

# PARK HEAD WIND FARM

## Supplementary Environmental Information Landscape and visual impact assessment

November 2010



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## PARK HEAD WIND FARM SUPPLEMENTARY ENVIRONMENTAL INFORMATION

### Supplementary Environmental Information for ES VOLUME II

#### PREFACE

This Supplementary Environmental Information (SEI) has been prepared in support of a planning application for a proposed wind farm at Park Head Farm, between the villages of Netherwitton and Wingates, Northumberland.

The SEI has been prepared in three volumes:

- Volume 1** Ecology - Protected Species & Ornithology, which contains Non-Technical Summary, SEI text, figures and supporting information in appendices.
- Volume 2** Landscape & visual impact assessment (LVIA) - which contains SEI Text and Summary
- Volume 3** LVIA Figures

The SEI has been prepared by RES UK & Ireland Ltd (RES) in collaboration with the following specialist consultants:

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Copies of the full SEI may be viewed during normal opening hours at the following locations:

Northumberland County Council Offices, County Hall, Morpeth, NE61 2EF	Rothbury Library, Front Road, Rothbury, Morpeth, NE65 7TZ	RES Beaufort Court Egg Farm Lane Kings Langley HERTS, WD4 8LR
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Hard copies of the full ES 2009 are available from RES priced £150 each. A Loan Copy can be supplied free of charge for limited duration.

Copies of the SEI are available on CD-ROM free of charge or issued in hard copy for £50. Hard copies of the Non Technical Summary are available free of charge.

Requests for either document should be made in writing to RES at the address above, including payment if purchase of the full ES or SEI is required.



## **1 SUPPLEMENTARY ENVIRONMENTAL INFORMATION - LANDSCAPE AND VISUAL IMPACT ASSESSMENT**

### **1.1 Introduction**

#### *Background & purpose*

- 1.1.1 RES UK & Ireland Ltd (RES) submitted a planning application to Northumberland County Council (NCC) in August 2009 for full planning permission to construct a wind farm of nine (9) wind turbines at Park Head Farm between the villages of Netherwitton and Wingates, northwest of Morpeth in Northumberland (planning application reference: 09/00154/RENEIA).
- 1.1.2 The information released in this document is voluntary Supplementary Environmental Information (SEI) in relation to the Application for Park Head Wind Farm. It addresses some of the matters raised in the "Review and Appraisal of Predicted Landscape and Visual Impacts" (July 2010) prepared by Woolerton Dodwell Associates and supplements the information provided within the Landscape and Visual Impacts chapter of the ES. This SEI has been publicised and advertised in accordance with the EIA Regulations 1999.
- 1.1.3 This response to the review and the additional Landscape and Visual Impact assessments have been prepared by LDA Design

#### *Scope*

- 1.1.4 This document provides the following information:
  - Corrections and clarifications in response to the review of the LVIA - see section 2;
  - Replacement/additional wireframes and photomontages - see section 3 and vol. II;
  - An assessment of potential visual effects upon residential amenity - see section 4;
  - A replacement cumulative assessment and visualisations - see section 5 and vol. II.



## 2 LANDSCAPE AND VISUAL IMPACT ASSESSMENT – CORRECTIONS AND CLARIFICATIONS

### 2.1 Introduction

2.1.1 The Landscape and Visual Impact Assessment (LVIA) in the ES for Park Head wind farm was reviewed by Woolerton Dodwell Associates. In addition to the points they raised regarding the visualisations (see section 3 of this SEI), residential amenity (see section 4 of this SEI), and the cumulative assessment (see section 5 of this SEI), they also queried a number of inconsistencies within the ES LVIA. These issues are addressed below. The numbers in the table relate to the paragraph numbers in the Woolerton Dodwell report dated July 2010 and the Park Head ES.

**Table 2.1 Woolerton Dodwell review comments**

WOOLERTON DODWELL	ES PARAGRAPH	COMMENT
1.8	Para. 5.2.27 & Table 5.3	In the section regarding landscape sensitivity, the reviewer has misinterpreted table 5.3 in the ES. Paragraph 5.2.27 and Table 5.3 indicate that large landscape scale, long distance views and low landscape value are all considered to be contributing factors to low landscape sensitivity - NOT that large scale landscapes correlate with low landscape value as the reviewer suggests.
1.8	Table 5.5	The criticism that smaller settlements and local footpaths should not be considered as being of lower sensitivity is regarded as being valid. However, this aspect of the methodology has not been applied in carrying out the assessment in the ES (all footpaths and settlements have more correctly been assessed as being of high sensitivity), and so the point may be regarded as being academic.
1.8	Para. 5.2.34 & Table 5.14	In the section regarding the determination of significance of effects, the review notes that some effects are identified as being of Moderate significance as being significant in EIA terms, which diverges with the methodology set out in paragraph 5.2.34 of the ES. Each receptor affected by this inconsistency has been reassessed in preparing this SEI, so that it is entirely clear which effects are regarded as being significant. See Section 2.2 below.
1.8	Table 5.4 Para 5.2.43	The review suggests that magnitude ratings for cumulative effects are not explained. However, the basis for these judgments is set out in table 5.4 in the ES.
1.8	Para 5.2.46	The cumulative assessment in the ES has been entirely replaced. The methodology for the replacement assessment is described along with the new assessment in section 5 of this SEI.

WOOLERTON DODWELL	ES PARAGRAPH	COMMENT
1.13 to 1.14	5.2.24	This section of the review comments on viewpoint selection. It should be noted that correspondence made available to us indicates that the ES viewpoints were agreed with the Local Planning Authority, who were provided with a ZTV as part of the process. They will therefore have been aware of the lack of visibility of the turbines from viewpoint 5 throughout the agreement process. Viewpoints 9, 12 and 13 are all distant (13.9km or further from the site). When selecting viewpoints, it is not possible to guarantee that turbines will not be screened by intervening buildings and trees - their precise location and appearance will not be known until after the visualisations have been prepared. Even very small features or relatively distant vegetation can obscure turbines at this distance - a point well demonstrated by these viewpoints. The selected viewpoints meet the guidance in that there are no nearby obstructions to the view, and there is the potential for significant effects.
1.17-1.24		Comments regarding the visualisations are dealt with in section 2 of this SEI.
1.26, 1.45, 1.47	5.12.34 - 5.12.35	There is no requirement to provide judgements of magnitude and sensitivity for each footpath and minor road in the vicinity of the site. It is normal practice that effects on these are assessed via the selection of representative viewpoints as has been done in the ES. Paragraph 1.47 recognises that effects on footpaths and bridleways have been assessed in the ES, which is inconsistent with paragraph 1.26.
1.32-1.38	Table 5.13 & Table 5.14 5.9.19-5.9.56	The review indicates that the assessment of effects on landscape character has inconsistencies and the basis for sensitivity judgements is unclear. The perceived lack of clarity in terms of sensitivity judgements is in part explained by the reviewer's misinterpretation of table 5.3 of the ES (as described above), though the application of the table in reaching sensitivity judgements is not made entirely clear in the assessment text. In order to ensure that a full, clear assessment has been presented, effects on landscape character are reassessed in this SEI (see section 2.3 below).
1.39	5.10.5, 5.8.13	The review identifies inconsistencies in the assessment of effects on Northumberland National Park. In order to ensure that a full, clear assessment has been presented, effects on Northumberland National Park are reassessed in this SEI (see section 2.4 below).
1.42-1.43	5.8.14	The review identifies inconsistencies between the LVIA summary at paragraph 5.18.14 and the sections regarding the effects on local settlements. The final sentence of para 5.18.14 is causing these inconsistencies as it is poorly worded and appears to correlate visibility with a significant effect. It is suggested that this last

WOOLERTON DODWELL	ES PARAGRAPH	COMMENT
		sentence should be disregarded as the use of the word 'significant' in this sentence is intended in the general sense rather than in the EIA sense. If this sentence is disregarded there are no inconsistencies.
1.45 & 1.47		See 1.25 above.
1.48	5.12.80 - 5.12.84	In agreeing with the assessment of effects on viewpoint 8 at Simonside Hills the review fails to note that the judgment of Moderate and Significant effects is a further example of the inconsistent application of methodology that they previously identified at section 1.8 (see above). The effects on this viewpoint are therefore reassessed in section 2.2 below.
1.51-1.52		A detailed assessment of effects on residential receptors is provided at section 4 of this SEI.
1.54 - 1.80	5.13.1-5.16.37	The cumulative assessment in the ES is entirely replaced by section 5 of this SEI.

## 2.2 Receptors assessed as receiving Moderate, Significant effects

- 2.2.1 Within the ES the LVIA methodology states that a Moderate significance of effects is not regarded as significant in EIA terms (at paragraph 5.2.34), but within the assessment a number of receptors are judged to receive Moderate effects which are described as being significant.
- 2.2.2 As it cannot be determined merely from a reading of the ES what the assessors intended the assessment result to be, each receptor affected by this inconsistency is reassessed within this SEI. The receptors affected are:
- Viewpoint 8, Simonside Hills
  - Local Landscape Character Area 14, Harwood Forest
  - Local Landscape Character Area 18, Longframlington / Shilbottle Rolling Farmland
- 2.2.3 The two local landscape character areas are reassessed in section 2.3 below, which replaces the assessment of effects on landscape character in the ES.
- 2.2.4 In reassessing the effects on viewpoint 8, the descriptive information contained in ES paragraphs 5.12.80-5.12.84 is considered to be accurate and the judgements of sensitivity (High) and magnitude (Slight) are considered to correspond with the descriptions of magnitude provided in table 5.4 of the ES. On this basis, an assessment of Moderate significance, i.e. not significant in EIA terms, would be the correct judgement.

## 2.3 Effects on Landscape Character

- 2.3.1 In assessing effects, the ES methodology regarding the definitions of sensitivity, magnitude and significance are used, with the exception that for all effects of Negligible magnitude, significance is judged to be Minimal (which is defined as being an effect that is akin to no change and is thus not relevant to the planning decision making process).
- 2.3.2 Further detail regarding the methodology used in this SEI to assess effects on landscape character is provided below.

## Methodology

- 2.3.3 The European Landscape Convention (2000) provides the following definition:  
*"Landscape means an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors."*
- 2.3.4 The Landscape Character Assessment - Guidance for England and Scotland, CA/SNH, 2002 defines landscape character as:  
*"the distinct, recognisable and consistent pattern of elements in the landscape that makes one area different from another."*
- 2.3.5 It also notes that (para. 2.1):  
*"Character makes each part of the landscape distinct, and gives each its particular sense of place. Whether we value certain landscapes for their distinctiveness, or for other reasons, is a separate question."*
- 2.3.6 Landscape character assessment is defined as (Natural England website - credited as a quote from the guidance ):  
*"the tool that is used to help us to understand, and articulate, the character of the landscape. It helps us identify the features that give a locality its 'sense of place' and pinpoints what makes it different from neighbouring areas."*
- 2.3.7 The sensitivity of landscape character areas is judged based on both the attributes of the receiving environment and the characteristics of the proposed development. Thus, the key characteristics of the landscape character areas are considered, along with scale, openness, topography, the absence, or presence, of development and its nature and patterns; settlement, landcover and land uses in forming the character. The condition of the receiving landscape, i.e. the intactness of the existing character will also be relevant in determining sensitivity. The likelihood of material effects on the landscape character areas can be judged based on the scale and layout of the proposal and how this relates to the characteristics of the receiving landscape. Thus large-scale landscapes are likely to be less sensitive to large scale wind farm developments, whilst some small scale, enclosed landscapes may be highly sensitive to all but very small scale proposals.
- 2.3.8 Wind turbine developments are unusual in their effects upon landscape character as they primarily involve the addition of elements rather than any alteration to, or removal of, existing features. The introduction of a wind farm into an existing landscape adds a new feature which strongly affects the "sense of place" in its near vicinity, but with distance, the existing characteristics reassert themselves. At its most basic level, the magnitude of effect can best be understood by considering how one might perceive a particular place post-construction; i.e. if the baseline perception is "I am in a field.", then this may change to: "I am in, or at, a wind farm" (Substantial magnitude); "I am in a field near a wind farm" (Moderate); "I am in a field and I can see a windfarm over there" (Slight); or remain as "I am in a field." (Negligible).
- 2.3.9 It is specifically noted within Landscape Character Assessment - Guidance for England and Scotland, CA/SNH, 2002 (para 1.14) that:  
*"Landscape Character Assessment is not a tool designed to resist changes that may influence the landscape. Rather it is an aid to decision-making - a tool to help understand what the landscape is like today, how it came to be like that, and how it may change in the future."*
- 2.3.10 In para 6.32 it describes the purpose of Key Characteristics in landscape assessment, as follows:  
*"Key characteristics are those combinations of elements which help give an area its distinct sense of place. They tend in many cases to be 'positive' characteristics but they may also, in*

*some cases, be 'negative' features which nevertheless are important to the current character of the landscape. If the key characteristics which are identified were to change or be lost there would be significant consequences for the current character of the landscape. These would usually be negative but sometimes positive where some characteristics currently have a negative influence on the character (e.g. the effects of a busy road corridor). Key characteristics should therefore be the prime targets for monitoring change and for identifying landscape indicators."*

- 2.3.11 It follows from the above that in order to assess whether landscape character is significantly affected by a development, it should be determined how each of the key characteristics would be affected. The judgement of magnitude therefore reflects the degree to which the key characteristics and elements which form those characteristics will be altered by the proposals. Based on recent appeal decisions, there is a general consensus that significant effects on landscape character arising from wind farms are generally confined to the immediate vicinity, being of Substantial magnitude within up to 1km of turbines (where the turbines may become the dominant characteristic of the landscape), reducing to Moderate magnitude within up to 4km (where the turbines may become one of the key characteristics of the landscape) and decreasing further thereafter. The scale of the development, the nature and sensitivity of the receiving landscape, and local 'barriers' in the landscape (such as breaks of topography, woodlands, settlements, and roads or rivers) will determine the exact extent of effects for each development, but in practice significant effects are highly unlikely beyond 10km. For this reason the study of local landscape character areas is limited to a 10km radius from the turbines, though the national landscape character areas will be reviewed up to the full study area radius in order to provide context.
- 2.3.12 Sensitivity judgements are either directly drawn from, or based on (for national character areas) the regional study carried out by the University of Newcastle in 2003 on behalf of the Government of the North East - "Landscape Appraisal for Onshore Wind Development" as this document provided a detailed study of sensitivity of different landscape types within the study area to wind farm development. It should be noted however that they are only fully relevant for those character areas in the near vicinity of the proposed turbines, as direct effects on character only tend to occur within up to 4km of the turbines. For more distant character areas effects will be indirect, caused by views of turbines, and the significance of this depends on how important such views are to the character of the area. However, the sensitivity rating given can be used as an indicator of the relative sensitivity of each character area.

#### **National Landscape Character Areas**

- 2.3.13 The National Joint Character Areas (JCAs) within the study area are illustrated on Figure 5.4 in the ES and listed in table 5.8. The blade tip ZTV study indicates that four of these character areas (**Cheviot Fringe - JCA3; Border Moors and Forests - JCA5; Tyne Gap and Hadrian's Wall - JCA11; Tyne and Wear Lowlands - JCA14**) would have very little or no visibility of the turbines. Effects on all of these character areas are assessed to be of **Negligible magnitude** and **Minimal significance**.

#### **JCA 12 Mid Northumberland (includes site)**

- 2.3.14 This character area includes the site and runs in a broadly north-south band across the study area. The key characteristics are defined as:
- *Intermediate plateau of upland fringe forming a transitional area between the Pennine uplands to the west and the low-lying coastal plain to the east; a series of ridges and intimate river valleys in the northern part of the area opening out to a broader, flatter landscape in the south.*
  - *Agricultural landscape with arable and cattle farming on lower land merging into sheep farming on higher land and moorland to the west.*



- *Varied woodland cover, with well-wooded valleys of the rivers Font, Wansbeck, and Coquet, mixed and ornamental woodlands of the country estates, small coniferous blocks and belts of the more open farmland to the south;*
- *Large reservoirs and ornamental lakes provide distinctive areas of open water.*
- *Frequent country houses and fortified defensive structures, typically set within ‘landscaped’ parklands and ornamental woodlands on country estates.*
- *Ancient market town of Morpeth serving a medieval pattern of small villages, often surrounded by the extensive ridge and furrow of medieval field systems and ancient earthworks.”*

- 2.3.15 The area of the site and immediate surroundings exhibit most of these characteristics, with the site lying on one of the ridges, where there is a mix of arable and cattle farming and both a lake and belts and blocks of coniferous woodlands. Netherwitton Hall lies just under 2km to the south of the site, at the edge of the village of Netherwitton. Most of this character area, including the site, is identified within the GONE landscape appraisal as being of the Rolling Lowland Farmland landscape character type which is assessed as having a **Medium-High sensitivity** to wind farm development. A small part of the southwestern corner is identified as Upland Fringe Farming, with a Low-Medium sensitivity.
- 2.3.16 The wind farm would be the defining characteristic of an area potentially extending up to 1km from the turbines. The surrounding woodland blocks and topography and local road network serve to contain these effects, defining an area around the site generally **up to 800m** from the turbines (Figure 3.2 in the ES shows the 1:25,000 map of this area with the detail of the windfarm layout). Effects of **Substantial magnitude and Major-Moderate significance**, creating a sense of being in or at a wind farm, would arise in the area defined by the woodland edges at Newpark Wood to the south; Follyhouse plantation to the west, Moor Plantation to the northwest; Catherine Hill Plantation and the woodland at Fiddler’s Elbow to the north; the road between those woodlands and High Southward edge to the northeast; and the linear plantation between High Southward Edge and Doe Hill Farm to the east; and High Bush Wood to the southeast. Viewpoint 1 lies within this part of the character area.
- 2.3.17 Beyond this immediate area, the wind farm would become one of the key characteristics of the landscape, in an area potentially extending up to 4km from the site. However, topography, woodlands and the extent of visibility (see the ZTV Study - SEI Figure 1) and woodlands also contain and define the area that would be affected, which is generally **within 2.5-3.5km**. Effects of **Moderate magnitude and Moderate significance** would extend from Oldpark Wood to the south; Broomfield fell to the southwest; the line of woodland between Broomfield Fell; Cottpark and the B6342 to the west; the woodlands at Wingates and Garrett’s Lea Wood to the north; The higher ground and woodlands west of Longhorsely to the east; and the woodlands at Beacon Hill and the south of Stanton to the southwest. Viewpoints 2,3 and 4 lie within this part of the character area.
- 2.3.18 Across the remainder of the character area, effects would reduce further becoming Slight and then Negligible with increasing distance. Visibility in the southern half of the character area is limited, particularly beyond 15km, and between 5 and 15km from the site arises in east-west bands, following the ridgelines. To the east and north visibility is patchy but relatively frequent. Particular views are not mentioned as a key characteristic of this character area. Viewpoints 5,6,7, 10, 16, 17 and 18 all lie within this part of the character area and viewpoints 9 and 15 lie at the southeastern and southern edges of the character area. **Overall** effects on the character area will be of **Negligible magnitude and Minimal significance**.

### JCA 2 Northumberland Sandstone Hills (2.7km, west)

2.3.19 This character area lies to the west of the site, forming an broad ridge of higher, more forested land which runs broadly NE-SW across the study area, extending beyond it to the north. The key characteristics are defined as:

*"• Sandstone hills forming distinctive skyline features characterised by generally level tops, north-west facing scarp slopes, and craggy outcrops. Exceptional views from the hills of the coast and across the lowland fringe to the Cheviots.*

*• Range of semi-natural habitats, with varied moorland communities dominated by heather and rough, acid grassland mosaics on the thin, sandy soils of the higher steeper slopes and broken ground, giving way to scrub, oak/birch woodland and then to improved farmland and parkland, on the lower slopes. Wet peaty flushes, mires, loughs and small reservoirs occur throughout the area.*

*• Rectilinear pattern of large, open fields bounded by dry stone walls, often broken up by blocks and belts of coniferous woodland.*

*• Extensive plantations of coniferous woodland. Broadleaved woodland associated with rivers and scarp slopes.*

*• Important prehistoric archaeological landscape, with 'cup and ring' marked rocks, Bronze Age burial cists, earthwork remains of later Iron Age hillfort systems, standing stones, enclosures and cairns.*

*• Parkland settings of the large country mansions, which fringe the lower fellside slopes, have distinctive 'landscaped' features and much seminatural broadleaved woodland cover.*

*• Scattered pattern of individual isolated farmsteads and small hamlets, served by the market towns of Alnwick and Rothbury."*

2.3.20 Within 25km of the site, this character area mostly coincides with the Outcrop Hills and Escarpment landscape character type in the GONE landscape appraisal and is assessed as having a **Medium-High sensitivity** to wind farm development. There are also two areas identified as having Low-Medium sensitivity, which cover the south eastern parts of the character area and a small area of Open Upland Valley near Rothbury to the northwest of the site. The ZTV study (SEI Figure 1) indicates that visibility of the wind farm will be contained by the rising ground and forests such that only the eastern edge of the character area would have visibility of the proposed turbines. The area which is both closest and would have the greatest visibility would be directly west of the site and to the east of Harwood Forest, including the Simonside Hills. This area would experience effects on character arising from views of the turbines at distances of 2.7-10km. Views towards the coast are mentioned as a key characteristic, and the turbines would be seen within these views. Effects on landscape character would be of **Moderate-Slight magnitude and Moderate significance** in the area where the wind farm would have a significant effect on views (**up to approximately 6km** from the site), decreasing to Slight magnitude and Moderate-Minor significance where more distant views would be available. Viewpoints 8 and 11 lie within this part of the character area. Effects across most of the character area, where the turbines would not be seen, will be of Negligible magnitude and Minimal significance. **Overall** effects on the character area, taking into account the importance of seaward views from the east-facing slopes, would be of **Slight-Negligible magnitude and Minor significance**.



### JCA 13 Southeast Northumberland Coastal Plain (9km, east)

2.3.21 This character area lies to the east of the site encompassing the lower ground and more settled areas of the coast between Tynemouth and Amble. The key characteristics are defined as:

*"• Widespread urban and industrial development, extending north from the urban edge of Newcastle across the coastal plain, with mining towns and villages, merging into rural landscape towards the north.*

- *Large-scale, open-cast coal mining sites and restored sites which include deep mine spoil heaps.*
- *Sweeping sandy beaches and rocky headlands remain within largely developed coast.*
- *Large open arable fields, with large scattered country houses, and institutional establishments. Extensive urban fringe effect near settlements.*
- *Prominent blocks of mixed and coniferous woodland on reclaimed colliery sites, with broadleaved woods on steeper valley sides, and within estate parkland.*
- *Frequent areas of open water and wetland in areas of mining subsidence and as features within restored landscapes."*

2.3.22 This character area mostly coincides with the Coastal Plain with Industry landscape character type in the GONE landscape appraisal and is assessed as having a **Low-Medium sensitivity** to wind farm development. A narrow coastal strip is identified as having High sensitivity. The ZTV study indicates very fragmented visibility of the turbines as woodland blocks (particularly to the north of the character area) and settlement (particularly to the south) are both characteristic of the area. The coastal strip which is identified as being of high sensitivity is indicated to have extremely limited visibility of the turbines. Inland views are not mentioned as a key characteristic and the distant views (see viewpoints 9, 12 and 13) towards the turbines will not have any discernable effects on the landscape character. Effects will be of **Negligible magnitude and Minimal significance**.

### JCA 1 North Northumberland Coastal Plain (11km, northeast)

2.3.23 The southern end of this character area lies within the study area, covering the coastal area to the north of Amble. The key characteristics are defined as:

- *Narrow, low lying, windswept coastal plain with wide views east towards the sea and west to the Cheviots. Particularly striking views along the coast.*
- *Intensively farmed landscape of predominantly open, mixed, arable land with limited trees and woodland and permanent pasture/semi-natural grassland typical of the valleys and coastal fringes.*
- *Diverse coastal scenery, with a 'hard' coast of spectacular high cliffs, off-shore islands, and rocky headlands to the north, contrasting with a 'soft' coast of wide, sweeping sandy bays backed by sand dunes and also intertidal flats backed by saltmarsh to the south. Patches of coastal grazing marsh still remain.*
- *Rivers Aln, Coquet and Tweed, as well as numerous smaller watercourses, meander across the coastal plain to the sea.*
- *Coastal plain and offshore islands provide rich wildlife habitats, particularly for migratory and breeding sea birds.*
- *Distinctive historic heritage reflects importance of ecclesiastical influences and the strategic defence of the coast and English/Scottish border. Features include prominent medieval castles, fortifications and structures from both world wars and religious buildings.*



- *Whin Sill intrusions produce dramatic landscape features, including the coastal cliffs at Bamburgh and the Farne Islands. Inland outcrops and escarpments form distinctive local landmarks and support rare, semi-natural, whinstone grasslands.*
- *Dispersed pattern of isolated farmsteads, small nucleated villages, fishing villages and small coastal resort towns.*
- *Long history of mineral extraction, including whinstone quarrying and opencast coal-mining, to the south-west of Berwick-Upon-Tweed."*

2.3.24 The southern tip of this character area coincides with the Rolling Lowland Farmland and Incised Lowland Valley landscape character types in the GONE landscape appraisal which are both assessed as having a **Medium-High sensitivity** to wind farm development. The ZTV study (SEI Figure 1) indicates that visibility of the turbines from within this character area will be very limited, with the main area of visibility at the southern tip of the character area around Guyzance. The effects will consist of occasional distant views of the turbines. Inland views are not identified as one of the key characteristics. The effects on character will be of **Negligible magnitude** and **Minimal significance**.

#### JCA 4 Cheviots (20km, northwest)

2.3.25 This character area lies northwest of the site. The key characteristics are defined as:

- "● *Smooth sinuous cluster of rounded hills which are geologically and topographically distinct.*
- *Wild, open, windswept landscape dominated by broad moorland horizons and almost totally devoid of settlement.*
  - *Extensive rolling plateaux of semi-natural grass moor and heather moorland. The summit is characterised by mixed areas of blanket bog and heather and by granitic 'tors'.*
  - *Deep ravines and rocky outcrops with dramatic scree slopes on northern flanks of Cheviots. Distinctive features of glacial erosion including meltwater channels and ice-gouged hollows.*
  - *Coniferous woodland plantations on some plateau tops and upper valley slopes.*
  - *Treeless upper hillsides of coarse 'white' grassland and heather moorland. Lower, steeper slopes have a greener appearance indicative of more productive grassland.*
  - *Steep sided valleys, with fast-flowing burns radiate from the Cheviots. Relict semi-natural broadleaved woodland, gorse scrub, and speciesrich meadow grassland characterise the valleys, which provide sheltered sites for dispersed farmsteads and small hamlets.*
  - *Extensive tracts of well-preserved, highly-visible and buried prehistoric landscapes, with hillforts, settlements and extensive prehistoric field systems.*
  - *Perceptions of remoteness and solitude are affected by military training and live firing in particular."*

2.3.26 This character area coincides with the Rounded Hills landscape character area on the GONE study, which is identified as having **High sensitivity**. The turbines would be seen in very distant views from the southwestern edge of this character area (as indicated by SEI Figure 1). Viewpoint 14 illustrates an example of such a view. The turbines would be a small distant element in these views (which are not mentioned as a key characteristic), and most of the character area would have no views of the turbines. Effects would be of **Negligible magnitude** and **Minimal significance**.

### *Local Landscape Character Areas*

2.3.27 Within 10km of the site, there are a number of local landscape character areas defined within the Alnwick Landscape Character Assessment SPD (Adopted May 2010). These are shown on Figure 5.5 in the ES and include (in order of distance from the site):

- Area 19 - Wingates Ridge;
- Area 23 - Font and Wansbeck Valleys;
- Area 22 - Longhorsely;
- Area 20 - Longwitton Ridge;
- Area 17 - Coquet Valley;
- Area 14 - Harwood Forest;
- Area 18 - Longframlington / Shilbottle Rolling Farmland;
- Area 13 - Rothbury Forest;
- Area 16 - Coquet Dale;
- Area 24 - Blyth and Pont Rivers and Estates;
- Area 21 - Ingoe Moor.

2.3.28 Of these, only small parts of **areas 21 and 16** lie within the 10km study area, and both areas are indicated by the ZTV study (SEI figure 1) to have limited visibility of the proposed turbines. Effects on these two areas will be of **Negligible magnitude and Minimal significance**.

#### **Area 19 - Wingates Ridge (includes site)**

2.3.29 This character area includes the site and forms a narrow band (approx 2-3km wide) extending 6km to the east and west of the site across the centre of the study area. The key characteristics are described as:

- *Elevated rolling upland ridge*
- *Relatively open, medium to large scale*
- *Some enclosure provided by coniferous tree belts.*

2.3.30 This character area, including the site, is identified within the GONE landscape appraisal as being of the Rolling Lowland Farmland landscape character type which is assessed as having a **Medium-High sensitivity** to wind farm development. Viewpoints 1 and 3 lie within this character area.

2.3.31 As described at 2.3.16 above, effects of **Substantial magnitude and Major-Moderate significance** will arise in the area between Follyhouse plantation and Moor Plantation to the west; and the linear plantation between High Southward Edge and Doe Hill Farm to the east; affecting the entire north-south width of the character area in this area. Effects of **Moderate magnitude and Moderate significance** will extend across much of the remainder of the character area (as described at 2.3.17 above) , only decreasing to Slight magnitude at the northwestern and southeastern edges. **Overall effects on the character area will be of Moderate magnitude and Moderate significance.**

### Area 23 - Font and Wansbeck Valleys (0.5km, south)

2.3.32 This character area lies to the south of the site and forms a v-shape running along the two river valleys which join together towards Morpeth. The key characteristics are described as:

*"• Medium to small scale mixed farming landscape with enclosure provided principally by hedgerows*

- *Gentle v-shaped valleys set into rolling farmland*
- *Riparian woodlands are frequent alongside meandering river channels*
- *Significant local estate influences."*

2.3.33 This character area, is identified within the GONE landscape appraisal as being of the Rolling Lowland Farmland landscape character type which is assessed as having a **Medium-High sensitivity** to wind farm development. Viewpoints 2 and 4 lie within this character area.

2.3.34 As described at section 2.3.17 above, effects of **Moderate magnitude and Moderate significance** would arise along the Font Valley between Cottpark and Stanton. Effects of Slight magnitude and Moderate-Minor significance arising from views of the turbines would arise in the western tip of the character area and between Stanton and Pigdon. The remainder of the character area - including the Wansbeck Valley and the area east of Pigdon, would have little or no visibility of the turbines and would experience Negligible magnitude effects. **Overall effects on the character area would be of Slight magnitude and Moderate-Minor significance.**

### Area 22 - Longhorsely (0.6km, northeast)

2.3.35 This character area lies to the north and east of the site and follows the two main road corridors of the A1 and A697 northwards from Morpeth. The key characteristics are described as:

*"• Medium to small scale undulating farmed landscape*

- *Frequent, generally small scale woodlands*
- *Hedgerows generally well maintained*
- *Trunk roads exert strong influence."*

2.3.36 This character area is identified within the GONE landscape appraisal as being of the Rolling Lowland Farmland landscape character type which is assessed as having a **Medium-High sensitivity** to wind farm development. Viewpoints 5 and 6 lie within this character area.

2.3.37 As described at section 2.3.17 above, effects of **Moderate magnitude and Moderate significance** would arise in the western tip of the character area south of Garrett's Lea Wood. Effects of Slight magnitude and Moderate-Minor significance arising from views of the turbines would arise to the west of the A697 and Longhorsely. Of the remainder of the character area, only the central band, east of Longhorsely would have notable areas of visibility. **Overall effects on the character area would be of Slight-Negligible magnitude and Minor significance.**

### Area 20 - Longwitton Ridge (2.5km, southwest)

2.3.38 This character area lies to the southwest of the site occupying the triangular ridge between the Font and Wansbeck valleys. The key characteristics are described as:

*"• Elevated, rolling, upland fringe farmland*

- *Relatively open, medium to large scale*
- *Numerous shelterbelts and some prominent coniferous plantations."*



2.3.39 This character area is identified within the GONE landscape appraisal as being of the Rolling Lowland Farmland landscape character type which is assessed as having a **Medium-High sensitivity** to wind farm development. Viewpoint 17 lies within this character area.

2.3.40 As described at section 2.3.17 above, localised effects of **Moderate magnitude and Moderate significance** would arise at the northeastern edge the character area, east of the strip of wodland extending northwards from Broomfield Fell and north of Oldpark Wood. Effects of Slight magnitude and Moderate-Minor significance arising from views of the turbines would arise within the area north and west of Longwitton. **Overall** effects on the character area would be of **Slight-Negligible magnitude and Minor significance**.

#### **Area 17 - Coquet Valley (3.3km, north)**

2.3.41 This character area lies to the north of the site following the Coquet valley between Felton and Rothbury Forest. The key characteristics are described as:

- *Broad, gently v-shaped valley of River Coquet cutting across rolling farmland*
- *Valley becomes more incised towards the coast*
- *Riparian woodlands.*

2.3.42 This character area is identified within the GONE landscape appraisal as being mostly of the Rolling Lowland Farmland landscape character type, with the eastern part around Faelton being of the Incised Lowland Valley landscape character. Borth character types assessed as having a **Medium-High sensitivity** to wind farm development.

2.3.43 As can be seen from the ZTV study (SEI Figure 1), the valley landform and woodlands will largely prevent visibility of the turbines from within the character area. **Overall** effects on the character area would be of **Negligible magnitude and Minimal significance**.

#### **Area 14 - Harwood Forest (5km, west)**

2.3.44 This character area lies to the west of the site and is an area of hills dominated by the large coniferous woodland of Harwood Forest . The key characteristics are described as:

- *Expansive upland with some distinctive rock outcrops*
- *Large scale, geometrically laid out coniferous plantation dominates the centre*
- *Numerous shelterbelts and some prominent coniferous plantations.*

2.3.45 This character area is identified within the GONE landscape appraisal as being of the Outcrop Hills and Escarpment landscape character type which is assessed as having a **Medium-High sensitivity** to wind farm development. Viewpoint 8 lies within this character area.

2.3.46 Effects on landscape character would be of **Slight magnitude and Moderate-Minor significance** along parts of the eastern edge of the area where the wind farm would be visible in views towards the coast at distances of 5-10km. Effects across most of the character area, where the turbines would not be seen, will be of Negligible magnitude and Minimal significance. **Overall** effects on the character area would be of **Slight-Negligible magnitude and Minor significance**.

#### **Area 18 - Longframlington / Shilbottle Rolling Farmland (6.6km, northeast)**

2.3.47 This character area lies to the northeast of the site extending northwards from Longframlington . The key characteristics are described as:

- *Medium scale parliamentary enclosure landscape bisected by the A1*
- *Undulating high ground between the A1n and Coquet valleys*
- *Predominantly arable with declining hedgerow condition.*



2.3.48 This character area is identified within the GONE landscape appraisal as being of the Rolling Lowland Farmland landscape character type which is assessed as having a **Medium-High sensitivity** to wind farm development. Viewpoint 7 lies within this character area.

2.3.49 Effects will be limited to relatively distant views of the turbines, mainly from the area south and west of Longframlington and around Swarland. These views will not notably affect character and **overall** effects on the character area would be of **Negligible magnitude and Minimal significance**.

**Area 13 - Rothbury Forest (7km, north)**

2.3.50 This character area lies to the northeast of the site extending northwards from Longframlington . The key characteristics are described as:

*“● Broad open upland ridge complex*

*● Craggy cliffs form occasional prominent landmarks*

*● Landcover is extensive semi improved grassland and heather moorland with substantial conifer plantations.”*

2.3.51 This character area is identified within the GONE landscape appraisal as being of the Outcrop Hills and Escarpment landscape character type which is assessed as having a **Medium-High sensitivity** to wind farm development.

2.3.52 Effects will be limited to distant views of the turbines, mainly from the open ridgetops. These views will not notably affect character and **overall** effects on the character area would be of **Negligible magnitude and Minimal significance**.

**Area 24 - Blyth and Pont Rivers and Estates (8.6km, south)**

2.3.53 This character area is not described within the SPD document but lies to the south of the site between Bolam and Longframlington. The character area is identified within the GONE landscape appraisal as being of the Rolling Lowland Farmland landscape character type which is assessed as having a **Medium-High sensitivity** to wind farm development. Viewpoints 10 and 18 lie within this character area.

2.3.54 Effects will be limited to distant views of the turbines from the northern edge of the character area. These views will not notably affect character and **overall** effects on the character area would be of **Negligible magnitude and Minimal significance**.

### Summary

2.3.55 Table 2.2 lists all character areas which are judged to receive effects of more than Negligible magnitude (either in part or overall).

**Table 2.2 Summary Table - Effects on Landscape Character** (all distances for magnitude & significance are approximate distances from the turbines - see main text for details; significant effects are underlined).

Character Area	Distance / Direction	Sensitivity	Magnitude	Significance
JCA 12 Mid Northumberland	Includes site	Medium-High	< 800m - <u>Substantial</u> < 3km - Moderate Overall - Negligible	< 800m - <u>Major-Moderate</u> < 3km - Moderate Overall - Minimal
JCA 2 Northumberland Sandstone Hills	2.7km, W	Medium-High	< 6km - Moderate-Slight < 10km - Slight Overall - Slight-Negligible	< 6km - Moderate < 10km - Moderate-Minor Overall - Minor
Area 19 - Wingates Ridge	Includes site	Medium-High	< 800m - <u>Substantial</u> < 3km - Moderate Overall - Moderate	< 800m - <u>Major-Moderate</u> < 3km - Moderate Overall - Moderate
Area 23 - Font and Wansbeck Valleys	0.5km, S	Medium-High	< 3km - Moderate Overall - Slight-Negligible	< 3km - Moderate Overall - Minor
Area 22 - Longhorsely	0.6km, NE	Medium-High	< 3km - Moderate Overall - Slight-Negligible	< 3km - Moderate Overall - Minor
Area 20 - Longwitton Ridge	2.5km, SW	Medium-High	< 3km - Moderate Overall - Slight-Negligible	< 3km - Moderate Overall - Minor
Area 14 - Harwood Forest	5km, W	Medium-High	< 10km - Slight Overall - Slight-Negligible	< 10km - Moderate-Minor Overall - Minor
All other character areas			Negligible	Minimal

2.3.56 The only significant effects on landscape character will be immediately around the site where the wind farm will become the defining characteristic of the landscape. The local topography and woodlands around the site will limit the extent of these effects, keeping them to generally within 800m of the turbines.

## 2.4 Effects on Northumberland National Park

- 2.4.1 Northumberland National Park lies to the west of the site, extending to within 5km of the turbines at the Simonside Hills, but with the main body of the designated area generally more than 20km from the site. As a nationally designated landscape the National Park is of **High sensitivity**.
- 2.4.2 The criteria for National Park designation are described in the 1949 National Parks and Access to the Countryside Act. The 1995 Environment Act subsequently revised National Park purposes and Circular 12/96 which provides amplification of this Act, provides advice on how National Park Authorities should identify the special qualities of their Park, which form the basis of the designation. The Northumberland National Park LDF Core Strategy (March 2009) defines the special qualities as follows:
- A landscape rich in biodiversity and geodiversity;
  - A rich cultural heritage;
  - True sense of tranquillity;
  - Distinctive landscape character.

In assessing effects on the National Park these factors are therefore considered.

- 2.4.3 Only two areas of the National Park are identified within the ZTV study (SEI Figure 1) as having visibility of the turbines. These are the eastern slopes of the Cheviots (near viewpoint 14) and the Simonside Hills (near viewpoint 8). Visual effects on neither of these viewpoints are identified as being significant, and it is unlikely that significant views of the turbines will arise, even at the far eastern tip of the National Park (within approximately 6km of the turbines) as this area has limited visibility of the turbines.
- 2.4.4 At section 2.3.20 above, effects on the character of the Simonside Hills are described and judged to be of Slight magnitude and Moderate-Minor significance (identified in that assessment as the area 6-10km from the site). The effects on viewpoint 8 are judged to be of Slight magnitude and Moderate significance. Whilst effects on tranquillity cannot be quantified, at a distance of 6km or more, the turbines are very unlikely to affect the perceived tranquillity. Effects on the area of the National Park to the **east of Harwood Forest will be of Slight magnitude and Moderate significance**.
- 2.4.5 Effects on viewpoint 14 are judged in the ES to be of Negligible Magnitude and Moderate-Minor significance. At section 2.3.26 above, effects on the character of the Cheviots are also judged to be of Negligible magnitude and Minimal significance. Therefore in this part of the National Park, and the rest of the designated area which has no visibility of the turbines, effects will be of Negligible magnitude and Minimal significance. **Overall effects on the National Park will also be of Negligible magnitude and Minimal significance**.

## 2.5 Revised assessments of visual effects

2.5.1 In reviewing the ES assessments, and carrying out site work, it was judged that some of the assessed visual effects within the ES were overstated (for viewpoints 4, 5, 7, 11 and 17). A minor degree of difference between landscape professionals is to be expected, and typically these result in some assessments being slightly lower and some slightly higher. On that basis the ES judgements would not normally be revised within an SEI. However, in this case, the differences are all on one direction. Furthermore, the assessments for Park Head alone form the basis for the judgement of cumulative visual effects, and three of the affected viewpoints are used within the cumulative assessment. Therefore the viewpoint assessments are revised here in order to avoid ‘carrying through’ judgements that the assessor does not agree with. Table 2.3 below lists a full summary of the revised assessment for all viewpoints, replacing Table 5.21 in the ES, with amended judgements shown in italics.

**Table 2.3 Summary Table - revised assessment of visual effects.**

Significant effects are underlined.

Viewpoint	Distance / Direction	Sensitivity	Magnitude	Significance
1) Dunter Knowes	0.4km, S	High	<u>Substantial</u>	<u>Major</u>
2) Netherwitton	2.1km, SW	High	<u>Moderate</u>	<u>Major-Moderate</u>
3) Wingates	2.1km, N	High	<u>High</u>	<u>Major</u>
4) Stanton	3.2km, SE	High	<u>Moderate</u> (ES - Substantial)	<u>Major-Moderate</u> (ES - Major)
5) Longhorsely	3.8km, NE	High	<i>None</i> (ES - Slight)	<i>None</i> (ES - Moderate)
6) A1 at Helm	8.3km, NE	Medium	<i>Slight</i>	<i>Moderate</i>
7) Longframlington	7.8km, N	High	<i>Moderate-Slight</i> (ES - Moderate)	<i>Moderate</i> (ES - Major-Moderate)
8) Simonside	9.2km, NW	High	<i>Slight</i>	<i>Moderate</i>
9) A1 at Clifton	13.9km, SE	Medium	<i>Negligible</i>	<i>Minimal</i> (ES - Minor)
10) Bolam	9.6km, S	High	<i>Slight</i>	<i>Moderate</i>
11) A696	13.5km, SW	Medium	<i>Negligible</i> (ES - Slight)	<i>Minimal</i> (ES - Moderate-Minor)
12) Druridge Bay	17.1km, E	High	<i>Negligible</i>	<i>Minimal</i> (ES - Moderate-Minor)
13) Ponteland	19.6km, SE	High	<i>Negligible</i>	<i>Minimal</i> (ES - Moderate-Minor)
14) Minor road near High Knowes	23.9km, NW	High	<i>Negligible</i>	<i>Minimal</i> (ES - Moderate-Minor)
15) B6138, Hadrian's Wall	25.2km, SW	High	<i>Negligible</i>	<i>Minimal</i> (ES - Moderate-Minor)
16) Longhorsely Moor	4.8km, E	High	<u>Moderate</u>	<u>Major-Moderate</u>
17) Longwitton	4.4km, SW	High	<u>Moderate</u> (ES - Substantial)	<u>Major-Moderate</u> (ES - Major)
18) B6524 at West Edington	10.7km, SE	High	<i>Slight</i>	<i>Moderate-Minor</i>

Note - Where magnitude is rated as negligible in the ES, significance judgements have been revised to Minimal as described at section 2.3.1 above.

### 3 VISUALISATIONS

#### 3.1 Visualisations included in the SEI

3.1.1 The Woolerton Dodwell review suggested in sections 1.17-1.23 of that report that a number of additional or replacement visualisations should be requested. Table 2.1 below lists those suggestions, and either refers to the figures provided (in volume 2 of the SEI) or explains the rationale where a figure has not been provided.

**Table 3.1 Visualisations**

WOOLERTON DODWELL PARA.	SUGGESTED VISUALISATION	SEI FIGURE OR REASONS FOR ADDITIONAL FIGURE NOT BEING PROVIDED
1.18	Wirelines for all viewpoints which only had photomontages in the ES (Viewpoints 2, 3, 7, 16 and 17)	See SEI figures 5.13.02WF, 5.14.03WF, 5.18.07WF, 5.27.16WF and 5.28.17WF.
1.19	Photomontages for viewpoints 1,4,6,8,10,11 and 18.	Photomontages for viewpoints 1, 4, 6 and 8 have been provided. See SEI figures 5.12.01PM, 5.15.04PM, 5.17.06PM, 5.19.08PM. Photomontages for viewpoints 10 (9.6km), 11(13.5km) and 18 (10.7km) have not been provided. The SNH guidance clearly indicates that practitioners should not use photomontages for assessment (i.e. their omission does not affect the quality of the assessment) and does not state that photomontages should be provided for all viewpoints within 15km. Rather it indicates that where photomontages are used "their production will usually be of most value for views within 15km of a windfarm site". The lack of photomontages for these more distant viewpoints does not in our view prejudice decision making.
1.21	Recentred views for viewpoints 2 and 16.	New wireframes and photomontages have been provided for viewpoints 2 and 16 (Figures 5.13.02WF, 5.13.02PM, 5.27.16WF and 5.27.16PM). Views are generally centred on a wind farm, but not always. If the main aspect from the viewpoint is such that the wind farm is to the right or left of that view, then it better represents the existing view and the impact of the wind farm in that view, to show the main aspect rather than centred on the wind farm. The views provided in the SEI are wider than those provided in the ES and provide more context.
1.22	Wireframe for viewpoint 2	A replacement wireframe and photomontage for viewpoint 2, which also show a wider arc of view for better context, have been provided as figures 5.13.02WF and 5.13.02PM.



WOOLERTON DODWELL PARA.	SUGGESTED VISUALISATION	SEI FIGURE OR REASONS FOR ADDITIONAL FIGURE NOT BEING PROVIDED
1.23	Recentred photomontage for viewpoint 16	See 1.21 above. Viewpoint 16 was also moved slightly eastwards and rephotographed. The replacement visualisations for viewpoint 16 are not centred on the wind farm, but instead show the wind farm slightly to the left hand side to enable the wider panorama to the right to be clearly seen in the photograph. The previous photograph was of poor quality and the viewpoint had been placed in a location where the coastal wind farms were not visible. As views of the coastal wind farms are readily available in the near vicinity it was judged that a minor alteration in the viewpoint location provided a better option for illustrating potential cumulative effects.

### 3.2 Summary

- 3.2.1 All suggested visualisations have been provided with the exception of photomontages for viewpoints 10, 11 and 18.
- 3.2.2 ES Figures that have been replaced are the photomontages for viewpoints 2 and 16, and the wireframe for viewpoint 6.
- 3.2.3 Additional figures provided are the wireframes for viewpoints 2, 3, 7, 16 and 17; and the photomontages for viewpoints 1, 4, 6 and 8.

## 4 RESIDENTIAL AMENITY - VISUAL EFFECTS

### 4.1 Introduction

- 4.1.1 At para. 1.26, the Wollerton Dodwell review suggests that residential receptors and camping/caravan sites should be assessed within 3km of the site. As described within the methodology section below, a radius of 3km for such a study is judged to be excessive, and receptors within 1.2km of the turbines are assessed in detail within this SEI. Other properties up to 2km from the turbines are also assessed. Figures 5.54 shows all of the properties covered within this assessment.

### 4.2 Methodology

- 4.2.1 Local residents generally have a higher level of sensitivity to changes to their visual environment. Residents will tend to regard the most important views as being those from their homes, and particularly from the main living areas, although they will also be sensitive to other views that they experience when travelling around the local area. However, it is views from public areas near to houses (rather than those from the houses themselves) that are of most relevance in preparing a visual impact assessment.

- 4.2.2 When dealing with effects on residential properties, one could take the view, based on a detailed analysis of previous Inspector's decisions on the matter that the outlook from a private property is essentially a private matter. Paragraph 40 of PPS1 confirms that the planning system operates in the public interest. However, the views available from a private property are part of the overall amenity of that property, and that is a material consideration. The weight that is given to that outlook is a matter for judgement. If there simply is a view to a development that weight may be slight. If someone objects to a development because they do not like wind turbines anywhere within the view from their property, this is a matter that should also not be given great weight. If the views are affected to the extent that living conditions are detrimentally affected, that is a matter that should be given weight, hence the need to carry out a residential assessment to assess if such effects would arise. In the Appeal regarding Poplar Lane Wind Farm, the Inspector described conditions under which a wind farm may be deemed to affect fundamental living conditions as being:

*"when turbines are present in such number, size and proximity that they represent an unpleasantly overwhelming and unavoidable presence in main views from a house or garden", such that*

*"the property concerned would come to be regarded as an unattractive and thus unsatisfactory (but not uninhabitable) place in which to live."*

- 4.2.3 However, it must be borne in mind that this represents a different degree or nature of effect than a simple change to the view, as observed by the Inspector in the decision regarding Den Brook Wind Farm (Whilst this decision was quashed, it was not quashed for reasons relating to its findings on visual/ residential amenity):

*"while many people may choose to purchase or live in a house because of the view that can be enjoyed from it, they cannot claim to have purchased the property or chosen to live there with the view or, more specifically, an inalienable entitlement to have that view protected."*

- 4.2.4 In terms of considering effects on residential amenity or living conditions, a review of Inspector's decisions on this matter indicates that oppressive or overbearing views of a wind farm would not be expected to arise at distances of over 1km from the turbines. Whilst the 1km zone may also be coincident with the area of Substantial magnitude effects on landscape



character, in which the sense of being in or at a wind farm may be experienced, the effects on residential amenity are on visual amenity rather than character, as dwellings have their own character, which is distinct from the surrounding landscape, such that apart from in very exceptional cases there would not be a sense of living in a wind farm.

- 4.2.5 Within 1km, one would expect any views of the turbines to be visually significant, but this does not mean that such views will necessarily affect fundamental living conditions by creating a feeling of overbearing or oppressiveness. Also, whilst views from one or more windows or the house and or parts of a garden may be adversely affected by views of the turbines, other views will not be. The assessment therefore considers from which areas of the property views of the turbines are likely to arise, and the extent to which those views might be 'oppressive' or 'overbearing' in terms of the amenity of the property as a whole.
- 4.2.6 The residential amenity survey was carried out through a combination of desk based study and site visits. All owners of properties within 1.2km of the turbines were contacted to arrange a visit to the property to carry out a detailed assessment. Not all responded positively, but those who did were visited on 18th September 2010. Other properties were assessed as far as possible from the nearest public areas.
- 4.2.7 Each assessed property is illustrated by a set of 3 figures (included as figures 5.54-5.63 which include the following information:
- Aerial photograph;
  - 1:10,000 map;
  - View of facade which faces towards the wind farm site;
  - View from garden towards the wind farm site;
  - View from the house towards the wind farm site;
  - Wireframe illustrating the visibility and size of the turbines in relation to the photographs from the house and garden;
  - Diagrams indicating the position of windows; the arc of view which would be occupied by the turbines; and the likely views (none - blue, oblique - yellow, open - orange) towards the turbines from each of the windows. The arc of view indicated assumes no screening, and the 'likely views' only make allowances for screening by other parts of the buildings - not by vegetation.
- 4.2.8 The best available information is provided for each property, but this is more limited for properties where site visits were from public areas only.

### 4.3 Assessment - properties up to 1.2km from the turbines

The properties assessed are shown on figure 5.54, which shows the location of properties in relation to the proposed turbines. The table 4.1 below lists the properties within approximately 1.2km (ordered going clockwise from North) and indicates distance and direction from the turbines and whether or not a visit was made.

Distances are given to the nearest 50m to the house, so gardens or outbuildings may be nearer or further from the turbines. Micrositing may also alter distances.

**Table 4.1 Residential Properties**

PROPERTY	DISTANCE / DIRECTION	MAXIMUM ARC OF VIEW OCCUPIED BY TURBINES	VISITED / ASSESSED FROM
Fiddler's Elbow	800m, N	48°	Visit
Holly Lodge	800m, NE	39°	Visit
1 Low Southward Edge	800m, NE	40°	Visit
High Southward Edge	1050m, NE	39°	Public highway immediately adjacent to the west.
Doe Hill Farm and Cottage	800m, E	59°	Visit (farm only - not cottage), cottage assessed via description given by farmhouse residents.
Correslaw	1150m, S	39°	Visit
Park Head Farm	600m, SW	84°	Public footpath which passes directly through the farm
Coal Houses	800m, SW	48°	Public footpath which passes directly past the house.
Folly House	800m, W	40°	Visit
Wingates Moor Farm	1100m, NW	51°	Public highway nearby to the west.

***Fiddlers Elbow (Figure 5.55A-C)***

- 4.3.1 Fiddler's Elbow lies 800m north of the proposed turbines, to the south of a local road and consists of two connected single storey buildings. The dwelling is surrounded by trees, giving rise to very limited outward views, as can be seen from figures 5.57A and 5.57B. The conservatory, terrace and kitchen windows are all on the southern façade of the property - facing in the direction of the turbines, which would occupy a 48 degree arc of view to the south of the property at a distance of 800m. However, as can be seen from the photograph taken from the conservatory steps, there is only a small window of view out past the wind pump to the countryside beyond. The turbines are not likely to be visible within this window (the wireframe view indicates that they will be to the left).
- 4.3.2 Views from the garden are similarly screened, with only the location of the photograph on figure 5.57B (adjacent to the windpump, looking out from the garden boundary) offering a relatively open view. Even in this view, the turbines will be mostly screened, with only views of blades likely over the hillside and through trees. Views will be more open in winter, but not markedly so, as much of the screening is provided by conifers.
- 4.3.3 In summary, there are no open views from this property, which is surrounded by trees. Views of the turbines will be very limited. The effect of the turbines on the property will not be 'overbearing' or 'oppressive'.

***Holly Lodge (Figure 5.56A-C)***

- 4.3.4 Holly Lodge is a new single-storey property which is just being completed. It lies 800m northeast of the proposed turbines, on the north side of a local road. The main outward views are to the south and northwest, with the large living room windows having clearly been designed to take advantage of these views (particularly to the northwest). Living room, kitchen and utility room windows all face south. There are two upstairs storage rooms, but the single



south-facing velux window provides light to the downstairs bathroom rather than these upstairs rooms, and offers no outward views.

- 4.3.5 As can be seen from figures 5.60B and C, the turbines would occupy a 39 degree arc of view to the southwest of the property at a distance of 800m. From the living room window, there would be a degree of screening by the outgrown hedgerow on the far side of the road, but screening would be less than implied by the aerial photograph (5.60A) as a number of the larger trees within the garden have been felled since that photograph was taken (predates much of the building work). The turbines would be clearly visible in views from the kitchen window and much of the garden.
- 4.3.6 In summary, there will be clear views of the turbines from the kitchen and one of the living room windows. The outlook from the living room to the northwest will not be affected by the proposed Park head wind Farm, though there is the potential for cumulative effects from other wind farm proposals in this direction (this is not addressed by this assessment, but will be covered, as appropriate, within the cumulative assessment). The Park Head wind turbines will dominate the outlook to the southwest of the property, but will not be ‘overbearing’ or ‘oppressive’.

#### *1 Low Southward Edge (Figure 5.57A-C)*

- 4.3.7 1 Low Southward Edge is a two-storey property which is next door to Holly Lodge. The main outward views are to the southwest, with the living room, kitchen and main bedroom windows all facing out in this direction. One of the bedrooms also benefits from a small balcony area, which also faces in this direction and from which one of the photographs has been taken (figure 5.61B). The small front garden also faces in this direction. There are also north facing views from one of the bedrooms and two landing windows up stairs, and a ‘sun-room’ downstairs as well as the back garden.
- 4.3.8 As can be seen from figures 5.61B and C, the turbines would occupy a 40 degree arc of view to the southwest of the property at a distance of 800m. The turbines would be clearly visible in the elevated, open views from the front garden, kitchen and reception room windows as well as from the two south-facing bedroom windows and balcony. Most of the turbines would be of a similar apparent size to the existing pylons which can also be seen in the views in this direction, with the nearest turbine appearing slightly larger.
- 4.3.9 In summary, there will be clear views of the turbines from most of the main windows of this property and from the front garden. There is the potential for cumulative effects from other wind farm proposals to the north (this is not addressed by this assessment, but will be covered, as appropriate, within the cumulative assessment). The Park Head wind turbines will dominate the outlook to the southwest of the property, but will not be ‘overbearing’ or ‘oppressive’.

#### *High Southward Edge (figure 5.58A-C)*

- 4.3.10 High Southward Edge is a single storey property located just over 1km to the northeast of the site. The front windows face to the northwest, and the rear windows are assumed to face out over the rear garden which lies to the southeast of the property. As can be seen from the aerial photograph on Figures 5.58A and 5.58C, two outbuildings lie to the west of the house, which will prevent the turbines from being visible from the front garden and oblique views which may be available from the front windows. The tree belt to the southwest is also likely to prevent views of the turbines from the rear windows (which would also be very oblique) and garden. There are no windows in the gable end of the house which faces towards the site.
- 4.3.11 In summary, the turbines are unlikely to be visible from this property, though there is the possibility that blade tips may be visible above the nearby vegetation or out buildings from one

or two places in the gardens. The effect of the turbines on this property will not be 'overbearing' or 'oppressive'.

#### *Doe Hill Farm & Cottage (Figure 5.59A-C)*

- 4.3.12 Doe Hill Farm lies 800m east of the proposed turbines to the west one of the local roads and is accessed via a track. The property consists of a group of farm buildings set square around a yard with the two residential buildings located on the southern side. There are panoramic views from the south facing reception room and bedroom windows. The windows on the northern side of the property are downstairs only and look out across the yard. The small garden lies to the south of the property - again offering panoramic views to the south.
- 4.3.13 Doe Hill Cottage (not visited) also forms part of this group of buildings, lying directly east of the farm house. The bungalow has windows which face north and south, with gardens mainly to the north and south sides, but also wrapping around the eastern side.
- 4.3.14 As can be seen from figure 5.56C, the turbines would occupy a 60 degree arc of view to the northeast of these properties, at a distance of 800m. There are no east facing windows at either dwelling and views from the north-facing windows (which are all downstairs) would be blocked by the barns.
- 4.3.15 The turbines will not be visible from the garden of the farmhouse, as there is a small shed which blocks views towards the east. However they will be visible from the adjacent area, which is used as an extended part of the garden to house a small number of animals (location of photograph on figure 5.56B). The southernmost turbine is likely to be almost fully visible, with only the base screened by trees. Most of the other turbines will be entirely or almost entirely screened by the woodland which runs along the drive (though this is forestry and may be felled in future). Two of the turbines will be screened by the barn seen to the far right of the photograph. Views of the turbines are unlikely from the gardens of the cottage.
- 4.3.16 In summary, the main open views from these properties - southwards from the garden and south facing windows - will not be affected by views of the turbines. There will be no views of the turbines from the windows of either property or from the main gardens. There will be views of the turbines - with one turbine fully visible and the blade tips of 2 others seen above the trees - from the area adjacent to the farmhouse. The effect of the turbines on these properties will not be 'overbearing' or 'oppressive'.

#### *Correslaw (Figure 5.60A-C)*

- 4.3.17 Correslaw is located approximately 1.2km south of the proposed turbines and is accessed via a long driveway. It is indicated as 'Parkwall' on the OS maps. The house is an L-shaped individual property set back from the road and surrounded by trees and mature shrubs. The garden wraps around the property on the east, south and west sides.
- 4.3.18 As can be seen from figure 5.55C, Correslaw is a property with a considerable number of windows - with most of the larger windows facing south and west, offering views out into the large garden and countryside beyond. The wind farm would lie to the north of the property occupying a 33 degree arc of view at a distance of approximately 1150m. Some of the turbines are likely to be visible above nearby trees from the north-facing bedroom window (view illustrated on figure 5.55B) and the two adjacent bathroom windows. There may also be some visibility of the turbines from the study window (downstairs), though this and other downstairs windows on the northern side will benefit from screening by the trees and large shrubs along the northern boundary of the property, and it is only likely that the tops of the turbines will be seen above the nearby and more distant vegetation from the more westerly of the two study windows. The turbines will be more visible in winter when screening will be reduced, though the block of conifers will continue to partially screen the two nearest turbines.



- 4.3.19 Views of the turbines will be screened by planting from most of the garden (as can be seen from figure 5.55A) with views most likely from the area where cars are parked near the house and from the northern edge of the 'orchard' which lies to the eastern side of the house (location of garden photograph on figure 5.55C).
- 4.3.20 In summary, the main open views from this property - from the garden and the large west and south facing windows - will not be affected by views of the turbines. There may be views of the turbines from the 3 small upstairs windows (1 bedroom, 2 bathrooms) and possibly from the study window, and views of blades above trees from some points of the garden. The effect of the turbines on the property will not be 'overbearing' or 'oppressive'.

#### *Park Head Farm (Figure 5.61A-C)*

- 4.3.21 Park Head Farm belongs to the landowner for this application, and is the closest dwelling to the proposed turbines, lying 600m to the southwest. The house has 2 storeys on the western side, but only one on the eastern side. The wind farm would lie to the north and east of the property, occupying an 84 degree arc of view.
- 4.3.22 As can be seen from figures 5.61A and 5.61C, the house has only has one small downstairs window facing east and one small upstairs windows facing north. The main views are all towards the west from the 5 large windows on the west-facing façade. The gardens are also on the western side of the house. Figure 5.61B shows that the views on the northern and northeastern sides of the property consist of near views of the large barns and outbuildings associated with the farm, with a narrow window of open outlook along the track towards the east. The tops of the more nearby turbines are likely to be visible above the barns with one turbine (the southernmost) likely to be seen just beyond the barns looking along the track. The upstairs, north facing window will have more open views due to its more elevated location. The turbines are also likely to be seen over the barns from the garden, but those to the east will be screened by the house, which has 2-storeys on the western side.
- 4.3.23 The turbines will be substantially screened by the nearby barns, but will be visible from the farmyard, gardens and 2 small windows on the north and east of the house. This property is owned by the landowner for the application. The effect of the turbines on the dwelling will not be 'overbearing' or 'oppressive'.

#### *Coal Houses (Figure 5.62A-C)*

- 4.3.24 Coal Houses is a single storey property which lies 800m to the southwest of the turbines. Much of the view to the northeast is occupied by outbuildings which lie on slightly higher ground. The three centrally placed windows in the north façade of the house are small, whilst the two at the ends of the property are larger (as can be seen from Figures 5.62A and C). There are no windows in the east-facing gable end.
- 4.3.25 As can be seen from figure 5.62B, the turbines are likely to be visible above the rising ground to the northeast, though views from the house in particular may be screened by the nearby out buildings. The more southerly turbines will be visible from the garden, and potentially in oblique views from the window at the eastern end of the north façade.
- 4.3.26 Some turbines will be visible from this property, though mainly in views looking eastwards from the garden, rather than from the windows, from where the outbuildings will provide a degree of screening. The effect of the turbines on the dwelling will not be 'overbearing' or 'oppressive'.



#### *Folly House (Figure 5.63A-C)*

- 4.3.27 Folly House lies 800m west of the proposed turbines, on the west side of a local road. The property consists of a two-storey house with a number of connected outbuildings. The out buildings lie to the east of the house (as can be seen from figure 5.58C) and partially block views towards the wind farm site. The main outward views are to the south and southwest. Main living room, conservatory and bedroom windows all face south, and there are also some smaller windows on the northern and western sides of the house.
- 4.3.28 As can be seen from figures 5.58B and C, the turbines would occupy a 40 degree arc of view to the east of the property at a distance of 800m. The turbines would be mostly screened by rising ground, such that only the nearest two turbines would be visible below hub height, and the blades or blade tip of the other turbines would be seen. As can be seen from the photograph taken adjacent to the conservatory, the available arc of view from the house itself is more limited than that available from the garden, and only oblique views of the three southern most turbines are likely to be available from the house.
- 4.3.29 In summary, there will be oblique views of the tops of the three southernmost turbines from the bedroom and conservatory windows (and possibly from one of the living room windows). The tops of the turbines will be seen above rising ground to the east from the garden. The main open outlook to the south and southwest will not be affected. The effect of the turbines on the property will not be ‘overbearing’ or ‘oppressive’.

#### *Wingates Moor Farm (Figure 5.64A-C)*

- 4.3.30 Wingates Moor Farm lies 1.1km to the northwest of the turbines, beyond areas of plantation woodland. It is assumed that the main open façade of the farmhouse faces eastwards, towards the turbines, which would occupy a 51 degree arc of view.
- 4.3.31 The turbines are likely to be visible from east facing windows and the gardens, which lie on the eastern side of the house. It should be noted that the mast to the right of the view, in the near ground, is not related to Park Head wind farm, but to a potential application at Wingates Moor Farm. Figure 5.64B shows the existing view and wireframe from a nearby location. The existing meteorological mast for Park head wind farm can be seen above the conifer plantation in the centre of the view and provides a good indication both of the nature of the existing views and of the likely visibility of the turbines - they will be seen above the woodland.
- 4.3.32 In summary, the turbines will be seen, above the conifer plantation, in open views from the east facing windows and garden. Whilst the near views are open, the woodland would screen the bases of the turbines and provide a degree of separation, as would the distance between the wind farm and the property. The effect of the turbines on the property will not be ‘overbearing’ or ‘oppressive’.

#### **4.4 Properties 1.2-2km from the turbines**

- 4.4.1 As indicated by Figure 5.54, there are a further 10 individual properties within 2km, which are listed below:
- Wholme Farm - 1.5km, North
  - Todburn Moor - 1.6km, Northeast
  - Whinney Hill - 1.9km, East
  - Barns Farm, 1.5km, South
  - South Healey - 1.8km, Southwest



- Healey Mill - 1.5km, Southwest
  - East Lodge - 1.3km, West
  - Nunnykirk (school) - 1.7km, West
  - Ritton (2 dwellings) - 1.8km, Northeast
- 4.4.2 The most open views from these properties are from one of the two houses at Ritton, and from Whinney Hill, with most of the houses being screened by vegetation.
- 4.4.3 Netherwitton Hall and some of the dwellings within Netherwitton also lie at approximately 2km from the turbines, however views from these towards the turbines will be generally screened by nearby trees. The village of Wingates lies at just over 2km north of the turbines, and a number of the houses on the village will have open views out over the site, similar to those shown for viewpoint 3.
- 4.4.4 None of these dwellings would be affected to the degree that views of the turbines would be 'oppressive' or 'overbearing'.

## 5 REVISED CUMULATIVE ASSESSMENT

### 5.1 Assessment Scope

5.1.1 The ES used a study area radius of 30km for cumulative sites. This has been reduced to 25km for the SEI, as the ES indicated that the cumulative effects of park head wind farm with Middlemoor and Wandylaw wind farms would be Negligible ( see ES Figure 5.39) and excluded these from further assessment. Tables 5.1 below provides a list of operational (indicated in italics) and consented schemes with 25km of the site. In the table below, distances are measured between the nearest turbines for each of the sites (rather than to the site centre) and for this reason may differ from those in the ES. Some of the sites have also changed layout or turbine sizes since the ES was submitted.

**Table 5.1 Built and *Consented* Wind Farms**

	Site	Distance and direction	No. of Turbines	Height hub/tip	Character Areas
1	<i>Blyth Harbour</i> *	22km, SE	5	100/163m (1) and 80/125m (4)	JCA13 South East Northumberland Coastal Plain
2	Blyth Offshore	24km, SE	2	60m	None
3	Kirkheaton	18km, SW	3	46/68m	JCA12 Mid Northumberland
4	<i>Lynemouth</i>	16km, E	13	65/110m	JCA13 South East Northumberland Coastal Plain
5	<i>Bewick Drift</i>	19km, E	3	85/130m	JCA13 South East Northumberland Coastal Plain
8	MSD Cramlington	19km, SE	2	80/125m	JCA13 South East Northumberland Coastal Plain
9	<i>Ray</i>	14km, SW	16	80/125m	JCA2 Northumberland Sandstone Hills
10	<i>Green Rigg</i>	20km, SW	18	60/100m	JCA2 Northumberland Sandstone Hills

\* This is the size of the current consent for Blyth Harbour; the existing scheme turbines are smaller. In this assessment the larger size is used in order to assess the 'worst-case' in terms of cumulative effects.

5.1.2 In addition to the above approved schemes, there are 3 current applications within the 25km study area, which are listed in table 5.2.

**Table 5.2 Wind Farms in planning**

	Site	Distance and direction	No. of Turbines	Height hub/tip	Character Type and sub-type
11	Wingates	2.1km, NW	6	69/110m	JCA12 Mid Northumberland; Area 19 - Wingates Ridge
12	Todd Hill	5.2km, SE	4	60/101m	JCA12 Mid Northumberland; Area 22 - Longhorsely
13	Kirkharle	15.6km, SE	8	80/125m	JCA12 Mid Northumberland & JCA2 Northumberland Sandstone Hills

## 5.2 Approach

### *Scenarios Assessed*

5.2.1 All of the operational schemes form part of the existing baseline and their effects in views and on landscape character can be seen at present. However, in order to examine how effects from those developments and the proposed scheme combine, they are included within the cumulative assessment, but are not modeled in the cumulative visuals as they already exist. The approved schemes also form part of the baseline, as their effects have been accepted. However, as these cannot be seen at present, they are included in the wireframes and photomontages. In carrying out the assessment it became apparent that Blyth Harbour and Blyth Offshore could be treated as one group, as Bewick Drift and Lynemouth as another and Ray and Green Rigg as a third.

5.2.2 In examining the effects that Park Head wind farm may have in combination with the other proposed schemes; it is necessary to consider a number of alternative scenarios in which none, one, several or all of the proposed schemes are constructed and Park Head is added to that scenario. For this assessment, scenarios which do not include Park Head wind farm are not included as they are not relevant to this application. Thus the scenarios assessed are as follows:

- Scenario 1 - Park Head plus approved and existing wind farms \*
- Scenario 2a - Park Head plus Wingates and approved and existing wind farms
- Scenario 2b - Park Head plus Todd Hill and approved and existing wind farms
- Scenario 2c - Park Head plus Kirkharle and approved and existing wind farms
- Scenario 3a - Park Head plus Wingates, Todd Hill and approved and existing wind farms
- Scenario 3b - Park Head plus Wingates, Kirkharle and approved and existing wind farms
- Scenario 3c - Park Head plus Todd Hil, Kirkharle and approved and existing wind farms
- Scenario 4 - Park Head plus all applications and approved and existing wind farms.

(\* This is the situation assessed in the main assessment of effects for Park Head within the ES and SEI. Additional information is provided here about the way that the landscape and visual effects of Park Head wind farm may combine with the effects of existing and approved schemes.)

### *Kirkharle wind farm*

- 5.2.3 At the time of finalising this assessment, it was indicated that Kirkharle wind farm may be reduced from eight turbines to four, with only the southern group of turbines being proposed. This has been borne in mind in preparing this assessment, with any differences that this may make being indicated in the assessment below.

### *Presentation of results*

- 5.2.4 Rather than describing each scenario separately, which tends to lead to a lengthy and repetitive report, the assessment is considered on a receptor-by-receptor basis with the effects of each of the proposed wind farms described, individually and in combination, so that the differences for each of the scenarios can be understood. This textual description is followed by two assessment tables are provided towards the end of this section, as follows:
- Table 5.3 lists the total combined magnitude and significance of effect for each receptor and each scenario, reflecting the degree of change between the present baseline (existing and approved wind farms) and the total development, including Park Head wind farm, for that scenario.
  - Table 5.4 indicates for each receptor and scenario the difference that adding Tallentire would make over and above the other existing, approved and proposed developments, indicating the contribution that Park Head wind farm makes to the total effects indicated in table 5.3.
- 5.2.5 For scenario 1, which only includes Park Head wind farm along with the existing and approved schemes, these assessments are identical and the same as the results for the main LVIA, but the results are provided for completeness and ease of comparison.

## **5.3 Cumulative effects on Landscape Character**

- 5.3.1 The following character areas are assessed at section 2.3 above to receive more than Negligible magnitude effects from Park Head wind farm:
- JCA 12 Mid Northumberland
  - JCA 2 Northumberland Sandstone Hills
  - Area 19 - Wingates Ridge
  - Area 23 - Font and Wansbeck Valleys
  - Area 22 - Longhorsely
  - Area 20 - Longwitton Ridge
  - Area 14 - Harwood Forest

### *JCA 12 Mid Northumberland*

- 5.3.2 Of the existing and approved wind farms, only Kirkheaton lies within this character area. Ray and Green Rigg wind farms will be located approximately 4km west of the southwestern edge of the character area and may also have some localised, generally Slight magnitude, effects on character within an area south of the A696 and west of the B6342. These will add to the existing effects arising from Kirkheaton, which affect the area immediately to the southeast of the B6342 in the same location, but which do not extend much further than 3-4km from that site, which only has 3 smaller turbines. Thus the baseline combination of Kirkheaton, Ray and



Green Rigg only gives rise to a small area affected by windfarms, at the southwestern tip of the character area.

- 5.3.3 Kirkharle wind farm lies between these two groups and its split linear layout creates a broken line which runs NW-SE. This would have the effect of increasing the magnitude of effects on character in the area between Ray/Green Rigg and Kirkheaton and potentially extending effects on character slightly further to the northeast beyond the A696. If Kirkharle were to be only the southernmost group of four, a gap between the Kirkheaton/Kirkharle and Ray/Greenrigg groups would be retained, with slightly lower effects in this area.
- 5.3.4 Park Head, Wingates and Todd Hill wind farms would also be located within this character area. At 2.3.16 above, Park Head wind farm is assessed as having effects of Substantial magnitude within approximately 800m of the turbines, and Moderate magnitude within 2.5-3.5km. Effects arising from Wingates and Todd Hill wind farms are likely to be similar in extent, though a notable gap in visibility of Wingates wind farm between the B6342 and the disused railway line, 1.4-2.7km to the west of the Wingates windfarm will reduce effects within that area. For Wingates and Park Head wind farms, which are 2.1km apart, the areas of Moderate magnitude effects would overlap each other creating an area of Substantial-Moderate magnitude effects between the two wind farms, such that significant effects of either Substantial, or Substantial-Moderate magnitude and Major-Moderate significance would extend from near Coldside Farm (northwest of Wingates wind farm); to Wingates village and the linear plantation between High Southward Edge and Doe Hill Farm to the east; to Newpark Wood in the south and Ritton to the west. Todd Hill wind farm would be The combination of Todd Hill wind farm with Park Head wind farm would create adjoining, rather than overlapping, areas of Moderate magnitude effects (from Park Head) and Substantial-Moderate effects (from Todd Hill) near Stanton. Due to the local topography and vegetation patterns the overlap in visibility of the two wind farms within this area is limited and thus the effects of the two windfarms would largely tend to be discrete from one another.
- 5.3.5 In summary, the existing, approved and proposed windfarms for two distinct groups within this character area. Ray, Green Rigg, Kirkheaton and Kirkharle all affect an area at the southwestern tip; Wingates, Park Head and Todd Hill would affect separate area towards the northwest of the character area. For overall magnitude and significance judgements for each development scenario - see tables 5.3 and 5.4.

#### *JCA 2 Northumberland Sandstone Hills*

- 5.3.6 Ray and Green Rigg wind farms will both lie within this character area, affecting a zone at the southern end of the character area. No other existing or approved wind farms affect the landscape character of this area. Of the schemes in planning, Kirkharle would have the greatest effects, with the four more northerly turbines lying within the character area and extending the area significantly affected by Ray and Green Rigg to the west and the south so that it would cover most of the southern part of the character area, to the south of Harwood Forest. In the event that only the southernmost group of turbines was developed, this effect would be reduced but not eliminated.
- 5.3.7 Park Head wind farm is assessed at section 2.3.20 as having locally Moderate-Slight, reducing to Slight effects on the area to the east of Harwood Forest. Todd Hill wind farm would have no effects on this character area, lying 8.5km to the east. Wingates wind farm lies approximately 400m east of this character area and would affect the same geographic area as Park Head wind farm, but effects would be both more widespread (due to notably greater visibility) and of greater magnitude, with effects of Substantial magnitude likely over parts of the character area within 800m-1km of Wingates wind farm, and effects of Moderate magnitude up to 3.5km from Wingates wind farm. Views of Wingates wind farm are likely to be visually significant up to 5-6km, affecting the characteristic views to the coast within that area, and creating Moderate-Slight magnitude effects on character in combination with Park Head wind farm,



which would generally be seen beyond and/or adjacent to Wingates wind farm in those views (as shown in SEI figure 5.19.08CW showing the cumulative wireframe view from Simonside. These effects would not extend to the higher peaks of the Simonside Hills, which are at greater than 6.5km distance, but would be likely to extend to Dove Craggs at a distance of 5.5km.

- 5.3.8 In summary, the existing, approved and proposed windfarms for two distinct groups within this character area. Ray, Green Rigg and Kirkharle all affect the area to the south of Harwood Forest; Wingates and Park Head would both affect an area to the east of Harwood Forest. For overall magnitude and significance judgements for each development scenario - see tables 5.3 and 5.4.

#### *Area 19 - Wingates Ridge*

- 5.3.9 There are no existing or approved wind farms that affect this character area. Wingates wind farm and Park Head wind farms would both lie within this character area, situated 2.1km apart. The extent of Substantial and Moderate magnitude effects for the two wind farms is described at 5.4.5 above, and would affect most of the centre and west of this character area.
- 5.3.10 Todd Hill wind farm would further contribute to effects, causing localised Moderate Magnitude effects on the southeastern end of the character area. In the event that all three developments were to go ahead, no part of this character area would be unaffected by wind farms, though effects on the eastern end and far western ends would tend to be of Slight magnitude. Kirkharle wind farm would not affect this character area

#### *Area 23 - Font and Wansbeck Valleys*

- 5.3.11 There are no existing or approved wind farms that affect this character area. Effects arising from Park Head wind farm on this character area are described at at section 2.3.34 above and would consist of effects of Moderate magnitude and Moderate significance along the Font Valley between Cottpark and Stanton. Wingates wind farm would potentially extend these Moderate magnitude effects to the western tip of the character area. Todd Hill wind farm is located immediately to the east of the character area would be likely to have localised Substantial and Substantial-Moderate magnitude effects on the area east of Stanton. The combination of all three wind farms would give rise to effects ranging between Moderate and Substantial along much of the Font valley, with the Wansbeck valley being unaffected. Kirkharle wind farm would not affect this character area

#### *Area 22 - Longhorsely*

- 5.3.12 There are no existing or approved wind farms that affect this character area. Effects arising from Park Head wind farm on this character area are described at at section 2.3.37 above and would consist of effects of Moderate magnitude and Moderate significance in the western tip of the character area south of Garrett's Lea Wood. Effects arising from Wingates wind farm would tend to affect the same area and to the same degree with the combination of the two windfarms not contributing to a greater level of effect than just one, due to the degree of separation provided by the settlement of Wingates and presence of woodlands between this area and each of the two wind farms.
- 5.3.13 Todd Hill wind farm lies within this character area and would localised Substantial magnitude effects within approximately 1km of the wind farm, with Moderate magnitude effects likely to extend to cover most of the part of the character area which lies west of the A697. If all three of the wind farms were to be developed, Substantial to Moderate magnitude effects would arise in two separate parts of the western edge of the character area, with Slight magnitude



effects along most of the A697 corridor. Kirkharle wind farm would not affect this character area

#### *Area 20 - Longwitton Ridge*

- 5.3.14 There are no existing or approved wind farms that affect this character area. Effects arising from Park Head wind farm on this character area are described at section 2.3.38 above and would consist of very localised effects of Moderate magnitude and Moderate significance in the area north east of Broomfield Fell. The two proposed wind farms at Park Head, Todd Hill and Wingates are approximately 3km from this character area and each would have localised effects of Slight magnitude. All three of these proposed wind farms are typically not visible from most of the southern half of the character area, which has south-facing slopes. Kirkharle wind farm would not affect this character area

#### *Area 14 - Harwood Forest*

- 5.3.15 As described at 5.4.6 above, Ray wind farm will affect this character area to the south of Harwood Forest. Effects from Park Head wind farm would be as described at 2.3.46 above, giving rise to localised Slight magnitude effects in the area east of Harwood Forest. As described at 5.4.4 above the combination of Wingates wind farm and Park Head would have a greater magnitude of effects within this area, being likely to give rise to localised Moderate or Moderate-Slight magnitude effects along the east facing slopes of Blueburn Knowe, Black Knowe and Caudhole Moss. Todd Hill and Kirkharle wind farms would not affect this character area.

### **5.4 Cumulative effects on Views**

#### *ZTV analysis*

- 5.4.1 Figure 5.67 shows a cumulative ZTV study which includes Park Head wind farm and all of the existing and approved wind farms. The study treats wind farms which are relatively close together (Ray and Green Rigg, Lynemouth and Bewick Drift, Blyth Offshore and Blyth Harbour) as a single wind farm, as this is typically how they will be perceived across much of the study area. The study indicates that visibility of more than two of these groups is limited to isolated areas and that much of the north eastern area of the study area has, and would have, no visibility of the existing and approved wind farms or Park Head.
- 5.4.2 Park Head wind farm would have some areas of overlap in visibility with the existing wind farms, particularly along the ridgeline between Kirkharle, Bolam and Morpeth (see viewpoint 18); along a narrow strip of the Longwitton ridge (see viewpoint 17); in some areas near to the site (see viewpoints 3 and 16); from the open hills at Ottercops Moss and Simonside; and near Longframlington (see viewpoint 7). Park Head wind farm would also be visible in areas which do not have visibility of the existing and approved schemes. These areas would principally be within 5km of the Park Head site, extending slightly further the the west along the Font valley, and to the northwest, south of Felton.
- 5.4.3 Figure 5.68 shows a cumulative ZTV study which includes park head wind farm and the proposed wind farms at Wingates, Todd Hill and Kirkharle. From this study it can be seen that there is notable overlap between the visibility of Park Head and Wingates wind farms, though there are also relatively large areas within which only Wingates wind farm would be visible, which lie to the north, east and west of the Wingates site, mainly within 5km, but extending slightly further to the east, southwest of Felton. The overlap in visibility between Todd Hill and the other wind farms is more limited, even in the areas between Todd Hill and Park head wind

farm around Stanton. Within 3-4km of the Todd Hill site, typically only Todd Hill, or Todd Hill and Kirkharle wind farms are indicated to be visible. Kirkharle wind farm would typically be only visible in the southwestern quadrant of the study area. As with the pattern described above for the existing and approved wind farms, views of 3 or 4 of these proposed windfarms are generally only available from the Kirkharle-Bolam-Morpeth and Longwitton ridges and from the open hills at Ottercops Moss and Simonside.

### **Viewpoints**

- 5.4.4 Viewpoints 3 (Wingates), 8 (Simonside), 16 (Longhorsely Moor), 17 (Longwitton) and 18 (B6524 at West Edington) are used as cumulative viewpoints in the ES. In response to comments made in the review of the ES, two further viewpoints have been included within this assessment - viewpoint 4 (Stanton) and viewpoint 7 (Longframlington). All of the cumulative wireframes provided in the ES are replaced by new wireframes in this SEI, which includes photographs of the existing view allowing a clearer appreciation of the location of each wind farm within the view. Viewpoint 16 at Longhorsely Moor was also moved slightly eastwards when it was rephotographed for the SEI so that the view also included the coastal wind farms. Effects have been reassessed on site with the aid of these new visualisations.

#### **Viewpoint 3 Wingates (SEI Figure 5.14.03CW)**

- 5.4.5 This viewpoint is located more than 17km from the existing and approved wind farms and from Kirkharle wind farm. None of these wind farms feature or would feature notably in the view, tending to have negligible effects where they are visible, with the majority of the turbines concealed by vegetation of other nearby features. Effects arising from Park Head wind farm (2km to the south) would be as described at section 5.12.58 of the ES and would be of Substantial magnitude. From the particular viewpoint selected (which has the most open view of Park Head), Wingates wind farm (located 1km to the west) would be screened by nearby houses and vegetation, but it is likely that from some parts of the main street, the blades of the turbines will be visible above and between the trees and buildings. From the public footpaths radiating out from the village to the south and east, there are likely to be clear, close views of both wind farms. Todd Hill wind farm would be visible as blade tips above woodland, nearly 8km to the southeast and would have very limited visual effects.

#### **Viewpoint 4 Stanton (SEI Figures 5.15.04CW left and right)**

- 5.4.6 This viewpoint is located more than 16km from the existing and approved wind farms which would be theoretically visible from this viewpoint. Blyth Harbour would not in practice be visible. The wind farms at Ray and Green Rigg, though distant, might be noticed in clearer conditions due to their position stretched along the horizon line to the far left of the view. This effect would be extended and increased by the addition of Kirkharle, though if only the southernmost turbines were implemented, there would be a larger gap between the schemes. However the distances involved and the presence of woodlands on the horizon line would mean that effects would be very limited, tending towards negligible. Effects arising from Park Head wind farm (3.2km to the northwest) would be as described at section 5.12.62 of the ES, and as indicated at table 2.3 above, would be of Substantial-Moderate magnitude. Wingates wind farm would be seen directly behind Park Head in this view, with the two wind farms being seen as a single development. Todd Hill wind farm would be seen in the opposite direction (2.2km to the east). From the particular viewpoint selected (as for viewpoint 3 - chosen to have the most open view of Park Head), the turbines would be concealed by a nearby wall. However from some locations near the viewpoint, Todd Hill wind farm would also be visible and the nearest of the proposed wind farms. Typically however, views towards both the east and west simultaneously are very limited as indicated by the ZTV study - and further limited by local vegetation and buildings.

#### **Viewpoint 7 Longframlington (SEI Figure 5.18.07CW)**

- 5.4.7 Cumulative effects on this viewpoint would be no greater than effects for Park Head wind farm alone, which would be as described at section 5.12.77 of the ES, and as indicated in table 2.3 above would be of Moderate-Slight magnitude. Wingates wind farm would be concealed by nearby buildings, and from other locations in this part of the village, this would be typical. The blade tips of Todd Hill wind farm would theoretically be visible, but would in practice be screened from view by woodland on the horizon. Existing and approved wind farms are all located more than 17km from the viewpoint. The coastal wind farms may be partially visible in clear weather conditions but would have no more than negligible effects on the view.

#### **Viewpoint 8 Simonside (SEI Figure 5.19.08CW)**

- 5.4.8 The coastal windfarms will be very distant in this view (all more than 25km) and will have no effects on the views. Ray and Green Rigg wind farms form a tight cluster 12.5km to the southwest and are likely to be noticeable in clearer conditions due to the density of the cluster and its location on the horizon, though visual effects will be limited. Kirkharle wind farm would be mostly below the horizon line to the south and at a distance of 16.9km would tend not to be visible, as turbines seen in southward views against the landscape are typically dark grey against a dark background. The effects arising from Park Head wind farm would be as described at section 5.12.82 of the ES and would be of Slight magnitude as indicated at section 2.2.4 of this SEI. Wingates wind farm would be seen directly in front of and to the left of Park Head wind farm, with the two wind farms appearing as a single larger development in this view. Todd Hill wind farm would be directly behind these two wind farms and at a distance of 15.5km would make no additional contribution to effects.

#### **Viewpoint 16 Longhorsely Moor (SEI Figure 5.27.16CW left and right)**

- 5.4.9 In clear weather conditions the power station can be seen towards the east, at the far left of this view, and the wind farms at Lynemouth and Bewick Drift will also be seen in this location, but would have limited presence. The existing turbines at Blyth Harbour can also be seen in very clear conditions, though are more than 17km distant and tend to have a negligible influence. Effects arising from Park Head wind farm would be as described at section 5.12.122 of the ES and are judged to be of Moderate magnitude. Wingates wind farm would be seen to the right of Park Head wind farm, at a distance of 7.4km. There would be a small but clear separation between the two wind farms in the view. Todd Hill wind farm would be seen at a distance of 2.8km to the south, approximately 90 degrees apart from the other proposed and existing wind farms. The tops of two turbines, and most of the other two turbines would be seen above the nearby horizon line, though visibility would vary moving about the open moorland, with the few trees providing screening in some locations, and the topography providing screening from more northerly parts of the Moor, and revealing more open views from more southerly areas. However across much of the Moor, Todd Hill wind farm would be likely to have significant visual effects.

#### **Viewpoint 17 Longwitton (SEI Figure 5.28.17CW left and right)**

- 5.4.10 From the particular viewpoint selected (chosen as it would have the most open view towards Park head wind farm), only Park Head and Wingates wind farms would be visible, with all of the other wind farms screened from view by nearby walls and vegetation. In general, the coastal wind farms and Todd Hill wind farm are not visible from the village. However from the western end of the village, near Longwitton Farm, Kirkheaton wind farm can be seen and Ray, Green Rigg and Kirkharle wind farms would also be visible ranged along the distant horizon at distances of 11-16km, spread across a 90 degree arc of view, tending to give rise to effects that would be noticeable, but not significant and with Kirkharle filling the gap between the existing and approved schemes (with just the southernmost turbines a gap between Kirkheaton/Kirkharle and GreenRigg/Ray would be maintained). The effects arising from Park head wind farm would be as described at section 5.12.127 of the ES and of Moderate magnitude



as indicated in table 2.3 of this SEI. Wingates wind farm would be seen at a distance of 5.7km. It would be clearly separated from Park head wind farm in this view, and noticeably more distant. Park Head and Wingates would be visible together within the same 45 degree arc of view.

#### **Viewpoint 18 B6524 at West Edington (SEI Figure 5.29.18CW)**

- 5.4.11 Of the existing and approved wind farms, only Ray is likely to be noticeable in this view, and then only in clear weather conditions, as it is at a distance of 19km. Others are mostly screened and/or more distant. Kirkharle windfarm would also be mostly screened though the northernmost group of turbines may be seen in gaps through trees to the west. In the even that just the southermost turbines were implemented, Kirkharle would not be visible from this viewpoint. As they would be nearly 16km from the site, effects would be likely to be negligible. Effects arising from Park head wind farm would be as described at section 5.12.132 of the ES and are judged to be of Slight magnitude. Wingates wind farm would be seen behind and to the left of Park Head, with the two wind farms appearing as a single larger development in this view. Todd Hill wind farm would be the closest of the wind farms at 6.6km and would be seen partly below and partly above the horizon line directly to the north. Todd Hill would be distinctly separated from Wingates and Park Head, but all three would be visible within a 40 degree arc of view.

### **5.5 Cumulative effects on Routes**

- 5.5.1 The ES does not mention national and regional footpaths and cycle trails in this context. The nearest route is the St Oswalds Way regional trail, which passes within 8km to the northwest of the site and which would generally have either distant or no visibility of the site.
- 5.5.2 Section 5.15 of the ES provides information regarding the effects on a number of routes through the study area. However from a review of the cumulative ZTV studies (figures 5.67 and 5.68), it is readily apparent that the only long distance route through the study area which is likely to experience significant effects from Park Head wind farm is the A697. The section of route through the area most likely to experience cumulative sequential effects that would be added to in any notable way by Park Head wind farm would be the A1-A697 between Wide Open and Longframlington Common.
- 5.5.3 Driving along this route heading north, the first views would be of the two turbines at MSD Cramlington, which are clearly visible to the right hand side at a distance of approximately 2km. A little further to the north, it is likely that the approved taller turbines at Blyth Harbour will also be visible to the right, particularly the tallest turbine which is the northernmost of the group. Passing over the ridgeline to the southwest of Morpeth, it is possible that a number of wind farms may be visible, including Todd Hill, Park Head and Wingates (in order of increasing distance) which would be directly ahead and arranged one behind the other. However the road is in cutting and has roadside planting through most of this section which largely prevents outward visibility. Turning onto the A697, only Todd Hill is likely to be visible through the first 3km of the route, and would be seen approximately 2km to the left. There are frequent open views through this section of the route. The short open section of the route north of Longhorsely Moor and south of Longhorsely would permit views of Park Head (approx 5km) and Wingates wind farm (approx 7km) to the left. North of Longhorsely, Wingates wind farm may once again be visible, but would quickly pass behind the driver.
- 5.5.4 Driving along this route heading south, the first views of wind farms would be seen to the north of Longframlington, where Wingates and Park head wind farms would be briefly visible ahead and to the right at distances of 9-10km. In the open stretches of the route between Longframlington and Weldon, between Weldon and Longhorsely and just to the south of Longhorsely these two wind farms would also be visible to the right of the route at distances of between 4 and 6km, with the closest view being of Park Head wind farm at a distance of 4km



from north of Longhorsely. These views would be discontinuous and broken by sections of no visibility where the route passes through settlements or woodland blocks. South of Longhorsely moor, Todd Hill wind farm would become visible ahead and to the right, passing beyond view as the route enters woodlands and approaches the A1 junction. Beyond Morpeth, the turbines at MSD Cramlington become increasingly visible as they are seen directly ahead and then to the left of the driver as the route approaches Cramlington. The tallest of the turbines at Blyth Harbour may also be visible to the far left at this part of the route.

- 5.5.5 Reviewing the route as a whole, the most pronounced effects will be from the existing turbines at MSD Cramlington and from Todd Hill wind farm, which both lie approximately 2km from the route. The most affected section of route would be the A697 between the A1 junction and Longframlington (a stretch of 13km) in which there would be a noticeable pattern of wind farm development, particularly for southbound drivers, were Todd Hill, Park Head and Wingates wind farms to be developed. However visibility throughout this stretch would be intermittent rather than continuous and the character of the route would not be dominated by the wind farms.

### 5.6 Cumulative effects on Dwellings

- 5.6.1 The proximity of Wingates and Park Head wind farms to each other give rise to the possibility of cumulative effects on residential amenity. Of the properties within 1.2km of Park Head wind farm, only Wingates Moor Farm also lies within 1km south east of Wingates wind farm. The property has very limited views to the northwest, as the gardens and windows are primarily on the eastern side. The cumulative effects are not therefore likely to be notably greater than for Park Head wind farm alone.

### 5.7 Cumulative effects on Designated Landscapes

- 5.7.1 The effects on Northumberland National Park are judged at section 2.4 above to be of Slight magnitude and Moderate significance in the area to the east of Harwood Forest and Negligible magnitude and Minimal significance overall. Park Head wind farm will not therefore make any material contribution to cumulative effects on the Northumberland National Park.

### 5.8 Cumulative Assessment Tables

- 5.8.1 The magnitude and significance of effects for each scenario is set out in tables 5.3 and 5.4 overpage.



**Table 5.3 Total combined effects over the baseline of existing and approved wind farms.**

Note - Significant effects are underlined. Only overall effects are included in the table, given as ‘magnitude, significance’; for localised effects see the main text.

RECEPTOR	1 PH	2A PH, W	2B PH, TH	2C PH, K	3A PH, W, TH	3B PH, W, K	3C PH, TH, K	4 PH, W, TH, K
<i>Landscape Character Areas</i>								
JCA 12 Mid Northumberland	Negligible, Minimal	Negligible, Minimal	Negligible, Minimal	Negligible, Minimal	Slight-Negligible, Minor	Negligible, Minimal	Negligible, Minimal	Slight-Negligible, Minor
JCA 2 Northumberland Sandstone Hills	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor
Area 19 - Wingates Ridge	Moderate, Moderate	<u>Substantial-Major</u>	<u>Moderate, Major-Moderate</u>	Moderate, Moderate	<u>Substantial, Major</u>	<u>Substantial, Major</u>	<u>Moderate, Major-Moderate</u>	<u>Substantial, Major</u>
Area 23 - Font and Wansbeck Valleys	Slight-Negligible, Minor	Slight-Negligible, Minor	Moderate-Slight, Moderate	Slight-Negligible, Minor	Moderate-Slight, Moderate	Slight-Negligible, Minor	Moderate-Slight, Moderate	Moderate-Slight, Moderate
Area 22 - Longhorsely	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight, Moderate-Minor	Slight-Negligible, Minor	Slight, Moderate-Minor	Slight-Negligible, Minor	Slight, Moderate-Minor	Slight, Moderate-Minor
Area 20 - Longwitton Ridge	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight, Minor
Area 14 - Harwood Forest	Slight-Negligible, Minor	Slight, Moderate-Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight, Moderate-Minor	Slight, Moderate-Minor	Slight-Negligible, Minor	Slight, Moderate-Minor



RECEPTOR	1 PH	2A PH, W	2B PH, TH	2C PH, K	3A PH, W, TH	3B PH, W, K	3C PH, TH, K	4 PH, W, TH, K
<i>Viewpoints</i>								
3) Wingates	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>
4) Stanton	<u>Moderate,</u> <u>Major-</u> <u>Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>
7) Longframlington	Moderate- Slight, Moderate	Moderate-Slight, Moderate	Moderate- Slight, Moderate	Moderate- Slight, Moderate	Moderate- Slight, Moderate	Moderate- Slight, Moderate	Moderate-Slight, Moderate	Moderate-Slight, Moderate
8) Simonside	Slight, Moderate	Moderate-Slight Moderate	Slight, Moderate	Slight, Moderate	Moderate-Slight Moderate	Moderate-Slight Moderate	Slight, Moderate	Moderate-Slight Moderate
16) Longhorsely Moor	<u>Moderate,</u> <u>Major-</u> <u>Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>
17) Longwitton	<u>Moderate,</u> <u>Major-</u> <u>Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Substantial-</u> <u>Moderate,</u> <u>Major-Moderate</u>
18) B6425 at West Edington	Slight, Moderate- Minor	Slight, Moderate-Minor	Slight, Moderate-Minor	Slight, Moderate-Minor	Moderate- Slight, Moderate-Minor	Slight, Moderate-Minor	Slight, Moderate-Minor	Moderate-Slight, Moderate-Minor



**Table 5.4 Effects of adding Park Head wind farm if the existing, approved and proposed developments in each scenario were already constructed.**

Note - Significant effects are underlined. Only overall effects are included in the table, given as ‘magnitude, significance’; for localised effects see the main text.

RECEPTOR	1 PH	2A PH, W	2B PH, TH	2C PH, K	3A PH, W, TH	3B PH, W, K	3C PH, TH, K	4 PH, W, TH, K
<i>Landscape Character Areas</i>								
JCA 12 Mid Northumberland	Negligible, Minimal	Negligible, Minimal	Negligible, Minimal	Negligible, Minimal	Negligible, Minimal	Negligible, Minimal	Negligible, Minimal	Negligible, Minimal
JCA 2 Northumberland Sandstone Hills	Slight-Negligible, Minor	Negligible, Minimal	Slight-Negligible, Minor	Slight-Negligible, Minor	Negligible, Minimal	Negligible, Minimal	Slight-Negligible, Minor	Negligible, Minimal
Area 19 - Wingates Ridge	Moderate, Moderate	Moderate-Slight Moderate-Minor	Moderate, Moderate	Moderate, Moderate	Moderate-Slight Moderate-Minor	Moderate-Slight Moderate-Minor	Moderate, Moderate	Moderate-Slight Moderate-Minor
Area 23 - Font and Wansbeck Valleys	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor
Area 22 - Longhorsely	Slight-Negligible, Minor	Negligible, Minimal	Slight-Negligible, Minor	Slight-Negligible, Minor	Negligible, Minimal	Negligible, Minimal	Slight-Negligible, Minor	Negligible, Minimal
Area 20 - Longwitton Ridge	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor	Negligible, Minimal	Slight-Negligible, Minor	Slight-Negligible, Minor	Negligible, Minimal
Area 14 - Harwood Forest	Slight-Negligible, Minor	Negligible, Minimal	Slight-Negligible, Minor	Slight-Negligible, Minor	Negligible, Minimal	Negligible, Minimal	Slight-Negligible, Minor	Negligible, Minimal



RECEPTOR	1 PH	2A PH, W	2B PH, TH	2C PH, K	3A PH, W, TH	3B PH, W, K	3C PH, TH, K	4 PH, W, TH, K
<i>Viewpoints</i>								
3) Wingates	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>	High, <u>Major</u>
4) Stanton	<u>Moderate,</u> <u>Major-</u> <u>Moderate</u>	Moderate-Slight, Moderate	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	Moderate- Slight, Moderate	Moderate- Slight, Moderate	<u>Moderate,</u> <u>Major-Moderate</u>	Moderate-Slight, Moderate
7) Longframlington	Moderate- Slight, Moderate	Moderate-Slight, Moderate	Moderate- Slight, Moderate	Moderate- Slight, Moderate	Moderate- Slight, Moderate	Moderate- Slight, Moderate	Moderate-Slight, Moderate	Moderate-Slight, Moderate
8) Simonside	Slight, Moderate	Negligible, Minimal	Slight, Moderate	Slight, Moderate	Negligible, Minimal	Negligible, Minimal	Slight, Moderate	Negligible, Minimal
16) Longhorsely Moor	<u>Moderate,</u> <u>Major-</u> <u>Moderate</u>	Moderate-Slight, Moderate	Moderate- Slight, Moderate	<u>Moderate,</u> <u>Major-Moderate</u>	Moderate- Slight, Moderate	Moderate- Slight, Moderate	Moderate-Slight, Moderate	Moderate-Slight, Moderate
17) Longwitton	<u>Moderate,</u> <u>Major-</u> <u>Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>	<u>Moderate,</u> <u>Major-Moderate</u>
18) B6425 at West Edington	Slight, Moderate- Minor	Slight- Negligible, Minor	Slight- Negligible, Minor	Slight, Moderate-Minor	Slight- Negligible, Minor	Slight- Negligible, Minor	Slight-Negligible, Minor	Slight-Negligible, Minor

## 6 LANDSCAPE AND VISUAL IMPACT ASSESSMENT– SUMMARY

### 6.1 Effects on landscape character

- 6.1.1 Effects on landscape character are assessed at section 2.3 of this SEI, replacing the assessment within the ES. Although the results of the assessment are not substantially different from the ES, the SEI assessment provides the clarification requested in the Woolerton Dodwell review of the ES.
- 6.1.2 There will be significant localised effects on the Mid Northumberland national character area and the local Wingates Ridge character area. These will not have effects that will be significant on the overall character of those areas, but effects on the Wingates Ridge, which is a small, narrow area, will be Moderate overall.

### 6.2 Effects on Northumberland National Park

- 6.2.1 There would be localised effects on the Simonside Hills, and the area to the south of this and east of Harwood Forest where views of the turbines would be available. These views will not have significant visual effects and will give rise to localised, effects on landscape character which would also not be significant. The turbines will not be visible from almost all of the National Park.
- 6.2.2 These will give rise to localised effects of Moderate significance on the National Park in the area east of Harwood Forest, overall effects will be Minimal.

### 6.3 Visual effects

- 6.3.1 Park Head wind farm would not be visible from much of the north and west of the study area. Beyond 5km from the site, visibility is relatively fragmented and generally only available from areas of higher, open ground, such as the east-west ridgelines to the south of the site.
- 6.3.2 In line with the comments made by Woolerton Dodwell, a number of the visualisations have been replaced and additional visualisations have been provided. The assessment of effects on views has also been reviewed with the result that some judgements have been revised. The main alteration is that effects on viewpoint 7 at Longframlington are no longer assessed as being significant.
- 6.3.3 Visual effects would tend to be of High magnitude within approximately 2km of the turbines, Moderate between 3-5km, Slight between 8-11km and Negligible beyond 13km.
- 6.3.4 The most affected settlement will be Wingates, from where open views of the turbines will be available from parts of the main street, from footpaths to the south of the village, and from the windows and gardens of a number of the houses. Effects on other settlements within 5km (Stanton, Netherwitton, Longhorsely and Longwitton) typically consist of one or two places from which the turbines can be seen, and would have significant visual effects, with the rest of the settlement not having views of the turbines.
- 6.3.5 There are no long distance national or regional or cycle routes that will be significantly affected. The local footpaths and bridleways within 5-6km of the site are likely to experience significant visual effects where the turbines are visible, however these will not be regarded as adverse by all footpath users.
- 6.3.6 There are 11 dwellings within 1.2km of the turbines. A detailed assessment of visual effects on residential amenity has been undertaken in preparing this SEI. This has indicated that the property which will be most affected by the proposed wind farm at Park Head would be 1 Low Southward Edge which would have direct open views from most of the main windows of the house and from the front garden, at a distance of 800m. However, whilst the turbines

would be a dominant feature of the view, bringing about a significant change, it is judged that they would not be overbearing or oppressive, and that the dwelling would not become an undesirable place in which to live. Other properties are affected to a lesser extent.

#### 6.4 Cumulative effects

- 6.4.1 Kirkharle wind farm is sufficiently distant that the alteration from eight to four turbines would make no material difference to the assessment. Cumulative effects arising from the combination of Park Head wind farm with Kirkharle are no more than for Park Head wind farm alone.
- 6.4.2 The combination of Park Head wind farm with either Todd Hill or Wingates wind farm would cause significant effects on the Wingates Ridge local character area, such that it would be characterised by wind farms. This effect would be most pronounced for the combination of Wingates and Park Head, giving rise to Major effects with wind farms being the dominant characteristic of the area. There would be no other significant effects on character, except for localised areas around each wind farm.
- 6.4.3 There would be no significant cumulative effects on Northumberland National Park.
- 6.4.4 The visibility patterns for Park Head and Wingates wind farm tend to be very similar, except for an area immediately north and west of Wingates wind farm, where that is the only scheme which would be visible. The visibility for Todd Hill and Park Head overlaps much less, tending only to coincide on areas of higher open ground. As with Wingates, there is an area around Todd Hill wind farm in which that would be the only development visible. The areas of combined visibility between Park Head and Todd Hill (e.g. around Stanton), are very limited.
- 6.4.5 Park Head and Wingates wind farms are sufficiently close together that in many views they appear as a single wind farm. They are only distinguishable as two separate developments in close views from locations between the two wind farms (e.g. viewpoint 3 at Wingates); or near views looking directly northeast or southwest towards the two developments (e.g. viewpoint 7 at Longframlington and viewpoint 17 and Longwitton). From most viewpoints therefore, the combined effect of both wind farms is not significantly greater than for the nearest of the two schemes.
- 6.4.6 Only very elevated viewpoints such as from Simonside, tend to offer full views of all three schemes, and typically areas which have open views of Park Head wind farm have only partial views of Todd Hill wind farm. Thus it is unlikely that the two schemes will combine to create significant cumulative effects on locations where a significant visual effect would not arise from the nearest of the two wind farms.
- 6.4.7 The A697 will be the only long distance route for which Park Head wind farm may contribute to significant cumulative effects. If all three of the the proposed schemes at Park Head, Todd Hill and Wingates were to be constructed, the windfarms would be a noticeable feature of the length of the route between Longframlington Common and the A1 junction, but would not dominate its character.