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# Environmental Statement Chapter 27 Terrestrial Archaeology

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



Document Title Dogger Bank Teesside A & B

Environmental Statement – Chapter 27

Terrestrial Archaeology

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Appendix 27A Onshore Cultural Heritage Impact Assessment



# 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 cultural heritage. The purpose of this chapter is to provide a characterisation of the existing conditions, assess the potential impact of the onshore infrastructure, including buried cable systems, converter stations and enabling works required at the existing National Grid Electricity Transmission (NGET) substation at Lackenby, and propose mitigation measures where necessary to avoid, reduce or minimise potential impacts.
- 1.1.2 This chapter summarises the findings of a cultural heritage technical report (Dogger Bank Teesside A & B, Onshore Cultural Heritage Impact Assessment, URS, January 2014) which is provided in full as **Appendix 27A**.
- 1.1.3 Reference is also made to the landscape and visual impact assessment work (covered in **Chapter 21 Landscape and Visual Impact Assessment**) and **Chapter 18 Marine and Coastal Archaeology** as part of this cultural heritage assessment.



# 2 Guidance and Consultation

# 2.1 Policy

## **National Policy Statements**

- 2.1.1 The assessment of potential impacts upon cultural heritage 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) and should be read in conjunction with the recently introduced National Planning Policy Framework (NPPF, 2012). Those relevant to Dogger Bank Teesside A & B are:
  - Overarching NPS for Energy (EN-1) (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 cultural heritage, 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 Requirement	NPS Reference	ES Reference
The ES should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance. The detail to be included should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. It is expected that "as a minimum" the relevant Historic Environment Record is consulted and an assessment of heritage assets is carried out "using expertise where necessary according to the proposed development's impact".	EN-1 Section 5.8.8	Section 4.2 and 4.3
An appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation' should be carried out if the development site includes or if available evidence suggests that the site has the potential to include, heritage assets with an archaeological interest. Where proposed development will affect the setting of a heritage asset, representative visualisations may be necessary to explain the impact.	EN-1 Section 5.8.9	Section 3.2
Applicants should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.	EN-1 Section 5.8.10	Section 6, 7 and 8



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### **National Planning Policy Framework (2012)**

- 2.1.3 The National Planning Policy Framework (NPPF) (DCLG 2012) was published on 27 March 2012. It took immediate effect and represents a significant change to the national planning policy landscape. The NPPF is a material consideration in planning decisions and forms a single overarching planning policy for England, replacing all other Planning Policy Statements and Planning Policy Guidelines. It is also the basis for the preparation of local development plans.
- 2.1.4 The conservation and enhancement of the historic environment is granted an entire section (Section 12) within the NPPF which, in summary, highlights the following issues:
  - The Local Plan should set a positive strategy for conservation and enjoyment of the historic environment, recognising that heritage assets are an irreplaceable resource (paragraph 126);
  - Substantial harm to or loss of designated heritage assets of the highest significance, should be wholly exceptional. Where a development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless there are substantial public benefits (paragraph 132 and paragraph 133);
  - In the case of non-designated heritage assets, a balanced judgment will be required having regard to the scale of any harm or loss and the significance of the heritage asset; and
  - Local planning authorities should make gathered information about the significance of the historic environment publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost, proportionate to the value of the asset.
- 2.1.5 Applications that may impact upon non-designated assets should be balanced, considering the presumption in favour of sustainable development, scale of harm or loss and the significance of the heritage asset. In the case of all heritage assets, those applications that will make a positive contribution to the significance or setting of the asset should be treated favourably.
- 2.1.6 The NPPF does not provide a qualitative definition of what constitutes 'substantial' or 'less than substantial' harm, however, draft guidance discussed within paragraphs 2.3.34 of **Appendix 27A** does provide an explanation of substantial harm. The ES is required to report on the significance of an effect and does not make a judgement on whether 'substantial' or 'less than substantial' harm will be caused. The judgement of whether an impact causes 'substantial' harm is based on whether the impact will result in significant harm to, or total loss of significance of an asset. This may include extensive physical damage to an asset or loss of critical elements of an asset's setting that contribute it its importance. The identification of 'substantial' harm is therefore one of professional judgment and not directly equitable to the significance of the effect.



## **Local planning policy**

- 2.1.7 The Redcar and Cleveland Local Plan will be prepared to replace the existing development plan documents (the Core Strategy, Development Policies and Minerals and Waste DPDs), and will be a single document that will incorporate strategic, detailed and site-specific policies within the area (proposed adoption August 2014). The Local Plan will eventually replace the Local Development Framework (LDF).
- 2.1.8 The LDF is a series of Development Plan Documents (DPD) setting out the Council's adopted policies and proposals that make up the statutory development plan for Redcar and Cleveland. The LDF currently contains the following:

Table 2.2 Relevant local planning policies

Document	Policy / Guidance	Policy / Guidance Purpose
Core Strategy DPD	CS25	The Core Strategy DPD was adopted July 2007 and sets out strategies for dealing with the implications of development within the borough.  Policy CS25 deals with the Built and Historic Environment and states that "development proposals will be expected to contribute positively to the character of the built and historic environment of the Borough, and this character will be protected, preserved or enhanced".  Particular protection will be given to the character and special features of conservation areas, listed buildings, historic parks and gardens, archaeological sites and the historic landscape of the Eston Hills.
Development Policies DPD	DP9	Policy DP9 states that part of the character of many of the conservation areas (in the Borough) derives not only from the built fabric but from their open spaces and special relationships. Spaces which individually or collectively provide for attractive vistas within or from without, or settings to buildings or features, or have a particular historic or landscape importance, will be protected, and goes on to state that development affecting the setting of a conservation area will only be permitted where it preserves or enhances the appearance of the conservation area.
	DP10	Policy DP10 states that the control of the development of, or around, listed buildings is stringent since it is of paramount importance that their special qualities are preserved and where possible enhanced, and states that development affecting the setting of a listed building will only be permitted if the proposal:  • Preserves or enhances its special character as a listed building;  • Protects its immediate setting including the space(s) around the building and the hard and soft landscaping including trees, hedges, walls, fences and surfacing; and  • Retains historic plot boundaries and layouts.
	DP11	Policy DP11 states that the Council will ensure important archaeological sites, whether scheduled or not, are protected from inappropriate development. Specifically the policy states that "development that would adversely affect important archaeological sites or monuments will not be approved. Development that may affect a known or possible archaeological site will require the results of an archaeological evaluation to be submitted as part of the



Document	Policy / Guidance	Policy / Guidance Purpose
		<ul> <li>planning application. Development that affects a site where there is evidence that archaeological remains may exist will only be permitted if: <ul> <li>Any archaeological remains are preserved in situ; or</li> <li>Where in situ preservation is not required, or appropriate satisfactory provision is in place for archaeological investigation, recording and reporting to take place before, or where necessary during development. Where archaeological investigation, recording and reporting has taken place it will be necessary to publish the findings within an agreed timetable".</li> </ul> </li> </ul>

## 2.2 Other legislation, standards and guidance

- 2.2.1 The following legislation and guidance has also been taken into consideration as part of this assessment:
  - The Ancient Monuments and Archaeological Areas Act 1979;
  - Planning (Listed Buildings and Conservation Areas) Act 1990;
  - The Setting of Heritage Assets (English Heritage 2011a);
  - Institute for Archaeologists (IfA) Standard and Guidance for Historic Environment Desk-Based Assessment (Institute for Archaeologists 2012); and
  - Seeing History in the View: A Method for Assessing Heritage Significance within Views (English Heritage 2011b).

### 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.

A summary of the consultation carried out at key stages throughout the project, of particular relevance to Terrestrial Archaeology, is presented in **Table**2.3. This table only includes the key items of consultation that have defined the assessment. 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 2.3 Summary of consultation and issues raised by consultees

Date	Consultee	Summary of issue	ES Reference
May 2012 (Scoping, Statutory)	Planning Inspectorate	It was noted that there were six options for converter station site; the relevant heritage assets for assessment comprise coastal archaeology, Wilton Conservation Area, Kirkleatham Conservation Area, Yearby Conservation Area and all listed buildings therein. Also noted the Conservation Plan for Kirkleatham.	Section 4
December 2012 (Non-statutory)	Redcar and Cleveland Borough Council (RCBC)	RCBC confirmed that aerial photographs (APs) and pre-OS mapping are still held by Tees Archaeology and there are ongoing discussions between Tees Archaeology and RCBC regarding the availability of the archive.	N/A
January 2013 (Non-statutory)	RCBC	Written Scheme of Investigation (WSI) approved by RCBC Archaeological Advisor.	Section 4.4
January 2013 (Non-statutory)	English Heritage (Regional Office Newcastle)	English Heritage confirmed they were happy with proposed methodology (study areas, consideration of assets) and agreed with initial identification of key heritage issues: Identified Kirkleatham and association with Yearby as key consideration; Potential impact to Eston Hills historic landscape also a key consideration; and English Heritage's Places Advisor should be contacted for assets relating specifically to Kirkleatham.	Section 3.1 and 4.2
March 2013 (Non-statutory)	English Heritage	Email to English Heritage regarding the level of importance to attach to non-designated First World War assets identified in the high voltage direct current (HVDC) cable route. No response from English Heritage received so a moderate value has been assigned to the remains due to historic and potential evidential value, although the level of preservation has not been evaluated.	Sections 4.3 and 4.4
March 2013 (Non-statutory)	RCBC	Correspondence with RCBC to discuss principle of post-determination evaluation. Following the review of geophysical survey results, RCBC agreed during a telephone conversation that the results would not trigger a cable re-route and that trial trenching could be undertaken post-consent.	N/A
May 2013 (Non-statutory)	RCBC	Confirmation required over status of Kirkleatham Conservation Area Action Plan (CAAP). RCBC not aware of a CAAP for Kirkleatham.	Section 4.2 and 7.1



Date	Consultee	Summary of issue	ES Reference
June 2013 (Non-statutory)	Tees Archaeology	Following Tees Archaeology responding to PEI1 to say that they no longer advise RCBC on archaeology,	N/A
September 2013 (Non-statutory)	English Heritage	No further comments at the present time. They agree with the summary outlining the assessment undertaken on the range of assets identified.	N/A
December 2013 (Statutory)	English Heritage	English Heritage responded to request for pre- application advice. Response stated that English Heritage were satisfied the proposals would not result in harm to any designated assets. Advised the opinion of Archaeological Consultant for RCBC is sought regarding impact to non- designated assets.	Archaeological Consultant for RCBC has been consulted previously. No further action required.
December 2013 (Statutory)	RCBC	There was no comment from the Archaeological Consultant for RCBC. The Council had been copied into a response from English Heritage with regard to terrestrial impacts. At this time no formal comments have been received from the Council's archaeology consultant, however all previous advice offered from the consultant should be considered in the final drafting of this chapter.	Sections 5-10



# 3 Methodology

## 3.1 Study area

- 3.1.1 Two different study areas have been used for designated and non-designated heritage assets (as agreed with English Heritage and RCBC) and comprise:
  - Designated (statutory and non-statutory): 5km from the edge of the cable route corridor and converter stations (Figure 3.1 and Figure 3.2); and
  - Non-designated assets: 1km from the edge of the cable route corridor and converter stations (Figure 3.3 and Figure 3.4).
- 3.1.2 At the landfall, the study area finishes at the Mean High Water Mark (MHWM).

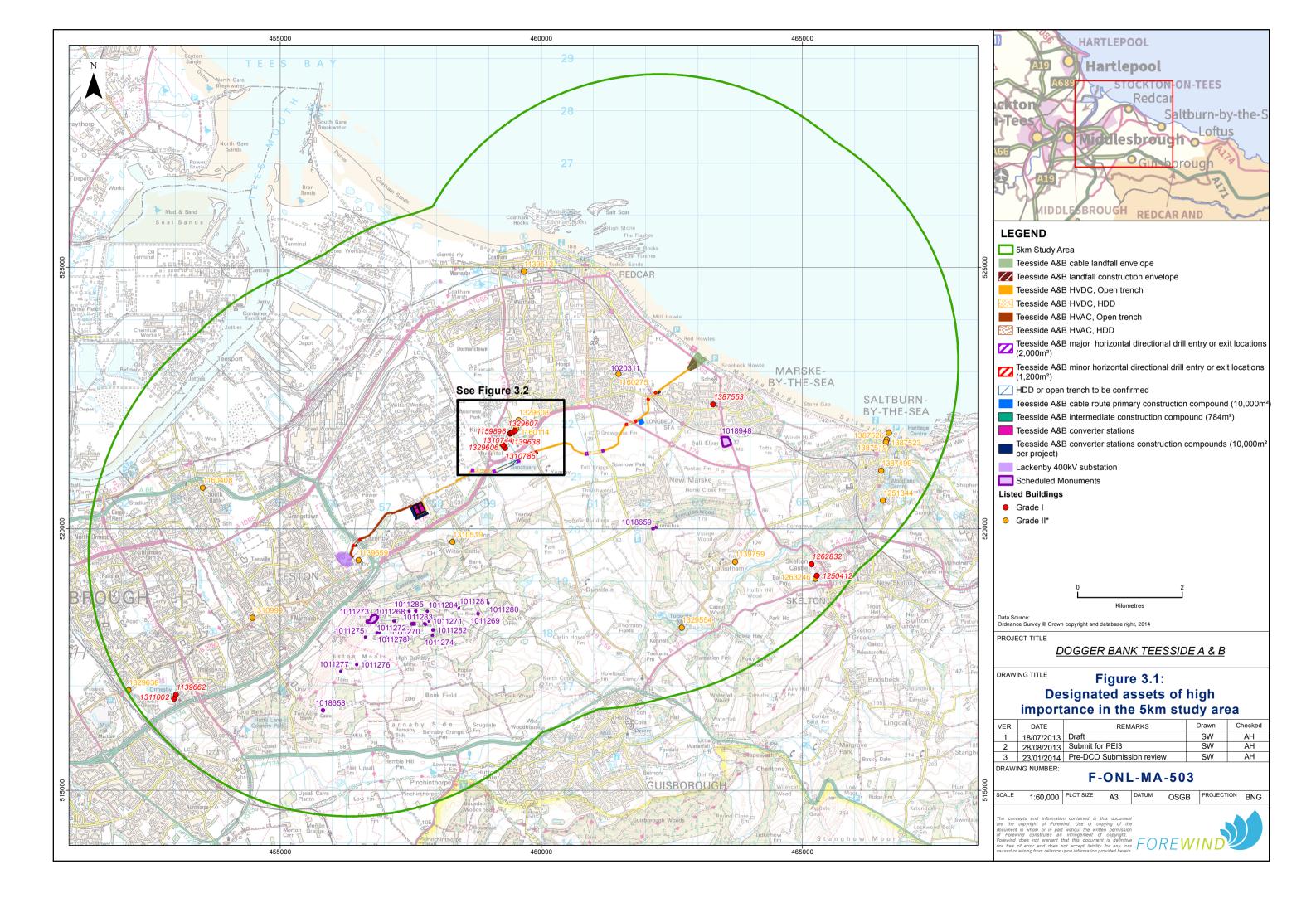
# 3.2 Characterisation of existing environment - methodology

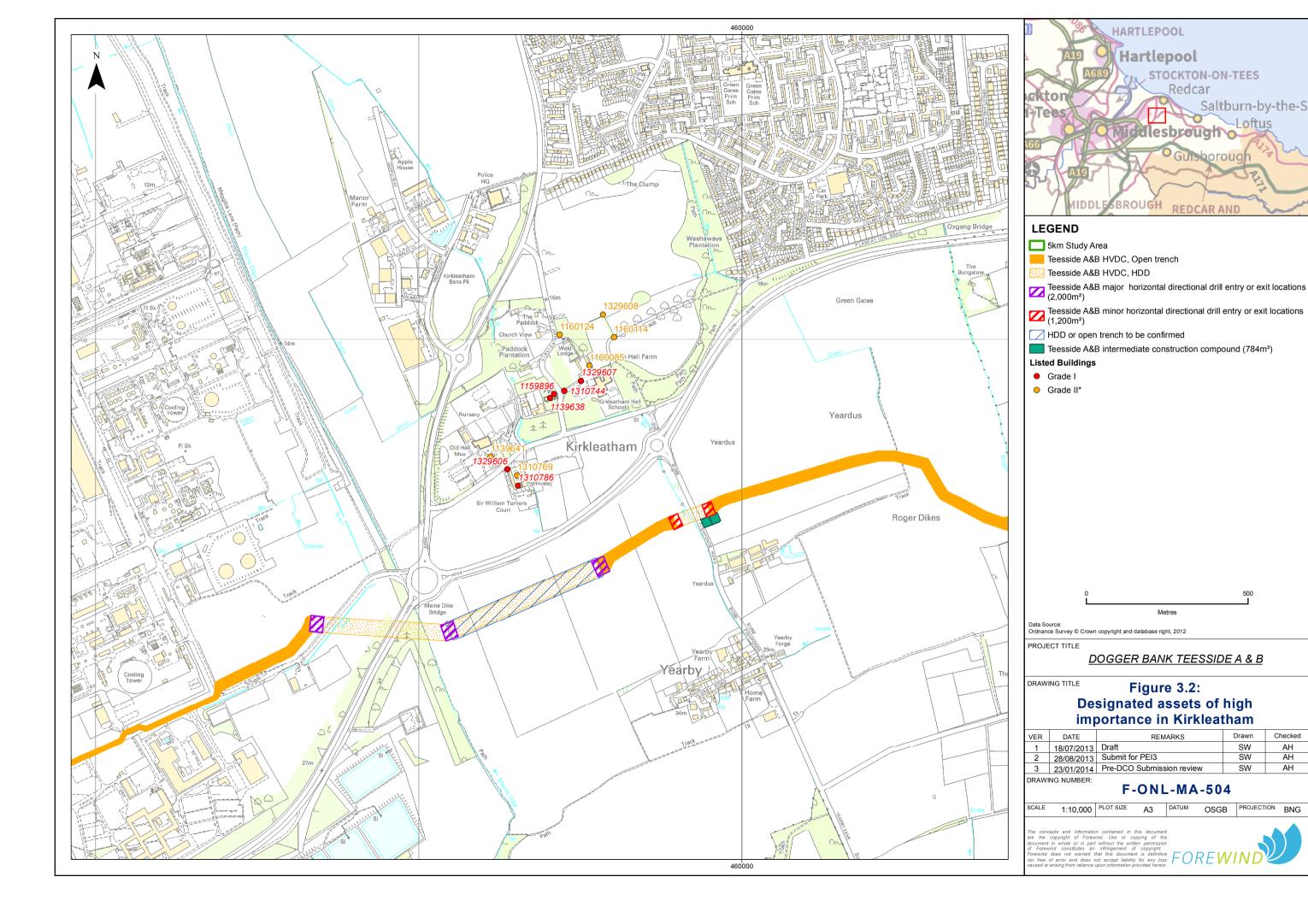
- 3.2.1 Characterisation of the existing environment has been informed through a desk based study of available data in accordance with the published Standard and Guidance for Historic Environment Desk-Based Assessment (IfA 2012) and Code of Conduct (IfA 2010) of the Institute for Archaeologists (IfA).
- 3.2.2 In summary, this work has involved:
  - Collation of data on designated and non-designated assets, including historic landscape features, held by Tees Archaeology Historic Environment Record (collected March 2012);
  - Review of local history information at Kirkleatham Museum;
  - Collation of data on designated assets held on the National Heritage for England List;
  - Collation of data on locally listed buildings and Conservation Areas from RCBC;
  - An examination of available documentary and historic map sources held by RCBC;
  - A review of existing baseline studies and field survey reports relevant to the site:
  - A site walkover survey;
  - The Zone of Theoretical Visibility (ZTV); and
  - A visual assessment of potential impacts to the setting of designated assets during a site visit.
- 3.2.3 The objectives of the baseline study are to establish the baseline conditions for cultural heritage assets and the importance of heritage remains within the study area. The specific aims of the study are to:

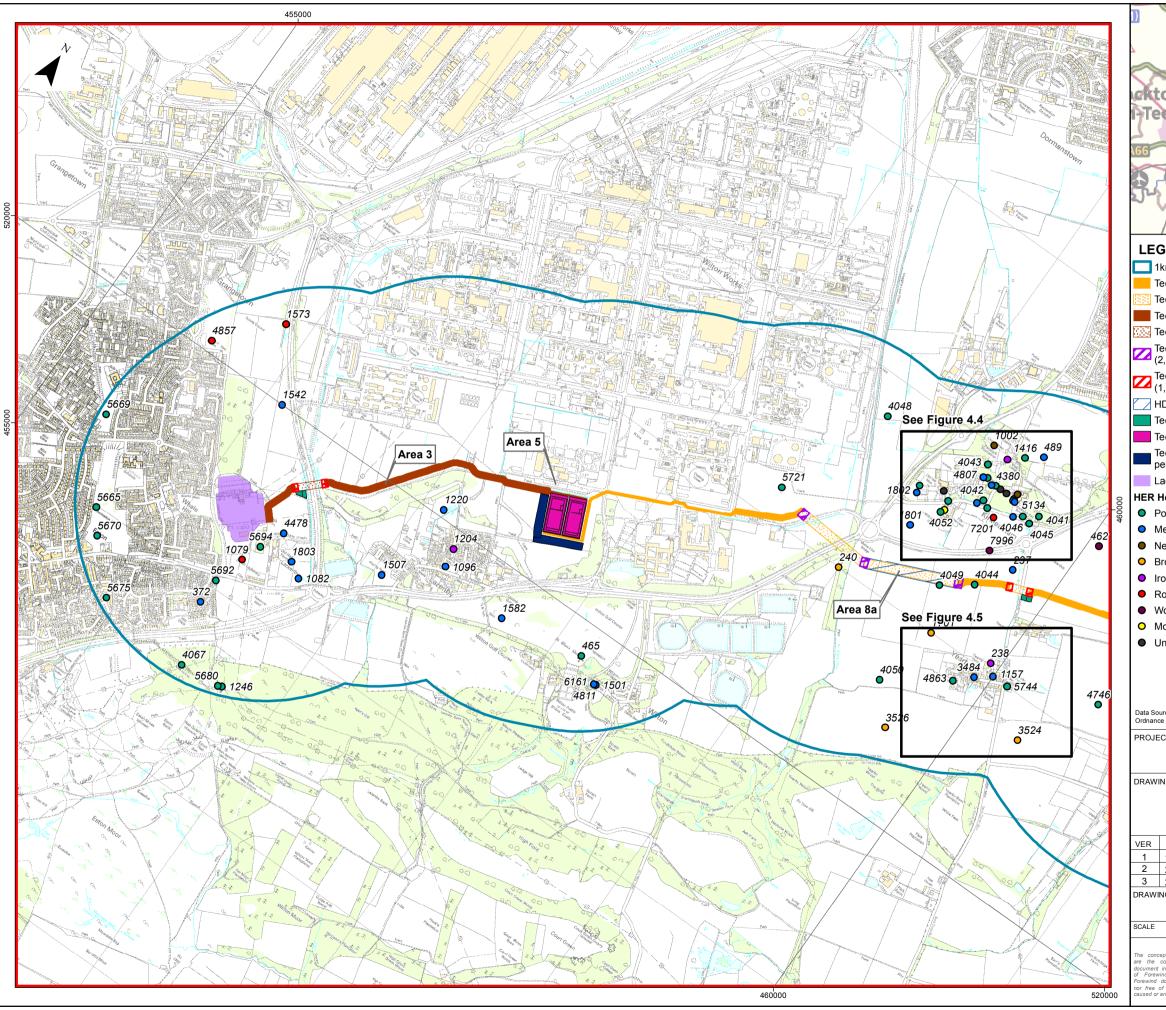


- Identify non-designated heritage assets within the study area;
- Identify designated heritage assets including scheduled monuments, listed buildings, registered parks and gardens and conservation areas within the study area;
- Identify areas with the potential to contain previously unrecorded archaeological or historical remains;
- Identify the location, extent and severity of modern ground disturbance and previous construction impacts;
- Establish the significance of the heritage assets identified within the study area;
- Assess the level of possible harm of the proposed development upon identified heritage assets; and
- Propose further surveys necessary to inform an impact assessment of the proposed development.











#### **LEGEND**

1km Study Area

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 (2,000m²)

Teesside A&B minor horizontal directional drill entry or exit locations (1,200m²)

HDD or open trench to be confirmed

Teesside A&B intermediate construction compound (784m²)

Teesside A&B converter stations

Teesside A&B converter stations construction compounds (10,000m² per project)

Lackenby 400kV substation

#### **HER Heritage Assets**

Post Medieval

Medieval

Neolithic

O Bronze Age

Iron Age

Roman

World War II

O Modern

Unknown

Kilometres

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

PROJECT TITLE

#### **DOGGER BANK TEESSIDE A & B**

DRAWING TITLE

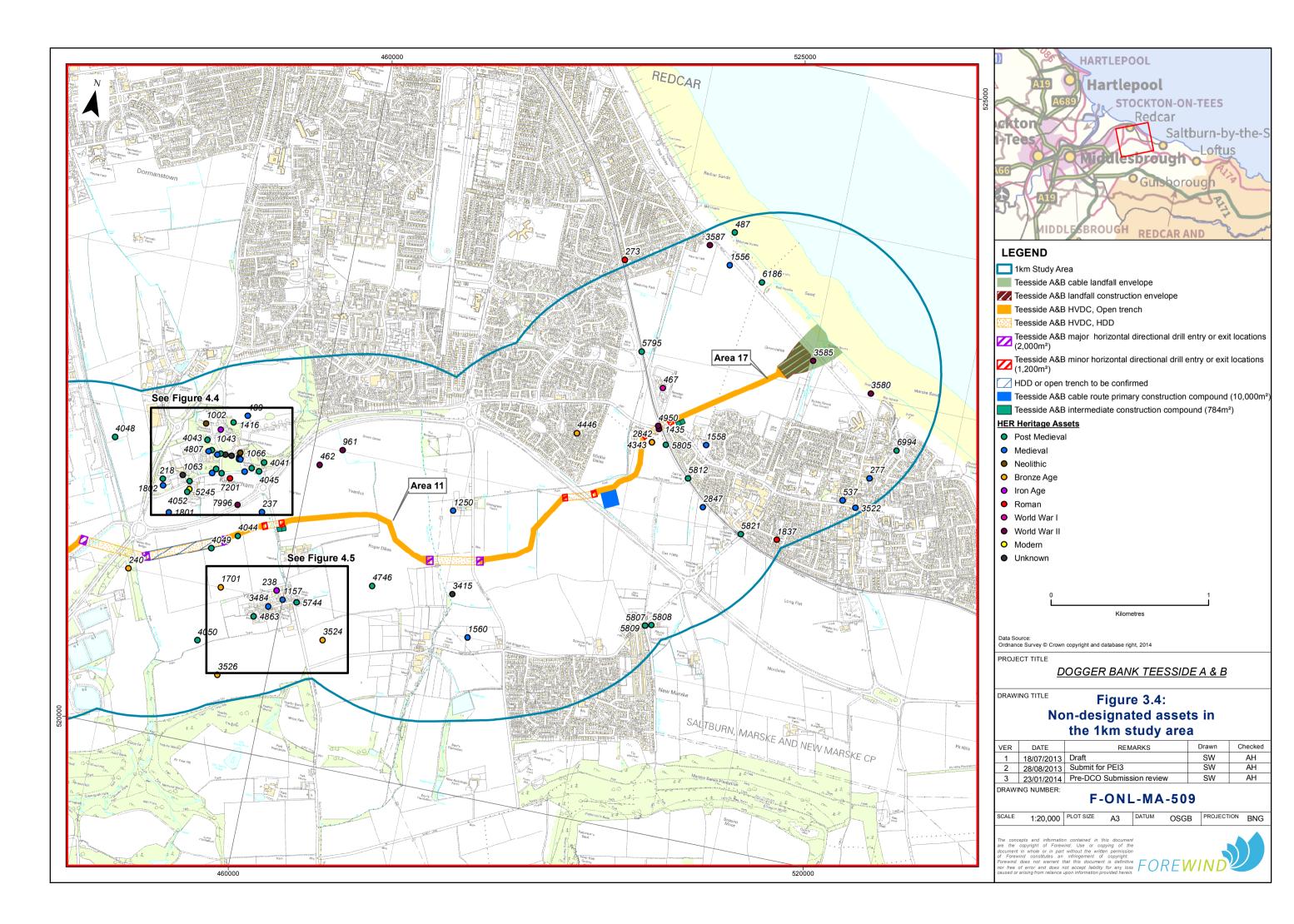
### Figure 3.3: Non-designated assets in the 1km study area

VER	DATE	REMARKS	Drawn	Checked
1	18/07/2013	Draft	SW	AH
2	28/08/2013	Submit for PEI3	SW	AH
3	23/01/2014	Pre-DCO Submission review	SW	AH

F-ONL-MA-508

SCALE 1:20,000 PLOT SIZE A3 DATUM OSGB PROJECTION BNG







## **Assessment of impacts - methodology**

#### **Definition of impacts**

- 3.2.4 The term impact is used to refer to changes or perturbations arising from the proposed development e.g. loss of heritage asset or changes affecting an asset's setting. Where relevant, impacts will be considered on the basis of their magnitude, duration and reversibility.
- 3.2.5 For the purpose of this assessment an indirect impact is defined as an impact to the setting of a heritage asset. A direct impact is defined as a change to an asset's physical form.

#### **Receptor importance**

- 3.2.6 For the purposes of this impact assessment, the term importance is used to describe the value or weight given to a heritage asset and is intended to have the same meaning as the definition of 'significance' (for heritage policy) in Annex 2 of the NPPF:
  - "Significance is the value of a heritage asset to this and future generations because of its heritage interest. That interest may be archaeological, architectural, artistic or historic. Significance derives not only from a heritage asset's physical presence, but also from its setting."
- 3.2.7 The importance of heritage assets and magnitude of effect is determined by professional judgement, guided by statutory and non-statutory designations, national and local policies, and archaeological research agendas.
- 3.2.8 Paragraph 132 of the NPPF recognises that heritage assets with the highest level of significance comprise Scheduled Monuments, Registered Battlefields, Grade I and II\* listed buildings, Registered Parks and Gardens and World Heritage Sites. For the EIA process, importance levels are applied on a relative scale and are not an absolute statement of heritage significance.
- 3.2.9 For the purposes of this impact assessment the criteria for assessing the importance of heritage assets are defined in **Table 3.1**.

Table 3.1 Factors determining the importance of heritage assets

Importance	Definition
High	<ul> <li>Remains of inscribed international importance, such as World Heritage Sites;</li> <li>Grade I and Grade II* Listed Buildings;</li> <li>Grade I and Grade II* Registered Parks and Gardens;</li> <li>Scheduled Monuments;</li> <li>Registered battlefields;</li> <li>Non –designated heritage assets of archaeological interest that are demonstrably of equivalent importance to scheduled monuments.</li> </ul>
Moderate	<ul> <li>Grade II listed Buildings;</li> <li>Conservation Areas;</li> <li>Grade II Registered Parks;</li> <li>Sites of high archaeological resource value as identified through consultation; and;</li> </ul>



Importance	Definition
	<ul> <li>Historic Townscapes with historic integrity in that the assets that constitute their make-up are clearly legible.</li> </ul>
Low	<ul> <li>Non-designated buildings, monuments, sites or landscapes that can be shown to have important qualities in their fabric or historical association;.</li> <li>Locally important historic or archaeological sites, sites with a local value for education or cultural appreciation and of medium archaeological resource rating;</li> <li>Parks and gardens of local interest.</li> </ul>
Negligible	<ul> <li>The Site of a findspot removed from its place and with no surviving contextual associations; and</li> <li>Assets whose values are compromised by poor preservation or survival or of contextual associations to justify inclusion into a higher grade.</li> </ul>

## Impact magnitude

3.2.10 Once a level of importance has been assigned, the magnitude of change is measured. The magnitude of change is based on the level of potential impact resulting from the proposed development. The magnitude of effects is defined in **Table 3.2**.

Table 3.2 Factors for measuring magnitude of change

Magnitude of change	Definition
High	The significance of the asset is totally altered or destroyed. Comprehensive change to setting affecting significance, resulting in changes in our ability to understand and appreciate the resource and its historical context and setting.
Medium	The significance of the asset is affected. Changes such that the setting of the asset is noticeably different, affecting significance resulting in changes in our ability to understand and appreciate the resource and its historical context and setting.
Low	The significance of the asset is slightly affected. Changes to the setting that have a slight impact on significance resulting in changes in our ability to understand and appreciate the resource and its historical context and setting.
Minimal	Changes to the asset that hardly affect significance. Changes to the setting of an asset that have little effect on significance and no real change in our ability to understand and appreciate the resource and its historical context and setting.
No change	The development does not affect the significance of the asset. Changes to the setting do not affect the significance of the asset or our appreciation of it.

#### **Overall impact**

3.2.11 The significance of the impact is determined by combining the importance of the heritage asset and the magnitude of change (**Table 3.3**).



Table 3.3 Impact matrix using magnitude and importance in combination

Importance of Asset	Magnitude of Change				
	High	Medium	Low	Minimal	No Change
High	Major	Major	Moderate	Minor	Negligible
Moderate	Major	Moderate	Minor	Minor	Negligible
Low	Moderate	Minor	Minor	Minor	Negligible
Negligible	Minor	Minor	Minor	Minor	Negligible

3.2.12 Measures to mitigate impacts would normally consist of design adjustments to allow important heritage assets to be protected and retained where possible, or where this is not feasible, investigation and recording before and/ or during development. The residual impact reflects the success rating for the recommended mitigation strategy. The residual impact is outlined in **Table 3.4**.

Table 3.4 Terminology for the definition of the impact

Impact	Definition
Major beneficial	Positive effect that would be an important consideration at a national level.
Moderate beneficial	Positive effect that would be an important consideration at a regional or county level.
Minor beneficial	Positive effect that would be a relevant consideration in a local context.
Neutral	Residual effect that is nil, imperceptible and not significant.
Minor adverse	Negative effect that would be a relevant consideration in a local context.
Moderate adverse	Negative effect that would be an important consideration at a regional or county level.
Major adverse	Negative effect that would be an important consideration at a national level.



# 4 Existing Environment

#### 4.1 Introduction

- 4.1.1 This section describes the existing environment in relation to cultural heritage. The section summarises the detailed baseline, which is presented in full within **Appendix 27A**. The numbers in parentheses accompanying an asset description are identifiers assigned by either English Heritage (for designated assets) or the Historic Environment Record (for undesignated assets).
- 4.1.2 There are no World Heritage Sites within the 5km study area.
- 4.1.3 A total of 22 Scheduled Monuments and 294 listed buildings have been identified within the 5km study area (**Figure 3.1**). The listed buildings comprise 11 Grade I, 21 Grade II\* and 262 Grade II. The locations of Scheduled Monuments and Grade I and Grade II\* listed buildings, which are assessed to be of high importance (based upon criteria within **Table 3.1**) is shown on **Figure 3.1**.
- 4.1.4 There are also eight Conservation Areas, one Grade II Registered Park and Garden and the Eston Hills which is designated as a Historic Landscape. These assets are assessed to be of moderate importance (based upon criteria within **Table 3.1**), and are shown on **Figure 4.1**, **Figure 4.2** and **Figure 4.3**.
- 4.1.5 There are 105 non-designated assets, including findspots, known archaeological areas and sites of former structures, which have been identified within the 1km study area. In addition, 2 locally listed buildings are also present. The locations of non-designated heritage assets are shown on **Figure 3.3**, **Figure 3.4**, **Figure 4.4** and **Figure 4.5**.

