

Landscape & Visual Assessment

Land at Staythorpe Road

On behalf of SSE Staythorpe Battery Limited.

Date: 15/02/2023 | Pegasus Ref: P22-1211



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1. INTRODUCTION

- 1.1
- This Landscape and Visual Assessment (LVA) has been prepared on behalf of SSE Staythorpe Battery Limited by Pegasus Group for the construction and operation of a Battery Energy Storage System (BESS), Transformer/Substation and associated works. It relates to two agricultural fields located to the north of Staythorpe and to the west of Averham village. The site lies adjacent to the A617 and lies to the north-west of Newark -on-Trent. The location of the site and its surroundings are shown on Figure 1.
- 1.2
- This LVA considers the site and its surrounding context in both landscape and visual terms, to assess the potential effects of the proposals upon:
 - Landscape features;
 - Landscape character; and
 - Visual amenity.
- 1.3
- This assessment has been guided by the assessment criteria set out in Appendix 1. It should be noted that all of the landscape and visual effects stated within assessments such as this are considered adverse unless stated otherwise.
- 1.4
- The assessment has been prepared through a desk study analysis of the site and its policy context to gain an appreciation of the landscape and visual context of the site, as well as a site visit.
- 1.5
- Landscape proposals are illustrated at Figure 6 and conveys the landscape strategy for the site.

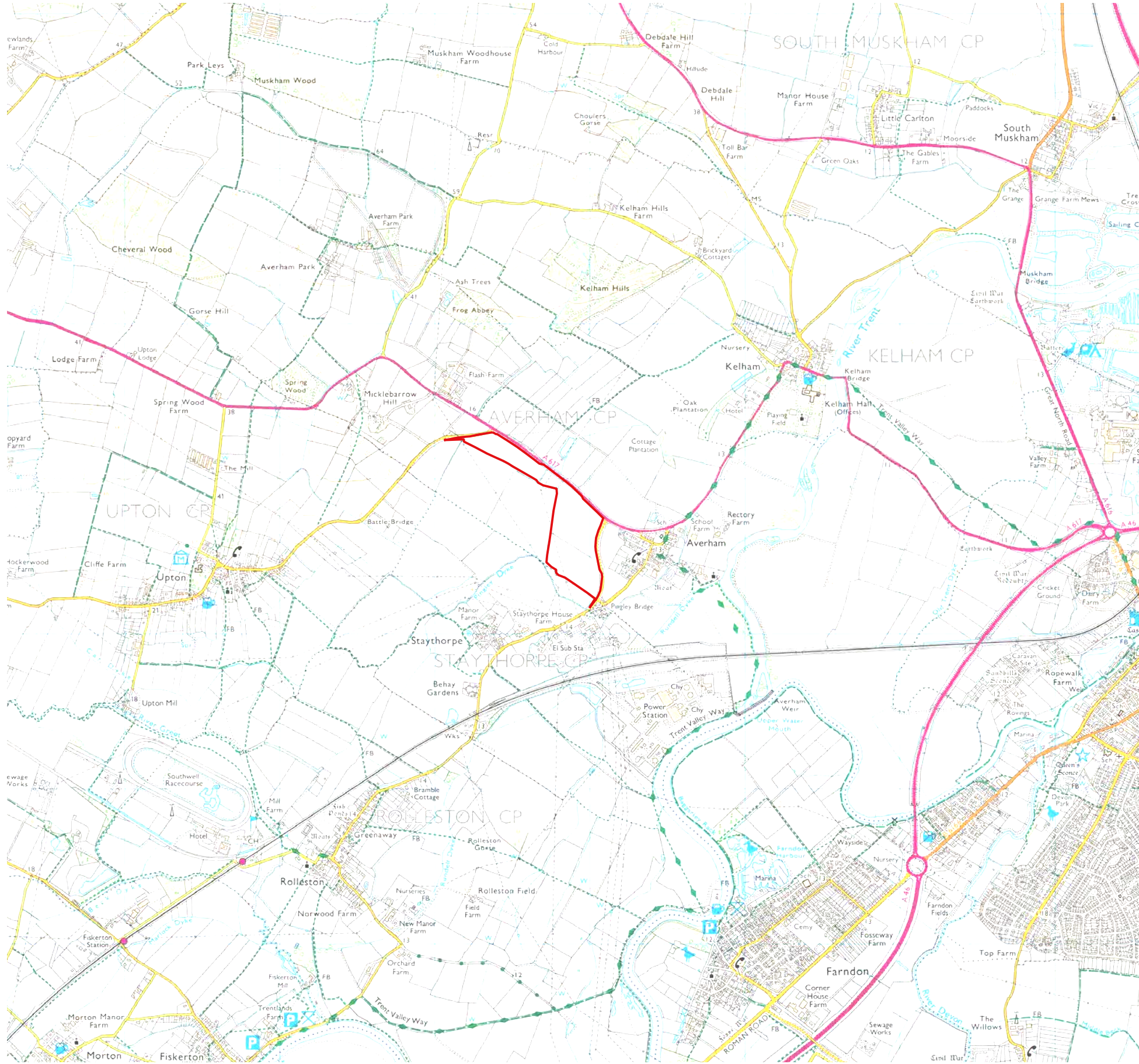


Figure 1: Site Location and Surroundings

2. METHODOLOGY

Published LVA Guidance

- 2.1
- The LVA has been undertaken in accordance with the principles of best practice, as outlined in published guidance documents listed in the reference section of this report, notably the third edition of the Guidelines for Landscape and Visual Impact Assessment (GLVIA3), (Landscape Institute and the Institute for Environmental Management and Assessment, 2013).
- 2.2
- The methodology and assessment criteria for the assessment have been developed in accordance with the principles established in this best practice document. It should be acknowledged that GLVIA3 establishes guidelines, not a specific methodology. The preface to GLVIA3 states:

‘This edition concentrates on principles and processes. It does not provide a detailed or formulaic ‘recipe’ that can be followed in every situation –it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.’

- 2.3
- The approach set out below and in detail in Appendix 1 has therefore been developed specifically for this assessment to ensure that the methodology is fit for purpose.

Distinction between Landscape and Visual Effects

- 2.4
- In accordance with the published guidance, landscape and visual effects were assessed separately, although the procedure for assessing each of these is closely linked. A clear distinction has been drawn between landscape and visual effects as described below:
 - Landscape effects relate to the effects of the indicative proposals on the physical and perceptual characteristics of the landscape and its resulting character and quality; and
 - Visual effects relate to the effects on specific views experienced by visual receptors and on visual amenity more generally.

Types of Landscape and Visual Impacts Considered and Duration

- 2.5
- The LVA assesses both the permanent effects of the development and the temporary effects associated with its construction. Consideration has been given to seasonal variations in the visibility of the development and these are described where necessary.

- 2.6
- Both beneficial and adverse effects are identified in the assessment and reported as appropriate. Where effects are described as ‘neutral’ this is where beneficial effects are deemed to balance the adverse effects. The adverse and beneficial effects are communicated in each case so that the judgement is clear.
- 2.7
- As part of the proposed development, new tree, hedgerow and woodland planting would be introduced. Newly planted vegetation takes a number of years to mature and average growth rates have been taken into consideration in this assessment. The effectiveness of vegetation would improve over time (both in terms of integrating the development into the surrounding landscape and in providing visual screening) and this needs to be considered appropriately.
- 2.8
- Therefore, permanent landscape and visual impacts of the project are assessed both in the winter of year 1 (the year in which the development is completed) and also in the summer of year 15 (15 years after completion of the development). In this second scenario it is assumed that vegetation planted as part of the development will have established and exhibit a degree of maturity.

Assumptions and Limitations of the Assessment

Study Area

- 2.9
- This LVA and its assessment of landscape and visual effects has focussed on an initial 3km study area. However, based upon an understanding of visibility gained during site visits, it is considered that given the context of the generally flat nature of the landscape and the scale of the development proposed, beyond approximately 2km, the development would be difficult to discern within wider views. As such, beyond this distance, landscape and visual effects are likely to fall below the level of effect required to register even a minor adverse level of effect.

Assessed Proposal

- 2.10
- The project proposals have been developed iteratively in conjunction with the production of the LVA with the intention of incorporating mitigation into the project from the outset. The effects identified and described as part of this LVA are based on the landscape proposals as shown in Figure 6.

Baseline Information

- 2.11
- The baseline landscape resource and visual receptors were identified in part through a desk based study of Ordnance Survey mapping, published landscape character studies, relevant planning policies, interrogation of aerial photography and a site visit undertaken in October 2022.
- 2.12
- Access during the site visit was restricted to publicly accessible locations or land within the ownership of the site landowners. No access was possible to private properties and therefore, assumptions have been made regarding the view from private properties. These assumptions have been based on an understanding of the properties and features present within the wider landscape gained during the site visit from publicly accessible locations. Assumptions are guided by professional experience and judgement.

3. SITE CONTEXT

- 3.1 The site is located on agricultural land with the A617 located adjacent to the northern boundary, Staythorpe Road aligning the eastern boundary, Main Road adjacent to the north-western corner and agricultural land to the west and south. It is situated to the west of Averham and is close to the National Grid's Staythorpe Substation to the south, beyond Staythorpe Road. Staythorpe hamlet is located to the south with the village of Rolleston further along Staythorpe Road in the same direction. The village of Kelham is located over 1km to the north-east of the site and Upton village over 1.5km to the west, with Newark-on-Trent over 3km to the south-east.
- 3.2 Field boundaries within the site are generally well established, particularly along northern, eastern, north-western and southern boundaries, with exception being the western boundary which is defined by an agricultural ditch, having an open aspect to the adjacent fields.
- 3.3 The surrounding landscape is generally flat, located within the River Trent valley, with land locally rising further to the north-west. Pingley Dyke passes close to the southern boundary of the site and an agricultural ditch runs along the eastern boundary aligning with Staythorpe Road. There is no public access within the site, however, a number of public rights of way are located in proximity to the site, including the Trent Valley Way.
- 3.4 Although the site and surroundings are set within an agricultural landscape, it is crossed by large-scale pylons with associated overhead powerlines and influenced by not only the nearby National Grid Staythorpe Substation, but by the Staythorpe Power Station beyond. The site is also influenced by the traffic along the 50mph A617 directly adjacent to the northern boundary and to some degree by Staythorpe Road and Main Road.
- 3.5 A photographic record of views toward the site and its local context is provided in Appendix 2, with the photographic locations illustrated in Figure 12.



Figure 2: Aerial Photograph of site and surroundings

4. DESIGNATION AND POLICY CONTEXT

- 4.1 This section provides an overview of the policies and designations of particular relevance to landscape and visual issues. Figures 3 to 5 illustrate relevant designations within the locality of the site. The site is located within the administrative boundaries of Newark and Sherwood District Council.
- 4.2 The site is not covered by any national, regional or local landscape designations. The site lies to the west of Averham Conservation Area. Conservation Areas are also located within Kelham and Upton, as shown on Figure 5.
- 4.3 There are no listed buildings or scheduled monuments on the site, however, a number are located within the study area and are illustrated by Figure 3. A number of heritage features are located either side of Church Lane, including the Grade I listed Church of St Michael and the Averham Moat and Enclosure Schedule Monument. A single listed building is located within Staythorpe, namely Grade II listed The Manor House. Numerous listed buildings are located within Kelham including the Church of St Wilfrid and Kelham Hall, both of which are Grade I listed. There are no registered parks and gardens within or close to the site.
- 4.4 The site is not publicly accessible, however, a number of public rights of way are located within the study area, with their locations shown on Figure 4. The Trent Valley Way is located approximately 0.35km to the east of the site at its closest point where it passes through the village of Averham.

Kelham FP4
Averham FP6
Upton FP6

Upton FP7
Staythorpe FP2
Averham FP8

Trent Valley Way

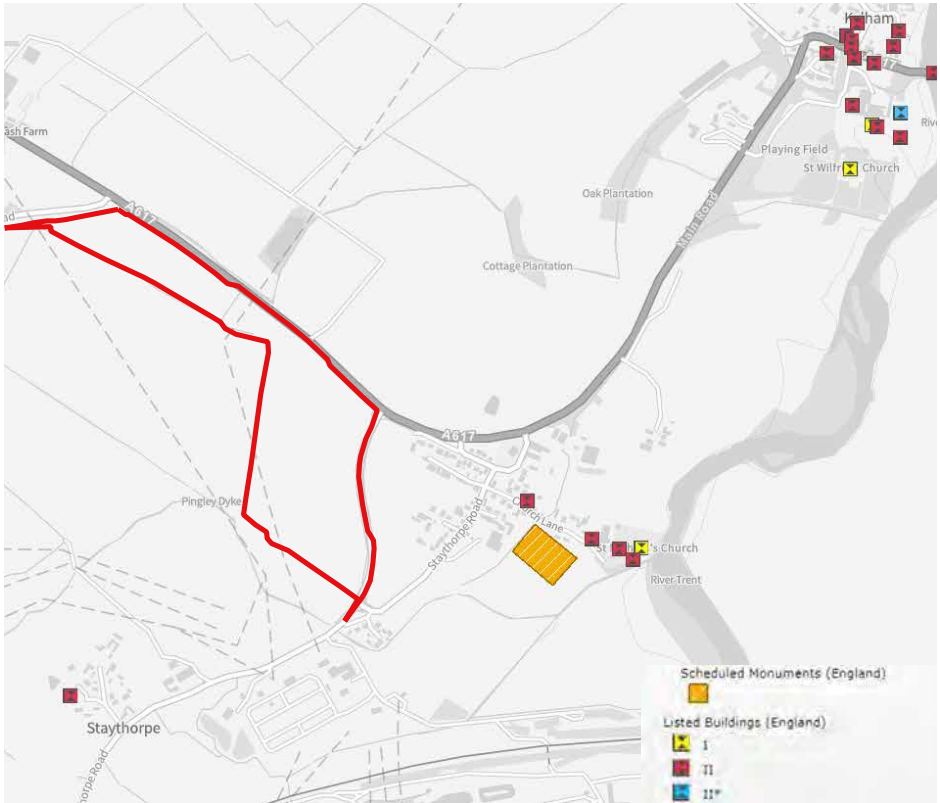


Figure 3: Extract from Magic Map showing listed buildings and scheduled monuments in proximity to site (site boundary shown as red line)

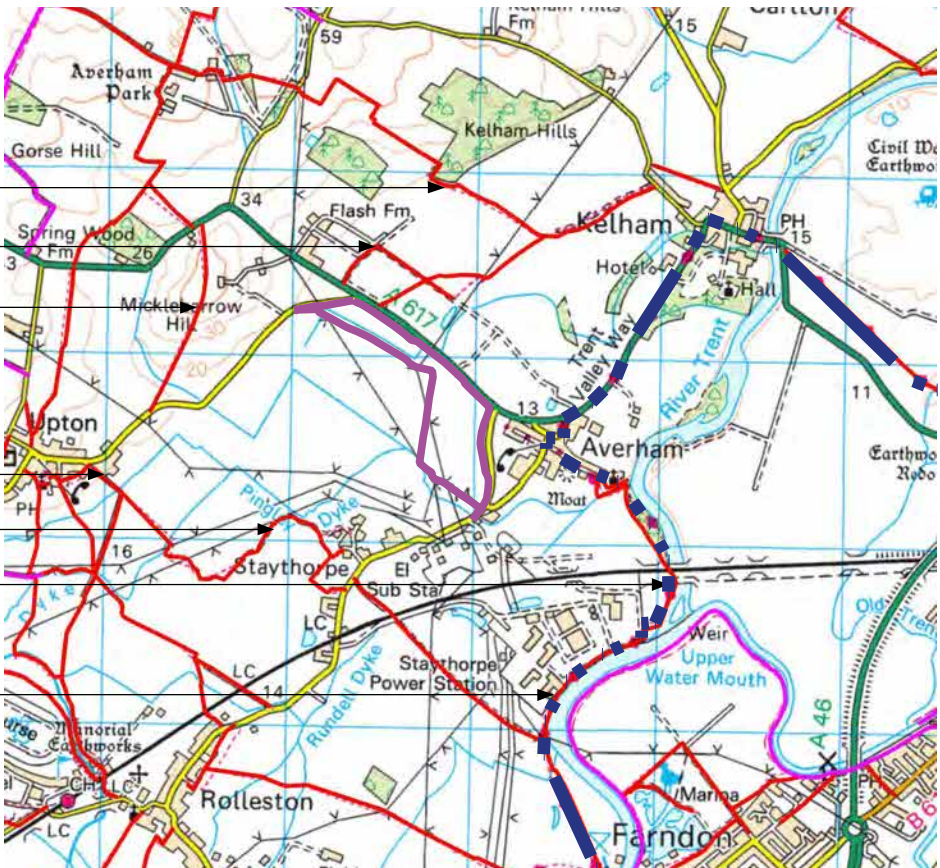


Figure 4: Extract from rowmaps.com, with Trent Valley Way added (site boundary shown as pink line)

Relevant Landscape Planning Policy

National Planning Guidance

- 4.5 Government revised the National Planning Policy Framework (NPPF) in July 2021. This document sets out a general presumption in favour of sustainable development (paragraph 11) and guides the Local Planning Authorities in the production of Local Plans and in decision making.
- 4.6 In Section 14, the NPPF sets out its support for renewable and low carbon energy and associated infrastructure, with subsequent paragraphs setting out how this can be achieved.
- 4.7 Paragraph 174 of the NPPF in relation to valued landscapes, states:

'Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services –including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland...'*

Local Planning Policy

- 4.8 The site is located within the administrative boundaries of Newark and Sherwood District Council. Newark and Sherwood District Council's adopted planning policy is set out in the Plan Review, Review of the Newark & Sherwood Local Development Framework Core Strategy and Allocations, Amended Core Strategy, which was adopted on 7 March 2019. Further planning policy is set out in the Allocations and Development Management - Development Plan Document, adopted on 16 July 2013.

Amended Core Strategy (adopted March 2019)

- 4.9 Core Policy 13 of the amended core strategy in relation to landscape character, states:
- 'Based on the comprehensive assessment of the District's landscape character, provided by the Landscape Character Assessment Supplementary Planning Document, the District Council will work with partners and developers to secure:*

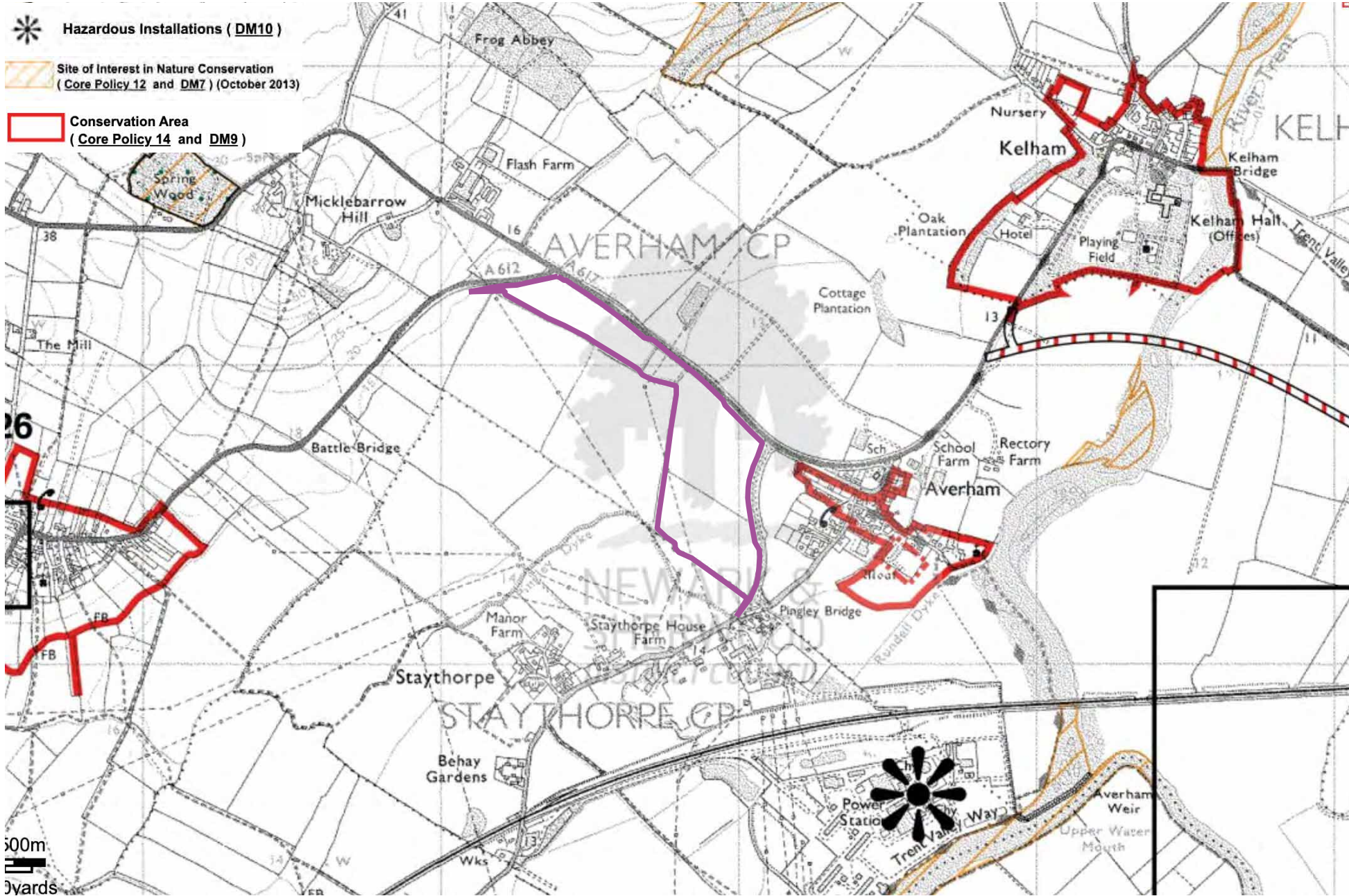


Figure 5: Extract from Newark and Sherwood District Council interactive Policies Map (site boundary shown as pink line)

- New development which positively addresses the implications of relevant landscape Policy Zone(s) that is consistent with the landscape conservation and enhancement aims for the area(s) ensuring that landscapes, including valued landscapes, have been protected and enhanced.'

1. The landscape character or urban form of the district or the purposes of including land within the Green Belt arising from the individual or cumulative impact of proposals...'

4.11 Policy DM5 of the DPD in relation to design, states:

'In accordance with the requirements of Core Policy 9, all proposals for new development shall be assessed against the following criteria:..

3. Amenity

The layout of development within sites and separation distances from neighbouring development should be sufficient to ensure that neither suffers from an unacceptable reduction in amenity including overbearing impacts, loss of light and privacy.

Development proposals should have regard to their impact on the amenity or operation of surrounding land uses and where necessary mitigate for any detrimental impact.

Proposals resulting in the loss of amenity space will require justification. The presence of existing development which has the potential for a detrimental impact on new development should also be taken into account and mitigated for in proposals. New development that cannot be afforded an adequate standard of amenity or creates an unacceptable standard of amenity will be resisted. 4. Local Distinctiveness and Character

The rich local distinctiveness of the District's landscape and character of built form should be reflected in the scale, form, mass, layout, design, materials and detailing of proposals for new development.

In accordance with Core Policy 13, all development proposals will be considered against the assessments contained in the Landscape Character Assessment Supplementary Planning Document...

...Where local distinctiveness derives from the presence of heritage assets, proposals will also need to satisfy Policy DM9.

5. Trees, Woodlands, Biodiversity & Green Infrastructure

In accordance with Core Policy 12, natural features of importance within or adjacent to development sites should, wherever possible, be protected and enhanced. Wherever possible, this should be through integration and connectivity of the Green Infrastructure to deliver multi-functional benefits...'

5. PROPOSED DEVELOPMENT

Proposed Development

5.1 The proposed development consists of the construction and operation of a BESS, Transformer/Substation and associated works. Operational access to the site will be taken from Main Road. The associated equipment would comprise:

- Battery storage units –battery units arranged in rows up to 22m in length, circa 3.5m wide, and up to 4m in height ;
- Inverters and transformers local to the batteries will be up to 4m in height;
- Substation/SGT –Equipment extending up to 12m in height;
- Water Storage Tanks –10m diameter and up to 2m in height;
- Compound, single storey operational buildings, switch room, workshop and stores;
- Site fencing, access tracks (including temporary abnormal loads access and emergency only access) and gates;
- CCTV –2.4m security mesh fence, CCTV and light poles to be up to 5m in height; and
- Surface water storage basins.

Mitigation Proposals

5.2 In order to mitigate against landscape and visual impacts, the landscape proposals as illustrated at Figure 6, take account of the identified areas of sensitivity by providing additional planting where required and any relevant maintenance notes for existing planting.

5.3 Care has been taken to retain existing trees and hedgerows where possible, to retain the character of the local area, to maintain existing visual buffers and to maintain biodiversity value. The proposals would result in some loss of existing hedgerows along field boundaries to the north-west in order to accommodate the proposed access road, however, this has been minimised wherever possible.

5.4 The landscape mitigation proposals include the following:

- retention, protection and enhancement of the existing network of trees and hedgerows along field boundaries, including necessary temporary protective fencing during construction;
- provision of new native woodland planting with some evergreen species along the northern, eastern, south-eastern and south-western boundaries, to supplement existing field boundary vegetation and provide visual enclosure. Planting to include a mix of semi-mature planting, along with other sizes of planting;
- creation of a new tree lined hedgerow along the parts of the western boundary, with tree planting avoiding overhead powerline offsets;
- existing hedgerow planting along southern boundary to be supplemented by new native planting to provide additional visual enclosure;
- proposed earth bunds to the east of the development to be planted with new native woodland and scrub;
- all existing and proposed native hedgerows managed to a height of 3m or over to enhance visual enclosure;
- creation of an attenuation ponds seeded with appropriate species rich grassland tolerant of seasonally wet conditions; and
- ongoing landscape management of planting during the lifetime of the proposed development.



Figure 6: Landscape Proposals

6. LANDSCAPE BASELINE AND EFFECTS

- 6.1 The assessment of Landscape Effects deals with the changes to the landscape as a resource. Different combinations of the physical, natural and cultural components (including aesthetic, perceptual and experiential aspects) of the landscape and their spatial distribution create the distinctive character of landscapes in different places.
- 6.2 Effects are considered in relation to both landscape features and landscape character during construction, at Year 1 and at Year 15 and beyond. The sensitivity of landscape features is a function of both their susceptibility and value, as discussed further in the Assessment Criteria at Appendix 1. A summary of landscape effects are included in Table 1.

Landscape Features

Landform and Topography

- 6.3 The landform of the site is generally flat, varying slightly between 13-15m AOD. A number of steep sided ditches lie either in proximity or along site boundaries. The surrounding landscape is generally similar in landform, with the site forming part of the low lying floodplain associated with the River Trent which lies of the other side of Averham village. The flood plain area extends to all sides of the site, with the River Trent extending to the north-east and south-west of the site. Local high ground is located to the north-west of the site, with Micklebarrow Hill forming a distinctive steep sided hill adjacent to the River Trent flood plain.
- 6.4 The landform is not unusual in the locality, being typical of the local area , therefore is deemed to have a medium to low value. The landform would be subject to some minor changes in level to accommodate access tracks, hard surfaced areas, gates and fencing, therefore, is deemed to have a medium susceptibility to change. Overall, the sensitivity is judged to be no greater than medium.
- 6.5 There would be some changes to the landform of the site to accommodate foundations of the battery storage and substation and other structures, including access tracks, fencing and CCTV. Some artificial earth bunds would be created in relation to noise reduction, along with attenuation features to assist with drainage. The magnitude of change is considered to be medium during construction due to the quantum of earth moving within the site, resulting in a short-term and temporary Moderate level of effect.
- 6.6 At Year 1 and Year 15, all proposals would be in place with earth bunds and attenuation features either seeded or planted. Therefore, the magnitude of change is considered to be low at Year 1 and Year 15, which would result in a Minor adverse level of effect.



Figure 7: Aerial Photograph of site and immediate surroundings

Water Features and Drainage

- 6.7
- A number of steep sided drainage ditches follow site boundaries, which have both agricultural uses, as well as being located adjacent to Staythorpe Road and the A617. These drainage features are typical of those found within the surrounding landscape. Pingley Dyke lies close to the southern boundary which passes through agricultural land to the south-west, before discharging into the River Trent further to the south-east. The River Trent is a prominent river in vicinity to the site, which has links to recreation, wildlife and past and present industry. Ponds feature regularly in the surrounding landscape including to the north of the site, surrounding Staythorpe Power Station and adjacent to the River Trent.
- 6.8
- The drainage ditches surrounding the site are typical of the local area and have limited landscape value, deemed to have a low value. Due to the existing crossings over the ditches, the susceptibility to change of this feature is deemed to be low. Overall, it is considered to have a low sensitivity to the type of development proposed.
- 6.9
- All drainage ditches would be retained and respected as part of the proposed development, with access tracks utilising existing culverts across them. The proposed development would have no direct or indirect effects upon the River Trent or Pingley Dyke. New attenuation features would be created within the site, which would receive appropriate landscape treatment and would be managed to maximise their wildlife value, offering some benefits.
- 6.10
- Levels of effect would be Neutral during construction. At Year 1 and Year 15, a very low beneficial magnitude of change is predicted, resulting in a Minor level of effect.
- Land Use, Buildings and Infrastructure
- 6.11
- The site comprises two large scale irregular shaped arable fields, defined by the A617 to the north, Staythorpe Road to the east and Main Road to the north-west. Similar arable fields are located to the west and south of the site. There is no built form on the site, apart from a large scale electricity pylon with associated overhead cables close to the to the western boundary, with similar pylons located adjacent to southern and north-western boundaries. In addition, smaller scale powerlines attached to telegraph poles follow part of the north-western boundary. The site is accessed to the south-east, north and north-west via agricultural field gates.
- 6.12
- Although the site is located within an agricultural landscape, it is influenced by the busy A617 lined with street lights and its associated laybys to the north, with Staythorpe Road providing a link for large vehicles to the nearby Staythorpe substation and power station, as well

- as to villages and hamlets. Main Road provides a link between the A617 adjacent to the site and Upton further to the south-west. Electricity pylons with associated overhead cables are a prominent feature within the surrounding landscape, as are nearby electrical infrastructure and the power station to the south and south-east of the site. A number of villages and hamlets scatter the landscape, including Averham and Staythorpe which lie closest to the site. A number of scattered farms are located within the surrounding landscape, some of which are large in scale i.e. Flash Farm to the north-west. A railway line crosses the landscape to the south of the site.
- 6.13
- Although the site is greenfield, being typical of the nearby agricultural landscape, it is influenced by the nearby A-road, electricity infrastructure, Staythorpe Power Station and residential development, including the pylons and associated overhead powerlines over the site and therefore has limited scenic qualities. The site is not publicly accessible and therefore has no recreational value in the local area. and is deemed to have a medium to low value. However, the extents of the proposed development do cover a large proportion of the site leading to a change in land use, therefore, its susceptibility to change is deemed to be high. On balance, it is deemed to have a medium sensitivity to the proposed development.
- 6.14
- The proposals would represent a change to the current land use from predominantly agricultural fields to an operational battery storage facility with substation and associated infrastructure. However, much of the peripheral areas would be planted with native species, therefore, the perception of the primary land use would be reduced. The magnitude of change is assessed as medium to high upon the site itself, resulting in a Moderate adverse level of effect during all periods.
- Vegetation
- 6.15
- The site benefits from some established field boundary hedgerows and areas of scattered trees along peripheral areas, particularly along Staythorpe Road and the A617. However, the vegetation separating the site from the A617 to the north-east is gappy in places and there is no meaningful vegetation along the western edge, with the site having an open aspect along this boundary.
- 6.16
- The site is located within a landscape made up of agricultural land with similar field boundaries, some of which are not present in places. Some woodland copses are scattered in between agricultural fields to the north, including around areas of Kelham. Areas of vegetation also align the River Trent to the east and surround Staythorpe Substation and Staythorpe Power Station to the south-east. Some established vegetation aligns the A617 to the north-west of the site, which provides enclosure to users of the road.

- 6.17
- The vegetation pattern within the site is similar to the surrounding agricultural landscape. Although the site features some trees and hedgerows along its boundaries, these are of limited value and are absent along western edges. Therefore, the vegetation on site is considered to have no greater than a medium to low value. As the proposed development respects the location of existing vegetation with the ability to be managed and enhanced, a low susceptibility of change is assigned. Vegetation is deemed to have a low sensitivity to the proposed development.
- 6.18
- During construction, trees and hedgerows within and surrounding the site would be protected. There would some limited loss of existing hedgerows as a result of the proposed development in order to incorporate the proposed access tracks, however, elsewhere access points utilise existing tracks and breaks in vegetation. The proposed development is therefore predicted to have a very low magnitude of change during construction, resulting in a Minor adverse level of effect.
- 6.19
- At Year 1, all proposed mitigation planting would be in place, with extensive woodland planting around the perimeter of the site, including some mature stock providing instant height and stature. As a result, a low beneficial magnitude of change would occur at Year 1, resulting in a Minor level of effect.
- 6.20
- With the benefit of maturing planting, the proposed vegetation would integrate the development with its surroundings, resulting in further localised benefits within the site. At Year 15, a medium to low beneficial magnitude of change is predicted, which due to its low sensitivity, would result in a long-term Minor beneficial level of effect.

Landscape Character

- 6.21
- This section provides an overview of the landscape character of the site and its locality. It provides an indication of the sensitivity of the landscape character to the proposed development and the resulting effects which would arise from the development proposals.
- National Level Landscape Character
- 6.22
- The site is located within National Character Area (NCA) 48, Trent and Belvoir Vales, with the site location identified in Figure 8. The key characteristics of NCA 48, of relevance to the site, are set out below:
- ‘A gently undulating and low-lying landform in the main, with low ridges dividing shallow, broad river valleys, vales and flood plains. The mature, powerful River Trent flows north through the full length of the area, meandering across its broad flood plain and continuing to influence the physical and human geography of the area as it has done for thousands of years.
 - Agriculture is the dominant land use, with most farmland being used for growing cereals, oilseeds and other arable crops. While much pasture has been converted to arable use over the years, grazing is still significant in places, such as along the Trent and around settlements.
 - A regular pattern of medium to large fields enclosed by hawthorn hedgerows, and ditches in low-lying areas, dominates the landscape.
 - Very little semi-natural habitat remains across the area; however, areas of flood plain grazing marsh are still found in places along the Trent.
 - Extraction of sand and gravel deposits continues within the Trent flood plain and the area to the west of Lincoln. Many former sites of extraction have been flooded, introducing new waterbodies and new wetland habitats to the landscape.
 - Extensive use of red bricks and pantiles in the 19th century has contributed to the consistent character of traditional architecture within villages and farmsteads across the area. Stone hewn from harder courses within the mudstones, along with stone from neighbouring areas, also feature as building materials, especially in the churches.

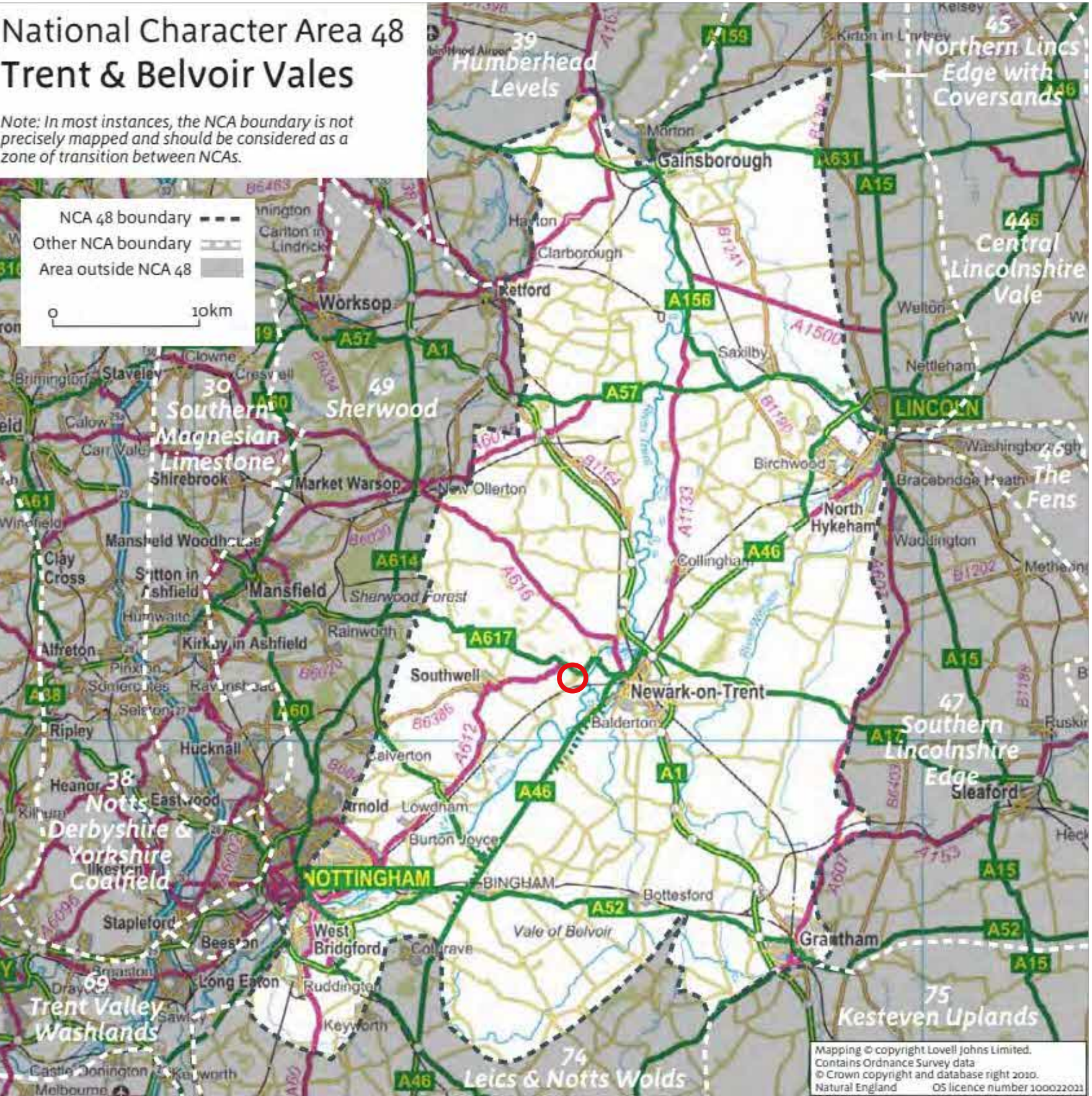


Figure 8: Extract of Natural England NCA 111 with approximate site location circled.

- A predominantly rural and sparsely settled area with small villages and dispersed farms linked by quiet lanes, contrasting with the busy market towns of Newark and Grantham, the cities of Nottingham and Lincoln, the major roads connecting them and the cross-country dual carriageways of the A1 and A46.
- Immense coal-fired power stations in the north exert a visual influence over a wide area, not just because of their structures but also the plumes that rise from them and the pylons and power lines that are linked to them. The same applies to the gas-fired power station and sugar beet factory near Newark, albeit on a slightly smaller scale.'

6.23 The national level assessment gives a broad brush impression of a region and provides a useful contextual overview of the character of the wider landscape. However, the proposed development is not considered to have the potential to result in any perceptible effects on landscape character at this national scale and to remain proportionate to the small scale of the site in relation to the NCA, focus is placed upon the local landscape character.

District Landscape Character

6.24 The Newark and Sherwood Landscape Character Assessment Supplementary Planning Document, December 2013 describes the landscape character of the Newark and Sherwood District Council administrative area. The site is located within the Trent Washlands Regional Character Area which extends from Carlton-on-Trent to Lowdham. The Trent Washlands is subdivided into two distinct landscape types, with the site being located within the Village Farmlands landscape type, its characteristic features being: :

- 'Broad flat river terraces
- Regular pattern of medium-to large-sized fields, breaking down and becoming open in many areas
- Hedgerow trees main component of tree with cover with Ash being the principle species
- Willow pollards
- Predominantly arable with permanent pasture around settlements and roads
- Nucleated villages with traditional red brick and pantile roofed buildings
- Sand and gravel quarries.'

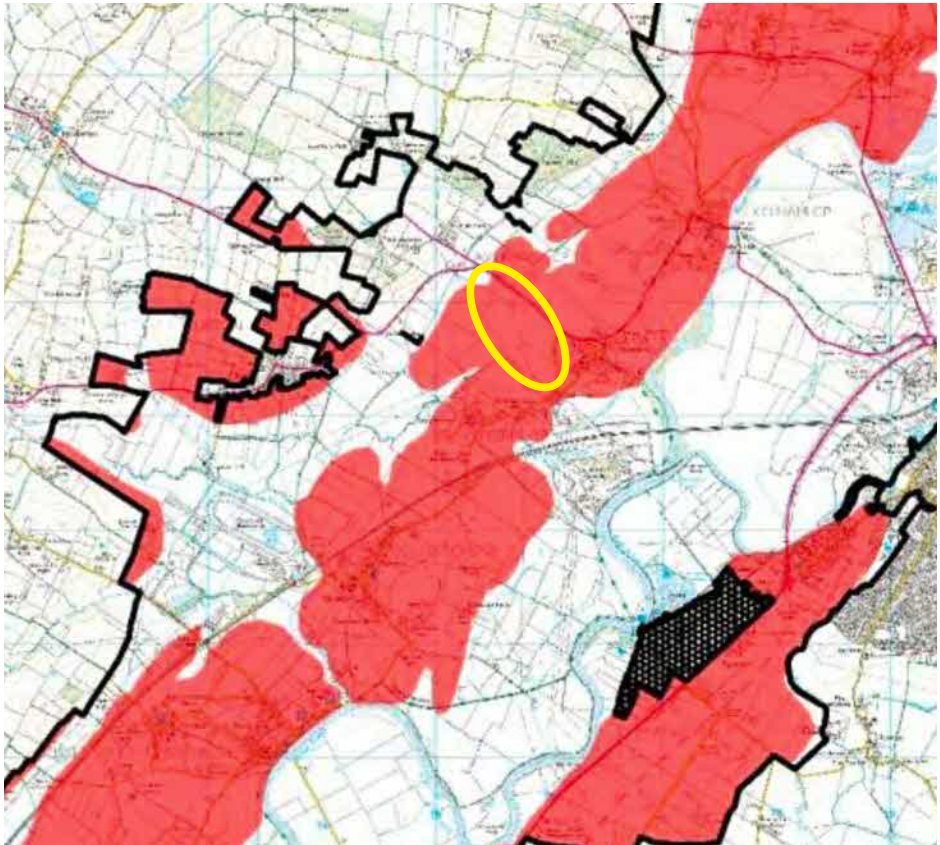


Figure 9: Extract from Newark and Sherwood LCA showing Village Farmlands landscape type within Trent Washlands RCA (approximate site location circled)

6.25 The Trent Washlands Regional Character Area is further broken down into policy zones. The site is located within Trent Washlands Policy Zone TW PZ 11 - Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands. The characteristic visual features of TW PZ 11 are as follows:

- 'A flat, large scale intensive arable landscape.
- Medium to large-sized semi-irregular fields with hedgerows intact but fragmented in places.
- Smaller field sizes adjacent to villages with pasture
- Former mineral extraction areas restored to open water, often with tree planting to periphery.
- Landscape fragmented by busy roads and railway.
- Winding roads between the villages with strong hedgerows.
- Nucleated villages with red brick and pantile roofed buildings to the historic core.'

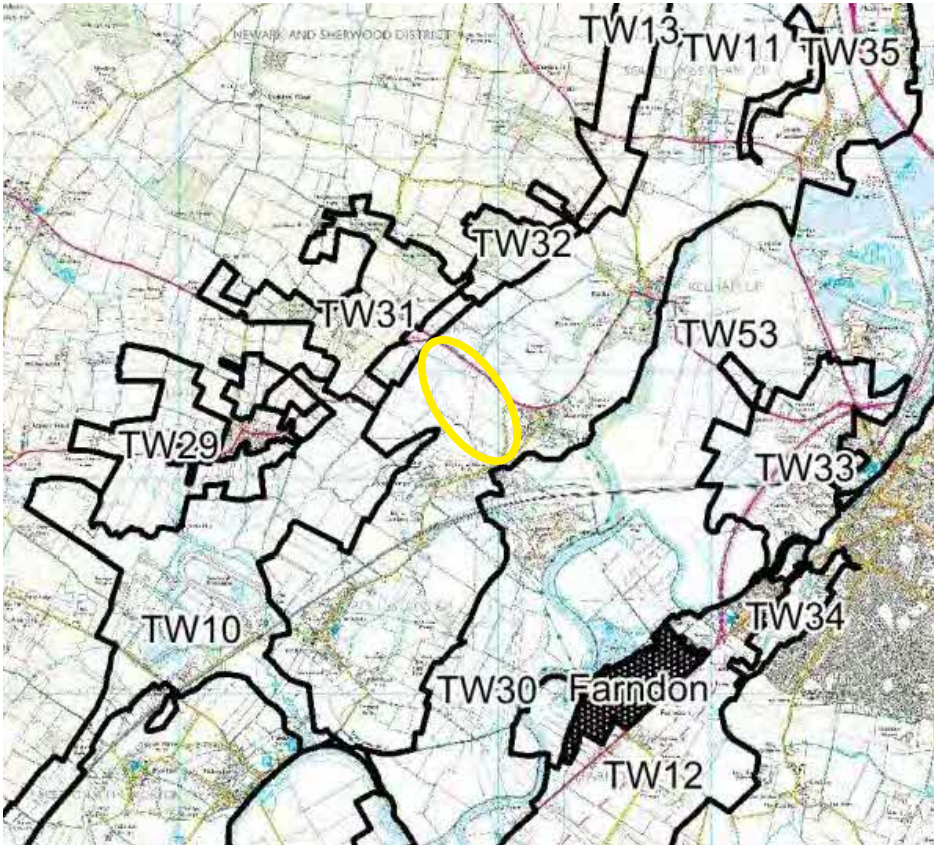


Figure 10: Extract from Newark and Sherwood LCA showing Policy Zones within Trent Washlands RCA (approximate site location circled)

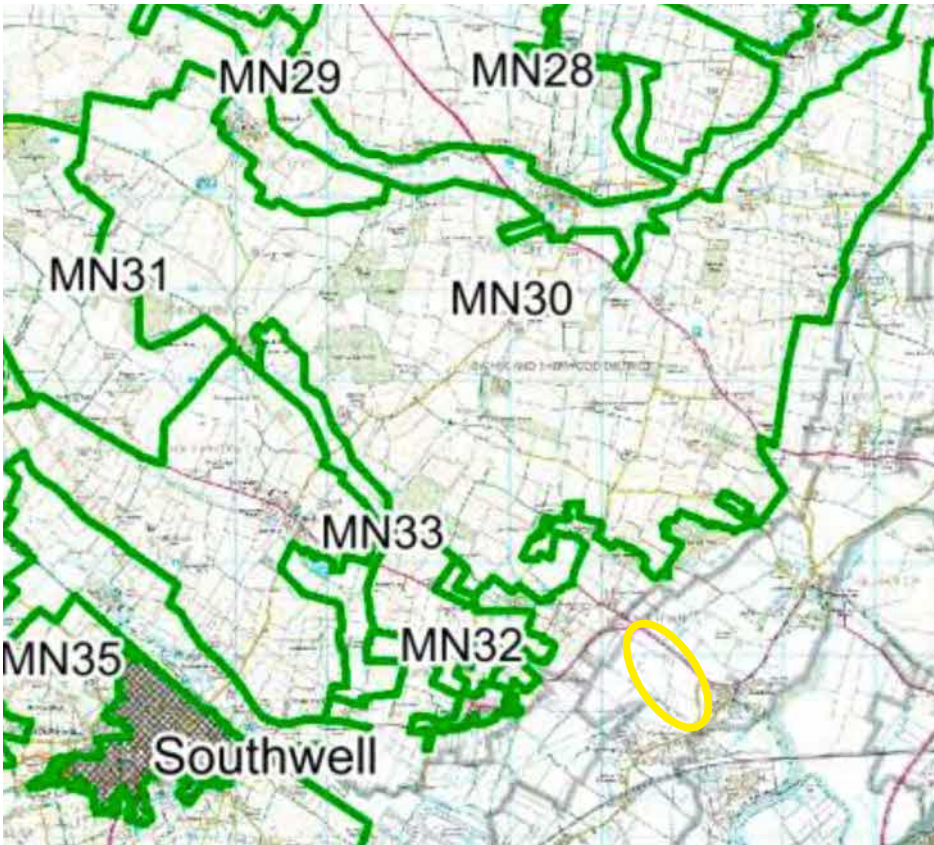


Figure 11: Extract from Newark and Sherwood LCA showing Policy Zones within TMid-Nottinghamshire Farmlands RCA (approximate site location circled)

6.26 The landscape condition of TW PZ 11 is considered to be moderate, with a moderate sense of place and a moderate degree of visibility leading to a moderate landscape sensitivity, resulting in a landscape action of 'Conserve and Create'. Conserve and Create is defined as:

'Conserve and Create –actions that conserve distinctive features and features in good condition, whilst creating new features or areas where they have been lost or are in poor condition.'

6.27 The specific landscape actions for TW PZ 11 are set out below:

'Landscape features

- *Conserve and restore the traditional pattern of hedged fields –seek opportunities to restore the historic field pattern.*
- *Conserve the historic woodland and parkland landscape around Kelham Hall.*
- *Seek opportunities to restore arable land to permanent pasture/wet alluvial grassland close to the River Trent.*
- *Promote measures for strengthening the existing level of tree cover.*
- *Strengthen the continuity and ecological diversity of stream corridors.*

Built features

- *Restoration of mineral workings should provide varied habitats rather than large expanses of open water.*
- *Conserve the character and setting of village settlements of Cromwell, North and South Muskham, Averham, Staythorpe and Rolleston.*
- *Conserve the rural character of the landscape by concentrating new development around above existing settlements.*
- *Conserve historic field pattern by containing new development within historic enclosed boundaries, restoring hedgerow boundaries where necessary.*
- *Conserve historic sites within the landscape including Scheduled Ancient monuments and associated earthworks*
- *Promote sensitive design and siting of new agricultural buildings.*
- *Promote measures for reinforcing the traditional character of farm buildings using vernacular styles.*
- *Create small scale woodlands/tree planting to soften new development, preferably in advance of development.*

6.28 Other Policy Zones which may be indirectly affected by the proposed development, as shown on Figure 10 and 11, include the following:

- TW PZ 53: Averham Weir River Meadowlands;
- TW PZ 10: River Greet Meadows;
- TW PZ 31: Battle Bridge River Meadowlands; and
- MN PZ 30: Knapthorpe Village Farmlands with Ancient Woodlands (located within the Mid Nottinghamshire Farmlands Regional Character Area, refer to Figure 11).

Effects upon TW PZ 11

6.29 The site is similar in some aspects to the policy zone, being a flat large-sized irregular arable field with boundary hedgerow fragmented in places and in proximity to a busy road. The Newark and Sherwood Landscape Character Assessment Supplementary Planning Document defines the policy zones as having a moderate sensitivity, which, when comparing this to the assessment criteria as set out in Appendix 1, would be the equivalent of a medium sensitivity.

6.30 Due to the scale of the proposed development within the character area, the proposals would introduce a man-made feature into an agricultural landscape, albeit one that is already influenced by existing electrical infrastructure within the site and by road, rail and energy infrastructure, as well residential development in proximity to the site. The proposed development would change the physical and perceptual attributes of the site and immediate surrounding landscape, however, would retain and enhance existing feature, with the proposed landscape mitigation strengthening the level of tree cover, a specific landscape action for TW PZ 11. Bearing in mind the size and scale of TW PZ 11, it is predicted that the proposed development would give rise to a medium to low magnitude of change upon the wider character area during construction, which would result in a Moderate to Minor adverse level of effect.

6.31 Although existing landscape features within the site would be retained and protected, with the proposed development introducing extensive areas of tree and woodland planting around the periphery of the development providing longer-term enclosure, the proposals would introduce a man-made minor alteration to the physical and perceptual attributes of the character area. However, a low magnitude of change is predicted upon the wider character area at Year 1 and Year 15, resulting in a Minor adverse level of effect.

Effects on TW PZ 53

6.32 The Landscape Character Assessment identifies the policy zone as having a low sensitivity.

6.33 The policy zone lies to the east and south-east of the site at its closest point. There would be no direct effects upon TW PZ 53, with any indirect effects upon landscape character limited by the lack of intervisibility of the site due to intervening built form, including Staythorpe Substation and Staythorpe Power Station. Therefore, no physical or perceptual effects upon the landscape character of TW PZ 53 are predicted as a result of the proposed development.

Effects on TW PZ 10

6.34 The Landscape Character Assessment identifies the policy zone as having a medium sensitivity.

6.35 The policy zone lies to the south-west of the site to the west of Staythorpe hamlet at its closest point. There would be no direct effects upon the landscape character of TW PZ 10, however, there would be some indirect effects upon the perceptual qualities of the policy zone as a result of some intervisibility with the area, albeit limited to glimpses and seen in context of electricity pylons crossing the landscape in the foreground. A worst case low magnitude of change is predicted during construction and at Year 1, resulting in a Minor indirect level of effect.

6.36 With the benefit of extensive areas of tree and woodland planting around the periphery of the proposed development effects upon landscape character would to reduce in the longer term, however, a Minor indirect level of effect would remain.

Effects on TW PZ 31

6.37 The Landscape Character Assessment identifies the policy zone as having a low sensitivity.

6.38 The policy zone lies to the north-west of the site and includes Micklebarrow Hill. There would be no direct effects upon the landscape character of TW PZ 31, however, there would be some indirect effects upon the perceptual qualities of the policy zone as a result of some intervisibility from Micklebarrow Hill due to its elevated location within the local landscape, seen in context of views towards Staythorpe Substation and Staythorpe Power Station. However, it should be noted that only those elevated locations would be indirectly affected within the policy zone, with most areas not affected in any way by the proposed development due to a lack of intervisibility. A low magnitude of change is predicted during construction and at Year 1 due to the indirect effects from local high points within the policy zone, resulting in a Minor indirect level of effect.

6.39 With the benefit of extensive areas of tree and woodland planting around the periphery of the proposed development effects upon landscape character would to reduce in the longer term, however, a Minor indirect level of effect would remain.

Effects on MN PZ 30

6.40 The Landscape Character Assessment identifies the policy zone as having a medium sensitivity.

6.41 The policy zone lies to the north and north-west of the site. There would be no direct effects upon the landscape character of MN PZ 30, however, there would be some indirect effects upon the perceptual qualities of the policy zone as a result of some intervisibility from higher ground to the north of the site. However, this intervisibility would be limited by Frog Abbey and Kelham Hills woodlands, with other parts of the large scale policy zone having no visibility towards the site. Therefore, a very low magnitude of change is predicted during all time periods, resulting in a no greater than Minor indirect level of effect.

Effects on Local Landscape Character

Sensitivity of the site and immediate surroundings

6.42 As stated previously, the character of the site is similar in some aspects to TW PZ 11. The site is not covered by any designation that recognises a specific landscape or scenic importance and there are no Listed Buildings or identified historical or ecological interests with which it is directly associated. Whilst the site contains some elements of value,

in the form of the existing trees and hedgerows, these are located only around the perimeter and it is not accessible for recreation. The site is not of a nature which is rare in the local landscape. It is therefore, not considered to be a ‘valued landscape’ as discussed in the NPPF. However, the site would be susceptible to some degree to the type of development proposed but also influenced by the adjacent road, rail and energy infrastructure. The susceptibility to change of the site and immediate surrounding is judged to be high, however, with a value of low. Therefore, on balance,the sensitivity of the site and immediate surroundings is assessed as medium. This matches the overall sensitivity for the policy zone in which the site is located, as identified by the Newark and Sherwood Landscape Character Assessment Supplementary Planning Document.

Effects on the site and immediate surroundings

6.43 The landscape character of the site and surroundings has the potential to be influenced to some degree by the proposed development. The proposed development would introduce a new man-made feature into the landscape, which would incorporate most of the site area and therefore adversely alter the physical and perceptual attributes of the site. It is acknowledged however, that the layout would allow retention of all valuable features within and surrounding the site and reinforced with extensive areas of tree and woodland planting around peripheral areas of the site. The influence upon the surroundings would be limited by the flat nature of the landscape, by the network of surrounding vegetation and by nearby built form, including nearby substations and power stations.

6.44 The magnitude of change to the site and surrounding area is assessed as medium to high, which when combined with its medium sensitivity would result in a Moderate level of effect upon the landscape character of the site during construction and at Year 1.

6.45 With the introduction of extensive areas of tree and woodland planting around peripheral areas of the site including areas of mature plant stock, there would be some improvements to the physical and perceptual attributes of the site in the longer-term, a medium to low magnitude of change would occur at Year 15, resulting in a Moderate to Minor level of effect.

Receptor	Value	Susceptibility	Sensitivity	Development Phase	Magnitude of change	Level of Effect
Landscape Features						
Landform and topography	Medium to Low	Medium	Medium	Construction	Medium	Moderate adverse
				Year 1	Low	Minor adverse
				Year 15	Low	Minor adverse
Water features and drainage	Low	Low	Low	Construction	Very Low	Neutral
				Year 1	Very Low	Minor benefit
				Year 15	Very Low	Minor benefit
Land use, buildings and infrastructure	Medium to Low	High	Medium	Construction	Medium to High	Moderate adverse
				Year 1	Medium to High	Moderate adverse
				Year 15	Medium to High	Moderate adverse
Vegetation	Medium to Low	Low	Low	Construction	Very Low	Minor adverse
				Year 1	Low	Minor benefit
				Year 15	Medium to Low	Minor benefit
Landscape Character						
TW PZ 11	--	--	Medium	Construction	Medium to Low	Moderate to Minor adverse
				Year 1	Low	Minor adverse
				Year 15	Low	Minor adverse
TW PZ 53	--	--	Low	All periods	--	No effect
TW PZ 10	--	--	Medium	Construction	Low	Minor adverse
				Year 1	Low	Minor adverse
				Year 15	Very Low	Minor adverse
TW PZ 31	--	--	Low	Construction	Low	Minor adverse
				Year 1	Low	Minor adverse
				Year 15	Very Low	Minor adverse
MN PZ 30	--	--	Medium	Construction	Very Low	Minor adverse
				Year 1	Very Low	Minor adverse
				Year 15	Very Low	Minor adverse
The site itself	Low	High	Medium	Construction	Medium to High	Moderate adverse
				Year 1	Medium to High	Moderate adverse
				Year 15	Medium to Low	Moderate to Minor adverse

Table 1: Summary of Landscape Effects

7. VISUAL EFFECTS

Introduction

7.1 An assessment of visual effects considers the potential for changes in views and visual amenity. The aim is to establish the area in which the development may be visible, the different groups of people who may experience views of the development, the places where they will be affected, and the nature of the views and visual amenity (meaning the overall quality and pleasantness to a view).

7.2 Effects are considered during construction, at Year 1 and at Year 15 and beyond. New planting takes a number of years to mature and average growth rates have been taken into consideration. The effectiveness of the vegetation both in terms of integrating the development into the surrounding landscape and in providing visual screening would improve over time and needs to be considered appropriately. A summary of visual effects are included in Table 2.

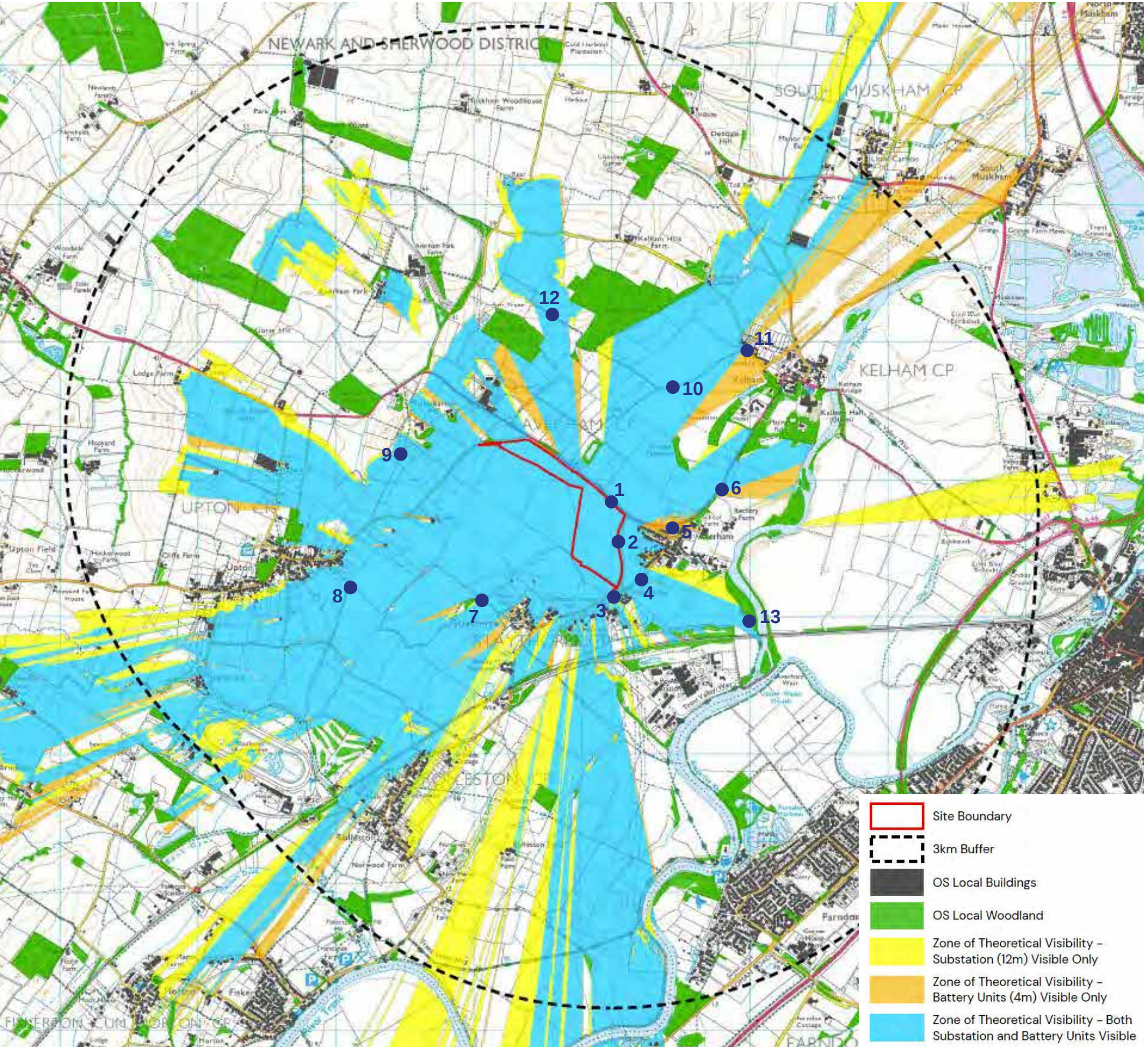
7.3 A photographic record is included in Appendix 2 with the viewpoint locations shown on Figure 12.

Zone of Theoretical Visibility

7.4 The Screened Zone of Theoretical Visibility (Figure 12) identifies the potential locations from which the development may be visible. The Screened Zone of Theoretical Visibility (SZTV) has been produced using Digital Terrain Modelling (DTM) and LIDAR data. Existing built development (8m tall) and larger blocks of woodland have also been modelled (15m tall) to take account of the screening effect that these would provide. However, the screening effect provided by smaller blocks of woodland and hedgerows/hedgerow trees, particularly those surrounding the site, have not been taken into account, and consequently the actual extent of the area from which the proposed development is visible is likely to be smaller.

7.5 The SZTV has been run at two main heights, 12m for the substation located to the south of the site, which represents the highest part of any structure within this area, and 4m for the battery storage units to the north of the site, which provides scope for the units to be raised to avoid any periodic flooding issues, as well as taking account of fence heights. The theoretical visibility is then divided into three main categories, which include:

- Theoretical visibility of the substation only;
- Theoretical visibility of the battery storage units only; and
- Theoretical visibility of both the substation and the battery storage units.



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Figure 12: Screened Zone of Theoretical Visibility and Viewpoints

Sensitivity		Averham								Other properties within surrounding area	
7.6	Residential receptors, users of the Public Rights of Way (PROW) network including the Trent Valley Way and visitors to the parkland surrounding Kelham Hall are considered to have a high visual sensitivity to the change proposed. In all cases they were considered to have a high susceptibility to changes in their views and that these views were of a high value. Users of local roads, where the view is not the focus of the activity are considered to have medium sensitivity which is a combination of a medium susceptibility and medium value associated with the views from these routes. People using the A617 are considered to have low sensitivity reflecting the low susceptibility and value associated with the views from these routes.		Pinfold Cottage, Averham								Flash Farm
		7.13	The property lies to the west of Averham village, accessed from The Close and is approximately 0.13km to the east of the site. Although most outward views from the property are limited by vegetation surrounding the property, some windows overlook the adjacent field. Direct views towards the site are curtailed by mature vegetation surrounding the adjacent field, as well as by the established hedge along the site boundary aligning with Staythorpe Road.							7.37	The farm lies to the north of the A617 and is located approximately 0.3km to the north-west of the site at its closest point, with an open aspect to the main road in the foreground. Glimpses towards the site are largely filtered by intervening vegetation along field boundaries, as well as vegetation aligning the A167, with any views seen in context of foreground traffic.
		7.14	During construction and at Year 1, views by residents of the cottage would be possible towards the proposed development, albeit over intervening field boundary vegetation. Although the proposed mitigation would provide some filtering benefits, it would not yet to mature enough to screen views. A medium to high magnitude of change is predicted during construction and at Year 1, resulting in a Moderate to Major level of effect.							7.38	A low magnitude of change is predicted as a result of the proposed development during all time periods, leading to a Minor level of effect. Proposed boundary mitigation planting is likely to filter views further in the longer-term with views of the access road limited by intervening field boundary hedgerows.
7.7	The approach to sensitivity of visual receptors is set out in Appendix 1.										Properties on Micklebarrow Hill
Residential Receptors											
7.8	For the purpose of this assessment, it is assumed as a worst-case, that all nearby dwellings are permanent residences.			7.15	With the benefit of new tree and woodland planting along the eastern boundary of the proposed development, direct views would be filtered in the longer-term, however, some glimpses of the highest parts of the substation would be glimpsed above intervening vegetation. As such, a medium to low magnitude of change is predicted at Year 15, resulting in a Moderate to Minor level of effect.					7.39	Mickleborough Hill Farm House and Micklebarrow House are located on locally higher ground at approximately 0.4km to the north-west of the site. Both properties benefit from dense vegetation surrounding their curtilage, which restricts views towards the site and the surrounding valley.
7.9	Despite the proximity to the site, there is no visibility from residential properties to the east of Staythorpe Road within Averham due to intervening properties and their associated surrounding vegetation and fencing obscuring direct views. Therefore, these properties have not been considered further as part of the assessment.		Properties along Pinfold Lane, Averham								
7.10	White Cottage is located off Staythorpe Road to the south of the site, located directly adjacent to Staythorpe Substation . Despite the SZTV showing theoretical visibility, the property is surrounded by mature vegetation, preventing outward views. Visual effects are likely to fall below the level of effect required to register even a minor adverse level of effect and therefore, it has not been considered further in this assessment.		7.16	A linear row of mostly two storey properties lie to the western edge of Averham and overlook adjacent fields surrounding the village. The closest property lies approximately 0.16km from the eastern edge of the site. The properties are oriented to face in a south-western direction facing away from the main part of the site, however, do face the south-eastern area. Direct views towards the site are curtailed by mature vegetation surrounding the adjacent field, as well as by the established hedge along the site boundary aligning with Staythorpe Road.							
7.11	Most properties within Upton to the west of the site show little or no theoretical visibility, with visual effects likely to fall below the level of effect required to register even a minor adverse level of effect. Therefore, only those properties on the north-eastern edge are considered further in the assessment.										North-eastern edge of Upton
		7.17	Oblique views would be possible towards the proposed development from those properties furthest west along Pinfold Lane in particular. Although the proposed mitigation would provide some filtering benefits, it would not yet to mature enough to screen views. A worst case medium to high magnitude of change is predicted during construction and at Year 1, resulting in a Moderate to Major level of effect. However, the level of effect is likely to be less for those properties further to the east along the lane.							7.41	The most north-easterly part of Upton village lies approximately 1.6km south-west of the site. Properties within Upton are located on elevated land in comparison to the adjacent agricultural land, including the site. Glimpses towards the site are possible through numerous intervening field boundary hedgerows with intermittent trees and in context of large scale pylons crossing the landscape, as well as of views towards Staythorpe Power Station and nearby substation. It is noted that some properties would have very limited outward views due to intervening vegetation within their gardens.
7.12	Although theoretical visibility covered parts of Rolleston and surrounding farmsteads, particularly to the east and south-east, due to the distance from the site and numerous intervening buildings and areas of vegetation, visual effects are likely to fall below the level of effect required to register even a minor adverse level of effect and therefore, these properties have not been considered further in this assessment.									7.42	The proposed development would be glimpsed through intervening field boundary vegetation, in context of other energy infrastructure within the surrounding landscape. A worst case, medium to low magnitude of change is predicted during construction and at Year
		7.18	With the benefit of new tree and woodland planting along the eastern boundary of the proposed development, direct views would be filtered in the longer-term, however, some glimpses of the highest parts of the substation may still be glimpsed above intervening vegetation. As such, a medium to low magnitude of change is predicted at Year 15, resulting in a Moderate to Minor level of effect.								
			Properties along The Close, Averham								
		7.19	A linear row of mostly two storey properties lie to the north-western edge of Averham and are orientated to face the A617 to the north, with the southern aspect towards properties along Pinfold Lane. Whilst most properties along the road would have no view towards the site, those furthest west would have oblique views, limited by buildings in the form of Pinfold Cottage and by field boundary vegetation either side of Staythorpe Lane. Any views towards the site would be seen in context of views towards traffic along the A617.								
		7.20	Due to the oblique angle of view from these properties, views towards the proposed development would be limited in nature. A worst case medium to low magnitude of change is predicted during construction and at Year 1, resulting in a Moderate to Minor level of effect.								
		7.21	With the benefit of tree and woodland planting around peripheral areas of the site, views towards the proposed development would be filtered further. A low magnitude of change is predicted at Year 15, resulting in a Minor level of effect.								
			Properties west of Staythorpe Road, Averham								
		7.22	A number of properties are located to the west of Staythorpe Road to the south of Averham, located both adjacent to the road and behind other properties accessed by private tracks. Views towards the site are limited in the foreground by some agricultural buildings, as well as filed boundary hedgerows. Direct views towards the site are also curtailed by mature vegetation surrounding the adjacent field, as well as by the established hedge along the site boundary aligning with Staythorpe Road.								
		7.23	During construction and at Year 1, views by residents would be possible towards the proposed development, albeit over intervening field boundary vegetation and limited in some cases by intervening agricultural buildings. Although the proposed mitigation would provide some filtering benefits, it would not yet to mature enough to screen views. A worst case medium to high magnitude of change is predicted during construction and at Year 1, resulting in a Moderate to Major level of effect. However, it is noted that visibility of the proposed development would be less from some properties.								
		7.24	With the benefit of new tree and woodland planting along the eastern boundary of the proposed development, direct views would be filtered in the longer-term, however, some glimpses of the highest parts of the substation may still be glimpsed above intervening vegetation. As such, a medium to low magnitude of change is predicted at Year 15, resulting in a Moderate to Minor level of effect.								
			Properties off Hopwass Close								
		7.25	A group of properties consisting of bungalows and 2 storey detached properties are located to the south of Averham and lie adjacent to Staythorpe Substation at approximately 0.7km fro the south-eastern corner of the site. Most views towards the site are curtailed by mature vegetation along Staythorpe Road in the immediate foreground, with field boundary vegetation surrounding the site filtering any direct view into the site from these properties.								
		7.26	Due to the vegetation in the foreground, most views towards the proposed development would be obscured, with only limited glimpses above field boundary vegetation aligning Staythorpe Road and surrounding the site. A worst case medium to low magnitude of change is predicted during construction and at Year 1, resulting in a Moderate to Minor level of effect.								
		7.27	With the benefit of new tree and woodland planting around peripheral areas of the site, a low magnitude of change is predicted at Year 15, resulting in a Minor level of effect in the longer-term.								
			Staythorpe								
			Staythorpe House Cottage								
		7.28	This isolated property lies next to Staythorpe Road and although is orientated to face away from the site, some side windows of the property look towards the site across agricultural land. Direct views into the site are partly limited by vegetation along the southern boundary and seen in context of numerous large scale pylons in the adjacent fields, as well as glimpses towards the Staythorpe Substation. Larger vehicles are glimpsed as they travel along the A617 beyond the site.								
		7.29	During construction and at Year 1, views by residents of the cottage would be possible towards the proposed development, albeit over intervening field boundary vegetation and in context of foreground pylons. Although the proposed mitigation would provide some filtering benefits, it would not yet to mature enough to screen views. A medium to high magnitude of change is predicted during construction and at Year 1, resulting in a Moderate to Major level of effect.								
		7.30	With the benefit of new tree and woodland planting along the southern boundary of the proposed development, direct views would be filtered in the longer-term, however, some glimpses of the highest parts of the substation would be glimpsed above intervening vegetation. As such, a medium to low magnitude of change is predicted at Year 15, resulting in a Moderate to Minor level of effect.								
			Staythorpe House Farm								
		7.31	The farm lies approximately 0.45km to the south-east of the site. Views from the farm towards the site are limited by intervening agricultural buildings to the north-east of the property.								
		7.32	Due to the intervening buildings in the foreground, a worst case medium magnitude of change is predicted during construction and at Year 1 from the curtilage of the property, with views from within the property predicted to be further limited. A resultant worst case Moderate to Minor level of effect is predicted.								
		7.33	With the benefit of maturing tree and woodland planting surrounding the proposed development, a worst case low magnitude of change is predicted at Year 15, resulting in a Minor level of effect.								
			Properties within Staythorpe								
		7.34	Most properties within the hamlet would have no view towards the site due to intervening built form and vegetation. Those properties to the north-east of the hamlet would have some limited views over adjacent agricultural land, including towards the site. However, views would be limited in many cases by mature vegetation surrounding property boundaries and seen in context of numerous large scale pylons located in intervening fields.								
		7.35	During construction and at Year 1, views by a limited number of residents within Staythorpe would be possible towards the proposed development, albeit over intervening field boundary vegetation, through garden vegetation and in context of foreground pylons. Although the proposed mitigation would provide some filtering benefits, it would not yet to mature enough to screen views. A medium magnitude of change is predicted during construction and at Year 1, resulting in a Moderate level of effect.								
		7.36	With the benefit of new tree and woodland planting along the southern boundary of the proposed development, direct views would be filtered in the longer-term, however, some glimpses of the highest parts of the substation would be glimpsed above intervening vegetation. As such, a medium to low magnitude of change is predicted at Year 15, resulting in a Moderate to Minor level of effect.								

	1, however, this would be limited to a select number of properties, with most having little or no view of the proposed development. A Moderate to Minor level of effect is therefore predicted.		begin to mature, views towards the proposed development would be filtered. A worst case low magnitude of change is predicted at Year 15, resulting in a Minor level of effect.		further to the south and south-east of the site. At worst, a medium magnitude of change is predicted during construction and at Year 1, resulting in a Moderate level of effect.		further to the west, a Moderate to Minor level of effect would remain at Year 15, noting that visual effects from areas which are not elevated would much lower.		views towards the proposed development for walkers when travelling along the route. A medium to low magnitude of change would occur during construction and at Year 1 of operation, resulting in a Moderate to Minor level of effect.		PROW Upton FP6	
7.43	As proposed trees and woodland around the periphery of the site begin to mature, views towards the proposed development would be filtered. A worst case low magnitude of change is predicted at Year 15, resulting in a Minor level of effect.		Brickyard Cottages, Broadgate Lane	7.57	With the benefit of trees and woodland around the periphery of the site at Year 15, most views of the proposed development would be filtered. Therefore, the magnitude of change at Year 15 would reduce to low, resulting in a Minor level of effect.		PROW Averham FP6					
	Behay Gardens				<i>South-east of the Site</i>							
7.44	Residents within this small group of properties adjacent to Staythorpe Road, have limited views towards the site due to vegetation surrounding the property boundaries, as well as intervening vegetation along Staythorpe Road and obscured by built form within Staythorpe hamlet.	7.50	These two isolated properties are located further to the north-west from Kelham. Outward views towards the site are limited by garden vegetation and tree lined field boundary hedgerows aligning Broadgate Lane. Views towards the site are also limited by field boundary hedgerows with occasional trees located within intervening agricultural fields.	7.58	Where the Trent Valley Way follows close to the edge of the River Tent to the south-east, views towards the proposed development would be limited by intervening vegetation. A low magnitude of change is predicted as result of the proposed development during all time periods, leading to a Minor level of effect.		7.63	The PROW crosses agricultural land to the north of the A617, located to the north-west of the site, providing a connection between the main road and PROW Kelham FP4 further to the north.	7.71	With the benefit of a new tree lined hedgerow along the southern boundary and new woodland planting to the south-west, views towards the proposed development would be further filtered in the longer-term. A low magnitude of change is predicted at Year 15 of operation, resulting in a Minor level of effect.	7.77	This rural footpath crosses agricultural land between Main Street to the north-east of Upton to the A617 further to the north and passes over Micklebarrow Hill, which reaches up to 56m AOD. The site is not visible from the route located on the north-western side of the route due to intervening landform, and despite its elevated location, visibility is limited by intervening trees associated with nearby properties and field boundaries at its highest point. However, views towards the site are possible by walkers from south-eastern parts of the footpath as the route rises steeply up the locally high ground.
7.45	Due to the intervening built form and vegetation, views towards the proposed development would be limited in nature, seen in context of Staythorpe Power Station and Staythorpe Substation. A no greater than low magnitude of change is predicted as result of the proposed development during all time periods, leading to a Minor level of effect.		Properties at Averham Park		PROW Kelham FP4		7.64	Due to the established network of intervening hedgerows and vegetation aligning the A617, views towards the proposed development would be limited in nature and seen in context of the nearby electricity pylons. At worst, a medium to low magnitude of change would occur during construction and at Year 1 of operation, resulting in a Moderate to Minor level of effect.		PROW Upton FP7		
	Properties along Broadgate Lane, Kelham	7.52	This group of properties are located to the south-west of Averham Park Farm on locally elevated land and in an isolated location away from other residential properties and roads.	7.59	Views are indicatively represented by photographs taken from Photograph Locations 10 and 12 within Appendix 2.		7.65	With the benefit of new tree and woodland planting along the northern boundary along with the management of existing vegetation, views towards the proposed development would reduce over time, however, a Minor level of effect would remain at Year 15.	7.72	Views are indicatively represented by photographs taken from Photograph Location 8 within Appendix 2.	7.78	Due to the elevated nature of the parts of the route, the proposed development would be a notable feature within the landscape, including towards the access road off Main Road, albeit seen in context of the numerous electricity pylons crossing the landscape, as well as other features such as Staythorpe Power Station and nearby electricity substation. Due to the extent of the proposed development located within an open field, with an access track in a nearby field and with no visually effective landscape mitigation in place, a medium to high magnitude of change is predicted during construction and at Year 1 of operation
7.46	Views are indicatively represented by photographs taken from Photograph Location 11 within Appendix 2.	7.53	Due to the distance of the properties from the site and the intervening vegetation limiting direct views towards the proposed development, a low magnitude of change is predicted during all time periods, leading to a Minor level of effect.	7.60	The route crosses agricultural land between Broadgate Lane in Kelham and linking to the same road in proximity to Averham Park.		7.66	Views are indicatively represented by photographs taken from Photograph Location 13 within Appendix 2.	7.73	The route provides a connection between the north-eastern edge of Upton to the surrounding agricultural landscape and links with other public rights of way further to the east. As the public right of way leaves Upton, outward views closest to the village are limited by areas of intervening vegetation, however, views soon become open as the route crosses agricultural land. Glimpses towards the site are possible through numerous intervening field boundary hedgerows with intermittent trees and in context of large scale pylons crossing the landscape, as well as of views towards Staythorpe Power Station and nearby substation.	7.79	With the benefit of new planting along site boundaries particularly along the western edges, some direct views would be filtered towards the proposed development, however, due to the elevated nature of walkers using the public right of way, a medium magnitude of change would occur at Year 15, resulting in a Moderate level of effect in the longer-term.
7.47	A number of properties lie to the north of Broadgate Lane to the north-west of Kelham village. Views towards the site are limited by tree lined field boundary hedgerows aligning the road, as well as vegetation within property front gardens. Where views are possible over foreground vegetation, no direct views are possible towards the site due to vegetation aligning the A617, as well as Cottage Plantation which dissects intervening agricultural land.		Recreational Receptors				7.67	The route of Trent Valley Way follows the same route as Averham FP8, therefore, a description of visual effects is set out above in relation to the Trent Valley Way to the south-east. In summary, it is predicted that there would be a low magnitude of change as result of the proposed development during all time periods, leading to a Minor level of effect.	7.74	The proposed development would be glimpsed through intervening field boundary vegetation by walkers when travelling along the route of the footpath, seen in context of other energy infrastructure within the surrounding landscape. A worst case, medium to low magnitude of change is predicted during construction and at Year 1, resulting in a Moderate to Minor level of effect.		
			Trent Valley Way		PROW Staythorpe FP2			PROW Averham FP8				
7.48	During construction and a Year 1, very limited glimpses of the proposed development would be possible of the proposed battery containers, however, the proposed substation would be glimpsed above, noting that this would be located to the south of the site. Due to the distance of the properties from the proposed development, the filtering affect of vegetation adjacent to the properties, as well as close to the site and the context of numerous pylons seen on the skyline, a medium to low magnitude of change is predicted during construction and at Year 1, leading to a Moderate to Minor level of effect.	7.54	Views are indicatively represented by photographs taken from Photograph Locations 6 and 13 within Appendix 2.	7.61	Views of the proposed development would be most obscured by foreground field boundary vegetation to the east of the route, however, some glimpses would be possible through field gates (refer to Viewpoint 10), with views of the proposals glimpsed over vegetation aligning the A617. Further west along the route, the land rises offering open views over the surrounding landscape, with the proposed development seen in context of numerous electricity pylons crossing the landscape, as well as in context of Staythorpe Power Station and Staythorpe Substation in the background. A medium to low magnitude of change is predicted from the footpath during construction and at Year 1, resulting in a Moderate to Minor level of effect and noting that along some parts of the footpath, there would be no views of the proposed development.		7.68	Views are indicatively represented by photographs taken from Photograph Location 7 within Appendix 2.	7.75	As proposed trees and woodland around the periphery of the site begin to mature, views towards the proposed development would be filtered. A worst case low magnitude of change is predicted at Year 15, resulting in a Minor level of effect.	7.80	The parkland is located to the south and south-west of Kelham Hall and St Wilfred's Church of the southern edge of Kelham and to the north-east of the site beyond the A617.
		7.55	The Trent Valley Way is a waymarked 174km route from source to estuary of the River Trent, which passes close to the site as the route passes through Averham. There are no direct views towards the site where within Averham village due to intervening built form, nor to the south-east of the village. Direct views are obscured by field boundary vegetation aligning Main Road (A617) where the route follows the road to Kelham further to the north-east.	7.62	At Year 15, the trees and woodland around the periphery of the site would filter views of the proposed development, especially to the east of the route. However, due to the elevated nature of the route		7.69	The footpath crosses agricultural land to the south-west of the site, linking Staythorpe with other public rights of way to the north-east of Upton further to the west.				
7.49	As proposed trees and woodland around the periphery of the site		<i>North-east of the Site</i>				7.70	Views towards the proposed development are limited in places due to the network of intervening vegetation aligning fields and drainage ditches, including those surrounding Staythorpe and seen in context of the numerous electricity pylons crossing the landscape. However, it is predicted that some glimpsed views towards the proposed development would be possible over and through breaks in this vegetation, seen below the rising landform in the distance. The vegetation along the northern boundary would also serve to filter some			7.81	Due to the dense network of trees and vegetation aligning the southern boundary of the parkland, as well as woodland aligning the A617, views towards the proposed development would be limited to only glimpses, seen in context of residential development within Averham. A very low magnitude of change is predicted as result of the proposed development during all time periods, leading to a Minor level of effect.
		7.56	Where the Trent Valley Way follows Main Road (A617) to the north-east of the site, views of the proposed development would be possible through gaps in field boundary vegetation aligning the road and over vegetation aligning the site. Built form and vegetation within Averham would obscure some direct views towards the proposed development									

Road Users

Staythorpe Road

7.82 Views are indicatively represented by photographs taken from Photograph Locations 2 and 3 within Appendix 2.

7.83 The road is located adjacent to the eastern edge of the site, separated by an agricultural ditch, with direct views from the road limited by an established hedgerow along the edge of the field boundary (refer to Viewpoint 2). Some direct views are possible into the site further to the south-east of the site through a double field gate, as well as further to the south as the road approaches Staythorpe, where gaps in vegetation aligning the road allows. There would be very limited or no visibility towards the site beyond Staythorpe railway crossing further to the south-west.

7.84 Although the proposed development would only be glimpsed by drivers over intervening vegetation aligning the road at an oblique angle to the direction of travel, where gaps allow, the development would be clearly noticeable. Although mature tree planting, along with other woodland planting is proposed along the eastern and south-eastern boundaries of the site, some glimpses would be possible towards the substation and battery storage facility. Due to the proximity of drivers along Staythorpe Road, a worst case high magnitude of change is predicted during construction and at Year 1 of operation, which when combined with the medium sensitivity, would result in a Moderate level of effect. However, it should be noted that along some parts of the road, including adjacent to the eastern boundary, visual effects are predicted to be a lot less.

7.85 With the benefits of maturing tree and woodland planting along eastern and south-eastern boundaries in particular, views towards the proposed development would be mostly filtered, particularly where road users are closest to the site. However, further to the south along the road, some glimpses are predicted in the longer-term. A worst case medium to low magnitude of change is predicted at Year 15, resulting in a Moderate to Minor level of effect, noting again that visual effect are much lower along certain stretches of the road.

Staythorpe Road (through Averham)

7.86 Views are indicatively represented by photographs taken from Photograph Location 4 within Appendix 2.

7.87 Part of Staythorpe Road travels through the centre of Averham and leaves the village to the south, linking up with the other section of Staythorpe Road as previously described. There would be no view towards the site where the road passes either side of residential properties within Averham. However, once out of the village further to the south, oblique views are possible towards the site, limited in part by a mature line of trees along the field boundary aligning the road.

7.88 Oblique views would be possible towards the proposed development by road users south of the village. Although the proposed mitigation would provide some filtering benefits in the shorter-term, it would not yet to mature enough to screen views. A worst case medium to high magnitude of change is predicted during construction and at Year 1, resulting in a Moderate level of effect.

7.89 With the benefit of new tree and woodland planting along the eastern boundary of the proposed development, direct views would be filtered in the longer-term, however, some glimpses of the highest parts of the substation may still be glimpsed above intervening vegetation. As such, a medium to low magnitude of change is predicted at Year 15, resulting in a Moderate to Minor level of effect.

A617

7.90 Views are indicatively represented by photographs taken from Photograph Locations 1, 5 and 6 within Appendix 2.

7.91 The busy route passes the northern boundary of the site, with a lay-by located adjacent to the boundary and a traffic light junction with Staythorpe Road to the north-east. Where closest to the site, the field boundary vegetation is gappy in places, allowing views into the site (refer to Viewpoint 1). The A617 continues to the north-east of the site, where views of the site are possible through gaps in field boundary vegetation aligning the road and over vegetation aligning the site. Built form and vegetation within Averham obscures some direct views towards the site where the road passes close to the village. Views towards the site to the north-west are limited by vegetation aligning the road and by other intervening field boundary hedgerows.

7.92 Due to the proximity to the north, the proposed development would appear prominent in views. Although the proposed mitigation along the northern boundary would provide some filtering benefits, it would not yet to mature enough to screen views. A worst case high magnitude of change is predicted. However, it should be noted that visual effects upon drivers would be a lot less to the north-east and north-west of the site.

7.93 With the benefit of trees and woodland around the periphery of the site at Year 15, most views of the proposed development would be filtered. Therefore, the magnitude of change at Year 15 would reduce to medium to ow, resulting in a Minor level of effect and noting that visual effects to the north-east and north-west would be less.

Main Road/Main Street (between A617 & Upton)

7.94 The road provides a connection between Upton and the A617 where the route crosses between agricultural land. Users of the road would view the site at an oblique angle, with some direct views obscured by field boundary vegetation aligning the road, as well as by vegetation within intervening fields. However, along localised elevated part of the road some oblique glimpses are possible towards the site, as well as direct views where the site is adjacent to the route.

7.95 Some direct views along the proposed access track would be possible where adjacent to the site. In addition, although the proposed mitigation would provide some filtering benefits in the shorter-term when looking towards the proposed development, it would not yet to mature enough to screen views. Therefore a medium magnitude of change is predicted during construction and at Year 1, resulting in a Moderate level of effect.

7.96 With the benefit of new tree and woodland planting along the western boundary of the proposed development, direct views would be filtered in the longer-term, however, some direct views along the access track to the north-west of the site would remain. A low magnitude of change is predicted at Year 15, resulting in a Minor level of effect.

Receptor	Sensitivity	Development Phase	Magnitude of change*	Level of Effect*
Residential receptors				
Averham				
Pinfold Cottage, Averham	High	Construction	Medium to High	Moderate to Major adverse
		Year 1	Medium to High	Moderate to Major adverse
		Year 15	Medium to Low	Moderate to Minor adverse
Properties along Pinfold Lane, Averham	High	Construction	Medium to High	Moderate to Major adverse
		Year 1	Medium to High	Moderate to Major adverse
		Year 15	Medium to Low	Moderate to Minor adverse
Properties along The Close, Averham	High	Construction	Medium to Low	Moderate to Minor adverse
		Year 1	Medium to Low	Moderate to Minor adverse
		Year 15	Low	Minor adverse
Properties west of Staythorpe Road, Averham	High	Construction	Medium to High	Moderate to Major adverse
		Year 1	Medium to High	Moderate to Major adverse
		Year 15	Medium to Low	Moderate to Minor adverse
Properties off Hopwass Close	High	Construction	Medium to Low	Moderate to Minor adverse
		Year 1	Medium to Low	Moderate to Minor adverse
		Year 15	Low	Minor adverse
Staythorpe				
Staythorpe House Cottage	High	Construction	Medium to High	Moderate to Major adverse
		Year 1	Medium to High	Moderate to Major adverse
		Year 15	Medium to Low	Moderate to Minor adverse
Staythorpe House Farm	High	Construction	Medium to Low	Moderate to Minor adverse
		Year 1	Medium to Low	Moderate to Minor adverse
		Year 15	Low	Minor adverse
Properties within Staythorpe	High	Construction	Medium	Moderate adverse
		Year 1	Medium	Moderate adverse
		Year 15	Medium to Low	Moderate to Minor adverse
Other properties within the surrounding area				
Flash Farm	High	Construction	Low	Minor adverse
		Year 1	Low	Minor adverse
		Year 15	Low	Minor adverse

Receptor	Sensitivity	Development Phase	Magnitude of change*	Level of Effect*
Properties on Micklebarrow Hill	High	Construction	Low	Minor adverse
		Year 1	Low	Minor adverse
		Year 15	Low	Minor adverse
North-eastern edge of Upton	High	Construction	Medium to Low	Moderate to Minor adverse
		Year 1	Medium to Low	Moderate to Minor adverse
		Year 15	Low	Minor adverse
Behay Gardens	High	Construction	Low	Minor adverse
		Year 1	Low	Minor adverse
		Year 15	Low	Minor adverse
Properties along Broadgate Lane, Kelham	High	Construction	Medium to Low	Moderate to Minor adverse
		Year 1	Medium to Low	Moderate to Minor adverse
		Year 15	Low	Minor adverse
Brickyard Cottages, Broadgate Lane	High	Construction	Low	Minor adverse
		Year 1	Low	Minor adverse
		Year 15	Low	Minor adverse
Properties at Averham Park	High	Construction	Low	Minor adverse
		Year 1	Low	Minor adverse
		Year 15	Low	Minor adverse
Recreational receptors				
Trent Valley Way (to the north-east)	High	Construction	Medium	Moderate adverse
		Year 1	Medium	Moderate adverse
		Year 15	Low	Minor adverse
Trent Valley Way (to the south-east)	High	Construction	Low	Minor adverse
		Year 1	Low	Minor adverse
		Year 15	Low	Minor adverse
PROW Kelham FP4	High	Construction	Medium to Low	Moderate to Minor adverse
		Year 1	Medium to Low	Moderate to Minor adverse
		Year 15	Medium to Low	Moderate to Minor adverse
PROW Averham FP6	High	Construction	Medium to Low	Moderate to Minor adverse
		Year 1	Medium to Low	Moderate to Minor adverse
		Year 15	Low	Minor adverse
PROW Averham FP8	High	Construction	Low	Minor adverse
		Year 1	Low	Minor adverse
		Year 15	Low	Minor adverse

Receptor	Sensitivity	Development Phase	Magnitude of change*	Level of Effect*
PROW Staythorpe FP2	High	Construction	Medium to Low	Moderate to Minor adverse
		Year 1	Medium to Low	Moderate to Minor adverse
		Year 15	Low	Minor adverse
PROW Upton FP7	High	Construction	Medium to Low	Moderate to Minor adverse
		Year 1	Medium to Low	Moderate to Minor adverse
		Year 15	Low	Minor adverse
PROW Upton FP6	High	Construction	Medium to High	Moderate to Major adverse
		Year 1	Medium to High	Moderate to Major adverse
		Year 15	Medium	Moderate adverse
Kelham Hall Parkland	High	All periods	Very Low	Minor adverse
Road Users				
Staythorpe Road	Medium	Construction	High	Moderate adverse
		Year 1	High	Moderate adverse
		Year 15	Medium to Low	Moderate to Minor adverse
Staythorpe Road (through Averham)	Medium	Construction	Medium to High	Moderate adverse
		Year 1	Medium to High	Moderate adverse
		Year 15	Medium to Low	Moderate to Minor adverse
A617	Low	Construction	High	Moderate to Minor adverse
		Year 1	High	Moderate to Minor adverse
		Year 15	Medium to Low	Minor adverse
Main Road/Main Street (between A617 & Upton)	Medium	Construction	Medium	Moderate adverse
		Year 1	Medium	Moderate adverse
		Year 15	Low	Minor adverse

Table 2: Summary of Visual Effects

8. CUMULATIVE EFFECTS

8.1 The methodology used to assess cumulative effects is in accordance with the principles set out in Chapter 7 of The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) (Landscape Institute and the Institute for Environmental Management and Assessment, 2013). It is important to note in particular that at GLVIA para 7.5, states that such an assessment is to be kept ‘reasonable and in proportion to the nature of the project under consideration’.

8.2 There are two energy developments within the study area, with varying status. The sites are listed below, including a description of the proposals and their current planning status as of January 2023:

- Submitted Applications
- Land South of Staythorpe Road (22/01840/FULM) - construction and operation of a battery energy storage system and associated grid connection infrastructure. Application yet to be determined.

- EIA Screening Requests
- Land to the West of Main Street, Kelham (22/SCR/00012) - solar farm and battery energy storage system.

Consideration of Cumulative Effects with Submitted Applications

8.3 The land to the south of Staythorpe Road lies to the south-west of the site. The extent of the site boundary is shown by Figure 13. The application is supported by a Landscape and Visual Appraisal, September 2022 by Arcus Consultancy Services.

Landscape Character

8.4 The Landscape and Visual Appraisal by Arcus Consultancy Services summarises the overall effect of their proposed development upon the landscape character of TW PZ 11, as follows:

‘Effects on landscape character within the LPZ as whole, during Year 1 would be Minor and in Year 15 would be Negligible indirect.’

8.5 The overall landscape character effects upon TW PZ 11 of the proposed development are summarised as Minor, as set out above. When both the proposed development and the land south of Staythorpe Road are considered in totality, it is acknowledged that there would be inevitable increases in effects upon landscape character of TW PZ 11 above that just of the proposed development on its own. However, these would be limited to the local area and would not extend widely to the surrounding countryside.

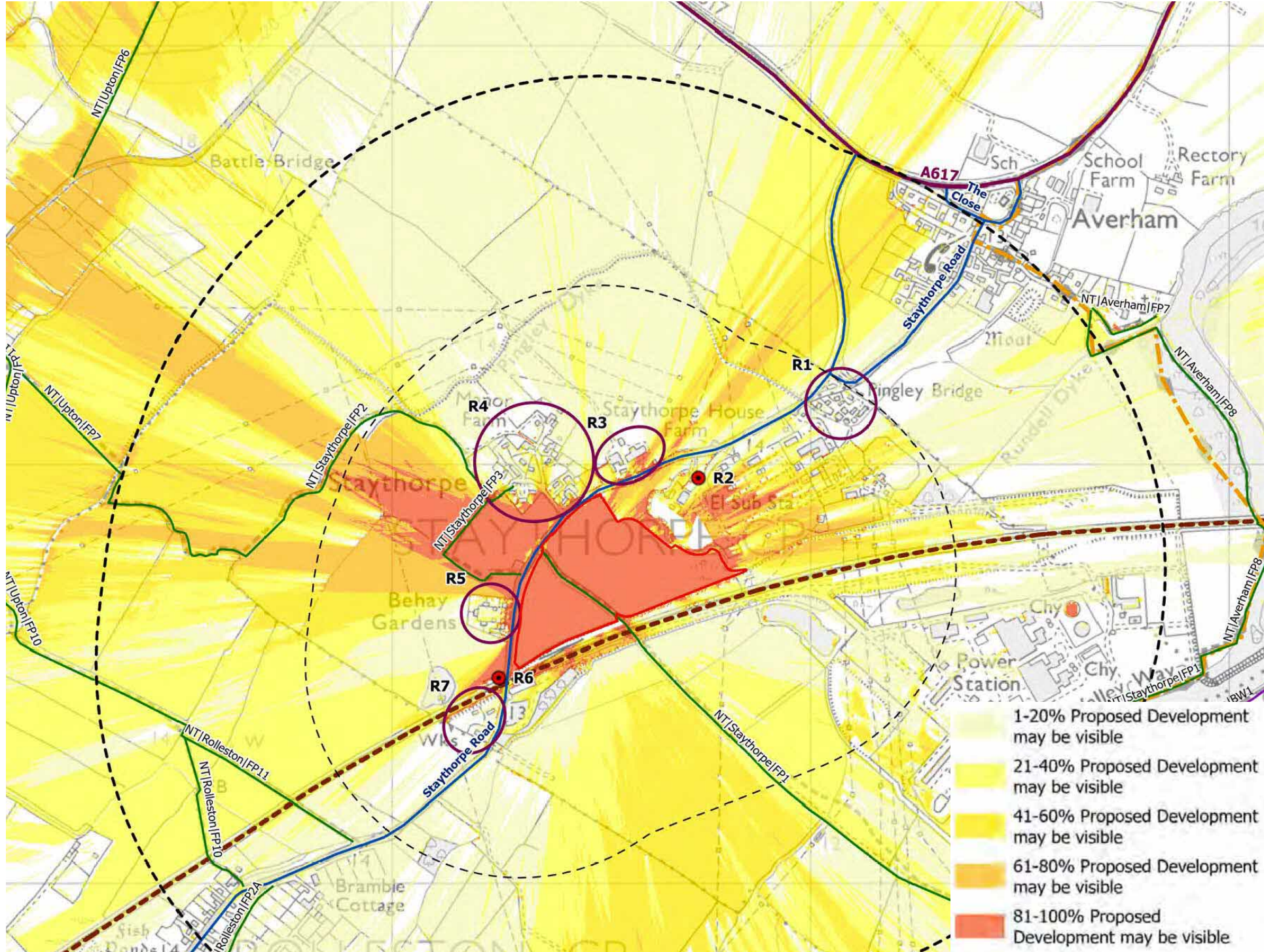


Figure 13: Extract from 'Figure 1.8 Visual Amenity' as part of the Landscape and Visual Appraisal for Staythorpe Battery Energy Storage System (22/01840/FULM)

Visual

8.6 The Landscape and Visual Appraisal by Arcus Consultancy Services identifies numerous visual receptors which align with the receptors considered in the assessment of the proposed development as set out in relevant sections above. The effects at both Year 1 and Year 15 for both the proposed development and the land south of Staythorpe Road, are summarised in Table 3.

8.7 With the addition of the two sites seen in totality, there would be relatively limited additional visual effects upon some local properties. However, additional visual effects are likely to arise upon

some receptors within the settlement of Staythorpe and upon the adjacent Staythorpe House Farm and Staythorpe House Cottage, with each development being visible in opposing directions from these receptors. Due to the proximity of both sites to Staythorpe and associated properties, it is considered that neither would be the cause of additional visual effects over the other. Similarly, if both schemes were to come forward, additional adverse visual effects upon different parts of Staythorpe Road, effectively extending visual effects along the road either side of Staythorpe Substation, neither would be the cause of additional visual effects over the other.

8.8 With the addition of both schemes in totality, there would be additional visual effects upon Averham village, the A617 and Trent Valley Way. However, it should be noted that the proposed mitigation associated with both schemes would reduce visual effects in the longer-term.

Consideration of Cumulative Effects with EIA Screening Requests

8.9 As the solar and battery storage development at Land to the West of Main Street is at screening stage, it is too early in the planning process to appreciate the details of the proposals and therefore, no cumulative effects are considered further.

Receptor	Level of Effect for Proposed Development		Level of effect for Land South of Staythorpe Road		Combined Effects	
	Year 1	Year 15	Year 1	Year 15	Year 1	Year 15
Properties off Hopwass Close / Pingley Bridge (R1)	Moderate to Minor	Minor	Negligible	Negligible	Moderate to Minor	Minor
White Cottage (R2)	No effect (not assessed)	No effect (not assessed)	Negligible	Negligible	Negligible	Negligible
Staythorpe House Farm / Staythorpe House Cottage (R3)	Moderate to Major/ Moderate to Minor	Moderate to Minor/Minor	Moderate to Major	Moderate to Minor	Moderate to Major	Moderate to Minor
Staythorpe	Moderate	Moderate to Minor	Moderate to Major	Minor-Moderate-Major	Moderate to Major	Minor-Moderate-Major
Averham	Moderate to Major	Moderate to Minor	Negligible	Negligible	Moderate to Major	Moderate to Minor
Trent Valley Way	Moderate	Minor	Negligible	Negligible	Moderate	Minor
PROW Staythorpe FP2	Moderate to Minor	Minor	Minor	Minor	Moderate to Minor	Minor
A617	Moderate to Minor	Minor	Negligible	Negligible	Moderate to Minor	Minor
Staythorpe Road	Moderate	Moderate to Minor	Moderate	Minor	Moderate	Moderate to Minor
Main Road/Main Street	Moderate	Minor	Negligible	Negligible	Moderate	Minor

Table 3: Comparison of Visual Effects between proposed development and land south of Staythorpe Road and combined effects

9. SUMMARY AND CONCLUSION

Landscape Character	
9.1	The proposed development would introduce a new man-made feature into the landscape, which would incorporate most of the site area and therefore adversely alter the physical and perceptual attributes of the site, however, would allow retention of all valuable features within and surrounding the site and noting that it is already influenced by existing electrical infrastructure within the site and by road, rail and energy infrastructure, as well residential development within the surrounding area. The influence upon the surroundings would be limited by the flat nature of the landscape, by the network of surrounding vegetation and by nearby built form, including nearby substations and power stations. With the introduction of extensive areas of tree and woodland planting around peripheral areas of the site including areas of mature plant stock, there would be some improvements to the physical and perceptual attributes of the landscape character of the site, however, a Moderate to Minor level of effect would occur in the longer-term.
9.2	The site lies within TW PZ 11 - Cromwell, North and South Muskham, Kelham, Averham, Staythorpe and Rolleston Village Farmlands. Although existing landscape features within the site would be retained and protected, with the proposed development introducing extensive areas of tree and woodland planting around the periphery of the development providing longer-term enclosure, the proposals would form a man-made minor alteration to the physical and perceptual attributes of the character area. Therefore, a Minor adverse level of effect would occur in the longer-term.
9.3	The proposed development has the potential to give rise to some indirect effects upon landscape character within surrounding policy zones, however, the level of effects would be no greater than Minor.
Landscape Features	
9.4	The site comprises a large scale irregular shaped arable field, defined by the A617 to the north and Staythorpe Road to the east. Although the site is greenfield, being typical of the nearby agricultural landscape, it is influenced by the nearby A-road, electricity infrastructure, Staythorpe Power Station and residential development, including the pylons and associated overhead powerlines over the site and therefore has limited scenic qualities. The proposals would represent a change to the current land use from predominantly agricultural fields to an operational battery storage facility with substation and associated infrastructure. Much of the peripheral areas would be planted with native species, therefore, the perception of the primary land use would be reduced. A Moderate adverse level of effect are predicted upon land use in the longer-term.
9.5	In relation to vegetation, existing trees and hedgerows surrounding the site would be protected. With the benefit of maturing tree, hedgerow and woodland planting, the proposed vegetation would integrate the development with its surroundings, resulting in localised benefits in the longer-term.
9.6	There would be limited adverse effects to local landform and topography in the longer-term and the potential for some benefits to the local watercourse in the longer-term through the creation of new attenuation features.
Visual Receptors	
9.7	The proposed layout has sought to retain and augment existing field boundary vegetation and has introduced new trees, hedgerows and woodland around peripheral areas of the site in order to minimise harmful visual effects. Due to the generally flat nature of the surrounding landscape with the network of surrounding vegetation and woodlands, the visibility of the proposed development is limited in nature, the exception being the locally elevated land to the north-west.
9.8	Some inevitable adverse effects would occur to residential properties along the western edge of Averham, the northern edge of Staythorpe, the Trent Valley Way (where it follows the A617) and to adjacent roads including the A617 and Staythorpe Road. With the benefit of trees and woodland around the periphery of the site, most views of the proposed development would be filtered in the longer-term.
9.9	Due to the elevated nature of the parts of PROW Upton FP6, the proposed development would be a notable feature within the landscape, albeit seen in context of the numerous electricity pylons crossing the landscape, as well as other features such as Staythorpe Power Station and nearby electricity substation. With the benefit of new planting along site boundaries particularly along the western edges, some direct views would be filtered towards the proposed development, however, a Moderate level of effect would occur in the longer-term.
Cumulative	
9.10	The only cumulative site considered within the report is the land to the south of Staythorpe Road, for a battery energy storage system and associated grid connection infrastructure, located to the south-west of the site. When both schemes are considered in totality, it is acknowledged that there would be inevitable increases in effects upon the landscape character of TW PZ 11, however, these would be limited to the local area and would not extend widely to the surrounding countryside. With the addition of both schemes in totality, there would be additional visual effects upon Averham village, the A617 and Trent

Valley Way, however, the proposed mitigation associated with both schemes would reduce visual effects in the longer-term.

Conclusion	
9.11	From a landscape and visual perspective, any notable effects on landscape character or visual receptors as a result of the proposed development would be confined to surrounding local areas with visual effects reduced by the retention of the existing vegetation and the proposed mitigation planting around the periphery of the site.
9.12	Overall, and despite the extent of the proposed development, the total extent of the landscape and visual effects would be localised and limited in nature.

10. REFERENCES

10.1	The following documents have been consulted during the preparation of this statement:
	- National Planning Policy Framework, July 2021; - Plan Review, Review of the Newark & Sherwood Local Development Framework Core Strategy and Allocations, Amended Core Strategy, March 2019; - Allocations and Development Management - Development Plan Document, July 2013 - Guidelines for Landscape and Visual Impact Assessment (3rd edition) - Landscape Institute/ Institute of Environmental Management and Assessment, 2013; - Landscape Institute GLVIA3 Statement of Clarification 1/13, June 20 13; - Visual Representation of Development Proposals, Technical Guidance Note 06/19, September 2019; - Assessing Landscape Value outside National Designations, Technical Guidance Note 02/21, February 2021; - Natural England (2014) National Character Area (NCA) 48; and - Newark and Sherwood Landscape Character Assessment Supplementary Planning Document, December 2013.

APPENDIX 1: ASSESSMENT CRITERIA

INTRODUCTION	
This appendix presents the assessment criteria adopted for the appraisal of landscape and visual effects arising from the proposed development.	
The primary source of best practice for LVA in the UK is The Guidelines for Landscape and Visual Impact Assessment, 3rd Edition (GLVIA3) (Landscape Institute and the Institute for Environmental Management and Assessment, 2013). The assessment criteria adopted to inform the appraisal of effects has been developed in accordance with the principles established in this best practice document. It should however be acknowledged that GLVIA3 establishes guidelines not a specific methodology. The preface to GLVIA3 states:	
“This edition concentrates on principles and processes. It does not provide a detailed or formulaic ‘recipe’ that can be followed in every situation –it remains the responsibility of the professional to ensure that the approach and methodology adopted are appropriate to the task in hand.”	
The criteria set out below have therefore been specifically tailored for this appraisal to ensure that the methodology is appropriate and fit for purpose.	
The purpose of an LVA when undertaken outside the context of an EIA is to identify and describe the relative level of any landscape and visual effects arising as a result of the proposals. As confirmed in GLVIA3 Statement of Clarification 1/13 (Landscape institute, 10th June 2013) an LVA for development which has been screened as not requiring EIA should avoid concluding whether the effects are significant or not and this is the approach adopted in this LVA.	
An LVA must consider both:	
- effects on the landscape as a resource in its own right (the landscape effects); and - effects on specific views and visual amenity more generally (the visual effects).	
Therefore, separate criteria are set out below for the assessment of landscape and visual effects.	
NATURE (SENSITIVITY) OF LANDSCAPE FEATURES	
The nature or sensitivity of an individual landscape feature or element reflects its susceptibility to change and its value. It is therefore a function of factors such as its quality, rarity, contribution to landscape character, degree to which the particular element can be replaced and cultural associations or designations that apply. A particular feature may be more ‘sensitive’ in one location than in another often as a result of local values associated with the feature or in relation to its function as a key or distinctive characteristic of that local landscape. Therefore it is not possible to simply place different types of landscape features into sensitivity bands. Where individual landscape features are affected, professional judgement is used as far as possible to give an objective evaluation of its sensitivity. Justification is given for this evaluation where necessary.	
Both the susceptibility and value of individual landscape features has been described as very high, high, medium, low or very low. These are then combined in order to establish an overall nature or sensitivity of individual landscape features which has also been described as very high, high, medium, low or very low.	
NATURE (SENSITIVITY) OF LANDSCAPE CHARACTER	
Sensitivity of landscape character is also assessed through a consideration of both the susceptibility to a development of the type proposed and the value attached to the landscape. In the case of the potential for effects on landscape character, susceptibility means the ability to accommodate the proposed development without undue consequences for the existing characteristics of the site. What is meant by the value of the landscape in a Landscape and Visual Impact Assessment is the relative value that is attached to the landscape by society as a whole, bearing in mind that different stakeholders may have differing values regarding any given landscape. Paragraphs 5.20 and Box 5.1 of GVLIA set out a range of factors that can contribute to an understanding landscape value. Consideration of whether there are any formal landscape designations covering a landscape is one element of considering the value, but also relevant is the condition of the landscape, its rarity in the local area, the recreational value it provides, and any ecological or heritage importance the landscape may hold. These are considered alongside its perceptual qualities (such as tranquillity) and any associations which may be held with the landscape, such as if it has been highlighted in art, music or poetry. Further clarification on how to consider the matter of landscape value is set out in the Landscape Institute Technical Guidance Note (02/21) ‘Assessing the Value of Landscapes Outside National Designations’ .	

In this appraisal, the nature or sensitivity of landscape character is considered with reference to published landscape character areas/types and where relevant local landscape units as defined in this LVA for the purposes of this study. Information regarding the key characteristics of these local character areas/units has been extrapolated from relevant published studies where possible and combined with observations from on-site appraisal. With judgments undertaken employing professional judgement.

Both the susceptibility and value of landscape character has been described as very high, high, medium, low or very low. These are then combined in order to establish an overall nature or sensitivity of landscape character which has also been described as very high, high, medium, low or very low.

NATURE (SENSITIVITY) OF VISUAL RECEPTORS

The nature or sensitivity of a visual receptor group also reflects their susceptibility to change and the value associated with the specific view in question. It varies depending on a number of factors such as the occupation of the viewer, their viewing expectations, duration of view and the angle or direction in which they would see the site. Whilst most views are valued by someone, certain viewpoints are particularly highly valued for either their cultural or historical associations and this can increase the sensitivity of the view. The following criteria are provided for guidance only and are not exclusive:

- Very Low Sensitivity –People engaged in industrial and commercial activities or military activities.
- Low Sensitivity - People at their place of work (e.g. offices); short - medium stay patients at hospital, shoppers; users of trunk/ major roads and passengers on commercial railway lines (except where these form part of a recognised and promoted scenic route).
- Medium Sensitivity - Users of public rights of way and minor roads which do not appear to be used primarily for recreational activities or the specific enjoyment of the landscape; recreational activities not specifically focused on the landscape (e.g. football); motel users.
- High Sensitivity –Residents at home; users of long distance or recreational trails and other sign posted walks; users of public rights of way and minor roads which appear to be used for recreational activities or the specific enjoyment of the landscape; users of caravan parks, campsites and 'destination' hotels; tourist attractions with opportunities for views of the landscape (but not specifically focused on a particular vista); slow paced recreational activities which derive part of their pleasure from an appreciation of setting (e.g. bowling, golf); allotments.

- Very High Sensitivity - People at recognised vantage points (often with interpretation boards), people at tourist attractions with a focus on a specific view, visitors to historic features/ estates where the setting is important to an appreciation and understanding of cultural value.

It is important to appreciate that it is the visual receptor (i.e. the person) that has a sensitivity and not a property, public right of way or road. Therefore, a large number of people may use a motorway for example but this does not increase the sensitivity of the receptors using it. Conversely, a residential property may only have one person living in it but this does not reduce the sensitivity of that one receptor. The number of receptors affected at any given location may be a planning consideration, but it does not alter the sensitivity of the receptor group.

Where judgements are made about the sensitivity of assessment viewpoints, the sensitivity rating provided is an evaluation of the sensitivity of the receptor group represented by the viewpoint and not a reflection of the number of people who may experience the view.

NATURE (MAGNITUDE) OF EFFECTS –GENERAL NOTE

The following discussion sets out the approach adopted in this LVA in relation to a specific issue arising in GLVIA3 which requires a brief explanation.

Prior to the publication of GLVIA3, LVA practice had evolved over time in tandem with most other environmental disciplines to consider significance principally as a function of two factors, namely: sensitivity of the receptor and magnitude of the effect (the term 'magnitude' being a word most commonly used in LVA and most other environmental disciplines to describe the size or scale of an effect).

Box 3.1 on page 37 of GLVIA3 references a 2011 publication by IEMA entitled 'The State of EIA Practice in the UK' which reiterates the importance of considering not just the scale or size of effect but other factors which combine to define the 'nature of the effect' including factors such as the probability of an effect occurring and the duration, reversibility and spatial extent of the effect.

The flow diagram on page 39 of GLVIA3 now suggests that the magnitude of effect is a function of three factors (the size/scale of the effect, the duration of the effect and the reversibility of the effect).

For clarification, the approach taken in this LVA has been to consider magnitude of effect solely as the scale or size of the effect in the traditional sense of the term 'magnitude'. Having identified the magnitude of effect as defined above the LVA also describes the

duration and reversibility of the identified effect before drawing a conclusion on the overall level of effect taking all of these factors into account.

In the context of the above discussion the following criteria have been adopted to describe the magnitude of effects.

NATURE (MAGNITUDE) OF EFFECTS ON LANDSCAPE FEATURES

Professional judgement has been used as appropriate to determine the magnitude of direct physical effects on individual existing landscape features using the following criteria as guidance only:

- Very Low Magnitude of Change - No loss or alteration to existing landscape features;
- Low Magnitude of Change - Minor loss or alteration to part of an existing landscape feature;
- Medium Magnitude of Change - Some loss or alteration to part of an existing landscape feature;
- High Magnitude of Change - Major loss or major alteration to an existing landscape feature;
- Very High Magnitude of Change - Total loss or alteration to an existing landscape feature.

NATURE (MAGNITUDE) OF EFFECTS ON LANDSCAPE CHARACTER

The magnitude of effect on landscape character is influenced by a number of factors including: the extent to which existing landscape features are lost or altered, the introduction of new features and the resulting alteration to the physical and perceptual characteristics of the landscape. Professional judgement has been used as appropriate to determine the magnitude using the following criteria as guidance only. In doing so, it is recognised that usually the landscape components in the immediate surroundings have a much stronger influence on the sense of landscape character than distant features whilst acknowledging the fact that more distant features can have an influence on landscape character as well.

- Very Low Magnitude of Change - No notable loss or alteration to existing landscape features; no notable introduction of new features into the landscape; and negligible change to the key physical and/or perceptual attributes of the landscape.
- Low Magnitude of Change - Minor loss or alteration to existing landscape features; introduction of minor new features into the landscape; or minor alteration to the key physical and/or perceptual attributes of the landscape.

- Medium Magnitude of Change - Some notable loss or alteration to existing landscape features; introduction of some notable new features into the landscape; or some notable change to the key physical and/or perceptual attributes of the landscape.

- High Magnitude of Change - A major loss or alteration to existing landscape features; introduction of major new features into the landscape; or a major change to the key physical and/or perceptual attributes of the landscape.

- Very High Magnitude of Change - Total loss or alteration to existing landscape features; introduction of dominant new features into the landscape; a very major change to the key physical and/or perceptual attributes of the landscape.

NATURE (MAGNITUDE) OF EFFECTS ON VIEWS AND VISUAL AMENITY

Visual effects are caused by the introduction of new elements into the views of a landscape or the removal of elements from the existing view.

Professional judgement has been used to determine the magnitude of impacts using the following criteria as guidance only:

- Very Low Magnitude of Change - No change or negligible change in views;
- Low Magnitude of Change - Some change in the view that is not prominent but visible to some visual receptors;
- Medium Magnitude of Change - Some change in the view that is clearly notable in the view and forms an easily identifiable component in the view;
- High Magnitude of Change - A major change in the view that is highly prominent and has a strong influence on the overall view.
- Very High Magnitude of Change –A change in the view that has a dominating or overbearing influence on the overall view.

Using this set of criteria, determining levels of magnitude is primarily dependant on how prominent the development would be in the landscape, and what may be judged to flow from that prominence or otherwise.

For clarification, the use of the term 'prominent' relates to how noticeable the features of the development would be. This is affected by how close the viewpoint is to the development but not entirely dependent on this factor. Other modifying factors include: the focus of the view, visual screening and the nature and scale of other landscape features within the view. Rather than specifying crude bands of distance at which the proposed development would be dominant, prominent or incidental to the view etc, the prominence

of the proposed development in each view is described in detail for each viewpoint taking all the relevant variables into consideration.

TYPE OF EFFECT

The assessment identifies effects which may be 'beneficial', 'adverse' or 'neutral'. Where effects are described as 'neutral' this is where the beneficial effects are deemed to balance the adverse effects.

DURATION OF EFFECT

For the purposes of this appraisal, the temporal nature of each effect is described as follows:

- Long Term –over 5 years
- Medium Term –between 1 and 5 years
- Short Term –under 1 year

REVERSIBILITY OF EFFECT

The LVA also describes the reversibility of each identified effect using the following terms:

- Permanent –effect is non reversible
- Non-permanent –effect is reversible

LEVEL OF EFFECT

The purpose of an LVA when produced outside the context of an EIA is to identify the relative level of effects on landscape and visual amenity arising from the proposed development. The judgements provided within the LVA may then inform the planning balance to be carried out by the determining authority.

In this LVA, the relative level of the identified landscape and visual effects has been determined by combining judgements regarding the sensitivity of the landscape or view, magnitude of change, duration of effect and the reversibility of the effect. The level of effect is described as Major, Major/Moderate, Moderate, Moderate/Minor or Minor. No Effect may also be recorded as appropriate where the effect is so negligible it is not even noteworthy. In determining the level of residual effects, all mitigation measures are taken into account

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KEY		PROPOSED		Rev	Date	By	Note
EXISTING		Existing vegetation		E	060324	VR	Minor amends
		Trees & vegetation to be removed or cut back		D	230224	VR	Amends in line with comments
		Retained grassland		C	190124	VR	Amends in line with changes to A617 junction layout
				B	221123	NF	Woodland Planting Extended
				A	180923	KCh	Amended in line with tree and landscape officer comments
		Seasonally wet basins					

Illustrative Landscape Masterplan
Staythorpe Battery Ltd.

Client: SSE Staythorpe Battery Ltd
DRWG No: P22-1211_EN_0003 REV: E
Drawn by : VR
Date: 07/03/2023
Scale: 1:2,500 @ A3
Approved by: CC
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