6 LANDSCAPE AND VISUAL

6.1 INTRODUCTION

6.1.1 This chapter of the Environmental Statement (ES) considers the likely significant landscape/townscape and visual effects of the Proposed Development. It describes the methods used to assess these effects and determines the baseline conditions currently existing at the Application Site. Mitigation measures are detailed, where required, to prevent, reduce or offset the effects and the residual effects assessed.

6.1.2 A detailed description of the Proposed Development is provided in **Chapter 3** of this ES. Those elements of the Proposed Development that are of most relevance to landscape and visual matters are those that relate to:

- its location;
- context; and
- the arrangement and height of individual elements of the proposed built form within the Application Site.

6.1.3 Such form of development is characterised by a number of attributes specific to its individual form and to the location, and mass of the built form. These attributes include:

- strong geometric form, particularly visible in the form of elevations and rooftops;
- height;
- lighting associated with the proposals; and
- relationship to the scale and nature of the existing landscape / townscape features.
- The perception of these attributes and potential influence over the character of the views gained would vary depending on the location. This study aims to identify these locations and comment on potential visibility of the specific parts of the Proposed Development.

6.1.4 For ease of reference the main details of the Proposed Development considered to be of relevance to this assessment are:

- The Main Building of up to 36m in height;
- a flue / stack of 57m in height; and
- filter dust silos and flue gas filters, generally lower than the proposed building.

6.1.5 In addition, there would also be a rolling programme of limited construction effects along the proposed installation route of the electrical connection to an existing substation. Given the underground nature of the connection, it is anticipated that there would be no landscape and visual effects during the operational phase.

6.1.6 The location of the Proposed Development is shown on the Site Location Plan (see **Figure 6.1**).

6.1.7 This Chapter should be read in conjunction with the following Figures:

- Figure 6.1: Site Location Plan.
- Figure 6.2: Topography Plan.
- Figure 6.3: Landscape Character Areas Plan.
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- Figure 6.4: Environmental Constraints Plan.

- Figure 6.5: Screened Zone of Theoretical Visibility and Viewpoint Locations Plan.
- Figure 6.6: Photoviews and Photomontages.

6.1.8 This Chapter should also be read in conjunction with the following Appendices:

- Appendix 6.1: Photoview and Photomontage Methodology.
- Appendix 6.2: National Character Area profile: 14 Tyne and Wear Lowlands.
- Appendix 6.3: Extract from City of Sunderland Landscape Character Assessment.
- Appendix 6.4: Detailed Viewpoint Assessment.

6.2 ASSESSMENT APPROACH

6.2.1 The assessment has been carried out with regard to best practice, as outlined in the published guidance:

- Guidelines for Landscape and Visual Impact Assessment (3rd edition) - Landscape Institute/ Institute of Environmental Management and Assessment (2013).
- GLVIA3 Statement of Clarification 1/13 – Landscape Institute (2013).
- An Approach to Landscape Character Assessment – Natural England, October 2014.
- The Guidelines for Environmental Impact Assessment - (2004) Institute for Environmental Management and Assessment.
- Photography and photomontage in landscape and visual assessment (2011) - Landscape Institute Advise Note 01/11.

6.2.2 The study area extends to 6km from the Application Site boundary in order to identify relevant receptors, which may be potentially sensitive. The assessment focuses largely on receptors within a 3-4km study area. Whilst there may be the potential for effects of the Proposed Development to extend beyond this limit, it is considered that any such effect is unlikely to be significant as the visual perception of the Proposed Development within the landscape / townscape diminishes with ever increasing distance. The Proposed Development where visible would be seen as increasingly smaller component of a wider composite landscape / townscape.

<u>Landscape/Townscape Assessment Methodology</u>

6.2.3 The information collated under the baseline study is analysed and an assessment made to review the effect of the Proposed Development on the landscape/townscape character and townscape elements and features (townscape resource receptors) of the Application Site and its surroundings. The assessment is based on the Proposed Development detailed in **Chapter 3**.

6.2.4 The townscape character assessment sets out the landscape baseline under two categories (GLVIA3, page 71):

- townscape elements and features of the Application Site and the surrounding area; and
- landscape / townscape character and key characteristics, including landscape value.

6.2.5 The assessment then identifies landscape/townscape receptors, and assesses the sensitivity of those receptors. The likely effects of the Proposed Development on the receptors is identified and the magnitude of the effects assessed. Combining sensitivity of the receptor and magnitude of effect leads to an assessment of the significance of landscape/townscape effects arising from the Proposed Development.

6.2.6 The assessment considers the sensitivity of the landscape/townscape character and the magnitude of change which would result from the Proposed Development. The sensitivity of landscape/townscape varies depending on factors such as the existing land use, pattern and scale of the landscape/townscape, the degree of openness, condition, the value placed on the landscape and any designations that may apply. In most cases the landscape/townscape components in the immediate surroundings strongly influence the landscape/townscape character, more so than more distant elements or features. However, at certain viewpoints it is possible to feel a sense of exposure or remoteness due to the absence of such features.

6.2.7 Landscape/townscape value is considered in terms of factors such as the condition and quality of the landscape, the scenic quality, the rarity of the landscape in the locality and at a larger scale, the representativeness of the landscape, the recreation or amenity value of the landscape, its perceptual aspects such as wildness or tranquillity, and any associations that may exist between the local landscape and historical people or events. This list is not necessarily exhaustive or definitive. (GLVIA3, page 84).

6.2.8 The landscape/townscape assessment evaluates the effects of the Proposed Development on individual landscape/townscape elements and features, such as topography, notable buildings, water features, trees and hedges which have been identified within the study area in the baseline survey. The assessment considers the sensitivity of these landscape/townscape resources and identifies the magnitude of change that the Proposed Development would create. The sensitivity of an individual landscape/townscape element or feature is a combination of its value and susceptibility, the latter being made up of factors such as its quality, contribution to landscape/townscape character and the degree to which the element can be replaced. An element or feature may be more sensitive in one location than another. Therefore, it is not possible to simply place different types of landscape/townscape elements or features into sensitivity bands. Where individual landscape/townscape elements or features have been affected professional judgement has been used to give an objective evaluation of its sensitivity. Justification is given for this evaluation where necessary.

6.2.9 The significance of effects on landscape/townscape character and landscape/townscape elements and features is determined by combining the sensitivity of the landscape character or features with the magnitude of change. Those effects identified as being of major significance may be regarded as significant effects with respect to the Town and Country Planning (Environmental Impact Assessment) Regulations 2011.

6.2.10 **Tables 6.1 – 6.6** set out the criteria for measuring the effects of the Proposed Development on the landscape/townscape character and landscape/townscape elements and features (the landscape/townscape resource) of the Application Site and surrounding area together with the definition of significance.

6.2.11 The nature of the effects can be either, adverse or beneficial. Unless otherwise stated the effects of the Proposed Development are assessed to be of an adverse nature.

<u>Thresholds – Landscape Resource and Landscape Character Receptors</u>

6.2.12 Sensitivity of landscape/townscape resource receptors is determined by a combination of the value that is attached to (a) landscape/townscape character, feature or element and the susceptibility of the landscape/townscape character, feature or element to changes that would arise as a result of the Proposed Development – see Pages 88-90 of GLVIA3. Both value and susceptibility are assessed as high, medium or low.

Table 6.1: Sensitivity of Landscape/Townscape Resource Receptors

	Value			
Susceptibility		**High**	**Medium**	**Low**
	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

6.2.13 Professional judgement has been used to determine the magnitude of direct physical impacts on individual existing landscape/townscape features as follows:

Table 6.2: Magnitude of Change for Landscape/Townscape Resource Receptors

High	Total loss or major alteration to (an) existing element or feature
Medium	Partial loss or alteration to (an) existing element or feature
Low	Minor loss or alteration to part of (an) existing element or feature
Negligible/ No Change	No notable loss or alteration to (an) existing element or feature

6.2.14 Sensitivity of landscape character is determined by a combination of the value that is attached to a landscape/townscape and the susceptibility of the landscape/townscape to changes that would arise as a result of the Proposed Development – see Pages 88-90 of GLVIA3. Both value and susceptibility are assessed as high, medium or low.

Table 6.3: Sensitivity of Landscape/Townscape Character

	Value			
Susceptibility		**High**	**Medium**	**Low**
	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

6.3 TABLE 6.4: CRITERIA FOR LANDSCAPE/TOWNSCAPE VALUE

	Criteria
High	Designated areas at an International, Regional, National or Local (including but not limited to World Heritage Sites, National Parks, AONBs, SLAs etc.) and also considered an important component of the country's character, experienced by a high number of people. Landscape and townscape condition is good and components are generally maintained to a high standard. In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has an elevated level of tranquillity. Rare or distinctive elements and features are key components that contribute to the character of the area.
Medium	No formal designation but (typically) rural landscapes, important to the setting of villages etc. and also considered to a distinctive component of the regional/county character experienced by a large proportion of its population. Landscape and townscape condition is fair and components are generally well maintained. In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has a moderate level of tranquillity. Rare or distinctive elements and features are notable components that contribute to the character of the area.
Low	No formal designations but a landscape of local relevance (including but not limited to public or semi-public open spaces, village greens of allotments) and also green infrastructure and open spaces within residential areas likely to be visited and valued by the local community. Landscape and townscape condition may be poor and components poorly maintained or damaged. In terms of seclusion, enclosure by land use, traffic and movement, light pollution and presence/absence of major infrastructure, the landscape has limited levels of tranquillity. Rare or distinctive elements and features are not notable components that contribute to the character of the area.

6.4 TABLE 6.5: CRITERIA FOR LANDSCAPE/TOWNSCAPE SUSCEPTIBILITY

	Criteria
High	Scale of enclosure – landscapes and townscapes with a low capacity to accommodate the type of development proposed owing to the interactions of topography, vegetation cover, built form etc. Nature of land use – landscapes with no or little existing reference or context to the type of development being proposed. Nature of existing elements – landscapes with components that are not easily replaced or substituted (e.g. ancient woodland, mature trees, historic parkland etc.). Nature of existing features – landscapes where detracting features or major infrastructure is not present or where present has limited influence on the landscape.
Medium	Scale of enclosure – landscapes and townscapes with a medium capacity to accommodate the type of development proposed owing to the interactions of topography, vegetation cover, built form etc. Nature of land use – landscapes with some existing reference or context to the type of development being proposed. Nature of existing elements – landscapes with components that are easily replaced or substituted. Nature of existing features – landscapes where detracting features or major infrastructure is present and has a noticeable influence on the landscape.
Low	Scale of enclosure – landscapes and townscapes with a high capacity to accommodate the type of development proposed owing to the interactions of topography, vegetation cover, built form etc. Nature of land use – landscapes with extensive existing reference or context to the type of development being proposed. Nature of existing features – landscapes where detracting features or major infrastructure is present and has a dominating influence on the landscape.

Table 6.6: Criteria for Magnitude of Change for Landscape/Townscape Character

	Criteria
High	Total or major alteration to existing landscape/townscape character
Medium	Partial alteration to existing landscape/townscape character
Low	Minor alteration to part of existing landscape/townscape character
Negligible/No Change	No notable alteration to existing landscape/townscape character/No visible change

6.5 VISUAL ASSESSMENT METHODOLOGY

6.5.1 The comprehensive visual assessment identifies the visual effects that the Proposed Development would have upon the visual amenity of receptors located within the surrounding landscape and townscape. The visual assessment is based on the Proposed Development detailed in **Chapter 3** and assesses the change in the view that would result if the scheme were to be constructed.

6.5.2 The assessment has examined views which would be observed from public locations and it has also considered views from residential properties where appropriate. Two visual assessments have been made (a) during the construction phase; and (b) during the operational phase. The second visual assessments consider views at Year 5, taking into account vegetation growth during the intervening period (assumed to be 0.3-0.5m per year).

6.5.3 The sensitivity of receptor groups depends on factors such as duration of view, the angle at which they would see the Application Site and the nature of the viewer e.g. resident, tourist or worker. In general residential receptors, tourists, recreational users of public rights of way and public open spaces, and views from recognised vantage points are considered to have a higher sensitivity to change than people travelling along highways or at places of work.

6.5.4 Determining levels of magnitude depends on how prominent, or noticeable, the development would be in the landscape. This is affected by factors such as distance - close (up to 500 metres from the receptor), middle distance (500 metres to 2 km from the receptor), and long distance (over 2 km from the receptor), visual screening, the focus of the view and the nature and scale of other landscape/townscape features within the view.

6.5.5 **Tables 6.7 – 6.10** below set out the criteria and significance thresholds for visual receptors. Effect on visual amenity is determined by the relationship between the sensitivity of the receptor and the magnitude of change that would result from the Proposed Development.

6.5.6 Effects may be adverse, beneficial or neutral. Unless otherwise stated the effects of the Proposed Development are assessed to be of an adverse nature.

<u>Thresholds – Visual Receptors</u>

6.5.7 Sensitivity is determined by a combination of the value that is attached to a view and the susceptibility of the receptor to changes in that view that would arise as a result of the Proposed Development – see Pages 113-114 of GLVIA3. Both value and susceptibility are assessed as high, medium or low.

6.5.8 The value attached to a view includes a recognition of value through formal designations (for example landscape designations), and indicators of value attached to views by visitors (for example inclusion on maps or within guidebooks, provision of facilities, presence of interpretation etc.).

Table 6.7: Criteria for Susceptibility for Visual Receptors

High	Views with high scenic value within designated townscapes including but not limited to World Heritage Sites, National Parks, Areas of Outstanding Natural Beauty, etc. Likely to include key viewpoints on OS maps or reference within guidebooks, provision of facilities, presence of interpretation boards, etc.
Medium	Views with moderate scenic value within undesignated townscape including urban fringe.
Low	Views with unremarkable scenic value within undesignated townscape with partly degraded visual quality and detractors.

Table 6.8: Criteria for Susceptibility for Visual Receptors

High	Includes occupiers of residential properties in rural areas, and people engaged in recreational activities in the countryside such as using Public Rights of Way.
Medium	Includes occupiers of residential properties in urban areas, people engaged in outdoor sporting activities and people travelling through the landscape on minor roads and trains.
Low	Includes people at place of work e.g. industrial and commercial premises and people travelling through the landscape on A roads and motorways.

Table 6.9: Sensitivity of Visual Receptors

	Value			
Susceptibility		**High**	**Medium**	**Low**
	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

Table 6.10: Criteria for Magnitude of Change for Visual Receptors

High	Major change in the view that has a defining influence on the overall view or many visual receptors affected.
Medium	Some change in the view that is clearly visible and forms an important but not defining element in the view.
Low	Some change in the view that is not prominent or few visual receptors affected.
Negligible	No notable change in the view.
No Change	No change in the view as site not visible due to landform etc.

6.5.9 Potential visual receptors relevant to the scheme were identified within the study area of the Proposed Development based on an analysis of publicly available maps and aerial photography, and confirmed by visiting the Application Site and surrounding area. Viewpoints have been selected to represent a range of views and viewer types and are shown on the Screened Zone of Theoretical Visibility and Viewpoint Locations Plan

(see **Figure 6.5**) and Photoviews and Photomontages (**Figure 6.6**). Photographs have been taken digitally using a 50mm focal length lens camera. All of the representative viewpoints have been taken at 1.6m above ground level. Viewpoints include, where relevant, residential properties, highways, Public Rights of Way (PRoWs) and other places of recreation, and places of work. The baseline data includes:

- Location of viewpoint.
- Nature of visual receptor.
- Sensitivity of visual receptor.
- Distance between the receptor and the Proposed Development.
- Description of the existing view from each viewpoint.

6.5.10 The assessment then provides a description of the predicted change to the view resulting from the Proposed Development.

6.5.11 Photomontages are also provided for a number of the selected viewpoints to show the appearance of the Proposed Development within the existing landscape / townscape (see **Figure 6.6)**.

6.5.12 The technical methodology for the production of the visualisations is provided at **Appendix 6.1**.

Assessment of Significance

6.5.13 The significance of effects on landscape/townscape character, landscape/townscape elements and features, and on visual amenity is determined by combining the sensitivity of the receptor with the magnitude of change. Those effects identified as being of major significance may be regarded as significant effects with respect to the Town and Country Planning (Environmental Impact Assessment) Regulations 2011.

Table 6.10: Degree of Significance Threshold for Landscape and Visual Effects

		Magnitude Of Change			
		High	**Medium**	**Low**	**Negligible/ No Change**
Receptor Sensitivity	**High**	Major	Major	Moderate	Minor/No effect
	Medium	Major	Moderate	Minor	Negligible/No effect
	Low	Moderate	Minor	Negligible	Negligible/No effect

	Significant
	Not Significant

6.6 TABLE 6.11: DEFINITION OF SIGNIFICANCE CRITERIA FOR LANDSCAPE/TOWNSCAPE CHARACTER AND LANDSCAPE/TOWNSCAPE FEATURES AND ELEMENTS

Significance	Criteria
Major Adverse Effect	The proposed scheme would result in effects that are at complete/considerable variance with the landform, scale and pattern of the landscape that cannot be fully mitigated; would permanently degrade, diminish or destroy the integrity of valued characteristic features, elements and/or setting; would cause a very high quality landscape of recognised value to be permanently changed and its quality diminished.
Moderate Adverse Effect	The proposed scheme would be out of scale with the landscape or at odds with the local pattern and landform; will leave an adverse impact on a landscape of recognised quality.
Minor Adverse Effect	The proposed scheme would not quite fit into the landform and scale of the landscape; affect an area of recognised landscape quality.
Negligible/No Effect	The proposed scheme would complement the scale, landform and pattern of landscape, maintain existing landscape quality.
Minor Beneficial Effect	The proposed scheme has the potential to improve the landscape quality and character; fit in with the scale, landscape and the pattern of the landscape; enable the restoration of valued characteristic elements or features partially lost through other land uses.
Moderate Beneficial Effect	The proposed scheme would have the potential to fit in very well with the landscape character; improve the quality of the landscape through removal of damage caused by existing lands uses.
Major Beneficial Effect	The proposed scheme would fit in very well with the landscape character and would significantly improve the quality of the landscape through removal of damage caused by existing land uses.

Table 6.12: Definition of Significance Criteria for Visual Effects

Major Adverse Effect	Where the scheme would cause a significant deterioration in the existing view.
Moderate Adverse Effect	Where the scheme would cause a noticeable deterioration in the existing view.
Minor Adverse Effect	Where the scheme would cause a barely perceptible deterioration in the existing view.
Negligible/No Effect	No discernible improvement or deterioration in the existing view.
Minor Beneficial Effect	Where the scheme would cause a barely noticeable improvement in the existing view.
Moderate Beneficial Effect	Where the scheme would cause a noticeable improvement in the existing view.
Major Beneficial Effect	Where the scheme would cause a significant improvement in the existing view.

Policy Framework

National Planning Policy

National Planning Policy Framework

6.6.1 The National Planning Policy Framework, published on the 27th March 2012, sets out Government planning policies for England and how these are expected to be applied.

6.6.2 The NPPF sets out 12 core planning principles, the most relevant of which to this assessment is **'Conserving and enhancing the natural environment'**. These core aims are designed to guide and influence local authorities developing their local plans demonstrating Government commitment to ensure the planning system does everything it can to support sustainable economic growth.

6.6.3 The environmental role of the NPPF states that sustainable development should be achieved by:

> **"contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use of natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change including moving to a low carbon economy."**

6.6.4 The use of criteria-based policies based upon landscape character assessment is considered as suitable to ensure the protection of locally valued landscapes outside of nationally designated landscapes.

National Planning Policy Guidance

6.6.5 The Government's Planning Practice Guidance website, containing a comprehensive range of guidance of the planning system, went live on 6th March 2014. The guidance should be read alongside the NPPF and is a material consideration in the determination of planning applications. Further details are contained within the Planning Statement that accompanies this application.

Overarching National Policy Statement for Energy (EN-1)

6.6.6 The Department of Energy and Climate Change (DECC) published the 'Overarching National Policy Statement for Energy (EN-1)' in July 2011. Whilst primarily concerned with Nationally Significant Infrastructure Projects, this document also contains guidance with regard to landscape and visual matters which is also of relevance to other scales of energy developments (Section 5.9). Applicants should prepare a landscape and visual assessment, using the best practice guidelines, which makes reference to published landscape character assessments and relevant local development policy. The assessment "**should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity...**". EN1 notes that "**All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites**" (paragraph 5.9.18).

National Policy Statement for Renewable Energy Infrastructure (EN-3)

6.6.7 DECC also published the 'National Policy Statement for Renewable Energy Infrastructure (EN-3)' in July 2011. Paragraphs 2.5.46 to 2.5.52 deal with Landscape and Visual Matters in relation to biomass/waste developments. EN-3 requires that a

landscape and visual assessment is carried out in accordance with Section 5.9 of EN-1. Paragraph 2.5.50 notes that "**Good design that contributes positively to the character and quality of the area will go some way to mitigate adverse landscape/visual effects….**"

Other Relevant National Guidance

6.6.8 Where relevant, reference has also been made to the following guidance documents:

- A design-led approach to infrastructure – The Design Council and The Commission for Architecture and the Built Environment (2012).
- Guidance on Tall Buildings – Historic England and The Commission for Architecture and the Built Environment (2007, and 2014 Update (Consultation Version)).

Local Planning Policy

Sunderland Unitary Development Plan (1998)

6.6.9 Further details of relevant planning policies are contained in the Planning Statement that accompanies this application

6.6.10 Sunderland City Council published its Unitary Development Plan (UDP) in 2008. Those policies which have been 'saved' and are of relevance to landscape and visual matters include CN13 and CN14 which relate to views of the city, and Policy EN2 which relates to the production of energy. The UDP identifies the Application Site and the surrounding area as allocated employment land. This is worthy of note as this influences the character and perception of this area.

6.6.11 Policy CN13 states that "**The City Council will protect and enhance important public views of townscape, landscape and other features of value…**" and a series of viewpoints are identified on the proposals maps. These viewpoints have been taken into consideration with regard to the selection of representative viewpoints for this assessment, along with discussions with council officers.

6.6.12 Policy CN14 relates to landscaping schemes and new developments prominent from main transport routes, with consideration given to the effect on the image of the city.

6.6.13 Policy EN2 relates to the production and distribution of energy and requires the rigorous appraisal of likely impacts on the environment and local communities. Visual intrusion is listed amongst a list of factors of which "**particular account**" should be taken.

Sunderland City Council Draft Core Strategy and Development Plan

6.6.14 The draft Core Strategy has been the subject of public consultation during 2017. The draft Core Strategy identifies a number of policies of relevance to landscape and visual matters.

6.6.15 Policy E14: Landscape Character seeks the protection, conservation and enhancement to the landscape character throughout the city. High quality landscape design and management shall be integral to the new development. New developments should demonstrate how a number of elements identified in the city's published landscape character assessment shall be taken into account. The policy states "**Development that causes significant adverse impact on the distinctive landscape characteristics of an area will not be supported."** .

6.6.16 Policy E15: Creating and protecting views states that "**All development proposals should take account of views in to, out of and within development areas. Schemes should be designed (through considerate development, layout, scale and design) to preserve or enhance key local views and vistas…**"

6.6.17 Policy E6: Green Infrastructure also requires that development should "**i) incorporate existing and/or new green infrastructure features within their design …vii) protect and enhance landscape character.**"

6.6.18 Policy E1: Urban Design seeks high quality design "**which protects and enhances the environment and locally distinctive character.**" The policy states that development should:

> **"… 3. be of a scale, massing, layout, appearance and setting which respects and enhances the positive qualities of nearby properties and the locality;…**
>
> **8. provide appropriate landscaping as an integral part of the development, including the enhancement and upgrade of … existing green infrastructure, retaining landscape features and reflecting surrounding landscape character; …**
>
> **10. not detract from established views of important buildings, structures and landscape features;**
>
> **11. in the case of tall buildings, form a positive relationship with the skyline and topography of the site and the surrounding area;…"**

6.6.19 Policy WM1 Waste management, states that new waste developments will be encouraged where they comply with a number of principles, including that they are "**located and designed to avoid significant adverse impacts on landscape, wildlife, heritage assets and amenity…**".

Scoping Criteria

6.6.20 The following scope for this LVIA/TVIA has been agreed with Sunderland City Council (the Council) as follows.

Study area

6.6.21 Based on knowledge of the local townscape / landscape and particularly the existing large industrial units in the vicinity of the Application Site, a 6km study area has been considered appropriate as the main focus of the assessments.

6.6.22 This study area would apply to the baseline section, assessment of townscape receptors (townscape character areas and designations), and visual receptors (for example people visiting/using designated viewpoints, Public Rights of Way (PRoW), roads and residential areas).

Methodology

6.6.23 The methodology, as detailed above, has been discussed with the Council, and the approach accepted as appropriate.

Local Landscape and Townscape Character

6.6.24 The following published landscape character assessment have been reviewed as part of the assessment of landscape and townscape character:

- NCA 14: Tyne and Wear Lowlands.
- City of Sunderland Landscape Character Assessment (2015).

Landscape Features and Elements and Planning Policies

6.6.25 Relevant policies from the Sunderland UDP (1998) and Draft Core Strategy (2017) have been reviewed.

Visual Receptors and Views

6.6.26 Representative and illustrative viewpoint locations from which to undertake the assessment of effects on visual amenity have been discussed and agreed with the Council. The identified viewpoint locations have been selected through desk-based analysis of maps and aerial imagery, the field survey, and discussions with Sunderland City Council (Kevin Johnson).

Limitations to the Assessment

6.6.27 The landscape/townscape resource survey work and visual assessment for the Proposed Development was undertaken in August and September 2017. Therefore, there was considerable leaf cover.

6.7 BASELINE CONDITIONS

Site Description and Context

Site Description

6.7.1 A detailed site description is provided at **Chapter 3** of this ES. The following paragraphs provide for a brief description of the area of the Application Site at which the Rec would be located and its surrounding area, as a background information. Features and characteristics of the Application Site and surrounding area that are considered to be of particular relevance to this assessment are discussed in detail later in this Section, in the context of published landscape character assessments.

6.7.2 The Application Site and the surrounding area are not subject to any statutory or non-statutory landscape designation. Land to the north of the Site lies within the Green Belt.

6.7.3 There are no Public Rights of Way (PRoWs) within or adjacent to the Application Site.

6.7.4 The Main Site on which the REC would be located comprises 3.23 hectares of vacant development land which is broadly triangular in shape. The site was formerly agricultural land forming part of Hillthorn Farm; however, it has been subject to landscaping and other works to prepare the site for development. It has recently been used as a temporary construction compound and parking associated with development of nearby land.

6.7.5 The Application Site is bounded to the west by a disused railway line. Overhead power lines and associated pylons run along part of the eastern boundary. The recently constructed highway, Infiniti Drive, runs parallel to the east of the overhead line. The Site is accessed from Infiniti Drive. Further land formerly part of Hillthorn Farm, and prepared for future development, lies to the north.

6.7.6 The Application Site gently slopes from a high point of around 46m Above Ordnance Datum (AOD) adjacent to the disused railway line on the western side of the Site, to generally below 42m AOD along its eastern boundary with Infiniti Drive

6.7.7 With reference to the Phase 1 Habitat Survey at **Figure 11.1**, to **Chapter 11**, the Site primarily consists of poor semi-improved grassland, hardstanding, tall ruderal and ephemeral/short ruderal vegetation. There are a few recently planted, small Oak trees close to its southern corner of the Site. There are no substantial areas of tree and shrub vegetation across the generally open Site, although scrubby vegetation generally lies beyond the Site boundary with the disused railway line. A small number of ponds are located beneath the overhead lines along the eastern Site boundary.

6.7.8 Given the lack of substantial vegetation, there are open views into the Site from Infiniti Drive and much of the surrounding area.

6.7.9 The Electrical Connection Route is approximately 2.6km in length and 3m width. This route extends from the east if the Application Site, passing to the south of the existing car parking area linking to the Nissan Way and then through the Nissan car plant to connect to an existing substation to the north-east.

Surrounding Context

6.7.10 In the wider context, the Nissan car plant, substantial areas of external car parking, wind turbines and other industrial and warehouse uses are located beyond Infiniti Drive, to the east and north-east of the Application Site. The buildings generally have a large footprint and visual mass and are visible over a wide area, although blocks of plantation woodland and roadside vegetation provide screening from some locations.

6.7.11 A newly constructed warehouse (occupied by Vantec) lies on the opposite side of Infiniti Drive, to the south and south-east of the Application Site. The A1231, Sunderland Highway passes beyond the Vantec warehouse site to the south of the Application Site.

6.7.12 A wildlife site (Barmston Pond Local Nature Reserve), largely bounded by shrub and other vegetation, lies beyond the Vantec warehouse to the south-east of the Site, at the junction of the Sunderland Highway and Nissan Way. The publicly accessible wildlife area contains a large water body and associated wildlife hides.

6.7.13 Beyond the disused railway to the west, further large scale industrial and retail uses are located within the Hertburn Industrial Estate.

6.7.14 The nearest residential areas are Sulgrave, to the north-west and Barmston to the south-west, on the opposite side of the Sunderland Highway. A number of isolated properties on the previous alignment of the A1290 lie to the north-east of the site. Castletown lies several kilometres distance to the north-east of the Site, beyond the Nissan factory.

6.7.15 The landscape around the Application Site is analysed in more detail later in this Section.

Baseline Survey Information

Landscape/Townscape Character

National Landscape Character Area

6.7.16 National Landscape Character Areas (NCAs) are based on the former Joint Character Areas originally prepared by the former Countryside Agency. NCAs are now

managed by Natural England. The Application Site is located within the NCA 114 – Tyne and Wear Lowlands (see **Appendix 6.2**). The published document for this NCA identifies a number of key landscape characteristics, including:

- **"Undulating landform incised by the river valleys of the Tyne and the Wear and their tributaries.**
- **Widespread urban and industrial development with a dense network of major road and rail links and the spreading conurbations of Tyneside in the north. Dispersed towns and villages further south. …**
- **Between settlements, wide stretches of agricultural land with large, regular, arable fields bordered by hedgerows with few hedgerow trees, often with large farmsteads and urban fringe pasture land with pony and cattle grazing.**
- **Strong legacy of mining, much restored to agriculture, forestry, industry, housing and amenity uses such as country parks, linking urban areas with countryside and coast …**
- **Industrial prosperity reflected in the large number of 18th- and 19th-century country houses, set within parkland in the vicinity of major settlements.**
- **Mixed woodland estates and plantations on restored spoil heaps provide woodland cover in some areas, although sparse elsewhere. …**
- **Long history of settlement, mining and industry evidenced through historic buildings and settlement patterns which form a core part of today's landscape. …"**

Local Level Landscape Character Assessment

6.7.17 The City of Sunderland Landscape Character Assessment was published in 2015. The landscape/townscape across the City of Sunderland is divided into a number of Landscape Character Types (LCT) and further subdivided into Landscape Character Areas (LCA). As shown on **Figure 6.3 City of Sunderland Landscape Character Plan**, the Site lies within LCT 2: Coalfield Lowland Terraces, and within LCA 2b: Usworth Lowland.

6.7.18 LCT 2: Coalfield Lowland Terraces occurs in various areas throughout the City. Its Key Characteristics are described as:

- **"Lowland transitional landscape between the Magnesian Limestone escarpment to the east and Wear Valley to the west; …**
- **The topography is gently rolling or flat in areas of boulder clay, with a more undulating terrain associated with river valleys, and with the remains of glacial moraines;**
- **Agricultural land use is mixed but predominantly arable with semi-regular patterns of medium and large-scale fields bounded by low hawthorn hedges and pockets of recently planted woodland;**
- **Former colliery workings and spoil heaps have now been reclaimed, with large tracts of recently restored land;**

- **Fragmented by industrial and residential development, the landscape includes corridors of open space between settlements, often with urban fringe character;**
- **Large industrial complexes and industrial estates are present;**
- **Long and relatively open views across County Durham from the elevated foot slopes of the Limestone Escarpment to the west; these become less frequent towards the low lying Wear Valley.**

6.7.19 LCA 2a Usworth Lowlands is described as the flat agricultural and industrial land between Washington and Sunderland. Land cover across the northern part of the LCA is described as "**large scale arable fields bordered by remnant and weak hedgerows with sparse tree cover.**" Within the area to the south of the A1290 (which encompasses the Site), "**industrial development becomes the main land use. Nissan and Vantec occupy a substantial section of this character area, incorporating numerous very large buildings, hardstandings, a test track and ten wind turbines. New and old woodland contains the development from some angles, though it is highly visible from elevated locations."**

6.7.20 Views from the LCA south towards Sunderland are described as "**limited by the large industrial structures associated with the Nissan car factory**" whilst the "**low recreational value**" and "**limited number of underused public footpaths and bridleways**" are also noted.

6.7.21 The Key Sensitive features / issues / trends for the Coalfield Lowland Terraces LCT are stated as:

- **"Negative impact of infrastructure, including major roads and industrial and business parks.**
- **Recreational value of parks, footpaths and cycleways.**
- **Settlement fringe character of parts of the landscape.**
- **Maintenance of the distinction between settlements"**

6.7.22 "Do" and "Don't" guidelines relating to various considerations are provided for the LCT. With regard to 'Industrial estates and complexes', the positive ("Do") recommendation is:

- **"Seek opportunities to enhance and extend landscaping and integrate new buildings into the landscape. Utilise native species which occur locally, e.g. Grey Poplar.**
- **Aim to enhance maintenance of landscapes in and around industrial and commercial premises, including woodland and hedges."**

6.7.23 The corresponding negative ("Don't") guideline states that "**industrial/commercial development that will adversely encroach on the Green Belt and block green corridors through this already fragmented landscape**" should not be permitted. As noted above, the Site does not lie within the Green Belt.

6.7.24 Each LCA within the LCT has been subject to an initial assessment of value and assigned an overarching landscape strategy. With regard to LCA 2a: Usworth Lowland, the assessment states that the key aspects and features which contribute to landscape value of the LCA are:

- **"Large undeveloped area within north Sunderland, which acts as a settlement break between Sunderland and Washington.**
- **Continuous with large area of similar farmland to the north, in South Tyneside.**

- **North East Aircraft Museum is a visitor attraction and also illustrates the history of this landscape as an airfield.**
- **Barmston Pond Local Nature Reserve provides ecological interest in the area."**

6.7.25 None of the above features or aspects are encompassed by the Site.

6.7.26 The published landscape character assessment also provides an overarching strategy for LCA 2a: Usworth Lowlands. Whilst parts of the strategy relate to land / features beyond the Site to the north, the strategy also generally seeks "**Landscape enhancement towards a high-biodiversity area incorporating potential for recreation within and around the existing and potential future commercial development.**" It also notes that "**Connections could be improved through better green networks around the existing land uses, linking up currently isolated features such as the Barmston Pond nature reserve.**"

6.7.27 The spatial arrangement and distance to other LCAs within area 2km radius of the Site is shown on the Landscape Character Areas Plan (see **Figure 6.3**). The following paragraphs provide for a brief description of the two LCAs which lie within this area.

6.7.28 LCA 3a Weardale is described as "**the incised valley of the River Wear located in the western half of Sunderland.**" The description also notes that "**Residential areas and commercial development in Washington flank the north side of the river. Though these are generally screened from view**." The key aspects and features which contribute to the landscape value of LCA 3a Weardale, quoted from the published assessment, are:

- **"This LCA has a high recreational value with parks, footpaths and cycleways where experience on the landscape is important.**
- **Area acts as a popular access point to the river.**
- **Represents an area of open space and provides tranquil qualities within the densely populated urban area.**
- **Area has a strong scenic quality composed of wooded banks and landmark features such as Victoria Viaduct.**
- **The only major river valley within the Sunderland city council area.**
- **Wooded areas and undeveloped river bank provide sense of enclosure."**

6.7.29 LCA 4a Urban New Town is described as "**Residential areas and commercial development in Washington**" which were predominantly built in the 1960s and 1970s. Each area is described as "**self-contained: visually screened from neighbouring areas; and physically separated by road infrastructure.**" The description also notes that "**Modern industry is concentrated in large-scale business parks, located mainly on the periphery of the to**wn". The key aspects and features which contribute to the landscape value of LCA 4a Urban New Town, quoted from the published assessment, are:

- **"A distinctive character deriving from its development as a planned new town.**
- **Washington Village conservation area provides a historical dimension to this predominantly 20th century residential area.**
- **High levels of open space, woodland and off-road walking and cycling routes permeate the settlement.**
- **Semi-natural parklands along the Biddick Burn and River Wear."**

6.7.30 The extract from the published report can be found in **Appendix 6.3**

Author's Own Assessment of Local Landscape/Townscape Character within 2km of the Application Site

Landscape/Townscape Scale

6.7.31 The scale of the urban environment / townscape within 2km of the Application Site is often large reflecting the mass and height of the built form in the various industrial/commercial areas, and also the large scale of the arable land to the north of the area. However, the residential areas to the west and south of the area reflect a smaller, domestic scale. The sense of designed compartmentalisation of the area is reinforced by the network of linear forms such as the network of transport corridors including the A1231 Sunderland Highway and the disused railway line.

Landform and Enclosure

6.7.32 With reference to **Figure 6.2 Topography Plan**, the Application Site lies in a broad area of gently undulating, lower lying land (mostly around 40m AOD). The steeper sided valley of the River Wear winds its way through the area, to the south-east of the Study Area. between landform is gently undulating with changes in levels reflecting the presence of the River Wear and its valley. Beyond the river valley, the landform rises steeply to a plateau of land (with a high point of 136m AOD close to the Penshaw Monument). A further area of higher land (around 140m AOD close to Eighton Banks) is located in the north-west of the Study Area.

6.7.33 Enclosure is generally provided by the built form at various scales, along with limited areas of woodland / vegetation cover along the River Wear valley and in pockets of plantation woodland, such as those which enclose the wind turbines associated with the Nissan factory. Low, gappy hedgerows provide partial physical enclosure to the agricultural fields in the north of the Study Area.

Townscape / Landscape Pattern and Complexity, and Human Influences

6.7.34 The townscape pattern is both of industrial built form with a large mass and footprint, and of residential areas with a series of necessarily smaller scale patterns. The industrial buildings are generally arranged in rectilinear patterns, contained by the surrounding road network, albeit the test track to the north of the Sunderland Highway introduces a more curved element in places. The sinuous form of the River Wear adds a contrasting pattern through the south-eastern edge of the area.

6.7.35 The housing alignment and roads network within the distinct residential areas provides a greater degree of pattern complexity, compared to the industrial areas.

6.7.36 Human influence in the form of infrastructure and buildings is strongly evident throughout much of the area, including the arable land which is crossed by lines of pylons and overhead lines.

Skylines

6.7.37 In views towards the higher land in the south-east of the Study Area, the skyline is largely wooded, with the Penshaw Monument often silhouetted against the skyline.

6.7.38 In views from the elevated land around the Penshaw Monument across the river valley and the lower lying land beyond, the distant horizon is broadly level and simple in form. The skyline is occasionally broken by taller elements within the middle ground such as pylons, overhead lines and the wind turbines associated with the Nissan factory.

6.7.39 From the lower lying land in the Study Area, the larger scale built forms of industrial buildings, wind turbines, electricity pylons and communication towers occasionally break the skyline.

Inter-visibility

6.7.40 Inter-visibility between much of the lower lying areas of the 2km Study Area around the Application Site is limited by large residential or industrial areas, resulting in frequent short range views. Areas of woodland or other vegetation provide additional visual barriers to inter-visibility across the lower lying land.

6.7.41 There is more inter-visibility with the elevated land around the Penshaw Monument, although views from it can often be interrupted by its well vegetated nature. Where there are views across the lower lying land, these can be panoramic, encompassing much of Washington and the nearby industrial areas.

Tranquillity

6.7.42 Much of the study area is influenced by the traffic movement and noise of the roads network, the industrial areas and the various residential districts. The northern, agricultural part of the study area contrasts with this more developed and urban environment elsewhere. However, the agricultural land is bordered by the Nissan factory and other industrial facilities to its south and by the residential areas to its west. Human presence is nevertheless evident albeit less frequent. The topography and well-vegetated nature of the river valley provides a greater degree of tranquillity compared to the rest of the study area.

Landscape Designations

6.7.43 With refence to **Figure 6.4 Environmental Constraints Plan**, there are no statutory or non-statutory landscape designations in place on the Application Site, adjacent to it or within 2km.

6.7.44 The Site lies in close proximity to the Green Belt. It is noted that Green Belt is a spatial planning tool rather than a landscape designation.

Visual Amenity

Visual Context – Views from the Application Site

6.7.45 Views are relatively enclosed due to the presence of large scale built form within the adjacent Hertburn Industrial Area and adjacent to the Application Site. The close proximity of the Vantec building to the south, and the Nissan Car Factory and other industrial/commercial units to the east serve to industrialise and contain the site area. To the north the landscape is more open but generally flat with some hedgerows and tree belts limiting long visibility.

Public Highways

6.7.46 Views of the substantial industrial areas in close proximity to the Application Site are available from large parts of the surrounding roads network, where not prevented by roadside vegetation or small blocks of woodland. From some locations, the wind turbines associated with the Nissan factory are visible even when intervening built form, topography or vegetation screens views of the large scale buildings.

6.7.47 Close range views towards the Application Site itself from much of the roads network, including the Sunderland Highway, are oblique and limited by the recently

constructed Vantec building to its south-east. There are open, albeit often oblique, views of the Application Site from sections of Inifiniti Drive and the A1290 to its north.

6.7.48 There are occasional long distance glimpses towards the general direction of Application Site from more elevated land to the south and east, but the substantial forms of the Vantec buildings, the Nissan factory and other industrial units either screen the Site itself, or provide an industrialised context.

Public Rights of Way

6.7.49 The closest PRoW (footpath) to the Application Site lies on the opposite, western side of the disused railway along the western boundary of the Site. Vegetation along both sides of the former rail line strongly limits views into the Application Site.

6.7.50 The next closest PROW (bridleway) links Nissan Way, close to the north-eastern edge of the Barmston Pond local nature reserve, with the A1290 to the north-east of the Application Site. Whilst the Site is visible from a length of this bridleway, the newly constructed Vantec building and the large area of secured car parking, provide an industrial context to this PRoW.

6.7.51 There are a small number of PRoW across the agricultural land to the north of the Site. Views from these PRoW towards the Application Site are generally prevented by localised changes in topography or by lines of trees or other vegetation, such as that along the stream corridor to the north of the Site.

6.7.52 Views from the River Wear Trail, which extends along both sides of the river valley, are generally prevented by the wooded nature of the steep sided valley sides.

6.7.53 A series of footpaths traverse the elevated land around the Penshaw Monument, in places allowing panoramic views across the wider Washington residential areas and the large scale industrial estates. Elsewhere views are prevented by localised areas of vegetation.

6.7.54 A number of PRoWs have been visited as part of the site visit, and where judged to be relevant, representative views have been included in this LVIA.

Residential Receptors and Settlements

6.7.55 The nearest residential areas to the Application Site are Sulgrave and Barnstom.

6.7.56 Sulgrave is located beyond the disused railway and parts of the Hertburn Industrial Estate to the north-west of the Site. Barnstom is located to the south-west of the Application Site, beyond parts of the Hertburn Industrial Estate and the elevated section of A1232 Sunderland Highway. The dense urban form of these residential areas prevents views towards the Site from most locations. Where there are glimpses between buildings etc, views of the Site are generally prevented by existing industrial buildings.

6.7.57 Further residential districts, such as Downhill, Hylton Castle, Southwick and Hylton Redhouse are located several kilometres distance from the Application Site to its north-east and south-east. From these residential districts there are occasional long distance views towards Washington and the nearby industrial areas. Views of the Site are generally prevented by the large scale industrial buildings and factories which lie in close proximity to it.

6.7.58 Representative views from Sulgrave and other residential areas have been included in this LVIA.

Viewpoints

6.7.59 Initially 12 preliminary viewpoints were selected based on desk top research and available background information, such as maps and aerial photographs. Following the consultation with the Council several additional viewpoints from more distant locations have been considered. A further two close range residential viewpoints were subsequently added, following the public consultation events. Following site visits, the viewpoint selection was rationalised with 16 viewpoints included in the final assessment. These are shown on Screened Zone of Theoretical Visibility and Viewpoint Locations Plan (see **Figure 6.5**).

6.7.60 The location of the viewpoints is informed by the pattern of the 'screened' Zone of Theoretical Visibility (ZTV) and viewpoints are generally selected to illustrate the worst case scenario of visibility of the Proposed Development. Table 6.13 below lists the selected viewpoints, their name and location.

Table 6.13: List of Viewpoints

Nr	Name	Location	Distance (km)	Direction of view
1	Public footpath to the north of the National Trust Penshaw Monument	Penshaw	2.9	North
2	Public footpath leading from the Penshaw Monument to Back Lane	Penshaw	3	North
3	Back Lane, Penshaw	Penshaw	3.2	North
4	Offerton Lane to the east of Offerton Hall Farm	Offerton	3	North west
5	Public footpath to the north of Wood House Farm, to the south of the A1231	South Hylton	2.4	West
6	Junction of Alexandra Avenue and A1231	Southwick	5.9	West
7	River Wear National Trail and the B1405 European Way	Pavillion Industrial Estate	4.5	West
8	St Lukes Road	South Hylton	3.7	West
9	Barmston Lane (public right of way) to the west of the Vantec building and Turbine Business Park	Washington	1.2	North west
10	A1290, to the south of Elm Tree Farm Garden and Tearoom	Washington	0.2	South
11	Rotherfield Road	Hylton Red House	4	South west
12	Hylton Lane adjacent to Kingsway Road	Downhill	3.9	South west
13	Follingsby Lane, to the east of Strother House Farm	Follingsby	2.4	South
14	Leam Court, to the south of Leam Lane	Staneway	3.8	South east
15	View from Marlborough Primary School	Sulgrave	2.9	South-east
16	View from Glover Road, adjacent to Washington Community Fire Station	Sulgrave	0.28	South-east

6.7.61 The above listed viewpoints are assessed in detail and provide evidence in discussing effects on the character of the landscape / townscape, and visual amenity.

Cumulative Developments

6.7.62 There are no cumulative developments that would be relevant to this assessment from a landscape and visual point of view.

6.8 ASSESSMENT OF LIKELY SIGNIFICANT EFFECTS

Effects on Landscape / Townscape Features and Elements of the Application Site – Construction Phase, including demolition

6.8.1 During the construction phase of the Proposed Development, the existing facilities and surface would be removed and replaced with new buildings and structures, including a 57m stack. The construction phase is expected to last approximately 30 months. Construction activities would include:

- Removal of the existing surface;
- Movement of materials and plant (construction plant and fixed plant) to and from the Application Site;
- Excavations for footings, tip bunkers etc., and construction of footings;
- Installation of main items of plant;
- Construction of stack;
- Construction of main building around installed plant;
- Construction of roadways, yard surfacing etc; and
- Tree planting and any other landscaping.

Trees and Vegetation

6.8.2 Given the lack of any structural vegetation within the Application Site, no significant vegetation would be affected by the demolition and construction phase of the Proposed Development. Therefore, it follows, there would be no effect upon these landscape elements. The existing small areas of grass and scrubby vegetation, and the small number of recently planted trees are of no material concern due to their low visual quality and limited extent.

6.8.3 Trees and hedgerows are not characteristic for the Application Site and there is currently absence of any structural vegetation, which could be regarded as contributing to its character or indeed the wider townscape. Such vegetation is however frequent along the A1290, roads and around nearby buildings.

6.8.4 Tree planting is proposed along the Site's western boundary with the disused railway line, and at its north-eastern and southern corners. This would mitigate the loss of the small number of newly planted Oak trees on the edge of the Site, and would provide an enhancement at a localised level.

6.8.5 The sensitivity of the existing scrub, grassland and other vegetation on Application Site is low and the magnitude of change overall is also Low and of a Beneficial nature due to the increase in tree numbers. The resulting effect on trees and vegetation is Negligible, and not considered to be significant.

Land Use

6.8.6 The Proposed Development involves a change in land use of the Application Site from a site prepared for industrial/commercial development to the construction of an Energy from Waste plant, which would occupy the majority of the Application Site. The existing industrial buildings and uses across much of the surrounding area, including the recently constructed Vantec building to the south-east of the Site, provide an industrialised context to the Application Site, giving the Site a Low Sensitivity to the Proposed Development.

6.8.7 The perception of the pre-development character of the Application Site would change, with an increasing level of industrialisation as the construction work progresses. Movement of plant and cranes, and on-going construction traffic would add to the existing industrial character of the area, but this would be typical of the area given the relatively recent construction of Infiniti Drive and the new Vantec building

6.8.8 The magnitude change in existing land use from a prepared for development site to a construction site is considered to be Low, resulting in a Negligible and not significant effect.

Topography

6.8.9 The topography of the Application Site gently slopes, such that it is anticipated that there would be a limited degree of change during the construction process and the potential for retaining structures. This would result in a Low magnitude of change in the existing Site topography. The relationship with the surrounding topography would not be changed to a noticeable degree. Overall the topography of this area is considered to have a Low sensitivity to the Proposed Development. This would result in a Negligible and not significant effect to the Site's topography.

PRoWs

6.8.10 As stated in the baseline section of this Chapter, there are no PRoWs within the Application Site, or adjacent to it that would be physically affected. Potential effects on visual amenity experienced by users of the local PRoW network are considered later in this Section.

Watercourses and Waterbodies

6.8.11 There are no significant (in landscape and visual terms) surface watercourses or waterbodies within the Application Site which would be affected by the Proposed Development. Effects on water features and ecology are considered in more detail in **Chapter 11** of this ES.

Cultural Heritage Assets

6.8.12 There are no cultural heritage or archaeological assets within the Application Site that would be affected (in landscape or visual terms) by the Proposed Development. Effects on Cultural Heritage Assets are considered in more detail in **Chapter 12** of the ES.

Effects on Landscape / Townscape Features and Elements of the Application Site (Operational Phase)

Trees and Vegetation

6.8.13 The new trees and shrub within the Application Site would be managed to maximise their longevity and health throughout the operational phase of the Proposed Development. This ongoing active good management, combined with the successful establishment and development of the proposed new trees, any shrub and areas of grassland, is assessed as giving rise to a Low beneficial magnitude of change during the operational phase of the Proposed Development. With Medium sensitivity, this is assessed as giving rise to a Minor beneficial effect, which is not considered to be significant.

Land Use

6.8.14 The proposed built form would be of a comparable industrial design to the surrounding premises respecting the prevailing architectural form of strong and rectilinear buildings. The height of the main building would be taller than the adjacent built form with the addition of a stack. This change would reinforce the current character of the area, adjacent to the Application Site and along Infiniti Drive. This is further explained in the assessment of effects on the wider landscape / townscape character during the operational phase, later in this section.

Topography

6.8.15 There would be no further changes to the topography of the Application Site during the operational phase of the Proposed Development.

Effects on Landscape / Townscape Character – Construction Phase, including demolition

6.8.16 Based on the information provided in the baseline section, the value of the landscape / townscape around the Application Site and within the 2km radii is considered to be Medium being a non-designated landscape and strongly influenced by industrial built form. In terms of its susceptibility the current landscape / townscape characteristics, analysed earlier in this Chapter suggests it would be Low. Overall, the sensitivity of the local landscape / townscape to the development of the type proposed would be Low.

6.8.17 Construction activities would extend over the entire Application Site. Construction plant would be visible during this period, including (at times) cranes which would appear above the surrounding buildings, and in the context of the existing electricity pylons, and the wind turbines associated with the Nissan factory.

6.8.18 As the construction phase progresses, the increased height of the new structures and building would become more apparent, though these would continue to be experienced in the context of the existing industrial development that surrounds the Application Site.

6.8.19 The construction phase is therefore assessed as giving rise to a Low magnitude of change to the character of the Application Site itself, and the townscape of the surrounding industrial areas. Based on the Low sensitivity of this townscape, this would give rise to a Negligible effect, which is not significant.

6.8.20 Such Negligible effects would translate to Negligible effects on the character of the NCA 114: Tyne and Wear Lowlands during the construction phase, as a host landscape character area.

6.8.21 The Application Site falls within the existing industrial environment characteristic of the southern part of LCA 2a Usworth Lowlands in the City of Sunderland Landscape Character Assessment. With the recent construction of Infiniti Drive and the new Vantec building, construction activities are not an unusual or unexpected activity in this allocated industrial area. The sensitivity of the LCA to the construction phase Proposed Development is Low. The magnitude of change is Low as the Proposed Development would reinforce the existing character as described in the published assessment. The addition of a number of new trees to the southern part of the LCA is in keeping with the published landscape guidance.

6.8.22 With a Low sensitivity and a Low magnitude of change, the effect on LCA 2a Usworth Lowlands is Negligible, and not significant.

6.8.23 There would be no direct effects on the remaining LCAs within a 2km radius of the Application Site, such that there would only be an opportunity for effects that would relate only to their perceptual and sensory factors.

6.8.24 With regard to LCA 3a Weardale, there would be limited opportunities to see the construction of the Proposed Development, given that the character description notes the wooded and enclosed nature of the river valley and the lack of visibility of the existing residential and commercial areas in Washington. The magnitude of change due to the Proposed Development is considered to be Negligible, which would result in a Negligible effect, which is not significant.

6.8.25 Similarly, the description of LCA 4a Urban New Town notes the self contained and visually screened nature of the LCA. It also comments on the modern industry within the character area which is located on the periphery of the town. The dense urban form would prevent most views of the construction activities at the site, although the associated cranes may be temporarily visible. The magnitude of change due to the Proposed Development is considered to be Negligible, which would result in a Negligible effect, which is not significant.

Effects on Landscape/Townscape Character (Operational Phase)

6.8.26 As outlined above, given the scales involved and the industrial nature of the surrounding area, there would be a Negligible operational effect on NCA 114: Tyne and Wear Lowlands.

6.8.27 The Proposed Development would reinforce the existing industrial character of the southern half of LCA 2a Usworth Lowlands. Despite the height of the proposed stack, the overall development would be of a smaller massing and visual scale compared to the Vantec buildings and Nissan factory which also lie within this LCA. The sensitivity of the LCA to the Proposed Development is Low. On balance, the magnitude of change is Low as the Proposed Development would reinforce the existing character, whilst not encroaching on the area of Green Belt to its north as per the published landscape guidance. The addition of a number of new trees to the southern part of the LCA is also in keeping with the published landscape guidance.

6.8.28 With a Low sensitivity and a Low magnitude of change, the effect on LCA 2a Usworth Lowlands is Negligible, and not significant.

6.8.29 The surrounding areas of landscape namely the adjacent LCA 3a Weardale and LCA 4a Urban New Town would be subject to a Negligible magnitude of change overall. This assessment is supported by the assessment of visual effects upon viewpoints, described later in this Section. The operational phase effects on these LCA would be Negligible and not significant.

Effects on Visual Amenity - Viewpoints

6.8.30 Based on an analysis of publicly available maps and aerial photography, and confirmed by visiting the Application Site and surrounding area, a series of 16 viewpoints were identified that are considered to be representative of receptors within the study area or are illustrative of particular view. These viewpoint locations were agreed with the Council and the suggested additional locations also considered. The viewpoints however, are not intended to be an exhaustive record of all potential views.

6.8.31 The visual assessment has taken into account the proposed planting that is an integral part of the Proposed Development considered to be in place. However, these enhancement measures are unlikely to provide screening or reduce the visual effects.

They do, however, help create a more attractive street scene along the access road to the facility, responding positively to the existing character of this road.

6.8.32 Photoviews or Photomontages have been prepared based on the location of the selected 16 viewpoints and provide photographic evidence of the local landscape / townscape and views (see **Figure 6.6**). A detailed assessment of the visual effects of the Proposed Development on the 16 identified viewpoints is provided at **Appendix 6.4**. A summary of the results of this assessment is set out below.

Summary of Visual Assessment – Construction Phase, including demolition

Distant Views

6.8.33 Twelve of the selected viewpoints are over 2km distance from the Proposed Development. They differ in terms of their elevation, context and level of inter-visibility with the Application Site and surrounding area. In all of these views, however, existing large scale industrial built form is visible, albeit to a varying degree. The construction activities associated with the Proposed Development would not result in significant visual effects at any of the identified long distance viewpoints. The effects on these viewpoints during the construction phase are summarised in **Table 6.15** below:

Table 6.15: Summary of Construction Phase Effects on Long Distance Viewpoints

Viewpoint No.	Receptor Type	Scale of Effect
1	Recreational receptors	Minor
2	Recreational receptors	Minor
3	Recreational receptors / road users	Minor / Negligible
4	Recreational receptors / road users	Minor / Negligible
5	Recreational receptors	Minor
6	Road users	Negligible
7	Recreational receptors / road users	Negligible / Negligible
8	Recreational receptors / road users	Minor / Negligible
11	Road users	Negligible
12	Recreational receptors / road users	Minor / Negligible
13	Road users	Negligible
14	Recreational receptors / road users	Minor / Negligible

Medium Range Views

6.8.34 Two of the identified viewpoints fall within the medium range between 2km and 0.5km distance.

6.8.35 The effect of the construction of the Proposed Development on Viewpoint 9, from the PRoW on Barmston Lane, was assessed as Moderate, and is not considered to be significant.

6.8.36 The construction of the Proposed Development on Viewpoint 15, from the entrance to the Marlborough Primary School in Sulgrave, was assessed as having No effect.

6.8.37 The effects on these viewpoints during the construction phase are summarised in **Table 6.16** below.

Table 6.16: Summary of Construction Phase Effects on Medium Distance Viewpoints

Viewpoint No.	Receptor Type	Scale of Effect
9	Recreational receptors	Moderate
15	Residential receptors	No effect

Short Range Views

6.8.38 Two of the ten viewpoints are short range (less than 500m distance).

6.8.39 The effect of the construction of the Proposed Development on Viewpoint 10, from the A1290 to the north of the Application Site, was assessed as Moderate, and is not considered to be significant.

6.8.40 The construction of the Proposed Development on Viewpoint 16, from the entrance to the Glover Road in Sulgrave, was assessed as having a Moderate effect on road users and a Major effect on nearby residents. The Major effect on residents is assessed as significant.

6.8.41 The effects on these viewpoints during the construction phase are summarised in **Table 6.17** below.

Table 6.17: Summary of Construction Phase Effects on Close Range Viewpoints

Viewpoint No.	Receptor Type	Scale of Effect
10	Road users	Moderate
16	Recreational receptors / road users	Major / Moderate

Summary of Visual Assessment – Operational Phase

Distant Views

6.8.42 As noted above, the assessed long distance views towards the Application Site already encompass large scale industrial development, and the Proposed Development would be seen in this context. None of these effects are considered to be significant.

Table 6.18: Summary of Operational Phase Effects on Long Distance Viewpoints

Viewpoint No.	Receptor Type	Scale of Effect
1	Recreational receptors	Moderate
2	Recreational receptors	Moderate
3	Recreational receptors / road users	Minor / Negligible
4	Recreational receptors / road users	Moderate / Minor
5	Recreational receptors	Moderate
6	Road users	Negligible
7	Recreational receptors / road users	Negligible / Negligible

Viewpoint No.	Receptor Type	Scale of Effect
8	Recreational receptors / road users	Moderate / Minor
11	Road users	Negligible
12	Recreational receptors / road users	Minor / Negligible
13	Road users	Minor
14	Recreational receptors / road users	Moderate / Minor

Medium Range Views

6.8.43 Of the two medium range views which have been assessed, there would be No effect on the residential receptors at Viewpoint 15. Recreational receptors at Viewpoint 2 were assessed as experiencing Major visual effects, reflecting the high sensitivity of receptors.

Table 6.19: Summary of Operational Phase Effects on Medium Distance Viewpoints

Viewpoint No.	Receptor Type	Scale of Effect
9	Recreational receptors	Major
15	Residential receptors	No effect

Short Range Views

6.8.44 The operational effect of the Proposed Development on Viewpoint 10 was assessed as Major, and is considered to be significant.

6.8.45 The effect of the Proposed Development on Viewpoint 16, from the entrance to the Glover Road in Sulgrave, was assessed as having a Moderate effect on road users and a Major effect on nearby residents. The Major effect on residents is assessed as significant.

6.8.46 The effects on these viewpoints during the construction phase are summarised in **Table 6.20** below.

Table 6.20: Summary of Construction Phase Effects on Close Range Viewpoints

Viewpoint No.	Receptor Type	Scale of Effect
10	Road users	Major
16	Recreational receptors / road users	Major / Moderate

Visual Assessment – Night-Time Effects

6.8.47 There would be limited external lighting over and above that which is already present along surrounding roads and in other parts of the surrounding industrial areas. There is no requirement from the Civil Aviation Authority for additional limited lighting on the proposed stack.

6.8.48 The limited increase in lighting levels on the Application Site is not considered likely to give rise to any significant effects on night-time visual amenity as experienced from the local area.

6.9 MITIGATION AND ENHANCEMENT

Mitigation by Design

Construction Phase

6.9.1 The construction phase would be expected to last approximately 30 months. There would be a temporary but substantial increase in activities, over and above those associated with existing activities on the Application Site, and also an increase in the number of vehicles entering and leaving the Application Site via the A1290.

6.9.2 The proposed tree and shrub planting that forms an integral part of the design for the Proposed Development would be undertaken during the first planting season after completion of construction in order to maximise establishment success.

Operational Phase

6.9.3 The proposed stack for the plant has been designed to be as narrow as possible. The height of the stack, at 57m, is the minimum that can be used in order to meet the relevant emissions targets as set by the Environment Agency. Its height would be taller than the surrounding buildings.

6.9.4 The Main Building and other structures within the Proposed Development have been designed to be a small as possible whilst still accommodating the necessary plant and machinery.

6.9.5 The Main Building and other structures within the Proposed Development would be clad using materials coloured to minimise the visual effects of the buildings and structures.

Enhancements

6.9.6 The proposed new tree planting would result in a net increase in the amount of trees within the Application Site. This increase in the landscape resource is considered to be a small enhancement but beneficial in terms of street scene along Infiniti Drive.

6.10 SUMMARY

Introduction

6.10.1 This landscape and visual impact assessment has assessed the likely effects of the Proposed Development on landscape / townscape features and elements within the Application Site, landscape / townscape character of the local area, and on local visual amenity. The assessment has been undertaken by Chartered Landscape Architects, with regard to best practice, particularly the Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (2013), as published by IEMA and the Landscape Institute.

Baseline Conditions

6.10.2 The Application Site lies outside of any statutory or local/non-statutory landscape designations and falls within the an industrialised area which encompasses the Nissan car factory, the associated wind turbines and further large scale industrial facilities..

6.10.3 There are no Public Rights of Way (PRoWs) within or adjacent to the Application Site.

6.10.4 The Application Main Site comprises 3.23 hectares of vacant development land which is broadly triangular in shape. The site was formerly agricultural land forming part of Hillthorn Farm; however, it has been subject to landscaping and other works to prepare the site for development. It has recently been used as a temporary construction compound and parking associated with development of nearby land.

6.10.5 The Main Site is bounded to the west by a disused railway line. Overhead power lines and associated pylons run along part of the eastern boundary. The recently constructed highway, Infiniti Drive, runs parallel to the east of the overhead line. The Application Site is accessed from Infiniti Drive.

6.10.6 There are no substantial areas of tree and shrub vegetation across the generally open Site, although scrubby vegetation generally lies beyond the Site boundary with the disused railway line.

6.10.7 The topography of the Main Site is simple and relatively level with changes in the contours limited.

Likely Significant Effects

6.10.8 The assessment has not identified any significant landscape effects which would arise as a result of the Proposed Development. The majority of the 16 representative visual receptors included in this assessment, have been assessed as subject to not significant visual effects. Receptors at one medium distance and two close range locations, (Viewpoints 9, 10 and 16), have been assessed as experiencing significant visual effects due to proximity and inter-visibility with the Proposed Development.

Mitigation and Enhancement

6.10.9 Mitigation measures (such as design evolution of the proposed built form) have been incorporated into the design of the Proposed Developed as part of the iterative design process. The main building and other structures within the Proposed Development have been designed to be a small as possible whilst still accommodating the necessary plant and machinery. In addition, these structures would be clad using materials coloured to minimise the visual effects of the buildings and structures. The measures are therefore an integral part of the development and no further additional mitigation is considered necessary from a landscape and visual perspective.

Conclusion

6.10.10 The nature of the Proposed Development, together with the context provided by the land uses surrounding the Application Site, would mean that the Proposed Development is considered to be appropriate to the setting and townscape character of the site and the surrounding industrial area. The introduction of the Proposed Development would not result in any significant effects on local landscape or townscape features or elements, or the character of the landscape / townscape within and around it.

Effects upon visual amenity would also be generally not significant with only three locations assessed as subject to significant visual effects.