.7	Ancient & Semi-Natural Woodland	1.83
HUNTSHAW WOOD	PAWS	58.8	Ancient Replanted Woodland	1.83
Halsbury Wood	UWS	9.8	Semi-natural ancient woodland	1.84
Southcott Mill	UWS	2.7	Rushy pasture/dry grassland/scrub/SNBW	1.84
Halsbury Mill	OSWI	1.3	Damp semi-improved neutral grassland, rush-pasture and tall herb fen, with some recent broadleaved planting	1.85

Site Name	Type	Approx area (ha)	Description	Distance from Onshore Infrastructure Area (km)
Gresham Court	UWS	2	Dry grassland/scrub and broadleaved woodland	1.87
THE ROOKERY	ASNW	8	Ancient & Semi-Natural Woodland	1.88
Sandmeadow Copse	UWS	2.5	Broadleaved woodland	1.93
Thorne Wood and Ridd Copse	UWS	12.8	Semi-natural ancient woodland	1.95
THORNE WOOD/BIDD COPSE	PAWS	8.8	Ancient Replanted Woodland	1.96
Southcott Barton	UWS	0.7	Rushy pasture	1.97
Southcott Barton	UWS	13.1	Dry grassland/scrub	1.97
Higher Rowden	CWS	17.6	Maritime grassland and heath, scrub and bracken	1.99

Abbreviations used: LNR: Local Nature Reserve; SSSI: Site of Special Scientific Interest; CWS: County Wildlife Site; ASNW: Ancient Semi-natural woodland; PAWS: Plantations on ancient woodland sites; OWSI: Other Sites of Wildlife Interest; UWS: Unconfirmed wildlife sites; ha: hectare.

## Records of Protected and Notable Species

1.3.7 Records of protected and other notable species within the 2 km study area are summarised in **Table 3.2** to **Table 3.6** below. Species in the following categories have been included:

### Protected Species

- Wildlife and Countryside Act 1981 (as amended), Schedule 1 (WCA1);
- Wildlife and Countryside Act 1981 (as amended), Schedule 5 (WCA5);
- Wildlife and Countryside Act 1981 (as amended), Schedule 8 (WCA8);
- EC Habitats Directive 1992 (Hdir) (Annex IV or V);
- Conservation of Habitats and Species Regulations 2010 (Schedule II or III) (Hreg II or III); and
- Directive on the Conservation of Wild Birds 1979 (as amended) (Annex I).

### Other Notable Species

- EC Habitats Directive 1992 (Hdir) (Annex II);
- Natural Environment and Rural Communities Act 2006 (NERC41);
- UK Biodiversity Action Plan Priority Species;
- Local Biodiversity Action Plan Priority Species;
- UK Biodiversity Action Plan (BAP) Species of Conservation Concern (SoCC);
- Birds of Conservation Concern (Red or Amber lists);
- Red Data Book invertebrate species (RDB1, RDB2 or RDB3);

- Nationally Scarce invertebrate species (Notable/Na, Notable/Nb or Notable/N); and
- International Union for Conservation of Nature (IUCN) Red List of threatened species.

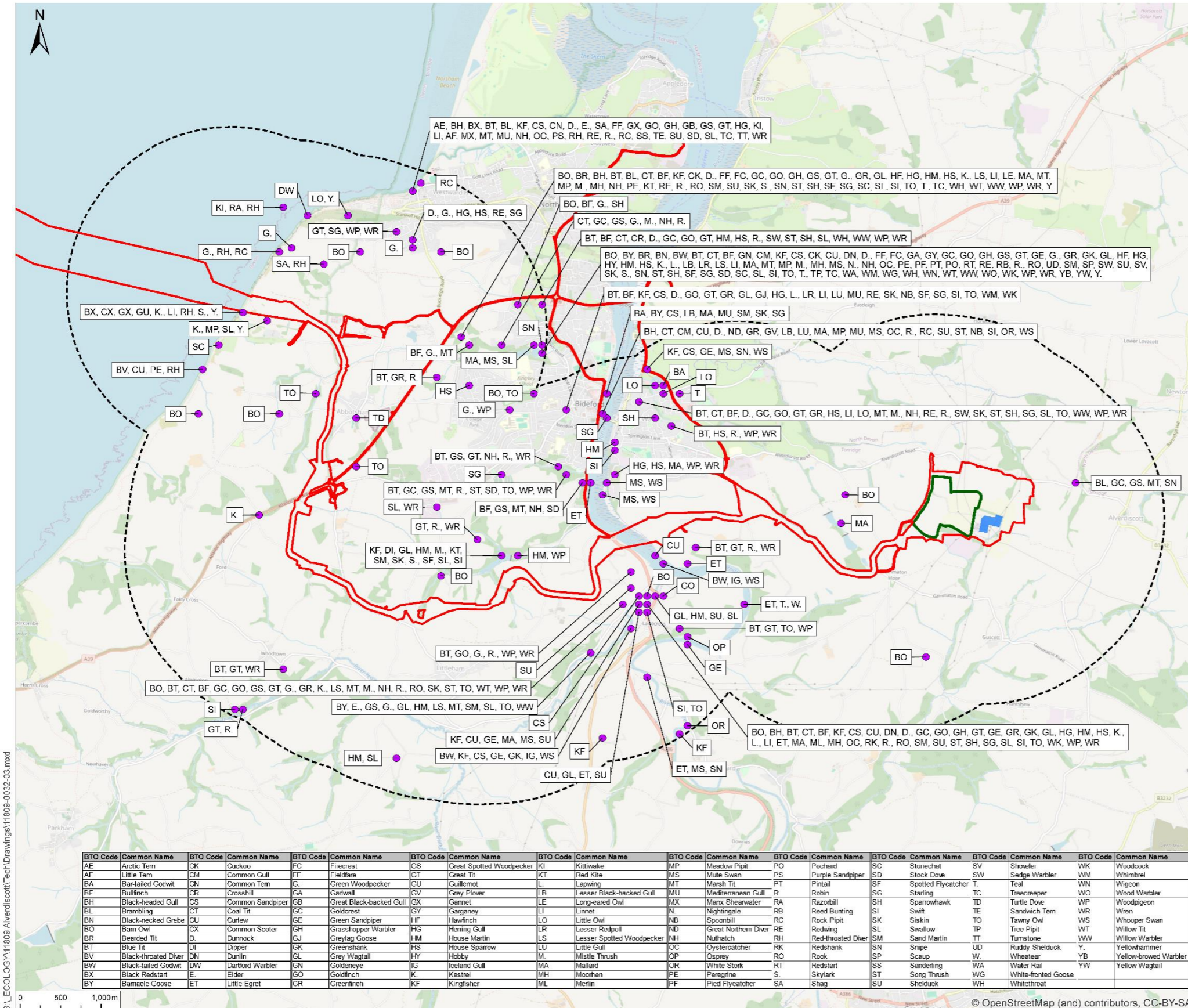
### Birds

- 1.3.8 A total of fifteen protected or otherwise notable species of bird have been provided by DBRC within the last 10 years and 2 km boundary of the Onshore Infrastructure Area. Protected or otherwise notable species of birds located within the 2 km study area are listed in **Table 3.2**.
- 1.3.9 In terms of conservation status, two species in the search area are red listed under Birds of Conservation Concern and five species are amber listed (Eaton *et al.*, 2009). Red listed bird species of conservation concern represent the most threatened species in Britain and Ireland, typically because either the number of birds is rapidly falling, or their ranges are contracting. Amber listed bird species of conservation concern represent a moderate decline or a moderate contraction of the species range.
- 1.3.10 Several protected or otherwise notable species of bird have been recorded at Godborough Castle and Turner Wood County Wildlife Site approximately 2 km east of the Onshore Infrastructure Area. The area comprises of a mosaic of unimproved calcareous grassland, semi-improved grassland and broadleaved semi-natural woodland together with some young plantations, hedges, gorse patches and ponds (Devon County Council, 2008). Notable farmland bird species recorded on site include starling (*Sturnus vulgaris*). Starlings are one of nineteen species listed as Royal Society for the Protection of Birds (RSPB) Farmland Bird Indicators and are species dependant on farmland, and not able to thrive in other habitats.
- 1.3.11 The Hallsannery County Wildlife Site, within 1 km of the Onshore HVDC Cable Corridor is also has recent records of notable species such as mallard (*Anas platyrhynchos*). Hallsannery is an estate with 50 acres of gardens, parkland, woodland and pasture. The estate is adjacent to the River Torridge and the Torridge Estuary County Wildlife Site) which has records of osprey (*Pandion haliaetus*). Notable woodland species recorded on site include species such as the dunnock (*Prunella modularis*) and starling (*Sturnus vulgaris*) were recorded on site and favour a variety of habitats such as woods, hedgerows, parks and gardens, near water or areas of mixed agriculture.
- 1.3.12 Within the town of Bideford several species have been recorded including barn owl (*Tyto alba*), wren (*Troglodytes troglodytes*), woodpigeon (*Columba palumbus*) and osprey (*Pandion haliaetus*). There have been previous records for barn owl within the Onshore Infrastructure Area and further barn owl records scattered across the whole study area. Barn owls are listed on Schedule 1 of the Wildlife & Countryside Act 1981 (as amended), amber listed and a Devon BAP species.
- 1.3.13 Records of protected and notable bird species are presented in **Figure 1.4**.



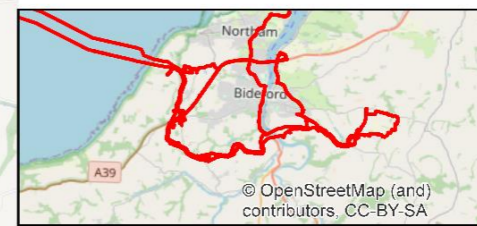
**Table 3.2: Protected or other notable bird species records from the last 10 years within the 2 km study area.**

Common Name	Scientific Name	Nearest Distance from site (km)	Year of Most Recent Record	Conservation Status	Protection
Barn owl	<i>Tyoto alba</i>	0.93	2017	Den BAP, Amber	WCA1
Blue Tit	<i>Cyanistes caeruleus</i>	1.10	2015		
Coal Tit	<i>Periparus ater</i>	0.75	2013		
Great Spotted Woodpecker	<i>Dendrocopos major</i>	1.10	2015		
Great Tit	<i>Parus major</i>	1.10	2015		
Herring Gull	<i>Larus argentatus</i>	0.86	2014	Red	
House Sparrow	<i>Passer domesticus</i>	0.86	2014	UKBAP, Red, NERC41	
Mallard	<i>Anas platyrhynchos</i>	0.86	2014	Amber	
Nuthatch	<i>Sitta europaea</i>	1.10	2015		
Osprey	<i>Pandion haliaetus</i>	1.56	2015		
Robin	<i>Erithacus rubecula</i>	1.10	2015		
Starling	<i>Sturnus vulgaris</i>	1.55	2014	UKBAP, Red, NERC41	
Tawny Owl	<i>Strix aluco</i>	1.01	2013	Amber	
Woodpigeon	<i>Columba palumbus</i>	0.86	2014	Amber	
Wren	<i>Troglodytes troglodytes</i>	0.86	2015	Amber	



Notes  
1. This plan is scaled at paper size A3. If received electronically it is the recipient's responsibility to print to the correct scale. Only written dimensions should be used.

- Legend**
- Proposed Development Draft Order Limits
  - Converter Site
  - Alverdiscott Substation Connection Development
  - 2km Study Area
  - Bird species records



Rev	Description	By	CB	Date
-----	-------------	----	----	------



Client Xlinks 1 Limited  
 Project Xlinks Morocco-UK Power Project  
 Title Protected and notable bird species

Status Drawn By PM/Checked By  
 FINAL MP EC  
 Project Number Scale @ A3 Date Created  
 794-PLN-ESH-1:45,000 April 2024  
 Figure Number Rev  
 1.4 03

www.xlinks.co

BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name	BTO Code	Common Name						
AE	Arctic Tern	CK	Cuckoo	FC	Firecrest	GS	Great Spotted Woodpecker	KI	Kittiwake	MP	Meadow Pipit	PO	Pochard	SC	Stonechat	SV	Shoveler	WK	Woodcock				
AF	Little Tern	CM	Common Gull	FF	Fieldfare	GT	Great Tit	KT	Red Kite	MS	Mute Swan	PS	Purple Sandpiper	SD	Stock Dove	SW	Sedge Warbler	WM	Whimbrel				
BA	Bar-tailed Godwit	CN	Common Tern	G.	Green Woodpecker	GU	Guillemot	L.	Lapwing	MT	Marsh Tit	PT	Pintail	SF	Spotted Flycatcher	T.	Teal	VN	Vireon	WG	Wood Warbler		
BF	Bullfinch	CR	Crossbill	GA	Gadwall	GV	Grey Plover	LB	Lesser Black-backed Gull	LE	Long-eared Owl	MU	Mediterranean Gull	R.	Robin	TC	Treespreeper	WO	Wood Warbler	WP	Woodpigeon		
BH	Black-headed Gull	CS	Common Sandpiper	GB	Great Black-backed Gull	GX	Gannet	LI	Linnets	MX	Manx Shearwater	RA	Razortail	RB	Red Bunting	TD	Turtle Dove	WR	Whorl Plover	WV	Wood Warbler		
BL	Brambling	CT	Coal Tit	GC	Goldcrest	GY	Garganey	LO	Little Owl	N.	Nightingale	RC	Rock Pipit	SI	Sparrowhawk	TE	Tree Pipit	WS	Whorl Plover	WV	Wood Warbler		
BN	Black-necked Grebe	CU	Curfew	GE	Green Sandpiper	HF	Hawfinch	LR	Lesser Redpoll	NB	Nuthatch	RO	Rook	SK	Siskin	TO	Tawny Owl	WS	Whorl Plover	WV	Wood Warbler		
BO	Barn Owl	CX	Common Scoter	GH	Grasshopper Warbler	HG	Herring Gull	LS	Lesser Spotted Woodpecker	ND	Great Northern Diver	RE	Redwing	SL	Swallow	TP	Tree Pipit	WT	Willow Tit	WV	Wood Warbler		
BR	Bearded Tit	D.	Duncock	GJ	Greylag Goose	HM	House Martin	LS	Lesser Spotted Woodpecker	NH	Nuthatch	RH	Red-throated Diver	SM	Sand Martin	TT	Turnstone	WWW	Willow Warbler				
BT	Blue Tit	DI	Dipper	GK	Green Sandpiper	HS	House Sparrow	LU	Little Gull	OC	Oystercatcher	RK	Redshank	SN	Sparrowhawk	UD	Ruddy Shelduck	Y.	Yellowhammer				
BV	Black-throated Diver	DN	Dunlin	GL	Grey Wagtail	HY	Hobby	M.	Mistle Thrush	OP	Osprey	RO	Rook	SP	Scaup	W.	Wheatear	YB	Yellow-browed Warbler				
BW	Black-tailed Godwit	DW	Dartford Warbler	GN	Goldeneye	IG	Iceland Gull	MA	Mallard	OR	White Stork	RT	Redstart	SS	Sanderling	WA	Water Rail	YW	Yellow Wagtail				
BX	Black Redstart	E.	Eider	GO	Goldfinch	K.	Kestrel	MH	Moorhen	PE	Peregrine	S.	Song Sparrow	ST	Song Thrush	WG	White-fronted Goose						
BY	Barnacle Goose	ET	Little Egret	GR	Greenfinch	KF	Kingfisher	ML	Merlin	PF	Pied Flycatcher	SA	Shag	SU	Shelduck	WH	Whitethroat						

© Crown copyright. All rights reserved. 2024 License number 0100031673,10001998,100048492. Contains Ordnance Survey data © Crown copyright and database right 2024.

Figure 1.4: Protected and notable bird species

## Mammals

- 1.3.14 A total of seventeen protected or other notable species of mammal have been recorded within the 2 km study area, which are listed in **Table 3.3**. Thirteen of these species are listed in Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) the search area was increased for bat and Eurasian otter (*Lutra lutra*) species to 10 km.
- 1.3.15 Bat records are well scattered across the search area and include: common pipistrelle (*Pipistrellus pipistrellus*), lesser horseshoe bats (*Rhinolophus hipposideros*) and natterer’s (*Myotis nattereri*) have been recorded. Bats recorded over a wider area also include brown long-eared (*Plecotus auritus*), Daubenton’s (*Myotis daubentonii*), greater horseshoe (*Rhinolophus ferrumequinum*), noctule (*Nyctalus noctula*) and whiskered bats (*Myotis mystacinus*). All bat species are protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5 and the Conservation of Habitats and Species Regulations 2010 Schedule II.
- 1.3.16 Many of the bat records are found in close vicinity to the River Torridge as this provides favourable habitat for bat species. There are a number of bat records in close vicinity to or within Bideford which is located close to the northern edge of the Onshore Infrastructure Area. Species in this area include brown long-eared (*Plecotus auritus*), Daubenton’s (*Myotis daubentonii*), greater horseshoe (*Rhinolophus ferrumequinum*), lesser horseshoe (*Rhinolophus hipposideros*), noctule (*Nyctalus noctula*), pipistrelle (*Pipistrellus pipistrellus*) and serotine (*Eptesicus serotinus*).
- 1.3.17 Bat records include brown long-eared (*Plecotus auritus*) and noctule (*Nyctalus noctula*), which are UK BAP priority species. Pipistrelle bat species were also recorded, of which the Soprano pipistrelle (*Pipistrellus pygmaeus*) is a UK BAP species. Bat records are presented within **Figure 1.5**.
- 1.3.18 The most recent bat records, using the 10 km search area were recorded in Barnstaple throughout 2020.
- 1.3.19 With respect to other mammals, there was one record for harvest mouse near Godsborough Castle. Harvest mouse (*Micromys minutus*) is a UK BAP priority species.
- 1.3.20 The results of the 10 km search for otter records, there have been fifteen records of otter over the last 10 years. These are spread across the search area with the most recent record in 2020 at RHS Rosemoor.

**Table 3.3: Protected or other notable mammal species records from the last 10 years within the 2 km study area**

Common Name	Scientific Name	Nearest Distance from site (km)	Year of Most Recent Record	Conservation Status	Protection
A Long-eared Bat	<i>Plecotus</i>	1.24	2020	UKBAP, NERC41	WCA5, Hdir (Annex Iva), Hreg II
A Noctule Bat	<i>Nyctalus</i>	1.90	2015		
A Pipistrelle Bat	<i>Pipistrellus</i>	0.89	2016	UKBAP, NERC41	WCA5, Hdir (Annex IVa), Hreg II

## XLINKS MOROCCO – UK POWER PROJECT

Common Name	Scientific Name	Nearest Distance from site (km)	Year of Most Recent Record	Conservation Status	Protection
Brown Long-eared Bat	<i>Plecotus auritus</i>	1.01	2015	UKBAP, NERC41	WCA5, Hdir (Annex Iva), Hreg II
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>	1.01	2020	UKBAP, NERC41	WCA5, Hdir (IVa), Hreg II
Daubenton's Bat	<i>Myotis daubentonii</i>	1.01	2013		WCA5, Hdir (Annex Iva), Hreg II
Eurasian otter	<i>Lutra lutra</i>	0.29	2019	UKBAP, Devon BAP, NERC41, Hdir (Annex II)	WCA5, Hreg II
Greater Horseshoe bat	<i>Rhinolophus ferrumequinum</i>	0.43	2020	UKBAP, Devon BAP, Hdir (Annex II), NERC41	WCA5, Hdir (Annex IVa), Hreg II
Harvest Mouse	<i>Micromys minutus</i>	1.57	2018	UKBAP, NERC41	
Lesser Horseshoe Bat	<i>Rhinolophus hipposideros</i>	0.65	2020	UKBAP, NERC41, Hdir (Annex II),	WCA5, Hdir (Annex IVa), Hreg II
Natterer's Bat	<i>Myotis nattereri</i>	1.01	2016		WCA5, Hdir (Annex IVa), Hreg II
Noctule Bat	<i>Nyctalus noctula</i>	0.42	2020		
Serotine	<i>Eptesicus serotinus</i>	1.90	2020		WCA5, Hdir (IVa), Hreg II
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	1.01	2020		WCA5, Hdir (IVa), Hreg II
Stoat	<i>Mustela erminea</i>	0.93	2015		
Western Barbastelle	<i>Barbastella barbastellus</i>	0.65	2020		WCA5, Hdir (IVa), Hreg II
Whiskered Bat	<i>Myotis mystacinus</i>	1.01	2013		WCA5, Hdir (IVa), Hreg II

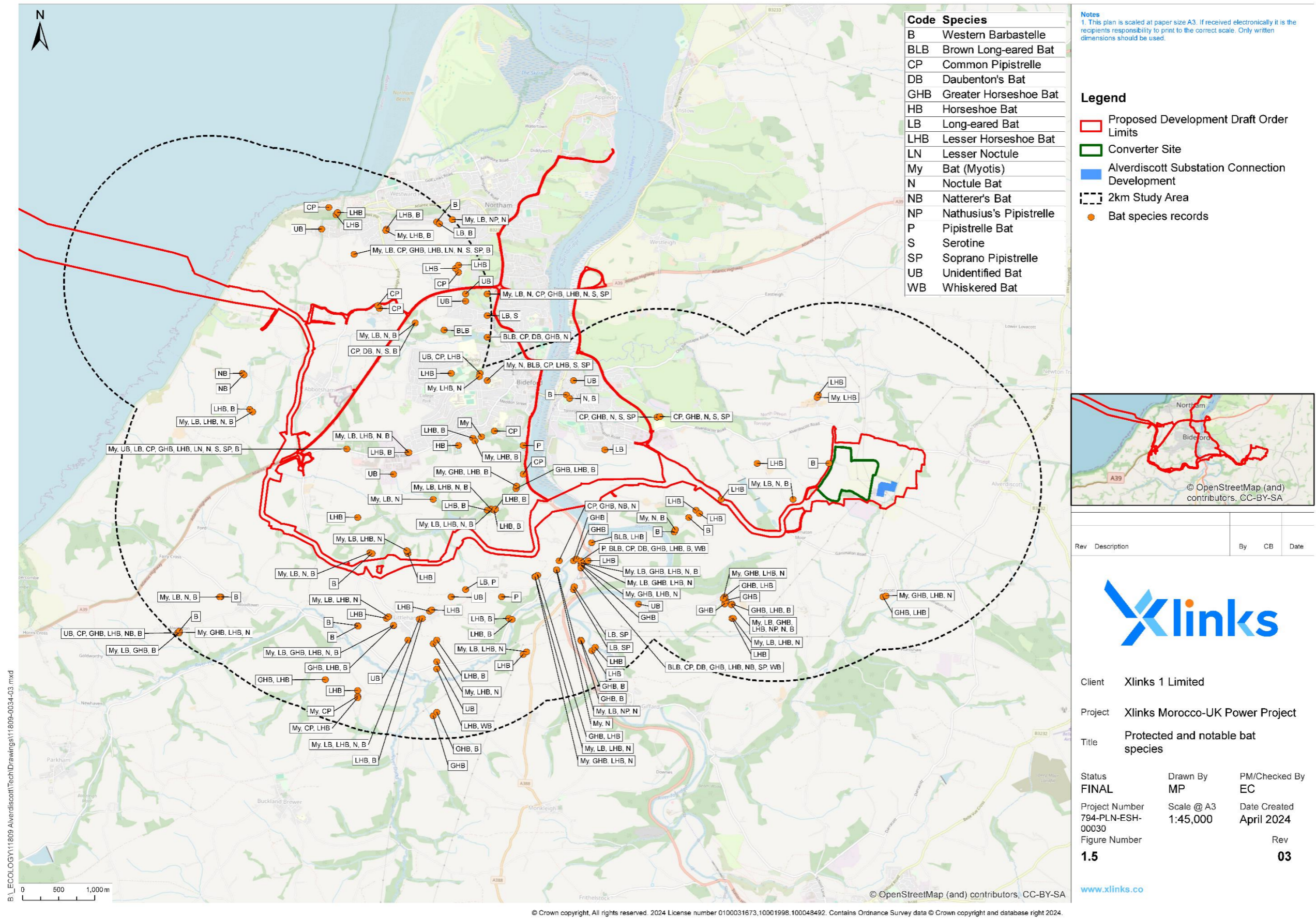


Figure 1.5: Protected and notable bat species

## Herpetofauna

- 1.3.21 A total of four protected or otherwise notable species of herpetofauna (three species of reptile and one species of amphibian) have been recorded within the study area. These are listed in **Table 3.4**. All of the species are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and thus afforded protection under Section 9 of the Act. The common lizard (*Zootoca vivipara*), grass snake (*Natrix natrix*) and slow worm (*Anguis fragilis*) are protected under Section 9(5) and part of Section 9(1). The common toad (*Bufo bufo*) is protected under Section 9(5) only.
- 1.3.22 Within the town of Bideford common frog, common toad, smooth newt, common lizard and slow worm have all been recorded.

**Table 3.4: Protected or other notable herpetofauna species records from the last 10 years within the 2 km study area**

Common Name	Scientific Name	Nearest Distance from site (km)	Year of Most Recent Record	Conservation Status	Protection
Common Toad	<i>Bufo bufo</i>	0.93	2013	UKBAP, NERC 41	WCA 5 (section 9(5) only)
Common Lizard	<i>Zootoca vivipara</i>	0.86	2014	NERC 41	WCA 5 (section 9(5) only)
Grass Snake	<i>Natrix helvetica</i>	0.93	2015	NERC 41	WCA 5 (section 9(5) only)
Slow-worm	<i>Anguis fragilis</i>	0.86	2014	NERC 41	WCA 5 (section 9(5) only)

## Fish

- 1.3.23 No protected species of fish have been recorded in the last 10 years within 2 km of the Onshore Infrastructure Area.

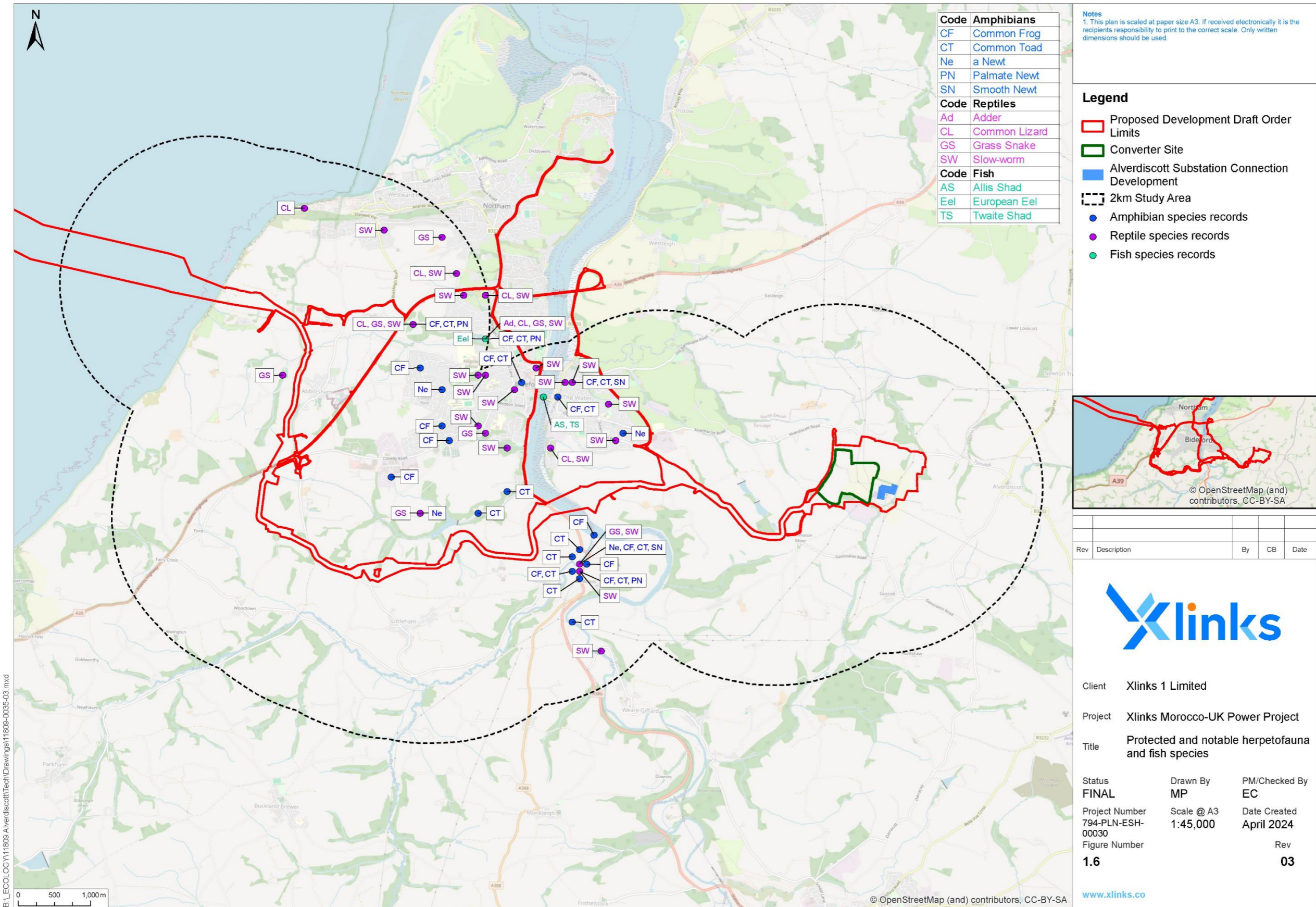


Figure 1.6: Protected and notable herpetofauna and fish species

## Invertebrates

1.3.24 Seven notable invertebrate species were recorded within 2 km of the Onshore Infrastructure Area, which are listed in **Table 3.5**.

**Table 3.5: Protected or other notable invertebrate species records from the last 10 years within the 2 km study area**

Common Name	Scientific Name	Nearest Distance from site (km)	Year of Most Recent Record	Conservation Status
Bright Neb	<i>Argolamprotes micella</i>	0.92	2013	
Buff Ermine	<i>Spilosoma lutea</i>	0.92	2019	NERC 41
Dot Moth	<i>Melanchra persicariae</i>	0.92	2013	NERC 41
Pretty Chalk Carpet	<i>Melanthia procellata</i>	0.92	2013	NERC 41
Rosy Minor	<i>Litoligia literosa</i>	0.92	2013	NERC 41
Saltern Bent-wing	<i>Bucculatrix maritima</i>	0.65	2016	
Small Phoenix	<i>Ecliptopera silaceata</i>	0.92	2020	NERC 41



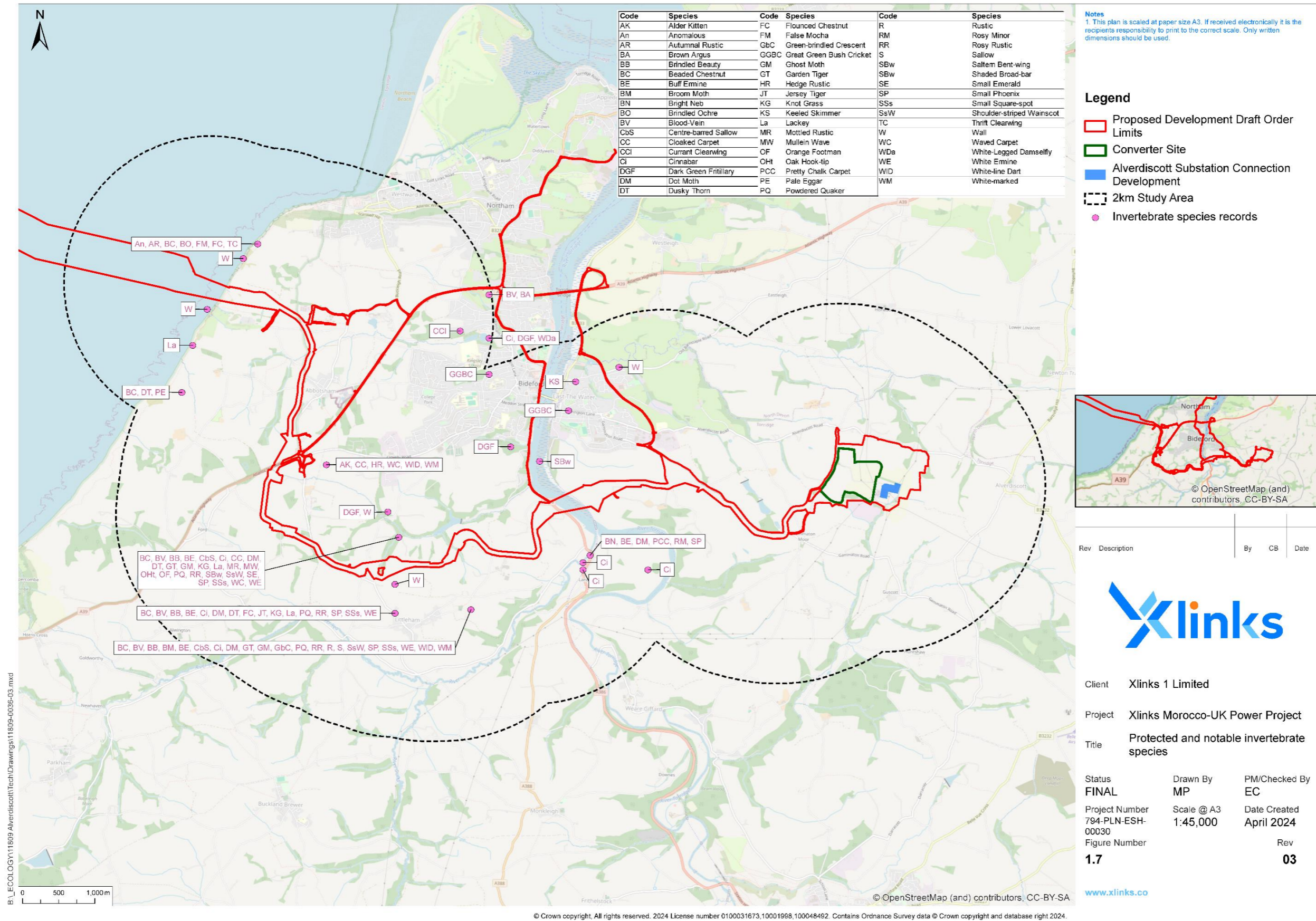


Figure 1.7: Protected and notable invertebrate species

## Plant Species

- 1.3.25 A total of nine notable plant species have been recoded within 2 km of the Onshore Infrastructure Area, which are listed in **Table 3.6**. Protected and notable plant species are presented in **Figure 1.8**, and also includes Schedule 9 species (e.g. invasive species) of the Wildlife and Countryside Act (1981, as amended).
- 1.3.26 At Halfpenny Marsh County Wildlife Site further along the estuary the following county notable species have been recorded; brookweed (*Samolus valerandi*), common saltmarsh-grass (*Puccinellia maritima*), common saltmarsh-grass (*Puccinellia maritime*), grey club-rush (*Schoenoplectus tabernaemontani*), and sea aster (*Aster tripolium*) and sea couch (*Elytrigia atherica*).
- 1.3.27 Japanese Knotweed (*Fallopia japonica*) has been recorded several times within Westward Ho! Most recently in 2019. Japanese Knotweed is listed under the Wildlife and Countryside Act 1981 (as amended) Schedule 9. Plants listed in this schedule are prohibited from being released into the wild. Japanese Knotweed is an invasive species therefore if it is found to be present within the Onshore Infrastructure Area; a suitable eradication strategy would need to be implemented.

**Table 3.6: Protected or other notable plant species records from the last 10 years within the 2 km study area**

Common Name	Scientific Name	Nearest Distance from site (km)	Year of Most Recent Record	Conservation Status
Brookweed	<i>Samolus valerandi</i>	1.74	2015	County notable, IUCN (Least concern)
Common Saltmarsh-grass	<i>Puccinellia maritima</i>	1.74	2015	County notable, IUCN (Least concern)
Grey Club-rush	<i>Schoenoplectus tabernaemontani</i>	1.74	2015	County notable, IUCN (Least concern)
Indian Balsam	<i>Impatiens glandulifera</i>	1.59	2015	
Japanese Knotweed	<i>Fallopia japonica</i>	1.25	2019	WCA 9
Primrose	<i>Primula vulgaris</i>	1.74	2015	Devon BAP, IUCN (Least concern)
Rhododendron	<i>Rhododendron ponticum</i>	1.10	2015	WCA 9
Sea Aster	<i>Aster tripolium</i>	1.74	2015	County notable, IUCN (Least concern)
Sea Couch	<i>Elytrigia atherica</i>	1.74	2015	County notable, IUCN (Least concern)

Abbreviations used in Table 3.1-3.5: WCA5: Wildlife & Countryside Act Schedule 5; WCA8: Wildlife & Countryside Act Schedule 8; WCA9: Wildlife & Countryside Act Schedule 9; NERC 41: Natural Environment & Rural Communities Act Species of Principal Importance; UKBAP: UK Biodiversity Action Plan priority species; Hdir (Annex): Habitats Directive Annex 2, 4, 5; Hreg II: The Conservation (Natural Habitats, &) Regulations 2017 (Schedule 2).

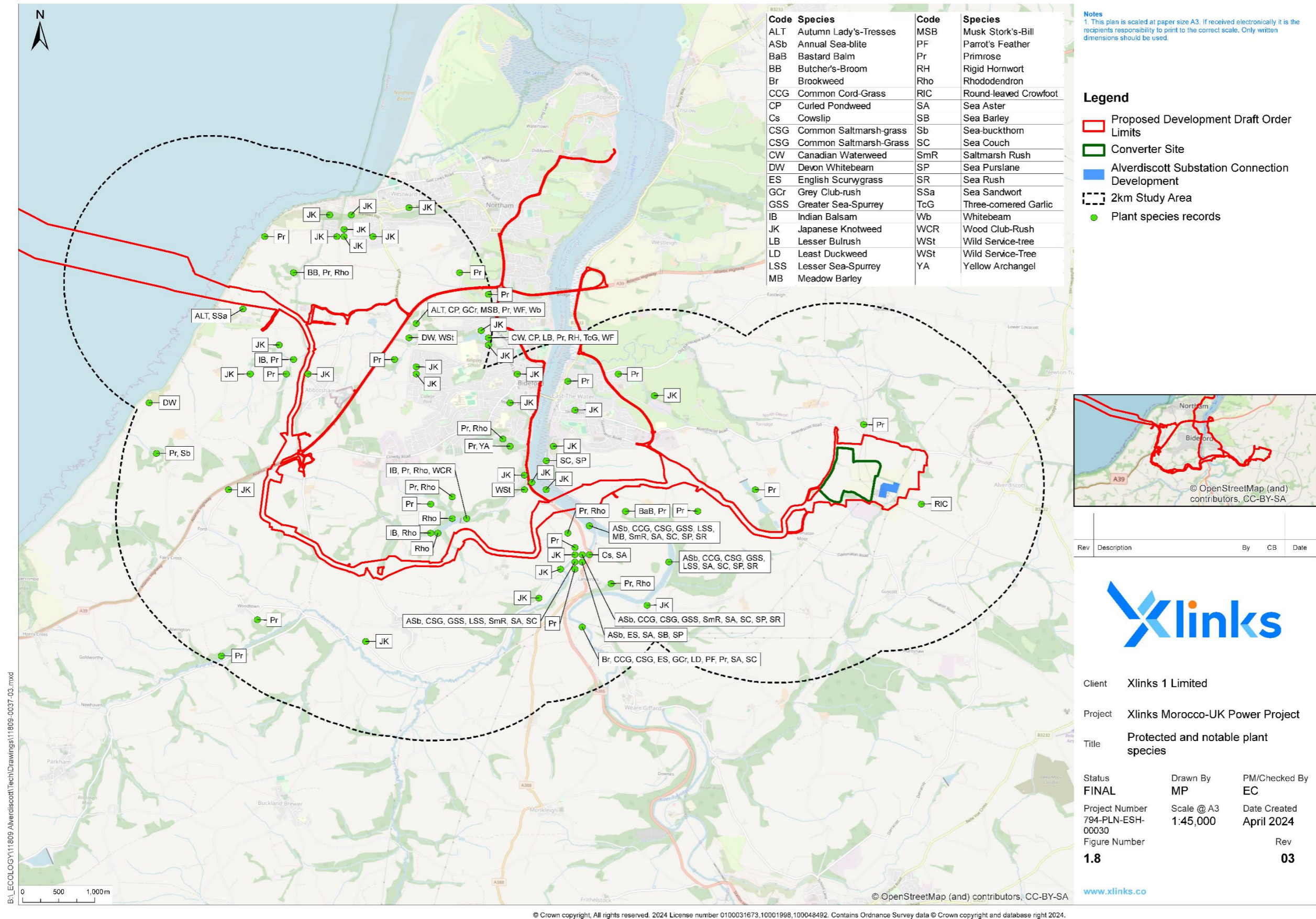


Figure 1.8: Protected and notable plant species

## 1.4 Conclusions

- 1.4.1 The ecological desk study for the onshore elements of the Proposed Development from Cornborough Range to Alverdiscott Substation Site indicated that there are seven statutory designated sites that fall within 2 km of the Onshore Infrastructure Area. These comprise four SSSIs, two LNRs, and one MCZ. In addition, the Natural England website indicates that Seven Oaks is a proposed LNR. This site is not currently shown on the Natural England mapping and its status is uncertain, but it is understood that this site would be crossed by the Onshore HVDC Cable Corridor.
- 1.4.2 Numerous non-statutory designated sites were identified within the study area, comprising a mixture of ASNW, CWS, and UWS, three of which are within the Onshore Infrastructure Area and 26 within 0.5 km of the Onshore Infrastructure Area. The Torridge Estuary County Wildlife Site would be crossed by the Onshore HVDC Cable Corridor.
- 1.4.3 The desk study indicated fifteen protected or notable bird species were recorded in the last ten years within 2 km of the site boundary.
- 1.4.4 Protected and notable mammal species within 2 km of the Onshore Infrastructure Area include otter, and various species of bat. The majority of species recorded are concentrated to the south of the route.
- 1.4.5 A total of four protected or otherwise notable species of herpetofauna have been recorded within the study area; common lizard; grass snake; slow worm; common toad. All of the species are listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).
- 1.4.6 Seven records for notable invertebrate species were recorded, firstly the wall brown butterfly which is a UK BAP species and Great Green Bush Cricket which is a Devon BAP species.
- 1.4.7 Nine protected or notable species of plant were recorded within the study area.

## 1.5 References

- Bat Conservation Trust. 2007. *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.
- Cheffings, C.M. & Farrell, L. (Editors). 2005 *Vascular Plant Red Data List for GB*. Conservation of Habitats and Species Regulations 2010. HMSO, London.
- Devon County Council. 2008. *Parish Biodiversity Audit for Northam*. Devon County Council, Devon
- Directive on the Conservation of Wild Birds. 1979 (as amended). HMSO, London.
- Eaton et al, 2009. *Birds of Conservation Concern 3: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man*. British Birds 102, pp296–341.
- EC Habitats Directive. 1992. HMSO, London.
- IUCN Red List of Threatened Species. 2010. [Accessed on 23<sup>rd</sup> August 2010]: <http://www.iucnredlist.org/>

JNCC, 2010. *Spreadsheet of Conservation Designations for UK Taxa*.

Natural Environment and Rural Communities Act. 2006. HMSO, London.

UK BAP 2005. *UK Biodiversity Action Plan. List of priority species*. [Accessed on 23<sup>rd</sup> August 2010]: <http://www.ukbap.org.uk>

Wildlife and Countryside Act 1981 (as amended). HMSO, London