



# **Dogger Bank C/Sofia Onshore Works Application**

## **Appendix 1 -**

## **Landscape and Visual Appraisal**



LVA

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**DOGGER BANK**  
**WIND FARMS**



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# 1 Introduction

## 1.1 Purpose of this Report

This Landscape and Visual Assessment (LVA) accompanies the Environmental Appraisal which is submitted to support the planning application (the Application) made by Doggerbank Offshore Wind Farm Project 3 Projco Limited (the Projco) and Sofia Offshore Wind Farm Limited (SOWFL) (the Applicants), for consent pursuant to Section 62 of the Town and Country Planning Act 1990 as amended<sup>1</sup>.

A Development Consent Order (2015 DCO) was granted for Dogger Bank Wind Farm C (previously known as Dogger Bank Teesside A Offshore Wind Farm) and Sofia Offshore Wind Farm (previously known as Dogger Bank Teesside B Offshore Wind Farm) (the Applicants' Projects), including the onshore transmission works required to export electricity to the grid in August 2015.

The Application includes five areas of alternative and additional infrastructure to the consented 9 kilometres (km) buried onshore grid connection, spanning from the landfall for Dogger Bank Wind Farm C (DB-C) and Sofia Offshore Wind Farm (Sofia) to the National Grid at Lackenby Substation (the Works).

This Report provides a focused appraisal considering the potential landscape and visual effects of each of the five areas against the consented effects deemed as acceptable by the consented 2015 DCO and as identified within the Landscape & Visual Impact Assessment (LVIA) of the 2014 Environmental Statement LVIA ('2014 ES LVIA').

Using the 2015 DCO as a baseline, and having reviewed the 2014 ES LVIA, this assessment demonstrates that the Works give rise to no new or materially different environmental effects than those identified within the 2014 ES LVIA and will not give rise to any new likely significant effects.

## 1.2 Development Context

For the ease of reference, the Works, as shown in Figure 1.2 (a – c) of the Environmental Appraisal, is split into areas as below:

- Area 1 – A174 Crossing;
- Area 2 – South of Kirkleatham Memorial Park;
- Area 3 - Wilton East; and
- Area 4 – Main Welfare Hub south of Wilton; and
- Area 5 - HVAC Cable Corridor.

<sup>1</sup> UK Government (1990) Town and Country Planning Act 1990 [Online] Available at: <http://www.legislation.gov.uk/ukpga/1990/8/contents> (Accessed on 11/05/2020)

## 1.3 Document Structure

This Report is structured as follows:

- Introduction;
- Methodology;
- Baseline for Assessment;
- Assessment of Potential Effects;
- Mitigation and Enhancement;
- Cumulative Effects; and
- Summary and Statement of Change/No Change.

This Report is accompanied by the following Annexes:

- Annex A1 – Figures; and
- Annex A2 – Summary ES LVIA tables.

This Report should be read in conjunction with Chapter 21 of the 2014 DCO Environmental Statement (2014 DCO ES)<sup>2</sup> which provides the LVIA for the 2015 DCO.

## 2 Methodology

### 2.1 Introduction

This Section sets out a summary of the legislation and policies relevant to landscape and visual receptors, and defines the scope of the baseline studies and assessment methods.

### 2.2 Scoped Out Effects

#### 2.2.1 Effects on National Character Areas

The Works are located within the following National Character Areas (NCAs):

- Tees Lowland NCA 23<sup>3</sup>; and
- North Yorkshire Moors & Cleveland Hills NCA 25<sup>4</sup>.

Whilst character areas designated at a national scale have a role to play in providing general context, local landscape character assessments have been published by county and local authorities. The NCAs are too extensive for there to be any potential for them to be significantly altered by the Works. Therefore, Tees

<sup>2</sup> Forewind (2015) Chapter 21 – Landscape and Visual Impact Assessment, Dogger Bank Tesside A & B ES

<sup>3</sup> Natural England - National Character Area Profile Tees Lowland NCA 23 [Online] Available at: <http://publications.naturalengland.org.uk/publication/9860030> (Accessed 08.06.20)

<sup>4</sup> Natural England - National Character Area Profile North Yorkshire Moors & Cleveland Hills NCA 25 [Online] Available at <http://publications.naturalengland.org.uk/publication/2646022> (Accessed 08.06.20)

Lowland NCA 23 and North Yorkshire Moors & Cleveland Hills NCA 25 have been scoped out of further consideration (refer to Figure 4.1 in the 2014 ES LVIA, and Annex 1 of this assessment).

### 2.2.2 Operational Effects

There would be very limited landscape and visual effects arising during the operational phase of the Works as the permanent cables are underground, with the exception of the retaining works within Wilton International, which would be visible as above ground features within the industrial landscape. Therefore, operational effects are scoped out of this assessment.

## 2.3 Policy and Guidance

### 2.3.1 Policy Documents

The local planning policy referenced in the 2014 ES LVIA is now superseded by the Redcar & Cleveland Local Plan<sup>5</sup> (2018). Policies N1 - Landscapes and N4 - Biodiversity are of relevance to this LVA, in the identification of the landscape character elements, and establishing landscape value, sensitivity and susceptibility within the landscape and visual appraisal.

### 2.3.2 Guidance Documents

The following documents are applicable to this LVA:

- Landscape Institute and Institute of Environmental Management and Assessment 'Guidelines for Landscape and Visual Effect Assessment', 2013 (GLVIA3)<sup>6</sup>;
- Countryside Agency and Scottish Natural Heritage (SNH), (2002) Landscape Character Assessment: Guidance for England and Scotland<sup>7</sup>;
- Countryside Agency and SNH (2004) Landscape Character Assessment: Guidance for England and Scotland – Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity<sup>8</sup>; and
- Landscape Institute (2011). Advice Note 01/11 Use of Photography and Photomontage in Landscape and Visual Assessment<sup>9</sup>.

The aforementioned guidance has not changed since the 2014 ES LVIA. Since the 2014 ES LVIA was produced, the following guidance documents have been published, and included within this assessment:

<sup>5</sup> Redcar & Cleveland District Council Local Plan (adopted May 2018) [Online] Available at <https://www.redcar-cleveland.gov.uk/resident/planning-and-building/strategic%20planning/Pages/local-plan.aspx> (Accessed 08/06/20)

<sup>6</sup> Landscape Institute and Institute of Environmental Management and Assessment, 2013, *Guidelines for Landscape and Visual Impact Assessment*, 3<sup>rd</sup> Edition, Routledge, London. (Last accessed 14/05/2020)

<sup>7</sup> Countryside Agency and Scottish Natural Heritage (SNH), (2002) Landscape Character Assessment: Guidance for England and Scotland. [Online] Available at <https://www.nature.scot/sites/default/files/2018-02/Publication%202002%20-%20Landscape%20Character%20Assessment%20guidance%20for%20England%20and%20Scotland.pdf> (Last accessed 14/05/2020)

<sup>8</sup> Countryside Agency and SNH (2004) Landscape Character Assessment: Guidance for England and Scotland – Topic Paper 6: Techniques and Criteria for Judging Capacity and Sensitivity [Online] Available at <http://publications.naturalengland.org.uk/publication/5601625141936128> (Accessed 14/05/2020)

<sup>9</sup> This document has now been superseded.

- Landscape Institute (2019) Technical Guidance Note 2/19, Residential Visual Amenity Assessment (RVAA)<sup>10</sup>;
- Techniques for Judging Capacity and Sensitivity<sup>11</sup>; and
- An Approach to Landscape Character Assessment<sup>12</sup>, Natural England (2014)<sup>12</sup>.

The methodology of the 2014 ES LVIA is consistent with these guidance documents. All visualisations and assessments under the 2014 ES LVIA remain valid.

## **2.4 Scope of Assessment**

### **2.4.1 Realistic Worst Case**

This assessment considers the sequential construction, operation and decommissioning of the Applicants' Projects as the realistic worst-case construction scenario as this will result in greatest effect on landscape and visual receptors.

### **2.4.2 Study Areas**

The study area selected in the 2014 ES LVIA for the High Voltage Direct Current (HVDC) and High Voltage Alternative Current (HVAC) cable routes is a 2 km wide corridor along the length of the cable routes.

The same parameters are appropriate for the Works and are utilised in this assessment.

### **2.4.3 Works Assessment**

This LVA is an assessment of potential landscape and visual effects of the Works against the baseline of effects identified within the secured 2015 DCO.

This assessment uses the same scope as the 2014 ES LVIA and therefore addresses:

- Temporary short term and medium-term construction landscape and visual effects of the Works; and
- Cumulative effects.

## **2.5 Assessment Methodology**

The methodology adopted in the 2014 ES LVIA included the assessment of:

- Temporary short term landscape and visual effects; and

<sup>10</sup> Landscape Institute (2019) Technical Guidance Note 2/19 [Online] Available at: <https://www.landscapeinstitute.org/technical-resource/rvaa/> (Last accessed 14/05/2020)

<sup>11</sup> Natural England (2002) Techniques for Judging Capacity and Sensitivity [Online] Available online at: <http://publications.naturalengland.org.uk/publication/5146500464115712> (Accessed 14/05/2020)

<sup>12</sup> An Approach to Landscape Character Assessment<sup>12</sup>, Natural England [Online] Available at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/691184/landscape-character-assessment.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/691184/landscape-character-assessment.pdf) (Accessed 14/05/2020)

- Medium term landscape and visual effects including those during the construction.

Mitigation measures were secured through the 2015 DCO. Substantially the same mitigation measures will be secured for the Works through planning conditions. This assessment incorporates the secured mitigation measures and considers increased or updated mitigation measures if required.

Potential effects of the Works on landscape, including effects on the landscape resource and character within the Study Area, and visual amenity for visual receptors within the Study Area, have been assessed and are described in this assessment.

Potential landscape and visual effects as a result of the Works are considered within this LVA in the light of the 2014 ES assessment and conclusions.

The two components of LVIA referred to throughout this assessment are based on the following definitions:

- Assessment of landscape effects: assessing effects on the landscape as a resource in its own right; and
- Assessment of visual effects: assessing effects on specific views and on the general visual amenity experienced by people.

Development may have a direct (physical) effect on the landscape in which it is located as well as an indirect or perceived effect from landscape character areas surrounding it. The potential landscape effects, occurring during the construction phase may therefore include changes to landscape elements; landscape qualities; landscape character; and/or cumulative landscape effects. The nature of these changes remains the same as those identified within Chapter 21 of the 2014 ES.

Visual effects are concerned wholly with the effect of development on visual receptors and general visual amenity. Visual effects are identified for different receptors (people) who would experience the view, such as at their places of residence, during recreational activities, at work, or when travelling through the area. Visual effects may include beneficial or adverse changes in the appearance of the landscape as a result of development (e.g. quality of the view, ability of the visual receptor to appreciate the view, or changes to the characteristic elements within the view). The cumulative or incremental visibility of similar types of development may combine to have a cumulative visual effect. The nature of these changes remains the same as those identified within Chapter 21 of the 2014 ES.

## 2.6 Cumulative Effects

The assessment of cumulative effects is essentially the same as for the assessment of the stand-alone landscape and visual effects, in that the level of landscape and visual effect is determined by assessing the combination of sensitivity of the landscape or visual receptor (ranging from high to low) and the magnitude of change (ranging from substantial to negligible).

Types of cumulative effect are defined as follows:

- Cumulative Landscape Effects: Where more than one type of development may have an effect on a landscape designation or particular area of landscape character.



- Cumulative Visual Effects: Where the cumulative or incremental visibility of similar types of development combined generate a cumulative visual effect.

A cumulative landscape or visual effect simply means that more than one type of development is present or visible within the landscape.

The methodology for cumulative assessment follows that contained within GLVIA3. GVLIA3 (para 7.8) and requires that the baseline includes additional changes to the baseline landscapes or visual resources as a result of other development.

The methodology used within this assessment follows that adopted in the 2014 ES LVIA. No additional cumulative landscape and visual effects would be expected as a result of the Works.

### 3 Baseline for Assessment

A review of the baseline, as set out in the 2014 ES LVIA, has been conducted and the following landscape and visual receptors which are relevant to the Works and located are summarised in Table 3.1 below. There is no change to the baseline identified within the 2014 ES LVIA.

**Table 3.1: Review of 2014 ES Baseline and Any Changes to 2020**

Category of Receptor	Landscape / Visual Receptor	Change / No Change
<b>Landscape Baseline</b>		
Designated Landscapes	North York Moors National Park (NYMNP).  The NYMNP is situated 3.5 km south of the 2015 DCO. It was scoped out of the 2014 ES LVIA due to lack of visibility within the NYMNP.	No change
	North Yorkshire & Cleveland Heritage Coast (NY&CHC).  The NY&CHC is situated 2.5 km south east of the 2015 DCO. It was scoped out of the 2014 ES LVIA due to lack of visibility within the NYMNP.	No change
Local Landscape Character Areas	Redcar Flats Broad Landscape Area (BLA), comprising of the following Landscape Character Units (LCU): <ul style="list-style-type: none"> <li>• R1: Urbanised Farmland (East of Wilton);</li> <li>• R2: Lowland Farmland (South of Redcar and Marske);</li> <li>• R3: Park and Estate Land (Kirkleatham); and</li> <li>• R6: Coastal Farmland (Redcar to Marske).</li> </ul> The 2015 DCO is located within the Redcar Flats Broad Landscape Area, the 'host' BLA, and LCUs: R1, R2, R3 and R6.	No change
	Eston Hills Broad Landscape Area (BLA).  The 2015 DCO is located north of the Eston Hills BLA. The elevated areas of Eston Hills area, including the escarpment to the north and open Eston Moor are classified within the Landscape Character SPD (2010) as Sensitive Landscapes due to the distinctive woodland pattern, landform as well as biodiversity, historical and recreational value.	No change

	Wilton Local LCU.  The 2015 DCO is located within the Wilton Local LCU, a 'host' LCU.	No change
<b>Visual Baseline</b>		
Landfall and HVDC cable route visual receptors	22 viewpoint locations were identified for the landfall and cable route, within the 2 km study area corridor along the route. These represent a combination of road, residential, and recreational visual receptors and Bydales School.	No change
HVAC cable route and modifications at existing Lackenby Substation	Six viewpoint locations were identified for the HVAC cable route, within the 2 km study area corridor along the route. These represent a combination of road, residential, and recreational visual receptors	No change

## 4 Assessment of Potential Effects

### 4.1 Summary of Landscape & Visual Effects within the 2014 ES LVIA

The 2014 ES LVIA identified the following landscape and visual effects.

Significant direct landscape effects on the Redcar Flats: Lowland Farmland south of Redcar & Marske (LCU R2). These would be experienced during the construction phase of the 2015 DCO, and reduce to negligible in the medium term once disturbed areas are reinstated.

Significant visual effects arising from the underground cable works and substation works, would be experienced at the following viewpoint locations:

- Viewpoint 7 – Beardmore Avenue;
- Viewpoint 8 – Ryehills Farm;
- Viewpoint 10 – Public Right of Way (PRoW) Mickle Dales;
- Viewpoint 13 – Grewgrass farm;
- Viewpoint 20 – Turners Arms Farm; and
- Viewpoint 22 – Kirkleatham Old Hall Museum & Owl Sanctuary.

The potential effects of the HVDC cable route on the landscape resource are detailed in Table 6.1 within the 2014 ES LVIA. There were no significant landscape effects anticipated to arise from the construction for the 2015 DCO. Summary landscape and visual assessment tables of the HVDC Cable Route from the 2014 ES LVIA are provided in Annex 2.

### 4.2 Effects as a Result of the Works

#### 4.2.1 Landscape Effects of the Works

There has been no change to the landscape character baseline since the 2014 ES LVIA.

Refer to Figure 4.1 in the 2014 ES LVIA, included in Annex 1 of this assessment.

The Works are located within the following local landscape character units, as identified within the Redcar & Cleveland Landscape Character Assessment<sup>13</sup>. Refer to Figure 4.3 in the 2014 ES LVIA, included in Annex 1 of this assessment:

- Marske Sands & Redcar Flats Coastal Farmland (LCU R6);
- Redcar Flats: Lowland Farmland south of Redcar & Marske (LCU R2);
- Urbanised farmland (East of Wilton) (LCU R1); and
- Wilton Complex (LCU W1).

The LCUs within the Study Area have a combination of low to medium sensitivity, and low to medium landscape value. This variation reflects the location of the regional 'Sensitive Landscape' designation which is situated in three areas within in proximity to the Works (refer to Figure 4.4a in the 2014 ES LVIA, and Annex 1 of this assessment); within Lackenby and Kirkleatham. Sensitive Landscape areas, as a regional landscape designation, are considered to be of a medium sensitivity and value, and the remaining LCUs are of low landscape sensitivity and value.

The construction phase would result in localised indirect and direct landscape effects on the LCUs, and direct effects on the landscape elements within the footprint of the Works.

The predicted landscape effects of the Works, direct and indirect, on the landscape character and landscape resource, against the effects identified within the 2014 ES LVIA are presented in Table 4.1 below, and summarised in Table A8.3 (within Annex 2).

As demonstrated in Table 3 (Annex 2), the Works give rise to no new, or materially different, environmental effects than those identified within the 2014 ES LVIA and will not give rise to any new likely significant effects. LCUs identified in the 2014 DCO ES which do not contain the Works have been scoped out of further assessment.

<sup>13</sup> Redcar & Cleveland Landscape Character Assessment, April 2006. Available online at [https://www.redcar-cleveland.gov.uk/resident/planning-and-building/local-plan/Local%20Plan%20Documents/Natural%20Environment/Landscape%20Character%20Assessment%20\(2006\).pdf](https://www.redcar-cleveland.gov.uk/resident/planning-and-building/local-plan/Local%20Plan%20Documents/Natural%20Environment/Landscape%20Character%20Assessment%20(2006).pdf) (last accessed 08.06.20)

**Table 4.1: Potential Construction Landscape Effects of the Works**

Landscape Character Unit	New Reference - Works Area	Description of the Works	New or Materially Different Effect
Redcar Flats: Lowland Farmland south of Redcar & Marske (LCU R2)	<u>North of the A174 (Area 1)</u> No. 6 (A&B2) CC B No. 10 C (a)	<u>North of the A174</u> The Works include the cable corridor, a construction compound to facilitate the civil and cable construction works, and access to the construction compound, within a single field unit south of Cat Flatt Lane, and north of the A174 road. The cable corridor and construction compound (CC B) remain the same in size and scale as in the 2015 DCO.	<u>North of the A174</u> The cable corridor across the arable farmland, CC B and access (No. 10 C (a)), are situated within the LCU R2 north of the A174 would give rise to a negligible magnitude of change, resulting in a minor / negligible, temporary, and direct landscape effect.
	<u>South of the A174 (Areas 1 and 2)</u> CC C No. 10 E (2) CC D (2) CC D (3)	<u>South of the A174</u> The access to a primary construction compound (CC C), the siting of the primary construction compound along the A174 cable corridor route. CC C is contained with two large field units south and west of the A174 road.  Where there is an intersection with Grewgrass Lane, there are a proposed temporary access point to the west of Grewgrass Lane, to access the cable corridor.	<u>South of the A174</u> The additional construction compound (CC C) within the LCU R2 would give rise to a slight magnitude of change along the edge of the A174 road within the agricultural landscape, resulting in a minor / moderate, temporary, and direct landscape effect.  The change in the orientation of the cable corridor across the arable farmland, and additional small construction compounds (CC D (2) and CC D (3)) alongside the cable corridor, and temporary access point west of Grewgrass Lane, would give rise to a negligible magnitude of change, resulting in a minor / negligible, temporary, and direct landscape effect.

Landscape Character Unit	New Reference - Works Area	Description of the Works	New or Materially Different Effect
		The cable corridor continues, unchanged, across agricultural land, to Fishponds Lane, where two small construction compounds (CC D (2) and CC D (3)) are proposed as 'infill' to a construction compound consented by the 2015 DCO, after which the cable corridor continues, unchanged within LCU R2.	
Urbanised Farmland (East of Wilton) (LCU R1)	<u>Area 3</u> No. 6 (A&B2)	The cable corridor east of the A174 road is revised to continue towards the road corridor.	The change in the orientation of the cable corridor across the arable farmland does not give rise to any landscape effects within the Urbanised Farmland LCU R1.

Landscape Character Unit	New Reference - Works Area	Description of the Works	New or Materially Different Effect
Wilton Complex (LCU W1)	<u>West of the A174 (Area 3)</u> No. 6 (A&B2) CC E CC F	<u>West of the A174</u> The Works include the cable corridor route, additional construction compound (CC E and CC F) and cable corridor in the area immediately west of the A174 road within LCU W1.	<u>West of the A174</u> The additional construction compounds (CC E and CC F) would give rise to a slight magnitude of change, resulting in a minor, temporary, and direct landscape effect.
	<u>Within Wilton International (Areas 3, 4 and 5)</u> No. 6 (A&B2) CC G CC I 88S (2) No.10 J (2) No.10 J (3) No.10 J (4)	<u>Within Wilton International</u> The Works include the cable corridor routes, storage areas, and access to the cable corridors.	<u>Within the Wilton International</u> The Works would give rise to a negligible magnitude of change, resulting in a negligible, temporary, and direct landscape effect.
	CC H  Temporary Haul Road	The Works include a large welfare area (CC H) within Wilton International. The Works include the provision of a temporary haul road within the Wilton Complex, located north of the retaining works.	CC H would give rise to a slight magnitude of change within the industrial landscape, which would result in a negligible, temporary, and direct landscape effect.  The creation of a temporary haul road in this location would give rise to a negligible magnitude of change,

Landscape Character Unit	New Reference - Works Area	Description of the Works	New or Materially Different Effect
	Retaining Wall & Profiling	The Works include the option of the creation of a retaining wall, and re profiling of a bund area to allow construction of retaining wall.	resulting in a negligible, temporary, and direct landscape effect.
	<u>West of the A1053 (Area 5)</u> 8 (A&B2)	<u>West of the A1053</u> The Works include the cable corridor route within the agricultural field unit west of the A1053 and east of the Lackenby Substation.	The creation of a retaining wall and reprofiling of a bund would give rise to a slight magnitude of change within the industrial landscape, which would result in a negligible, permanent, and direct landscape effect.  <u>West of the A1053</u> The Works would give rise to a negligible magnitude of change, resulting in a negligible, temporary, and direct landscape effect.

#### **4.2.2 Visual Effects of the Construction of the Works**

There are no new, or materially different, visual effects on any of the visual receptors arising from the Works.

##### **4.2.2.1 Views from Residential Properties and Settlements**

The effect of the construction on local residents requires particular attention as they would experience the Works from different locations, at different times of the day, usually for longer periods of time, and in different seasons. All of the residents and visitors to settlements and residential properties are considered to be of high sensitivity in accordance with the GLVIA3.

The closest residential properties to the Works are located at Mickie Dales, along the A174 road (Coatham), Pasture Lane north Lackenby, and scattered individual farm properties within the surrounding agricultural farm land. Views towards the Works are filtered by ground level vegetation at the rear of gardens, road side vegetation, and the vegetation would partially screen ground level construction activity. On completion of the construction activity, the Works will not be visible from residential properties as all permanent infrastructure will be underground. Any views towards the Works from within a settlement would be screened by the built environment of the village.

The magnitude of change arising from the construction of the Works in areas close to the residential properties would be negligible. This would result in a minor, temporary visual effect for residential receptors.

There would be a localised slight magnitude of change in the views from the rear of Mickie Dales / A174 road. This would result in a minor / moderate, temporary visual effect for residential receptors at this location.

##### **4.2.2.2 Views from Transport Routes**

This section considers the views from the main transport routes and the likely visual effects on receptors, visual experience whilst using the A174, A1053 and local road network within the Study Area. The views from these routes would be experienced transiently by road and the sensitivity of all these receptors is considered to be medium for users of the local road network.

Views of the construction of the Works from the local road network would present, as set out in the 2015 DCO. Visual effects of the Works are summarised in Table 4.2 below.

##### **4.2.2.3 Views from PRow and Cycle Routes**

There are a number of PRow in the local landscape, and National Cycle Route No.1 along the A174 road south of Mains Dike Bridge, within the Study Area. The visual effects that would be experienced by the walkers, riders and cyclists using these routes are assessed within the 2014 ES LVIA. The sensitivity of all these receptors is considered to be high.



There would be direct effects on the following PRoW and cycle routes where the Works crosses the route. Although Horizontal Directional Drilling (HDD)/trenchless construction methods would reduce the impact on the highway, PRoW and cycle route directly, views of the construction activity along the recreational routes would occur at the following assets:

- PRoW 129/29/1 Cat Flatt Lane;
- PRoW 106/190/1 east of the A174 near Wilton Industrial; and
- National Cycle Route No.1 alongside the A174 near Wilton Industrial.

The Works would cross these routes at different locations to those within the 2015 DCO, due to the optimised location of the cable corridor. However, there would be no change to the visual effects on the users of the PRoW and cycle route. The predicted magnitude of change arising from the Works would be negligible, resulting in a minor, temporary visual effect for users of PRoW and National Cycle Route No.1 within the Study Area.

There are a number of PRoW in the wider study area, however, views of the Works would be screened by intervening tree and hedgerow cover within the open landscape and the built environment. Where views of the Works are present, construction work would be visible against the backdrop of Wilton Industrial, and the magnitude of change negligible, or imperceptible, as set out in the 2015 DCO. This would result in a negligible, temporary visual effect for PRoW and cycle route users within the wider Study Area.

#### 4.2.2.4 Viewpoint Assessment

An appraisal of predicted visual effects of the Works was undertaken from the viewpoints included within the 2014 ES LVIA. It is recognised that different receptors would appreciate the landscape in many different ways, depending on whether they live, work or travel (road or foot) through the area.

Those living within, or travelling through, the landscape of the study area on a regular basis may appreciate it beyond the perception of a visitor and may appreciate familiarity of landscape and views, based on their experience of viewing it in a certain way, over time and in its present state without intervention. Therefore, those who notice change within the landscape may be more acutely affected by change.

There may also be a different appreciation for change where such change brings social or economic benefits and as such, it is difficult to interpret how such changes would be interpreted by various users. On this basis, all such receptors have been assessed as being of medium - high sensitivity to change which assesses any such effects on a realistic worst case basis.

The viewpoint locations are shown on Figures 4.6 and 4.7 of the 2014 ES LVIA (included within this LVA in Annex 1). Only viewpoints applicable to the Works are considered in this assessment.

Table 4.2 summarises the visual effects of the Works, as identified at each of the viewpoint locations, and from visual receptors along transport routes, within the 2014 ES LVIA. No other visual effects assessed in the 2014 ES LVA are applicable to the Works. There are no new, or materially different, visual effects on any of the viewpoints arising from the Works.

**Table 4.2: Potential effects of the Works on Visual Receptors**

Visual Receptor	2014 ES LVIA Level of Effect	New Reference (Works Area)	Viewpoint Assessment of the Works		
			Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change	New or Materially Different Effect
Visual Effects of the Works on Views from Transport Routes					
A174 near Marske	N/A	6(A&B 2) CC B CC C No. 10C (2)	Medium	Slight	Minor – Moderate, temporary visual effect
A174 near Wilton	N/A	6(A&B 2)	Medium	Negligible	Minor temporary visual effect
A1053	N/A	8 (A&B2)	Medium	Negligible	Minor temporary visual effect
B1269	N/A	CC D (2) CC D (3)	Medium	Negligible	Minor temporary visual effect
Private road within Wilton complex	N/A	CC E CC F 6(A&B 2) CC G CC H 8S (2)	Medium	Slight	Minor – Moderate, temporary visual effect

		Temporary Haul Retaining Wall Re profiling CC I			
<b>Viewpoint Assessment</b>					
Viewpoint 10 - PRoW near Mickle Dales (Cat Flatt Lane)	Moderate, reducing to negligible post construction in the medium term.	6 (A&B2) CC B No.10 C (2) CC C	R, T  Medium	<p>No change to 2014 ES LVIA.</p> <p>Views to the cable corridor to the north of Cat Flatt Lane would be screened from the PRoW by tall hedgerows. Open views are available from Cat Flatt Lane to the A174 to the south west, where the cable corridor construction and construction compound would be visible.</p> <p>In the medium term, the removal of sections of the hedgerow along Cat Flatt Lane resulting in medium term change as views are opened out across adjacent fields. In the long term this would reduce to negligible as the hedgerow become re-established.</p> <p>The magnitude of change overall would be medium during the construction periods. This would reduce to negligible following completion of construction.</p>	<p>No change to 2014 ES LVIA.</p> <p>Temporary, moderate visual effects, reducing to negligible post construction in the medium term.</p>

Viewpoint 11 - Longbeck Station	Minor, reducing to negligible post construction.	6 (A&B2) CC B No.10 C (2) CC C	R, T  Medium	<p>No change to 2014 ES LVIA.</p> <p>Low-level views would be largely screened by intervening vegetation, including hedgerows. The construction compounds located adjacent to the A174 would be visible, as would activities along the route, but these would form temporary, minor feature in the flat and complex landscape.</p> <p>The magnitude of change overall would be low during the construction periods, given the complex nature of the view, which includes extensive existing development, and the distance from the cable corridor. This would reduce to negligible following completion of construction.</p>	<p>No change to 2014 ES LVIA.</p> <p>Minor visual effects, reducing to negligible post construction.</p>
Viewpoint 12 - Junction of A174 and PRoW at Tunstall Gardens	Minor, reducing to negligible post construction.	6 (A&B2) CC B No.10 C (2) CC C	H, R, T  Medium	<p>No change to 2014 ES LVIA.</p> <p>Travelling receptors on the A174 would experience open, close range views of construction activities along the A174, including construction compounds and cable corridor construction on the east and west sides of the road. These views would be shared with the PRoW that crosses the A174 road at this location.</p> <p>Open views would also be available from upper storey rear windows of properties at the edge of</p>	<p>No change to 2014 ES LVIA.</p> <p>Minor, temporary visual effects, reducing to negligible post construction.</p> <p>The Works would result in a temporary visual effect (in comparison to the</p>

				<p>the Redcar, with views from the ground floor by road side / ground level vegetation along the roadside.</p> <p>The magnitude of change in the views out over the flat open and semi-rural landscape during construction periods would be high. This would reduce to negligible post-construction.</p>	<p>2015 DCO) as the Works are moving further from the high and medium sensitive receptors in this location.</p>
Viewpoint 13 - Grewgrass Farm	Moderate, reducing to negligible post construction.	No.10E (2)	H, T  High	<p>No change to 2014 ES LVIA.</p> <p>Construction activities as part of the 2015 DCO would be visible from the property and surroundings as the cable route passes through the open fields to the south, including access points to the cable corridor to the east of Grewgrass Lane. The Works includes a new access to the west of Grewgrass Lane opposite the access consented by the 2015 DCO.</p> <p>The magnitude of change during construction periods would be medium. The magnitude of change would reduce to negligible post-construction and in the long term, once the restored sections of hedgerows have matured.</p>	<p>No change to 2014 ES LVIA.</p> <p>Moderate, temporary visual effects. Reducing to negligible post construction.</p>
Viewpoint 20 - Turners Arms Farm	Moderate, reducing to	CC D (2) CC D (3) No. 6 (A&B2)	H, R, T  High	No change to 2014 ES LVIA.	No change to 2014 ES LVIA.

	negligible post construction.			The Works includes two small construction compounds within the cable corridor, and views partially filtered by vegetation surrounding the farm property.	Moderate visual effects reducing to negligible post construction.
Viewpoint 22 - Kirkleatham Old Hall Museum & Owl Sanctuary; Conservation Area village of Kirkleatham	Moderate, reducing to negligible post construction	6 (A&B2) CC E	H, R High	No change to 2014 ES LVIA.	Moderate visual effects reducing to negligible post construction.
Visual effects of the Works on Visual Receptors of the HVAC cable corridor					
Viewpoint 24 - Pasture Lane, Lackenby	Negligible.	8S (2) Retaining Wall Profiling CC I	R Medium	Negligible	Negligible temporary visual effects, reducing further post construction.
Viewpoint 25 - A1053 Greystone Road	Minor, reducing to negligible post construction.	No 10J(3) No 10J (4) 8 (A&B2)	T Low	Negligible	Negligible temporary visual effects, reducing further post construction.
Viewpoint 26 - Lackenby Lane PRow	Minor, reducing to negligible post construction.	8 (A&B2)	R Medium	Negligible	Negligible temporary visual effects, reducing further post construction.

Viewpoint 27 - Crow Lane, Lackenby	Low, reducing to negligible post construction.	8 (A&B2)	H High	Negligible	Negligible temporary visual effects, reducing further post construction.
Viewpoint 29 - South Lackenby	Minor, reducing to negligible post construction.	8 (A&B2)	H, T High	Negligible	Negligible temporary visual effects, reducing further post construction.
Visual effects of the Works on Visual Receptors in proximity to the Converter Station					
Viewpoint 1 - Lackenby, northern edge	Moderate	CC H 8S (2) Profiling & retaining wall CC I	H High	Negligible	Negligible temporary visual effects, reducing further post construction.
Viewpoint 2 - Pasture Lane, Lackenby	Minor	Profiling & retaining wall CC I	R Medium	Negligible	Negligible temporary visual effects, reducing further post construction.
Viewpoint 4 - Lackenby Bank	Minor	CC H 8S (2) Temporary Haul Road Profiling & retaining wall CC I No. 10 J (2)	R Medium	Negligible	Negligible temporary visual effects, reducing further post construction.

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Viewpoint 6 - South Lackenby	Negligible	No.10 J (2) No.10 J (3) No.10 J (4) 8(A&B2)	H, T, R  High	Negligible	Negligible temporary visual effects, reducing further post construction.
Viewpoint 7 - Eston Beacon, Eston Nab	Minor	CC H 8S (2) Profiling & retaining wall CC I No.10 J (2) No.10 J (3) No.10 J (4) 8 (A & B2)	R High	Negligible	Negligible temporary visual effects, reducing further post construction.



## 5 Mitigation and Enhancement

### 5.1 Summary of 2014 DCO ES Mitigation

The Works sought to avoid the most sensitive landscape features (i.e. to avoid trees and woodlands, crossing intensive agricultural land, and using HDD method, or other trenchless method, at specific locations along the route to avoid surface features).

Restoration mitigation measures highlighted in the 2014 ES LVIA include the presentation and following of an agreed Construction Environmental Management Plan (CEMP), which details measures to mitigate local impacts of the construction works, which would also be monitored by an Environmental Clerk of Works (ECOW). The retention and protection of identified shrubs, trees and hedges, soil handling etc. would be included in the CEMP.

Construction mitigation measures highlighted in the 2014 ES LVIA include:

- Temporary hoarding would be erected in locations where necessary, prior to construction. Heras fencing would be used where hoarding is not required;
- Standard construction works would be conducted during daylight hours and under normal circumstances no task lighting would be required during construction. Some specific construction works would need to be performed continuously and may need to be carried out outside of daylight hours. Should this be the case, suitable task lighting would be employed;
- Naturalistic and sympathetically designed bund profiles would be created using subsoil scraped from the construction area for the core of the bunds, and topped with appropriately stored topsoil removed from the construction area, and from the footprint of the bunds, prior to the commencement of this work. Topsoil depths would reflect those in the surrounding area. The slopes of the existing bunds are gentle, with concave tie-ins and this would be reflected in the grading of the bunds and in the process of top-soiling. Manmade slope reinforcement such as gabions, concrete, geotextiles and mesh would not be used;
- All areas of disturbed earth would be cultivated and seeded with appropriate grasses and wild flora and planted with an appropriate mix of native tree species (to be agreed with the local planning authority).

Mitigation measures specific to the underground cable route embedded in the 2015 DCO also apply to the Works. They include the following measures which represent best practice to avoid, or reduce, long term landscape effects, and visual effects:

- No unnecessary tree or shrub removal would be undertaken, and vegetation which is to be removed would be marked and agreed on site prior to any felling;
- Where removal of sections of hedgerows are unavoidable, appropriate hedge species would be replanted along the line of the existing hedge, and managed so as to restore the existing hedgerow;
- Materials and machinery would be stored tidily during the works;
- Operations would be designed so that progressive restoration of finished areas can occur where appropriate, and so that stored topsoil can be replaced on graded areas as these are finished;

- Naturalistic and sympathetically designed landscape profiles would be created once the works are complete. Slopes in the area are very gentle and this would be reflected in any grading of soils associated with restoration;
- Topsoil would be replaced (using topsoil stored prior to the construction period) and evenly spread. Areas of disturbed earth would be re-graded to blend with the surrounding land form, cultivated and seeded or encouraged to regenerate naturally; and
- A restoration plan would form part of the CEMP.

## 5.2 Mitigation Measures for the Works

This assessment demonstrates that the Works give rise to no new or materially different environmental effects than those identified within the 2014 ES LVIA and will not give rise to any new likely significant effects.

Accordingly, no additional mitigation measures to those secured in the 2015 DCO are required. The embedded mitigation measures identified within the 2014 ES LVIA (Section 5.1) and included within the 2015 DCO, are comprehensive and remain applicable and appropriate for the Works.

## 6 Cumulative Effects

### 6.1 Summary of 2014 ES LVIA Cumulative Projects

The 2014 ES LVIA considered a number of potential cumulative assessment projects, including the offshore wind farm works, a biomass power station, the York Potash Project, housing developments and agricultural buildings (as listed in Table 10.1 in the 2014 ES LVIA). The schemes included within the 2014 ES LVIA cumulative assessment were of a similar scale and magnitude to that of the 2015 DCO.

Moderate, significant cumulative landscape and visual effects with the York Potash Project were identified. These significant cumulative effects would only occur if the 2015 DCO and the York Potash Project were constructed at the same time, with pipeline construction intersecting in open agricultural area south east of Mains Dike Bridge Roundabout connecting to the Wilton International. Significant cumulative landscape and visual effects would reduce to negligible post construction of both schemes.

### 6.2 Cumulative Effects as a result of the Works

This assessment of the Works has considered the combined cumulative effects of the Works alongside the 2015 DCO. During construction, the Works and the 2015 DCO would be viewed together. Any sequential cumulative effects, both landscape and visual, would not exceed those already identified within the 2014 ES LVIA. There are no new, or materially different, cumulative landscape or visual effects arising from the Works.

## 7 Summary and Statement of Change / No Change

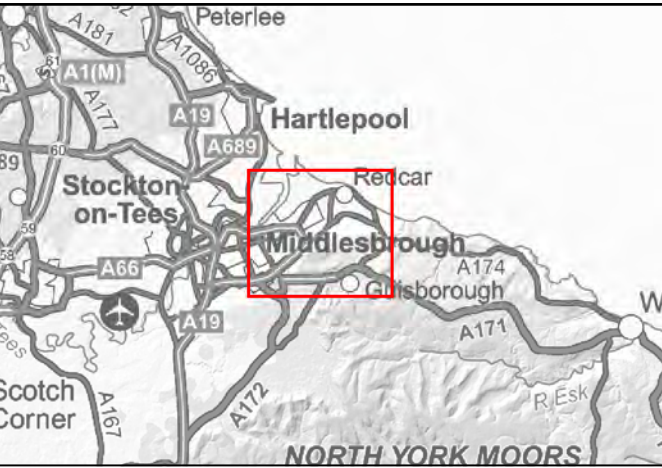
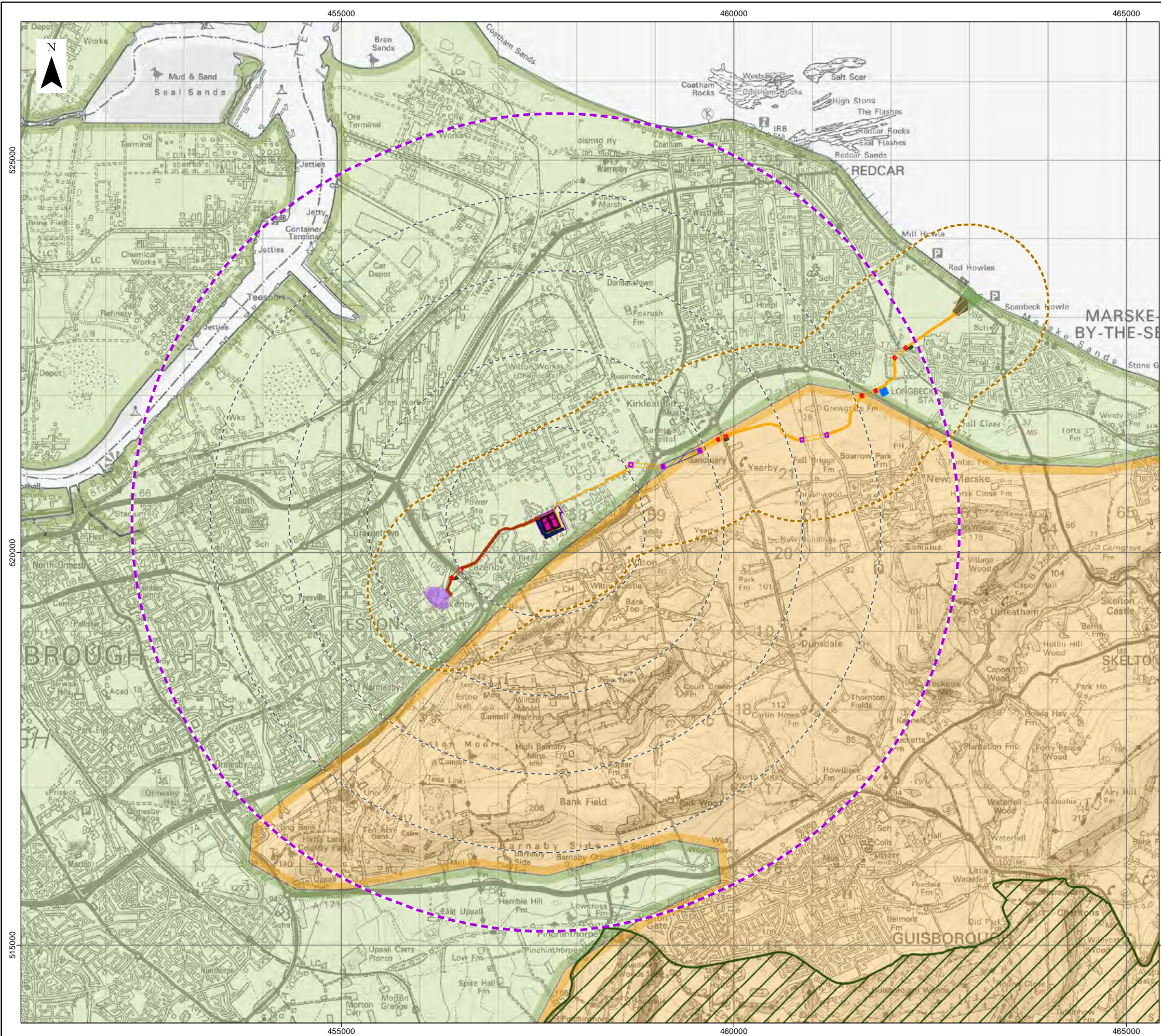
Using the 2015 DCO as a baseline, and having reviewed the 2014 ES LVIA, this assessment demonstrates that the Works give rise to no new or materially different environmental effects than those identified within the 2014 ES LVIA and will not give rise to any new likely significant effects.

Table 7.1 below summaries those locations where significant landscape and visual effects were identified in the 2015 DCO, and confirms that there would be no change arising as a result of the Works. There are no new, or materially different, landscape or visual effects arising from the Works.

**Table 7.1: Summary and Statement of Change/No Change**

Effect Type	2014 ES	Effects as Result of the Works	Change/No Change to 2014 ES Conclusion
Direct Landscape Effect – Redcar Flats – Lowland Farmland LCU R2	Significant direct landscape effects during the construction phase, and reduce to negligible in medium term once disturbed areas are reinstated.	Direct landscape effects would be experienced during the construction phase, and reducing to negligible in the medium term once disturbed areas are reinstated.	No change
Visual Effects on Views from Viewpoint 10 – PRoW Mickle Dales	Moderate, reducing to negligible post construction in the medium term.	Moderate visual effects would be experienced during the construction phase, and reducing to negligible in the medium term once disturbed areas are reinstated.	No change
Visual Effects on Views from Viewpoint 13 – Grewgrass Farm	Moderate, reducing to negligible post construction.	Moderate visual effects would be experienced during the construction phase, and reducing to negligible in the medium term once disturbed areas are reinstated.	No change
Visual Effects on Views from Viewpoint 20 – Turners Arms Farm	Moderate visual effects reducing to negligible post construction.	Moderate visual effects would be experienced during the construction phase, and reducing to negligible in the medium term once disturbed areas are reinstated.	No change
Visual Effects on Views from Viewpoint 22 – Kirkleatham Old Hall Museum & Owl Sanctuary	Moderate visual effects reducing to negligible post construction.	Moderate visual effects would be experienced during the construction phase, and reducing to negligible in the medium term once disturbed areas are reinstated.	No change





**LEGEND**

- Converter Station LVIA Study Area
- Cable Route LVIA Study Area
- Teesside A&B cable landfall envelope
- Teesside A&B landfall construction envelope
- Teesside A&B HVDC, Open trench
- Teesside A&B HVDC, HDD
- Teesside A&B HVAC, Open trench
- Teesside A&B HVAC, HDD
- Teesside A&B major horizontal directional drill entry or exit locations (2,000m²)
- Teesside A&B minor horizontal directional drill entry or exit locations (1,200m²)
- HDD or open trench to be confirmed
- Teesside A&B cable route primary construction compound (10,000m²)
- Teesside A&B intermediate construction compound (784m²)
- Teesside A&B converter stations
- Teesside A&B converter stations construction compounds (10,000m² per project)
- Lackenby 400kV substation
- Converter stations site
- North York Moors National Park

**National Character Areas**

- North Yorkshire Moors and Cleveland Hills
- Tees Lowlands

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Kilometres

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

**DRAWING TITLE**  
**Figure 4.1:  
National Character Areas and  
National Landscape Designations**

VER	DATE	REMARKS	Drawn	Checked
1	17/07/2013	Draft	SW	RH
2	29/08/2013	Submit for PEI3	SW	RH
3	14/03/2014	Pre-DCO submission review	SW	RH

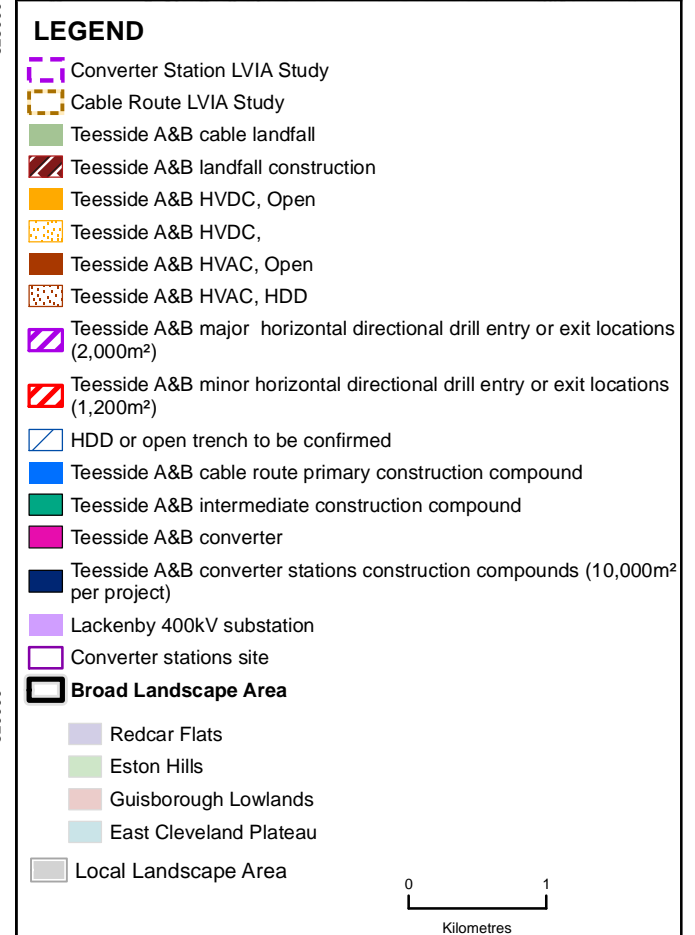
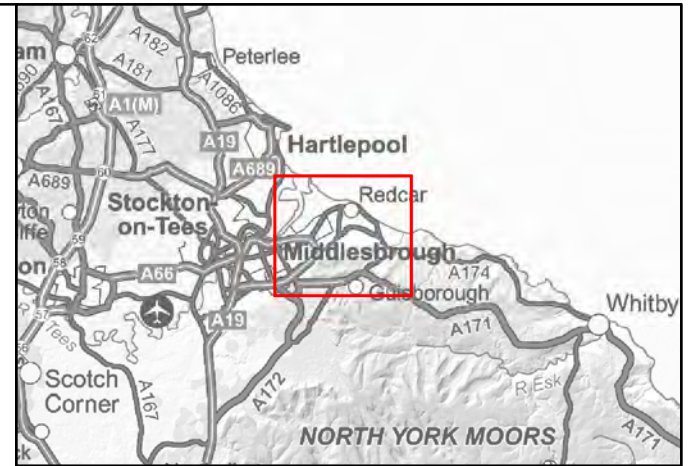
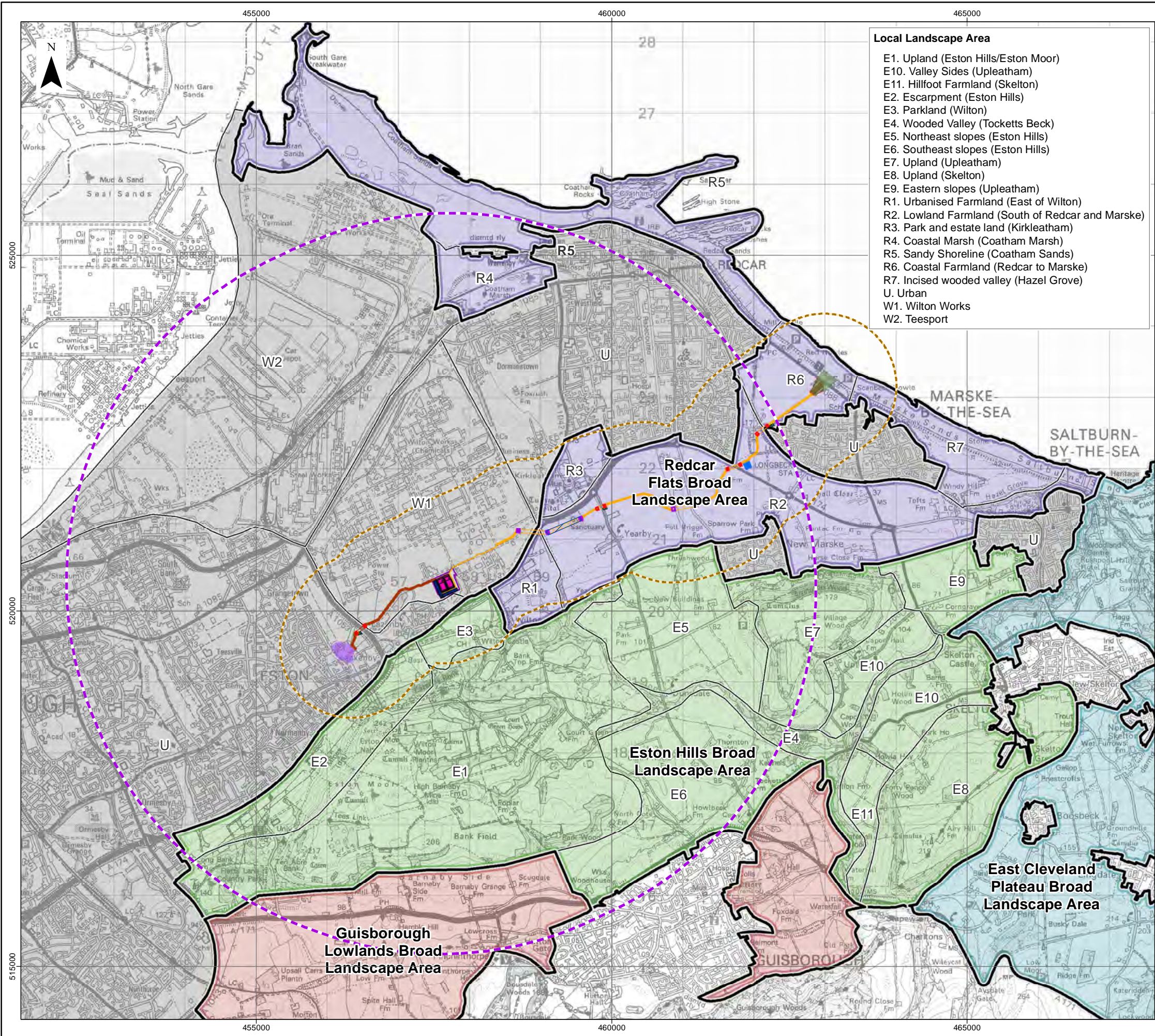
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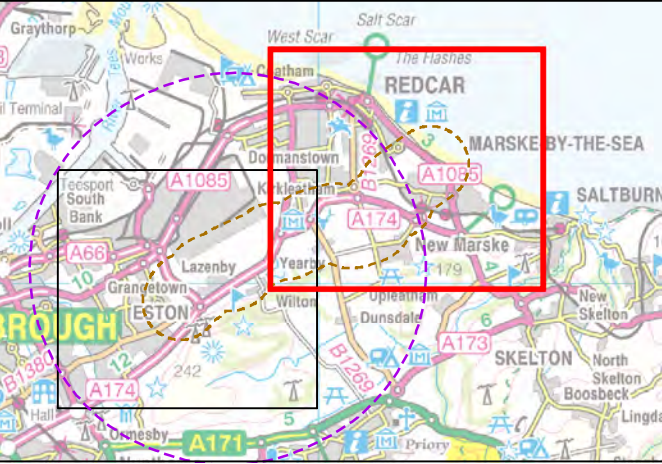
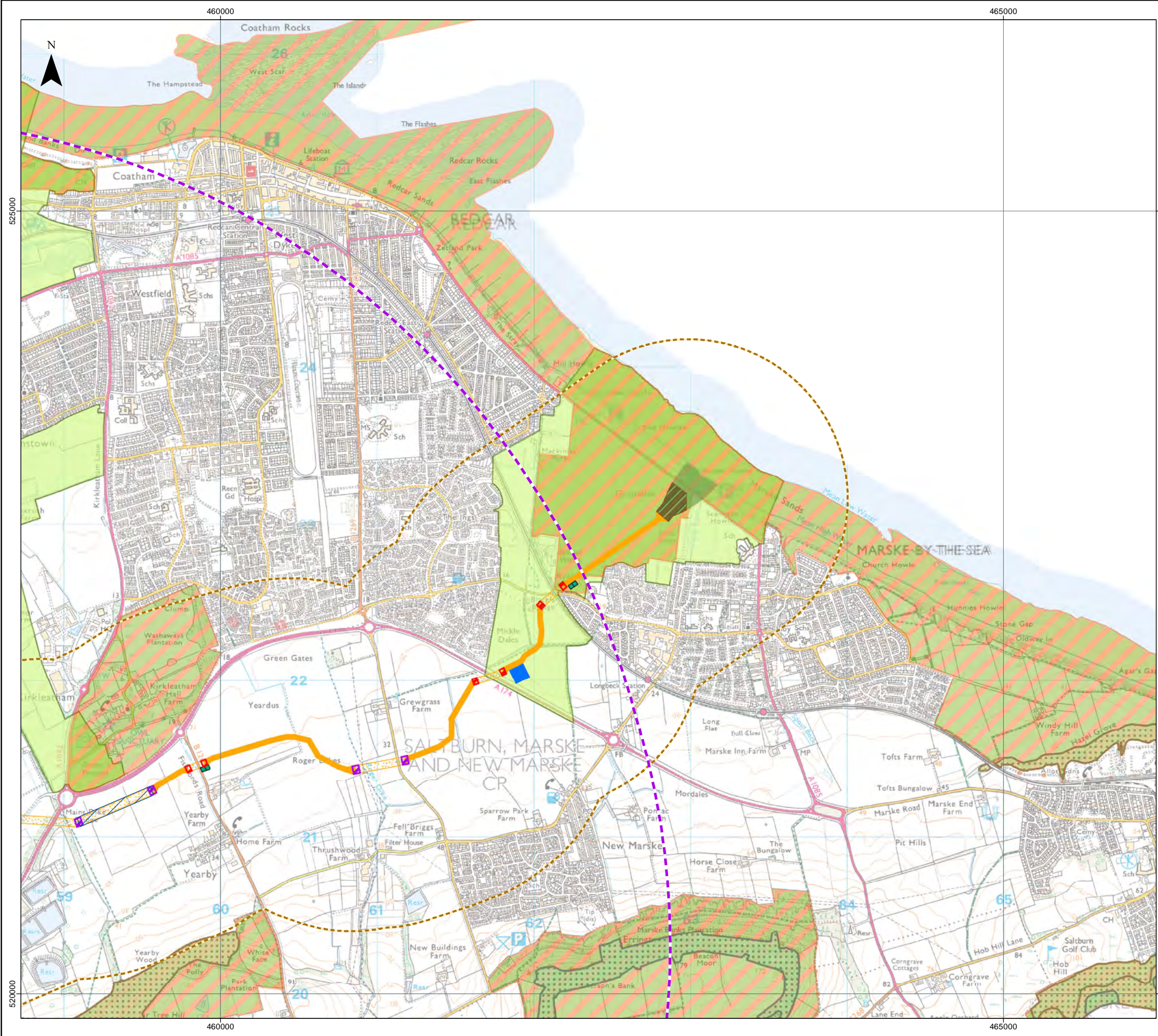
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**Figure 4.3:  
Local Landscape Character Units**

VER	DATE	REMARKS	Drawn	Checked
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2	29/08/2013	Submit for PEI3	SW	RH
3	14/02/2014	Pre-DCO submission review	SW	RH

DRAWING NUMBER:  
**F-ONL-MA-608**

SCALE	1:55,000	PLOT SIZE	A3	DATUM	OSGB	PROJECTION	BNG
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- LEGEND**
- Converter Station LVIA Study Area
  - Cable Route LVIA Study Area
  - Teesside A&B cable landfall envelope
  - Teesside A&B landfall construction envelope
  - Teesside A&B HVDC, Open trench
  - Teesside A&B HVDC, HDD
  - Teesside A&B major horizontal directional drill entry or exit locations (2,000m<sup>2</sup>)
  - Teesside A&B minor horizontal directional drill entry or exit locations (1,200m<sup>2</sup>)
  - HDD or open trench to be confirmed
  - Teesside A&B cable route primary construction compound (10,000m<sup>2</sup>)
  - Teesside A&B intermediate construction compound (784m<sup>2</sup>)
- Natural designations**
- Ancient & semi-natural woodland
  - Ancient replanted woodland
- Redcar & Cleveland designations and policies**
- Sensitive landscape
  - Green infrastructure green wedge

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**Figure 4.4a:  
Landscape Resources and Designations  
(Landfall and Cable Route)**

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2	29/08/2013	Submit for PEI3	SW	RH
3	14/02/2014	Pre-DCO submission review	SW	RH

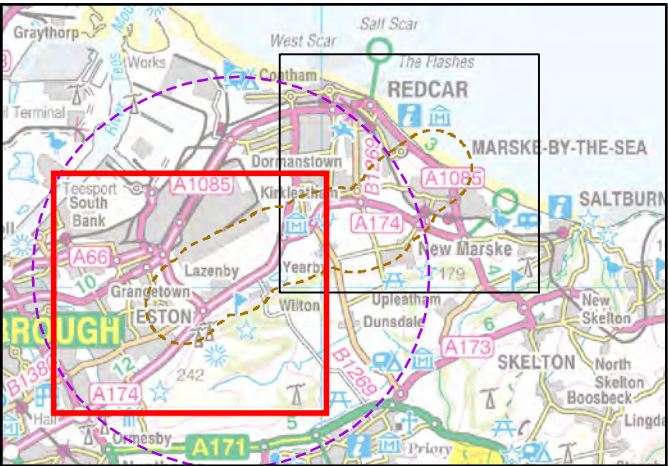
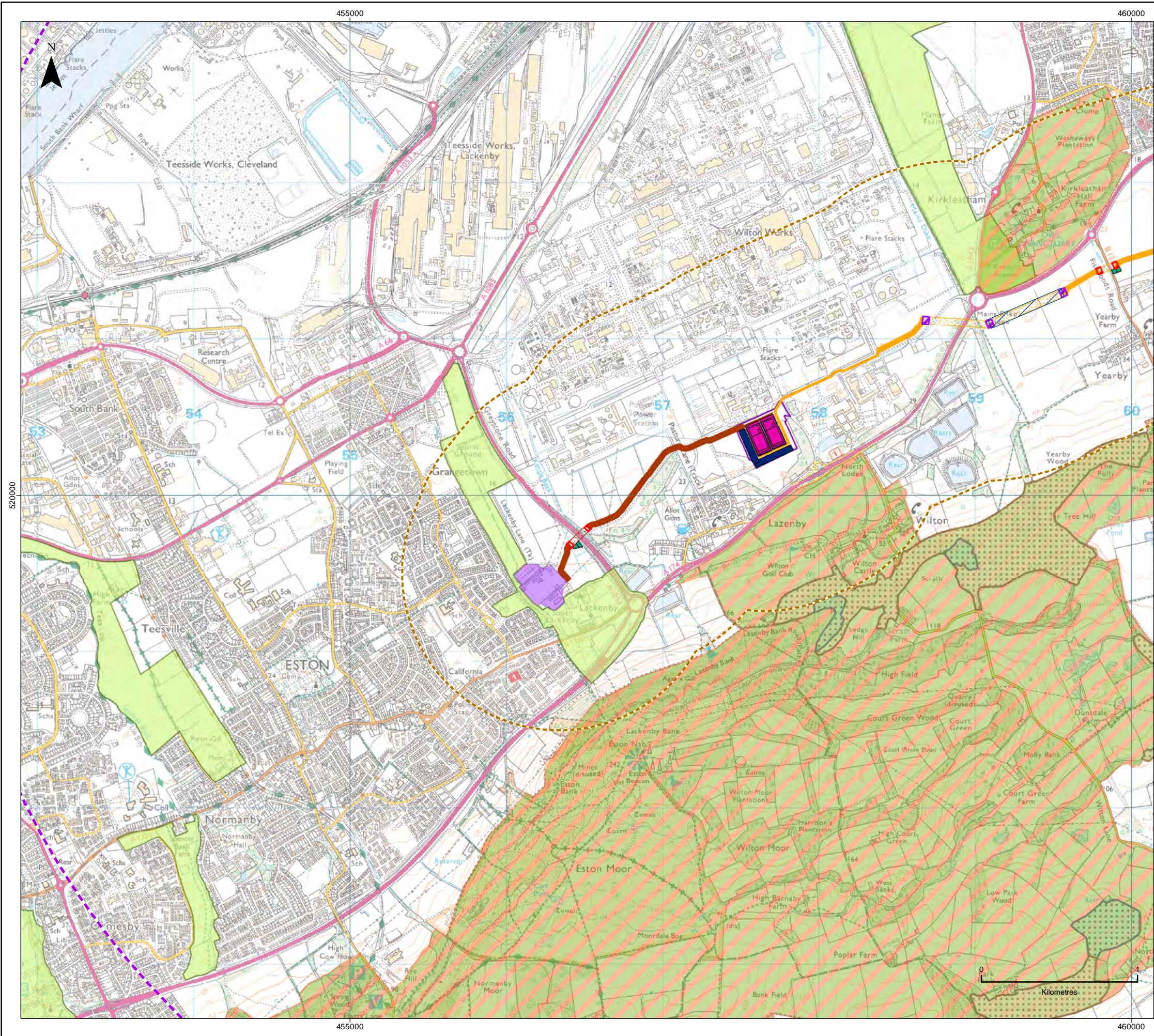
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**FOREWIND**





- LEGEND**
- Converter Station LVIA Study Area
  - Cable Route LVIA Study Area
  - Teesside A&B cable landfall envelope
  - Teesside A&B landfall construction envelope
  - Teesside A&B HVDC, Open trench
  - Teesside A&B HVDC, HDD
  - Teesside A&B HVAC, Open trench
  - Teesside A&B HVAC, HDD
  - Teesside A&B major horizontal directional drill entry or exit locations (2,000m²)
  - Teesside A&B minor horizontal directional drill entry or exit locations (1,200m²)
  - HDD or open trench to be confirmed
  - Teesside A&B cable route primary construction compound (10,000m²)
  - Teesside A&B intermediate construction compound (784m²)
  - Teesside A&B converter stations
  - Teesside A&B converter stations construction compounds (10,000m² per project)
  - Lackenby 400kV substation
  - Converter stations site
  - Natural designations**
  - Ancient & semi-natural woodland
  - Ancient replanted woodland
  - Redcar & Cleveland designations and policies**
  - Sensitive landscape
  - Green infrastructure green wedge

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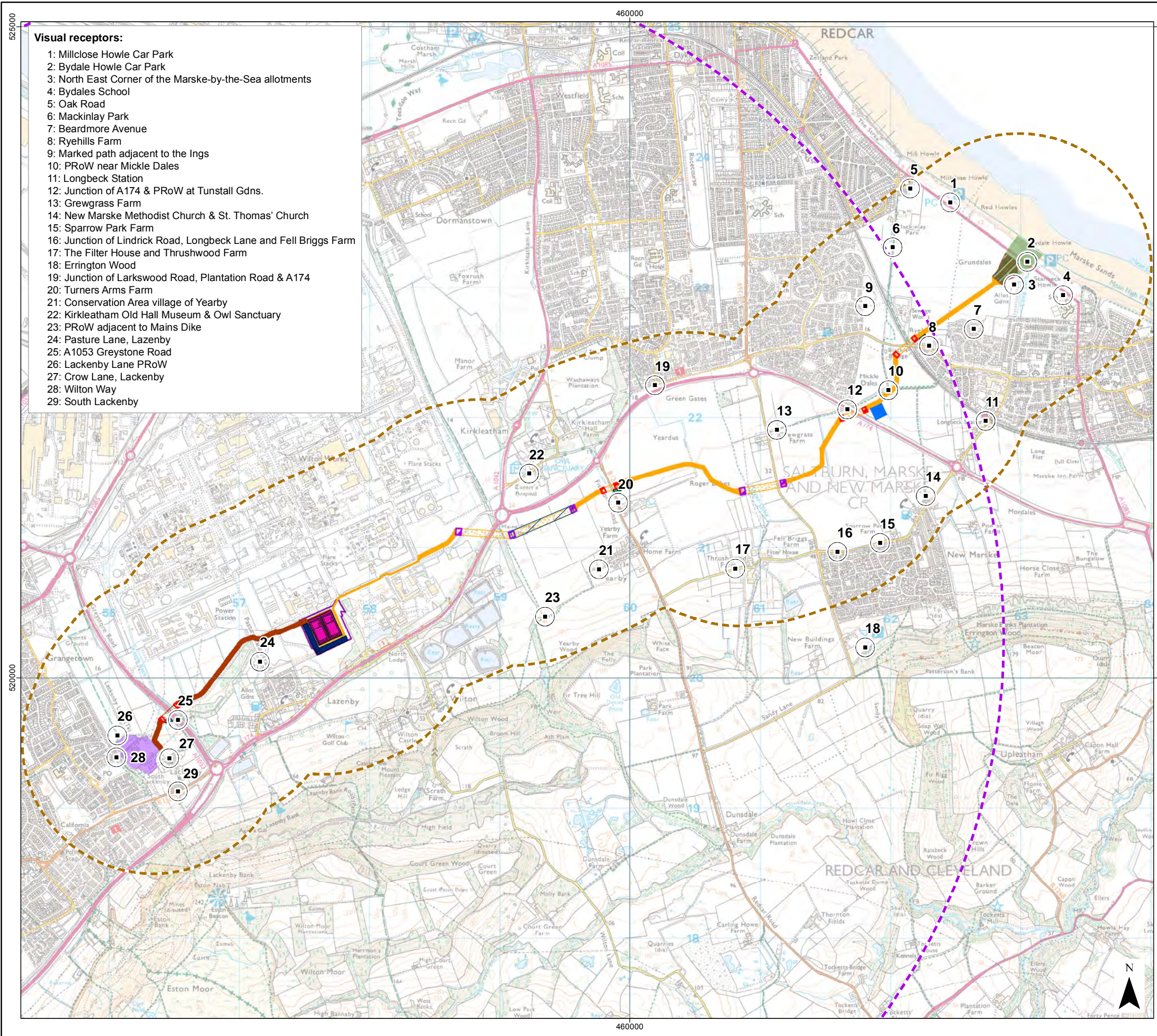
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**Figure 4.4b:  
Landscape Resources and Designations  
(Cable Route and Lackenby Substation)**

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2	29/08/2013	Submit for PEI3	SW	RH
3	29/01/2014	Pre-DCO submission review	SW	RH

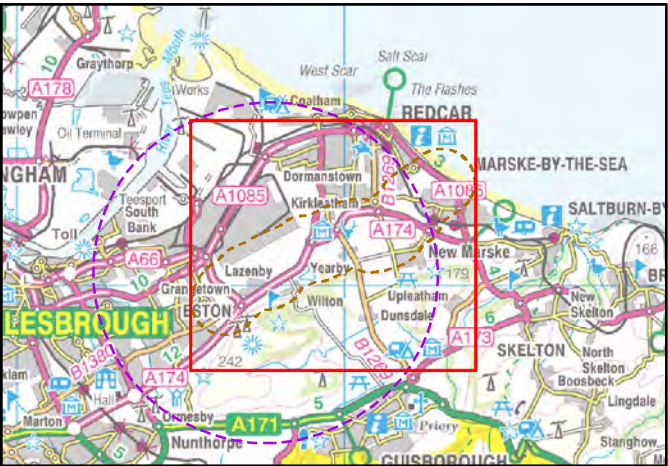
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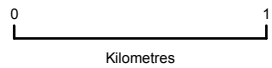




- Visual receptors:**
- 1: Millclose Howle Car Park
  - 2: Bydale Howle Car Park
  - 3: North East Corner of the Marske-by-the-Sea allotments
  - 4: Bydales School
  - 5: Oak Road
  - 6: Mackinlay Park
  - 7: Beardmore Avenue
  - 8: Ryehills Farm
  - 9: Marked path adjacent to the Ings
  - 10: PRoW near Mickie Dales
  - 11: Longbeck Station
  - 12: Junction of A174 & PRoW at Tunstall Gdns.
  - 13: Grewgrass Farm
  - 14: New Marske Methodist Church & St. Thomas' Church
  - 15: Sparrow Park Farm
  - 16: Junction of Lindrick Road, Longbeck Lane and Fell Briggs Farm
  - 17: The Filter House and Thrushwood Farm
  - 18: Errington Wood
  - 19: Junction of Larkwood Road, Plantation Road & A174
  - 20: Turners Arms Farm
  - 21: Conservation Area village of Yearby
  - 22: Kirkleatham Old Hall Museum & Owl Sanctuary
  - 23: PRoW adjacent to Mains Dike
  - 24: Pasture Lane, Lazenby
  - 25: A1053 Greystone Road
  - 26: Lackenby Lane PRoW
  - 27: Crow Lane, Lackenby
  - 28: Wilton Way
  - 29: South Lackenby



- LEGEND**
- Cable Route LVIA Study Area
  - Converter Station LVIA Study Area
  - Teesside A&B cable landfall envelope
  - Teesside A&B landfall construction envelope
  - Teesside A&B HVDC, Open trench
  - Teesside A&B HVDC, HDD
  - Teesside A&B HVAC, Open trench
  - Teesside A&B HVAC, HDD
  - Teesside A&B major horizontal directional drill entry or exit locations (2,000m²)
  - Teesside A&B minor horizontal directional drill entry or exit locations (1,200m²)
  - HDD or open trench to be confirmed
  - Teesside A&B cable route primary construction compound (10,000m²)
  - Teesside A&B intermediate construction compound (784m²)
  - Teesside A&B converter stations
  - Teesside A&B converter stations construction compounds (10,000m² per project)
  - Lackenby 400kV substation
  - Converter stations site
  - Visual receptor location



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**Figure 4.6:  
Cable Route Visual Receptors**

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2	29/08/2013	Submit for PEI3	SW	RH
3	14/02/2014	Pre-DCO submission review	SW	RH

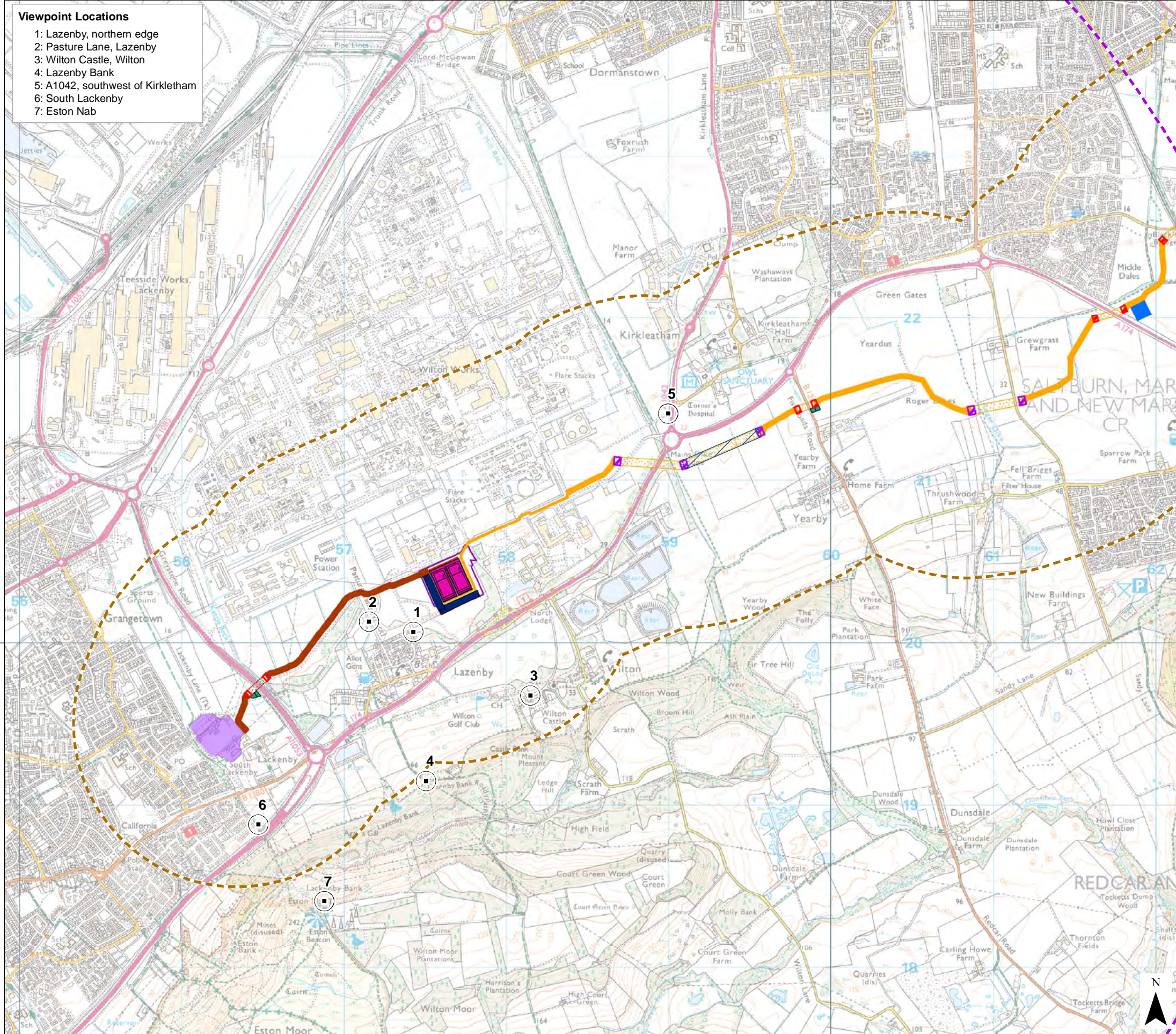
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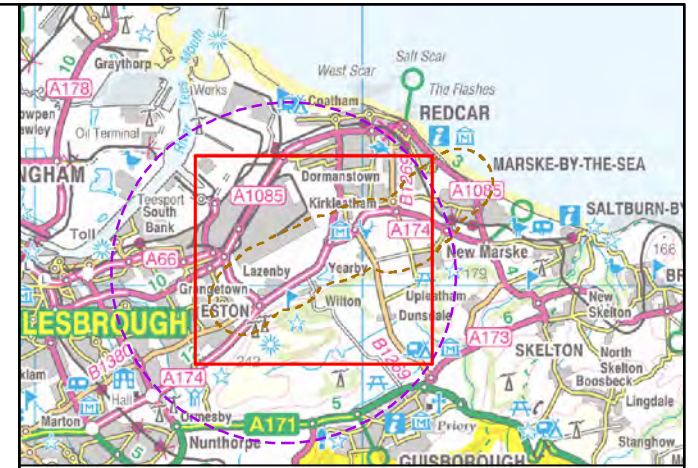
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- Viewpoint Locations**
- 1: Lazenby, northern edge
  - 2: Pasture Lane, Lazenby
  - 3: Wilton Castle, Wilton
  - 4: Lazenby Bank
  - 5: A1042, southwest of Kirkleatham
  - 6: South Lackenby
  - 7: Eston Nab



**LEGEND**

- Cable Route LVIA Study Area
- Converter Station LVIA Study Area
- Teesside A&B HVDC, Open trench
- Teesside A&B HVDC, HDD
- Teesside A&B HVAC, Open trench
- Teesside A&B HVAC, HDD
- Teesside A&B major horizontal directional drill entry or exit locations (2,000m²)
- Teesside A&B minor horizontal directional drill entry or exit locations (1,200m²)
- HDD or open trench to be confirmed
- Teesside A&B cable route primary construction compound (10,000m²)
- Teesside A&B intermediate construction compound (784m²)
- Teesside A&B converter stations
- Teesside A&B converter stations construction compounds (10,000m² per project)
- Lackenby 400kV substation
- Converter stations site
- Viewpoint location



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**Figure 4.7:  
Converter Stations Viewpoints**

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4	14/02/2014	PRE-DCO submission review	SW	RH

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**Table 1: Summary of 2014 ES LVIA Effects for Direct and Indirect Effects of the HVDC cable route on the Landscape Character of the Study Area**

Landscape Receptor	Sensitivity	Magnitude of Change (extent, duration, reversibility)	Level of Effect (Regional)	Level of Effect (Local)
<b>Direct effects on landscape character &amp; resources</b>				
Marske Sands & Redcar Flats Coastal Farmland (LCU 6)	Medium	Low (reducing to negligible in the medium term as disturbed areas are reinstated)	Negligible	Minor (reducing to negligible in the medium term)
Redcar Flats: Lowland Farmland South of Redcar & Marske (LCU R2)	Low	Medium (reducing to negligible in the medium term as disturbed areas are reinstated)	Negligible	Moderate (reducing to negligible in the medium term)
Wilton Complex (LCU W1)	Low	Negligible (The construction works would be visually contained within the south of the of the area and would give rise to a low magnitude of change across the LCU, given the highly modified character of the area. The level of the effect in the short term would be negligible and there would be no effects post-construction).	Negligible	Negligible
<b>Indirect Effects on landscape character</b>				
Urbanise farmland (East of Wilton) LCU R1	Low	Negligible	No effect	No effect
Park & Estate Land (Kirkleatham) LCU R3	High	Low (reducing to none post-construction activities would be discernible from the southern edge of this area, where open views are available to the south across agricultural fields, visible beyond the A174. Further north the well wooded character of this area	Minor	Minor reducing to no effect

Landscape Receptor	Sensitivity	Magnitude of Change (extent, duration, reversibility)	Level of Effect (Regional)	Level of Effect (Local)
		limit views to the south and therefore effects on this area would be limited in extent and not affect the parkland character of the northern and eastern parts of the unit. Construction activities would give rise to localised, short term, reversible change. Post construction, this would reduce to none.)		
Upland (Eston Hills / Eston manor) LCU E1	Medium	Negligible (The construction works would be discernible from the more elevated areas of this character unit, from limited areas within the northeast where views are afforded over to Redcar and the surrounding lowland farmland. The works would be visible at a distance (in excess of 2km) and would be seen within the context of the highly developed and industrialised landscape of the Tees lowland. Overall, the magnitude of change during the construction periods would be negligible and the effect both during and postconstruction would be none.)	Negligible	Negligible
Escarpment (Eston Hills) LCU E2	High	None (Due to the orientation of the escarpment and the presence of woodland on the lower lying slopes within the east of this character area there would be no or very limited visibility of the construction works. There would be no effects on this character unit.)	No effect	No effect
Parkland (Wilton Castle) LCU E3	High	Negligible (There would be no visibility of the construction activities from within this character unit due to the presence of a woodland and shelter belts to	Negligible	Negligible

Landscape Receptor	Sensitivity	Magnitude of Change (extent, duration, reversibility)	Level of Effect (Regional)	Level of Effect (Local)
		the east of the area. The magnitude of change during construction would be negligible and postconstruction there would be no effects.)		
North East Slopes (Eston Hill) LCU E5	Medium	The construction works would be discernible from elevated areas of this character unit to the north, where views are available out over the lower-lying farmland to the north, including from the recreation area and car park at Errington Wood. The works would be discernible from a limited area of the unit, for a short duration and seen within the industrialised context of the wider Tees valley. Overall, the magnitude of change during construction would be negligible and postconstruction there would be no effects	Negligible	Negligible

**Table 2: Potential Effects of the HVDC Cable Route on Visual Receptors**

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
1	Millclose Howle Car Park	R, T Medium	Open views of the construction activities along the cable route would be available to the southeast, including up to two landfall transition bays located in the agricultural field inland from the A1085. Activities within the intertidal area would also be clearly visible, set in front of more scenic views available along the coast to the south towards the Warsett Hill and distinctive cliffs below. The magnitude of change during the construction periods would be medium and short term, reducing to negligible post-construction.	Moderate, reducing to negligible post construction
2	Bydale Howle Car Park	R, T Medium	Close range views would be available of the construction works within the intertidal area, with views also available to activities along the cable route further inland across the open agricultural field to the southwest. Up to two landfall joint transition bays (Scenario II) would be clearly visible within this field, viewed across the A1085. The works would give rise to temporary change of a medium magnitude, as they would be visible against a backdrop of the settlements of Redcar and Marske, and larger industrial features within the wider landscape to the north and west. Views from this location are largely focused out to the sea or along the coastal edge to the south towards the more dramatic cliffs below Warsett Hill. These views would be largely unaffected. The magnitude of change during the construction	Moderate, reducing to negligible post construction

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			periods would be medium and short term, reducing to negligible post-construction.	
3	North East Corner of the Marske-by-the Sea allotment	R Medium	Close range views would be available of the construction works within the intertidal area, with views also available to activities along the cable route further inland across the open agricultural field to the southwest. Up to two landfall joint transition bays (Scenario II) would be clearly visible within this field, viewed across the A1085. The works would give rise to temporary change of a medium magnitude, as they would be visible against a backdrop of the settlements of Redcar and Marske, and larger industrial features within the wider landscape to the north and west. Views from this location are largely focused out to the sea or along the coastal edge to the south towards the more dramatic cliffs below Warsett Hill. These views would be largely unaffected. The magnitude of change during the construction periods would be medium and short term, reducing to negligible post-construction.	Moderate, reducing to negligible post construction
4	Bydales School	H, R High	Lower level views of construction activities would be largely screened by scrub and woodland to the west of the school, following Long Beck. From upper story windows activities along the cable route between the A1085 and Ryehills Farm would be visible, including up to two landfall joint transition bays (Scenario II). The works would be visible in the context of the open arable	Minor, reducing to negligible post construction

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			field, with the A1085 in the foreground, and Redcar and the wider industrialised landscape in the distance to the north. The magnitude of change during the construction periods would be low and short term, reducing to negligible post-construction.	
5	Oak Road	H High	Open views of the construction activities along the cable route would be available across the flat, broad and featureless field to the southeast, including up to two landfall transition bays (Scenario II). Construction activities would be set in front of Marske-by-Sea, backed by the distinctive Hunt Cliff, Warsett Hill and the Eston Hills in the far distance. Further inland from the coastal edge, lower-level views would be screened by buildings associated with Mackinlay Park. The magnitude of change during the construction periods would be medium and short term, reducing to negligible post-construction.	Moderate, reducing to negligible post construction
6	Mackinlay Park	R, T Medium	Views of construction activity would be limited along the PRow (bridleway) that follows Green Lane by tall hedgerows, although glimpsed, filtered views would be available intermittently. Similarly, hedgerows would screen views in the direction of the works from areas to the west of Green Lane. Open views through post-fencing and intermittent hedgerows from the playing field to the east of the lane would however be available. Construction activities along the cable route would be visible within the open, flat field to the southeast, set in front of Marske-	Minor, reducing to negligible post construction

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			by-Sea, with Hunt Cliff and Warsett Hill beyond. Activities within sections of the cable route further south, would be screened by the sewage works and surrounding vegetation. Overall, the magnitude of change during the construction periods would be low and short term, reducing to negligible post-construction.	
7	Beardmore Avenue	R High	Views are mostly contained within the settlement edge by buildings, surrounding vegetation, fencing and hedgerows at the west settlement. Where views open up, and from some second story windows, existing views extend north over a large, featureless open agricultural field towards the settlement edge of Redcar. Close range views would be available of construction activities along the cable route where views are open to the west. The works would give rise to temporary change in views of a medium magnitude, which would reduce to negligible post-construction. The magnitude of change during the construction periods would be medium and short term, reducing to negligible post-construction.	Moderate, reducing to negligible post construction
8	Ryehills Farm	H, R, T High	Some screening of low-level views from within the property and surrounds would be provided by vegetation at the west of the property and ancillary buildings. Views from upper storeys and from the PRoW that passes to the south would be available at close range to the northwest, including to up to two intermediary construction compounds and HDD compounds immediately north	Moderate, reducing to negligible post construction



VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			of the minor road. These would be set within the agricultural field in front of the road bridge (crossing the railway line) and the sewage works to the west and the flat open field and the sea to the north, with the edge of Redcar visible beyond. Overall, the magnitude of change during the construction periods would be medium and short term, reducing to negligible post-construction.	
9	Marked path adjacent to the Ings	H, R, T High	Views of the construction works to the north of the railway line would be entirely screened by the embankment and vegetation enclosing the railway line. Low-level views of construction activities along the cable route to the south of the railway line as passes through field east of Bridge Farm towards Cat Flatt Lane would be largely screened by vegetation surrounding Blacks Bridge and Redcar Road. The magnitude of change during the construction periods would be negligible and short term and post-construction.	Negligible
10	PRoW near Mickle Dales (Cat Flatt Lane)	R, T Medium	Views to the cable route to the north of Cat Flatt Lane would be largely screened from the PRoW by tall hedgerows that enclose it and by buildings and greenhouses associated with the farm to the east. Where open views are available from the farm into the field to the east, close range views of construction activities along the cable route would be available between the railway line and Cat Flatt Lane to the southeast. Sections of the cable route to the north of the railway line would be screened by the railway	Moderate, reducing to negligible post construction in the medium term

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			embankment and vegetation. In the medium term, the removal of large sections of hedgerow bounding Cat Flatt Lane would give rise to medium term change as views are opened out across adjacent fields to the edge of Marske. In the long term this would reduce to negligible as the hedgerow become re-established. The magnitude of change overall would be medium during the construction periods. This would reduce to negligible post-construction.	
11	Longbeck Station	R, T Medium	Low-level views would be largely screened by intervening vegetation, including hedgerows bounding a series of fields to the west of the station, and buildings to the south. Up to two primary construction compounds located adjacent to the A174 would be visible, as would activities along the route, but these would form temporary, minor feature in the flat and complex landscape. The magnitude of change overall would be low during the construction periods, given the complex nature of the view, which includes extensive existing development, and the distance from the cable route. This would reduce to negligible post-construction.	Minor, reducing to negligible post construction
12	Junction of A174 and PRoW at Tunstall Gardens	H, R, T Medium	Travelling receptors on the A174 would experience open, close range views when travelling both east and westbound, of construction activities taking place both the north and south of the A174, including up to two primary construction compounds and HDD compounds. Similar views would be available from the	Minor, reducing to negligible post construction

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			PRoW that crosses the road at this point. Open views would also be available from upper storey windows of properties at the edge of the Redcar, with views from lower storeys screened in part by vegetation at the southern fringes of Mickle Dales and young tree planting to the north of the A174. The magnitude of change in the views out over the flat open and semi-rural landscape during construction periods would be high. This would reduce to negligible post-construction.	
13	Grewgrass Farm	H, T High	Construction activities along the cable route would be visible from the property and surroundings as the route passes through the open fields to the south, including two HDD compounds located either side of Grewgrass Lane. Views from the property are focused in this direction, towards the Eston Hills, and the works would be visible at relatively close range in the foreground of New Marske and the wooded hills beyond. Views would also be available of sections of the route to the east, including up to two primary construction compounds adjacent to the A174. Some lower level activities would be screened by intervening hedgerows which contain hedgerow trees. A belt of trees to the east of the property may filter views to an extent, particularly if construction activities take place during summer months when they are in leaf. Sections of the route to the west of Grewgrass Lane would also be visible, but partly screened by vegetation fringing Roger Dikes.	Moderate, reducing to negligible post construction

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			The magnitude of change during construction periods would be medium. The magnitude of change would reduce to negligible post-construction and in the long term, once the restored sections of hedgerows have become established.	
14	New Marske Methodist Church and St. Thomas' Church	R, Medium	The position of the PRoW, which follows a slightly sunken lane enclosed by tall hedgerows, and the Church, which is set slightly below undulating ground rising to the north, restricts views over the fields to the northwest. Lower level activities within the cable route would be screened by hedgerows and vegetation around the allotments to the north of the settlement. Views for travelling receptors using Gurney Street would be largely screened by trees, intervening hedgerows and the gently rising topography to the north. Overall, the magnitude of change would be low during the periods of construction, reducing to negligible post-construction	Minor, reducing to negligible post construction
15	Sparrow Park Farm	H, High	Gently rising ground to the north of this location and hedgerows running approximately parallel to the Longbeck lane would limit low-level views of the construction activities from Longbeck lane, properties to the south of the Lane and from Sparrow Park Farm. Views would be available from upper-storey windows to the north. The works would be seen as the route passes through agricultural fields in the foreground to the settlement edges of Redcar, within the context of industrial development within the wider landscape to the north. Overall, the magnitude of change would be low	Minor, reducing to negligible post construction

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			during the periods of construction, reducing to negligible post-construction.	
16	Junction of Lindrick Road and Longbeck Lane and Fell Briggs Farm	H, T High	The flat topography and hedgerows bounding Grewgrass Lane and fields to the north would screen views of lower-level construction activities. More open views are likely to be available from upper storey windows to the north, including the HDD compounds located either side of the lane. The works would be seen as the route passes through agricultural fields between New Marske and the settlement edges of Redcar, within the context of industrial development within the wider landscape to the north. Overall, the magnitude of change would be low during the periods of construction, reducing to negligible post-construction.	Minor, reducing to negligible post construction
17	The Filter House and Thrushwood Farm	H, T Medium	The gently rolling topography and vegetation along Roger Dikes limit visibility to the north from this location. Overall, the magnitude of change would be negligible during the periods of construction and postconstruction.	Negligible
18	Errington Wood	R Medium	From this viewpoint, elevated views over the construction works along a large extent of cable route would be available, from Marske Sands to the south eastern edge of the Wilton Complex. The construction works would be visible as a concentration of movement and activity within agricultural land dispersed between the settlements of Marske-by-the-Sea, New Marske, Redcar and Yearby. The movement and activities would be set within the	Negligible

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			context of extensive existing industrial development, including stacks, chimneys and industrial development that extend to the north and west. The construction works would be a further, small element within a wide panorama. Overall, the magnitude of change would be negligible during the periods of construction and postconstruction.	
19	Junction of Larkwood Road, Plantation Road & A174	H, T High	Views from the short footpath between Plantation Road and the A174 are available across the A174 to the open fields beyond, within which construction works along the cable route would be clearly visible. At this distance the construction activities would be visible, but would not form a large component in the view which is directed primarily to the hills beyond in the distance. Views from properties along Plantation Road themselves would be screened by the low embankment and tree planting between the road and the A174. Overall, the magnitude of change would be low during the periods of construction, reducing to negligible post-construction.	Minor, reducing to negligible post construction
20	Turners Arms Farm	H, R, T High	Low-level views and views from upper storeys of the property and surrounds would be available to the construction works as the cable route passes through open agricultural fields to the north and west. Up to two intermediary construction compounds would be visible at close range to the north of the property, which would form a prominent feature due to the proximity and the flat, open	Moderate, reducing to negligible post construction

VP No.	Location	Receptor Sensitivity H – Residential R –Recreational T - Travelling	Magnitude of Change (extent, duration, reversibility)	Level of Effect
			nature of the land. Views would be partly filtered in some locations by vegetation and trees surrounding the property, particularly in summer months. The magnitude of change overall would be medium and of a short duration the construction periods. This would reduce to negligible post-construction.	
21	Conservation Area village of Yearby	H, T High	From the northern extent of the settlement views may be available across the flat, open fields to the north and west. Sections of the cable route further to the west would be set in front of the busy A174 and the Wilton Complex. The magnitude of change overall would be low during the construction periods, given the setting of the view in relation to the Wilton Complex, which includes extensive industrial infrastructure, and the distance from the cable route. This would reduce to negligible post-construction.	Minor, reducing to negligible post construction
22	Kirkleatham Old Hall Museum & Owl Sanctuary; Conservation Area village of Kirkleatham	H, R High	From the minor road at the south of Kirkleatham, long views to the south are available across large, flat agricultural fields, to the Eston Hills on the skyline in the distance. The construction activities within the cable route would be visible within the fields immediately beyond the A174, although hedgerows bounding the intervening fields and the A174 would partly screen lower-level views. The magnitude of change overall would be medium during the construction periods, given the rural setting of the view in this direction and the presence of the A174. This would reduce to negligible postconstruction.	Moderate, reducing to negligible post construction

**Table 3: Summary of Potential Direct and Indirect Effects of the Works on Landscape Character & Resources**

Landscape Receptor	2014 ES LVIA Level of Effect		Assessment of the Works		
	Level of Effect (Regional)	Level of Effect (Local)	Sensitivity	Magnitude of Change	New or Materially Different Effect (Local)
<b>Direct Effects on landscape character &amp; resources</b>					
Marske Sands & Redcar Flats Coastal Farmland (LCU R6)	Negligible	Minor (reducing to negligible in the medium term)	Medium	No change	No change
Redcar Flats: Lowland Farmland South of Redcar & Marske (LCU R2)	Negligible	<b>Moderate</b> (reducing to negligible in the medium term).	Low	Negligible to Slight	Minor / Negligible to Negligible
Urbanised farmland (East of Wilton) LCU R1	Negligible	No effect	Low	Negligible	No effect
Wilton Complex (LCU W1)	Negligible	Negligible	Low	Negligible	Minor to Negligible
<b>Indirect Effects on Landscape Character &amp; Resources</b>					
Park & Estate Land (Kirkleatham) LCU R3	Low	Minor reducing to no effect	Medium	Low reducing to none, post construction	No effect
Upland (Eston Hills / Eston Manor) LCU E1	Negligible	Negligible	Medium	Negligible	Negligible
Escarpment (Eston Hills) LCU E2	None	No effect	High	None	No effect
Parkland (Wilton Castle) LCU E3	Negligible	Negligible	High	Negligible	Negligible



Landscape Receptor	2014 ES LVIA Level of Effect		Assessment of the Works		
	Level of Effect (Regional)	Level of Effect (Local)	Sensitivity	Magnitude of Change	New or Materially Different Effect (Local)
North East Slopes (Eston Hill) LCU E5	Negligible	Negligible	Medium	Negligible	Negligible