



**DOGGER BANK  
TEESSIDE A & B**




**March  
2014**


# **Environmental Statement Chapter 25 Terrestrial Ecology**

**Application Reference: 6.25**

Cover photograph: Indicative image showing installation of meteorological mast within the Dogger Bank Zone

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# 1 Introduction

## 1.1 Background

- 1.1.1 This chapter of the Environmental Statement (ES) assesses the potential impact of Dogger Bank Teesside A & B on the existing onshore environment with regard to terrestrial ecology during the construction, operation and decommissioning phases. Where the potential for impacts is identified, mitigation measures and residual impacts are presented.
- 1.1.2 It should be noted that the project also has the potential to impact on marine and coastal ecology including ornithology and marine mammals. These impacts are covered in **Chapter 11 Marine and Coastal Ornithology**, **Chapter 12 Marine and Intertidal Ecology**, **Chapter 13 Fish and Shellfish Ecology** and **Chapter 14 Marine Mammals**.

## 2 Guidance and Consultation

### 2.1 Policy and guidance

#### National Policy Statements

2.1.1 The assessment of potential impacts upon terrestrial ecology has been made with specific reference to the relevant National Policy Statements (NPS). These are the principal decision making documents for Nationally Significant Infrastructure Projects (NSIP). Those relevant to Dogger Bank Teesside A & B are:

- Overarching NPS for Energy (EN-1) (Department of Energy and Climate Change (DECC) 2011a);
- NPS for Renewable Energy Infrastructure (EN-3) (DECC 2011b); and
- NPS for Electricity Networks Infrastructure (EN-5) (DECC 2011c).

2.1.2 The specific assessment requirements for terrestrial ecology, as detailed in the NPSs, are summarised in **Table 2.1**, together with an indication of the paragraph numbers of the ES chapter where each is addressed. Where any part of the NPS has not been followed within the assessment an explanation as to why the requirement was not deemed relevant, or has been met in another manner, is provided.

Table 2.1 NPS assessment requirements

NPS requirements	NPS reference	ES reference
Where the development is subject to EIA the applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity	EN-1 Section 5.3.3	Sections 6, 7 and 8
The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests	EN-1 Section 5.3.4	Section 6
The applicant should include appropriate mitigation measures as an integral part of the proposed development. In particular, the applicant should demonstrate that: <ul style="list-style-type: none"> <li>• During construction, they will seek to ensure that activities will be confined to the minimum areas required for the works;</li> <li>• During construction and operation best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, including as a consequence of transport access arrangements;</li> <li>• Habitats will, where practicable, be restored after construction works have finished; and</li> <li>• Opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscaping proposals.</li> </ul>	EN-1 Section 5.3.18	Section 6

## 2.2 Other legislation, standards and guidance

- 2.2.1 The ecological assessment was undertaken with reference to the following legislation and guidance documents:
- Conservation of Habitats and Species Regulations 2010 (as amended);
  - Wildlife and Countryside Act 1981 (as amended);
  - Protection of Badgers Act 1992;
  - Natural Environment and Rural Communities (NERC) Act 2006;
  - The Hedgerow Regulations 1997;
  - UK Post-2010 Biodiversity Action Framework (which supersedes the UK Biodiversity Action Plan);
  - Tees Valley Local Biodiversity Action Plan (LBAP);
  - The Redcar and Cleveland Borough Council Adopted Development Plan; and
  - Guidelines for Ecological Impact Assessment in the United Kingdom (Institute for Ecology and Environmental Management (IEEM)) 2006.

## 2.3 Consultation

- 2.3.1 To inform the ES, Forewind has undertaken a thorough pre-application consultation process, including the following key stages:
- Scoping Report submitted to the Planning Inspectorate (May 2012);
  - Scoping Opinion received from the Planning Inspectorate (June 2012);
  - First stage of statutory consultation (in accordance with sections 42 and 47 of the Planning Act 2008) on Preliminary Environmental Information (PEI) 1 (report published May 2012); and
  - Second stage of statutory consultation (in accordance with sections 42, 47 and 48 of the Planning Act 2008) on the ES (published November 2013) designed to allow for comments before final application to the Planning Inspectorate).
- 2.3.2 In addition, consultation associated with the Dogger Bank Creyke Beck application (Forewind August 2013) has been taken into account for Dogger Bank Teesside A & B where appropriate.
- 2.3.3 In between the statutory consultation periods, Forewind consulted specific groups of stakeholders on a non-statutory basis to ensure that they had an opportunity to inform and influence the development proposals. Consultation undertaken throughout the pre-application development phase has informed Forewind's design decision making and the information presented in this application. Further information on the consultation process is presented in **Chapter 7 Consultation**. A Consultation Report is also provided alongside this ES as part of the overall planning submission.
- 2.3.4 A summary of the consultation carried out at key stages throughout the project, of particular relevance to Terrestrial Ecology, is presented in **Table 2.2**. This

table only includes the key items of consultation that have defined the assessment. A considerable number of comments, issues and concerns raised during consultation have been addressed during consultation meetings and hence have not resulted in changes to the content of the ES. In these cases, the issue in question has not been captured in **Table 2.2**. A full explanation of how the consultation process has shaped the ES, as well as tables of all responses received during the statutory consultation periods, is provided in the Consultation Report.

**Table 2.2 Summary of consultation and issues raised by consultees**

Date	Consultee	Summary of issue	ES reference
February 2012 (Non-statutory)	Natural England	Natural England provided written acceptance of the 'Ecological Scope of Works' outlining the proposed survey methodologies and extents for Dogger Bank Teesside. The decision to split the development into two different applications was made after the submission of the scope of works. More details can be found in <b>Chapter 7 Consultation</b> .	Approved methodologies and survey areas were implemented during baseline data collection. See Section 3.
February 2012 (Non-statutory)	Natural England	Recommendation for consultation to be undertaken with the Royal Society for the Protection of Birds (RSPB), British Trust for Ornithology (BTO) and the Tees Valley Wildlife Trust.	Consultation undertaken with all and comments incorporated where appropriate.
April 2012 (Non-statutory)	Natural England, RSPB, Teesmouth Bird Club, Industry Nature Conservation Association (INCA) & Tees Valley Wildlife Trust	Ecology Workshop held on 3 April 2012 to introduce proposed approach to ecological studies.  Consultees approved the ecological methodologies.	Approved methodologies were implemented during baseline data collection. See Section 3.
May 2012 (Scoping Opinion)	Durham Bat Group	Comment on bat legislation and the possibility of migratory bats across the North Sea.  Requested a copy of the EIA and expected all surveys to be undertaken following the Bat Conservation Trust (BCT) guidelines and by suitably qualified and licensed ecologists.	Bat surveys all undertaken by suitably qualified and licensed ecologists and in accordance with BCT guidelines, see Section 4.4.
June 2012 (Scoping Opinion)	North Yorkshire County Council	Cumulative impacts require consideration for onshore and offshore and thorough assessment of both the onshore and offshore ecological impacts (in particular the impacts upon marine ecology, including nationally important sea bird populations).	Cumulative impacts for onshore considered in Section 10. Offshore cumulative impacts in relation to ornithology are covered in <b>Chapter 11 Marine and Coastal Ornithology</b> .
June 2012 (Scoping Opinion)	Tees Valley Wildlife Trust	Satisfied with the approach taken and the options presented (landfall and converter station). Beach in this area is locally important (and designated as a Local Wildlife Site (LWS)), (also known as Grundales) are designated as locally	Impacts on designated sites have been considered within this assessment in Section 6. Designated sites are also considered in

Date	Consultee	Summary of issue	ES reference
		important coastal grasslands.	<b>Chapter 8 Designated Sites.</b>
June 2012 (Scoping Opinion)	Joint Nature Conservation Committee & Natural England	<p>Consider the likelihood that the proposal will have a significant effect on internationally designated sites and therefore will require assessment under the Habitats Regulations. Full consideration of impacts on habitats and species, including:</p> <ul style="list-style-type: none"> <li>Historical survey data;</li> <li>Status of habitats and species;</li> <li>Development effects; and</li> <li>Mitigation or compensation details.</li> </ul> <p>Ornithological studies should include surveys of wintering, breeding and passage species which are qualifying features of the Special Protection Area (SPA), and impacts including direct habitat loss, displacement and disturbance should be considered.</p> <p>Inter-relationships - to take an ecosystem approach and consider inter-relationships when looking at impacts.</p>	<p>Assessment will be undertaken as part of the Habitats Regulation Assessment (HRA), and at this stage, a screening report has been produced. Impacts on all appropriate ecological receptors has been undertaken and reported within the ES. Two years wintering bird data and one year passage and migration data has been obtained. See also <b>Chapter 11 Marine and Coastal Ornithology.</b></p>
June 2012 (Scoping Opinion)	North York Moors National Park	The EIA should address the issue of whether the wind farm is likely to affect the feeding patterns of seabirds which nest along the coastal cliffs and makeup part of the diverse ecology of the National Park natural environment.	Impacts to coastal breeding birds will be avoided through the use of Horizontal Directional Drilling (HDD), in addition to a suite of mitigation measures to minimise disturbance to seabirds during construction. See Section 6.3 and <b>Chapter 5 Project Description.</b>
February 2013 (Non-statutory)	Natural England	Confirmed that survey data for ecological surveys is valid for up to 3 years barring any significant landscape changes. They also confirmed that wintering bird surveys are valid for up to 5 years, excluding significant landscape changes.	N/A
May 2013 (Non-statutory)	Hartlepool Borough Council, Redcar and Cleveland Borough Council (RCBC) Teessmouth Bird Club, Durham Bat Group & North East of England Reptile and Amphibian Group	<p>Terrestrial Ecology Workshop held on 15<sup>th</sup> May 2013.</p> <p>The purpose of the meeting was to introduce Forewind Ltd to consultees and update them on the ecological surveys and results to date, and to gain input from consultees into the ongoing project design.</p> <p>The meeting highlighted a number of key points for terrestrial ecology including that the landfall field (known as 'Grundales') is</p>	N/A

Date	Consultee	Summary of issue	ES reference
		<p>a key area of importance wintering birds; key wintering bird mitigation will be avoidance of construction activities over the wintering period; an active badger sett is present in the Wilton Complex, (which was deemed to be sufficiently far away not to be impacted by Dogger Bank Teesside A &amp; B); and the consideration of geographical scales to define levels of impacts.</p> <p>General consensus reached as a result of the meeting was that a sensible approach had been employed to ensure appropriate coverage of all potential ecology issues at the site.</p>	
<p>August 2013 (Non-statutory)</p>	<p>Teesmouth Bird Club</p>	<p>The club is in agreement with the anticipated impacts on ornithology. They assume that planting failures will be replaced in the following season and that appropriate construction practices will be followed in relation to minimising the risk of spreading invasive weed species.</p>	<p>Construction will follow an agreed Environmental Management Plan. Management of the landscape planting will be devised in agreement with the landowners and RCBC (<b>Chapter 21 Landscape and Visual Impact Assessment</b>).</p>
<p>August 2013 (Non-statutory)</p>	<p>RSPB</p>	<p>The RSPB is in support of the mitigation proposals and would like consultation with the Tees Valley Wildlife Trust in advance of works taking place and supervision by an ECW of key areas of works. The exclusion zone for active nest (if found during clearance) will depend on species sensitivity.</p>	<p>Mitigation measures have been committed to in relation to wintering birds (Section 6.4).</p>
<p>December 2013 (Statutory)</p>	<p>Natural England</p>	<p>Designated sites: Natural England is in agreement with the assessment of impacts on designated sites and would advise the use of HDD to avoid impacts on the Redcar to Saltburn Coast LWS.</p> <p>Protected species: Natural England consider that the mitigation measures with regard to bats, breeding birds, otter and badger are appropriate.</p> <p>Wintering birds: Natural England has concerns over wintering birds on the coastal fields at the landfall and notes that large numbers of golden plover were using the coastal fields in November and December. Concerns remain regarding the number of golden plover (and lapwing) remaining during January to March since numbers fluctuate between survey years. Further information is required to support</p>	<p>Information on designated sites within the study area is provided in Section 4.1 with impacts considered in Section 6.2.</p> <p>Mitigation measures for protected species have been committed to (see Section 6.4 &amp; 6.5).</p> <p>Wintering birds: an additional desk study and survey was undertaken for golden plover and lapwing in 2014. See Sections 4.6 and 6.4.</p>



Date	Consultee	Summary of issue	ES reference
		mitigation proposals.	
December 2013 (Statutory)	RCBC	The Council stated they did not have an in house ecologist and therefore were not in a position to provide a detailed response with regard to ecology. They stated that advice be taken from the statutory consultees including Natural England and the RSPB, as well as more local information sources such as Tees Valley Wildlife Trust.	N/A
December 2013 (Statutory)	The Forestry Commission	No further comments to provide, as no ancient woodland has been identified within the study area.	N/A
December 2013 (Statutory)	Tees Valley Wildlife Trust	No onshore comments were made at this stage, response focussed on offshore issues only.	N/A
December 2013 (Statutory)	RSPB	No onshore comments were made at this stage, response focussed on offshore issues only.	N/A
February 2014 (Non – statutory)	Natural England	Discussion with Natural England regarding wintering bird survey results from 2014 and proposed impacts and mitigation, in response to draft ES comments.	Wintering birds: an additional desk study and survey was undertaken for golden plover and lapwing in 2014. See Sections 4.6 and 6.4.
February 2014 (Non – statutory)	Natural England	Response from Natural England following submission of wintering bird desk study and 2014 survey results. Natural England advised that, in the interests of best practice and minimising the risk of disturbance, works to the landfall, in the coastal fields are avoided from October to February inclusive. Work should also be avoided during March in the event of prolonged periods of freezing weather.	Forewind acknowledge response received from Natural England regarding timing of landfall works at the coastal fields. Forewind propose proportionate mitigation measures will be implemented during the autumn/winter months at this location, and these are listed in <b>Table 6.4.</b>

## 3 Methodology

### 3.1 Study area

- 3.1.1 The study area for individual species and species groups varied for a number of reasons, typically relating to species ecology. The typical study area for the baseline surveys comprised a 1km wide cable and converter station corridor. This encompassed a 500m buffer either side of a provisional cable route and around land identified as the study area for potential converter stations site. Given the iterative, on-going nature of project design, the cable route has been subject to minor alterations throughout the baseline data collection process. However, the extent of the original surveys was sufficient to accommodate those alterations and to ensure that the survey data taken forward within this assessment is a valid dataset.
- 3.1.2 A summary of the study areas defined for each set of surveys/studies is provided in **Table 3.1**.

**Table 3.1** Summary of ecological study areas

Survey	Survey Area	Reference
Statutory designated sites	Initial search for all sites within 5km of cable route centre line and converter stations site	Figure 4.1
Species of Principal Importance* and non-statutory designated sites**	1km either side of cable route corridor and converter stations for all non-statutory designated sites and species records, extended to 5km for bat records	Figure 4.2 Figure 4.10 – Figure 4.14 Figure 4.15 – Figure 4.18 Figure 4.19 – Figure 4.22 Figure 4.16
Extended Phase habitat survey	1km wide cable and converter station corridor	Figure 4.3 – Figure 4.9
Hedgerow survey	1km wide cable and converter station corridor	Figure 4.3 – Figure 4.9
Breeding birds survey	Three transects within the 1km wide cable corridor between Marske-by-the-Sea and Yearby, Yearby and Wilton and around existing National Grid Electricity Transmission (NGET) substation at Lackenby	Figure 4.15 – Figure 4.18
Autumn passage birds survey	Two areas within the 1km wide cable corridor including between Marske-by-the-Sea and Redcar and inland fields between Yearby and Wilton	Figure 4.19 – Figure 4.21
Winter birds survey	2014: one area: coastal fields at the landfall between Redcar and Marske-by-the-Sea 2012/2013: two areas: transect between Redcar and Marske-by-the-Sea and inland fields between Yearby and Wilton 2011/2012: four 1km <sup>2</sup> survey squares at Saltburn-by-the-Sea, Marske-by-the-Sea,	Figure 4.19 – Figure 4.21

Survey	Survey Area	Reference
	Warrenby and Teesport (reduced to two areas for 2012 - 2013 surveys after landfall options refinement)	
Great crested newt survey	Ponds and ditches within 250m of the cable route and converter stations site	<b>Figure 4.22</b>
Riparian mammals survey	Watercourses within 250m of the cable route and converter stations site	<b>Figure 4.14</b>
Bat surveys	Three transects within the 1km cable corridor between the landfall and Grewgrass Farm, around Yearby and around the Wilton Complex	<b>Figure 4.10 – Figure 4.13</b>
Reptile surveys	Eight areas selected within the 500m buffer centred on the cable route centre line and converter stations site	<b>Figure 4.22</b>

\* Species of Principal Importance includes legally protected species, species listed on Section 41 of NERC Act 2006 or the Tees Valley LBAP or UK BAP (Joint Nature Conservation Committee, 2008) (the priority species remain the same following the 2010 review).

\*\* Non-statutory designated sites do not receive legal protection. They typically contain the best examples of wildlife habitats or rare species remaining in Teesside and are important in complementing the SSSI framework. They are typically selected within a local authority area and often managed by the local Wildlife Trust.

## 3.2 Characterisation of existing environment

3.2.1 Characterisation of the existing environment has been informed through a desk based study of available data, and information from the consultation process. The following sources of information have been used:

- Peak Ecology (2013). Ecological Impact Assessment Technical Report. Dogger Bank Teesside A & B (**Appendix 25A**);
- Peak Ecology (2013c). Extended Phase I Habitat Survey Technical Report. Dogger Bank Teesside A & B Onshore Electrical Connection;
- Peak Ecology (2013b). Bat Survey Technical Report. Dogger Bank Teesside A & B Onshore Electrical Connection;
- Peak Ecology (2013e). Riparian Mammal Survey Technical Report. Dogger Bank Teesside A & B Onshore Electrical Connection;
- Peak Ecology (2012). Breeding Bird Survey 2012, Technical Report. Dogger Bank, Teesside A & B, Onshore Electrical Connection;
- Peak Ecology (2013a). Wintering Bird Survey, November 2011 – March 2012, Technical Report. Dogger Bank Teesside A & B Onshore Electrical Connection;
- Peak Ecology (2013g). Autumn Passage and Wintering Birds September 2012 – March 2013 Technical Report Dogger Bank Teesside Project A & B, Onshore Electrical Connection;
- Peak Ecology (2013d). Great crested newt survey Technical Report. Dogger Bank Teesside A & B Onshore Electrical Connection; and
- Peak Ecology (2013f). Reptile Survey Technical Report. Dogger Bank Teesside A & B Onshore Electrical Connection;

- Peak Ecology (2014a). Golden Plover and Lapwing – desk based assessment and additional field surveys Dogger Bank Teesside A & B Onshore Electrical Connection.

### 3.3 Assessment of impacts

#### Introduction

3.3.1 The ecological impact assessment (EclA) has been undertaken with reference to current best practice and in particular IEEM Guidelines 2006. The guidelines aim to predict the residual impacts on important ecological features that may be affected by the development either directly or indirectly, once all mitigation has been implemented.

#### Value (sensitivity)

3.3.2 The first stage of an EclA is to determine which ecological receptors within the site are both of sufficient value to be included in the assessment and vulnerable to significant impacts arising from the proposed development (IEEM 2006). It is suggested that only Valued Ecological Resources (VERs) which might be impacted upon significantly are considered. The approach aims to avoid describing or quantifying effects which might not be significant for example if they affect receptors of low or little value.

3.3.3 In terms of identifying VERs, this might include sites, habitats, species or combination features and the values applied to the VER are within a defined geographical context, typically from ‘International’ down to ‘within the zone of influence’. With regard to Dogger Bank Teesside A & B, the geographical scale and examples has been interpreted as presented in **Table 3.2**.

**Table 3.2** Evaluation of ecological value – an interpretation of the EclA Guidelines Geographical Scale of Importance for Dogger Bank Teesside A & B

Geographical scale from guidelines	Interpretation	Examples
International	International	Internationally designated site or candidate site or an area which meets published selection criteria for such designation.
National (i.e. England/Northern Ireland/Scotland/Wales)	England	Nationally designated site or area, or an area which meets published selection criteria for such designation. Nationally significant population/number of any internationally important species.
Regional	North East Yorkshire	Areas of ancient woodlands, large areas of priority BAP habitat, locally significant number of a regionally important species.
County (or Metropolitan - e.g. in London)	Redcar and Cleveland	Local Nature Reserves or non-statutory designated sites (LWS), viable areas of LBAP habitat.
Local or Parish	Cable corridor, including wider areas at the converter stations and landfill locations.	Significant ecological features such as old hedgerows, small woodlands or ponds. Common species legally protected primarily for animal welfare reasons (e.g. badgers).

Geographical scale from guidelines	Interpretation	Examples
Within zone of influence only (which might be the project site or a larger area).	As above*	As above.

\* Given that this onshore electrical connection covers a (realistic worst case) linear distance of approximately 12km and an area of approximately 4km<sup>2</sup> of land, it cuts across several 'localities' or parishes. It seems appropriate to merge the 'Local or Parish' and 'within zone of influence only' geographical scales, hereafter referred to as 'Local'.

3.3.4 It should be noted that it is usual to consider habitats and species together when ascribing a value to a feature using this geographic context. However, there are circumstances where it may be necessary to assign a value to a particularly valuable species. In assigning value to species it is necessary to consider the species distribution and status including a consideration of trends based on available historical records and to make use of any relevant published evaluation criteria. Legal protection should be considered separately from ecological value. For example, a very small population of the European Protected Species great crested newt *Triturus cristatus* should not be valued the same as a very large population.

### Criteria for assessing effects

3.3.5 Once VERs have been identified, it is necessary also to identify the activities likely to cause significant impacts, to describe the resultant changes and to assess the impacts on the VERs. Again, the emphasis is on focusing on likely significant impacts on VERs.

3.3.6 Once the VERs have been identified, the next stage of the assessment is to consider the potential impacts of the proposed development, taking into account both on-site impacts and those that may occur to adjacent or more distant ecological features. Impacts can be positive or negative. Impacts can be permanent or temporary, direct or indirect and can include:

- Direct loss of wildlife habitats;
- Fragmentation and isolation of habitats;
- Disturbance to species from noise, light or other stimuli during construction, operation or decommissioning;
- Changes to key habitat features;
- Killing/injury to a species; and
- Changes to the local hydrology, water quality and/or air quality.

3.3.7 When describing changes/activities and impacts on ecosystem structure and function, the guidelines recommend that reference should be made to the following parameters:

- Whether the change will be positive or negative;
- Duration – the time for which the impact will last prior to recovery or replacement of the feature or resource e.g. disturbance to birds during their breeding season may result in failure to reproduce in that area during the whole season;

- Reversibility – whether the impact is permanent or temporary. A reversible (temporary) impact is one from which spontaneous regeneration is possible, or for which mitigation is effective; and
- Timing/frequency – some changes will only cause an impact if they coincide with a critical season (e.g. nesting bird season) or are repeated, e.g. compare the effect of a single dog walker and the limited disturbance to feeding waders to numerous dog walkers frequently disturbing affecting their feeding success.

3.3.8 The magnitude of the effect should also be considered, which refers to the ‘size’ or ‘amount’ of an effect, determined on a quantitative basis if possible. A description of magnitude of effect is presented in **Table 3.3**.

**Table 3.3** Magnitude of effect

Magnitude	Description
High	Complete loss of, permanent damage to/degradation of, or long-term disruption to physical status, dynamics or function of the receptor; Loss of receptor integrity or favourable conservation status.
Medium	Partial loss of, temporary damage to or medium-term disruption to physical status, dynamics or function of the receptor; A substation reduction in a receptor such that there is no loss of favourable conservation status but the receptor is significantly more vulnerable.
Low	Temporary, short-term disturbance to the physical status, dynamics or function of the receptor; A reduction in the receptor integrity, but no significant habitat loss or reduction in favourable conservation status.
Negligible	No impacts on sites of international, national or county importance No reduction in the receptor integrity or favourable conservation status.

3.3.9 Additionally, IEEM (2006) suggest it important to consider the likelihood that a change/activity will occur as predicted and to quantify the degree of confidence in the impact assessment presented. The following model is given as an example:

- Certain/near-Certain: probability estimated at 95% chance or higher;
- Probable: probability estimated above 50% but below 95%;
- Unlikely: probability estimated above 5% but less than 50%; and
- Extremely Unlikely: probability estimated at less than 5%.

### Assessment of impact significance

3.3.10 An ecologically significant impact is defined as an impact (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographical area. Impacts are unlikely to be significant where features of local value or sensitivity are subject to small scale or short-term impacts. If an impact is found not to be significant at the level at which the resource or feature has been valued, it may be significant at a more local level.

3.3.11 The integrity of ‘defined’ sites is described as follows and has been used in this assessment to determine whether the impacts of the proposals on a designated site are likely to be significant:

*“The integrity of a site is the coherence of its ecological structure and function across its whole area that enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified (IEEM 2006)”.*

3.3.12 The conservation status of habitats and species within a defined geographical area is described as follows and has been used in this assessment to determine whether the impacts of the proposals on non-designated habitats and species are likely to be significant:

*“For habitats, conservation status is determined by the sum of influences acting on the habitat and its typical species, that may affect its long term distribution, structure and functions as well as the long term survival of its typical species within a given geographical area;*

*For species, conservation status is determined by the sum of influences acting on the species concerned that may affect the long term distribution and abundance of its population within a given geographical area (IEEM 2006)”.*

3.3.13 For the purpose of this EclA, significant positive or negative impacts have been subdivided to include major, moderate and minor impacts. These subdivisions scale impacts according to the nature conservation value of the feature being assessed and the magnitude or scale of the impact. This then makes it compatible with the other chapters. The definition of the significance levels is provided as a guide in **Table 3.4**.

**Table 3.4** Significance of impacts

Significance	Description
Major adverse	Impact is large-scale giving rise to substantial concern. The change is likely to cause a permanent negative effect on the receptor. It should be considered unacceptable and requires compensating or a significant change to the development if no alternative is available.
Moderate adverse	The impact gives rise to some concern but is tolerable in the short-term or there is considered to be a lower risk of the event occurring at all.
Minor adverse	The impact is small, being undesirable but acceptable or there is considered to be a low risk of the event occurring at all.
Negligible	The impact is sufficiently small as to be indeterminable and of no concern or there is considered to be almost no risk of the event occurring at all.
Minor beneficial	The impact is sufficiently small and of slight significance providing some benefit to the environment.
Moderate beneficial	The impact provides a positive environmental gain.
Major beneficial	The benefit is large-scale providing a significant positive environmental gain. The change is likely to cause a permanent beneficial effect on the receptor.

- 3.3.14 The assessment of potential impacts and significance is considered with the inclusion of embedded mitigation (Section 6.1). The assessment has been made based on residual effects, i.e. the significance of the effects that are predicted after the implementation of all mitigation.
- 3.3.15 In addition to determining the significance of the impacts on VER, this EclA also identifies any additional legal requirements for mitigation measures.



## 4 Existing Environment

### 4.1 Introduction

- 4.1.1 This section describes the existing environment in relation to terrestrial ecology. It is based on a desk-based study of existing sources and targeted surveys and provides the basis for the impact assessment.

### 4.2 Designated sites

#### Statutory designated sites

- 4.2.1 There are nine statutory designated sites within the 5km study area (**Table 4.1**). This includes the Teesmouth and Cleveland Coast SPA and Ramsar site, five Sites of Special Scientific Interest (SSSI) (South Gare and Coatham Sands SSSI, Saltburn Gill SSSI, Lovell Hill Pools SSSI, Redcar Rocks SSSI, Tees and Hartlepool Foreshore and Wetlands SSSI) and two Local Nature Reserves (LNRs) (Guisborough Branch Walkway LNR and Flatts Lane Woodland Country Park LNR). These sites are also shown on **Figure 4.1**.
- 4.2.2 None of the statutory designated sites fall within the cable route or converter stations corridor. The closest site is the Lovell Hill Pools SSSI which is just over 2km south at its closest point.
- 4.2.3 None of the sites are linked in any way to the proposed works areas and therefore no impacts are anticipated on any statutory designated sites. The statutory designated sites will not be considered further within this assessment.

#### Non-statutory designated sites

- 4.2.4 There are two LWSs within the 1km study area: Redcar to Saltburn Coast LWS and Wilton Woods Complex LWS (**Table 4.2** and **Figure 4.2**).
- 4.2.5 The closest site is the Redcar to Saltburn Coast LWS which falls within the boundary of the study area (61.5ha of the LWS falls within the study area) and is crossed by the cable route. This site has been included for assessment purposes.
- 4.2.6 No impacts are considered likely on the Wilton Woods Complex LWS since it is not linked to the proposed works areas and therefore it is not included for any further assessment.

**Table 4.1** Statutory designated sites

Site name	Designation	Brief description*	Grid reference	Distance (km) and direction	Total area (ha)/ area within study area
Teesmouth & Cleveland Coast	Ramsar	An estuarine complex of intertidal sand and mudflats, rocky shore, saltmarsh, freshwater marsh and sand dunes. The site supports a rich assemblage of invertebrates, including seven Red Data Book species. The estuary is also an important spring and/or autumn staging area for migratory waterbirds.	NZ587257	3.5 NW	1250.4/160.4
Teesmouth & Cleveland Coast	SPA	During the breeding season the area regularly supports: little tern <i>Sterna albifrons</i> . On passage the area regularly supports: Sandwich tern <i>Sterna sandvicensis</i> and over winter the area regularly supports red knot <i>Calidris canutus</i> and on passage supports common redshank <i>Tringa totanus</i> .	NZ587257	3.5 NW	1250.4/160.4
South Gare & Coatham Sands	SSSI	The site is of considerable interest for its flora, invertebrate fauna and birdlife. The range of habitats present includes extensive tracts of intertidal mud and sand, sand dunes, saltmarsh and freshwater marsh.	NZ579258	3.5 NW	396.3/137.9
Saltburn Gill	SSSI	Steep sided coastal dene, incised into glacial clays, shales and sandstones of the Lower Jurassic period. The site comprises the eastern slopes of the gill which are of particular importance in supporting one of the few relatively undisturbed areas of mixed deciduous woodland in Cleveland.	NZ674205	4.3 SE	20.0/20.0
Lovell Hill Pools	SSSI	The site supports an outstanding assemblage of dragonflies and damselflies. The pools and surrounding habitats also support populations of both great crested newt and smooth newt <i>Triturus vulgaris</i> .	NZ596189	1.9 S	9.7/9.7
Redcar Rocks	SSSI	An important feeding ground for several species of wading birds e.g. knot, turnstone <i>Arenaria interpres</i> , sanderling <i>Calidris alba</i> and purple sandpiper <i>Calidris maritima</i> , especially during the winter months.	NZ611252	2.2 NW	30.2/30.2
Tees & Hartlepool Foreshore & Wetlands	SSSI	Several coastal areas which are an integral part of the complex of wetlands, estuarine and maritime sites supporting the internationally important population of wildfowl and waders on the Tees Estuary. Saltholme and Dorman's Pools and Haverton Hole support a nationally important assemblage of breeding birds.	NZ524220	4.3 NW	245.3/20.1
Guisborough Branch Walkway	LNR	A two and a half mile walkway along the former railway line containing a variety of habitats including wetland, farmland and woodland.	NZ573152	4.0 S	8.3/6.9

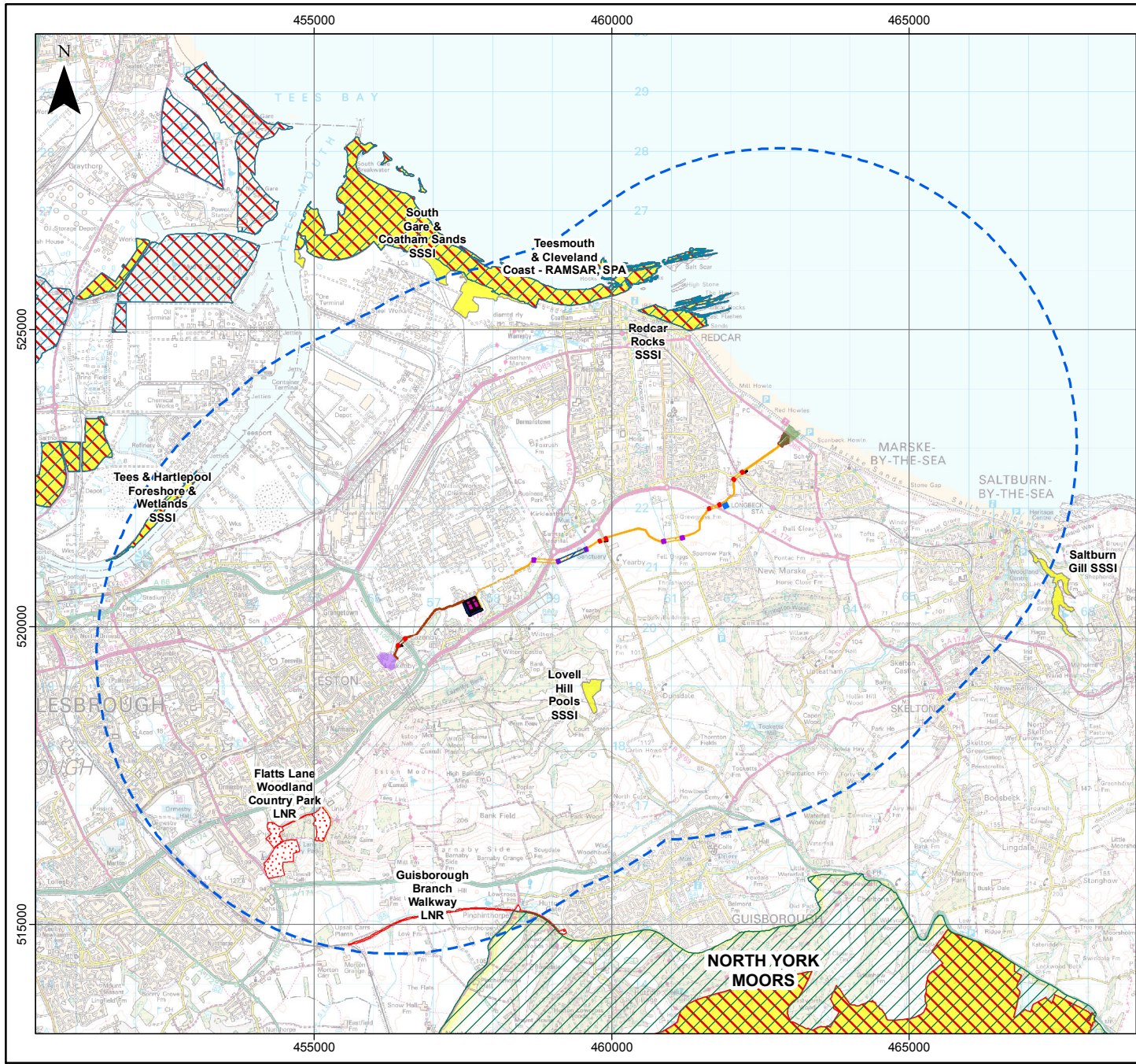
Site name	Designation	Brief description*	Grid reference	Distance (km) and direction	Total area (ha)/ area within study area
Flatts Lane Woodland Country Park	LNR	An urban fringe wildlife site with areas of grassland and scattered ponds.	NZ551168	2.5 SW	40.9/40.9

\* Each brief description is taken from the original Natural England citation website found at <http://www.naturalengland.org.uk/>

**Table 4.2 Non-statutory designated sites**

Site Name	Brief description	Grid Reference	Distance (km) and direction	Total area (ha)
Redcar to Saltburn Coast LWS	Designated for vascular plants and coastal grassland, covering both the sandy foreshore and low boulder cliffs, and for its wintering bird assemblage.	NZ641228	0/NE	164.1
Wilton Woods Complex LWS	Broadleaved woodland and replanted ancient woodland.	NZ580193	0.6/S	256.3





**LEGEND**

- Statutory designated sites desk study area
- Teesside A&B cable landfall
- Teesside A&B landfall construction
- Teesside A&B HVDC, Open
- Teesside A&B HVDC, Intermediate
- Teesside A&B HVAC, Open
- Teesside A&B HVAC, Intermediate
- Teesside A&B major horizontal directional drill entry or exit locations (2,000m²)
- Teesside A&B minor horizontal directional drill entry or exit locations (1,200m²)
- HDD or open trench to be confirmed
- Teesside A&B cable route primary construction compound
- Teesside A&B intermediate construction compound
- Teesside A&B converter
- Teesside A&B converter stations construction compounds (10,000m² per project)
- Lackenby 400kV substation
- National Parks
- Ramsar
- Special Protection Area
- Site of Special Scientific Interest (SSSI)
- Local Nature Reserve (LNR)

0 3  
Kilometres

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PROJECT TITLE: **DOGGER BANK TEESSIDE A & B**

DRAWING TITLE: **Figure 4.1: Statutory Designated Sites**

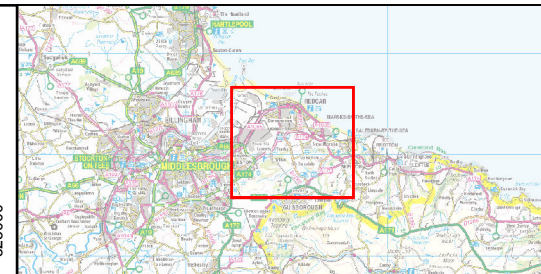
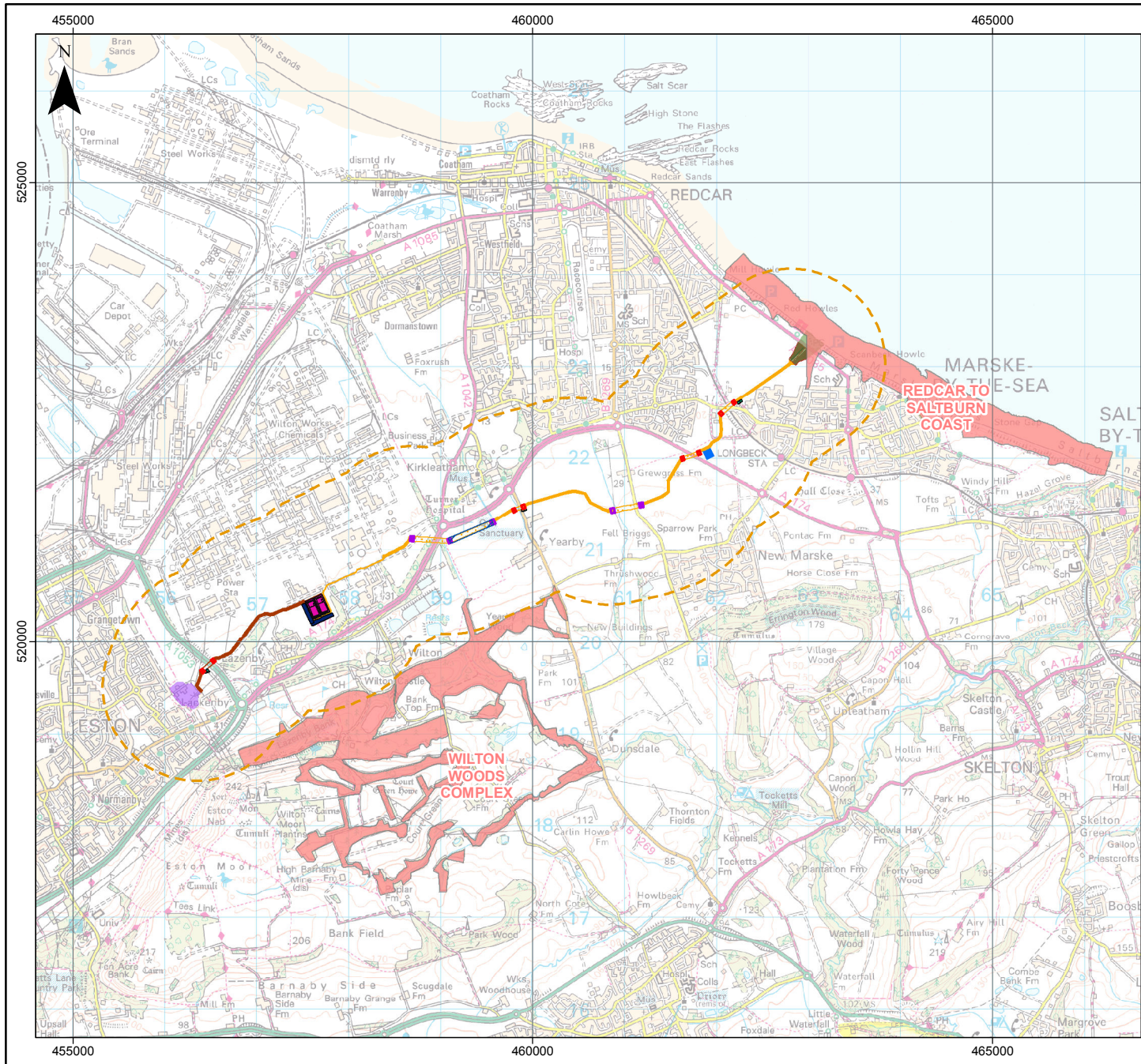
VER	DATE	REMARKS	Drawn	Checked
2	31/07/2013	Draft	SW/LC	SDS
3	30/08/2013	Submit for PE13	SW	SDS
5	21/02/2014	Pre-DCO submission review	SW	SDS

DRAWING NUMBER: **F-ONL-MA-200**

SCALE	1:100,000	PLOT SIZE	A4	DATUM	OSGB36	PROJECTION	BNG
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**LEGEND**

- Non-statutory designated sites desk study area
- Teesside A&B cable landfall envelope
- Teesside A&B landfall construction envelope
- Teesside A&B HVDC, Open trench
- Teesside A&B HVDC, HDD
- Teesside A&B HVAC, Open trench
- Teesside A&B HVAC, HDD
- Teesside A&B major horizontal directional drill entry or exit locations (2,000m<sup>2</sup>)
- Teesside A&B minor horizontal directional drill entry or exit locations (1,200m<sup>2</sup>)
- HDD or open trench to be confirmed
- Teesside A&B cable route primary construction compound (10,000m<sup>2</sup>)
- Teesside A&B intermediate construction compound (784m<sup>2</sup>)
- Teesside A&B converter stations
- Teesside A&B converter stations construction compounds (10,000m<sup>2</sup> per project)
- Lackenby 400kV substation
- Local Wildlife Sites (LWS)



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PROJECT TITLE  
**DOGGER BANK TEESSIDE A & B**

DRAWING TITLE  
**Figure 4.2: Non-Statutory Designated Sites**

VER	DATE	REMARKS	Drawn	Checked
2	31/07/2013	Draft	SW/LC	SDS
3	30/08/2013	Submit for PE13	SW	SDS
4	21/02/2014	Pre-DCO submission review	SW	SDS

DRAWING NUMBER:  
**F-ONL-MA-201**

SCALE	1:65,000	PLOT SIZE	A4	DATUM	OSGB36	PROJECTION	BNG
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## 4.3 Habitats

### Overview

- 4.3.1 The Dogger Bank Teesside A & B study area is dominated by arable habitats bordered by industrial land and residential development to the north and the North York Moors to the south. The lowland arable landscape comprises agricultural grasslands, arable fields and woodlands, with scattered villages such as Yearby and Kirkleatham and newer residential development such as New Marske.
- 4.3.2 The range of habitats along the cable corridor was limited with large areas of either arable fields, sheep or horse grazed semi-improved grassland or developed land. More notable habitats included the narrow strip of coastal grassland at the landfall (within the boundary of the Redcar to Saltburn Coast LWS) and areas of woodland and wetland habitats including ponds, ditches and wet/marshy grassland. Both grasslands and arable fields were divided by shallow drainage ditches and hedgerows. There are three larger water courses running south to north across the cable corridor: Kettle Beck, Mains Dike, and Roger Dike. Long Beck, a slightly smaller water course is located near the landfall and runs west to east.
- 4.3.3 Detailed habitat maps are provided as **Figure 4.3** to **Figure 4.9**.

### Spatial statistics

- 4.3.4 The Extended Phase 1 Habitat Survey mapping includes 26 specific habitat types. For ease of reference and to facilitate synopsis, these 26 habitat types have been grouped where appropriate to form a refined list of ten broad habitats, as follows (the 26 specific habitat types are italicised in **Table 4.3**).

Table 4.3 Broad habitat types identified within the study area

Broad habitats	Description and specific habitats
Arable	<i>Arable land</i> : ploughed fields actively farmed for cereals, oilseed rape and root crops
Agriculturally improved grasslands	<i>Improved grasslands</i> and <i>amenity grasslands</i> - both high-input grasslands (enriched by inorganic fertilisers) of low ecological value
Semi-improved grasslands	Including <i>poor semi-improved</i> or <i>neutral grassland - semi-improved</i> . For this synopsis, these were viewed as synonymous, as they were dominated by species poor semi-improved grasslands on neutral soils
Coastal grassland	Includes <i>coastal grassland</i> habitat only
Ruderal habitats	Dominated by plants colonising disturbed ground, including <i>ruderal/disturbed</i> , <i>tall herb</i> and <i>fen – tall ruderal</i> and <i>manure piles</i>
Woodland and scrub	All types of wooded (i.e. tree/shrub dominated) habitat, including: <i>broadleaved woodland semi-natural</i> ; <i>broadleaved woodland plantation</i> ; <i>mixed woodland plantation</i> ; and <i>scrub</i>
Hedgerow	All semi-natural <i>hedgerows</i>
Wetland vegetation	<i>Marshy grassland</i> and <i>marginal vegetation</i> associated with ponds, including: marsh/marshy grassland and marginal vegetation
Open water	Including <i>running water</i> and <i>standing water – eutrophic</i>

Broad habitats	Description and specific habitats
Developed land	Including <i>bare-ground, bare-ground/hardstanding, hardstanding, railway, buildings, allotment, ornamental planting and private/residential</i> (including some private gardens but not all)

4.3.5 **Table 4.4** provides a detailed breakdown of the GIS statistics for these broad habitats, considering both the 1km wide study area and the working footprint (all temporary and permanent working areas, please see **Chapter 5 Project Description**).

**Table 4.4 Habitats in the study area**

Habitats	Area/length: 1km wide study area (ha)	% of study area	Area/length working width (ha)	% of working footprint
Arable	437.7	46.5	38.4	88.9
Agriculturally improved grasslands	108.7	11.5	0.9	2.1
Semi-improved grasslands	94.1	10.0	1.1	2.5
Coastal grassland	3.8	0.4	0.0	0.0
Ruderal habitats	2.0	0.2	0.0	0.1
Woodland and scrub	61.2	6.5	0.7	1.8
Wetland vegetation	0.4	0.0	0.0	0.0
Open water	4.1	0.4	0.0	0.0
Developed land	225	23.9	1.9	4.6
No access	3.6	0.4	0.0	0.0
Hedgerows*	22.3km	-	0.7km	-
<b>Total</b>	<b>940.6</b>	<b>100.0</b>	<b>43.2</b>	<b>100.0</b>

\* Hedgerow length is given in km and is not included in the area total.

4.3.6 The spatial statistics show the 1km wide study area comprises 46.5% arable, together with 11.5% agriculturally improved grasslands and 10% semi-improved grasslands. Given that the semi-improved grasslands are species-poor in nature, the study area is dominated by arable fields and species-poor grasslands to the extent of 68.1%. The remaining 31.9% includes 23.9% developed land and 6.5% of woodland and scrub, leaving only 1.5% of the study area to be spread across the other minority habitats. It was not possible to access 0.4% of the study area; however these areas were typically located on the outer edge of the study area and are not considered to represent a constraint to this assessment.

4.3.7 When considering the working area, the spatial statistics show that the proportion of arable fields and semi-improved grassland is significantly higher (90.9%) than the wider study area (68.1%) indicating that Dogger Bank

Teesside A & B is largely situated within agricultural habitats of lower ecological value.

4.3.8 Detailed habitat survey information is provided in the Extended Phase I Habitat Survey Report (Peak Ecology 2013c). A summary is provided in the following sections.

## Evaluation of habitats with biodiversity value

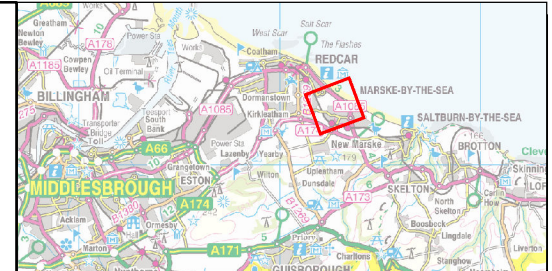
### Overview

4.3.9 Each habitat feature present within the 1km wide study area was checked against the UK BAP and the Tees Valley LBAP. A summary of the habitats with biodiversity value of relevance to the study area is presented in **Table 4.5**. References are to Target Notes (TNs), i.e. points of interest noted during the habitat mapping and on **Figure 4.3** to **Figure 4.9**.

**Table 4.5** Summary of habitats within the study area and their potential for BAP status

Habitats	UK BAP priority habitat	Local BAP	Applicability
Arable	Yes (Arable Field Margins)	Yes	In general the arable field margins within the survey area on site were not BAP priority habitats. Many fields had small field margins which contained no notable arable weeds and most contained common semi-improved grassland species assemblages.
Grassland	Yes (Lowland Meadow, Roadside Verges)	Yes	Most of the grassland was low quality improved and semi-improved pasture. None of these areas are considered as potential priority habitat. The most diverse of these grasslands appeared to be associated with road verges which were still poor quality and species-poor.
Maritime cliffs and slopes	Yes	Yes	The small cliffs at the landfall are subject to continual erosion, un-vegetated and are not considered to be priority habitat under the BAP.
Broadleaved woodland	Yes (Semi-natural broadleaved lowland woodland)	Yes	Ancient woodland indicators were present in some woodlands (TN 1 & TN 2). Much of the broadleaved woodlands were plantation shelterbelts or recent plantations which are not classed as priority habitat.
Mature trees	No (only considered in wood pasture and parkland priority habitat)	No	There were mature trees along the corridor, although none were found within a wood pasture or parkland habitat.
Gardens and allotments	No	Yes	There are a number of allotment gardens throughout the study area. It is unlikely that these areas are to be impacted, as they are located within the outer edges of the study area.
Ponds	Yes	Yes	It is possible that at least some ponds on site would be considered priority habitat, although none were found to contain great crested newts, which is often a material consideration. None will be directly impacted on by the scheme.
Hedgerows	Yes	Yes	Most hedgerows, regardless of quality, fall under the priority habitat type.





- LEGEND**
- Onshore cable route - 500m buffer
  - Teesside A&B cable landfall envelope
  - Teesside A&B landfall construction envelope
  - Teesside A&B HVDC, Open trench
  - Teesside A&B HVDC, HDD
  - Teesside A&B minor horizontal directional drill entry or exit locations (1,200m<sup>2</sup>)
  - Teesside A&B intermediate construction compound (784m<sup>2</sup>)
  - Water
  - Hedgerow
  - Fence
  - Scrub
  - Tree
  - Arable
  - Allotment
  - Amenity grassland
  - Bare ground/hard standing
  - Bare ground
  - Building
  - Hardstanding
  - Railway
  - Awaiting classification; No access
  - Private/residential
  - Swamp & Open Water
  - Standing water - eutrophic
  - Tall Herb & Fen
  - Tall herb and fen - tall ruderal;
  - Scattered tall ruderal;
  - Ruderal/disturbed
  - Grassland Marsh
  - Neutral grassland - semi-improved
  - Coastal grassland
  - Woodland & Scrub
  - Broadleaved woodland - semi-natural; Broadleaved woodland - semi-natural
  - Broadleaved woodland - plantation
  - T N Target Note

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PROJECT TITLE  
**DOGGER BANK TEESSIDE A & B**


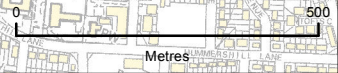
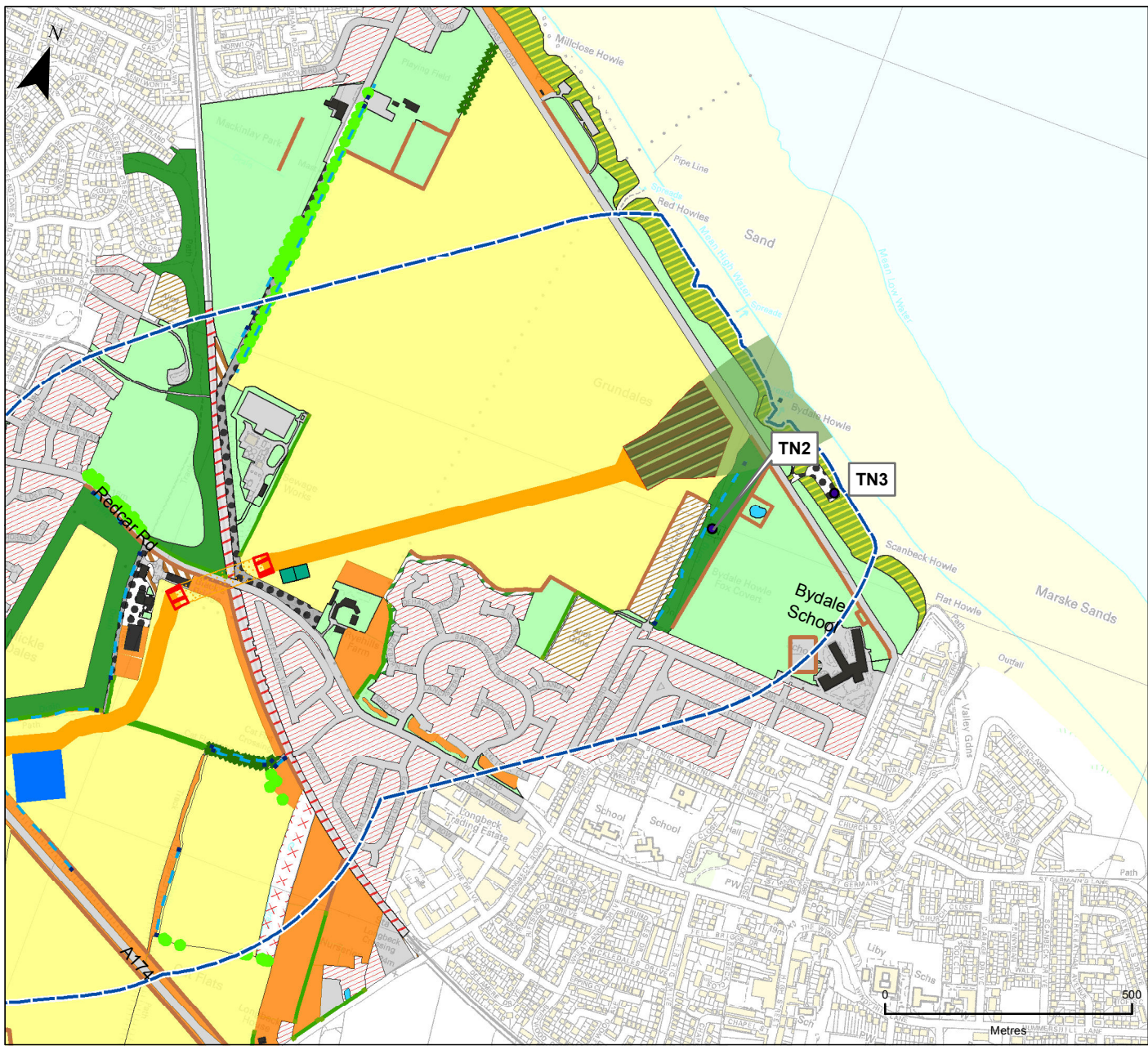
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5	21/02/2014	Pre-DCO submission review	SW	SDS

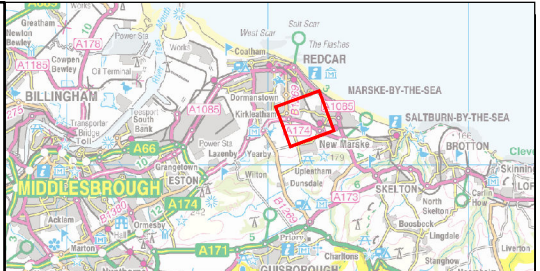
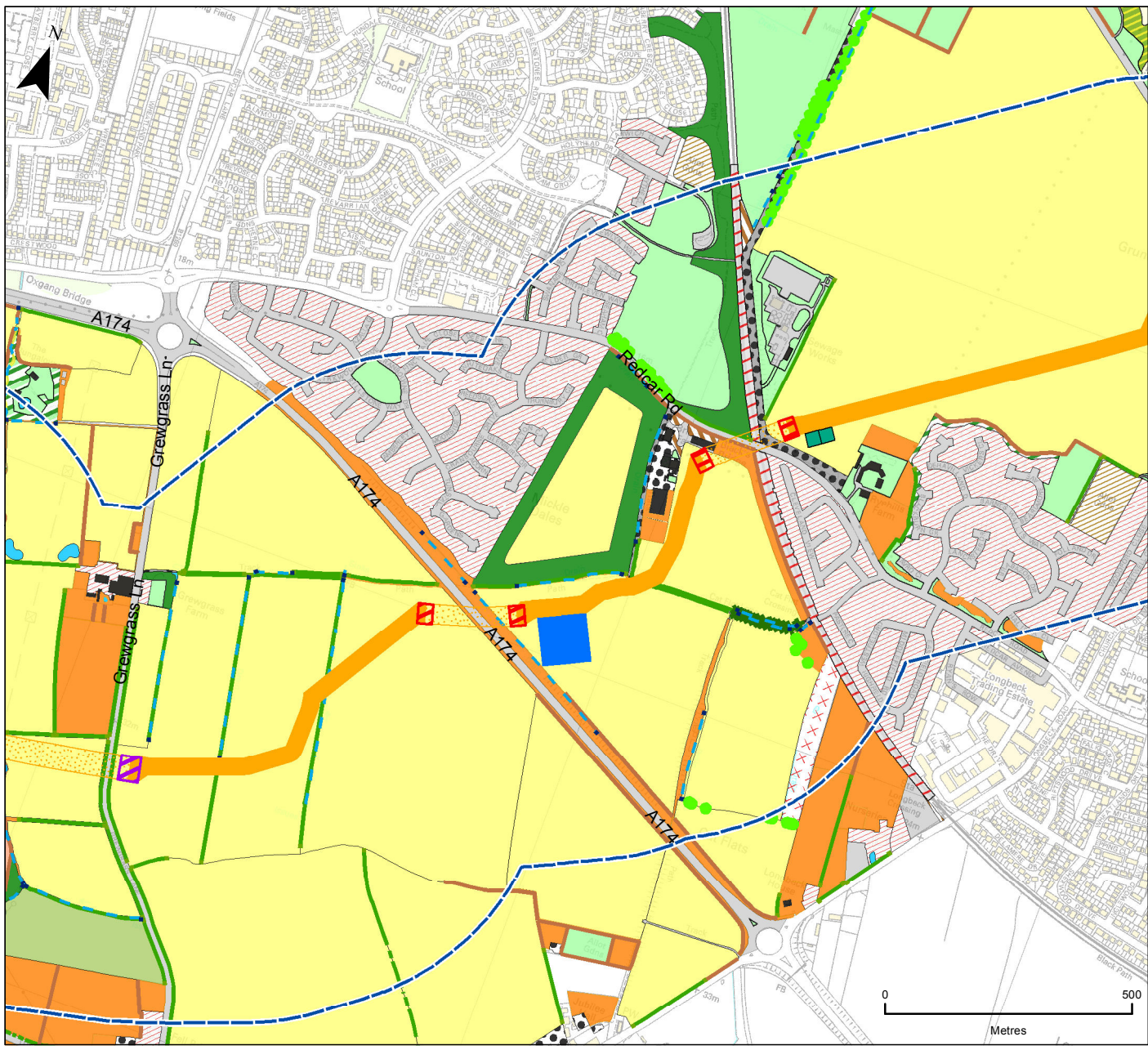
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**F-ONL-MA-202**

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- LEGEND**
- Onshore cable route - 500m buffer
  - Teesside A&B HVDC, Open trench
  - Teesside A&B HVDC, HDD
  - Teesside A&B minor horizontal directional drill entry or exit locations (1,200m<sup>2</sup>)
  - Teesside A&B cable route primary construction compound (10,000m<sup>2</sup>)
  - Teesside A&B intermediate construction compound (784m<sup>2</sup>)
  - Water
  - Hedgerow
  - Fence
  - ✱ Scrub
  - Tree
  - Arable
  - Amenity grassland
  - Bare ground/hard standing
  - Bare ground
  - Building
  - Hardstanding
  - Railway
  - Awaiting classification; No access
  - Private/residential
  - Tall Herb & Fen**
  - Tall herb and fen - tall ruderal;
  - Scattered tall ruderal; Ruderal/disturbed
  - Grassland Marsh**
  - Neutral grassland - semi-improved
  - Woodland & Scrub**
  - Broadleaved woodland - semi-natural; Broadleaved woodland - semi-natural
  - Broadleaved woodland - plantation
  - Scrub

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PROJECT TITLE  
**DOGGER BANK TEESIDE A & B**

DRAWING TITLE  
**Figure 4.4: Extended Phase 1 Habitat Survey - Section 2**

VER	DATE	REMARKS	Drawn	Checked
2	29/08/2013	Draft	SW	SDS
3	17/09/2013	Submit for PE13	SW	SDS
5	21/02/2014	Pre-DCO submission review	SW	SDS

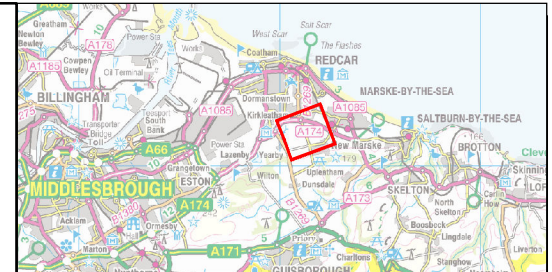
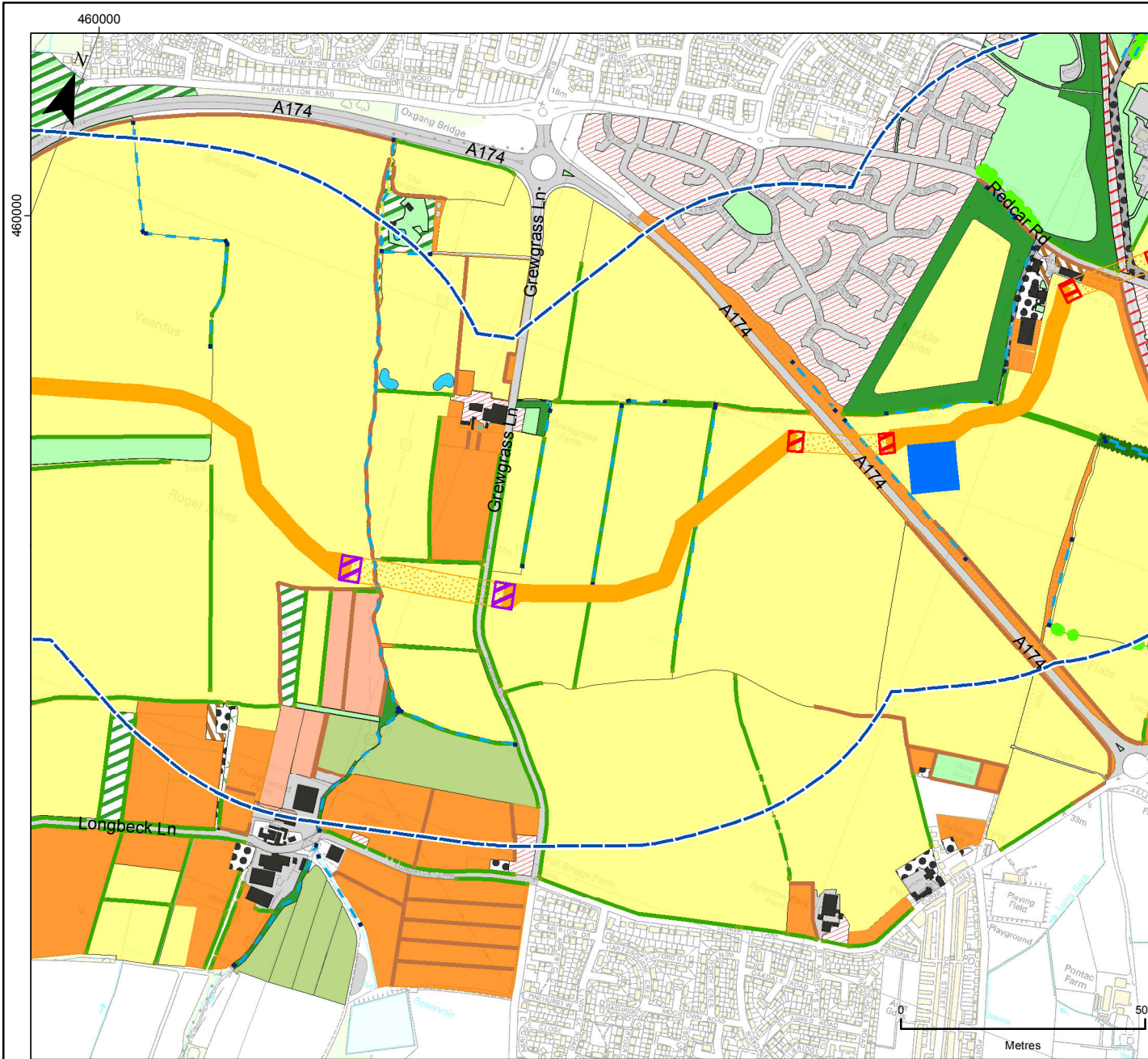
DRAWING NUMBER:  
**F-ONL-MA-203**

SCALE	1:12,500	PLOT SIZE	A4	DATUM	OSGB36	PROJECTION	BNG
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- LEGEND**
- Onshore cable route - 500m buffer
  - Teesside A&B HVDC, Open trench
  - Teesside A&B HVDC, HDD
  - Teesside A&B major horizontal directional drill entry or exit locations (2,000m<sup>2</sup>)
  - Teesside A&B minor horizontal directional drill entry or exit locations (1,200m<sup>2</sup>)
  - Teesside A&B cable route primary construction compound (10,000m<sup>2</sup>)
  - Water
  - Hedgerow
  - Fence
  - Arable
  - Amenity grassland
  - Bare ground/hard standing
  - Bare ground
  - Building
  - Hardstanding
  - Private/residential
  - Swamp & Open Water
  - Standing water - eutrophic
  - Grassland Marsh
  - Grassland - poor semi-improved
  - Neutral grassland - semi-improved
  - Improved grassland
  - Woodland & Scrub
  - Broadleaved woodland - semi-natural; Broadleaved woodland - semi-natural
  - Broadleaved woodland - plantation
  - Mixed woodland - plantation

Data Source:  
Ordnance Survey data © Crown copyright and database right, 2014

PROJECT TITLE  
**DOGGER BANK TEESIDE A & B**

DRAWING TITLE  
**Figure 4.5: Extended Phase 1 Habitat Survey - Section 3**

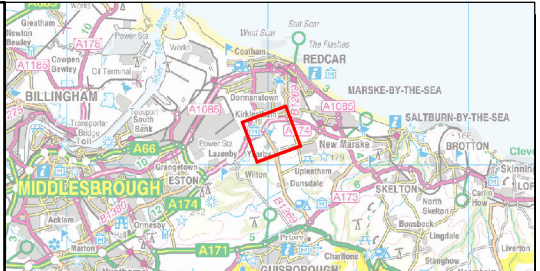
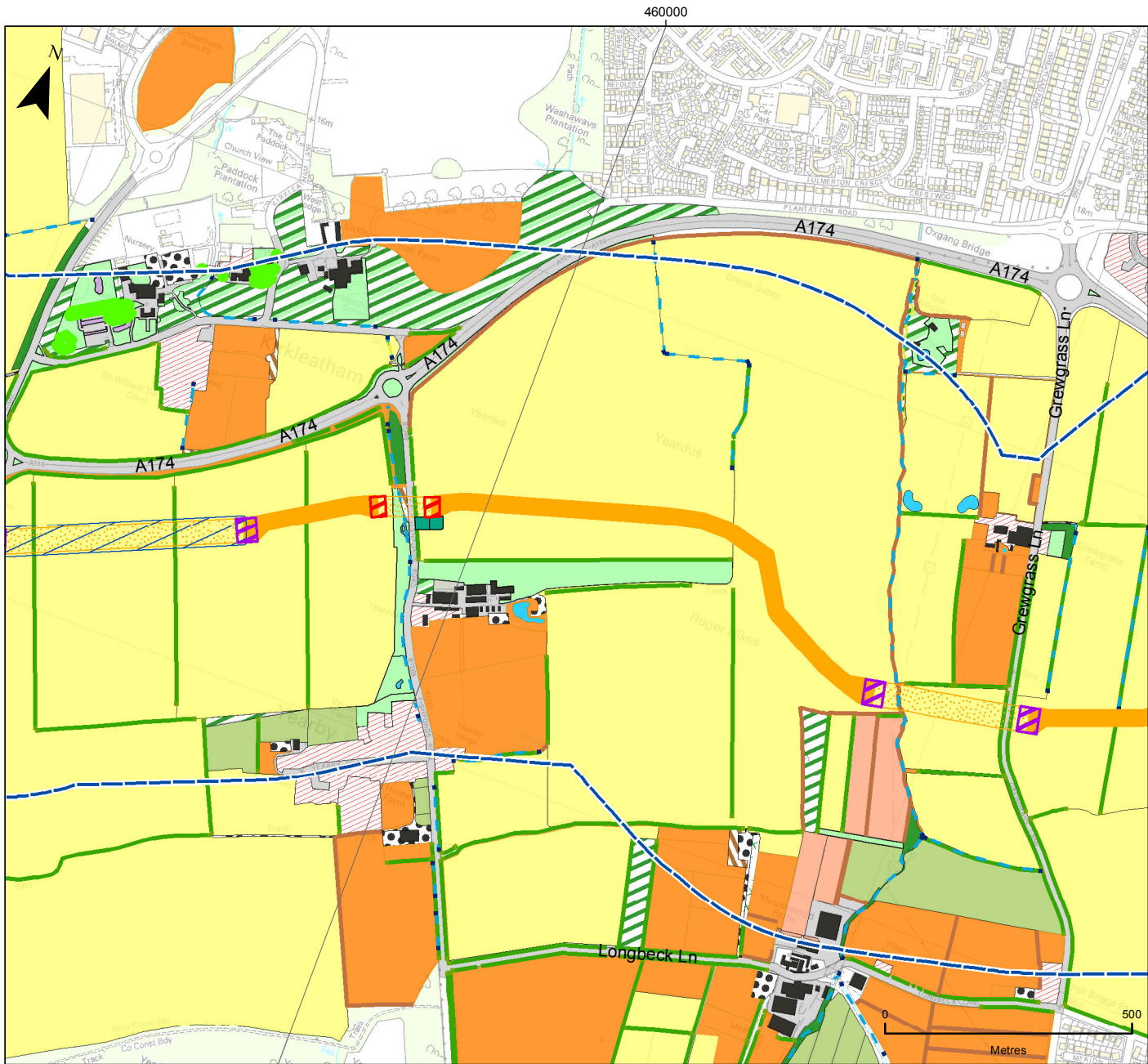
VER	DATE	REMARKS	Drawn	Checked
2	29/08/2013	Draft	SW	SDS
3	17/09/2013	Submit for PE13	SW	SDS
5	21/02/2014	Pre-DCO submission review	SW	SDS

DRAWING NUMBER:  
**F-ONL-MA-204**

SCALE	1:12,500	PLOT SIZE	A4	DATUM	OSGB36	PROJECTION	BNG
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- LEGEND**
- Onshore cable route - 500m buffer
  - Teesside A&B HVDC, Open trench
  - Teesside A&B HVDC, HDD
  - Teesside A&B major horizontal directional drill entry or exit locations (2,000m<sup>2</sup>)
  - Teesside A&B minor horizontal directional drill entry or exit locations (1,200m<sup>2</sup>)
  - HDD or open trench to be confirmed
  - Teesside A&B intermediate construction compound (784m<sup>2</sup>)
  - Water
  - Hedgerow
  - Fence
  - Private/residential
  - Swamp & Open Water
  - Standing water - eutrophic
  - Running water
  - Tall Herb & Fen
  - Tall herb and fen - tall ruderal;
  - Scattered tall ruderal; Ruderal/disturbed
  - Grassland Marsh
  - Grassland - poor semi-improved
  - Neutral grassland - semi-improved
  - Improved grassland
  - Woodland & Scrub
  - Broadleaved woodland- semi-natural; Broadleaved woodland- semi-natural
  - Broadleaved woodland - plantation
  - Mixed woodland - plantation
  - Miscellaneous
  - Arable
  - Amenity grassland
  - Bare ground
  - Building
  - Hardstanding

Data Source:  
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PROJECT TITLE  
**DOGGER BANK TEESIDE A & B**


DRAWING TITLE  
**Figure 4.6: Extended Phase 1 Habitat Survey - Section 4**

VER	DATE	REMARKS	Drawn	Checked
2	29/08/2013	Draft	SW	SDS
3	17/09/2013	Submit for PE13	SW	SDS
5	21/02/2014	Pre-DCO submission review	SW	SDS

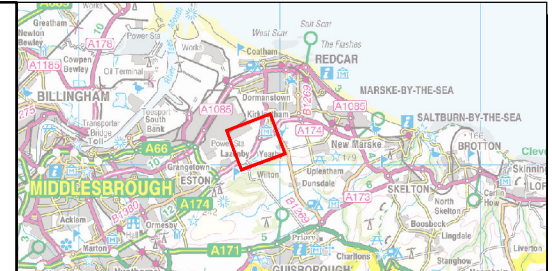
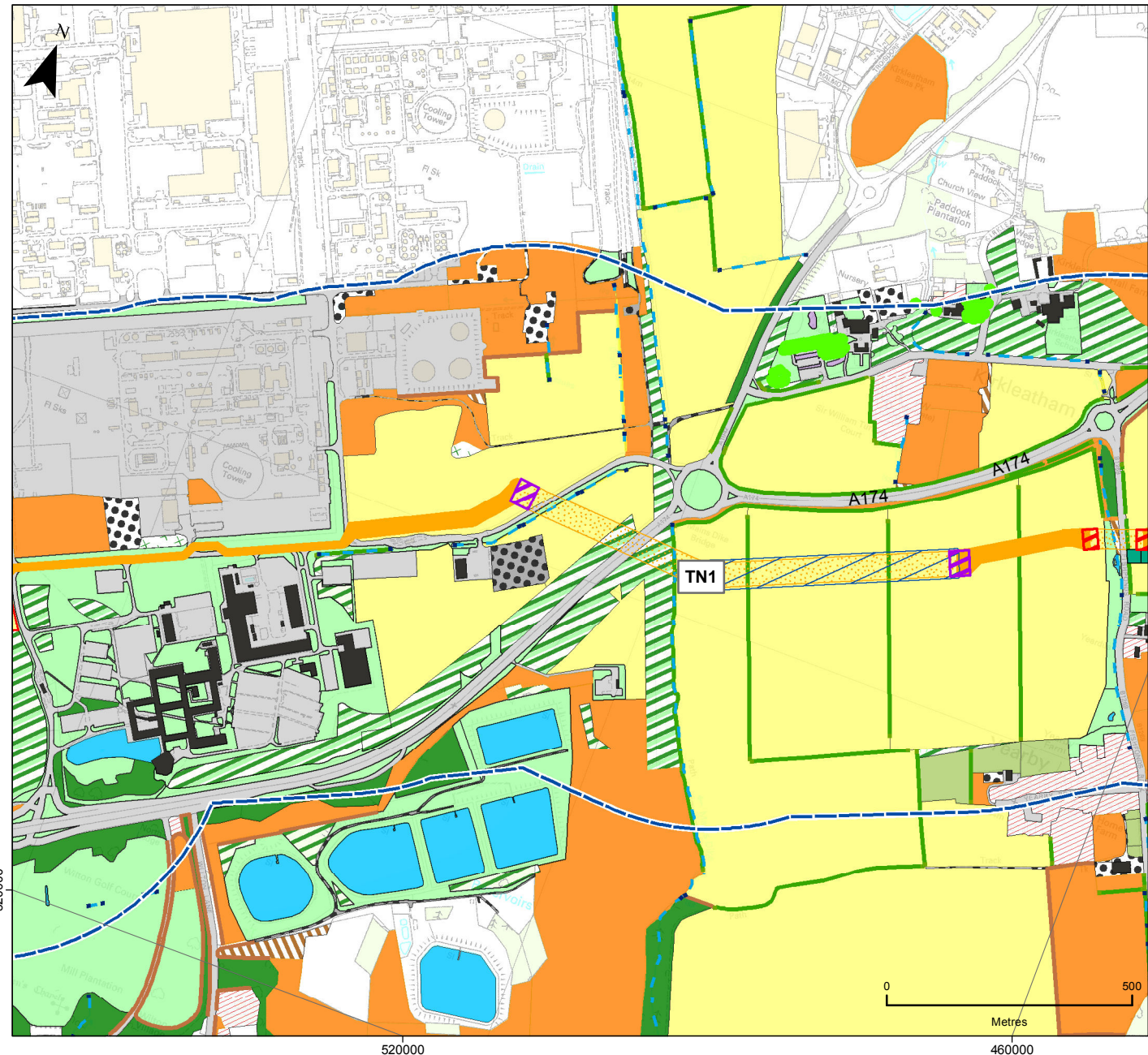
DRAWING NUMBER:  
**F-ONL-MA-205**

SCALE	1:12,500	PLOT SIZE	A4	DATUM	OSGB36	PROJECTION	BNG
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**LEGEND**

- Onshore cable route - 500m buffer
- Teesside A&B HVDC, Open trench
- Teesside A&B HVDC, HDD
- Teesside A&B major horizontal directional drill entry or exit locations (2,000m<sup>2</sup>)
- HDD or open trench to be confirmed
- Water
- Hedgerow
- Fence
- Tree
- Miscellaneous
  - Ornamental planting
  - Arable
  - Amenity grassland
  - Bare ground/hard standing
  - Bare ground
  - Building
  - Hardstanding
  - Private/residential
- Swamp & Open Water
  - Standing water - eutrophic
  - Running water
- Tall Herb & Fen
  - Tall herb and fen - tall ruderal;
  - Scattered tall ruderal;
  - Ruderal/disturbed
- Grassland Marsh
  - Neutral grassland - semi-improved
  - Improved grassland
- Woodland & Scrub
  - Broadleaved woodland - semi-natural; Broadleaved woodland - semi-natural
  - Broadleaved woodland - plantation
  - Mixed woodland - plantation
  - Scrub
  - TN Target Note

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PROJECT TITLE  
**DOGGER BANK TEESSIDE A & B**

DRAWING TITLE  
**Figure 4.7: Extended Phase 1 Habitat Survey - Section 5**

VER	DATE	REMARKS	Drawn	Checked
2	29/08/2013	Draft	SW	SDS
3	17/09/2013	Submit for PE13	SW	SDS
5	21/02/2014	Pre-DCO submission review	SW	SDS

DRAWING NUMBER:  
**F-ONL-MA-206**

SCALE	1:12,500	PLOT SIZE	A4	DATUM	OSGB36	PROJECTION	BNG
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