Proposed Wind Turbine at East Close Farm Sedgefield, County Durham

Cultural Heritage Assessment



Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9LN

www.solsticeheritage.co.uk



Proposed Wind Turbine at East Close Farm, Sedgefield

Cultural Heritage Assessment

Prepared for: GfW Renewables

4-6 Market Street

Alnwick

Northumberland

NE66 1TL

Prepared by: Jim Brightman BA (Hons), MLitt, MIfA

Solstice Heritage

Crabtree Hall Business Centre

Little Holtby Northallerton North Yorkshire

DL7 9LN

Project Ref: SOL1213-20

Report Ref: REP1314-1

Dates of Fieldwork: March-April 2013

Date of Report: April 2013



©Solstice Heritage 2013

ACKNOWLEDGEMENTS

Solstice Heritage would like to thank GFW Renewables for commissioning this study, in particular Victoria Lancaster and Joe Ridgeon, who have been the principal contacts for the East Close Farm work. Solstice would also like to thank Nick Allin and Nick Crouch of JBA Consulting who undertook the photomontages accompanying this assessment. Thanks are also extended to the various repositories of information consulted for this assessment, especially to Peter Rowe and Lee Macfarlane of the Archaeology Section at Durham County Council.



CONTENTS

		Summary	
1.	Intro	duction	
1.	.1	Project Background	
1.	.2	Site Location	2
	.3	Aims of the Study	
2.	Policy	y and Guidance Framework	
2	.1	Legislation	3
2	.2	Policy	3
	2.2.1	National	3
	2.2.2	Local	4
2	.3	Guidance	5
	2.3.1	National	5
3.	Meth	odology and Sources	6
3	.1	Methodology	6
3	.2	Assessment of Significance	6
3	.3	Sources	7
	3.3.1	Nationally Designated Sites	7
	3.3.2	HER	7
	3.3.3	Cartographic Sources	7
	3.3.4	Aerial Photography	7
	3.3.5	Published and Unpublished Sources	7
3	.4	Chronology	7
3	.5	Assumptions and Limitations	8
3.	.6	Copyright	8
4.	Basel	ine: Sources	9
4	.1	Geology and Geomorphology	9
4	.2	Heritage Assets within Development Area	9
	4.2.1	Designated	9
	4.2.2	Non-Designated	9
4	.3	Heritage Assets in Core Study Area	9
	4.3.1	Designated	9
	4.3.2		
4	.4	Heritage Assets in Wider Study Area	10
4	.5	Cartographic Sources	10
4	.6	Aerial Photography	11
4	.7	Previous Work	11
	.8	Historic Landscape Characterisation	
4	.9	Chronological Overview	12
	4.9.1	Palaeolithic to Mesolithic	12
	4.9.2	Neolithic	12
	4.9.3	Bronze Age	12
	4.9.4	Iron Age	13
	4.9.5	Romano-British	13
	4.9.6	Anglo-Saxon	13
	4.9.7	Medieval	13
	4.9.8	Post-medieval – Modern	
5.	Basel	ine: Site and Setting	
_	.1	Site Conditions	
5.	.2	Setting Study	
	5.2.1	Methodology – Assessing Significance and Contribution	15



5.2	2.2 Methodology – Practical Assessment	16
5.2	2.3 Setting Assessment	
6. As	sessment of Direct Effects	20
6.1	Statement of Potential	20
6.2	Statement of Potential Effects	20
7. As	sessment of Indirect Effects	21
7.1	Statement of Potential Effects	21
7.2	Cumulative Effects	21
8. So	urces	22
8.1	Bibliography	22
8.2	Websites	23
Append	dix 1 – Figures	24
	dix 2 – Photomontages from Selected Heritage Assets	
Append	dix 3 – Gazetteer	40



LIST OF FIGURES

Fig. 1 Location of Site	25
Fig. 2 Location of heritage assets discussed	26
Fig. 3 Speed's Pictorial Map of County Durham 1610	27
Fig. 4 1st Edition (Old Series) Ordnance Survey Map 1857	28
Fig. 5 Archaeological features plotted from aerial photography	29
Fig. 6 Location of designated heritage assets in relation to ZTV	30
LIST OF TABLES	
Table 1 Legislation relating to cultural heritage in planning	3
Table 2 Key passages of NPPF in reference to cultural heritage	3
Table 3 Key passages of Sedgefield Borough Local Plan in reference to cultural heritage	4
Table 4 National guidance documentation consulted	5
Table 5 Criteria for assessment of significance	6
Table 6 Previous archaeological interventions within 2km of proposed turbine	11
Table 7 Additional criteria for assessment of change to setting	15
Table 8 Assessment of potential effect of the proposed development on setting of heritage assets	18
Table 9 Heritage Assets within the study area	40



EXECUTIVE SUMMARY

A cultural heritage assessment has been undertaken by Solstice Heritage on behalf of GFW Renewables in order to assess the potential effects of a single wind turbine at East Close Farm, Sedgefield, County Durham, on the cultural heritage resource of the surrounding area. The proposed development site is situated on agricultural land at NZ 38302 27934 at an altitude of c.90m OD. Following advice from Durham County Council the indirect effects of the proposed turbine (effects on setting) have been assessed in relation to Scheduled Monuments and Grade I and II* Listed Buildings where they are within 5km of the proposed turbine site and fall within the Zone of Theoretical Visibility (ZTV) of the turbine, and Grade II Listed Buildings within 2km.

There are no recorded heritage assets, whether designated or non-designated, on the proposed turbine site, and an assessment of historic mapping and aerial photography has not revealed any previously unknown heritage assets, though it did illustrate that adjacent land contains earthwork remains of post-medieval ridge and furrow agriculture. The wider landscape hosts few sites of significance, with the majority of known heritage assets relating to medieval and post-medieval agriculture and settlement. Given this, it is considered that the potential for the site to host previously unknown heritage assets of significance is low. Should the site host previously unknown heritage assets, then there will be an adverse effect on such assets in any areas where they are truncated by groundworks. Given the nature of the development, the footprint of groundworks will be minimal and, in accordance with the opinion of English Heritage, "flexibility in the siting...provides opportunities to avoid damage" (EH 2005, 7). Overall, it is considered that the potential direct effect of the proposed development is low to negligible.

An assessment of potential indirect effects (effect on setting) was undertaken to accompany and augment an existing Landscape Visual Appraisal (Southern Green 2013). Within the ZTV of the proposed turbine there were three categories of site: Scheduled Monuments and Listed Buildings relating to the medieval and post-medieval agricultural practices of the immediate area, a cluster of post-medieval Listed Buildings within and to the west of Sedgefield, and a group of Grade II* Listed Buildings within the grounds of Wynyard Park to the east. Additional photomontage work was undertaken by JBA Consulting to accompany this assessment and this has illustrated that there will be no visual or setting effect for most of the heritage assets considered. There are unobstructed views to the proposed turbine site from the deserted medieval village at Layton, the ruined church of St Thomas a Becket at Grindon and the Green Hill Farm farmhouse and barn. In all these cases the proposed turbine will be a minor component of the view and partially masked by the proximity of existing, and visually dominant, electricity pylons. It is considered that the proposed turbine will have no effect on the other aspects of the setting of any heritage assets: environmental factors or the ability to access and appreciate certain monuments within a coherent group. Overall, therefore, it is considered that there will be no adverse effect on the setting of heritage assets, or the contribution that setting makes to their significance, as a result of the proposed development.

Given the considered low potential of the site to host previously unknown archaeological remains, it is considered that the information submitted as part of this assessment is sufficient and proportionate to satisfy the requirements of paragraph 128 of NPPF without the need for additional field evaluation prior to determination.



1. INTRODUCTION

1.1 PROJECT BACKGROUND

This report has been commissioned by GFW Renewables to accompany a planning application for the erection of a single wind turbine, measuring 60m to hub and 86.45m to tip, on land south-east of East Close Farm, Sedgefield, County Durham. The purpose of this cultural heritage desk-based assessment (CHA) is to provide baseline information on the cultural heritage resource on the proposed development site and surrounding area and assess any potential effects of the proposed development on that resource.

This assessment has been undertaken following previous Landscape Visual Appraisal which included an assessment of designated heritage assets and heritage-based landscape designations within the immediate vicinity of the proposed development site (Southern Green 2013). A further series of photomontages have been prepared to accompany this CHA, which have been discussed below and are included as Appendix 2.

1.2 **SITE LOCATION**

The proposed turbine location is centred at NZ 38302 27934 c.200m south of East Close Farm and c. 2.8km east-south-east of the centre of Sedgefield, at an altitude of c.90m OD.

In relation to the consultation of lists of both designated and non-designated heritage assets the study area for the CHA is divided into a core study area and a wider study area in line with advice from Durham County Council. The core study area is defined as a circle of radius 2km and the wider study area a circle of radius 5km both centred on the proposed turbine site.

1.3 AIMS OF THE STUDY

The aims of the study are:

- To assess the known cultural heritage resource within the proposed development area and the wider study area
- To assess the potential effects of the proposed development upon the known and potential cultural heritage resource
- Make recommendations based upon this assessment as to any potential requirement for evaluation and/or mitigation and off-setting which may be required.



2. POLICY AND GUIDANCE FRAMEWORK

2.1 LEGISLATION

National legislation which applies to the consideration of cultural heritage within development and the wider planning process is set out in Table 1 below.

Table 1 Legislation relating to cultural heritage in planning		
Title	Key Points	
Ancient Monuments and	Scheduled Monuments, as defined under the Ancient	
Archaeological Areas Act 1979	Monuments and Archaeological Areas Act (1979), are	
(amended by the National Heritage	sites which have been selected by a set of non-statutory	
Act 1983 and 2002)	criteria to be of national significance. Where scheduled	
	sites are affected by development proposals there is a presumption in favour of their physical preservation. Any works, other than activities receiving class consent under The Ancient Monuments (Class Consents) Order 1981, as amended by The Ancient Monuments (Class Consents) Order 1984, which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering-up a Scheduled Monument require consent from the Secretary of State for the Department of Culture, Media and Sport.	
Planning (Listed Building and	Buildings of national, regional or local historical and	
Conservation Areas) Act 1990	architectural importance are protected under the	
	Planning (Listed Buildings and Conservation Areas) Act	
	1990. Buildings designated as 'Listed' are afforded	
	protection from physical alteration or effects on their	
	historical setting.	
Hedgerows Regulations 1997	The Hedgerow Regulations (1997) include criteria by	
	which hedgerows can be regarded as historically	
	important (Schedule 1 Part III).	

2.2 Policy

2.2.1 NATIONAL

The principal instrument of national planning policy within England is the National Planning Policy Framework (NPPF) (CLG 2012) which outlines the following in relation to cultural heritage within planning and development:

Table 2 Key passages of NPPF in reference to cultural heritage		
Paragraph	Key Points	
7	Contributing to protecting and enhancing the historic environment is specifically noted as being a part of what constitutes 'sustainable development' – the "golden thread" which, when met, can trigger presumption in favour.	
17	A core planning principle is to "conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for the contribution to the quality of life of this and future generations".	
128	During the determination of applications "local planning authorities should require an applicant to describe the significance of any heritage assets affected, including	



	any contribution made by their setting". This information should be proportionate to the significance of the asset and only enough to "understand the potential impact of the proposal on their significance". The normal minimum level is expected to be a desk-based assessment of proportional size "and, where necessary, a field evaluation".
129	Paragraph 129 identifies that Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.
132	It is noted that significance – the principal measure of inherent overall heritage worth – can be harmed or lost through development within its setting. Heritage assets are an irreplaceable resource and any adverse effects require "clear and convincing justification" relative to the significance of the asset in question.
135	At paragraph 135 it states that the effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.
139	At paragraph 139 it states that non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.
141	In paragraph 141 amongst other matters it states that planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

2.2.2 LOCAL

Under planning law, the determination of an application must be made, in the first instance, with reference to the policies of the local development plan. For the proposed development this is represented by saved policies from the Sedgefield Borough Local Plan (1996) until they are superseded by the County Durham Plan, currently in consultation. Within the Sedgefield Borough Local Plan the following are key policies with reference to cultural heritage and given the nature of the proposed development:

Table 3 Key passages of Sedgefield Borough Local Plan in reference to cultural heritage				
Policy	Text			
 "The Council will seek to preserve or enhance the character or appearance of the borough's Conservation Areas by: Not normally allowing development proposals which would detract from the character or appearance of the Conservation Area or its settings; Not normally allowing the demolition of buildings and structures which contribute to the Area's character. Approval of the details of redevelopment of the sites of buildings and structures which contribute to the Area's character will have to be obtained prior to consent being granted for the demolition; 				
 Considering outline planning applications when supported by sufficiently 				



- detailed drawings to demonstrate the impact of the proposal on the Conservation Area;
- Normally protecting trees, hedgerows, other semi-natural habitats, landscape features, views and open spaces, including village greens, which contribute to the character or appearance of the area and its setting;
- Normally granting planning permission for the construction, repair or alteration of any building, structure, road or footpath only in materials of a type and colour, and where appropriate with similar architectural details, to reflect the character of the area; and
- Not normally granting planning permission for the erection of temporary buildings" (Sedgefield Borough Council 1996, 20).

2.3 GUIDANCE

2.3.1 NATIONAL

During the assessment and preparation of this document, the following guidance documents have been referred to, where relevant:

Table 4 National guidance documentation consulted			
Document	Key Points		
PPS5 Practice Guide (CLG/DCMS/EH 2010)	Until the publication of bespoke and endorsed guidance for the implementation of the policies within NPPF, English Heritage have advised that the Practice Guide released to accompany Planning Policy Statement 5 (PPS5) in 2010 should be considered extant and applicable as many of the processes outlined relate to similar policies within NPPF.		
Conservation Principles, Policies and Guidance (EH 2008)	This document sets out the guiding principles of conservation as seen by English Heritage and also provides a terminology for assessment of significance upon which much that has followed is based.		
Wind Energy and the Historic Environment (EH 2005)	This document represents a statement of English Heritage's position on the potential effects of wind energy development in relation to heritage assets and the historic environment, and seeks to address some of the conflicts between implementing sustainable renewable development and conserving archaeological sites and historic buildings.		
The Setting of Heritage Assets (EH 2011)	This document represents the latest statement by English Heritage as to best practice for the assessment of potential effects of development upon the setting of heritage assets. It provides a loose framework for this assessment, and until such time as specific guidance is released on the application of NPPF, this document is normally held to be industry best practice. It advocates a staged process of assessment outlined in the appropriate section below.		
Standard and Guidance for Historic Environment Desk-Based Assessment (IfA 2012)	This document represents non-statutory industry best practice as set out by the Institute for Archaeologists. This assessment has been undertaken to these standards, as subscribed to by Solstice Heritage.		



3. METHODOLOGY AND SOURCES

3.1 METHODOLOGY

The following tasks were undertaken as part of this assessment:

- Consultation of local authority Historic Environment Record and local archives
- Compilation of all appropriate desk-based and online resources including National Heritage
 List for England
- Creation of a bespoke geographical information system (GIS) to allow for the storage and analysis of all data
- Site visit to establish ground conditions and assessment of potential effects on setting of specific designated heritage assets within the wider study area
- Synthesis of sources consulted and preparation of an assessment of known and potential direct and indirect effects (this document).

3.2 ASSESSMENT OF SIGNIFICANCE

Significance can be defined using a number of criteria derived from varied sources, all of which can contribute useful factors to the process. Where assessment of significance is necessary, particularly in determining potential effects of the development, the following criteria have been adopted in part or in whole, depending on what can best articulate the nature of the heritage asset being described:

Table 5 Criteria for assessment of significance			
Source	Significance Criteria		
Conservation Principles,	This document highlights four 'values' contributing to significance:		
Policies and Guidance	Evidential		
(English Heritage 2008)	Historic		
	Aesthetic		
	Communal		
PPS5 Practice Guide	Within the now-cancelled PPS5 and the still-extant Practice Guide,		
(CLG/DCMS/English	the assessment of significance is based upon four 'interests' and		
Heritage 2010)	their relative 'importance':		
	Archaeological		
	Architectural		
	Artistic		
	• Historic		
Ancient Monuments and	This act gives guidance on the criteria considered during the		
Archaeological Areas Act 1979	decision to provide designated protection to a monument through scheduling. The criteria are:		
	Period or category		
	Rarity		
	Documentation (either contemporary written records or		
	records of previous investigations)		
	Group value		
	Survival/condition		
Fragility/vulnerability			
	Diversity (importance of individual attributes of a site)		
	Potential		



3.3 **SOURCES**

3.3.1 NATIONALLY DESIGNATED SITES

The National Heritage List was consulted to allow an assessment of designated heritage assets, including:

- Scheduled Monuments
- Listed Buildings
- Registered Parks and Gardens
- Registered Battlefields
- Protected Wreck Sites
- Conservation Areas

In line with the application response from Durham County Council this assessment considered all Scheduled Monuments and Listed Buildings of Grade I and II* within the 5km wider study area, and all designated assets of any grade within the 2km core study area. A list of these assets is reproduced in the gazetteer in Appendix 3 below.

3.3.2 HER

The Durham Historic Environment Record (DHER) was consulted for the core study area. Information relating to the immediate vicinity of the proposed turbine site relates to the assessment of potential direct effects, whereas information relating to the core study area was consulted to allow both an assessment of the general archaeological and historic character of the area, and also to feed into the assessment of setting, over and above any potential effects on designated heritage assets.

3.3.3 CARTOGRAPHIC SOURCES

Assessment of relevant mapping held in the local archives and digital mapping available online was undertaken to provide information on the archaeological potential of the proposed turbine site and its historic development.

3.3.4 AERIAL PHOTOGRAPHY

The proposed turbine site was included within a county-wide aerial photograph transcription focussing on aggregate-bearing geologies and undertaken as part of the English Heritage-funded National Mapping Programme (Hewitt *et al.* 2011). This information was obtained from the DHER and has been included in discussion below. Online digital vertical aerial imagery was also consulted (e.g. Google Earth).

3.3.5 Published and Unpublished Sources

In addition, relevant published and unpublished sources were consulted, relating both to specific sites of interest, and also to the general archaeological and historic character of the wider study area. Unpublished reports of previous archaeological interventions (grey literature) were consulted both online and in the DHER.

3.4 CHRONOLOGY

Where chronological and archaeological periods are referred to in the text, the relevant date ranges are broadly defined as follows:

Palaeolithic (Old Stone Age): 1 million – 12,000 BP (Before present)



Mesolithic (Middle Stone Age): 10000 – 4000 BC
 Neolithic (New Stone Age): 4000 – 2400 BC

Bronze Age: 2400 – 700 BC
 Iron Age: 700 BC – AD 43

• Roman/Romano-British: AD 43 – 410

• Anglo-Saxon/Anglo-Scandinavian: AD 410 – 1066

Medieval: AD 1066 – 1485
 Post-medieval: AD 1485 – 1750
 Industrial: AD 1750 – 1900
 Modern: AD 1900 – Present

3.5 ASSUMPTIONS AND LIMITATIONS

Data and information obtained and consulted in the compilation of this report has been derived from a number of secondary sources. Where it has not been practicable to verify the accuracy of secondary information, its accuracy has been assumed in good faith. The information accessed from the County Durham HER and national lists of designated heritage assets represents a record of known assets and their discovery and further investigation. Such information is not complete and does not preclude the future discovery of additional assets and the amendment of information about known assets which may affect their significance and/or sensitivity to development effects. All statements and opinions arising from the works undertaken are provided in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

3.6 COPYRIGHT

Solstice Heritage will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).



4. BASELINE: SOURCES

4.1 GEOLOGY AND GEOMORPHOLOGY

The proposed turbine site lies within a gently undulating landscape defined by the superficial geological coverage of Devensian glaciofluvial sands and gravels with areas of heavy glacial till. This superficial capping lies above interbedded bedrock formations of Magnesian Limestone and Permian Mudstone (BGS2013).

Within the broader river valleys of County Durham the glaciofluvial sand and gravel terraces can be seen as "highly sensitive areas of archaeological interest" (Hewitt *et al.* 2011, 204), though whilst the archaeological potential of fertile and free-draining geologies should be noted, the local topography around the proposed turbine site means it cannot be equated to the truly sensitive landscapes of, for example, the middle Wear Valley. The undulating landscape defined by a glacial till geomorphology typically hosts heavier soils, and the known pre-industrial heritage assets within the wider study area (predominantly earthwork remains of medieval settlement and agriculture) are typical of this landscape.

4.2 HERITAGE ASSETS WITHIN DEVELOPMENT AREA (FIG. 2)

4.2.1 DESIGNATED

There are no designated heritage assets within the immediate vicinity of the proposed turbine site.

4.2.2 Non-Designated

There are no known non-designated heritage assets with the footprint of the proposed turbine. The field immediately to the north is known from aerial photography to contain the earthwork remains of post-medieval narrow ridge and furrow cultivation, though it was observed during the site walkover that this is ephemeral and difficult to discern.

4.3 HERITAGE ASSETS IN CORE STUDY AREA (FIG. 2)

4.3.1 DESIGNATED

Within the core study area there is one Scheduled Monument and three Grade II Listed Buildings. The Scheduled Monument is the extant earthwork remains of the deserted medieval village (DMV) of Layton, which represents the closest significant archaeological site to the proposed turbine site, though it is still over 1km to the south-west. The Grade II Listed Oldacres Hall lies 1.1km to the northeast of the proposed turbine and is an 18th century structure with associated earthworks that most likely represent manorial holdings. Preliminary assessment of effects on setting has identified that the position of the Listed hall is now a modern farm building and it is likely that the hall is no longer extant. The final Listed Buildings within the core study area are the farmhouse and associated barn at Green Hill Farm 1.4km to the north-west. Both buildings are late 18th century brick structures and Listed as examples of local vernacular architecture.

4.3.2 Non-Designated

Within the core study area there are 14 heritage assets or sites recorded in the DHER and a further 2 in the Tees Historic Environment Record (THER) and, with one exception, these sites date to the medieval period or later. The sole earlier site is a potential Iron Age enclosure identified on aerial photography at Oldacres Hall Farm 1km to the north-east of the proposed turbine. This site, however,



has not been confirmed through excavation and it is noted within the DHER that it is likely that this is a duplicate record misidentifying the medieval to post-medieval earthworks associated with Oldacres Hall.

Of the remaining non-designated sites, 8 are records of medieval or later agricultural remains, principally ridge and furrow identified from aerial photography or through the fieldwork accompanying the Bewley Cowpen to Bishop Auckland gas pipeline (see below). Three records refer to either deserted or shrunken medieval villages at Layton (Scheduled and noted above), Butterwick and Oldacres, though the identification of the Oldacres earthworks as a true DMV is not certain. The remaining non-designated sites include records of the three post-medieval to modern Listed Buildings noted above, and a World War II roadblock associated with the railway track close to the Wynyard Park estate.

4.4 HERITAGE ASSETS IN WIDER STUDY AREA (FIG. 2)

Within the wider study area (and beyond the core study area) there is one Scheduled Monument, the Church of St Thomas a Becket at Grindon, 2.9km south-east of the proposed turbine site, which is also a Grade I Listed Building. The site now comprises the ruinous fabric of a probable 12th-13th century chapel.

In addition to the Scheduled church, there is 1 Grade I Listed Building and 5 Grade II* Listed Buildings within the wider study area, defined in two clusters. The Grade I Listed Church of St Edmund is one of three Listed Buildings in and around Sedgefield 2.8-3.8km to the west of the proposed turbine site. It is a 13th century foundation, indicating the growing importance of Sedgefield during the medieval period, and incorporates a 15th century tower and some internal fittings of note. As well as St Edmund's Church, there is the Sedgefield Magistrate's Court House and the Gothick Gatehouse associated with Hardwick Hall, both Grade II* Listed and post-medieval in date. The second cluster of Listed Buildings lies within the grounds of Wynyard Park Estate c. 4.5km to the south-east, and comprises Wynyard Hall itself, the adjacent Lion Bridge and the Wellington Obelisk.

The Wynyard Park Estate is also afforded landscape designation protection as a Registered Park or Garden, as do the grounds of Hardwick Park to the west of Sedgefield, and Ceddesfeld Hall Gardens to the east of Sedgefield. Hardwick Park and the town of Sedgefield are also given Conservation Area status, and potential effects on these designated landscapes are also considered within the Landscape and Visual Appraisal (Southern Green 2013).

4.5 CARTOGRAPHIC SOURCES

Consultation of the historic mapping showed that whilst there are a number of early pictorial maps of the area none of these are at a sufficient scale to provide any detail of the proposed development site. For example, Speed's 1610 map of County Durham (Fig. 3) does not provide detailed information about the proposed turbine site, but does show the now-deserted village of Layton and a forest to the north, suggesting that this area may have been sparsely settled.

The 1st edition Ordnance Survey (Old Series) (Fig. 4) is probably the most informative historic mapping in relation to the proposed turbine, as it shows the field boundaries are largely unchanged to the present day, though more have been removed in modern times to create larger single fields for modern agricultural practices. This cartographic evidence indicates the immediate land around the proposed turbine has been in agricultural use since the early 19th century, and probably much earlier. There is no suggestion on any of the mapping consulted that there are former structures or potential



archaeological features within the proposed turbine site. Additional Ordnance Survey mapping up to the present day was consulted, but as there was no additional information they are not reproduced in this report.

4.6 AERIAL PHOTOGRAPHY

Substantial parts of the aggregate-bearing geologies of County Durham, including the immediate area around the proposed turbine site had archaeological features mapped as part of the English Heritage-funded National Mapping Programme (NMP) (Hewitt *et al.* 2011). The resultant mapping for the wider study area is reproduced as Fig. 5 below and shows that the majority of archaeological sites visible from aerial photography are medieval to post-medieval ridge and furrow and the upstanding earthwork remains already discussed at Layton and Oldacres Hall. There are no archaeological remains visible within the footprint of the proposed turbine, though the field immediately to the north is noted as having surviving narrow ridge and furrow, probably of post-medieval date. This was noted to be ephemeral and difficult to discern during the site walkover.

An assessment of the currently available digital vertical aerial photography on Google Earth did not show any additional unknown features within the immediate vicinity of the proposed turbine.

4.7 Previous Work

Within the core study area, there have been three previous archaeological assessments or interventions:

Table 6 P	Table 6 Previous archaeological interventions within 2km of proposed turbine		
Code	Intervention	Information where relevant	
5642	Sedgefield Parish Survey 1995	This work is an assessment of the condition and extent of ridge and furrow within the Sedgefield Parish undertaken as a student project, though it does not examine the immediate area around the proposed turbine (Clifford-Brown 1995).	
5858	Transco Gas Pipeline Heritage Assessment	Assessment of the archaeological potential of a pipeline corridor stretching across the wider study area and including fields immediately to the north of East Close Farm, c. 500m from the proposed turbine site. The assessment includes desk-based sources, geophysical (magnetometer) survey and fieldwalking. A total of 12km of the pipeline was fieldwalked only recovering 8 individual finds, of which 5 were prehistoric lithics clustered at the east end of the pipeline (Price and Brooks 1996, 5). Geophysical survey of 11.6km of the pipeline revealed fragmentary ridge and furrow of medieval and post-medieval date and a single potentially earlier feature, c. 5km to the east of the proposed turbine site (Price and Brooks 1996, 6).	
5007	Cowpen Bewley to Bishop Auckland gas pipeline Watching Brief	Following the assessment described above a watching brief was maintained on groundworks for the gas pipeline. Although conditions for visibility of archaeological features were poor for a number of reasons, there was nevertheless an exceptionally low rate of feature identification with only 15 features noted through the 28km of monitored topsoil stripping	



	\top	(Timms 1997, 10).
- 1		(11111111111111111111111111111111111111

4.8 HISTORIC LANDSCAPE CHARACTERISATION

The Durham Historic Landscape Characterisation (HLC) data characterises the proposed turbine site as "Enclosed Land, Enclosed Land (modern), Modern Field Amalgamation". The field immediately to the north, however, is characterised as part of the East Close House post-medieval farmstead, presumably due to the presence of extant post-medieval ridge and furrow cultivation.

4.9 CHRONOLOGICAL OVERVIEW

4.9.1 PALAEOLITHIC TO MESOLITHIC

Ice Age and earlier (Palaeolithic) finds and sites are extremely rare across northern Britain, due in part to the ice sheets which extended across much of the North, making substantial areas uninhabitable until much later than in parts of Southern Britain. The majority of potential late glacial finds and sites within County Durham are known from either a coastal or off-shore context, or from the southern extremes of the County around Teesdale and the Stainmore Pass in the North Pennines (e.g. Jacobi 1976; Coggins *et al.* 1989).

Following the retreat of the glaciers, the Mesolithic period, or Middle Stone Age is characterised by a recolonisation of the tundra landscape, though still as part of a mobile hunter-gatherer-fisher subsistence lifestyle. Within eastern County Durham, there is much less evidence known for the Mesolithic than either on the coast or further inland (Hewitt 2011, 33), though extensive finds of Mesolithic implements through work associated with large-scale mineral extraction suggests that such sites may exist unrecognised. There are no known finds or sites of Palaeolithic or Mesolithic origin within the study area.

4.9.2 NEOLITHIC

The Neolithic, or New Stone Age, coincided with the introduction of agriculture and sedentism as well as the emergence of a package of diverse material culture and the long-range trade networks to support this vibrant new cultural drive. The Neolithic in County Durham is perhaps best represented by the extensive monuments of the Wear Valley which, as with their counterparts in other regions, suggest the emergence of a centralised society developing complex systems of ritual and social interaction. The remains of the settlements that accompanied these monuments, as in many other parts of the country, remain elusive and evidence is sparse and scattered (Harding 1970, 191). There are no known sites dating to the Neolithic period within the study area.

4.9.3 Bronze Age

Despite a well-researched and reasonably extensive Bronze Age upland archaeology in North East England more generally, the known remains of Bronze Age occupation and activity are more scattered within the lowlands of County Durham (Hewitt *et al.* 2011, 47). As with the remains of earlier periods, it has been demonstrated that where extensive Bronze Age settlement has been identified in Northern Britain, it can often comprise dispersed post-built structures and recent examples have principally been identified where it has been possible to strip topsoil from large areas, such as at Cheviot Quarry, Northumberland (Johnson and Waddington 2008). There are no known sites dating to the Bronze Age within the study area.



4.9.4 IRON AGE

There is a growing corpus of known sites relating to the Iron Age within the North East, ranging from the hillfort sites of the Cheviots, though also including the notable upland enclosure of Eston Nab on the coast, through to lowland enclosures and land divisions recognised principally through aerial photography. Although there are no definitive Iron Age site within the study area, perhaps the best understood Iron Age site in the county lies just over 5km south-south-east at Thorpe Thewles. This is a relatively extensive settlement remained in use through the later Iron Age and into at least the early Romano-British period, and excavations demonstrated the potential for this previously little-understood period in the lowland areas of the North East, as well as providing significant palaeoenvironmental evidence relating to subsistence and agricultural practices at this time (Heslop 1987).

4.9.5 ROMANO-BRITISH

The North East fell under Roman occupation following the advance of Petilius Cerialis in the early AD70S, a military campaign which crushed the Brigantian hegemony over much of the Pennine belt and the North. A known Roman Road exists to the west of the study area presumably a minor, though significant, part of the Roman transport network to the east of the Pennines linking the cities further south to the frontiers across the Tyne-Solway and Clyde-Forth isthmuses.

As with many areas of Britain, the native and rural population of Roman Britain remains largely invisible given the energies previously devoted to investigating the Roman military sites of note, and also the often ephemeral remains of wood-built structures. It is notable that there are a significant number of enclosure sites known from aerial photography across County Durham which may represent Romano-British settlement, and it is also possible that, as demonstrated by the excavations at Thorpe Thewles, many of the extensive Iron Age rural settlements merely continued in use through the Roman occupation.

4.9.6 ANGLO-SAXON

As is the case with many areas of northern England, there is relatively little known about the study area, and indeed the wider region of County Durham and Teeside, for the Anglo-Saxon and Anglo-Scandinavian periods prior to the Norman Conquest (Cramp 1970, 199). This is certainly true when compared to the extensive archaeological resource for the medieval and later periods. Following a period of dramatic instability following the Roman withdrawal, County Durham ultimately became a part of the heartland of the Anglo-Saxon Kingdom of Northumbria following the union of the Kingdoms of Bernicia (originally based at Bamburgh) and Deira (originally north and east Yorkshire).

There are no known Anglo-Saxon or Anglo-Scandinavian sites within the study area, though the extensive Anglo-Saxon cemetery complex in Norton lies c.9km to the south-east, and the scale of this site is suggestive of a substantial population at the time of the early Anglo-Saxon kingdom of Northumbria. Normally, a good indication of the late Saxon settlement of an area can be gleaned from the extent of land holdings recorded in Domesday Book, but unfortunately for this area, descriptions of Northumberland, County Durham and Cumbria are largely absent from this 11th century record (Darby 1962, 419).

4.9.7 MEDIEVAL

The development of the medieval landscape around the proposed turbine site is best illustrated by the extensive ridge and furrow cultivation remains still visible on aerial photography, and dating to the medieval and post-medieval periods. The proposed turbine sites lies on the cusp of the historic



townships of Layton and Oldacres, and the medieval manorial structure which oversaw the agricultural exploitation of the land is outlined by Surtees in his *History and Anitquities of the County Palatine of Durham* (1823). Surtees describes the estate of Layton within Sedgefield Parish, noting that the local lords of 'Laton' were an ancient family tied to the Mundevilles who certainly held the estate and local land under their own name in 1370 before marrying into the Tylliol family. Through various iterations, the Tylliol name was maintained until sometime prior to the late 16th century, at which point the manor is known to be in the hands of the Conyers family until the death of the unmarried and intestate John Conyers in 1748.

The township of Oldacres, immediately to the north of the proposed turbine site was held by a free tenant, William de Oldacres, in the late 12th century, before it was acquired by the Hardwick family in the 14th century. A succession of changes of ownership of the composite parts of the township over the succeeding centuries resolved into the overall ownership of the Butler family during the post-medieval period, before the land was split between the Pace and Stourton families in the Victorian period (Page 1928, 325).

The town of Sedgefield and its surrounding dependent townships grew substantially in the medieval period, with the granting in 1312 of a Friday market and a five day festival in celebration of St Edmund the Archbishop, though a prohibition on trade on a Sunday in 1343 showed that the Friday market may have become neglected (Page 1928, 321).

One of the more significant archaeological sites in the study area is the DMV of Layton, surviving as earthworks. Depopulation of rural settlements was common during certain parts of the medieval period, and many such sites are often tied to the Black Death of the mid-14th century, though the reasons for depopulation are more complex than the ravages of disease. With Layton, a 'witness' recorded that it may have been a functioning settlement as late as the 1530s (Page 1928, 323) which suggests that its final demise may have been linked to a gradual movement of people to the growing urban centres, or possibly pressure on agricultural land as the common fields started to be made into single larger units.

4.9.8 POST-MEDIEVAL - MODERN

The post-medieval archaeology of County Durham and Teeside, and indeed the low-lying areas of the North East as a whole, is dominated by the expansion of industry, and in particular the exploitation of the natural resources. Due to the rich geology of the area, there have been significant extractive and processing industries which have left their archaeological imprint including iron ore, lead, zinc, sand, gravel, clay, limestone, sandstone, dolerite and perhaps most importantly for the region, coal (Hewitt 2011, 88). Within the study area, however, the dominant picture is of an agricultural regime which continued from the earliest times, through the common fields of the medieval period and the enclosure of the post-medieval and Industrial times, to the extensive fields of modern agricultural practices.

The other key area where the post-medieval and modern periods are represented with in the historic environment is that of buildings, both polite and vernacular. This is demonstrated within the study area by the clear comparison between the Listed farmhouses and barn structures which accompany the earthwork remains of narrow post-medieval ridge and furrow, and the grounds, gardens and buildings of the great estates of Wynyard, Hardwick and Ceddesfeld Hall.



5. BASELINE: SITE AND SETTING

5.1 SITE CONDITIONS

A site visit was undertaken on the 3rd April 2013 in semi-overcast but fair conditions. The proposed turbine site is currently a large field sown with grass. The recorded ridge and furrow remains in the pasture field immediately to the north of the proposed turbine was also examined and found to be ephemeral and difficult to discern, though it is not anticipated that the proposed turbine or associated infrastructure will impact upon the extant remains. No previously unknown archaeological features or other heritage assets were noted as part of the site walkover.

5.2 **SETTING STUDY**

5.2.1 METHODOLOGY – ASSESSING SIGNIFICANCE AND CONTRIBUTION

Assessment of setting begins with identifying the significance of a heritage asset. The varied nature of heritage assets mean that there cannot be an objective 'scoring' of significance and there will always be an element of interpretation and professional judgement within such an assessment.

As outlined in *The Setting of Heritage Assets* (English Heritage 2011) and the extant PPS5 Guidance documentation (CLG/DCMS/EH 2010), setting is defined as "the surrounding in which an asset is experienced. Its extent is not fixed and may change as the asset and it surroundings evolve. Elements of a setting may make a positive or negative contribution to the significance of an asset, may affect the ability to appreciate that significance, or may be neutral" (English Heritage 2011, 2).

Once the significance of a heritage asset is established, and the contribution that setting makes to that significance, it is possible to assess how the proposed development may change that setting, and therefore its contribution to significance. This change can also be positive, negative or neutral. Key criteria for the assessment of change to setting are given in the *PPS5 Planning Guide*, and can be linked to a number of the criteria for assessing general significance outlined in Table 4 above:

Table 7 Additional criteria for assessment of change to setting			
Criteria	Description		
View	Views are often considered the most influential factor in change to setting, and they can also be based on clear and repeatable evidence. Potential change relating to views can include intervisibility between a heritage asset and the proposed development, a proposed development interposing between two intervisible heritage assets, and the inclusion of a proposed development within a view that also incorporates one or more heritage assets.		
Environmental	Change to setting through environmental factors includes those potential		
Factors	effects often assessed as part of the Environmental Impact Assessment process such as dust, vibration or noise.		
Spatial	Buildings or archaeological sites that are in close proximity but not visible		
Associations	from each other may have a historic or aesthetic connection that amplifies the experience of the significance of each. They would be considered to be within one another's setting. Also, the setting of a heritage asset can enhance its significance whether or not it was designed to do so. This aspect of setting is closely related to the group value criteria noted above		
Public	Public appreciation of a heritage asset is an important part of how setting		



Appreciation	can contribute to significance, and public value can raise the significance of a
	heritage asset over and above its material worth or inherent archaeological
	or architectural interest. It should be noted, however, that a lack of public
	appreciation – for example through little knowledge of a site or lack of
	access – can make a negative contribution to significance; this is discussed
	more fully below.

The changing nature and mutability of setting is acknowledged in its definition, and therefore an assessment of setting can only consider its current contribution to significance. It is not appropriate to 'second-guess' future changes to the setting beyond the potential effects of a proposed development or associated mitigation and off-setting, as this would render an objective assessment meaningless. This axiom also helps resolve an apparent contradiction within the extant guidance (CLG/DCMS/EH 2010, 34) which states that both "Setting is the surroundings in which an asset is experienced" and "the contribution that setting makes to the significance does not depend on there being…an ability to… experience that setting".

With certain heritage assets, there is no requirement to access a site physically to experience it, but with the majority of archaeological sites in particular, physical access is necessary to experience them as they can be largely invisible or even completely buried. In such cases the asset has a setting, as stated in the guidance (CLG/DCMS/EH 2010), but access to a site and knowledge of its existence are prerequisites to 'experiencing' it. The resolution to this anomaly lies in the application of a second part of the definition of setting: "elements of a setting may make a positive or negative contribution to the significance of an asset". Acknowledging this, "the contribution that setting makes to the significance does not depend on there being...an ability to... experience that setting" (CLG/DCMS/EH 2010, 34), it is just that the lack of access to that asset is likely to make a negative contribution to its current setting.

5.2.2 METHODOLOGY – PRACTICAL ASSESSMENT

Preliminary assessment of any potential change to the setting of the chosen heritage assets was undertaken through production of a Zone of Theoretical Visibility (ZTV) within a GIS environment. A Digital Elevation Model (DEM) was created using Ordnance Survey 10m contour data for a 20km square area centred on the proposed development site. A multiple ZTV was then created based upon ground level, hub height and tip height viewpoints at the proposed turbine site. As it is derived from contour data alone, the ZTV produced for this assessment assumes that there are no intervening obstacles to site such as tree cover or existing buildings, though ZTV assessment incorporating potential obstacles has been undertaken for the Landscape and Visual Appraisal (Southern Green 2013).

Following preliminary desk-based analysis of the ZTV, those heritage assets where there were potential visual or other setting effects were identified and a rapid survey of these locations was undertaken to test the potential visibility to the proposed turbine site. A list of key heritage assets was supplied to JBA Consulting who undertook photomontages for these sites, and these are included in Appendix 2 below. Where photomontages are referred to by figure number, they are referred to in the form 'App 2 Fig. 2a' for example, in order to differentiate them from the running series of figures in Appendix 1. Any additional digital photography was taken with a Fujifilm S7000 DSLR.

5.2.3 SETTING ASSESSMENT

Given the methodology employed, and the specific guidance given through an application response from Durham County Council, an assessment of potential effects on setting was undertaken for all



Scheduled Monuments, Grade I Listed Buildings and Grade II* Listed Buildings within 5km, and all Grade II Listed Buildings within 2km, that fell within the ZTV of the proposed development (Fig. 6). These heritage assets, an assessment of the current contribution of setting to their significance, and potential effects of the proposed development on setting are tabulated below:



Table 8 Assessment of	potential effe	ect of the propose	ed developmen [.]	t on setting of	heritage assets

UID	Site	Current contribution of setting to significance	Potential effect of proposed development on setting					
1017321 1329821	St. Thomas a Becket's Church (Scheduled and Grade I Listed)	The contribution of current setting to the significance of the heritage asset is low to moderate – the significance of this site lies in its archaeological and historic value, but also in the aesthetic value and architectural interest of the surviving ruined fabric. The monument is on private land and current lack of access inhibits the public appreciation of the monument, therefore making a negative contribution to its significance.	Limited views to the proposed turbine from the north-west portion of the heritage asset (illustrated in App 2 Fig. 2c). Given the intervening distance and the fact that the turbine will be partially masked by existing electricity pylons, which are more visually dominant, the proposed turbine will not have a substantial effect on the existing view. Far enough removed from the proposed development to experience no adverse environmental factors.					
1019532	Deserted medieval village at Layton (Scheduled Monument)	Relatively extensive earthwork remains of a deserted medieval village in a good condition and currently under pasture. The principal contributory factors to the significance of these monuments lie in their: • evidential value/archaeological interest as potentially archaeologically rich monuments • Group importance as a coherent arrangement of earthworks with a similar function and of a similar date • The contribution of setting lies with the spatial association between this site and other deserted medieval settlements and agricultural remains in the local area, though it is only a small percentage of people who know the area and its archaeology well whose experience of the site would be augmented by this knowledge. • The monuments are on private land, however, and current lack of access or adjacent interpretation inhibits public appreciation, therefore making a negative contribution to its significance.	Views to the proposed turbine from the road to the east of the site (illustrated in App 2 Fig. 2d). Whilst clearly visible, the photomontage illustrates the existing visual dominance of the electricity pylons adjacent to the proposed turbine. Given that visual setting of the earthwork remains is not a major contributing factor to the significance of the site, and the minimal effect that the proposed turbine will have on that visual setting, it is considered that it will make a low to negligible change. Far enough removed from the proposed development to experience no adverse environmental factors. There is no existing intervisibility between earthwork sites relating to the medieval agriculture and so this will not be affected by the proposed turbine.					
1121482	Church of St Edmund, Sedgefield (Grade I Listed)	The principal contributing factors to the significance of this building are its historical value and its intrinsic architectural interest and aesthetic value. The position of the church as a spiritual and social hub of a community also means that the experiential setting and public appreciation of the monument contributes a substantial amount to its significance.	No views to and from the proposed development due to local topography and intervening obstacles (illustrated in App 2 Figs 2e-2f). Far enough removed from the proposed development to experience no adverse environmental factors. No effect on the coherence of the historic buildings within Sedgefield and the Conservation Area.					
1121492	Magistrate's Court House, Sedgefield (Grade II* Listed)	The principal contributing factors to the significance of this monument are its historic value and architectural interest. Its position within the Sedgefield Conservation Area also means that the spatial association with other monuments, and its place within a protected landscape of historic buildings, makes a positive contribution to its significance.	No views to and from the proposed development due to local topography and intervening obstacles (illustrated in App 2 Figs 2e-2f). Far enough removed from the proposed development to experience no adverse environmental factors. No effect on the coherence of the historic buildings within Sedgefield and the Conservation Area.					
1322811	Gothick Gatehouse to Hardwick Park (Grade II* Listed)	The current contribution of setting to the significance of the heritage asset is moderate to high – the building has intrinsic architectural interest and aesthetic value but can also be experienced as a component of a wider landscape – Hardwick	No views to and from the proposed development due to local topography and intervening obstacles. Far enough removed from the proposed development to experience no adverse environmental factors. The proposed development					



		Park. The coherence of this group value is an important part of the setting of the asset and makes a positive contribution to its significance.	will have no effect on the ability to experience the heritage asset as part of the coherent historic landscape of Hardwick Park.
1139221	Wynyard Hall (Grade II* Listed)	The current contribution of setting to the significance of the heritage asset is moderate to high – the building has intrinsic architectural interest and aesthetic value but can also be experienced as a component of a wider landscape – Hardwick Park. The coherence of this group value is an important part of the setting of the asset and makes a positive contribution to its significance.	No views to and from the proposed development due to local topography and intervening obstacles (illustrated in App 2 Fig. 2b). Far enough removed from the proposed development to experience no adverse environmental factors. The proposed turbine will have no effect on the ability to appreciate and experience the Wynyard Park monuments as a coherent group.
1139222	Lion Bridge to east of Wynyard Hall (Grade II* Listed)	The current contribution of setting to the significance of the heritage asset is moderate to high – the monument has intrinsic architectural interest and aesthetic value but can also be experienced as a component of a wider landscape – Wynyard Park. The coherence of this group value is an important part of the setting of the asset and makes a positive contribution to its significance.	No views to and from the proposed development due to local topography and intervening obstacles (illustrated in App 2 Fig. 2b). Far enough removed from the proposed development to experience no adverse environmental factors. The proposed turbine will have no effect on the ability to appreciate and experience the Wynyard Park monuments as a coherent group.
1329823	Wellington Obelisk near Wynyard Hall (Grade II* Listed)	The current contribution of setting to the significance of the heritage asset is moderate to high – the monument has intrinsic architectural interest and aesthetic value but can also be experienced as a component of a wider landscape – Wynyard Park. The coherence of this group value is an important part of the setting of the asset and makes a positive contribution to its significance. With this monument, it is also part of a number of intentional vistas within the overall park, and as such its visual setting also makes a positive contribution to its significance.	No views to and from the proposed development due to local topography and intervening obstacles (illustrated in App 2 Fig. 2g). Far enough removed from the proposed development to experience no adverse environmental factors. The proposed turbine will have no effect on the ability to appreciate and experience the Wynyard Park monuments as a coherent group.
1121485	Oldacres Hall (Grade II Listed)	The significance of this monument was principally in its architectural interest and historic value, though preliminary assessment has indicated that the site of the original hall is now a modern farm building. Digital vertical aerial photography suggests the old hall has been removed.	Given the likelihood that the heritage asset is no longer extant, there will be no adverse effect on its setting from the proposed turbine.
1310833 1322812	Green Hill Farm farmhouse, outbuilding and associated barn (Grade II Listed)	The significance of this building lies principally in its historic value as an example of post-medieval to modern vernacular architecture associated with the extensive agriculture in the immediate area. It also has some architectural value. The positive contribution that setting makes to the significance of this monument is principally in the spatial association of the farm group, with two Listed buildings and an outhouse in close proximity.	Views to the proposed turbine from the road to the south of the farm buildings (illustrated in App 2 Fig. 2a). Given the intervening distance and the fact that the turbine will be partially masked by existing electricity pylons, which are more visually dominant, the proposed turbine will not have a substantial effect on the existing view. Far enough removed from the proposed development to experience no adverse environmental factors, neither will the proposed turbine have any effect on the coherence of the group of farm buildings.



6. ASSESSMENT OF DIRECT EFFECTS

6.1 STATEMENT OF POTENTIAL

All data sources consulted (HER, Designated sites, cartography, aerial photography) have demonstrated there are no known heritage assets within the proposed turbine site. Within the surrounding area there are a number of archaeological features of minor interest, principally relating to medieval and post-medieval agriculture and settlement. Given the lack of evidence for known heritage assets in the immediate vicinity and the long history of arable agriculture on the site, it is considered that the potential for the site to host previously unknown heritage assets of significance is low.

6.2 STATEMENT OF POTENTIAL EFFECTS

Should the proposed development site host previously unknown heritage assets, then there will be an adverse effect on such assets in any areas where they are truncated by groundworks. Given the nature of the development, the footprint of groundworks will be minimal and, in accordance with the opinion of English Heritage, "flexibility in the siting…provides opportunities to avoid damage" (EH 2005, 7). Overall, it is considered that the potential direct effect of the proposed development is low to negligible.



7. ASSESSMENT OF INDIRECT EFFECTS

7.1 STATEMENT OF POTENTIAL EFFECTS

As is outlined above in the site-by-site assessment of potential change to setting and the contribution to significance, the constituent factors of setting can make both positive and negative contributions to the significance of a given heritage asset.

There are a number of sites in relatively close proximity to the proposed turbine (less than 2.5km) where the turbine will form a minor additional component of the view. In all cases the visual effect will be low to negligible and it is considered that there will be no adverse effect on the setting of the monuments

7.2 CUMULATIVE EFFECTS

The cumulative effects of the proposed turbine have already been considered from a landscape visual point of view within the earlier Landscape Visual Appraisal (Southern Green 2013), due in part to the presence of an existing wind farm at Butterwick c. 2.5km to the north-east, and approved applications for two further multi-turbine sites at Lamb's Hill 5km to the south-west and Red Gap Moor 5km to the east.

There is some visual overlap between the existing and proposed sites and the proposed turbine, principally in respect of the ruined church of St Thomas a Becket at Grindon, and the deserted medieval village earthworks at Layton. In both cases the additional visual effect will be from turbines at some considerable distance and will be a minor component of the view, and in the case of the church of St Thomas a Becket, the views to all but the East Close Farm turbine will be masked by local tree cover surrounding much of the monument. A full assessment of the potential cumulative effects of existing and approved wind energy applications is undertaken within the Landscape Visual Appraisal (Southern Green 2013), but it is considered that cumulative effects on the setting of heritage assets will be low to negligible.



8. **SOURCES**

8.1 BIBLIOGRAPHY

Clifford-Brown, H.J. 1995. A Preliminary Investigation of Ridge and Furrow in Sedgefield Parish, County Durham. Unpublished project report in support of Certificate in Archaeology and Local History, University of Durham.

Coggins, D., Laurie, T. and Young, R. 1989. The Late Upper Palaeolithic and Mesolithic of the Northern Pennine Dales in the Light of Recent Fieldwork. In Bonsall, C. (ed.) *The Mesolithic in Europe. Papers Presented at the Third International Symposium*. Edinburgh, John Donald Publications Ltd: 164-174.

Cramp, R.J. 1970. The Anglo-Saxon Period. In Dewdney, J.C. (ed.) *Durham County and City with Teeside*. Durham, Durham Local Executive Committee of the British Association: 199-206.

Darby, H.C. 1962. The Northern Counties. In Darby, H.C. and Maxwell, I.S. (eds) *The Domesday Geography of Northern England*. Cambridge, Cambridge University Press.

Department for Communities and Local Government (CLG). 2012. *National Planning Policy Framework*. London, The Stationery Office.

Department for Communities and Local Government (CLG), Department for Culture, Media and Sport (DCMS) and English Heritage (EH). 2010. *PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide*. London, The Stationery Office.

English Heritage (EH). 2005. Wind Energy and the Historic Environment. London, English Heritage.

English Heritage (EH). 2008. Conservation Principles, Policies and Guidance. London, English Heritage.

English Heritage (EH). 2011. The Setting of Heritage Assets. London, English Heritage.

Harding, D.W. 1970. The Prehistoric Period. In Dewdney, J.C. (ed.) *Durham County and City with Teeside*. Durham, Durham Local Executive Committee of the British Association: 191-4.

Heslop, D.H. 1987. The Excavation of an Iron Age Settlement at Thorpe Thewles, Cleveland, 1980-1982. York, Council for British Archaeology Research Report 65.

Hewitt, R., Brightman, J., Mason, D., Petts, D., Radford, S., Vyner, B. and Waddington, C. 2011. *An Archaeological Assessment of County Durham. The Aggregate-Producing Areas*. Durham and Bakewell, Durham County Council and Archaeological Research Services Ltd.

Institute for Archaeologists. 2012. *Standard and Guidance for Archaeological Desk-Based Assessments*. Reading, Institute for Archaeologists.

Jacobi, R. 1976. Britain inside and outside Mesolithic Europe. *Proceedings of the Prehistoric Society* 42: 67-84.

Johnson, B. and Waddington, C. 2008. Excavation of Prehistoric and Dark Age Settlement Remains from Cheviot Quarry, Milfield Basin, Northumberland. *Archaeological Journal* 165: 107-264.



Page, W. (ed.) 1928. *The Victoria History of the County of Durham Volume III*. London, University of London.

Price, J. and Brooks, I.P. 1996. *Cowpen Bewley to Bishop Auckland Pre-Construction Archaeological Survey*. Unpublished report prepared for British Gas Transco by Engineering Archaeological Services Ltd

Sedgefield Borough Council. 1996. *Sedgefield Borough Local Plan*. Sedgefield, Sedgefield Borough Council.

Southern Green. 2013. *East Close Farm: Proposed Wind Turbine Landscape and Visual Appraisal*. Unpublished report prepared for GFW Renewables by Southern Green.

Surtees, R. 1823. *The History and Antiquities of the County Palatine of Durham Volume 3: Stockton and Darlington Wards*. London, Mr S. Hodgson and Messrs Robinson.

Timms, S. 1997. Watching Brief. Cowpen Bewley to Bishop Auckland Gas Pipeline. Unpublished report prepared for British Gas Transco by Field Archaeology Specialists Ltd.

8.2 WEBSITES

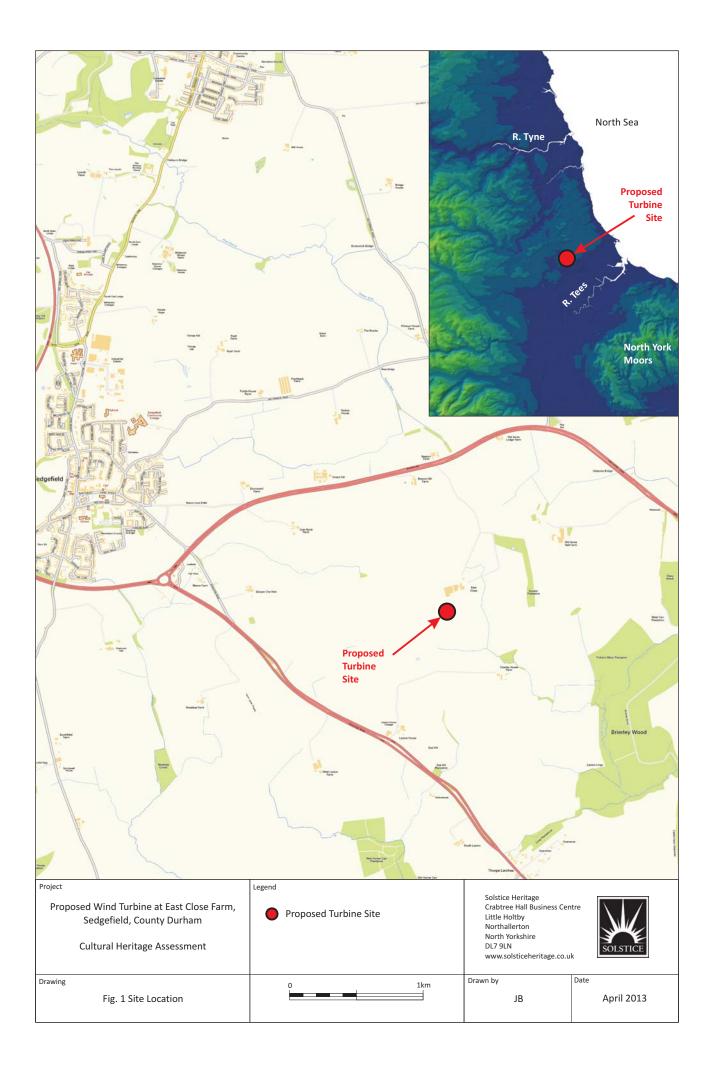
BGS (British Geological Survey). 2013. *Geology of Britain Viewer*. Online resource accessed April 2013 at: <a href="http://www.bgs.ac.uk/discoveringGeology/g

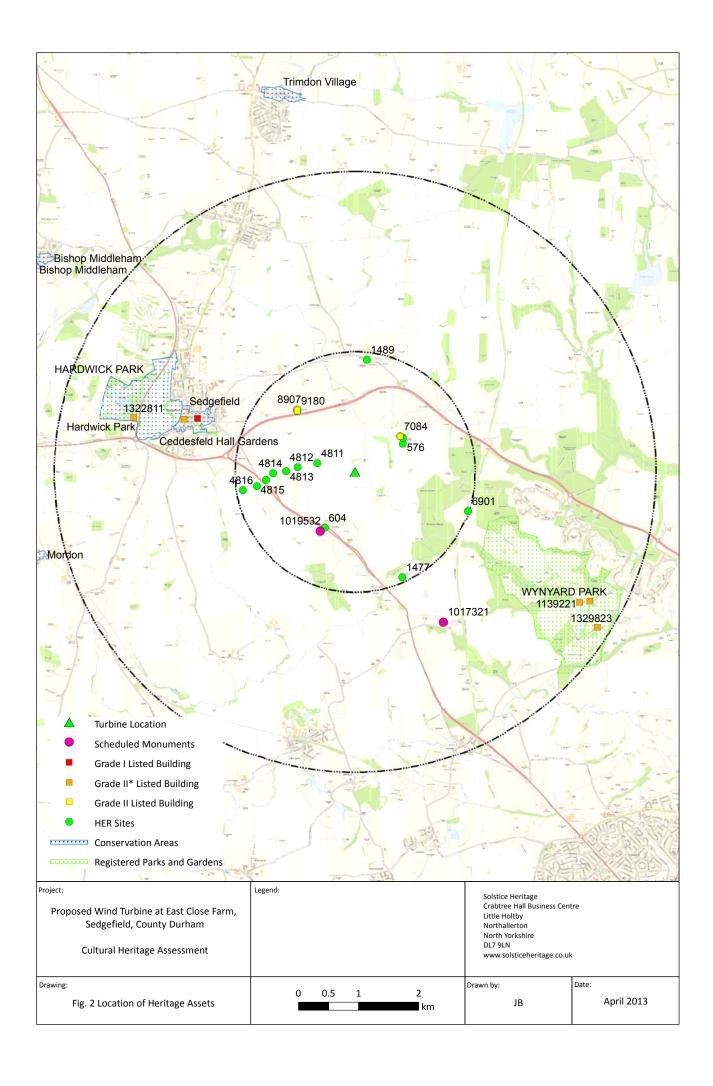
Heritage Gateway. Online resource accessed April 2013 at: http://heritagegateway.org.uk



APPENDIX 1 – FIGURES

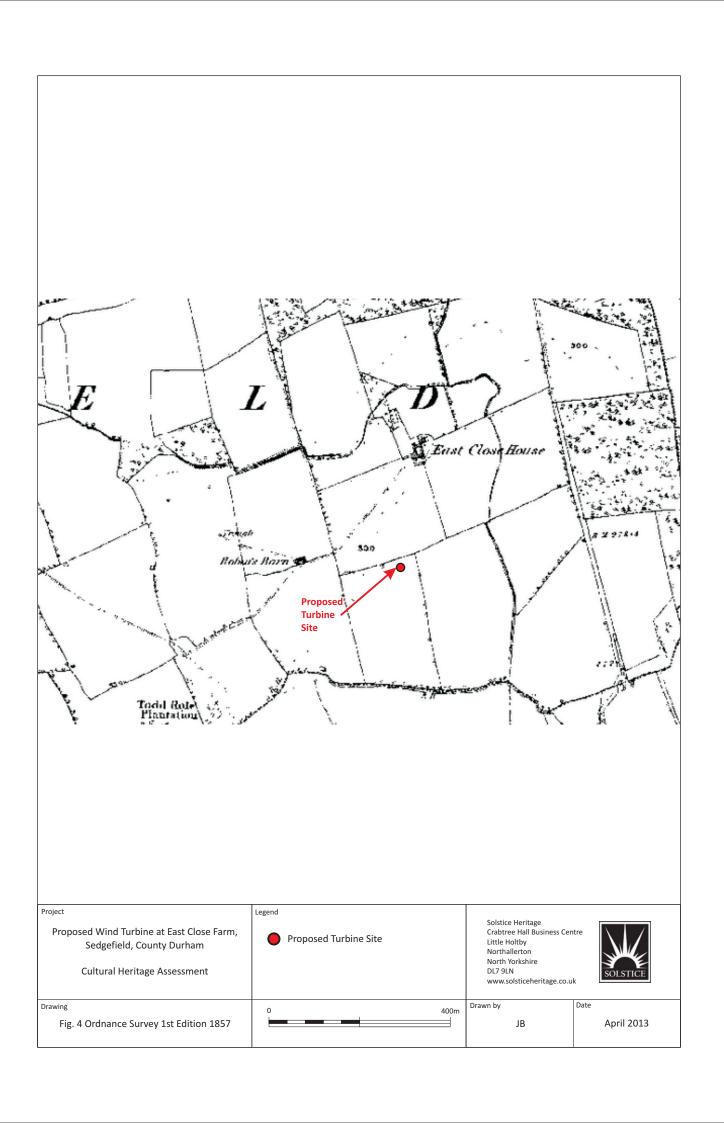


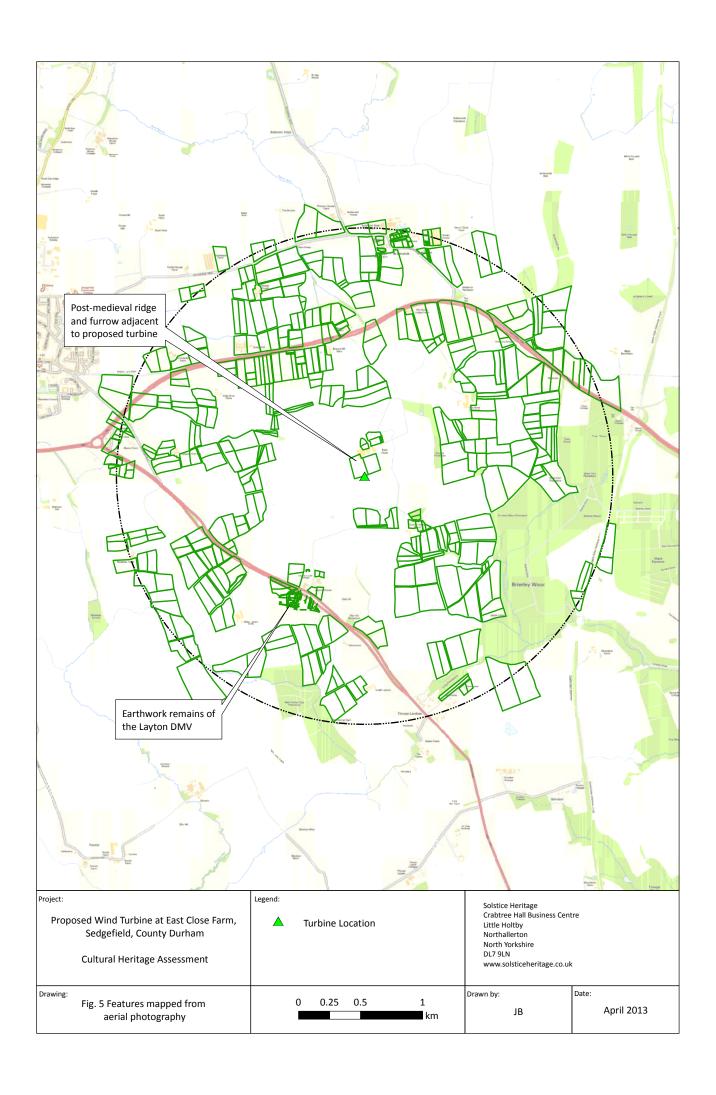


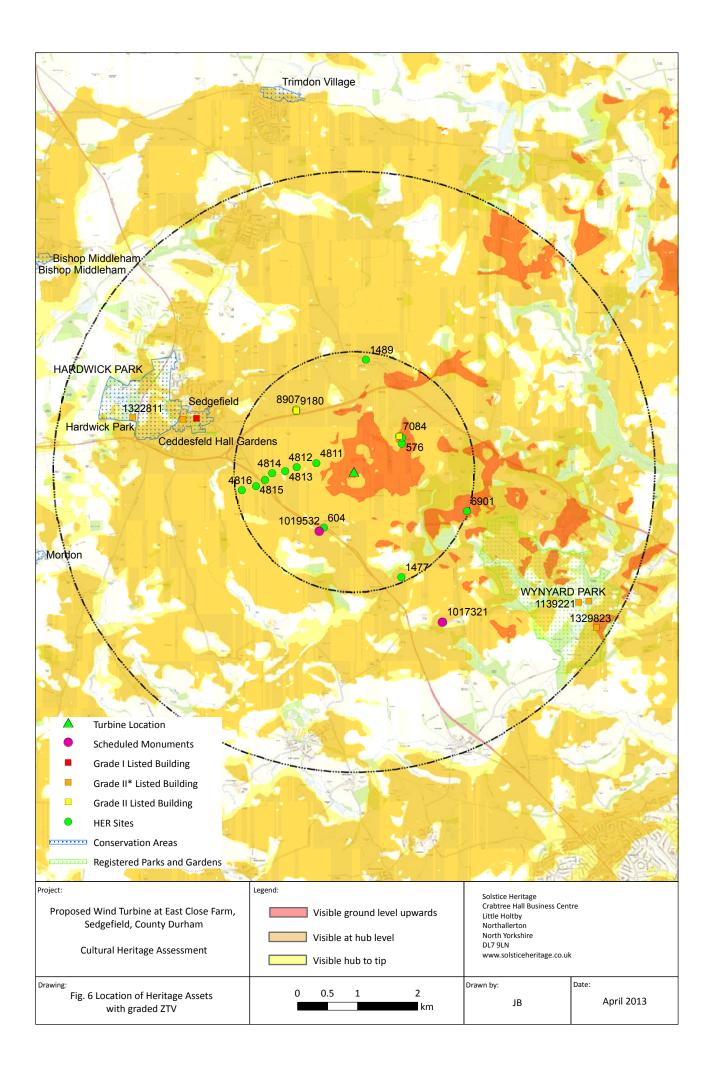




Project Proposed Wind Turbine at East Close Farm, Sedgefield, County Durham Cultural Heritage Assessment	Proposed Turbine Site	Solstice Heritage Crabtree Hall Business Centre Little Holtby Northallerton North Yorkshire DL7 9LN www.solsticeheritage.co.uk	
Drawing Fig. 3 Speed's Map 1610	0 10km	Drawn by JB	Date April 2013







APPENDIX 2 – PHOTOMONTAGES FROM SELECTED HERITAGE ASSETS

Prepared by JBA Consulting



APPENDIX 3 – GAZETTEER

AULI No. DUED THED Con-1- No						
NHL No.	DHER No.	THER No.	Grade	Name	Туре	Date
1121482			1	Church of St Edmund	Church	Medieval
1329821			I	St Thomas a Becket's Church Ruins	Church	Medieval
1121485	7084		II	Oldacres hall	Manor House	Post Medieva
1310833	8907		II	Barn 15m to Rear of Green Hill Farmhouse	Barn	Post Medieva
1322812	9180		II	Green hill farmhouse and attached outbuilding	Farmhouse, Outbuilding	Post Medieva
1121492			*	Magistate's Court House	Court House	Post Medieva
1139221			*	Wynyard Hall	Hall and Manor	Post Medieva
1139222			*	Lion Bridge to East of Wynyard Hall	Bridge	Post Medieva
1322811			*	Gothick Gatehouse to Hardwick Park	Gatehouse	Post Medieva
1329823			II*	Wellington Obelisk to South-East of Wynyard Hall	Obelisk	Post Medieva
1017321			SM	St Thomas a Becket's Church	Church Ruins	Medieval
1019532			SM	Manorial settlement, fishponds and field system, 200m south west of Layton House	Settlement	Medieval
	576			Sedgefield, Old Acres	Enclosure	Iron Age
	604			Layton, Layton	Deserted Settlement, Fishpond, Village	Medieval
	1489			Butterwick, Sedgefield	Shrunken Village, Village	Medieval
	1948			Old Acres, Sedgefield	Deserted Settlement, Village	Medieval
	4811			Sedgefield I	Ridge And Furrow	Medieval
	4812			Sedgefield II	Ridge And Furrow	Medieval
	4813			Sedgefield III	Pottery, Ridge And Furrow	Medieval



814		Sedgefield IV	Ridge And	Medieval
			Furrow	
815		Sedgefield VI	Ridge And	Medieval
			Furrow	
816		Sedgefield VII	Ridge And	Medieval
			Furrow	
3518		Sedgefield V	Ridge And	Medieval
			Furrow	
	1477	Thorpe Larches	Field	Medieval
			System	
(6901	Woodside Farm North	Road Block	World War II
	815 816 3518	815 816	Sedgefield VI Sedgefield VI Sedgefield VI Sedgefield V Thorpe Larches	Sedgefield VI Ridge And Furrow Sedgefield VII Ridge And Furrow Sedgefield VII Ridge And Furrow Sedgefield V Ridge And Furrow Thorpe Larches Field System

