



HELIOS RENEWABLE
ENERGY
PROJECT

Preliminary Environmental Information Report

Volume 2: Main Text and Figures

Chapter 7: Landscape & Views

October 2023

7. Landscape and Views

7.1. Introduction

- 7.1.1. This chapter of the PEIR reports on the preliminary assessment of the likely significant effects of the Proposed Development on the environment with respect to landscape and views that has been undertaken.
- 7.1.2. This chapter has been prepared by a chartered landscape architect at SLR Consulting Ltd, a registered practice of the UK Landscape Institute. In accordance with best practice, judgements have been reviewed and agreed with two other chartered landscape architects.
- 7.1.3. This chapter describes the planning policy framework relevant to landscape and visual amenity matters; the assessment methodology; the baseline conditions of the Site and its wider surroundings; the likely significant environmental effects; the additional mitigation measures required to prevent, reduce or offset any significant negative (adverse) effects; the likely residual effects after these measures have been employed (both primary and secondary); and the likely cumulative effects with other schemes.
- 7.1.4. As Overarching National Policy Statement for Energy (EN-1) (July 2011) 1 ('NPS EN-1') states at paragraph 5.9.8, '*virtually all national significant energy infrastructure projects will have effects on the landscape*'. Similarly, as paragraph 5.9.18 of EN-1 states, '*all proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites*'. It is for these reasons that paragraph 5.8.5 of EN-1 states that '*the applicant should carry out a landscape and visual assessment and report it in the ES*'.
- 7.1.5. This chapter should be read in conjunction with the following Appendices:
- Appendix 7.1: Criteria and Definitions used in Assessing Landscape and Visual Effects, which sets out the methodology for this assessment;

¹ *Overarching National Policy Statement for Energy (EN-1)* (July 2011), National Infrastructure Planning, Available at: www.gov.uk/government/publications/national-policy-statements-for-energy-infrastructure Accessed September 2023

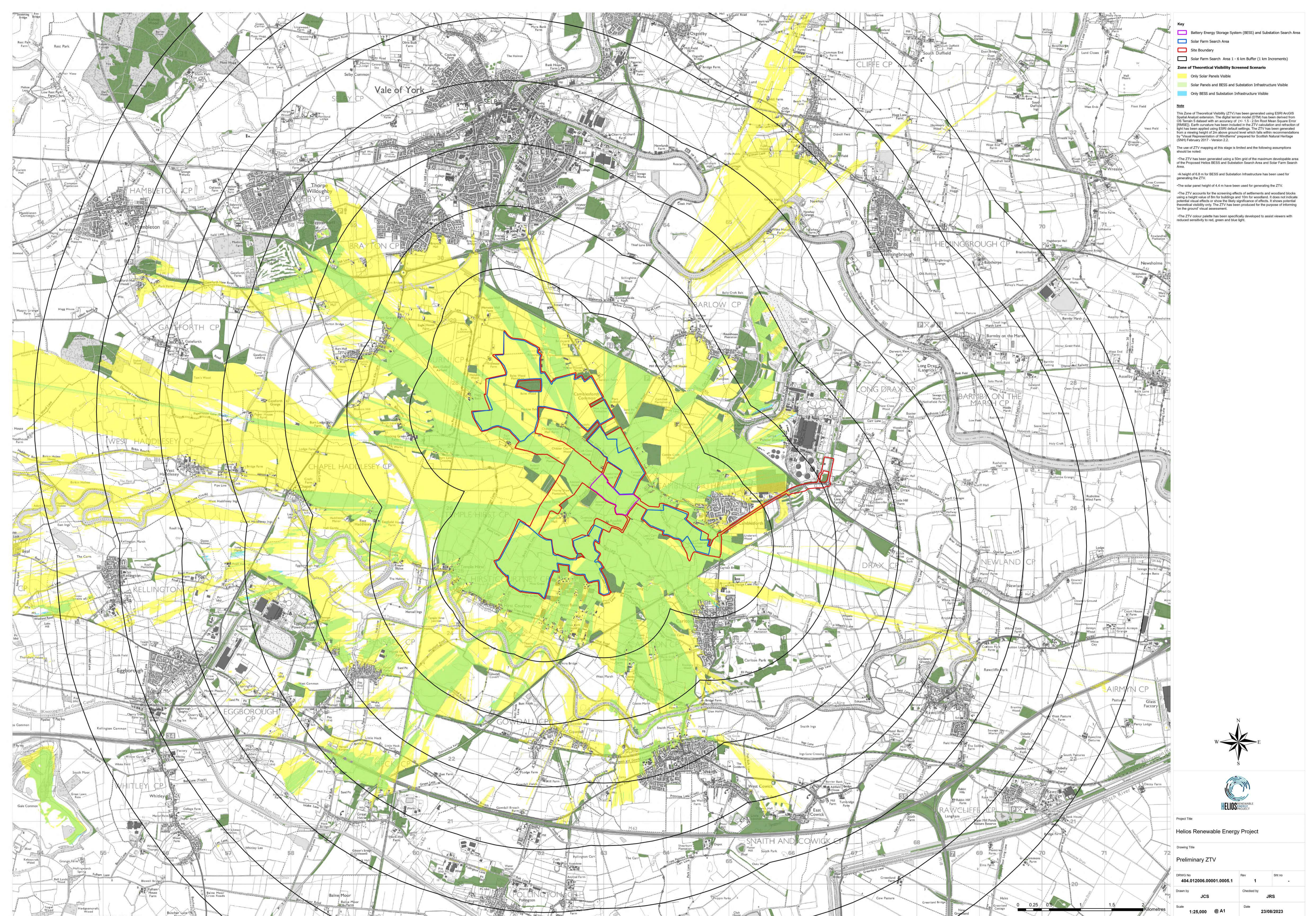
- Appendix 7.2: Viewpoint Correspondence;
- Appendix 7.3: Landscape Effects Table;
- Appendix 7.4: Site Appraisal Photographs;
- Appendix 7.5: Representative Views;
- Appendix 7.6: Visual Effects Table; and
- Appendix 7.7: Visualisations.

7.1.6. The following Figures support this chapter:

- Figure 7.1: Preliminary ZTV;
- Figure 7.2: Context and Designations Plan;
- Figure 7.3: Topography Plan;
- Figure 7.4: Landscape Character Plan;
- Figure 7.5: Site Appraisal Plan;
- Figure 7.6: Tranquillity Plan;
- Figure 7.7: Viewpoint Plan;
- Figure 7.8: Landscape Strategy Plan Sheet 1 of 3;
- Figure 7.9: Landscape Strategy Plan Sheet 2 of 3;
- Figure 7.10: Landscape Strategy Plan Sheet 3 of 3;
- Figure 7.11: Landscape Strategy Schedules and Notes; and
- Figure 7.12: Illustrative Landscape Masterplan.

7.1.7. An initial study area for the purposes of desk studies and field surveys was set at 5km from the Site boundary as shown on Figure 7.1: Preliminary ZTV. This was subsequently refined to the study area for this assessment, which broadly equates to the extents of the landscape shown on Figure 7.2: Context and Designations Plan. Further information is set out in section 7.3 'Assessment Methodology' of the chapter.

Figure 7.1 Preliminary ZTV



- Key**
- Battery Energy Storage System (BESS) and Substation Search Area
 - Solar Farm Search Area
 - Site Boundary
 - Solar Farm Search Area 1 - 6 km Buffer (1 km Increments)
- Zone of Theoretical Visibility Screened Scenario**
- Only Solar Panels Visible
 - Solar Panels and BESS and Substation Infrastructure Visible
 - Only BESS and Substation Infrastructure Visible

Note

This Zone of Theoretical Visibility (ZTV) has been generated using ESRI ArcGIS Spatial Analyst extension. The digital terrain model (DTM) has been derived from OS Terrain 5 dataset with an accuracy of +/- 1.5 - 2.0m Root Mean Square Error (RMSE). Each contour has been included in the ZTV calculation and reflection of light has been applied using ESRI default settings. The ZTV has been generated from a viewing height of 2m above ground level which takes into account the 'Visual Representation of Windfarms' prepared for Scottish Natural Heritage (SNH) February 2017 - Version 3.2.

The use of ZTV mapping at this stage is limited and the following assumptions should be noted:

- The ZTV has been generated using a 50m grid of the maximum developable area of the Proposed Helios BESS and Substation Search Area and Solar Farm Search Area.
- A height of 6.8 m for BESS and Substation Infrastructure has been used for generating the ZTV.
- The solar panel height of 4.4 m has been used for generating the ZTV.
- The ZTV accounts for the screening effects of settlements and woodland blocks using a height value of 10m for buildings and 15m for woodland. It does not indicate potential visual effects or show the likely significance of effects. It shows potential theoretical visibility only. The ZTV has been produced for the purpose of estimating 'on the ground' visual assessment.
- The ZTV colour palette has been specifically developed to assist viewers with reduced sensitivity to red, green and blue light.



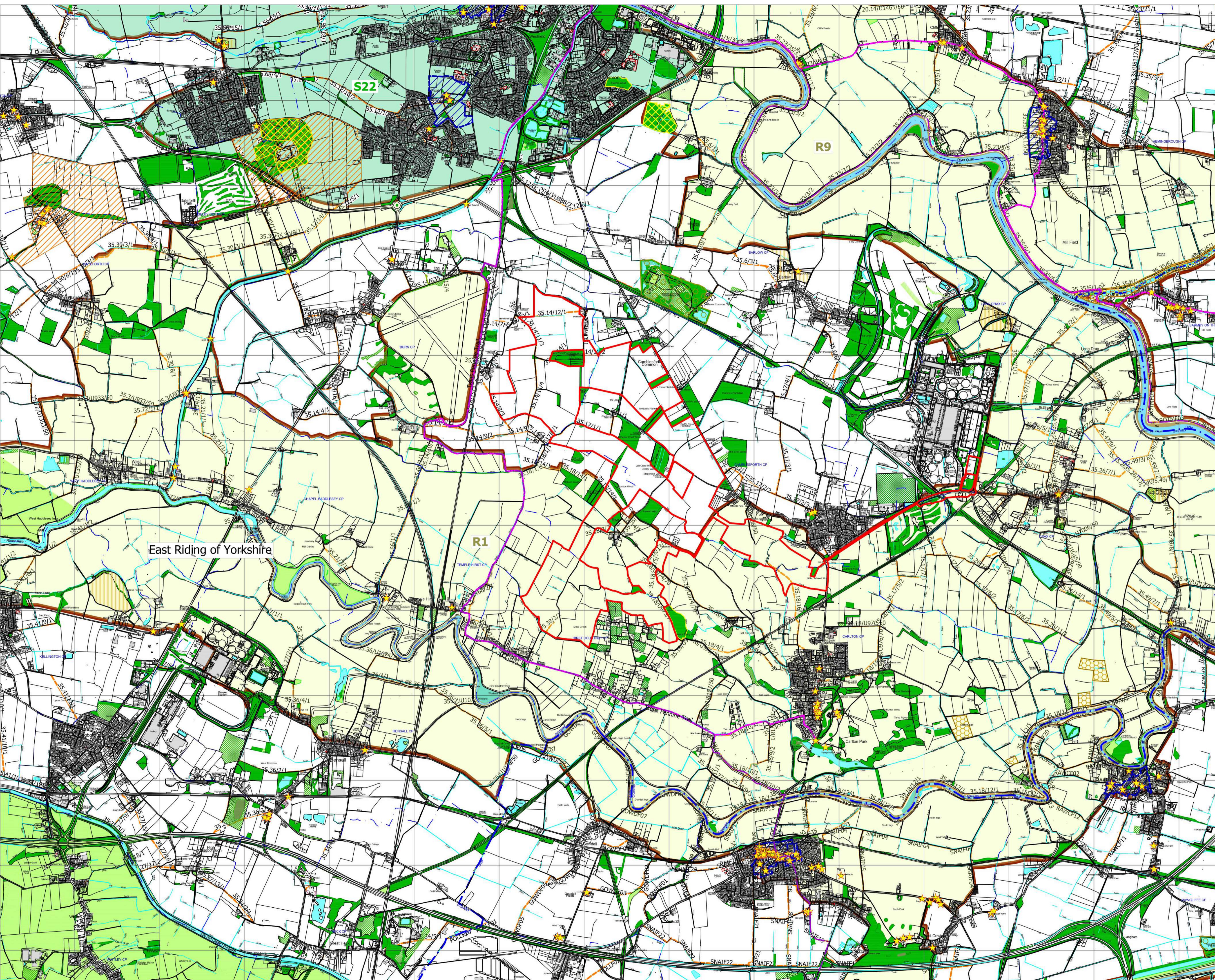
Project Title: Helios Renewable Energy Project

Drawing Title: Preliminary ZTV

DRWING NO: 404.012006.00001.0005.1	Rev: 1	Site No: -
Drawn by: JCS	Checked by: JRS	
Scale: 1:25,000 @ A1	Date: 23/08/2023	



Figure 7.2 Context and Designations Plan



- KEY**
- Site Boundary
 - Ancient Woodland #
 - Existing Woodlands, Copses and Tree Belts ^
 - Existing Scrub ^
 - Existing Water Courses and Features ^
 - Contours/Spot Heights (Metres AOD) ^
 - Public Rights of Way *
 - National Trails # / Long Distance Walks ^
 - Countryside Rights of Way Access Areas #
 - Sustrans Cycle Route +
 - Cycle Route ++
 - ★ Listed Buildings ~
 - Conservation Area #/##
 - Scheduled Monument ~
 - Green Belt ^^
 - Sites of Special Scientific Interest #
 - Local Nature Reserve #
 - Locally Important Landscape Area (Policy ENV15)
 - Strategic/Regional Green Infrastructure Corridor
 - Sub Regional Green Infrastructure Corridor




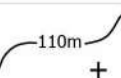


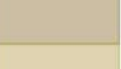
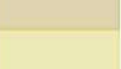
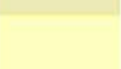




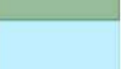


Project Title:
Helios Renewable Energy Project

Drawing Title:
Context and Designations Plan

DRWG No: Figure 7.2	Rev: 0	Sht no: -
Drawn by: JM	Checked by: JM	
Scale: 1:20,000 @ A1	Date: AUGUST 2023	

Figure 7.3 Topography Plan

KEY

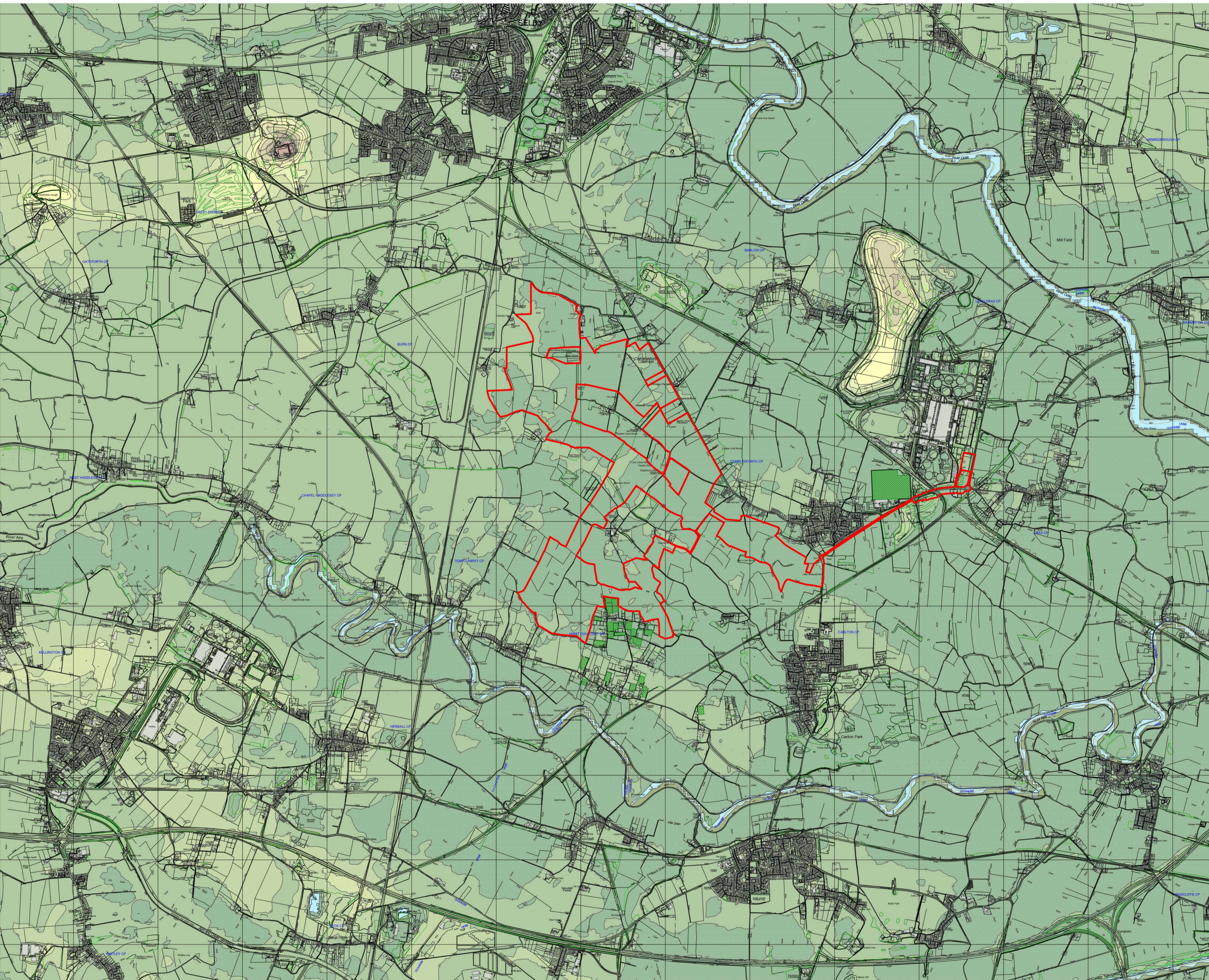
-  Site Boundary
-  Contours/Spot Heights (Metres AOD) ^
-  Elevation 50 to 55
-  Elevation 45 to 50
-  Elevation 40 to 45
-  Elevation 35 to 40
-  Elevation 30 to 35
-  Elevation 25 to 30
-  Elevation 20 to 25
-  Elevation 15 to 20
-  Elevation 10 to 15
-  Elevation 5 to 10
-  Elevation -5 to 0
-  Elevation -10 to -5



Project Title:
Helios Renewable Energy Project

Drawing Title:
Topography Plan

DRWG No: Figure 7.3	Rev: 0	Sht no: -
Drawn by: JM	Checked by: JM	
Scale: 1:20,000 @ A1	Date: AUGUST 2023	



7.2. Planning Policy Context

National Planning Policy

NPS EN-1

7.2.1. Paragraph 4.5.3 of NPS EN-1 states:

'...the [decision-maker] needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable, and adaptable (including taking account of natural hazards such as flooding) as they can be. In doing so, the Secretary of State should be satisfied that the applicant has taken into account both functionality (including fitness for purpose and sustainability) and aesthetics (including its contribution to the quality of the area in which it would be located) as far as possible. Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation.'

7.2.2. Paragraph 5.3.18 provides that the applicant should include appropriate mitigation measures as an integral part of a proposed development. In particular, it states that the applicant should demonstrate, amongst other matters, that *'opportunities will be taken to enhance existing habitats and, where practicable, create new habitats of value within the site landscaping proposals.'*

7.2.3. Section 5.9 of NPS EN-1 sets out the matters to be considered in the assessment of any likely significant landscape and visual impacts of the Proposed Development. It recognises that *'The landscape and visual effects of energy projects will vary on a case-by-case basis according to the type of development, its location and the landscape setting of the proposed development'* (paragraph 5.9.1).

7.2.4. Paragraph 5.9.5 requires applicants to carry out a Landscape and Visual Impact Assessment ('LVIA') and report it in the ES. The NPS EN-1 (at paragraphs 5.9.5 to 5.9.7) requires that the LVIA should:

- Include reference to any landscape character assessment and associated studies and take account of any relevant policies based on these assessments

in local development documents;

- Include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character; and
- Include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity.

7.2.5. Paragraph 5.9.8 states that:

'...Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.'

7.2.6. Mitigation paragraph 5.9.22 notes that *'adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration.'*

7.2.7. Paragraph 5.9.23 also relates to mitigation and states that:

'Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site. For example, filling in gaps in existing tree and hedge lines would mitigate the impact when viewed from a more distant vista.'

Revised (Draft) Overarching NPS for Energy EN-1 (March 2023)² ('Revised (Draft) NPS EN-1')

7.2.8. Section 4 of the Revised (Draft) NPS EN-1 sets out the general assessment principles to be considered in the submission and assessment of applications. Paragraph 4.1.5 states that in considering development proposals, the Secretary of

² Revised (Draft) Overarching National Policy Statement for Energy (EN-1) (March 2023), National Infrastructure Planning. Available at: <https://www.gov.uk/government/consultations/planning-for-new-energy-infrastructure-revisions-to-national-policy-statements> Accessed September 2023

State must take account of the potential benefits, including environmental enhancements, and also the potential adverse impacts *‘including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts’*.

7.2.9. Under the heading *‘Environmental and Biodiversity Net Gain’*, paragraph 4.5.4 states that projects should *‘should seek opportunities to contribute to and enhance the natural environment by providing net gains for biodiversity, or the wider environment where possible’*. These wider environmental gains are defined under paragraph 4.5.11 and include landscape enhancement and increased access to natural greenspace including trees and woodlands.

7.2.10. In relation to *‘Good Design’*, paragraph 4.6.1 states:

‘The visual appearance of a building, structure, or piece of infrastructure, and how it relates to the landscape it sits within, is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object - be it a building or other type of infrastructure - including fitness for purpose and sustainability, is equally important.’

7.2.11. Paragraph 4.6.6 provides further discussion on this point, stating:

‘Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, land form and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area. Applicants should also, so far as is possible, seek to embed opportunities for nature inclusive design within the design process’

7.2.12. Under the heading *‘Landscape and Visual’*, paragraph 5.10.1 states that the *‘landscape and visual effects of energy projects will vary on a case by case basis according to the type of development, its location and the landscape setting of the proposed development’*; and continues *‘Landscape effects arise not only from the sensitivity of the landscape but also the nature and magnitude of change proposed by the development, whose specific siting and design make the assessment a case-*

by-case judgement' (paragraph 5.10.4).

- 7.2.13. Paragraph 5.10.5 clarifies that *'Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation'* while 5.10.6 states that *'Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate'*.
- 7.2.14. Paragraphs 5.10.12 and 5.10.13 state that all energy projects are likely to result in visual effects and that the *'will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project'*.
- 7.2.15. Paragraph 5.10.18 states that *'The applicant should consider landscape and visual matters in the early stages of siting and design, where site choices and design principles are being established. This will allow the applicant to demonstrate in the ES how both negative effects have been minimised and opportunities for creating positive benefits or enhancement have been recognised'*.
- 7.2.16. With regard to mitigation, paragraph 5.10.26 identifies that *'adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within a site, design including colours and materials, and landscaping schemes'*.
- 7.2.17. Paragraph 5.10.34 notes that *'the scale of energy projects means that they will often be visible within many miles of the site of the proposed infrastructure. The Secretary of State should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project'*.
- 7.2.18. In conclusion, *'The Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by appropriate mitigation'* (paragraph 5.10.36).

*Revised (Draft) NPS for Renewable Energy Infrastructure (EN-3) (March 2023)³
(‘Revised (Draft) NPS EN-3’)*

- 7.2.19. Revised (Draft) NPS EN-3 sets out primary policy for decisions relating to specific renewable energy types including Solar Photovoltaic Generation. The NPS confirms that the assessment of impact from solar projects should be undertaken in a similar way to the assessment of landscape impact of other onshore energy-generating projects (paragraph 3.10.85).
- 7.2.20. Under the heading *‘Solar photovoltaic generation: Proximity of a site to dwellings’*, paragraph 3.10.12 identifies that *‘large sites may have a significant zone of visual influence’* and that *‘The two main impact issues that determine distances to sensitive receptors are therefore likely to be visual amenity and glint and glare’*.
- 7.2.21. Under the heading *‘Public rights of ways’*, Revised (Draft) NPS EN-3 states:
‘Applicants are encouraged where possible to minimise visual outlook from existing public rights of way, considering the impacts this may have on any other visual amenities in the surrounding landscape’ (paragraph 3.10.28).
- 7.2.22. Paragraph 3.10.29 states:
‘Applicants should consider and maximise opportunities to facilitate enhancements to the public rights of way and the adoption of new public rights of way through site layout and design of access’.
- 7.2.23. Paragraph 3.10.80 states:
‘Solar farms have the potential to increase the biodiversity value of a site, especially if the land was previously intensively managed. In some instances, this can result in significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains’.
- 7.2.24. In relation to the zone of visual influence of solar farms, paragraph 3.10.86 notes *‘whilst it may be the case that the development covers a significant surface area, in the case of ground-mounted solar panels it should be noted that with effective*

³ *Revised (Draft) National Policy Statement for Renewable Energy Infrastructure (EN-3)* (March 2023), National Infrastructure Planning. Available at: <https://www.gov.uk/government/consultations/planning-for-new-energy-infrastructure-revisions-to-national-policy-statements> Accessed September 2023

screening and appropriate land topography, the area of a zone of visual influence could be appropriately minimised’.

7.2.25. Paragraph 3.10.89 states that applicants *‘will be expected to direct considerable effort towards minimising the landscape and visual impact of solar PV arrays...’*

7.2.26. Furthermore, paragraph 3.10.91 states:

‘The applicant should consider as part of the design, layout, construction, and future maintenance plans how to protect and retain, wherever possible, the growth of vegetation on site boundaries, as well as the growth of existing hedges, established vegetation, including mature trees within boundaries. Applicants should also consider opportunities for individual trees within the boundaries to grow on to maturity.’

7.2.27. The following paragraphs relate to mitigation and state that:

‘Applicants should consider the potential to mitigate landscape and visual impacts through, for example, screening with native hedges, trees and woodlands’ (paragraph 3.10.122);

Applicants should aim to minimise the use and height of security fencing. Where possible applicants should utilise existing features, such as hedges or landscaping, to assist in site security or screen security fencing’ (paragraph 3.10.123); and

Applicants should minimise the use of security lighting. Any lighting should utilise a passive infra-red (PIR) technology and should be designed and installed in a manner which minimises impact’ (paragraph 3.10.124).

Local Planning Policy

Selby District Core Strategy Local Plan 2013⁴

7.2.28. The Core Strategy is the main document in the Council's suite of planning documents and covers the period from 2011 to 2027. The following policies are relevant to the

⁴ Selby District Council (October 2013), *Selby District Core Strategy Local Plan*, Available at: <https://www.northyorks.gov.uk/planning-and-conservation/planning-policy/planning-policy-your-local-area/selby-planning-policy/selby-development-plan>) Accessed September 2023

Site and the Proposed Development.

7.2.29. Policy SP15: Sustainable Development and Climate Change includes the following policy wording under the heading *'Design and Layout of Development'*:

'In order to ensure development contributes toward reducing carbon emissions and are resilient to the effects of climate change, schemes should where necessary or appropriate:

...

- d) Protect, enhance and create habitats to both improve biodiversity resilience to climate change and utilise biodiversity to contribute to climate change mitigation and adaptation;*
- e) Include tree planting, and new woodlands and hedgerows in landscaping schemes to create habitats, reduce the 'urban heat island effect' and to offset carbon loss;*

...'

7.2.30. Policy SP17 – Low-Carbon and Renewable Energy states:

'All development proposals for new sources of renewable energy and low-carbon energy generation and supporting infrastructure must meet the following criteria:

- i) are designed and located to protect the environment and local amenity or*
- ii) can demonstrate that the wider environmental, economic and social benefits outweigh any harm caused to the environment and local amenity, and*
- iii) impacts on local communities are minimised.'*

7.2.31. Policy SP18 – Protecting and Enhancing the Environment states:

'The high quality and local distinctiveness of the natural and man-made environment will be sustained by:

- 1. Safeguarding and, where possible, enhancing the historic and natural*

environment including the landscape character and setting of areas of acknowledged importance.

2. *Conserving those historic assets which contribute most to the distinct character of the District and realising the potential contribution that they can make towards economic regeneration, tourism, education and quality of life.*
3. *Promoting effective stewardship of the District's wildlife by:*

...
 - b) *Ensuring developments retain, protect and enhance features of biological and geological interest and provide appropriate management of these features and that unavoidable impacts are appropriately mitigated and compensated for, on or off-site.*
 - c) *Ensuring development seeks to produce a net gain in biodiversity by designing-in wildlife and retaining the natural interest of a site where appropriate.*

...
4. *Wherever possible a strategic approach will be taken to increasing connectivity to the District's Green Infrastructure including improving the network of linked open spaces and green corridors and promoting opportunities to increase its multi-functionality. This will be informed by the Leeds City Region Infrastructure Strategy.*
5. *Identifying, protecting and enhancing locally distinctive landscapes, areas of tranquillity, public rights of way and access, open spaces and playing fields through Development Plan Documents.*
6. *Encouraging incorporation of positive biodiversity actions, as defined in the local Biodiversity Action Plan, at the design stage of new developments or land uses.*

...
7. *Steering development to areas of least environmental and agricultural quality.'*

7.2.32. Policy SP19 – Design Quality states:

‘Proposals for all new development will be expected to contribute to enhancing community cohesion by achieving high quality design and have regard to the local character, identity and context of its surroundings including historic townscapes, settlement patterns and the open countryside.

Where appropriate schemes should take account of design codes and Neighbourhood Plans to inform good design.

Both residential and non-residential development should meet the following key requirements:

d) *Make the best, most efficient use of land without compromising local distinctiveness, character and form.*

...

e) *Create rights of way or improve them to make them more attractive to users, and facilitate sustainable access modes, including public transport, cycling and walking which minimise conflicts;*

f) *Incorporate new and existing landscaping as an integral part of the design of schemes, including off-site landscaping for large sites and sites on the edge of settlements where appropriate;’*

Selby District Local Plan 2005⁵

7.2.33. The Selby District Local Plan (‘SDLP’) was formally adopted on 8th February 2005. The following policies are relevant to the Site and the Proposed Development.

7.2.34. Policy ENV1 – Control of Development states:

‘Proposals for development will be permitted provided a good quality of development would be achieved. In considering proposals the District Council will take account of:

1. *The effect upon the character of the area or the amenity of adjoining*

⁵ Selby District Council (February 2005), *Selby District Local Plan* Available at: <https://www.northyorks.gov.uk/planning-and-conservation/planning-policy/planning-policy-your-local-area/selby-planning-policy/selby-development-plan/selby-district-local-plan-2005> Accessed September 2023

occupiers;

...

- 5. The potential loss, or adverse effect upon, significant buildings, related spaces, trees, wildlife habitats, archaeological or other features important to the character of the area;*

...'

7.2.35. Policy ENV3 relates to the provision of outdoor lighting and states that developments will only be permitted where lighting schemes:

- 1. 'Represent the minimum level required for security and/or operational purposes;*
- 2. Are designed to minimise glare and spillage;*
- 3. Would not create conditions prejudicial to highway safety or which would have a significant adverse effect on local amenity; and*
- 4. Would not detract significantly from the character of a rural area.*

Proposals for development involving outdoor lighting should incorporate details of lighting schemes as part of applications for development.'

7.2.36. ENV6 Proposals for the development of renewable energy will be permitted provided that:

- 1. 'The scheme will not have a significant adverse effect on the immediate and wider landscape;*
- 2. The scheme is located in close proximity to the electric grid or user buildings in order to keep new power lines to a minimum;*
- ...*
- 4. The proposal would achieve a high standard of design, materials and landscaping; and*
- 5. Adequate measures are incorporated to safeguard local amenity and highway safety during construction.*

Where appropriate, planning conditions will be used to secure the restoration of the site in the event of subsequent decommissioning.'

7.2.37. Policy ENV11 – Ancient Woodland states:

'Development will not be permitted where it is likely to cause loss of, or damage to, an ancient woodland, unless the reasons for the development outweigh the nature conservation value of the woodland.'

7.2.38. Policy ENV15 – Conservation and Enhancement of Locally Important Landscape Areas states:

'Within the locally important landscape areas, as defined on the proposals map, priority will be given to the conservation and enhancement of the character and quality of the landscape. Particular attention should be paid to the design, layout, landscaping of development and the use of materials in order to minimise its impact and to enhance the traditional character of buildings and landscape in the area.'

7.2.39. Paragraph 4.104 also notes that the landscape features of Hambleton Hough and Brayton Barff are defined as Locally Important Landscape Areas ('LILAs') due to their vegetative and topographical prominence over the otherwise low-lying landscape. It is also noted that the *'District Council will resist schemes that would be harmful to their character and scenic quality'*.

7.2.40. Policy ENV20 states:

'Where it is necessary because there is inadequate landscaping related to large-scale development or development at the edge of settlements, such proposals will be required to incorporate a substantial element of strategic landscaping (which may be off-site) as an integral part of the scheme.'

7.2.41. Policy ENV21 (A) states:

'Where appropriate, proposals for development should incorporate landscaping as an integral element in the layout and design, including the retention of existing trees and hedgerows, and planting of native, locally occurring species.'

7.2.42. Policy ENV22 states:

‘Development will not be permitted where it would have a detrimental effect on the character, fabric or setting of a listed building.’

Other Relevant Evidence Base

7.2.43. The North Yorkshire and York Local Nature Partnership Strategy⁶ (‘LNPS’) was adopted in 2014. It sets out a broad strategic approach to landscape and biodiversity across the North Yorkshire and York area. A series of themes and objectives are set out in the LNPS including the following:

Habitats and Species

- *Conserve, enhanced and create natural sites (e.g. wetland, woodland, grassland, rivers, geological assets).*
- *Strengthen natural corridors for species movement (e.g. river corridors, hedgerows, field margins, ponds).*

Economy

- *Enhance connections between nature and the local economy ...*
- *Improve the quality and use of the area's Green Infrastructure to attract appropriate inward investment.*

People and communities

- *Increase access to nature to improve public health (e.g. footpaths or multi-user trails, accessible natural/green space areas, promote outdoor activity, organised walks).*
- *Increase engagement with local communities on nature projects (e.g. project planning, practical volunteering, training and education).*

⁶ North Yorkshire and York Local Nature Partnership (June 2014), *North Yorkshire & York Local Nature Partnership Strategy* Available at: <https://www.nypartnerships.org.uk/sites/default/files/Partnership%20files/Environment/NYCC%20Local%20nature%20partnership%20strategy.pdf> Accessed September 2023

Climate change

- *Strengthen climate change mitigation through natural solutions (e.g. carbon storage through habitat work, reduced carbon emissions through increased walking and cycling).*
- *Strengthen climate change adaptation through natural solutions (e.g. flood water management, temperature regulation, habitat corridors).'*

7.2.44. The Yorkshire and the Humber Green Infrastructure Mapping Project⁷ was produced to 'help local authorities protect and create green infrastructure through their Local Development Frameworks'. The mapping project is intended to be used to:

- *'Protect green infrastructure;*
- *be a starting point for more detailed or localised green infrastructure work;*
- *increase awareness of where green infrastructure functions exist and how they complement each other;*
- *establish a baseline of green infrastructure from which change can be measured;*
- *inform planning decisions and development proposals;*
- *provide evidence for policy and strategy creation;*
- *form the basis of subregional delivery projects; and*
- *focus green infrastructure enhancement where gains can be maximised.'*

7.2.45. The mapping project identified strategic areas and networks of green infrastructure as shown on Figure 7.2, the Site is located partially within the regional corridor, R1: Aire, and to the south of regional corridor R9: Ouse. A sub-regional corridor, S22: Selby Central as identified in the mapping project is located to the north-west of the Site. Relevant information on these corridors is set out below:

- R1 Aire: *'much of the corridor is affected by flooding and the river valley*

⁷ Natural England (March 2010), *Yorkshire and the Humber Green Infrastructure Mapping Project*, Available at: https://webarchive.nationalarchives.gov.uk/ukgwa/20140605130551mp_/http://www.naturalengland.org.uk/Images/gi-mapscore_tcm6-20421.pdf Accessed September 2023

bottom is mainly undeveloped as a consequence. This creates greenspaces right into and through several urban areas which connect a large number of significant wildlife sites and are an important feature of the corridor’.

- R9 Ouse: *‘Green infrastructure throughout the corridor could be used to ameliorate flooding’.*
- S22 Selby: *‘Much of the corridor is made up of farmland, some of which was once marsh land but is now intensively cultivated arable farmland. Small areas of woodland and hedgerows are also prevalent. The main possibility for improved green infrastructure is in the section of the corridor that runs through the Selby Area Action Plan Area.’*

7.3. Assessment Methodology

- 7.3.1. A summary of the topic specific assessment methodology is outlined below with the full methodology in Appendix 7.1: Criteria and Definitions used in Assessing Landscape and Visual Effects. The assessment has been carried out in accordance with best practice guidance contained within the Guidelines for Landscape and Visual Impact Assessment (‘GLVIA3’)⁸.
- 7.3.2. In accordance with GLVIA3, this assessment addresses landscape and visual effects as separate issues. Landscape effects relate to both the effect on the physical features of the Site, and on the landscape character of the Site and surrounding area. Visual effects relate to the experience of views of the Proposed Development by visual receptors from publicly accessible vantage points in the study area. Where appropriate, the effects of the Proposed Development on residential receptors have also been assessed.
- 7.3.3. An initial desktop review of the Site and its context was undertaken, including a review of published landscape character information and relevant landscape and visual related planning policy, and analysis of landscape context, landform, landscape features and landscape designations.
- 7.3.4. A preliminary Zone of Theoretical Visibility (‘ZTV’) was prepared to inform field

⁸ Landscape Institute and Institute of Environmental Management & Assessment, *Guidelines for Landscape and Visual Impact Assessment* (3rd edn, 2013). London: Routledge.

surveys and the initial selection of photographic viewpoints included in the EIA Scoping Report (Appendix 2.1 of the PEIR). The preliminary ZTV was issued as part of the EIA Scoping Report and is included in Appendix 7.2: Viewpoint Correspondence.

- 7.3.5. The preliminary ZTV was based on a more extensive Site area and assumed a blanket 3m development height above ground level parameter across the Site. The study area for the preliminary ZTV included an area extending to 5km from the Site's boundaries which was considered appropriate given the anticipated height of the Proposed Development and the flat nature of the landscape.
- 7.3.6. To determine the extent of visual influence, a landscape and visual appraisal was undertaken of the Site and the preliminary study area to appraise the nature of existing views from publicly accessible viewpoints including roads, Public Rights of Way ('PRoW') and public open space. Consideration was also given to views from private residential properties, however access to private properties was not obtained. The initial field surveys were carried out in January 2022 over a three-day period, with 253 viewpoint locations appraised and photographed.
- 7.3.7. An initial selection of 37 representative viewpoints was made to demonstrate the character of the Site and its context and to represent the visual experience of visual receptors. Representative views are not intended to be exhaustive and do not cover every possible view of the Site. Rather, they have been selected to proportionately represent the range of views available, taking into account the activity and sensitivity of visual receptors. In accordance with the GLVIA3, the assessment of visual effects has been based on the identified visual receptors.
- 7.3.8. The initial field survey, carried out in winter conditions, confirmed a substantially reduced visual envelope than that indicated by the preliminary ZTV. Based on field surveys and the selection of viewpoints, and with a focus on the identification of likely significant visual effects, the study area was subsequently refined to the extents shown on Figure 7.2: Context and Designations Plan.
- 7.3.9. The initial selection of 37 viewpoints was included in the EIA Scoping Report and consulted upon with officers of North Yorkshire County Council (now North Yorkshire Council ('NYC')). A number of alternative viewpoints were considered and included through the consultation process, full details of which are included in Appendix 7.2: Viewpoint Correspondence.

- 7.3.10. Initial landscape and visual design advice was prepared based on the Site boundary submitted at EIA scoping stage. This included areas that were identified as being visually sensitive, for the most part as a result of proximity to existing settlements and individual dwellings. As a result of this process, and constraints identified by other consultants in the project team, the Site boundary was reduced. An updated ZTV, presented on Figure 7.1: Zone of Theoretical Visibility, was prepared based on the parameters of the Proposed Development, including differentiating between the areas of search for solar arrays and the battery storage and substation components of the scheme. The updated ZTV also accounted for the screening effect of existing vegetation and settlements in order to present a more accurate representation of the potential visual envelope of the Proposed Development.
- 7.3.11. Based upon the updated ZTV and the confirmed red line boundary for the Proposed Development, the selection of viewpoints to support the LVIA was further refined, with several viewpoints discounted due to a lack of visibility with the reduced extent of the Proposed Development. The study area for the assessment of likely significant landscape and visual effects was confirmed as remaining appropriate. No viewpoints further afield have been identified or requested by consultees through the process to date.
- 7.3.12. Field surveys were conducted in March 2023 to obtain up-to-date winter viewpoint photography of the Site (with the exception of two viewpoints). As set out in Appendix 7.2, the updated selection of representative viewpoints was provided to officers of NYC in March 2023, and an updated list of viewpoints as well as the proposals for visualisations was provided in May 2023. However, no further correspondence was received from officers.
- 7.3.13. A description of the existing baseline characteristics has been provided and includes reference to existing areas of settlement, transport routes and vegetation cover, as well as national and local landscape designations. These factors combine to underpin an understanding of landscape value and sensitivity and provide an indication of particular key views and viewpoints that are available to visual receptors.
- 7.3.14. A description of the visual baseline has been recorded with reference to the selected viewpoints and the ZTV. This includes an appraisal of the Site's visibility in the wider landscape, and the nature of existing views.

- 7.3.15. A series of landscape and visual receptors have been identified on the basis of the baseline appraisal. The value, susceptibility and resultant sensitivity of receptors have been determined.
- 7.3.16. Assessments have been carried out to identify the likely significant landscape and visual effects arising from the Proposed Development during construction, and at Years 1 and 15 after completion, the latter taking account of the residual effect with the benefit of established planting mitigation. An assessment of the effects resulting from decommissioning has also been carried out.
- 7.3.17. The level of potential effects is rated on a scale of negligible to major. This assessment is based upon professional judgement but in broad terms, where a receptor of high sensitivity experiences a substantial magnitude of change as a result of the Proposed Development, the level of effect is likely to be major. Conversely, where a receptor of low sensitivity experiences a negligible magnitude of change as a result of the Proposed Development, the level of effect is likely to be negligible.
- 7.3.18. In accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017, an assessment of whether or not the effect is considered 'significant' is required. In general, Major or Major/Moderate effects, whether negative or positive, are deemed to be 'significant'. However, in accordance with the GLVIA, any judgements on whether effects are 'significant' are subject to professional judgement. Moderate effects are not judged to be significant, but a concentration of moderate effects may have potential to result in significant effects.

Consultation

- 7.3.19. As set out above and in Appendix 7.2, extensive consultation was undertaken with officers of NYC in order to agree viewpoints and the approach to the LVIA. A summary of consultation responses and the way in which these have been addressed in the PEIR are set out in Table 7.1 below:

Table 7.1: Consultation Summary

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
PINS	EIA Scoping Opinion (14 th July)	Effects on night-time landscape and perception of the	This matter has been scoped out of the PEIR. A description of the lighting

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
	2022)	<p>night sky The Inspectorate is content to scope this matter out as the site is not designated for dark skies, no permanent lighting is required during operation and the lighting during construction and decommissioning is expected to be limited in in extent, intensity and duration. The ES should include a detailed description of the lighting design and the measures taken to avoid or minimise lighting impacts on the night sky, including consideration of effects relating to intermittent lighting sources such as motion activated security lighting.</p>	<p>design and measures taken to avoid or minimise lighting impacts is set out in Chapter 3 Site and Development Description of this PEIR.</p>
PINS	EIA Scoping response (14 th July 2022)	<p>The full extent of the preliminary ZTV and subsequent study area is not defined in the Landscape and Views Chapter whereas it is defined in the Cultural Heritage Chapter. Figures 7.1 and 7.2 depict the ZTV however, potential visibility of the site overlaps the edges of the map therefore its full extent is unknown. Additionally, the Scoping Report does</p>	<p>The preliminary ZTV provided at scoping stage was prepared to inform field surveys and the selection of viewpoints, as well as the proposed study area in accordance with the GLVIA. The extents of the preliminary ZTV drawing equated to an area of land extending to approximately 5km from the site boundary. Whilst the ZTV was shown extending beyond the edges of the drawing, it was considered highly unlikely that the Proposed Development would result in significant visual effects beyond this distance.</p>

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
		<p>not establish the tallest elements of the Proposed Development that influence the ZTV (please see box 2.1.1 above). The ES should ensure that the final extent of the ZTV reflects the maximum parameters of the Proposed Development where relevant. Effort should be made to agree appropriate ZTVs with relevant consultation bodies.</p>	<p>Field surveys, carried out on early 2022, confirmed that the Site has a considerably smaller visual envelope than indicated by the ZTV, and no viewpoints were identified (or requested by consultees) with visibility of the Site beyond the extents of the drawing, with the furthest viewpoint located at Hambleton Hough, approximately 5.2km north-west from the Site, on high ground within a wider landscape that is notably flat and low-lying. A new preliminary ZTV has been prepared based on the revised site boundary which accounts for the anticipated maximum height of the different elements of the Proposed Development. The revised Preliminary ZTV was provided to officers of NYC as detailed below.</p>
	<p>EIA Scoping response (14th July 2022)</p>	<p>Scoping Report paragraph 7.8.6 states that representative viewpoints will be finalised following consultations with NYCC and their anticipated locations are provided on Figure 7.2. The ES should explain the process used to determine appropriate viewpoints through the consultation process and should take into account topography, long-distance views and the setting of heritage receptors.</p>	<p>The process by which viewpoints were selected and agreed is set out in section 7.3 above. A record of consultations with NYCC/NYC is set out in Appendix 7.2</p>

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
	EIA Scoping response (14 th July 2022)	Scoping Report paragraph 7.8.3 states that ' <i>mitigation planting will be assumed to grow approximately 1m in height every 3 years</i> '. It is not clear on what basis this assumption has been made, i.e. what plant species are proposed. Where assumptions have been made, the ES should explain why these are realistic based on relevant guidance where appropriate.	The basis for the assumed growth rate of mitigation planting is set out in paragraph 7.3.20 below.
Long Drax Parish Council	EIA Scoping response (14 th July 2022)	The parish of Long Drax includes the land on Wren Hall Lane where the small remote development area is. Some mitigation using screen planting will be required to reduce visual impact.	The areas included in the Site boundary for scoping around Wren Hall Lane have been removed from the Site.
National Grid	EIA Scoping response (4 th July 2022)	If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.	These measures have been incorporated into the design of the Proposed Development's landscape scheme. The measures required for the management of vegetation on the Site will be set out in in a Landscape and Environmental Management Plan ('LEMP') and secured as a requirement of the DCO.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	The quantity and location of representative	A record of consultation on viewpoint locations is included in Appendix 7.2. Comments

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
	2022)	viewpoints are the subject of ongoing consultation with the Applicant and are not yet agreed.	were received from NYC in August 2022, resulting in a number of changes to the viewpoints. Changes were also made to reflect the revised Site boundary. Updated viewpoint proposals were issued to NYC in 2023. However, no further correspondence was received and the viewpoints are assumed to be agreed for the purposes of the PEIR.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	In relation to landscape and visual amenity we are generally supportive of an LVIA methodology undertaken to GLVIA3. This should also include photography to current LI guidance on 'Visual Representation of Development Proposals',	All representative viewpoint photography has been prepared in accordance with the Landscape Institutes TGN 06/19 – 'Visual Representation of Development Proposals'.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	Landscape character and visual amenity of heritage assets should also be considered in the LVIA (contribution of setting to heritage significance would be considered in the Heritage Chapter of the EIA).	The assessment of sensitivity of landscape and visual receptors includes consideration of historical or cultural associations in accordance with GLVIA3 and the LVIA Methodology. However, heritage assets are not receptors for the assessment of visual effects. The assessment of visual effects is based on the experience of people who have views of the Proposed Development. The potential impact on the setting of heritage assets is fully considered in Chapter 6 Cultural Heritage of the PEIR.
NYCC (now NYC)	EIA Scoping response	We would support the proposal for an	The initial study area of 5km has been refined based on

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
	(4 th July 2022)	initial 5km radius study area for the LVIA, this could be subsequently reduced if appropriate to focus on likely significant effects.	field surveys and the selection of representative viewpoints, in order to focus on the likely significant effects. The approach to the study area identification is set out in section 7.3 above.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	There is potential for the development to adversely affect existing boundary trees and vegetation. This should be reviewed, protected and retained where appropriate. A tree survey and arboricultural impact assessment will be required to BS5837:2012. This is important if boundary vegetation is needed for ongoing screening of the site.	A tree survey was carried out in accordance with BS5837:2012 and an Arboricultural Impact Assessment of the Proposed Development is included in the PEIR (Appendix 8.6). The design of the Proposed Development includes the wholesale retention and reinforcement of existing field boundary vegetation with minimal hedgerow removal to facilitate access where required.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	The operational life of the proposed scheme should also be taken into account. We would wish to see certainty that site vegetation would be retained during the maintenance management period and not later removed as a consequence of the development	Existing and proposed vegetation will be maintained throughout the operational lifetime of the Proposed Development. The measures to provide for the long-term successful establishment of proposed planting and existing landscape features will be set out in the LEMP and secured as a requirement of the DCO.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	Temporary access, storage and working areas – these should be taking into account as part of the assessment.	The provision of access, storage and working areas during the construction phase is considered with reference to the parameters as set out in Chapter 3 Site and Development Description and Chapter 5 Construction &

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
			Decommissioning Methodology & Phase of the PEIR.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	<p>The quantity and location of representative viewpoints are the subject of ongoing consultation with the Applicant and are not yet agreed. Certain viewpoints might benefit adjustment in order to get a clear view of the scheme. We would welcome further discussion to agree final viewpoints.</p> <p>The principle of using representative viewpoints to illustrate the experience of different types of visual receptor is acceptable, however the assessment should aim describe and assess the full effects of the development (not limited to a summary of viewpoints) and to explain the scale and geographical extent of effects</p>	Following confirmation of the Site boundary for the purposes of the PEIR, a refined selection of representative viewpoints has been identified taking into account the extent and nature of the Proposed Development and comments received from NYC. As set out in Appendix 7.2, the refined viewpoints were provided to NYC, however no response has been received and are assumed to be agreed for the purposes of the PEIR.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	We would suggest that for annotated photo-panoramas TGN 06/19 Type 1 or additional wirelines to TGN 06/19 Type 2 are most appropriate. For viewpoints selected for photomontages I would suggest at	All representative viewpoints have been presented as Type 1 annotated panoramas. For those selected to be suitable for presentation of visualisations, Type 3 photomontages have been included. For all visualisations, fully rendered visualisations showing the indicative scheme design

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
		<p>least Type 3, but Type 4 should be considered where sensitivity of context, scale and proximity of the development warrant it. I would wish to see a realistic impression of scale and detail. We would wish to see photomontages to explain how adverse effects will be mitigated over time. Photographs should include winter views where possible to explain the worst-case scenario.</p>	<p>have been included. The indicate scheme design is based on the maximum parameters for height and extent. All visualisations include Year 1 and Year 15 views to demonstrate the screening effect of proposed landscape mitigation over time. Due to project timeline constraints, the visualisations have been based on spring views, however updated winter views will be provided alongside the Environmental Statement ('ES') to be submitted with the DCO application. The assessment of landscape and visual effects has included for the likely seasonal variation in visibility with reference to the Type 1 winter viewpoint photography, and therefore considers the worst-case scenario of visibility.</p>
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	<p>Appendix 3 and 4 in TGN 06/19 should be noted, with camera / tripod height / position in the field adjusted as necessary so that views show the full extent of the site / development and show the effect it has upon the receptor location. Views of the site should not be unnecessarily obscured by buildings, roadside hedgerows or other vegetation.</p>	<p>All photography has been presented in accordance with TGN 06/19. The views have been selected to demonstrate the range of views towards the Site, which in some instances includes intervening vegetation that screens or filters the Site.</p>
NYCC (now NYC)	EIA Scoping response (4 th July)	Assessment of Tranquillity – There is potential for	The potential effects of the Proposed Development on tranquillity have been

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
	2022)	significant adverse noise effects associated with construction, decommissioning activities, and operational noise arising from static plant installations (inverter stations and energy storage containers). Consideration should be given to assessment of tranquillity and effect on local character and setting, particularly in relation heritage and other local sensitive receptors such as residential properties. PRow, local farmsteads. We would wish to agree a methodology and approach for this.	considered in relation to the character of the Site. This is in accordance with GLVIA3 which requires consideration of a landscape receptor's tranquillity in order to assess sensitivity. The overall tranquillity of the Site has also been included as a separate receptor to provide further detailed consideration of this aspect. Noise effects on receptors are assessed in Chapter 11 Noise and Vibration of the PEIR. Effects on heritage receptors are set out in Chapter 6 Cultural Heritage of the PEIR.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	Cumulative Effects – the LVIA should consider cumulative landscape and visual effects in conjunction with other similar developments in the study area including those currently being considered or approved by planning authorities but not yet implemented.	A cumulative assessment is included in section 7.8 'Cumulative Effects' of this chapter.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	Landscape Proposals, Mitigation, Maintenance and Aftercare – We would wish to see mitigation proposals considered as part of	Landscape mitigation proposals are set out in section 7.5 'Likely Significant Effects' of this chapter. This includes a description of the overall objectives for the landscape strategy as well as the evolution of the scheme

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
		<p>a landscape strategy which includes a masterplan and which considers Green Infrastructure in a wider context. Initially, the Landscape Strategy should focus on overarching principles with clear aims and objectives. Objectives should be clear and include landscape, biodiversity and green infrastructure. Landscape and visual mitigation should drive the strategy and be linked through to the management plan (rather than just a maintenance schedule). Landscape proposals and mitigation should have regard for and contribute to the wider landscape character, connectivity of green infrastructure and sustainable transport (Selby DC policy SP12, SP18, SP19, ENV1). The principles of the European Landscape Convention need to be taken into account. Selby DC policy SP12 states 'In all circumstances opportunities to protect, enhance and better join up existing Green</p>	<p>from first principles to the detailed mitigation strategy embedded as part of the Proposed Development. A LEMP will be provided alongside the ES to be submitted with the DCO application.</p>

Consultee	Type and Date	Summary of Consultation Response	Response to Consultee
		Infrastructure, as well as creating new Green Infrastructure will be strongly encouraged, in addition to the incorporation of other measures to mitigate or minimise the consequences of development'.	
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	Proposed screen planting should be sufficient to screen and reduce the overall of visibility of the proposed development (e.g. at least 10m wide is usually needed for long-term woodland boundary screen planting incorporating larger trees). Wider areas of woodland may also be needed to reflect local setting and achieve wider GI benefits.	The mitigation strategy includes a number of tree belts that have been proposed to screen key views of the Proposed Development. The width of tree belts varies according to a number of constraints on the Site, including watercourse buffers, utilities and existing field pattern. However, in general, the aim has been to provide 15m wide tree belts wherever possible.
NYCC (now NYC)	EIA Scoping response (4 th July 2022)	Long-term maintenance and management should be considered, particularly where this is needed for ongoing mitigation, screening and biodiversity benefit. Sufficient stand-off distance should be provided from existing trees and vegetation where these are to be retained and protected and to allow maintenance access.	Suitable buffers have been included for all existing vegetation, as set out in Appendix 8.6 Arboricultural Impact Assessment of the PEIR. The long-term maintenance measures for the establishment of proposed features and enhancement of existing features will be set out in the LEMP and secured as a requirement of the DCO.

Limitations and Assumptions

7.3.20. In undertaking the Landscape and Visual assessment of the Site and wider surrounding area, there are a number of limitations and constraints affecting the outputs from this work. These include:

- The baseline assessment has been based on information readily available at the time of undertaking the assessment;
- During site visits, weather conditions, the time of day and seasonal factors have influenced the visual assessment and photographic record of the Site. Every effort has been made to ensure that the photographs and their locations are 'representative' of the Site and its surroundings;
- Access to assess the predicted visual effects from private individual properties outside the Site has not been obtained. As a result, the assessment of likely visual effects has been made from vantage points with representative views taken from the nearest available public viewpoint (viewpoints that have been extensively consulted upon with NYC) in combination with the views available from the Site itself;
- Due to project programme constraints the photographs that form the basis of visualisations are spring views. However, winter baseline photography has also been provided for all representative viewpoints. Wherever there is likely to be seasonal variation in the significance of effects, this has been taken into account to ensure the worst case has been assessed; and
- Mitigation planting has been assumed to grow approximately 1m in height every 3 years. The growth rate will naturally vary according to species, soil conditions, sunlight, general climate and microclimate, management and maintenance. The assumption is based on detailed technical sources such as the *Manual of Woody Landscape Plants*⁹. However, information on growth rates of trees and shrubs is freely available from various online sources such as the Woodland Trust¹⁰. This particular online source demonstrates that the assumed

⁹ Dirr, M.A. (1990). *Manual of woody landscape plants: their identification, ornamental characteristics, culture, propagation and uses*. Champaign: Stipes Publishing Company

¹⁰ Trust, W. (n.d.). *Fast growing trees for your garden*. [online] Woodland Trust. Available at: <https://www.woodlandtrust.org.uk/blog/2018/10/fast-growing-trees/>.

figure for plant growth is at the lower end of the ranges identified for some species included in the proposed landscape scheme (e.g. Hazel (*Corylus avellana*) – 40-60cm/year; Silver birch (*Betula pendula*) – 40cm/year); and

- The assessment of landscape and visual effects has been undertaken based on design and technical information available at the time of its preparation for this PEIR stage. The assessment will be finalised in the ES, including consideration of any new or updated material.

7.4. Baseline Conditions

- 7.4.1. The following descriptions are based on a baseline timeframe of winter (2022/2023), and therefore considers a maximum visibility scenario, in accordance with paragraph 6.28 of the GLVIA3.

Site Context

Location and Land Use

- 7.4.2. Figure 7.2: Site Context and Designations Plan demonstrates that the Site occupies a broad and extensive cluster of connected parcels defined by the existing agricultural field pattern, with a narrow projection of land to the east that comprises the proposed grid connection route.
- 7.4.3. The area of the Site not including the Underground Cable Corridor for the connection to the grid in the north-eastern part of the Site shown on Figure 3.2 Parameter Plan of the PEIR (the ‘main part of the Site’) sits within a wider area of primarily agricultural land bounded to the north-east by the A1041, to the west by the Selby branch of the East Coast Mainline railway and to the south by Hirst Road. This landscape is characterised by large, regular shaped arable fields delineated by partially denuded hedgerows or drainage ditches.
- 7.4.4. The landscape of the study area is predominantly characterised by open agricultural land. However, a number of towns and villages are present, most notably including Selby, the principal settlement within the study area which is located approximately 1.5km north of the Site at its closest point. Several smaller settlements are dispersed throughout, including Camblesforth, Hirst Courtney, Temple Hirst, Carlton, Drax, Barlow and Burn. Farmsteads and clusters of agricultural buildings, some of substantial scale, are also present within the landscape. Of particular note are large

greenhouse complexes to the north-east of Camblesforth, and immediately to the south of the Site near Hirst Courtney.

- 7.4.5. The study area is strongly influenced by industrial built form and infrastructure, with Drax Power Station a dominant feature in the landscape. The industrial complex occupies an area of approximately 160 hectares ('ha'), lying adjacent to the eastern extent of the Site, and approximately 1.5km north-east of the Site boundary.
- 7.4.6. There is also large scale industrial built form at the site of Eggborough Power Station, approximately 3km south-west of the Site. However, this facility was in the process of demolition during the baseline appraisal and it is understood that the demolition works are now complete. Planning approval for an industrial and logistics warehouse park in its place has been secured.
- 7.4.7. Burn Airfield occupies a broad area of land to the west of the Site (approximately 230m away at the nearest point). This site is now primarily used for gliding operations and is operated by Burn Gliding Club.
- 7.4.8. High voltage power lines are a notable feature in the landscape; one crosses the Site from north-east to south-west linking Drax and Eggborough Power Stations, and the second extends in a south-westerly direction from Drax Power Station towards Carlton to the south of the Site. It is understood that the substation and overhead power lines at Eggborough will be retained even once the plant is decommissioned.

Transport

- 7.4.9. Transport routes are a notable feature of the Site's context, with the M62 motorway and A63 extending on east-west alignments in the southern and northern extents of the study area, respectively.
- 7.4.10. The A1041 extends southwards from Selby to Camblesforth, defining the north-eastern limits of the Site, before continuing south to Carlton. The A645 extends eastwards from Camblesforth to Drax (power station and village), with approximately 2km of the road included within the Underground Cable Corridor to the grid connection within the north-eastern part of the Site (shown on Figure 3.2 Parameter Plan of the PEIR), while Hirst Road extends to the west from Carlton to Hirst Courtney and Temple Hirst. A network of minor roads and lanes is present throughout the local landscape containing the Site, many of which are also PRoWs.

- 7.4.11. Railway lines are also a common feature within the study area with the Coast Mainline Selby branch to the east of the Site and the Drax Power Station Railway Connection to the south-east, both passing within approximately 200m of the Site boundary.

Topography and Hydrology

- 7.4.12. At a regional scale, the Site is located within the Humberhead Levels, an expansive area of flat, low-lying land centered on the headwaters of the Humber Estuary.
- 7.4.13. The landform of the study area is illustrated on Figure 7.3: Topography Plan, which shows that the site is virtually flat, lying at approximately 3m – 11m Above Ordnance Datum ('AOD') with an almost imperceptible fall from west to east. The wider landscape is similar, with the only exceptions to the otherwise low-lying level landscape comprising two hills in the north-west of the study area (Hambleton Hough, 46m AOD and Brayton Barff 55m AOD), and a large, partially remediated ash heap to the north of Drax Power Station. This latter feature is not publicly accessible.
- 7.4.14. The Rivers Aire and Ouse are the dominant hydrological features of the Site's wider context, broadly flowing from east to west across the southern and northern extents of the study area, respectively. At its nearest point, the River Aire passes within approximately 750m of the Site's southern boundary, near Hirst Courtney, while the River Ouse is approximately 2.25km away at its nearest point.
- 7.4.15. A network of drainage ditches lines the boundaries of many fields throughout the low-lying landscape of the study area.

Vegetation

- 7.4.16. The vegetation pattern of the study area is generally sparse, typified by large arable fields bounded by hedgerows and tree belts that are often denuded, or in some cases completely open. A limited number of small, often rectilinear shaped areas of woodland are also present throughout the study area, including several which lie adjacent to the main part of the Site. In places, there are also robust tree belts lining transport features, such as road and rail routes.

Public Rights of Way

- 7.4.17. As demonstrated by Figure 7.2, the Site and study area are well-served by a network

of PRowS which cross the Site and the wider landscape, often following farm tracks or rural lanes. Of particular note to this assessment are:

- PRow 35.18/16 and 35.17/U8106/50, a semi-continuous route through the south-eastern part of the Site between Carlton and the western edge of Camblesforth. The middle section of this route is not defined as a PRow, but appears to be well used by members of the public. The physical path on the northern part of PRow 35.18/16 does not follow the defined route, instead following the nearest field boundary to the west;
- PRow 18/U975/70 (Stockwith Lane) and 35.18/U974/70 (Race Lane) which extend towards and through the southern part of the Site from the south-east;
- PRow 35.38/2/1, which extends across a short section of an arable field within the Site between Old Lane and Brick Lands Lane (no physical route was identified during the site visit and analysis of aerial mapping dating back to 2002 shows this route is unlikely to be used);
- A cluster of PRow within the Site's north-western extent (14/12/1, 14/20/1, 14/11/3, 14/14/1, 14/13/1, 14/14/2, 14/8/3, 14/11/4 and 17/1/1); and
- PRow 18/2/2 and 18/14/1, which cross a central point within the main part of the Site.

7.4.18. The Trans Pennine Trail long distance walking and cycling route extends south from Selby and passes through the eastern extent of Burn Airfield, approximately 230m west of the Site boundary. It subsequently extends eastwards and southwards via and then east along Hirst Road to Carlton, typically at a range of 300-400m from the Site boundary. It primarily follows hard-surfaced paths, including local roads, and passes through settlements within the study area.

Designations

7.4.19. The Site is not designated in landscape terms, and there are no national designations for landscape or scenic beauty within the study area. However, the following designations within the Site's context as shown on Figure 7.2 are of note:

- Kerrick Spring Wood, located adjacent to the Site's south-eastern boundary is designated Ancient Woodland;
- There are several Conservation Areas within the study area, the nearest of

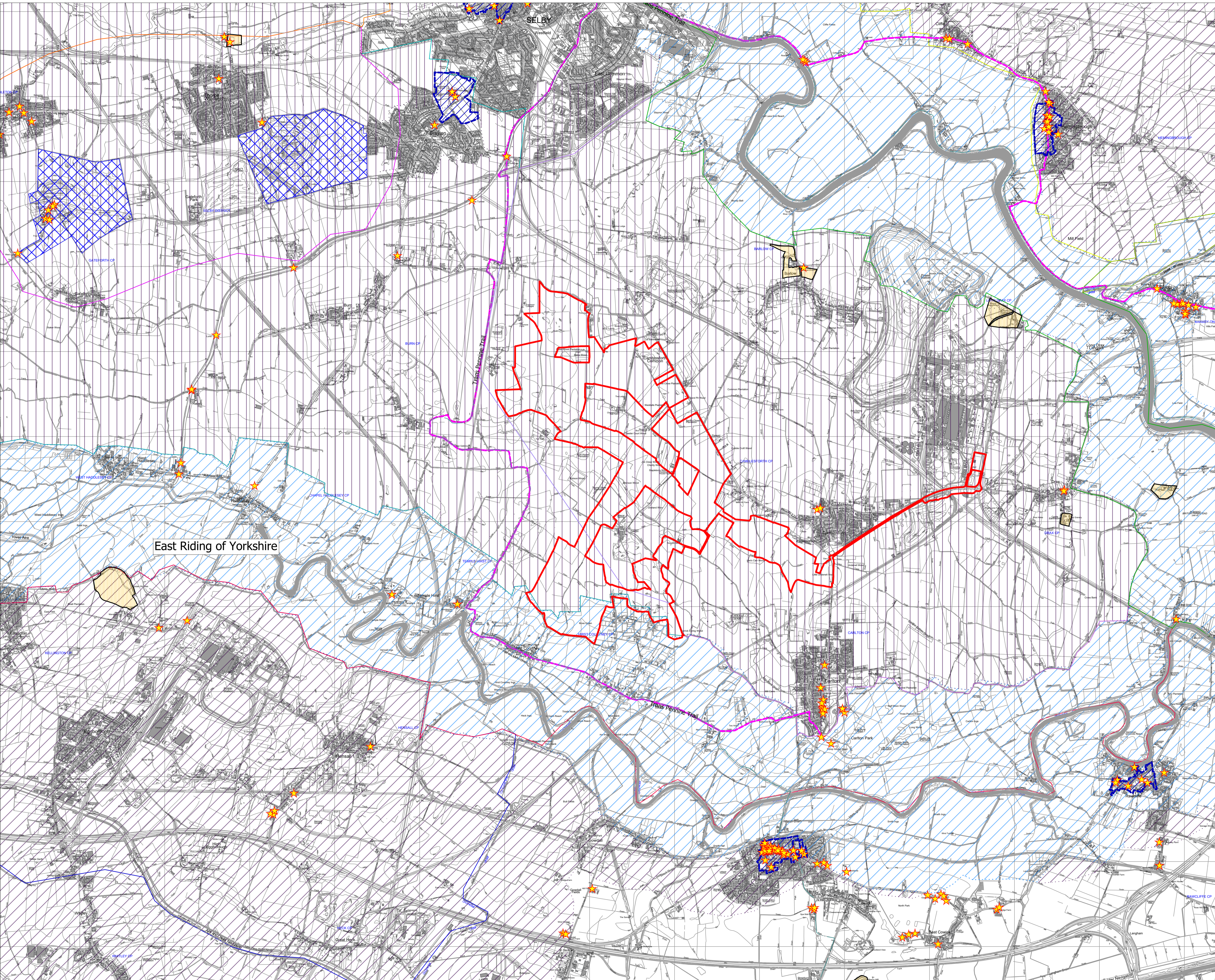
which is 2km north within Selby;

- As noted under the policy section, Brayton Barff and Hambleton Hough, approximately 3.05km and 5.5km north-west of the Site respectively, are designated under local policy as LILAs;
- Listed Buildings are dispersed throughout the study area, including most notably:
 - Manor Farmhouse (Grade II) located in Temple Hirst, approximately 810m from the Site;
 - Church of St Mary (Grade II*) located in Carlton, approximately 950m from the Site;
 - Carlton Towers (Grade I) located in Carlton, approximately 1.43km from the Site; and
 - Camblesforth Hall (Grade 1) and an associated Dovecote (Grade II) located within Camblesforth, approximately 385m from the Site at its nearest point.

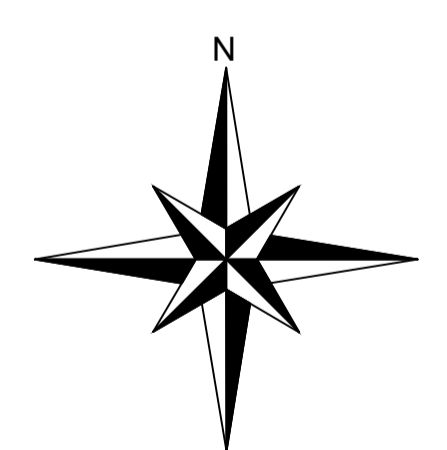
Landscape Character

- 7.4.20. Landscape character assessment is a descriptive approach that seeks to identify and define the distinct character of landscapes that make up the country. It recognises the role of all landscapes, not just 'special' landscapes, as contributing factors in people's quality of life, in accordance with the European Landscape Convention. It also ensures that account is taken of the different roles and character of different areas. The description of each landscape is used as a basis for evaluation in order to make judgements to guide, for example, development or landscape management.
- 7.4.21. Figure 7.4: Landscape Character Plan illustrates the extent of landscape character areas in the vicinity of the Site, as featured in published assessments.

Figure 7.4 Landscape Character Plan



- KEY**
- Site Boundary
 - Sustrans Cycle Route +
 - National Trails # / Long Distance Walks ^
 - Listed Buildings ~
 - Conservation Area #/##
 - Scheduled Monument ~
 - Locally Important Landscape Area (Policy ENV15)
- NORTH YORKSHIRE LANDSCAPE CHARACTER TYPES**
- LCT 23 - Levels Farmland
 - LCT 24 - River Floodplain
 - Urban Landscapes
- SELBY DISTRICT LANDSCAPE CHARACTER AREAS (2019)**
- LCA 15 - Camblesforth Farmland
 - LCA 7 - Aire Valley
 - Eggborough
 - Southern Farmland
 - LCA 13 - Haddlesey Farmland
 - Hambleton Sandstone Ridge
 - Ouse Valley
 - Sherburn Farmland
 - East Selby Farmland
 - Derwent Valley



Project Title:
Helios Renewable Energy Project

Drawing Title:
Landscape Character Plan

DRWG No: Figure 7.4	Rev: 0	Sht no: -
Drawn by: JM	Checked by: JM	
Scale: 1:20,000 @ A1	Date: AUGUST 2023	

National Character Assessment¹¹

- 7.4.22. Natural England has produced a Countryside Character Map of England that defines a series of National Character Areas ('NCAs'): broad areas of consistent landscape character. The Site and study area lie entirely within NCA 39: Humberhead Levels.

NCA Profile 39: Humberhead Levels

- 7.4.23. NCA 39 is described as *'a flat, low-lying and large scale agricultural landscape bounded to the west by the low ridge of the Southern Magnesian Limestone and to the east by the Yorkshire Wolds (north of the Humber) and the Northern Lincolnshire Edge with Coversands (south of the Humber).'*
- 7.4.24. The NCA also comprises several sites of international significance for biodiversity, designated as Special Protection Areas and/or Special Conservation Areas. In addition, *'the whole area is characterised by long views and big open skies.'*
- 7.4.25. The NCA profile identifies the following key characteristics, of relevance to the site:
- *'A low-lying, predominantly flat landscape, with large, regular and geometric arable fields without hedges but divided by ditches and dykes, many of which form important habitats and key corridors for species movement.*
 - *Much of the land is at or below mean high-water mark and maintained by drainage, with fertile soils giving rise to one of the most productive areas for root crops and cereals.*
 - *Variations in underlying deposits create differences within the overall flat farmed landscape, including lowland raised mires and lowland heathland, many of which are of international ecological and historical importance.*
 - *Sandy deposits give rise to lowland heath, which in places supports remnant birch and oak woodlands, with some conifer plantations.*
 - *Heavier soils around Fishlake and Sykehouse result in a smaller scale pastoral landscape, with small, thickly hedged fields, ditches and ponds, and a network of small lanes.*

¹¹ Natural England (September 2014), National Character Area profiles, Available at: <https://www.gov.uk/government/publications/national-character-area-profiles-data-for-local-decision-making/national-character-area-profiles> Accessed September 2023

- *Important historic landscapes include the Isle of Axholme, with evidence of mediaeval open fields, the warps (land enriched by regular silting) near Goole and cables (long thin strip fields) around Thorne.*
- *Widespread evidence of drainage history, in particular the extensive drainage from the 17th century, revealed through canalised rivers, dykes, old river courses, canals, bridges and pumping stations.*
- *Views to distant horizons are often long and unbroken, with big expansive skies, and vertical elements like water towers, power stations and wind turbines are very prominent.*
- *Floodplains, washlands and traditionally grazed alluvial flood meadows (or ings) associated with the major rivers and canals that cross the Levels give rise to important wetland habitats, supporting large numbers of wetland birds and wildfowl, especially over winter.*
- *The waterlogged soils hold internationally important archaeological and palaeo-archaeological deposits.*
- *Despite settlements, motorways and main roads, there is still a sense of remoteness to be experienced on the Levels, in particular on Thorne and Hatfield Moors and along the Lower Derwent Valley'*

County Character Assessment

*North Yorkshire and York Landscape Characterisation Project, 2011*¹²

- 7.4.26. The North Yorkshire and York Landscape Characterisation Project identifies a series of broad scale Primary Landscape Units, which correlate roughly with the Natural England NCAs. The document subsequently breaks down the landscape into smaller Landscape Character Types ('LCTs').
- 7.4.27. The Site is within the Farmed Lowland and Valley Landscapes Primary Landscape Unit. It is almost entirely contained within LCT 23 Levels Farmland, with a small area of the southern part of the Site lying within LCT 24 River Floodplain. These two LCTs make up the bulk of the study area, with only the settlement area of Selby within a

¹² Chris Blandford Associates (May 2011), *North Yorkshire and York Landscape Characterisation Project*, Available at: <https://www.northyorks.gov.uk/environment-and-neighbourhoods/conservation/describing-and-understanding-our-landscape> Accessed September 2023

separate LCT (Urban Landscapes).

LCT 23: Levels Farmland LCT

7.4.28. LCT 23 Levels Farmland is described as a 'large-scale farmland landscape' with the following key characteristics:

- *'Predominantly flat, low-lying landscape which encompasses a patchwork of arable fields;*
- *Large scale, open and rectilinear field pattern;*
- *Dykes or ditches often form field boundaries, with a general absence of hedgerows;*
- *Industrial scale farm buildings, large embankments and drains, and major energy and transport infrastructure contribute human elements;*
- *Historical features, such as windmills, recording past attempts to drain the landscape are key features.'*

7.4.29. A series of definitive attributes are set out for LCT 23, including the following of most relevance to the Site:

- *'Predominantly flat and lies below 10 metres AOD;*
- *Crossed by several rivers running west-east;*
- *...*
- *Covered by predominantly arable fields, with small patches of improved grassland;*
- *Pockets of suburban land and relatively large areas of deciduous woodland are also scattered throughout this Landscape Character Type*
- *Patches of remaining wetlands*
- *A large proportion of the landscape within this Landscape Character Type is covered by large-scale modern improved fields which are divided by drainage ditches*
- *There are also several modern airfields*
- *Situated amongst the modern fields there are also a couple of areas of planned parliamentary enclosure consisting of medium sized semi-*

irregular enclosure

- *Contains several villages and the town of Selby, which is located on a crossing point of the River Ouse*
- *Properties tend to be scattered along minor roads*
- *Contains significant infrastructure developments including two airfields, a major power-station at Drax, several railway lines, including the East Coast Main Line, and several rows of electricity pylons’.*

7.4.30. The analysis also highlights a number of ‘Forces for Change’ that are relevant to the LCT, including the following:

- *‘Agricultural intensification has led to loss of wetland habitats;*
- *Changes in agricultural practices threaten alluvial flood meadows (known as Ings) which are important for their wetland vegetation and as habitats for wintering and migrating birds;*
- *Ongoing management of ditches is important in this landscape;’*

7.4.31. The following sensitivity to change issues are set out for LCT 23:

- *‘High visual sensitivity as a result of the predominantly open character and flat landform, which facilitates long distance open views across the landscape and promotes strong intervisibility with adjacent Landscape Character Types;*
- *Low ecological sensitivity, resulting from the fact that much of this Landscape Character Type encompasses improved agricultural land.*
- *Moderate landscape and cultural sensitivity as a result of the presence of a patchwork of historic drainage features (ditches and dykes), moated sites and grange sites.’*

LCT 24: River Floodplain

7.4.32. LCT 24 is described as a series of river corridors, ‘often lined with trees and lush, diverse vegetation’ with a relatively enclosed character which is noted as contrasting with ‘the open exposed nature of the adjacent flood meadows and lowland landscapes’. The LCT is also noted for being a ‘historically rich habitat is also notable for its considerable nature conservation value including flood meadows, neutral

grasslands and floodplain mires'.

7.4.33. 'Definitive Attributes' for LCT 24 include the following:

- *'Relatively broad river corridors, containing the river floodplain of several major river courses*
- *Network of drainage ditches are a key landscape feature*
- *A patchwork of small scale arable and improved grassland fields, interspersed with small patches of fen, marsh and swamp, inland bare ground and calcareous grassland*
- *Sinuuous belts of modern fields, following the course of the river corridor are features*
- *Interspersed with these are pockets of piecemeal enclosure, parkland, irregular strip fields and lowland meadow*'.

7.4.34. The following key characteristics are identified for LCT 24:

- *'A series of flat, low lying, relatively narrow river corridors which flow through the different types of Vale Farmland Landscape Character Types within the Study Area;*
- *The 'Ings' - flood meadows maintained by traditional hay making activities;*
- *Landscape pattern comprises a mixture of flood meadows, neutral grasslands and floodplain mires;*
- *Halls and manor houses are key landscape features;*
- *River engineering features such as Levees assert a human influence over the landscape;*
- *Power stations, pylons and former collieries are present in parts of this Landscape Character Type;*
- *The A1 (M) introduces a source of noise and visual intrusion in several places.'*

7.4.35. Forces for change for LCT 24 include:

- *'Pasture improvement and arable expansion threaten areas of ridge and furrow and other historic earthworks, as well as the remnants of traditional*

farming such as grazing meadows;

- *Lowering of the water table as a result both of drainage and pumping to abstract water for irrigation, has led to loss of habitats and old water courses, and dried out peats, allowing wind erosion and damage to historic features. Warping drains have also been filled in and ploughed over;*
- *Agricultural intensification has led to loss of hedges, trees and small woods, making a traditionally open landscape even more open;*
- *Changes in agricultural practices threaten alluvial flood meadows (known as Ings) which are important for their wetland vegetation and as habitats for wintering and migrating birds’.*

7.4.36. Also highlighted are ‘Sensitivity to Change Issues’ which include:

- *‘High visual sensitivity as a result of the predominantly open character and flat landform, which facilitates long distance open views across the landscape and promotes strong intervisibility with adjacent Landscape Character Types;*
- *High ecological sensitivity as result of the patchwork of fen, flood meadows, floodplain mires, marsh and swamp, inland bare ground and calcareous grassland habitats...*
- *High landscape and cultural sensitivity as a result of the presence numerous historic settlement sites, archaeological sites and designed landscapes, coupled with a dynamic landscape pattern of narrow river corridors.’*

Selby Landscape Character Assessment, 2019¹³

7.4.37. The Selby Landscape Character Assessment identifies the Site as lying within the following Landscape Character Areas (‘LCAs’):

- LCA 7: Aire Valley;
- LCA 13: Haddlesey Farmland; and

¹³ LUC on behalf of Selby District Council (November 2019), Selby Landscape Character Assessment, Available at: <https://www.selby.gov.uk/sites/default/files/Selby%20LCA%20Report%20Combined.pdf> Accessed September 2023

- LCA 15: Camblesforth Farmland.

LCA 7: Aire Valley

7.4.38. LCA 7 is described as an elongated linear river corridor with the following key characteristics:

- *‘Flat, low-lying floodplains to the north and south of the meandering River Aire, which widens further downstream.*
- *High river banks are frequently densely vegetated with shrub, natural grassland and occasional trees, partially isolating the river from view.*
- *Patchwork of fields use primarily for arable farming, defined commonly by ditches, dikes and hedgerows with occasional hedgerow trees.*
- *Areas of wetlands, marshy grasslands and fen located within the floodplain, which offer high nature conservation value.*
- *Power stations and pylons form distinctive human elements visible from within this landscape.*
- *Numerous bridges cross the River Aire, including the A1 in the west.’*

7.4.39. LCA 7 is also characterised as a ‘flat landscape with limited tree cover creates a sense of exposure with open views across the landscape. Limited access in places, and the small scale of settlement, contributes to a sense of tranquillity. Power stations and pylons form distinctive human elements visible from within this landscape, having localised effects on rural character and associated tranquillity.’

7.4.40. A series of ‘Key Sensitivities’ are identified, including the following:

- The landscape ‘*may be sensitive to relatively small changes*’ due to its flat, open nature;
- Whilst identified as a predominantly intensively farmed landscape, ‘*locally important water bodies, meadows and woodlands are likely to be more sensitive to change*’;
- The landscape is noted as having limited time depth, with small traditional villages identified as having a ‘*well-established character*’. Individual heritage assets are noted as being sensitive to change however ‘*their contribution to landscape character is localised and tend to be within settlements*’;

- Skylines in the LCA are noted as being generally indistinct and of limited sensitivity, albeit *'undeveloped skylines dominated by trees and vegetation are likely to be locally more sensitive'*;
- PRoWs are noted as being scarce in the east, however they are also described as being sensitive to reduced access;
- The LCA is characterised as having a *'largely rural feel and is quiet and tranquil in most places, and therefore is likely to be more sensitive to new development in the area'*; and
- The largely open nature of the landscape is noted as increasing its sensitivity to change as *'new development would be highly visible'*, albeit the eastern and western parts of the LCA are noted as having more ability to absorb development and a lower resultant sensitivity.

7.4.41. Forces for change for LCA 7 are noted as including a lack of maintenance and replacement of hedgerows and trees resulting in further losses of vegetation.

LCA 13: Haddlesey Farmland

7.4.42. LCA 13 is identified as an area which in the east *'merges into the farmland surrounding Camblesforth'*. The key characteristics of LCA 13 include:

- *'Flat arable farmland arranged in a patchwork of regularly shaped fields of a large scale, defined predominantly by grassed field margins, and occasional trees.'*
- *'Distinct lack of hedgerows, creating a vast sense of openness with long distance views and lack of enclosure.'*
- *'Very sparse settlement pattern, with few isolated properties.'*
- *'Areas of woodland distributed unevenly through landscape, with significant areas concentrated near Gateforth.'*
- *'Major energy transmission infrastructure present, with prominent views of power stations, transmission lines and occasional wind turbines.'*

7.4.43. Of further note are Hambleton Hough and Brayton Barff, which are noted as *'key landmarks in northward views from this area'*.

7.4.44. With respect to key sensitivities, the following are noted for LCA 13:

- Whilst the LCA is noted as being potentially sensitivity to *'relatively small changes, due to its very flat and very open nature in which new features could be highly visible'*, the *'large scale and horizontal aspect may be less sensitive to other development types'*.
- The area is noted as *'an intensively farmed landscape with very few areas of woodland or other semi-natural character' and with 'limited time depth'*.
- Skylines are described as *'frequently indistinct with limited vegetation, and therefore are less sensitive to change'*, while long straight roads are noted as providing *'vistas through the landscape, and most of the areas with open visibility would be more sensitive to changes'*.

7.4.45. The LCA is described as having a *'very strong rural character away from the influence of transmission lines, making it more sensitive to new development and change'* while the landscape is noted as *'quiet and tranquil, away from the major roads that have a localised influence'*.

7.4.46. Principal forces for change for LCA 13 include the following:

- *'Potential demolition and redevelopment at Ferrybridge and Eggborough Power Stations may change the skyline of this area, and could have knock on effects on transmission infrastructure.'*

...

- *Re-use or redevelopment of the Burn Airfield.*

...

- *Extensive removal of hedgerows and field trees has occurred in the past, and while hedges are unlikely to be actively removed during the present, it is likely that further losses may be experienced due to lack of maintenance or reinstatement'*.

LCA 15: Camblesforth Farmland

7.4.47. LCA 15 is identified as having the following key characteristics:

- *'Flat arable farmland with a high concentration of small areas of broadleaved woodland and shelterbelts, creating a sense of enclosure.'*
- *Medium-large scale rectilinear field pattern, frequently lined by hedgerow*

trees.

- *Sparse settlement with very few isolated properties and farmsteads.*
- *Strong human influence from the industrial Drax Power Station, highly visible from throughout the landscape.*
- *Time depth from the juxtaposition of the power station with the historic village of Drax'*

7.4.48. Intensive arable farmland is noted as the primary land use, with *'medium to large scale rectilinear fields'* and *'many small areas of broadleaved woodland'*. Hedgerow trees are noted as *'creating a strong sense of enclosure'* in the east of the LCA.

7.4.49. Numerous listed buildings are noted as being present within the villages of Carlton Camblesforth and Drax, with several scheduled monuments pointing to *'long history of settlement'*, with the earthwork remains of the medieval Augustinian Priory to the north of Drax Power Station *'presenting a unique conjunction of time depth'*.

7.4.50. Public access to the countryside is described as *'relatively limited, though National Cycle Route 62 passes through Carlton in the southern tip of the area'*.

7.4.51. Drax Power Station is described as a *'major human element which overwrites the landscape of the area between Barlow, Drax and Camblesforth, due to its scale and extent'* with *'transmission lines and railways radiate out from the power station, and lighting can be intrusive'*, while traditional villages and church spires are noted as retaining a rural character.

Published Landscape Guidance

7.4.52. With respect to NCA 39: Humberhead Levels, the following broad guidance, in the form of *'Statements of Environmental Opportunity'* ('SEO') is set out:

- *SEO 1: 'Safeguard, manage and expand the wetland habitats, including the internationally important lowland raised bogs, the floodplain grazing marsh, reedbeds, wet pastures and watercourses, to protect and enhance biodiversity, contribute to landscape character, address climate change and reduce flood risks.'*
- *SEO 3: 'Manage the landscape features such as semi-natural habitats and historic field patterns that reveal local variations in landscape'*

character, often arising from underlying soils and history of drainage, to enhance people's understanding and enjoyment of the landscape.'

- *SEO 4: 'Protect the open and expansive character of the landscape, its cultural features and sense of remoteness, by ensuring that new development is sensitively located, accommodates green infrastructure, retains long views and makes a positive contribution to biodiversity.'*

7.4.53. At the county level, the following landscape management guidance, of relevance to the Site, is set out:

LCT 23 Levels Farmland:

- *'Use existing hedgerows and biomass planting to integrate built development in the landscape;*

...

- *Encourage the re-creation of a wider range of habitats in arable areas, including the introduction of permanent grassland field margins, grass buffers along water courses, and linking them where possible to create a grassland habitat network;*
- *Introduce a wide range of arable options to enhance habitats for birds and insects;*

...

- *Manage watercourses to encourage emergent vegetation, including rare species and to improve habitats for water voles;*
- *Extend natural washlands to increase areas of wetland habitats...'*
- *Plan and site development carefully to maintain the predominantly open character;*
- *Conserve drainage ditches and dykes which enable the landscape to be used for agriculture;*

...

- *Protect the predominantly open character of this low-lying landscape by maintaining long and unbroken views to distant horizons;*
- *Protect and enhance public enjoyment of the landscape, including*

appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way'

LCT 24 River Floodplain:

- *'Encourage the creation of new woodland along appropriate riverbanks, which complements the existing woodland pattern;*

...

- *Conserve valuable floodplain habitats (such as Ings) by encouraging low intensity grazing in the remaining semi-natural habitats (which include mire, fen, flushes, marshy grassland and wet [sic];*

- *Restore and enhance wetland habitats;*

- *Encourage conservation of existing key habitats and landscape features and expand the resource through habitat restoration and recreation guided by ecological networks.*

...

- *Conserve and enhance the distinct pattern of stone walls and hedgerows delineating field boundaries on order to maintain landscape structure;*

...

- *Conserve open views along and across the river floodplains towards adjacent Landscape Character Types;*

- *Protect and enhance public enjoyment of the landscape, including appreciation of the sense of escapism it provides, through identifying opportunities to create new circular routes or links to existing public rights of way.'*

7.4.54. With respect to the district level landscape character assessment, the following landscape management guidelines, with relevance to the Site, are set out:

LCA 7: Aire Valley

- *'Encourage planting of shelterbelts and small woodlands to create more naturalistic features in the environment, and provide important habitats for wildlife;*

- *Encourage reinstatement of hedgerows and field trees where field boundaries have been lost in the past, particularly along field drains in the west of the area;*
- *Conserve the special character of the river corridor;*
- *Consider colours of new development, favouring colours that are sympathetic to the colour of the surrounding landscape;*
- *Encourage and maintain areas for flood water which could also provide valuable wetland environments;...'*

LCA 13: Haddlesey Farmland

- *'Encourage woodland plantation, including shelterbelts, to increase the perceived naturalness of the character area, and provide valuable habitats and corridors for local biodiversity;*
- *Encourage the restoration and re-establishment of hedgerows and hedgerow trees which have been lost in the past due to field expansion, particularly along roads and field drains in the east;*
- *Seek to secure long-term health of existing woodlands and hedgerows within the area;*
- *The location and design of new development, including temporary works, should be carefully considered as it is likely to be highly visible throughout this flat and open landscape; and*
- *When considering the design of new development, avoid colours that may prominent and attract the eye at long distances in this open landscape.'*

LCA 15: Camblesforth Farmland

- *'Seek to secure long-term health of woodlands across the area by promoting appropriate management and natural regeneration, and promote creation of an inter-connected network of green infrastructure;*
- *Encourage continued maintenance of hedgerows and field trees, and where the opportunity arises encourage reinstatement of hedgerows where field boundaries have been lost;*
- *Enhance informal recreational across the landscape by improving public access throughout the area, especially to and within woodlands, and*

linking settlements with resources; and

- *New development should be sited to take advantage of the screening offered by the existing woodland and boundary vegetation. In more open areas, encourage the use of soft landscaping techniques.'*

Published Landscape Character Receptors

- 7.4.55. On the basis of a comprehensive review of published landscape character assessments and analysis of the landscape character of the Site and its context, a number of LCAs have been identified against which effects resulting from the Proposed Development have been assessed.
- 7.4.56. It is noted that the LCAs identified in the more recent Selby Landscape Character Assessment are broadly consistent with those set out in the older county level assessment. Furthermore, the assessment prepared for the former provides a finer grain of detail with respect to LCAs and as such is considered the most appropriate to form the basis for the assessment of landscape effects.
- 7.4.57. NCA Humberhead Levels encompasses an extensive area with a variation in land uses, components and features including large areas of settlement. With an area of approximately 169,000ha, the Site occupies approximately 0.28% of the total area of the NCA. On this basis, and considering the relatively limited visual envelope of the Site, significant effects on the NCA are considered unlikely, and as such it has been scoped out of the assessment.
- 7.4.58. The following published landscape receptors have been scoped into the assessment:
- *LCA 7: Aire Valley;*
 - *LCA 13: Haddlesey Farmland; and*
 - *LCA 15: Camblesforth Farmland.*
- 7.4.59. The value, susceptibility and sensitivity of these receptors have been assessed. Full details are set out in Appendix 7.3: Landscape Effects Table with a summary set out below in Table 7.2.

Table 7.2: Summary of Published Landscape Character Receptor Sensitivity

Receptor	Value	Susceptibility	Sensitivity
LCA 7: Aire Valley	Community	Low	Low
LCA 13: Haddlesey Farmland	Low	Low	Low
LCA 15: Camblesforth Farmland	Low	Medium/Low	Low / Medium

Site Appraisal


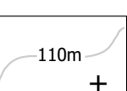



- 7.4.60. A landscape appraisal has been undertaken to ascertain the existing character of the Site. This is achieved through recording and analysing the existing landscape features and characteristics, the way the landscape is experienced, and the value or importance of the landscape and visual resources in the vicinity of the Site. The elements of the landscape that contribute to landscape character include the built and natural form, the pattern of features, detailing, scale, planting, land use and human perception. In this regard, landscape character is derived as a result of the perception of, and action and interaction of, natural and human factors.
- 7.4.61. The character and physical features of the Site are described below with reference to Site Appraisal Photographs ('SAPs') A-H, included in Appendix 7.4: Site Appraisal Photographs. The locations of photographic viewpoints are illustrated on Figure 7.5: Site Appraisal Plan.
- 7.4.62. As demonstrated by Figure 7.5, the Site encompasses 475.68ha of agricultural land defined by existing hedgerows, ditches and occasional tree belts, with a sporadic network of lanes and farm tracks following some field boundaries. The fields are large scale and rectilinear with boundaries often partially denuded or entirely unvegetated, leading to a strong sense of openness.
- 7.4.63. The dominance of extensive open arable fields, and influence of large-scale agricultural buildings around the Site instills a character of an intensively farmed working landscape.
- 7.4.64. Where present, tree belts and hedgerows define the skyline. However, the fragmented nature of vegetation and often extensive open foregrounds create only limited containment. Vegetation is concentrated along transport routes and edges of settlement, creating some definition to the Site's agricultural context, and creating a degree of enclosure within the edges of surrounding settlements. As a result of this and the sporadic nature of settlement in the study area, the Site is not strongly

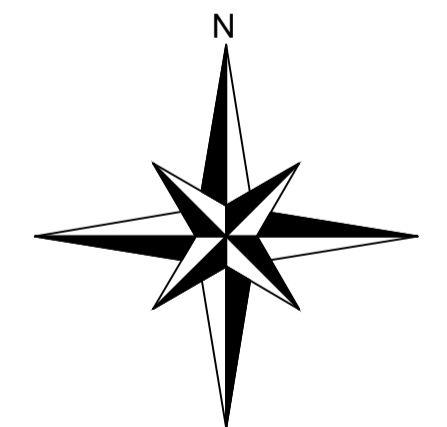
influenced by residential built forms, albeit there are isolated areas of the Site with intervisibility with more open settlement edges and isolated dwellings.

- 7.4.65. Notwithstanding the above, the scale of existing built form at Drax Power Station is such that it is the dominant feature on the skyline of the Site and is widely visible throughout the Site and its immediate context. Where present, high-voltage power lines reinforce the influence of infrastructure, while railway lines and roads that define the wider context of the Site are also notable sources of occasional intrusion.
- 7.4.66. As a result of the above factors, the Site has a simple, open and strongly agricultural character with a strong visual influence of industrial built form. Notwithstanding the visual intrusion of the above, and other built forms and land uses noted above, there is some sense of tranquillity and an overriding rural character.
- 7.4.67. Figure 7.6: Tranquillity Plan provides a broad indication of existing tranquillity levels in the study area. The mapping shows that the Site is located within a landscape of varied tranquillity; areas of settlement and large-scale infrastructure are the least tranquil, with notable 'hot spots' of low tranquillity in Selby, Camblesforth, Carlton and Drax. Low to medium levels of tranquillity are also shown broadly following transport routes, including most notably the M62 in the south of the study area, but also the network of lanes and roads that extend through the Site and its context, including the A1041 abutting the Site to the north-east and Hirst Road to the south.
- 7.4.68. Sporadic patches of the study area, including the south-western part of the Site are shown in light green, indicating relatively high levels of tranquillity. However, these areas are non-contiguous and generally limited in their extent. Furthermore, no part of the study area is identified as being 'most tranquil'.
- 7.4.69. On this basis, whilst the Site is considered to be strongly agricultural in character with limited areas that are of relative tranquillity, visual intrusion and to a lesser degree audible intrusion from roads, railways, overhead power lines, large scale agricultural buildings and large scale industrial built form is perceptible to some extent throughout the Site and its context. Therefore, the Site is not considered to be intrinsically tranquil or remote.

Figure 7.5 Site Appraisal Plan

KEY

-  Site Boundary
-  Contours/Spot Heights (Metres AOD) ^
-  Public Rights of Way
-  National Trails # / Long Distance Walks ^
-  Site Appraisal Photographs A-H



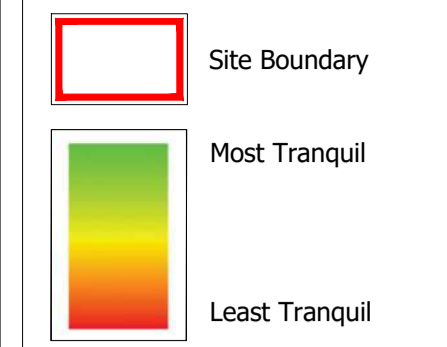
Project Title:
Helios Renewable Energy Project

Drawing Title:
Site Appraisal Plan

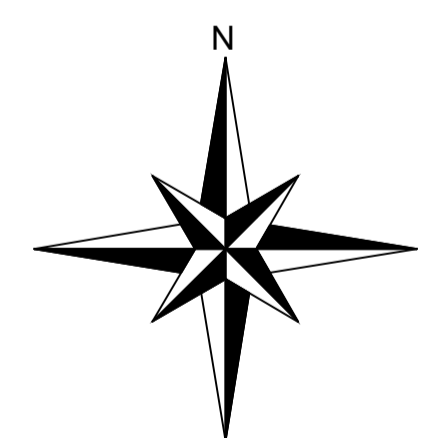
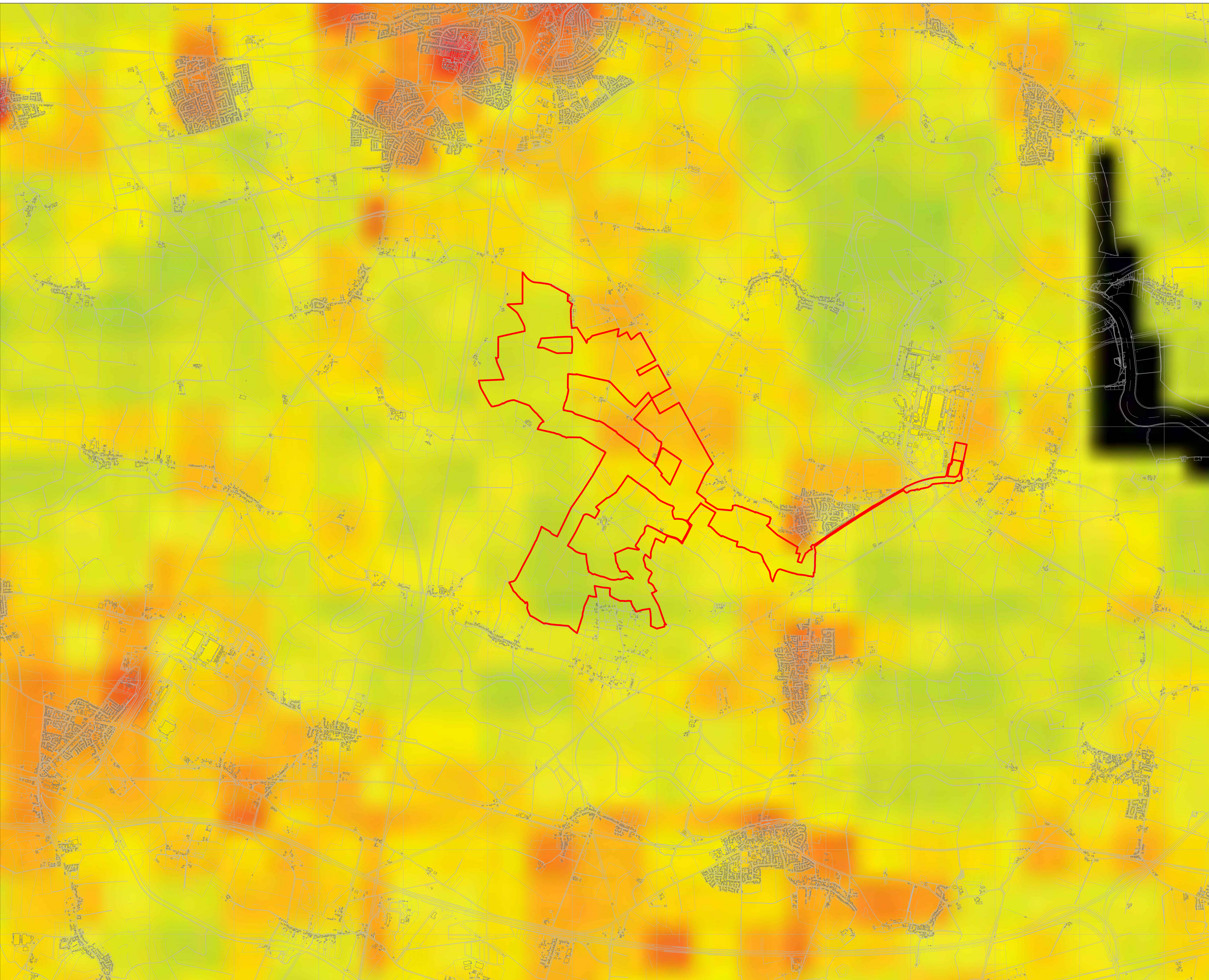
DRWG No: Figure 7.5	Rev: 0	Sht no: -
Drawn by: JM	Checked by: JM	
Scale: 1:10,000 @ A1	Date: AUGUST 2023	

Figure 7.6 Tranquility Plan

KEY



Notes:
Tranquility mapping as produced by CPRE: Tranquility Map for England, February 2007. Available at <https://www.cpre.org.uk/resources/tranquility-map-england/>



Project Title:
Helios Renewable Energy Project

Drawing Title:
Tranquility Plan

DRWG No: Figure 7.6	Rev: 0	Sht no: -
------------------------	-----------	--------------

Drawn by: JM	Checked by: JM
-----------------	-------------------

1:20,000 @ A1	Date: AUGUST 2023
---------------	----------------------

Site Level Landscape Receptors

- 7.4.70. On the basis of the Site Appraisal, a series of site level landscape receptors have been identified for the assessment of effects arising from the Proposed Development.
- 7.4.71. The value, susceptibility and sensitivity of these receptors has been assessed. Full details are set out in Appendix 7.3: Landscape Effects Table with a summary set out below in Table 7.3.

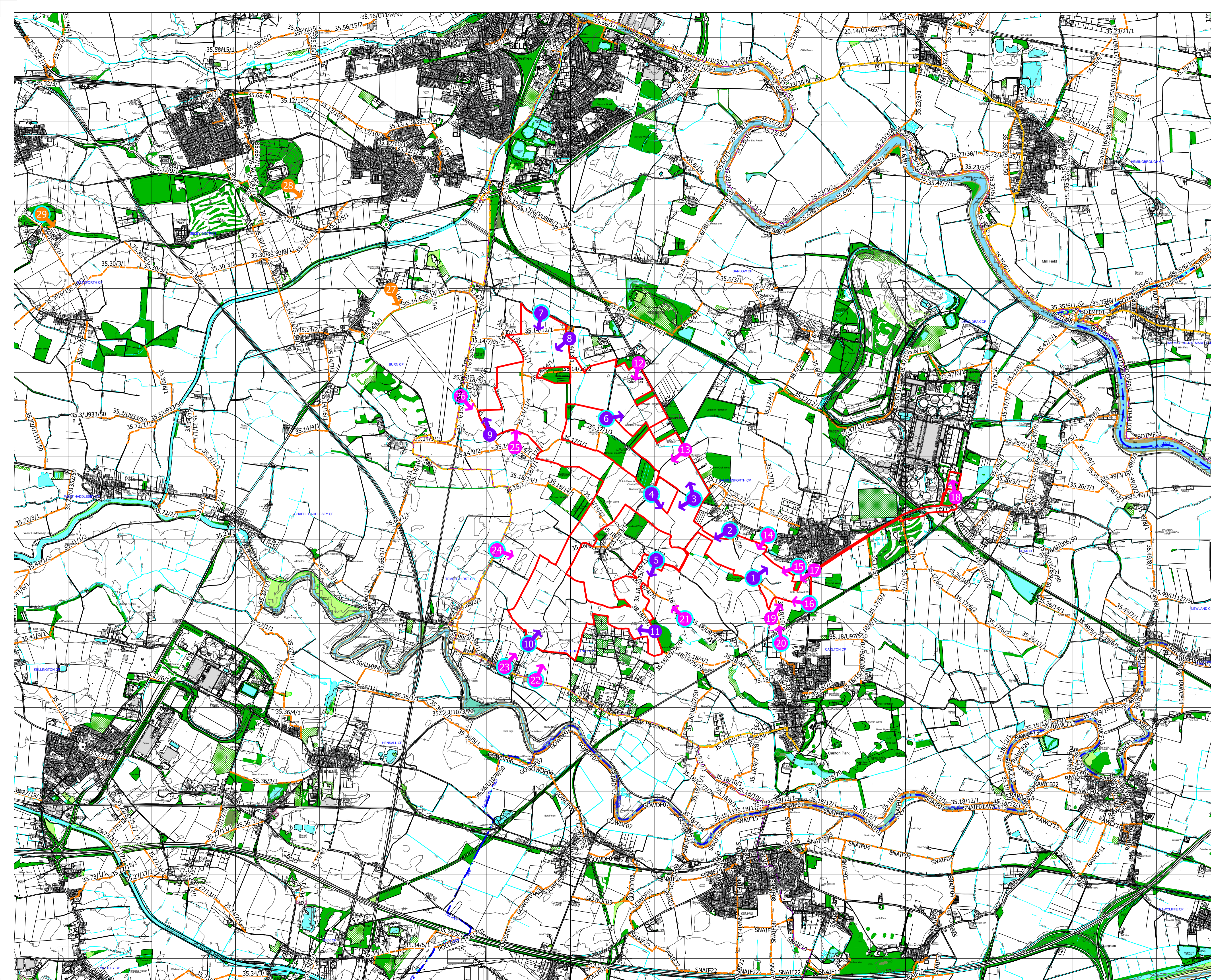
Table 7.3: Summary of Site Level Landscape Receptor Sensitivity

Receptor	Value	Susceptibility	Sensitivity
Fields	Low	Medium	Low / Medium
Hedgerows	Low	Low	Low
Canopy Trees	Community	Medium	Medium
Woodland	Community	Medium	Medium
Wetland Features	Low	Low	Low
The Tranquillity of the Site	Community	Medium	Medium
The Overall Character of the Site	Community	Medium	Medium

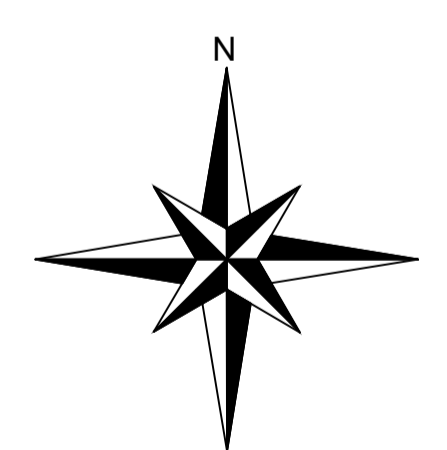
Visual Appraisal

- 7.4.72. A ZTV was prepared to assist in the selection of viewpoints and inform the assessment of likely visual effects. The ZTV models the effect of large blocks of vegetation, built form and landform on the potential visibility of the Proposed Development. It should be noted that the ZTV does not take into account the screening effect of smaller areas of vegetation including hedgerows and is therefore only an indication of potential visibility. The findings of the ZTV were confirmed by field surveys in order to robustly and accurately assess the visual effects of the Proposed Development in accordance with the GLVIA3.
- 7.4.73. The ZTV is presented on Figure 7.7: Viewpoint Plan, with the location of representative Viewpoints ('VPs') also shown. Photographs from Viewpoints are presented in Appendix 7.5 Representative Views, with a description of the baseline visual characteristics of the Site set out below.

Figure 7.7 Viewpoint Plan



- KEY**
- Site Boundary
 - Existing Woodlands, Copses and Tree Belts ^
 - Existing Water Courses and Water Features ^
 - Contours/Spot Heights (Metres AOD) ^
 - Public Rights of Way
 - Long Distance Walks ^
 - Sustrans Cycle Route
 - ➔ Location of Close Range Representative Viewpoints (VPs 1-12)
 - ➔ Location of Medium Range Representative Viewpoints (VPs 13-26)
 - ➔ Location of Long Range Representative Viewpoints (VPs 27-29)
 - Viewpoints provided as visualisations



Project Title:
Helios Renewable Energy Project

Drawing Title:
Viewpoint Plan

DRWG No: Figure 7.7	Rev: 0	Sht no: -
Drawn by: JM	Checked by: JM	Date: AUGUST 2023
1:20,000 @ A1		

Views from the PRow Network/ Lanes Within and Adjacent to the Site

- 7.4.74. Open, close-range views of the Site are experienced from the network of PRow and lanes that traverse across the area. In the south-east, Viewpoint 1 demonstrates views experienced from PRow 35.18/6. Existing built form in Camblesforth can be seen beyond intervening vegetation on the Site's north-eastern boundary with Drax Power Station and overhead power lines dominating the skyline. Existing trees and field boundary ditches are also a notable feature.
- 7.4.75. Viewpoints 3a and 3b demonstrate views to the north and south of Chestercourt Lane, while Viewpoint 4 shows the view south-east into the Site from Jowland Winn Lane, where Drax Power Station is once again a prominent feature at a distance of approximately 2.7km. Similar views to Viewpoint 4 are likely to be experienced by residents of Quosquo Cottages.
- 7.4.76. Views from Sandwith Lane are demonstrated by Viewpoint 5, where a fragmented hedgerow provides partial filtering of otherwise open views to the south across the southern part of the Site. Views from the north-western extent of Chestercourt Lane are more enclosed by existing hedgerows. Viewpoint 6 shows the view from the road approximately 80m south of the Site boundary, in front of the dwelling identified as The Lodge.
- 7.4.77. Views from Common Lane on the northern part of the Site boundary are open for approximately 600m, as shown by Viewpoint 7. However, further east, strong vegetation and intervening built form screens the Site, while to the west, dense roadside hedgerows become more prevalent.
- 7.4.78. Viewpoint 8 and Viewpoint 9 demonstrate open close-range views across the north-western extent of the Site from PRow 14/13/1 and 14/8/3 respectively, with similar views available from PRow 14/12/1, 14/20/1, 14/11/3, 14/14/1, 14/14/2, 14/11/4 and 17/1/1.
- 7.4.79. Views across the southern extent of the Site are represented by Viewpoint 10, located on Old Lane, with similar views experienced northwards from along Moss Green Lane and to the east and west from Brick Lands Lane and PRow 38/2/1. Drax Power Station can be seen at a distance of approximately 4.8km, with the flue punctuating the skyline.

7.4.80. Further east, Viewpoint 11 demonstrates open views that are available from PRow 18/U975/70 (Stockwith Lane). Large expanses of commercial greenhouses are seen beyond coniferous hedges in the background.

Short to Medium Range Views (0-500m)

7.4.81. Viewpoint 2 shows the view south-west from PRow 17/U8106/50 at a distance of 50m, where occasional trees provide limited enclosure, and expansive views across the intervening agricultural fieldscape are available. Intervisibility with houses on Hardenshaw Lane is also notable in the view.

7.4.82. The Site is seen from the A1041 in a sequence of open and filtered views over a distance of approximately 4.2km, with substantial intervals where the Site is screened by intervening belts of woodland and built form. From the north, Viewpoints 12, 13, 14, 15 and 16 demonstrate close to medium range sequential views of the Site from this route, with Viewpoints 14 and 15 also representative of views from the south-western edge of Camblesforth, including a limited number of residential receptors. Views of the Site from within the settlement area of Camblesforth diminish rapidly due to intervening built form.

7.4.83. Viewpoint 17 (located within the Underground Cable Corridor to the grid connection, as shown on Figure 3.2 Parameter Plan of the PEIR) shows views that are experienced from the A645, with the main part of the Site strongly filtered and framed by roadside hedgerows.

7.4.84. Viewpoint 18 provides a view towards Drax Power Station from New Road, where existing industrial built form and fencing is a dominant feature in close range views.

7.4.85. To the immediate south of the Site, there are open views across agricultural land towards the Site's southern boundary from PRow 18/16/1 as shown by Viewpoint 19, with similar views experienced as far south as the Drax Power Station Railway Connection line. Drax Power Station itself is a conspicuous feature on the horizon, with built form in Camblesforth also notable beyond the Site. As set out in paragraph 7.4.17, Viewpoint 19 is located on the physical route that was clearly identifiable during field surveys.

7.4.86. No views of the Site were identified from Carlton to the south of the Site. Viewpoint 20, located on PRow 18/16/1 on the northern fringe of the settlement, shows that

views towards the Site are strongly filtered by intervening woodland and trees adjacent to the Drax Power Station Railway Connection. The slightly elevated nature of the railway line provides additional low-level enclosure. Drax Power Station and associated overhead power lines are a conspicuous feature.

- 7.4.87. Further west, Viewpoint 21 shows that views towards the Site from Race Lane/Sandwith Lane are expansive, with between 350 and 800m of intervening open agricultural land the dominant feature. The Site's boundaries are occasionally screened by woodland (e.g. Kerrick Spring Wood to the south-west) but are more commonly characterised by remnant hedgerows and occasional canopy trees marking field boundaries. As a result of the flat, expansive nature of the landscape, the Site's interior is not readily identified, albeit it becomes more apparent with greater proximity.
- 7.4.88. Views of the Site are generally screened by intervening vegetation and built form from Hirst Road. However, there are views from a 435m section to the east of Hirst Courtney. Viewpoint 22 demonstrates that these views are dominated by open grassland in the foreground, with hedgerows and trees along Moss Green Lane defining the southern edge of the Site at a distance of approximately 350m. Similar views are likely to be available for a limited number of residents on Hirst Road.
- 7.4.89. Viewpoint 23 presents the view across Hirst Courtney Cricket Ground, on the northern edge of the settlement. The Site's boundary, approximately 400m distant is lined by sporadic trees, with intervening intermittent hedgerows providing strong filtering of the Site. The flue of Drax Power Station is notable on the horizon. Similar views are likely to be experienced by residents on the northern side of Hirst Courtney.
- 7.4.90. No views of the Site were identified from Temple Hirst. However, further north on Common Lane, there are distant intermittent glimpses of the Site's western boundary seen beyond successive intervening hedgerows. Drax Power Station is also notable on the skyline, at a distance of approximately 4.9km, as shown by Viewpoint 24.
- 7.4.91. Similar views are experienced further north on PRow 14/11/4 to the north-west of Fair Oaks as demonstrated by Viewpoint 25, with the Site seen at a distance of 190m with a degree of filtering provided by boundary vegetation.
- 7.4.92. Viewpoint 26 demonstrates the views that are available from the eastern edge of Burn Airfield, where patches of vegetation along the East Coast Mainline railway,

with trees and agricultural buildings beyond, provide a degree of filtering and intermittent enclosure of the Site. Further north on the airfield, the Site is more distant and strongly screened by vegetation.

Long Distance Views (>500m)

- 7.4.93. Due to the flat landscape and cumulative screening effect of successive hedgerows, tree belts and blocks of woodland, long distance views of the Site have not been identified to the south, east and north of the Site. However, long distance viewpoints have been identified to the north-west as set out below.
- 7.4.94. However, due to the open nature of Burn Airfield, Viewpoint 27 has been included to demonstrate views available from Common Lane, the A19 and Burn. However, at a distance in excess of 1.5km, the ground plane of the Site is strongly contained by vegetation along the airfield's eastern perimeter.
- 7.4.95. As isolated hills with public access, Brayton Barff and Hambleton Hough have elevated views across the wider landscape. Brayton Barff is generally strongly wooded. However, there are occasional glimpses to the south-east from the southern edge of the feature as shown by Viewpoint 28, at a distance of approximately 3.1km.
- 7.4.96. More open, elevated views are available from Hambleton Hough as shown by Viewpoint 29. Drax and Eggborough Power Stations are conspicuous features on the horizon, however the Site, at a distance of approximately 5.7km, is not readily identifiable in expansive views across a strongly treed landscape.
- 7.4.97. In summary, as an extensive area of open farmland, with a fragmented and denuded vegetation pattern, the Site is inevitably visible in close range views from the network of PRoW and rural lanes that extend across and adjacent to it. However, with increased distance, the combination of a flat landscape and screening provided by successive fragmented field boundaries, occasional woodland blocks and agricultural buildings results in the Site interior being strongly filtered or screened.
- 7.4.98. The flat landscape also accentuates the effect of foreshortening, with the Site often not forming a large component in middle distance views despite its large extent.
- 7.4.99. For similar reasons longer distance views are limited. However, sporadic areas of high ground to the north-west provide elevated views across the Humberhead Levels in the direction of the Site. The influence of large scale industrial built form on the

area is strong, with Drax a ubiquitous feature in wide ranging views.

7.4.100. A number of residential receptors are likely to have close to medium range views of the Site most notably including residents on the north side of Hirst Courtney and in the south-western fringes of Camblesforth, as well as sporadic individual dwellings and farmsteads located within the broad agricultural context of the Site.

Visual Receptors

7.4.101. On the basis of the visual appraisal, a series of visual receptor groups have been selected against which the effects of the Proposed Development on visual amenity have been assessed.

7.4.102. The value, susceptibility and resultant sensitivity of the visual receptors at each representative viewpoint have been assessed as set out in Appendix 7.6: Visual Effects Table with a summary set out below in Table 7.4.

Table 7.4: Summary of Visual Receptor Sensitivity

Receptor	Value	Susceptibility	Sensitivity
Users of PRow	Low	High	Medium
Residents (Hardenshaw Lane; Quosquo Cottages; Rose Hill Farm; Chestercourt Lodge; Primrose Hill; Camblesforth/Carlton/Burn)	Low	High	Medium
People travelling in vehicles (country lanes)	Low	Medium	Medium / Low
People travelling in vehicles (A1041/A645/New Road)	Low	Low	Low
Walkers and cyclists (country lanes)	Low	High	Medium
Walkers and Cyclists (A1041/A645/New Road)	Low	Low -Medium	Low - Medium / Low
People travelling in vehicles (Trans Pennine Trail)	Medium	Medium	Medium
Walkers and Cyclists (Trans Pennine Trail)	Medium	High	High
Residents (Hirst Courtney)	Low	High	Medium
Visitors to Hirst Courtney Cricket Club	Medium	Medium	Medium
Visitors to Brayton Barff	Medium	Medium	Medium
Visitors to Hambleton Hough	Medium	High	High

Future Baseline

- 7.4.103. The Site is currently in agricultural use and is primarily located within a rural area that is unlikely to be subject to any notable development pressure, albeit there is potential for incremental residential development around Camblesforth. Were the Proposed Development not to proceed, it is assumed that the Site would remain predominantly in agricultural use, with little overall change to the landscape baseline in the short term.
- 7.4.104. In the longer term, it is also likely that the denudement of the vegetation pattern that is evident in recent history would continue. For example, canopy hedgerow trees that are lost as a result of decay or storms are less likely to be replaced due to the sparseness of hedgerow and resultant lack of new trees to establish.
- 7.4.105. On this basis, the trend for the future is one of growing pressure on the landscape from climate change, and resultant decline of valuable landscape features and habitats. Notwithstanding the above, any resulting changes are unlikely to be perceptible within the timeframe of the future baseline, in 2026.

7.5. Likely Significant Effects

Embedded Mitigation

- 7.5.1. This section of the chapter sets out the attributes that are included within the design of the Proposed Development and are key elements of primary mitigation which have been taken into account in the assessment of landscape and visual effects. Primary mitigation is defined in GLVIA3 as measures that are *‘developed through the iterative design process, which have become integrated or embedded into the project design’*.

Design Evolution and Objectives

- 7.5.2. The design of the Proposed Development and its integrated landscape strategy have evolved over an 18-month period as part of an iterative, mitigation by design process in accordance with GLVIA3 and the NPSs.
- 7.5.3. GLVIA3 describes the design process as being integral to EIA. It recommends *‘an iterative process, the stages of which feed into the planning and design of the project... Site planning and detailed design, as well as initial appraisal of a development project in the screening and scoping stages, are informed by and*

respond to the ongoing assessment as the environmental constraints and opportunities are revealed in progressively greater detail and influence each stage of decision making.' (paragraph 4.6).

7.5.4. Notwithstanding the above, it must be recognised that any development in a countryside location is likely to result in adverse landscape and visual effects of some type. NPS EN-1 reinforces this point, stating:

'All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites' (paragraph 5.10.12); and

'The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project'. (paragraph 5.10.13)

7.5.5. In considering the overall purposes and aims of the landscape strategy, five broad objectives have been identified:

- To minimise the physical impact of the Proposed Development on the Site's landscape features including vegetation, field pattern and wet features;
- To maximise opportunities to enhance the landscape of the Site by reinforcing and reinstating pattern with extensive new planting that is characteristic to the receiving environment, by introduction of new valuable habitats, and by improved management and custodianship of the landscape resource;
- To visually and physically integrate the Proposed Development into the landscape as much as possible using a variety of natural features;
- To retain and where possible enhance the existing use of the Site for public access; and
- To minimise the visual impact of the Proposed Development on visual receptors, including views from residential properties, local roads and PRow.

7.5.6. An initial appraisal of the Site within a wider area of search was carried out in January 2022, following which recommendations were made to remove fields from the Site. This included the majority of areas denoted under 'Main reason 1' on the Design Evolution Plan (Figure 4.2 of the PEIR). As a result of the above, and other

constraints, the Site extent has been refined to reduce potential visual effects, particularly those on residential receptors.

- 7.5.7. The proposed parameter area for the Substation/Battery Energy Storage System ('BESS') component has also been reduced in order to limit adverse landscape and visual effects.

Measures to be Adopted by the Project

- 7.5.8. The following applied mitigation measures are proposed for landscape and visual effects relating to the construction and decommissioning phases of the Development. These measures will be implemented through a Construction Environmental Management Plan ('CEMP') and a Decommissioning Environmental Management Plan ('DEMP'). The following measures have been incorporated into the Outline CEMP ('oCEMP') and will also be included in the Outline DEMP to be submitted with the ES in support of the DCO application:

- Existing vegetation on and around the Site will be protected from damage in accordance with BS 5837: 2012, this will include established mitigation planting during the decommissioning phase;
- Hours of work on the Site would be limited to 08:00 to 18:00 Monday to Friday; 08:00 to 13:00 Saturdays; and no work on Sundays, Bank Holidays or Public Holidays, thereby limiting the extent to which construction activities will affect receptors on a daily or weekly basis;
- During construction, lighting will be limited to the construction compounds only, with temporary lighting at the grid connection works. The lighting of the on-Site substation would be in accordance with Health and Safety requirements, particularly around any emergency exits;
- Lighting would be designed to limit any impact on sensitive receptors by directing lighting downward and away from the Site boundary and existing vegetation;
- All unloading/loading of construction/decommissioning materials and equipment would be provided within the Site boundary, limiting adverse effects on character and views due to activities outside of the Site;
- Noise, dirt and dust levels would be kept to a minimum and local roads would be cleaned regularly where dirt is spread by construction traffic, limiting

adverse effects on local character due to the perception of construction activities; and

- Litter within and around the Site will be removed and the Site will be kept free from litter throughout construction / decommissioning activities.

Development Characteristics

7.5.9. A full description of the Proposed Development is set out in Chapter 3 Site and Development Description of the PEIR. However, the following characteristics are considered to be highly pertinent to landscape and visual effects.

7.5.10. As shown on the Parameter Plan (Figure 3.2 of the PEIR), the Proposed Development comprises four main areas:

- Solar Farm Zone;
- Substation and BESS Compound;
- Green Infrastructure; and
- Underground Cable Corridor.

7.5.11. Considering the nature of the Underground Cable Corridor, it is considered highly unlikely to result in significant landscape and visual effects. Therefore, the focus of the mitigation strategy is the Solar Farm Zone and the Substation/BESS Compound. Areas denoted as Green Infrastructure on the Figure 3.2 Parameter Plan of the PEIR will accommodate proposed landscape and ecological mitigation, and also access track crossings where required.

7.5.12. The Solar Farm Zone has a restricted height, with solar PV panels and inverters/transformers limited to a maximum of 3m in height above existing ground levels. Proposed security fences around the perimeter of these areas will be to a maximum height of 2.1m above ground level. They will be erected as timber post and wire fences similar in appearance to forestry fencing of a type to protect new planting from deer browsing, and therefore not uncharacteristic in a rural environment. Access tracks and gates will be provided within these areas.

7.5.13. The solar PV panels are trackers which follow the movement of the sun during the day. Their motion is expected to be slow and gradual therefore not immediately apparent for visual receptors with little activity associated with the operational phase

of the Proposed Development.

- 7.5.14. The Substation/BESS Compound is expected to comprise shipping containers to a maximum height of 3.5m and a substation to a maximum height of 6.8m above ground level, this area will also include access tracks, access gates, fencing, earth bunds and attenuation ponds.
- 7.5.15. Temporary construction compounds will also be created on-Site during the construction and decommissioning phase, comprising one primary compound and up to five secondary compounds.
- 7.5.16. The Proposed Development is designed to sit within the existing landscape framework, with no impacts on existing trees or woodland proposed. However, there is likely to be limited removal of short sections of hedgerow to accommodate access between fields where unavoidable.
- 7.5.17. The Proposed Development's modelled operational lifespan of 40 years and the way in which it is to be constructed is such that it predominantly has a temporary character, and the existing baseline, with enhancements to hedgerows, woodlands and fields, is readily reinstated on its removal.

Landscape Strategy

- 7.5.18. Landscape mitigation measures are set out below and identified on the Landscape Strategy Plans (Figures 7.8-7.10):
- Seeding of existing arable fields under and around the solar PV panels with appropriate native grassland mixes to enhance biodiversity and support grazing;
 - Provision of sheep grazing (where possible) within proposed perimeter fences, providing the opportunity to retain agricultural uses on the Site;
 - The reinforcement of existing hedgerow field boundaries, particularly where fragmented;
 - Re-establishment of historic field boundary hedgerows that have been lost through agricultural intensification;
 - Enhancement of wetland/ditch field margins through appropriate native wetland seeding;

- Creation of native woodland shelter belts to reinforce existing woodland habitats and screen views of the Proposed Development;
- Provision of permissive paths within the south-eastern part of the Site to formalise access between PRow 18/6/1 and U8106/50 to the south of Camblesforth;
- Creation of a series of new habitat areas with a mosaic of native trees, grassland and wetland features to establish new habitats. Wetland features, including habitat ponds and scrapes to be planted with a diverse mix of native aquatic and wetland species; and
- A wide range of species have been specified in planting mixes to promote a varied structure and wider tolerance of conditions, thus making the landscape proposals more resilient as a whole to the changes likely to be brought about by climate change.

7.5.19. In some instances, screening planting has not been provided alongside PRow routes/lanes to maintain a degree of openness within and/or across the Site. In such locations, the Proposed Development's solar PV arrays have been set back a minimum distance of 15m from the PRow, and the buffers will be planted with a tussock forming grassland mix that will be allowed to grow to a substantial sward, helping to integrate the Proposed Development within the landscape.

7.5.20. In the case of Bricklands Lane, existing scattered canopy trees along the lane will be reinforced, which will provide some filtering of views.

7.5.21. Full details of planting types and quantities are set out on Figure 7.11 Landscape Schedules and Notes. However, Table 7.5 below summarises planting quantities for convenience.

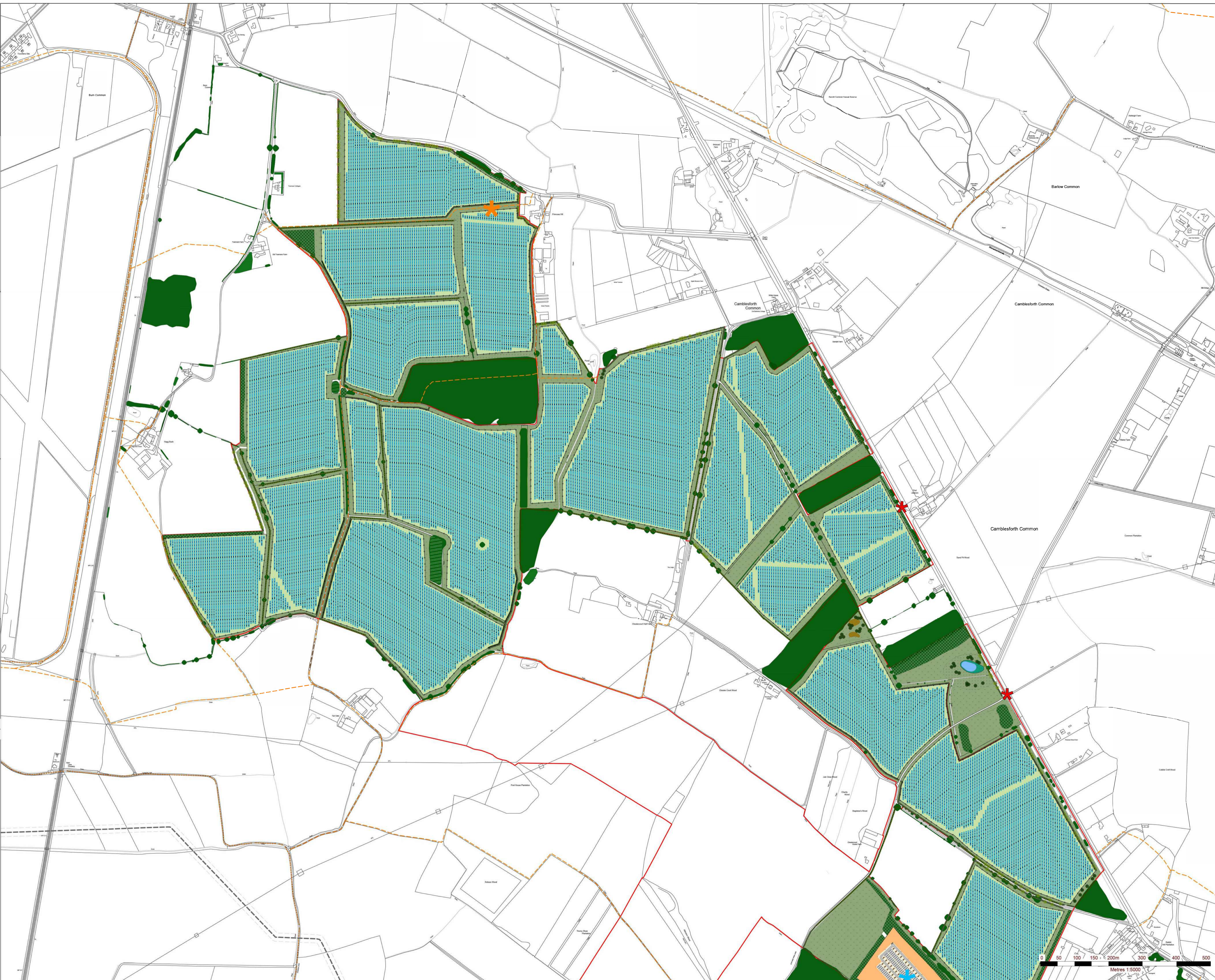
Table 7.5 Summary of Landscape Planting Quantities

Landscape Element	Measurement	Plant Quantity
Proposed Woodland Planting	9.48ha	24,084
Existing Woodland to be Reinforced	1.32ha	270
Proposed Scrub Mix	0.48ha	2188
Proposed Hedgerow	12.99km	52,498
Existing Hedgerow Reinforced	8.2km	8,449
Proposed Hedgerow Trees	n/n	336
Proposed Canopy Trees	n/a	155

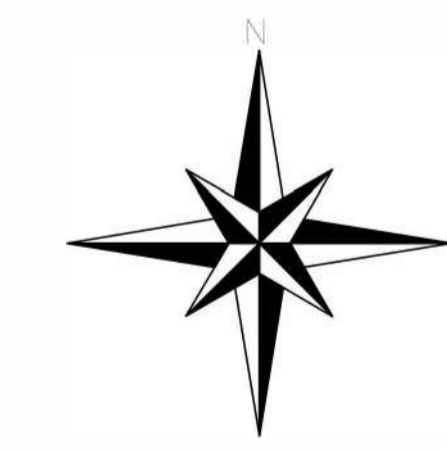
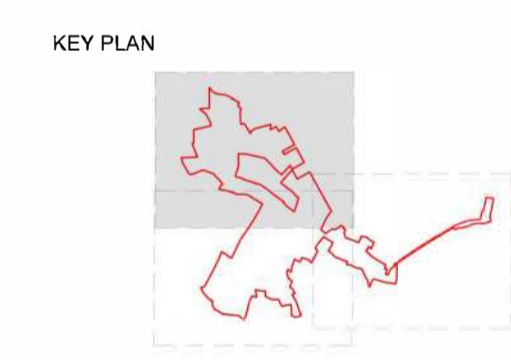
Landscape Element	Measurement	Plant Quantity
Proposed Grassland within Fence	297.73ha	n/a
Proposed Tussock Grassland outside Perimeter Fence	49.91ha	n/a
Proposed Wildflower Meadow	5.11ha	n/a
Proposed Wetland Grassland	16.81ha	n/a
Proposed Habitat Ponds	0.37ha	n/a
Proposed Habitat Scrapes	0.26ha	n/a
TOTAL TREE, SHRUB, HEDGE PLANTS		87,980

- 7.5.22. On the basis of the above, the proposed landscape strategy is considered to be extensive and commensurate with the scale of the Proposed Development. It has the potential to deliver meaningful improvements in landscape structure across the whole Site once established.
- 7.5.23. Figure 7.11 Landscape Schedules and Notes includes outline planting specification specifications and management notes that would be implemented to provide for the establishment of proposed planting. These measures will be developed following the PEIR consultation with input from key stakeholders, submitted within the LEMP and secured as a requirement of the DCO. Figure 7.12 Illustrative Landscape Masterplan illustrates the proposed landscape strategy on a Site-wide basis, showing the broad extent and nature of proposed landscape elements with the aid of precedent imagery.

Figure 7.8 Landscape Strategy Plan Sheet 1 of 3



- KEY**
- Site Boundary
 - Existing surveyed trees and vegetation
 - Existing watercourse/ditches
 - Existing Public Rights of Way retained
 - Physical route of PRoW 18/16/1
 - Proposed Permissive Path
 - Existing gas line and buffer
 - Indicative proposed pv arrays
 - Indicative proposed sub-station/battery storage area
 - Proposed perimeter security fence (post and wire deer fence)
 - Existing woodland to be reinforced with native planting where appropriate
 - Proposed native woodland planting
 - Proposed native scrub planting
 - Proposed individual tree planting
-T1: Canopy Trees
-T2: Hedgerow Trees
 - Existing field boundary hedgerow to be reinforced
 - Historic field boundary hedgerow to be reinstated
 - Proposed hedgerow
 - Existing arable land within perimeter fence seeded with Emorsgate grazing mixture EG27 or similar (sheep grazed or mown on a regular basis)
 - Proposed grassland outside perimeter fence: Emorsgate Tussock Mixture EM10, or similar
 - Proposed wet grassland outside perimeter fence: Emorsgate Meadow Mixture for Wetlands EM8 or similar
 - Proposed wildflower grassland: Emorsgate General Purpose Meadow Mixture EM1
 - Proposed habitat ponds: Provided with native aquatic planting and 2m margin of Emorsgate Pond Edge Mixture EP1 or similar
 - Proposed habitat scrapes: Emorsgate Meadow Mixture for Wetlands EM8 or similar
 - Potential location for interpretation boards
 - Proposed access

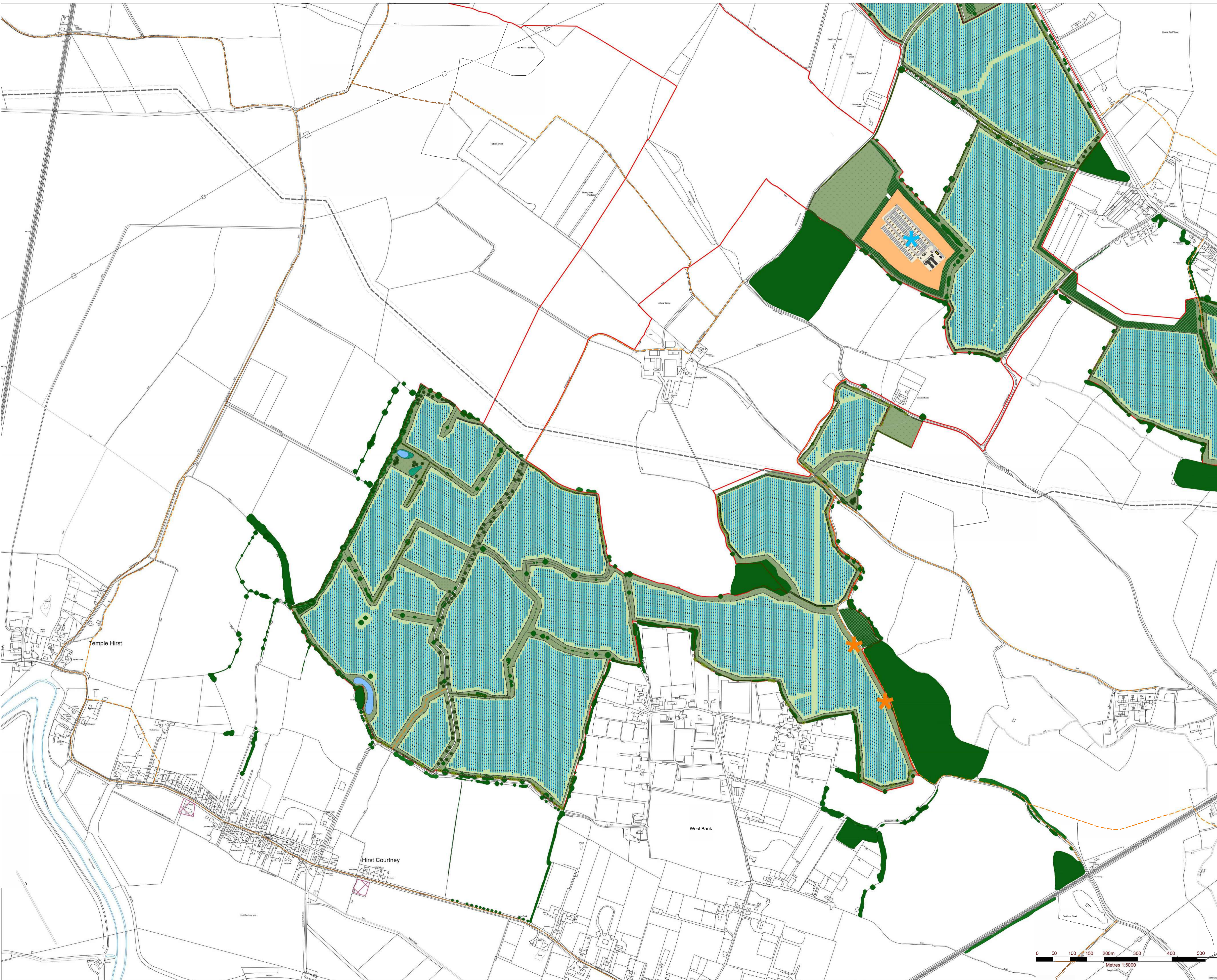


Project Title:
Helios Renewable Energy Project

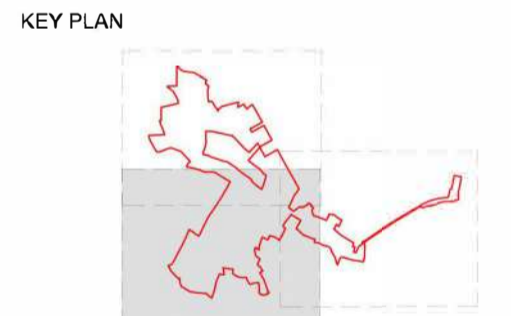
Drawing Title:
**Landscape Strategy
Sheet 1 of 3**

DRWG No: Figure 7.8	Rev: 0	Sht no: -
Drawn by: HD	Checked by: JM	
1:5,000 @ A1	Date: AUGUST 2023	

Figure 7.9 Landscape Strategy Plan Sheet 2 of 3



- KEY**
- Site Boundary
 - Existing surveyed trees and vegetation
 - Existing watercourse/ ditches
 - Existing Public Rights of Way retained
 - Physical route of PRoW 18/16/1
 - Proposed Permissive Path
 - Existing gas line and buffer
 - Indicative proposed pv arrays
 - Indicative proposed sub-station/battery storage area
 - Proposed perimeter security fence (post and wire deer fence)
 - Existing woodland to be reinforced with native planting where appropriate
 - Proposed native woodland planting
 - Proposed native scrub planting
 - Proposed individual tree planting
-T1: Canopy Trees
-T2: Hedgerow Trees
 - Existing field boundary hedgerow to be reinforced
 - Historic field boundary hedgerow to be reinstated
 - Proposed hedgerow
 - Existing arable land within perimeter fence seeded with Emorsgate grazing mixture EG27 or similar (sheep grazed or mown on a regular basis)
 - Proposed grassland outside perimeter fence: Emorsgate Tussock Mixture EM10, or similar
 - Proposed wet grassland outside perimeter fence: Emorsgate Meadow Mixture for Wetlands EM6 or similar
 - Proposed wildflower grassland: Emorsgate General Purpose Meadow Mixture EM1
 - Proposed habitat ponds: Provided with native aquatic planting and 2m margin of Emorsgate Pond Edge Mixture EPI or similar
 - Proposed habitat scrapes: Emorsgate Meadow Mixture for Wetlands EM6 or similar
 - Potential location for interpretation boards
 - Proposed access



Project Title:
Helios Renewable Energy Project

Drawing Title:
**Landscape Strategy
Sheet 2 of 3**

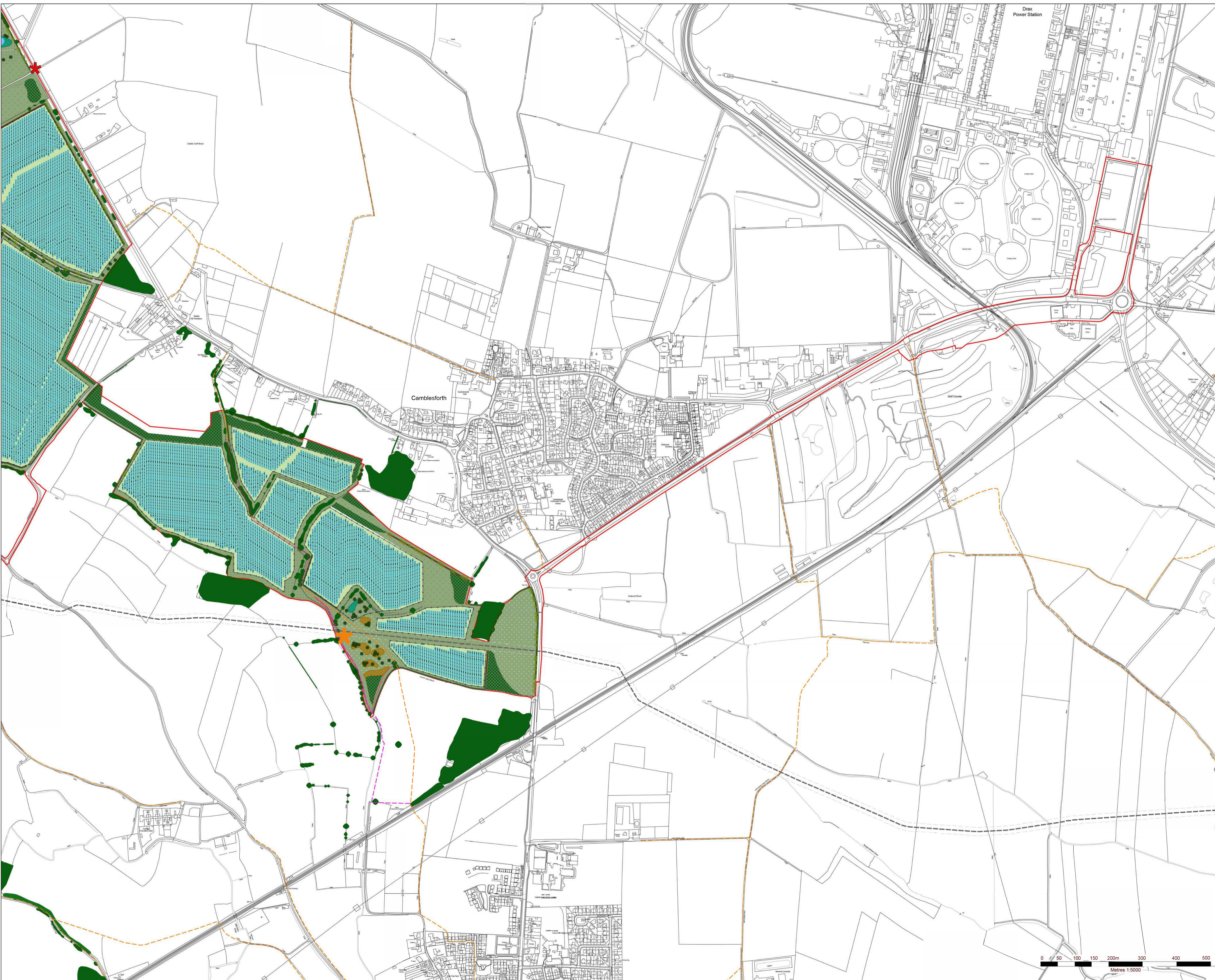
DRWG No: Figure 7.9	Rev: 0	Shit no: -
------------------------	-----------	---------------

Drawn by: HD	Checked by: JM
-----------------	-------------------

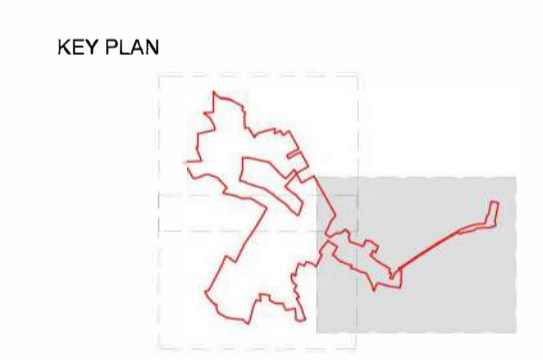
1:5,000	@ A1	Date: AUGUST 2023
---------	------	----------------------



Figure 7.10 Landscape Strategy Plan Sheet 3 of 3



- KEY**
- Site Boundary
 - Existing surveyed trees and vegetation
 - Existing watercourse/ ditches
 - Existing Public Rights of Way retained
 - Physical route of PRow 18/16/1
 - Proposed Permissive Path
 - Existing gas line and buffer
 - Indicative proposed pv arrays
 - Indicative proposed sub-station/battery storage area
 - Proposed perimeter security fence (post and wire deer fence)
 - Existing woodland to be reinforced with native planting where appropriate
 - Proposed native woodland planting
 - Proposed native scrub planting
 - Proposed individual tree planting
-T1: Canopy Trees
-T2: Hedgerow Trees
 - Existing field boundary hedgerow to be reinforced
 - Historic field boundary hedgerow to be reinstated
 - Proposed hedgerow
 - Existing arable land within perimeter fence seeded with Emorsgate grazing mixture EG27 or similar (sheep grazed or mown on a regular basis)
 - Proposed grassland outside perimeter fence: Emorsgate Tussock Mixture EM10, or similar
 - Proposed wet grassland outside perimeter fence: Emorsgate Meadow Mixture for Wetlands EM8 or similar
 - Proposed wildflower grassland: Emorsgate General Purpose Meadow Mixture EM1
 - Proposed habitat ponds: Provided with native aquatic planting and 2m margin of Emorsgate Pond Edge Mixture EP1 or similar
 - Proposed habitat scrapes: Emorsgate Meadow Mixture for Wetlands EM8 or similar
 - Potential location for interpretation boards
 - Proposed access



Project Title:
Helios Renewable Energy Project

Drawing Title:
**Landscape Strategy
Sheet 3 of 3**

DRWG No: Figure 7.10	Rev: 0	Shit no: -
Drawn by: HD	Checked by: JM	Date: AUGUST 2023

1:5,000 @ A1

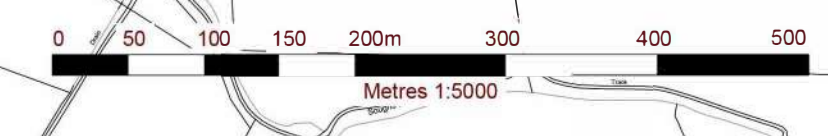


Figure 7.11 Landscape Strategy Schedules and Notes

PLANTING NOTES

General

- All landscape operations to be undertaken in appropriate climactic conditions for the work in hand.
- Plant material to conform to the National Plant Specification. Plant handling and planting operations to be in accordance with HTA 'Handling and Establishing Landscape Plants', Parts I-III.
- Imported topsoil (if required) to BS 3882 Low Fertility Grade and from an approved source. Existing topsoil shall have a maximum 35% clay content and minimum 5% organic content, pH 5.5-8.5 and be free of perennial weeds, weed seeds and contamination. Maximum stone content 20% (>20mm particle size), maximum size of stones 50mm in any direction. Existing topsoil to be ameliorated and/or screened if necessary to achieve this specification.
- Soil conditioner: Sanitized and stabilised compost to BSI PAS 100. Apply 75mm depth even coverage and incorporate into topsoil during cultivation operations, to a minimum depth of 150mm. Compost to be Compost Association certified, or conforming to the specification from an approved supplier. Compost will only be used if necessary.
- Mulch planting beds with matured coniferous bark, with an even particle size between 5-35mm, to 75mm minimum depth over weed-free soil after completion of planting and watering operations.

Seeding

- For arable areas prepare the seed bed through cultivation to remove weeds, or crop stubble. Harrow or rake to produce a medium tilth, and roll, or tread, to produce a firm surface.
- Sow seed across the surface at an even distribution at rates specified by supplier, and firm in with a roller to give good soil/seed contact.
- For existing areas of grassland, do not remove existing sward. Mow, scarify and overseed only.

Hedgerows

- Prepare a 0.5m wide x 0.3m deep weed-free trench for each row (or larger if necessary, in order to take the full spread of the roots); the sides and bottom of the trench will be forked over and 'ripped' to facilitate proper drainage, prior to back-filling. The trench to be excavated on the same day as planting and to be back-filled with an appropriate excavated topsoil/ compost mix. n. Hedgerow to be cultivated by hand only in proximity to existing trees/hedgerow. No herbicide.
- When backfilling, ensure the original root collar is at ground level after backfilling and firming in.
- For existing hedgerows, an allowance of hedgerow plants has been specified based on the general conditions identified across the site. However the contractor shall be responsible for distributing plants in a manner that best supports the overall aim of reinforcing existing hedgerows. Plant bare root transplants and container-grown shrubs at 0.5m centres on the back of the existing hedgerows or fill any gaps larger than 0.5m. Hand dig with care in proximity to existing hedgerows and do not sever any roots larger than 2.5cm in diameter.
- For new hedgerows, plant shrubs at 0.5m centres in two staggered rows set 0.5m apart.
- Hedgerow plants to be installed with rabbit protection, as follows:
 - Transplants, cuttings and seedlings: PP photodegradable tube guards 0.6m high x 50mm diameter or greater to suit girth of shrub/tree, supported by 900mm bamboo cane inserted 300mm below ground level.
 - Container-grown shrubs: recycled HDPE photodegradable mesh guards 0.6m high x 150-180mm diameter or greater to suit diameter of shrub, supported by 900mm timber stake inserted 300mm below ground level.
- Ensure protection methods do not restrict natural movement or growth.
- Where new or existing hedgerows are within areas proposed for grazing, they shall be protected with stock fences as appropriate to ensure their successful establishment and ongoing health.

Tree and Scrub Planting

- Plants to be installed with rabbit protection, in the same method as hedgerow plants. Feathered trees and standards to be protected with 1.2m x 20cm diameter Mesh Tree Guard Cut Pieces with a 1.35m x 32mm stake. Notch plant bare root transplants. Hand dig with care in proximity to existing trees and do not sever any roots larger than 2.5cm in diameter. Feathered stock and standards shall be pit planted as in a 0.5m x 0.5m pit (or larger if required) to a matching specification as hedgerow planting.
- Large trees shall be planted at least 2m away from proposed security fencing to ensure branches do not extend over fencing.

Planting seasons

- Planting seasons:
 - Deciduous trees and shrubs: Late October to late March
 - Conifers and evergreens: September/October or April/May
 - Container grown plants: At any time if ground and weather conditions are favourable
 - Grass seeding: March/April or September/October

OUTLINE MAINTENANCE STRATEGY

Establishment and Maintenance Period (Years 1-5)

Pruning generally

- All dead, damaged or diseased tree branches shall be removed and arisings removed from site. Trees and shrubs shall be pruned in the appropriate season to maintain health and vigour and to prevent encroachment on access route/storage areas, etc. The removal of vegetation will be timed for outside of the bird nesting season (March to August inclusive) to prevent disturbance of breeding birds. If this is not possible, a check for active nests will first be undertaken by an ecologist. If a nest is found, an appropriate buffer will be left undisturbed until any chicks have fledged, as confirmed by an ecologist.

Existing & Proposed Hedgerows

- Hedgerows shall be trimming on one side per year alternating on a 2 or 3 year rotation in February, aiming to maintain a minimum height of 2.5 - 3m to promote bushy growth while providing continued habitat and foraging opportunities for wildlife.
- Hedgerow trees shall be protected during trimming and allowed to develop to full maturity.

Existing and Proposed Grassland

- Grassland within perimeter fences to be sheep-grazed or mown as required to prevent shading of the panels or security features. Areas outside perimeter fence to be mown no more than once annually.

Scrub

- Areas to be thinned and trimmed to a height of between 1 and 3 meters on a 3 year rotational basis.

Woodland

- Re-mulch planting area during years 1-3 to minimise competition from weeds and grasses.
- Carry out selective thinning and coppicing of approximately 30% of plants in Year 5. Leave deadwood and brush piles in situ.

General

- All areas of planting and grass shall be maintained, to include:
 - Ample irrigation
 - Weed control (herbicide application or hand weeding)
 - Litter picking
 - Topping up of mulch
 - Checking condition of tree stakes and ties
- All stakes and ties shall be inspected during the growing season and adjusted as necessary to ensure that they are secure and firm and that the ties are not chaffing the stem of the trees. Stakes and ties shall be removed and disposed of when plants become self supporting or at the end of the 5 year establishment period.
- All soft and hard landscaping shall be inspected annually by the Landscape Contract Manager and an arboriculturist if necessary and tree works carried out as necessary to ensure the continued health and safety of the trees. Regular weed control and litter picking operations will be required.
- Planting which fails to thrive or dies during the 5-year establishment period shall be replaced within the next suitable planting season.

Hedgerow Trees

Abbreviation	Species	Common Name	Specification	Height	Density
Ac ca	Acer campestre	Common Maple	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Al gl	Alnus glutinosa	Common Alder	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Qu pe	Quercus petraea	Sessile Oak	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Qu ro	Quercus robur	Common Oak	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
So au	Sorbus aucuparia	Rowan	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Ti eu	Tilia x europaea	Common Lime	Standard: 3 brks: 2x: B: Clear Stem 175-200cm	250-300cm	Counted
Total Number of Hedgerow Trees = 292					

Canopy Trees

Abbreviation	Species	Common Name	Specification	Height	Density
Al gl	Alnus glutinosa	Common Alder	Feathered: 5 brks: 2x: B	175-200cm	Counted
Po ni	Populus nigra	Black Poplar	Feathered: 3 brks: 2x: B	175-200cm	Counted
Qu pe	Quercus petraea	Sessile Oak	Feathered: 5 brks: 2x: B	175-200cm	Counted
Qu ro	Quercus robur	Common Oak	Feathered: 5 brks: 2x: B	175-200cm	Counted
Sa al	Salix alba	White Willow	0/1/2: Transplant - cutting raised: B	175-200cm	Counted
Sa ca	Salix caprea	Goat Willow	Feathered: 5 brks: 2x: B	175-200cm	Counted
Sa fr	Salix fragilis	Crack Willow	0/1/2: Transplant - cutting raised: B	175-200cm	Counted
Ti eu	Tilia x europaea	Common Lime	Feathered: 3 brks: C	175-200cm	Counted
Total Number of Canopy Trees = 261					

Proposed Woodland

Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
2338	Ac ca	Acer campestre	Common Maple	1+1: Transplant - seed raised: B	60-80cm	2Ctr	9%
284	Ac ca	Acer campestre	Common Maple	Feathered: 3 brks: 2x: B	125-150cm	2Ctr	1%
2338	Al gl	Alnus glutinosa	Common Alder	1+1: Transplant - seed raised: B	80-100cm	2Ctr	9%
2338	Be pe	Betula pendula	Common Silver Birch	1+1: Transplant - seed raised: B	60-80cm	2Ctr	9%
538	Be pe	Betula pendula	Common Silver Birch	Feathered: 3 brks: 2x: B	125-150cm	2Ctr	2%
2338	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm	2Ctr	9%
2338	Cr mo	Crataegus monogyna	Common Hawthorn	1+2: Transplant - seed raised: B	80-100cm	2Ctr	9%
2338	Il aq	Ilex aquifolium	Common Holly	Leader with Laterals: C	80-100cm	2Ctr	9%
2338	Qu pe	Quercus petraea	Sessile Oak	1+2: Transplant - seed raised: B	80-100cm	2Ctr	9%
538	Qu pe	Quercus petraea	Sessile Oak	Feathered: 3 brks: 2x: B	150-175cm	2Ctr	2%
2338	Qu ro	Quercus robur	Common Oak	1+2: Transplant - seed raised: B	60-80cm	2Ctr	9%
538	Qu ro	Quercus robur	Common Oak	Feathered: 2 brks: 2x: B	125-150cm	2Ctr	2%
2338	So au	Sorbus aucuparia	Rowan	1+1: Transplant - seed raised: B	60-80cm	2Ctr	9%
2338	Ti co	Tilia cordata	Small-leaved Lime	1+1: Transplant - seed raised: B	80-100cm	2Ctr	9%
538	Ti co	Tilia cordata	Small-leaved Lime	Feathered: 3 brks: 2x: B	150-175cm	2Ctr	2%
284	Ti eu	Tilia x europaea	Common Lime	Feathered: 3 brks: C	175-200cm	2Ctr	1%
Plant in in single species groups of 3-5 plants.							

Existing Woodland Reinforced

Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
24	Ac ca	Acer campestre	Common Maple	1+1: Transplant - seed raised: B	60-80cm	8Ctr	9%
8	Ac ca	Acer campestre	Common Maple	Feathered: 3 brks: 2x: B	125-150cm	8Ctr	1%
24	Al gl	Alnus glutinosa	Common Alder	1+1: Transplant - seed raised: B	80-100cm	8Ctr	9%
24	Be pe	Betula pendula	Common Silver Birch	1+1: Transplant - seed raised: B	60-80cm	8Ctr	9%
10	Be pe	Betula pendula	Common Silver Birch	Feathered: 3 brks: 2x: B	125-150cm	8Ctr	2%
24	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm	8Ctr	9%
24	Cr mo	Crataegus monogyna	Common Hawthorn	1+2: Transplant - seed raised: B	80-100cm	8Ctr	9%
24	Il aq	Ilex aquifolium	Common Holly	Leader with Laterals: C	80-100cm	8Ctr	9%
24	Qu pe	Quercus petraea	Sessile Oak	1+2: Transplant - seed raised: B	80-100cm	8Ctr	9%
10	Qu pe	Quercus petraea	Sessile Oak	Feathered: 3 brks: 2x: B	150-175cm	8Ctr	2%
24	Qu ro	Quercus robur	Common Oak	1+2: Transplant - seed raised: B	60-80cm	8Ctr	9%
10	Qu ro	Quercus robur	Common Oak	Feathered: 2 brks: 2x: B	125-150cm	8Ctr	2%
24	So au	Sorbus aucuparia	Rowan	1+1: Transplant - seed raised: B	60-80cm	8Ctr	9%
24	Ti co	Tilia cordata	Small-leaved Lime	1+1: Transplant - seed raised: B	80-100cm	8Ctr	9%
10	Ti co	Tilia cordata	Small-leaved Lime	Feathered: 3 brks: 2x: B	150-175cm	8Ctr	2%
8	Ti eu	Tilia x europaea	Common Lime	Feathered: 3 brks: C	175-200cm	8Ctr	1%
Plant in in single species groups of 3-5 plants.							

Proposed Hedgerow Mix

Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
4051	Ac ca	Acer campestre	Common Maple	1+1: Transplant - seed raised: B	80-100cm	1Ctr Double Staggered at 0.5m offset	15%
4051	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 4 brks: B	80-100cm	1Ctr Double Staggered at 0.5m offset	15%
4051	Cr mo	Crataegus monogyna	Common Hawthorn	1+2: Transplant - seed raised: B	80-100cm	1Ctr Double Staggered at 0.5m offset	15%
2718	Il aq	Ilex aquifolium	Common Holly	Leader with Laterals: C	80-100cm	1Ctr Double Staggered at 0.5m offset	10%
4051	Rh fr	Rhamnus frangula	Alder Buckthorn	1+1: Transplant - seed raised: Leader with Laterals: 3 brks: B	80-100cm	1Ctr Double Staggered at 0.5m offset	15%
4051	Ro ca	Rosa canina	Dog Rose	1+1: Transplant - seed raised: Branched: 3 brks: B	60-80cm	1Ctr Double Staggered at 0.5m offset	15%
4051	So au	Sorbus aucuparia	Rowan	1+1: Transplant - seed raised: B	80-100cm	1Ctr Double Staggered at 0.5m offset	15%
Plant in in single species groups of 3-7 plants.							

Existing Hedgerow to be Reinforced

Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
800	Ac ca	Acer campestre	Common Maple	1+1: Transplant - seed raised: B	80-100cm	1.7Ctr	15%
800	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 4 brks: B	80-100cm	1.7Ctr	15%
800	Cr mo	Crataegus monogyna	Common Hawthorn	1+2: Transplant - seed raised: B	80-100cm	1.7Ctr	15%
800	Il aq	Ilex aquifolium	Common Holly	Leader with Laterals: C	80-100cm	1.7Ctr	15%
800	Rh fr	Rhamnus frangula	Alder Buckthorn	1+1: Transplant - seed raised: Leader with Laterals: 3 brks: B	80-100cm	1.7Ctr	15%
800	Ro ca	Rosa canina	Dog Rose	1+1: Transplant - seed raised: Branched: 3 brks: B	60-80cm	1.7Ctr	15%
544	So au	Sorbus aucuparia	Rowan	1+1: Transplant - seed raised: B	80-100cm	1.7Ctr	10%
Plant in in single species groups of 3-7 plants. Assumed 25% quantity for existing hedgerow to be gapped up.							

Scrub

Number of Plants	Abbreviation	Species	Common Name	Specification	Height	Density	% Mix
328	Al gl	Alnus glutinosa	Common Alder	1+1: Transplant - seed raised: B	60-80cm	1.5Ctr	15%
328	Co av	Corylus avellana	Common Hazel	1+2: Transplant - seed raised: Branched: 3 brks: B	60-80cm	1.5Ctr	15%
328	Cr mo	Crataegus monogyna	Common Hawthorn	1+1: Transplant - seed raised: B	60-80cm	1.5Ctr	15%
328	Rh fr	Rhamnus frangula	Alder Buckthorn	1+1: Transplant - seed raised: Leader with Laterals: 3 brks: B	60-80cm	1.5Ctr	15%
328	Ri sp	Ribes spicatum	Downy Currant	3 brks: C	40-60cm	1.5Ctr	15%
328	Ro ca	Rosa canina	Dog Rose	1+1: Transplant - seed raised: Branched: 3 brks: B	60-80cm	1.5Ctr	15%
220	Sa ci	Salix cinerea	Grey Willow	0/1: Cutting: Branched: 2 brks: B	60-80cm	1.5Ctr	10%
Plant in in single species groups of 3-5 plants.							

Summary of Landscape Elements

Proposed Landscape Areas	Area (ha)
Proposed Woodland Planting	10.10
Existing Woodland to be Reinforced	1.32
Proposed Scrub Mix	0.48
Proposed Grassland within Fence	297.83
Proposed Tussock Grassland outside Perimeter Fence	41.84
Proposed Wildflower Meadow	7.39
Proposed Wetland Grass	18.07
Proposed Habitat Pond	0.37
Proposed Habitat Scrapes	0.50
Individual Trees	Number
Canopy Trees	261
Hedgerow Trees	313
Hedgerow	Length (km)
Existing Reinforced Hedgerow	8.70
Proposed Hedgerow	13.26



Project Title:





Helios Renewable Energy Project

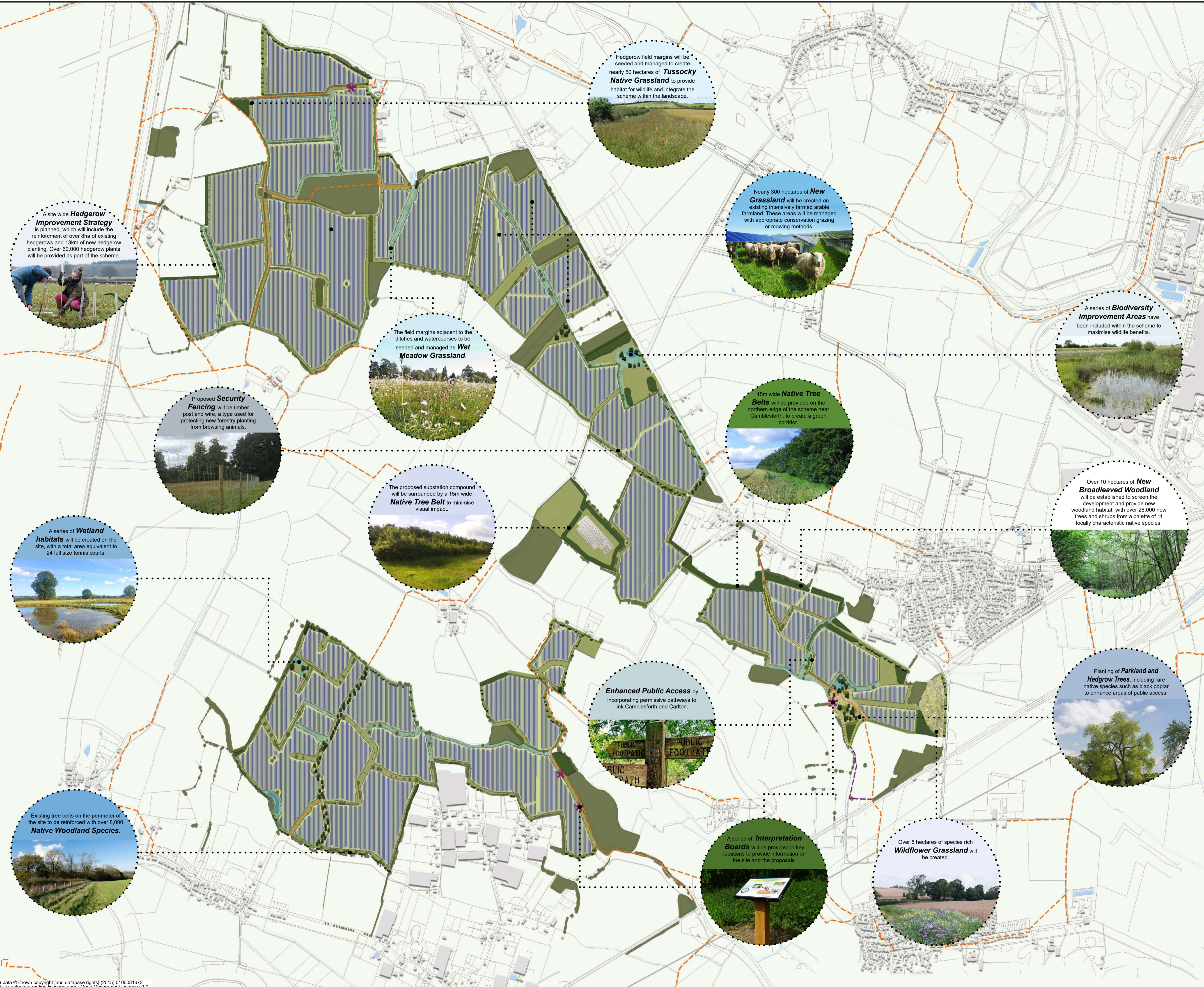
Drawing Title:

Landscape Planting Schedule and Notes

DRWG No:	FIGURE 7.11	Rev:	0	Sht no:	-
Drawn by :	HD	Checked by:	JM		
Scale:	N/A	Date:	JULY 2023		

Figure 7.12 Illustrative Landscape Masterplan

- Key:**
-  Existing vegetation
 -  Existing public rights of way
 -  Physical route of PRoW 18/16/1
 -  Proposed permissive path
 -  Indicative proposed pv arrays
 -  Proposed perimeter security fence (post and wire deer fence)
 -  Proposed native woodland planting
 -  Proposed native scrub planting
 -  Proposed hedgerow trees
 -  Proposed open space trees
 -  Existing hedgerows
 -  Proposed hedgerows
 -  Proposed pond
 -  Proposed scrapes
 -  Existing arable land within perimeter fence
 -  Proposed grassland outside perimeter fence
 -  Proposed wet grassland
 -  Proposed wildflower grassland
 -  Interpretation boards



A site wide **Hedgerow Improvement Strategy** is planned, which will include the reinforcement of over 8ha of existing hedgerows and 13km of new hedgerow planting. Over 60,000 hedgerow plants will be provided as part of the scheme.



Hedgerow field margins will be seeded and managed to create nearly 50 hectares of **Tussocky Native Grassland** to provide habitat for wildlife and integrate the scheme within the landscape.



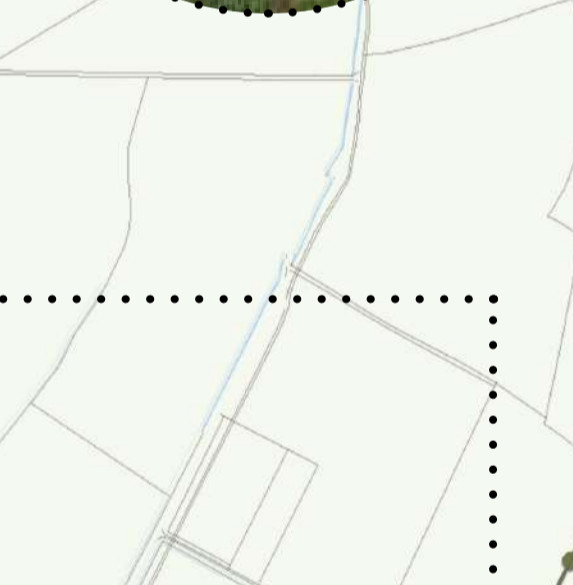
Nearly 300 hectares of **New Grassland** will be created on existing intensively farmed arable farmland. These areas will be managed with appropriate conservation grazing or mowing methods.



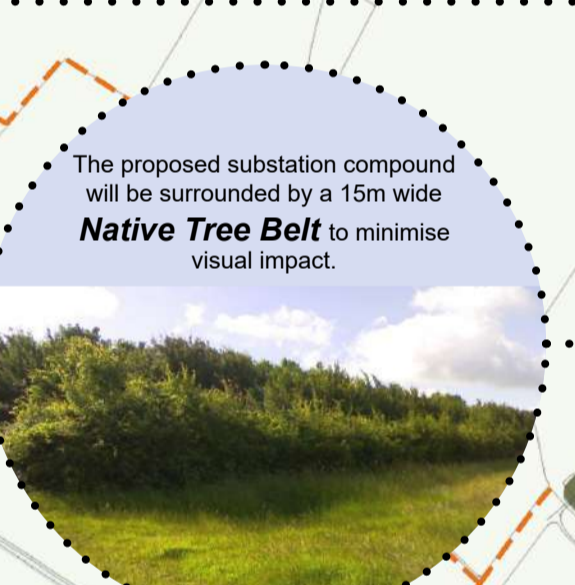
A series of **Biodiversity Improvement Areas** have been included within the scheme to maximise wildlife benefits.



Proposed **Security Fencing** will be timber post and wire, a type used for protecting new forestry planting from browsing animals.



The field margins adjacent to the ditches and watercourses to be seeded and managed as **Wet Meadow Grassland**.



15m wide **Native Tree Belts** will be provided on the northern edge of the scheme near Camblesforth, to create a green corridor.



Over 10 hectares of **New Broadleaved Woodland** will be established to screen the development and provide new woodland habitat, with over 26,000 new trees and shrubs from a palette of 11 locally characteristic native species.



A series of **Wetland habitats** will be created on the site, with a total area equivalent to 24 full size tennis courts.



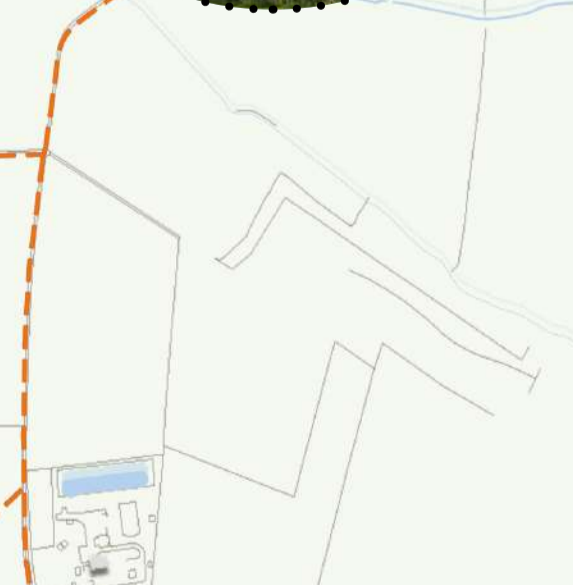
The proposed substation compound will be surrounded by a 15m wide **Native Tree Belt** to minimise visual impact.



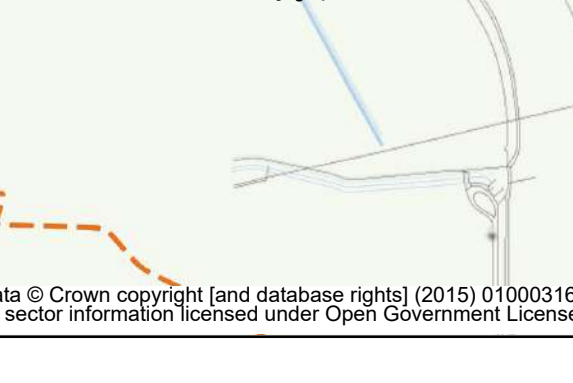
Enhanced Public Access by incorporating permissive pathways to link Camblesforth and Carlton.



Planting of **Parkland and Hedgerow Trees**, including rare native species such as black poplar to enhance areas of public access.



Existing tree belts on the perimeter of the site to be reinforced with over 8,000 **Native Woodland Species**.



A series of **Interpretation Boards** will be provided in key locations to provide information on the site and the proposals.



Over 5 hectares of species rich **Wildflower Grassland** will be created.



Project Title:
Helios Renewable Energy Project

Drawing Title:
Illustrative Landscape Masterplan

DRWG No: 7.12	Rev: 0	Sht no: -
Drawn by: HD	Checked by: JM	
Scale: 1:10,000 @ A1	Date: AUGUST 2023	

Construction Phase Assessment

- 7.5.24. An assessment of the likely significant landscape and visual effects resulting from the Proposed Development during the construction phase has been carried out. The construction phase is anticipated to take approximately 12 months.
- 7.5.25. Full commentary on the magnitude and significance of landscape and visual effects is set out in Appendix 7.3 Landscape Effects Table and Appendix 7.6 Visual Effects Table. A summary of the effects identified, including key narrative for any significant effects is set out in this section.
- 7.5.26. The principal changes that will have an effect upon landscape character, landscape features and visual amenity during the construction phase include:
- The loss of openness and alterations to the existing appearance of the Site;
 - The introduction of new temporary elements, including temporary access tracks, construction compounds, material stockpiles, welfare facilities, plant and machinery;
 - Groundworks, topsoil stripping and excavation for ancillary structures and cables;
 - The noise and movement of plant and machinery within the Site and the surrounding landscape, including crane activities and construction traffic on local roads;
 - Removal of limited areas of existing hedgerow where access is required;
 - Landscape operations (i.e., implementation of the landscape mitigation measures set out in paragraph 8.2.18 above); and
 - The building and emergence of new built forms, including panels, ancillary structures and fencing.
- 7.5.27. Due to the parameter-based approach, there is potential for construction compounds to be located anywhere within the Solar Farm Zone. This has been considered in the assessment in line with a worst-case scenario approach.

Landscape Effects

- 7.5.28. In overview, the Proposed Development would result in **no significant effects** in the

construction phase, largely due to the short-term duration of this phase.

- 7.5.29. There would be moderate effects on the tranquillity of the Site and the overall character of the Site, as well as upon LCA 15, but all other effects on landscape receptors would be minor or less.
- 7.5.30. Effects on the hedgerows, trees and woodlands would be negligible and largely neutral, as the majority of existing structural vegetation would be retained and protected.
- 7.5.31. Effects on LCA7 and LCA13 in the construction phase would be minor at most, since the Proposed Development occupies a relatively small proportion of these character areas and the effects on the landscape would be mainly focused upon the Site itself.

Visual Effects

- 7.5.32. The construction phase of the Proposed Development would **not result in any significant visual effects**, largely due to the short-term duration of this phase.
- 7.5.33. However, the Proposed Development has potential to result in moderate effects for a number of visual receptors groups within or close to the Site (i.e. within 5 metres of the Site boundary):
- Users of PRow within or adjacent to the Site (VP1, VP8, VP9, VP11) will experience temporary moderate negative effects as a result of close-range open views of construction activities perceived across an extensive area.
 - Walkers and Cyclists within or adjacent to the Site (VP3, VP4, VP5, VP7, VP10) will experience temporary moderate negative effects as a result of close-range open views of construction activities perceived across an extensive or moderately extensive area.
 - Residents (VP4 – Quosquo Cottages, VP5 – Rosehill Farm and VP8 – Primrose Hill) will experience temporary moderate negative effects as a result of close-range open views of construction activities perceived across an extensive or moderately extensive area.
- 7.5.34. The remainder of receptors, often further from the Site, will experience effects that are moderate/minor or less and therefore not significant. These effects are

summarised for each visual receptor group in Table 7.6 below.

Table 7.6 Summary of Moderate/Minor or Less and therefore Less than Significant Visual Effects – Construction Phase

Visual Receptor	Viewpoint	Effect
Users of PRow	VP2, VP19, VP25	Temporary minor adverse as a result of distant or partial views of construction activities.
Users of PRow	VP20, VP21	Temporary negligible or minor / negligible adverse as a result of distant or partial views of construction activities.
Residents	VP22	Temporary moderate / minor adverse as a result of partial filtered views of construction activities.
Residents	VP2, VP6, VP14, VP15, VP20, VP23, VP27	Temporary negligible or minor / negligible adverse or neutral as a result of distant or partial views of construction activities.
People traveling in vehicles	VP3, VP5, VP7, VP10	Temporary moderate / minor adverse as a result of close range, open views of construction activities.
People traveling in vehicles	VP13, VP22	Temporary minor adverse as a result of close to medium range, open or partial views of construction activities.
People traveling in vehicles	VP6, VP12, VP14, VP16, VP17, VP18, VP24, VP27	Temporary minor / negligible or negligible adverse or neutral as a result of partial or distant views of construction activities.
Walkers and Cyclists	VP22	Temporary moderate / minor adverse as a result of partial, distant filtered views of construction activities.
Walkers and Cyclists	VP6, VP16	Temporary minor adverse as a result of close to medium range, open or partial views of construction activities.
Walkers and Cyclists	VP12, VP13, VP14, VP15, V17, VP18, VP24, VP26, VP27	Temporary minor / negligible or negligible adverse or neutral as a result of partial, filtered or distant views of construction activities.
Visitors to Carlton Cricket Club	VP23	Temporary negligible adverse as a result of strongly filtered distant partial glimpses of construction activities.
Visitors to Brayton Barff and Hambleton Hough	VP28, VP29	Temporary negligible adverse effects due to very limited, long distance partial glimpses of construction activities on the Site.

Operational Phase Assessment (Year 1)

- 7.5.35. An assessment of the likely significant landscape and visual effects resulting from the Proposed Development at Year 1 of the operational phase has been carried out. i.e. before newly established mitigation measures mature and influence effects.
- 7.5.36. Full commentary on the magnitude and significance of landscape and visual effects is set out in Appendix 7.3 Landscape Effects Table and Appendix 7.6.
- 7.5.37. In order to support the assessment and identification of visual effects, a series of photomontages has been prepared for selected viewpoints as indicated on Figure 7.7. The visualisations are, with the exception of VP 29, presented as fully rendered views of the Proposed Development showing the anticipated summer appearance of proposed planting at Year 1 and Year 15. The visualisations are presented in Appendix 7.7 Visualisations.
- 7.5.38. The assessment of visual effects has been carried out with reference to the visualisations and the winter baseline photography included in Appendix 7.5 to ensure the worst-case scenario has been taken into account in accordance with the GLVIA3.

Landscape Effects

- 7.5.39. In Year 1 of the operational phase, the Proposed Development is expected to give rise to **significant landscape effects on only one landscape receptor, fields**. This receptor includes only the fields within the Site, and excludes, for example, the hedgerows and woodlands.
- 7.5.40. It is for this reason that the character of the Site has been assessed as being affected to a moderate degree, since this receptor includes new and existing hedgerows and woodlands. Similarly, for the character of LCA13 and LCA15, (the two character areas within which the Proposed Development is primarily focused), the landscape effects would be moderate and not significant, since the Site occupies only a proportion of these character areas, and the landscape effects would be largely focused upon the Site itself.
- 7.5.41. The tranquillity of the Site will be subject to a moderate adverse effect due to increased disturbance as a result of the Proposed Development itself, and initial landscape maintenance operations.

7.5.42. There would be a number of effects of moderate/minor or less, and therefore not significant, on other landscape receptors:

- Hedgerows – minor positive effect as a result of extensive newly planted hedgerows;
- Canopy trees – minor positive effect as a result of extensive, newly planted native trees;
- Woodland – minor positive effect as a result of substantial quantities of new woodland planting over limited parts of the Site;
- Wetland Features – negligible/minor positive effect as a result of the creation of new wetland habitats (ponds/scrapes); and
- LCA 7: Aire Valley – minor negative effect as a result of physical and perceptual changes on a very limited extent of the receptor.

Visual Effects

7.5.43. The operational phase (Year 1) of the Proposed Development is expected to give rise to significant effects on a number of visual receptors groups, all of which are within, or very close to, the Site:

- Users of PRow within or adjacent to the Site (VP1, VP8, VP9, and VP11) will experience major/moderate negative effects due to close range, (on the Site or within 5 metres of the Site), open views of the Proposed Development, seen across an extensive area or proportion of a route (for example, around 400 metres of PRow 18/16/1, 350 metres of PRow 14/8/3, and 600 metres of PRow 18/U975/70).
- Walkers and cyclists within or adjacent to the Site (VP3, VP5, VP7 and VP10) will experience major/moderate adverse effects as a result of close range, open views of the Proposed Development, seen across an extensive area or proportion of a route.
- Residents (VP5 and VP8) will experience major/moderate adverse effects as a result of open, close-range views of the Proposed Development seen across an extensive area.

7.5.44. All other visual effects at Year 1 would be moderate or less, and therefore not significant. For example, there would be moderate effects on users of PRow and

walkers at viewpoints 2, 4, 14, 22 and 25, and also moderate effects on residents at viewpoint 15.

- 7.5.45. Users of PRowS in close to medium range views (VP2 and VP25) will experience moderate negative effects due to more distant, filtered/partial views of the Proposed Development, seen across a moderately extensive area.
- 7.5.46. Walkers and cyclists will experience moderate negative effects as a result of medium distance views of the Substation/BESS Compound (VP4) and distant partial views from the Trans Pennine Trail (VP22).
- 7.5.47. People traveling in vehicles within or adjacent to the Site (VP3, VP5, VP7, and VP10) will experience moderate negative effects as a result of close range, open views of the Proposed Development, seen across an extensive area or proportion of a route.
- 7.5.48. Residents will experience moderate negative effects as a result of views of the Substation/BESS Compound (VP4) and distant partial views from Camblesforth (VP14 and VP15) and Hirst Road (VP22).
- 7.5.49. The remainder of receptors will experience effects that are less than moderate and also therefore not significant. These effects are summarised for each visual receptor group in Table 7.7 below.

Table 7.7 Summary of Non-Significant Visual Effects – Operational Phase

Visual Receptor	Viewpoint	Effect
Users of PRowS	VP19	Minor / moderate negative as a result of medium distance partial/filtered views of the Proposed Development.
Users of PRowS	VP21	Minor negative as a result of medium distance partial/filtered views of the Proposed Development across an extensive area.
Users of PRowS	VP20	Negligible and negative as a result of barely perceptible distant views of the Proposed Development.
Residents	VP2	Minor / moderate negative as a result of close to medium distance partial/filtered views of the Proposed Development.
Residents	VP6	Minor negative as a result of medium distance partial/filtered views of the Proposed Development.
Residents	VP20, VP23, and	Minor / negligible or negligible

Visual Receptor	Viewpoint	Effect
	VP27	negative or neutral as a result of barely perceptible distant views of the Proposed Development.
People travelling in vehicles	VP22	Moderate / minor and negative as a result of partial, distant filtered views of construction activities.
People travelling in vehicles	VP4, VP6, VP12, and VP24	Minor and negative as a result of short to medium distance partial/filtered views of the Proposed Development.
People travelling in vehicles	VP13, VP14, VP15, VP16, VP17, and VP27	Minor / negligible or negligible negative or neutral as a result of medium to long distance partial/filtered views of the Proposed Development.
Walkers and cyclists	VP14 and VP15	Minor / Moderate and negative as a result of medium distance, partial views of the Proposed Development.
Walkers and cyclists	VP6, VP12, VP13, and VP24	Minor and negative as a result of close to medium range partial/filtered views of the Proposed Development.
Walkers and cyclists	VP16, VP17, VP18, VP26, and VP27	Minor /negligible or negligible negative or neutral as a result of close to long range partial views of the Proposed Development.
Visitors to Hirst Courteney Cricket Club	VP23	Minor / negligible and negative due to distant strongly filtered views of the Proposed Development.
Visitors to Brayton Barff and Hambleton Hough	VP28 and VP29	Negligible negative as a result of barely perceptible long-distance views of the Proposed Development.

Decommissioning Phase

- 7.5.50. An assessment of the likely significant landscape and visual effects resulting from the Proposed Development during the decommissioning phase has been carried out.
- 7.5.51. Full commentary on the magnitude and significance of landscape and visual effects is set out in Appendix 7.3 Landscape Effects Table and Appendix 7.6 Visual Effects Table. A summary of the effects identified, including key narrative for any significant effects is set out in this section.
- 7.5.52. The decommissioning phase is anticipated to be largely similar to the construction phase in terms of landscape and visual effects, with the construction process carried out in reverse over a similar duration, and the landscape subsequently restored to its baseline condition.

7.5.53. However, for the purposes of assessing effects, proposed mitigation planting is assumed to remain in place for decommissioning phase, such that visibility of decommissioning operations will be reduced where relevant.

Landscape Effects

7.5.54. **The Proposed Development is not expected to give rise to a significant effect on any landscape receptor** in the decommissioning phase. The tranquillity of the Site will be subject to a moderate adverse effect due to increased noise levels likely to be associated with decommissioning operations.

7.5.55. With respect to not significant effects, the following has been identified:

- Fields – minor negative effect due to physical disturbance and intrusion;
- Hedgerows – negligible negative effect due to limited removal of hedgerow to provide access;
- Canopy trees – negligible neutral effect;
- Woodland – negligible neutral effect;
- Wetland features – negligible negative effect due to minor decommissioning works associated with access crossings;
- The overall character of the Site – minor negative effect due to physical disturbance and intrusion;
- LCA 7: Aire Valley – negligible negative effect due to physical disturbance and intrusion on a very limited part of the receptor;
- LCA 13: Haddlesey Farmland – minor/negligible negative effect due to physical disturbance and intrusion on a small part of the receptor; and
- LCA 15: Camblesforth Farmland – moderate/minor negative effect due to physical disturbance and intrusion on a moderately extensive part of the receptor.

Visual Effects

7.5.56. The **decommissioning phase of the Proposed Development is not expected to give rise to any significant effects on visual receptors**. This is due to the increased enclosure provided by proposed planting once established in combination

with the short duration of decommissioning activities.

- 7.5.57. The remainder of receptors will experience effects that are not significant. These effects are summarised for each visual receptor group in Table 7.8 below.

Table 7.8 Summary of Not Significant Visual Effects – Decommissioning Phase

Visual Receptor	Viewpoint	Effect
Users of PRow	VP1 and VP11.	Temporary minor / moderate negative as a result of close range open/filtered views of decommissioning operations.
Users of PRow	VP2, VP8, VP9, VP19, VP21, and VP25	Temporary negligible negative / neutral as a result of strongly contained short to medium distance views of decommissioning operations.
Users of PRow	VP20	No effect
Residents	VP4 and VP5	Temporary minor negative as a result of close range glimpsed/filtered views of decommissioning activities.
Residents	VP2, VP6, VP8, VP22, and VP23	Temporary negligible negative / neutral as a result of short to medium range, strongly filtered/glimpsed views of decommission operations.
Residents	VP14, VP15, VP20, and VP27	No effect
People travelling in vehicles	VP5	Temporary minor negative as a result of close-range partial glimpses of decommissioning activities.
People travelling in vehicles	VP3, VP4, VP6, VP7, VP10, VP12, VP13, VP16, VP17, VP18, VP22, and VP24	Temporary negligible negative / neutral as a result of barely perceptible glimpsed/filtered views of decommissioning activities.
People travelling in vehicles	VP14, VP15, and VP27	No effect
Walkers and Cyclists	VP4 and VP5	Temporary minor negative as a result of close to medium range glimpsed views of decommissioning activities.
Walkers and Cyclists	VP3, VP6, VP7, VP10, VP12, VP13, VP16, VP17, VP18, VP22, and VP24	Temporary minor/negligible or negligible negative due to short to medium range glimpsed/filtered/partial views of decommissioning activities.
Walkers and Cyclists	VP14, VP15, VP26, and VP27	No effect
Visitors to Hirst Courteney Cricket Club	VP23	Temporary negligible neutral as a result of barely perceptible distant views of decommissioning activities.
Visitors to Brayton	VP28, and VP29	No change.

Visual Receptor	Viewpoint	Effect
Barff and Hambleton Hough		

Summary of Visual Effects – Decommissioning Phase

7.5.58. There would be no significant effects on visual receptor groups as a result of the decommissioning phase. In overview, the level of screening provided by proposed vegetation once established is likely to screen or heavily filter views of decommissioning activities, which would also be of a short-term duration.

7.6. Mitigation Measures

Construction and Decommissioning Phase

7.6.1. No secondary mitigation measures are proposed for the construction and decommissioning phases of the Proposed Development.

Operational Phase

7.6.2. In terms of operational effects, the establishment and growth of planting proposals and their ongoing maintenance, and the management of existing landscape features are considered as further mitigation measures (secondary mitigation) and form the basis of the assessment of residual landscape and visual effects of the Proposed Development during the operational phase at Year 15.

7.7. Residual Effects

Construction and Decommissioning Phases

7.7.1. Full explanatory commentary on the magnitude and significance of effects for the receptors is set out in Appendix 7.4 Landscape Effects Table and Appendix 7.6 Visual Effects Table.

7.7.2. No further mitigation measures are proposed for the construction and decommissioning phases. As such, the effects will remain as identified above.

Operational Phase (Year 15)

7.7.3. An assessment of the likely significant residual landscape and visual effects resulting from the Proposed Development at Year 15 of the operational phase has been carried

out taking into account the growth and establishment of proposed planting.

- 7.7.4. Full explanatory commentary on the magnitude and significance of effects for the receptors is set out in Appendix 7.4 Landscape Effects Table and Appendix 7.6 Visual Effects Table.

Landscape Effects

- 7.7.5. The Proposed Development would result in no significant effects on landscape receptors by Year 15.
- 7.7.6. The overall character of the Site will be subject to a moderate effect, which would be partly negative due to the presence due to the presence of new built form across the majority of the receptor, but also partly positive due to the establishment of new hedgerows, woodlands and tree planting across the Site.
- 7.7.7. Hedgerows will be subject to moderate positive effect due to the establishment of extensive new and reinforced hedgerow planting across the Site.
- 7.7.8. Canopy trees will be subject to a moderate positive effect due to the establishment of substantial quantities of new trees across the Site.
- 7.7.9. Woodland will be subject to a moderate positive effect due to the establishment of large numbers of trees over limited parts of the Site.
- 7.7.10. With respect to non-significant effects the following has been identified:
- Fields – moderate/minor negative effect due to presence of new built form within established grassland;
 - Wetland features – minor positive effect due to enhanced/widened wetland grassland corridors and new ponds/scrapes;
 - The tranquility of the Site – minor negative due to increased audible intrusion associated with Substation/BESS and maintenance operations;
 - LCA 7: Aire Valley – negligible negative as a result of the physical presence of new built form within a very limited extent of the receptor;
 - LCA 13: Haddlesey Farmland – minor negative as a result of the physical presence of new built form within a small extent of the receptor; and
 - LCA 15: Camblesforth Farmland – moderate/minor negative as a result of the

physical presence of new built form within a moderate extent of the receptor.

Visual Effects

- 7.7.11. Following establishment of proposed planting **at Year 15, there would be no significant visual effects** as a result of the Proposed Development.
- 7.7.12. Users of PRow within the Site (VP1, VP11) would experience moderate negative effects as a result of partial views of the Proposed Development seen over a moderately extensive area.
- 7.7.13. The remainder of receptors will experience effects that are less than moderate and also less than significant. These effects are summarised for each visual receptor group in Table 7.9 below.

Table 7.9 Summary of Residual Non-Significant Visual Effects – Operational Phase

Visual Receptor	Viewpoint	Effect
Users of PRow	VP8	Minor / moderate negative as a result of short range glimpsed/partial views of the Proposed Development.
Users of PRow	VP2, VP9, VP19, VP21, and VP25	Negligible or minor/negligible negative or neutral as a result of strongly filtered short to medium distance views of the Proposed Development.
Users of PRow	VP20	No effect.
Residents	VP5, and VP8	Minor negative as a result of close range glimpsed/filtered partial views of the Proposed Development.
Residents	VP2, VP4, VP6, VP8, VP22, and VP23	Reversible negligible negative / neutral as a result of short to medium range, strongly filtered/glimpsed views of the Proposed Development.
Residents	VP14, VP15, VP20, and VP27	No effect.
People travelling in vehicles	VP3	Minor negative as a result of close-range partial glimpses of the Proposed Development.
People travelling in vehicles	VP3, VP4, VP5, VP6, VP7, VP10, VP12, VP13, VP16,	Negligible or minor-negligible negative or neutral as a result of short to medium range glimpsed/filtered/partial views of the Proposed Development.

Visual Receptor	Viewpoint	Effect
	VP17, VP18, VP22, and VP24	
People travelling in vehicles	VP14, VP15, and VP27	No effect.
Walkers and Cyclists	VP3, VP5	Minor negative as a result of close range glimpsed partial views of the Proposed Development.
Walkers and Cyclists	VP3, VP4, VP6, VP7, VP10, VP12, VP13, VP16, VP17, VP18, VP22, VP24	Minor/negligible or negligible negative or neutral due to short to medium range glimpsed/filtered/partial views of the Proposed Development.
Walkers and Cyclists	VP14, VP15, VP26, VP27	No effect.
Visitors to Hirst Courteney Cricket Club	VP23	Negligible neutral as a result of barely perceptible distant views of the Proposed Development.
Visitors to Brayton Barff and Hambleton Hough	VP28, VP29	No effect.

7.8. Cumulative Effects

- 7.8.1. The following section of this chapter provides a preliminary assessment of the likely significant cumulative landscape and visual effects of the Proposed Development in combination with the cumulative schemes identified in Chapter 15 Cumulative Effects of the PEIR.
- 7.8.2. Cumulative effects are considered in terms of the additional effects of the Proposed Development in conjunction with the cumulative schemes, where they are judged likely to result in significant effects.
- 7.8.3. Additional illustrative material will be prepared to support the cumulative assessment in the ES. This will include cumulative ZTVs and cumulative visualisations, where appropriate, to assist in identifying the likely significant cumulative effects.
- 7.8.4. In accordance with GLVIA3 (paragraph 7.21), the study area for the consideration of landscape effects in the PEIR has been set to the LCAs containing the Site (i.e. LCA

7: Aire Valley; LCA 13: Haddlesey Farmland; and LCA 15: Camblesforth Farmland). It is within these LCAs that direct cumulative effects of the Proposed Development together with the cumulative schemes have the potential to significantly change the baseline landscape character. Due to the restricted visual envelope of the Proposed Development in relation to the LCAs, it is considered highly unlikely that significant indirect cumulative effects will arise.

7.8.5. For the assessment of cumulative visual effects, the study area is the same as that set out for the assessment of visual effects for the Proposed Development, as this has been based on the visual envelope of the Proposed Development, and no viewpoints have been identified beyond these limits. Considering the restricted height of the Proposed Development and the nature of the landscape, it is highly unlikely that it will contribute to a significant cumulative effect further afield.

7.8.6. A summary table of cumulative effects is included at the end of this section in Table 7.12: Summary of Cumulative Effects.

Cumulative Landscape Effects

7.8.7. On the basis of the above, Table 7.10 below sets out the approach to the inclusion of cumulative schemes for landscape effects:

Table 7.10: Scoping of Cumulative Schemes for Landscape Effects

Cumulative Scheme ID	Scheme Description	Approach to Scoping for Landscape Assessment	Justification
CS1	Solar Farm. Land South of A645, Wade House Lane, Drax (Ref: 2023/0128/EIA)	Scoped in	CS1 is within LCA 15 - Camblesforth Farmland
CS2	East Yorkshire Solar Farm Nationally Significant Infrastructure Project ('NSIP') (PINS Ref: EN010143)	Scoped out	Whilst the underground cable corridor for the connection to the grid for the Proposed Development overlaps with the grid connection CS2 and both are located in the same LCA, the distance between proposed solar PV arrays is approximately 8km. Furthermore, the proposed solar PV elements for CS2 are not within the same LCA as the Site. Moreover, the above ground elements proposed for this scheme within LCA 15 are expected to be in be within the existing National Grid Drax Substation. Due to the short

Cumulative Scheme ID	Scheme Description	Approach to Scoping for Landscape Assessment	Justification
			duration of construction impacts and limited above ground impact typical of underground cable routes for solar, significant cumulative effects are considered unlikely.
CS3	Drax Bioenergy with Carbon Capture and Storage Project NSIP (PINS Ref: EN010120)	Scoped in	CS1 is within LCA 15 – Camblesforth Farmland
CS4	Battery Energy Storage Facility. Land Off New Road, Drax (Ref: 2020/1357/FULM)	Scoped out	Whilst CS4 is within LCA 15 – Camblesforth Farmland, it is located approximately 2.2km from the Proposed Development’s Solar Farm Zone, where its solar PV panels would be located. Furthermore, the minimal scale of the facility, and its proximity to existing industrial development at Drax Power Station is such that significant cumulative landscape effects are unlikely to occur.
CS5	Battery Energy Storage Facility. Land Off Hales Lane, Drax (Ref: 2021/1089/FULM)	Scoped out	Whilst CS5 is within LCA 15 – Camblesforth Farmland, it is located approximately 2.2km from the Proposed Development’s Solar Farm Zone, where of the Site where its solar PV panels would be located. Furthermore, the minimal scale of the facility, and its proximity to existing industrial development at Drax Power Station is such that significant cumulative landscape effects are unlikely to occur.
CS6	Solar Farm. Land North and South of Camela Lane, Camblesforth (Ref: 2021/0788/EIA)	Scoped in	CS6 is within LCA 15 - Camblesforth Farmland
CS7	Ash Recovery Scheme. Drax Power Station, Drax (Ref: 2022/0107/NYSCO)	Scoped in	CS7 is within LCA 15 - Camblesforth Farmland
CS8	Converter Station and underground cable connection. Land to the East of New Road, Drax (Ref: 2022/0711/EIA)	Scoped out	Whilst CS8 is within LCA 15 - Camblesforth Farmland, the majority of the scheme is an underground cable route, and the above ground component is relatively restricted in scale and in close proximity to Drax Power Station. Furthermore, this part of CS8 is located approximately 2.5km from the main part of the Site. Considering the separation distance between the main elements of the developments, and that no significant effects on LCA 15 were recorded in the LVIA for

Cumulative Scheme ID	Scheme Description	Approach to Scoping for Landscape Assessment	Justification
			CS8, significant cumulative effects are considered unlikely.
CS9	Battery Energy Storage Facility. Land Adjacent to Barlow Common Road, Barlow, Selby (Ref: 2022/0287/SCN)	Scoped out	Whilst CS9 is within LCA 15 - Camblesforth Farmland, the scheme is relatively limited in scale and located approximately 875m from the Site. Therefore, significant cumulative landscape effects are considered unlikely.
CS10	Wind turbines. Newlands Farm, Turnham Lane, Cliffe, Selby (Ref: 2021/0348/SCN)	Scoped out	CS10 is not within the same LCA as the Proposed Development and is located approximately 2.5km away from the Site. Therefore, significant cumulative landscape effects are considered unlikely.
CS11	Demolition of part of power station, and redevelopment for employment. Eggborough Power Station, Selby Road, Eggborough (Ref: 2019/1343/EIA)	Scoped out	CS11 is not within the same LCA as the Proposed Development and is located approximately 2.9km away from the Site. Therefore, significant cumulative effects are considered unlikely.
CS12	Solar farm. Land near Osgodby Grange, South Duffield Road, Osgodby, Selby (Ref: 2021/0978/FULM)	Scoped out	CS12 is not within the same LCA as the Proposed Development and is located approximately 7km away from the Site. Therefore, significant cumulative effects are considered unlikely.
CS13	Employment Park. Former Kellingley Colliery, Turvers Lane, Kellingley, 14Knottingley (Ref: 2016/1343/OUTM)	Scoped out	CS13 is not within the same LCA as the Proposed Development and is located approximately 10km away from the Site. Therefore, significant cumulative effects are considered unlikely.
CS14	Employment development. Bradholme Farm, High Levels Bank, Thorne, Doncaster (Ref: 21/00500/OUTA)	Scoped out	CS13 is not within the same LCA as the Proposed Development and is located approximately 10km away from the Site. Therefore, significant cumulative effects are considered unlikely.

7.8.8. Only those landscape receptors considered likely to experience cumulative effects are included within the scope of this assessment. Receptors that are considered unlikely to experience significant effects have been scoped out as follows.

7.8.9. In terms of landscape features (i.e. Fields, Hedgerows, Canopy Trees, Woodland and Wetland Features), for the purposes of this cumulative assessment, these receptors and the effects of the Proposed Development are entirely contained within the Site's boundary. Therefore, no cumulative effects will occur, as these receptors

will not be affected by the cumulative schemes.

- 7.8.10. Similarly, the character and tranquillity of the Site are primarily influenced by landscape change that occurs within the Site itself, and while changes to the wider setting have the potential to alter perceptual aspects of these receptors, considering the location and nature of the cumulative schemes, it is considered appropriate to scope out these receptors, as the additional effects of the cumulative schemes are unlikely to alter the findings of the assessment from the Proposed Development on its own.
- 7.8.11. With respect to landscape character, the cumulative schemes included within the scope of this assessment (CS1, CS3, CS6 and CS7) are all within LCA 15 - Camblesforth Farmland and no cumulative schemes are located within LCA 7: Aire Valley or LCA13: Haddlesey Farmland.
- 7.8.12. On the basis of the above, the cumulative landscape effects of the Proposed Development in combination with cumulative schemes CS1, CS3, CS6 and CS7 are most suitably identified in the context of LCA 15: Camblesforth Farmland. The cumulative effects on this landscape receptor are set out below.

Construction Phase

- 7.8.13. Should all four of the cumulative schemes scoped into this assessment (as identified in Table 7.10) and the Proposed Development be constructed at the same time, there will be cumulative construction effects for a period of approximately 12 months across an extensive proportion of the LCA, with associated increased activity, noise and visual intrusion, including construction traffic on roads.
- 7.8.14. The change in character will be large in size and scale and would apply to a medium/large extent of the receptor as construction activities would become a dominant feature within the LCA albeit for a short term/temporary period. This would result in a medium/substantial effect magnitude.
- 7.8.15. In combination with the low-medium sensitivity for the receptor, this is judged to result in a temporary and reversible moderate and negative cumulative effect (not significant) as a result of the construction phase.

Operational Phase

- 7.8.16. Following completion of the Proposed Development and the cumulative schemes, there would be an increased presence of solar PV development within the LCA as a result of the Proposed Development in combination with cumulative schemes CS1 and CS6.
- 7.8.17. However, considering the baseline environment of Drax Power Station and the nature of cumulative schemes CS3 and CS7, which are primarily contained within the existing footprint of the power station and its associated ash mound, the changes introduced as a result of those schemes once complete are unlikely to appreciably alter the character of their receiving environments. Therefore, it is unlikely that significant cumulative effects will occur as a result of the interaction between these schemes and the Proposed Development. This is supported by the LVIA prepared by WSP UK Ltd¹⁴ for cumulative scheme CS3, which does not identify significant effects on landscape character.
- 7.8.18. With respect to the Proposed Development in combination with CS1 and CS6 at Year 1, the cumulative schemes would extend to a degree the extent of solar PV development within the LCA. However, a substantial proportion of the receptor would not be directly affected. On this basis, the overall geographical extent of the LCA affected would be medium and the scale of change would be medium/large, resulting in a medium magnitude of effect. In combination with the low-medium sensitivity of the receptor, the cumulative effect at Year 1 of the operational phase is judged to be moderate negative (not significant).
- 7.8.19. Following establishment of proposed planting (both that included within the Proposed Development and as part of CS1 and CS6), there will be a substantial increase in vegetative cover across a moderate proportion of the LCA, including new native hedgerows and woodland, in accordance with published landscape guidelines. As a result of this planting, the degree to which the Proposed Development and CS1/CS6 are perceived within the landscape of the LCA will be reduced, albeit changes to the physical fabric as a result of the introduction of built form will remain.

¹⁴ Available at: <https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN010120/documents?page=30>. Accessed 13th September 2023.

7.8.20. Furthermore, the establishment of proposed planting and habitats will improve the biodiversity value of the LCA as a whole. On this basis, at Year 15, the cumulative scale of change will be medium/small, over a medium extent of the receptor, resulting in a medium/slight effect magnitude. In combination with the low/medium sensitivity of the receptor, this is judged to result in a moderate/minor negative residual effect, which is not considered significant.

Decommissioning Phase

7.8.21. The cumulative decommissioning effects on LCA 15: Camblesforth Farmland are likely to be reduced in scale due to the presence of established planting (for the Proposed Development and cumulative schemes CS1 and CS6). As such, the perception of change is likely to be reduced, while the beneficial landscape effects of the schemes (e.g. tree planting) will remain in place and contribute to overall landscape character. The decommissioning phase is expected to be medium/large in scale over a moderate extent of the receptor for a temporary and short term period, resulting in a medium/slight effect magnitude. On the basis of the low-medium sensitivity of the receptor, this will result in a temporary and reversible minor negative effect, which is not considered significant.

Cumulative Visual Effects

7.8.22. Table 7.11 below sets out the approach to the inclusion of cumulative schemes for visual effects.

Table 7.11: Scoping of Cumulative Schemes for Visual Effects

Cumulative Scheme ID	Scheme Description	Approach to Scoping for Visual Assessment	Justification
CS1	Solar Farm. Land South of A645, Wade House Lane, Drax (Ref: 2023/0128/EIA)	Scoped in	There is the potential for intervisibility between the Proposed Development and CS1 in views from the A1041.
CS2	East Yorkshire Solar Farm NSIP (PINS Ref: EN010143)	Scoped in	The proposed Solar PV sites for CS2 are located outside the study area, and it is highly unlikely that significant cumulative visual effects will occur as a result of this part element of CS2. However, views of the above ground element of CS2 are likely to be possible from New Road alongside the Proposed Development's Underground Cable Corridor for the grid connection.

Cumulative Scheme ID	Scheme Description	Approach to Scoping for Visual Assessment	Justification
CS3	Drax Bioenergy with Carbon Capture and Storage Project NSIP (PINS Ref: EN010120)	Scoped in	There is the potential for intervisibility between the Proposed Development and CS3 in views from the A1041/New Road.
CS4	Battery Energy Storage Facility. Land Off New Road, Drax (Ref: 2020/1357/FULM)	Scoped in	There is the potential for intervisibility between the Proposed Development and CS4 in views from New Road.
CS5	Battery Energy Storage Facility. Land Off Hales Lane, Drax (Ref: 2021/1089/FULM)	Scoped out	There is unlikely to be any notable intervisibility with the Proposed Development. Significant cumulative effects are highly unlikely.
CS6	Solar Farm. Land North and South of Camela Lane, Camblesforth (Ref: 2021/0788/EIA)	Scoped in	There is the potential for intervisibility between the Proposed Development and CS6 in views from the A1041.
CS7	Ash Recovery Scheme. Drax Power Station, Drax (Ref: 2022/0107/NYSCO)	Scoped out	There is unlikely to be any notable intervisibility between CS7 and the Proposed Development, with a minimum separation between the cumulative scheme and the Proposed Development's Solar Farm Zone of approximately 1.6km.
CS8	Converter Station and underground cable connection. Land to the East of New Road, Drax (Ref: 2022/0711/EIA)	Scoped in	There is the potential for intervisibility between the Proposed Development and CS8 in views from New Road.
CS9	Battery Energy Storage Facility. Land Adjacent to Barlow Common Road, Barlow, Selby (Ref: 2022/0287/SCN)	Scoped out	There is no intervisibility between CS9 and the Proposed Development due to intervening vegetation. Due to the limited scale of CS9, significant visual effects in combination with the Proposed Development are considered unlikely.
CS10	Wind turbines. Newlands Farm, Turnham Lane, Cliffe, Selby (Ref: 2021/0348/SCN)	Scoped out	With a maximum height of 150m, there is potential for cumulative visual effects with the Proposed Development. However, at a distance of approximately 2.4km and in the context of a flat, landscape with frequent tall infrastructure and wooded horizons, CS10 is unlikely to appreciably contribute to significant cumulative visual effects.
CS11	Demolition of part of power station, and redevelopment for employment. Eggborough Power Station, Selby Road, Eggborough (Ref: 2019/1343/EIA)	Scoped out	Due to the existing industrial context and presence of built form at the location of CS11, and the distance from the Site (2.9km). Significant cumulative effects in combination with the Proposed Development are considered unlikely.

Cumulative Scheme ID	Scheme Description	Approach to Scoping for Visual Assessment	Justification
CS12	Solar farm. Land near Osgodby Grange, South Duffield Road, Osgodby, Selby (Ref: 2021/0978/FULM)	Scoped out	CS12 is beyond the extent of the study area at a distance of approximately 7km from the Site. Therefore, significant cumulative visual effects are considered unlikely.
CS13	Employment Park. Former Kellingley Colliery, Turvers Lane, Kellingley, 14Knottingley (Ref: 2016/1343/OUTM)	Scoped out	CS13 is beyond the extent of the study area at a distance of approximately 10km from the Site. Therefore, significant cumulative visual effects are considered unlikely.
CS14	Employment development. Bradholme Farm, High Levels Bank, Thorne, Doncaster (Ref: 21/00500/OUTA)	Scoped out	CS14 is beyond the extent of the study area at a distance of approximately 10km from the Site. Therefore, significant cumulative visual effects are considered unlikely.

Construction Phase

- 7.8.23. The potential cumulative visual effects of the Proposed Development in combination with the above cumulative schemes are set out below. This has been considered on the basis of specific viewpoints and receptor groups.

Views from the A1041 – Viewpoint 13

- 7.8.24. Road users are likely to have open, in-succession views from the A1041, with construction activities associated with the Proposed Development visible to the south-west and those related to CS6 seen to the north-east, in the context of existing views of Drax Power Station. It is likely that there will also be distant views of construction activities relating to CS3 at Drax Power Station itself. However, due to the distance and context of existing large-scale built form at the power station, this is unlikely to contribute appreciably to the scale of change. These views will be experienced for approximately 200m of the linear route on a main road.
- 7.8.25. The combined scale of construction activities will be perceived as medium and seen across a large geographical area on a short-term basis, resulting in a medium/substantial magnitude of change. In combination with the low sensitivity of receptors in this location, the cumulative effect will be minor/moderate and negative, which is considered not significant.

Residents in Camblesforth – Viewpoint 14

- 7.8.26. Approximately 13 dwellings on the north side of the A1041 are likely to have views of the construction of the Proposed Development to the south and that of cumulative scheme CS6 to the north. However, CS6 is at a distance of over 300m, with substantial intervening field boundary vegetation, with partial views only likely from first floor windows. There may also be views of construction activities related to CS3, at a distance of approximately 1.8km. However, in the context of existing views of Drax Power Station, they are unlikely to contribute appreciably to a cumulative effect. Views will be sequential rather than in combination.
- 7.8.27. On this basis, the combined scale of change relating to construction will be small, with a medium/large geographical extent of change for a short, temporary duration, resulting in a slight/medium magnitude of change. Considering the medium sensitivity of receptors in this location, the resultant effect is judged to be minor/moderate and negative, which is not significant.

Views from the A1041 – Viewpoint 16

- 7.8.28. The LVIA prepared by Liz Lake Associates¹⁵ in support of cumulative scheme CS1 states that '*users of the A1041 Station Road between Camblesforth and Carlton would not receive views of the proposed array until south of the railway line. At this point it would be possible, for glimpsed, transient, long distance oblique views into the western most section of the array*'. This analysis is reflected in the viewpoint photography provided alongside the assessment. The magnitude of change for receptors in this location as a result of the construction of CS1 is identified as negligible.
- 7.8.29. There may also be distant views of construction activities related to CS3. However, at a distance of 2km and in the context of existing partial views of the power station, these are unlikely to contribute appreciably to a cumulative effect.
- 7.8.30. On this basis, whilst there are likely to be sequential views of construction activities between the Proposed Development and CS1, due to the negligible predicted

¹⁵ Available at:

https://publicaccess1.selby.gov.uk/PublicAccess_LIVE/Document/ViewDocument?id=5D43C3A4DA5C11EBA5C9005056B348EC.

Accessed 13th September 2023.

magnitude of CS1 on views from the road, and the separation distance between the views, there would be no additional cumulative effect.

Views from the A645 – Viewpoint 17

- 7.8.31. From the viewpoint itself, no in combination views with the cumulative schemes are expected due to intervening vegetation to the south of the road and the distance of separation to CS1. This will apply to approximately 600m of the western extent of the road. However, sequential/combined views of construction activities for visual receptors travelling along the road are likely as a result of cumulative schemes CS1, CS3 and the Proposed Development's Underground Cable Corridor to the grid connection. These views are likely particularly as the boundaries for CS1 and the Proposed Development overlap for approximately 800m of the A645.
- 7.8.32. However, the nature of construction activities relating to the Proposed Development's Underground Cable Corridor to the grid connection is such that the change will be of limited scale. Furthermore, the LVIA prepared by Liz Lake Associates for CS1 identifies a negligible negative magnitude of change as result of construction of the cumulative scheme. Works Plans for CS3 indicate that approximately 375m of the eastern extent of the A645 are included and proposed for 'Works to Facilitate Construction Access'. In the context of the receiving environment (i.e. a main road adjacent to Drax Power Station), the change proposed is likely to be limited in scale.
- 7.8.33. Considering the combined effect of the construction of the Proposed Development and CS1/CS3 on people travelling on the A645, the scale of change will be small but experienced over a relatively extensive linear route resulting in a medium/large geographical extent for a short term, temporary period. On this basis, the magnitude of visual change will be slight, which when combined with the low sensitivity of receptors, results in a minor/negligible negative cumulative effect, which is not significant.

Views from New Road – Viewpoint 18

- 7.8.34. Road users are likely to have close range combined and sequential views of construction activities relating to CS2, CS3, CS4 and CS8, seen in the context of existing close-range views of Drax Power Station, albeit construction will occur both sides of the road. These views may be experienced from approximately 1.6km of the

road, but are likely to be intermittent, with only a limited extent of the southern part of the road where combined views including the Proposed Development will be experienced. Construction activities are likely to result in a moderate degree of alteration to the composition of views perceived over a moderate extent for a short-term period, resulting in a slight effect magnitude.

- 7.8.35. On the basis of the low sensitivity of receptors in this location, the cumulative effect on people travelling in vehicles and walkers and cyclists is judged to be minor/negligible, negative and not significant.

Operational Phase

- 7.8.36. Following completion of the Proposed Development and the cumulative schemes the following effects are considered likely:

Views from the A1041 – Viewpoint 13

- 7.8.37. Road users are likely to have open, in succession views from the A1041, with the Proposed Development visible to the south-west and CS6 seen in close range views to the north-east. It is likely that there will also be distant views of CS3 at Drax Power Station. However, due to the distance and context of existing large-scale built form at the power station, this is unlikely to contribute appreciably to the cumulative effect. Views will be experienced from approximately 200m from the road, with solar PV arrays within the Proposed Development set back approximately 140m from the road. Both schemes will be seen behind newly planted woodland/hedgerows, including substantial ‘vegetation barriers’ which are proposed as part of CS6, and which will provide a limited degree of initial filtering of views.
- 7.8.38. On the above basis, the scale of change at year 1 will be small / medium, and perceived over a medium extent, resulting in a medium magnitude of change. In combination with the low sensitivity of receptors, the resultant effect will be minor negative.
- 7.8.39. At Year 15, following establishment of proposed planting, only glimpsed partial views of proposed solar PV panels will be experienced in very limited locations along the road. The scale of cumulative change is likely to be barely perceptible from very limited locations of the route, resulting in a negligible scale and negligible geographic extent. In combination with the low sensitivity of receptors in this location, the

residual effect will be negligible negative.

Residents in Camblesforth – Viewpoint 14

- 7.8.40. Approximately 13 dwellings on the north side of the A1041 will have views of the Proposed Development to the south and cumulative scheme CS6 to the north. However, CS6 will be seen at a distance of approximately 300m, with substantial intervening field boundary vegetation, with partial views only likely from first floor windows. Views of the Proposed Development will be seen at a distance of 125m. Furthermore, views will not be seen in combination. Planting proposals associated with the Proposed Development will provide limited initial filtering at Year 1.
- 7.8.41. On this basis, the combined scale of change will be small, experienced over a medium extent, resulting in a medium/slight magnitude of change. In combination with the medium sensitivity of receptors, the resultant effect would be moderate negative and significant.
- 7.8.42. Following establishment of 15m woodland belts along the northern edge of the Site, there will be no views of the Proposed Development and therefore no cumulative effect at Year 15.

Views from the A1041 – Viewpoint 16

- 7.8.43. Due to the separation distance between available views and the negligible impact on views identified as a result of CS1 and set out in the Liz Lake Associates LVIA, there is considered to be no cumulative effect as a result of the Proposed Development's operational phase.

Views from the A645 – Viewpoint 17

- 7.8.44. From the viewpoint itself, no in combination views with the cumulative schemes and the Proposed Development are expected due to intervening vegetation to the south of the road and the distance of separation to CS1. Views of CS1 from the road are likely to be only partial filtered glimpses of the Proposed Development's Substation beyond intervening vegetation on the A645. The separation distance between this view and where proposed solar PV panels will be visible in glimpsed partial views on the Site is approximately 750m. On this basis, there is judged to be no cumulative effect.

Views from New Road – Viewpoint 18

- 7.8.45. Road users are likely to have close to medium range views of completed development proposals relating to the Proposed Development, CS2, CS3, CS4 and CS8. New above-ground built form will primarily be seen on the existing Drax Power Station site, where the scale of change will be limited. However, new built form relating to CS4 and CS8 is also likely to be seen to the east of the road, albeit generally set back from the road. In combination, the impact on views will be partial to moderate perceived over a moderate extent, resulting in a small/medium scale and medium geographical extent, resulting in slight/medium effect magnitude.
- 7.8.46. At Year 1 of the Proposed Development's operational phase, in combination with the low sensitivity of the visual receptor, the resulting effect will be minor negative, which is not significant.
- 7.8.47. At Year 15, following establishment of proposed landscape screening associated with cumulative scheme CS4, and those anticipated to be provided with CS8¹⁶, the visibility of these schemes from New Road will be substantially reduced, such that only glimpsed or filtered partial views of these schemes will remain. The above ground elements of CS2 and CS3 will be seen within the immediate setting of Drax Power Station, with very little contrast from the receiving environment.
- 7.8.48. As a result, the scale of change will be small/negligible, perceived over a moderate extent, resulting in a slight effect magnitude. In combination with the low sensitivity of receptors, this will result in a minor/negligible effect which is judged to be neutral in nature due to the context of existing large scale industrial built form at Drax Power Station.

Decommissioning Phase

Views from the A1041 – Viewpoint 13

- 7.8.49. Decommissioning activities for both the Proposed Development and CS6 are likely to be seen in glimpsed views from limited sections of the road, with a higher scale of

¹⁶ Outline Landscape Mitigation Plan. Available at:

https://publicaccess1.selby.gov.uk/PublicAccess_LIVE/Document/ViewDocument?id=1A2435804758407AB2FEB60EA50CC9A2.

Accessed 13th September 2023.

change likely to be associated with access points on the A1041. The effects will be for a short duration. The scale of change will be small perceived over a negligible extent resulting in a negligible magnitude of change. In combination with the low sensitivity of receptors, the result effect would be negligible negative, which is not significant.

Residents in Camblesforth – Viewpoint 14

7.8.50. Receptors in this location are unlikely to perceive decommissioning activities due to established woodland planting as part of the Proposed Development. Therefore, no cumulative effect is anticipated.

Views from the A1041 – Viewpoint 16

7.8.51. Due to the separation distance between available views and the negligible impact on views identified as a result of CS1 and set out in the Liz Lake Associates LVIA, there is considered to be no cumulative effect as a result of the decommissioning phase.

Views from the A645 – Viewpoint 17

7.8.52. For road users on the A645, cumulative effects related to decommissioning will be no greater than those identified as a result of the construction phase, and therefore minor/negligible negative which is not significant.

Views from New Road – Viewpoint 18

7.8.53. For road users on New Road, cumulative effects related to decommissioning will be no greater than those identified as a result of the construction phase, and therefore minor/negligible negative which is not significant.

7.8.54. Table 7.12 below provides a summary of the cumulative effects identified.

Table 7.12: Summary of Cumulative Effects

Receptor	Effects			
	Construction	Operation		Decommissioning
		Year 1	Year 15	
LCA 15 Camblesforth Farmland	Moderate negative (not significant)	Moderate negative (not significant)	Moderate / minor negative (not significant)	Minor negative (not significant)
People travelling in vehicles (A1041 VP 13)	Minor / moderate negative (not significant)	Minor negative (not significant)	Negligible negative (not significant)	Negligible negative (not significant)

Receptor	Effects			
	Construction	Operation		Decommissioning
		Year 1	Year 15	
Walkers and cyclists (A1041 VP 13)	Minor / moderate negative (not significant)	Minor negative (not significant)	Negligible negative (not significant)	Negligible negative (not significant)
Residents (Camblesforth VP14)	Minor / moderate negative (not significant)	Moderate negative (not significant)	No cumulative effect	No cumulative effect
People travelling in vehicles (A1041 VP 16)	No cumulative effect	No cumulative effect	No cumulative effect	No cumulative effect
Walkers and cyclists (A1041 VP 16)	No cumulative effect	No cumulative effect	No cumulative effect	No cumulative effect
People travelling in vehicles (A645 VP 17)	Minor / negligible negative (not significant)	No cumulative effect	No cumulative effect	Minor / negligible negative (not significant)
Walkers and cyclists (A645 VP 17)	Minor / negligible negative (not significant)	No cumulative effect	No cumulative effect	Minor / negligible negative (not significant)
People travelling in vehicles (New Road VP 18)	Minor / negligible negative (not significant)	Minor negative (not significant)	Minor / negligible neutral (not significant)	Minor / negligible negative (not significant)
Walkers and cyclists (New Road VP 18)	Minor / negligible negative (not significant)	Minor negative (not significant)	Minor / negligible neutral (not significant)	Minor / negligible negative (not significant)

7.9. Summary

- 7.9.1. An assessment of the likely landscape and visual effects arising from the Proposed Development has been undertaken in accordance with the Guidelines for Landscape and Visual Impact Assessment, Third Edition.
- 7.9.2. The landscape and visual baseline has been comprehensively reviewed and recorded by way of desktop studies and field surveys, including analysis of relevant policy and evidence base. The baseline with respect to Site context, land-use and pattern, topography, access and designations has been described, as well as the character and physical features of the Site and the visual baseline.
- 7.9.3. The Site is not designated in landscape terms, and there are no national designations for landscape and scenic beauty within the study area. Local landscape designations are present within the wider area, and there are a number of heritage assets dispersed throughout the study area.
- 7.9.4. Review and analysis of national, county and borough level published landscape character assessments has been carried out. They describe a low-lying, flat drained

landscape with a geometric field pattern that is dominated by major energy and transport infrastructure. Land use is predominantly arable, with some commercial greenhouses.

- 7.9.5. Guidance for development set out in published character assessments includes:
- Recreation of a wider range of habitats in arable areas, including grassland field margins;
 - Restore and enhance wetland habitats;
 - Protect the open character;
 - Provide links to existing PRowS; and
 - Create new woodland and shelterbelts, and reinstate field boundaries hedgerows.
- 7.9.6. The Site comprises an extensive area of arable farmland delineated by fragmented hedgerow and ditches with occasional trees and woodland and sub-divided by country lanes. It has a simple, open and strongly agricultural character with a strong visual influence of industrial built form. Notwithstanding the visual intrusion of the above, and other built forms and land uses noted above, there is some sense of tranquillity and an overriding rural character.
- 7.9.7. In visual terms, as an extensive area of open farmland, with a fragmented and denuded vegetation pattern, the Site is inevitably visible in close range views from the network of PRow and rural lanes that extend across and adjacent to it. However, with increased distance, the combination of a flat landscape and screening provided by successive fragmented field boundaries, occasional woodland blocks and agricultural buildings results in the Site interior being strongly filtered or screened in longer distance views.
- 7.9.8. The future baseline of the Site has been considered based on the year 2026.
- 7.9.9. A comprehensive series of mitigation measures has been embedded in the design of the Proposed Development from the outset, with the aim of reducing adverse effects resulting from its introduction. The design of the Proposed Development has evolved as part of an iterative process and has been informed by the findings of initial landscape and visual appraisals. The mitigation strategy includes the re-establishment of a strong pattern of hedgerows and tree belts, as well as extensive

areas of native wildflower grassland planting and wetland habitats. These measures have been drawn from published landscape character assessment guidance.

- 7.9.10. An assessment of the likely landscape and visual effects of the Project has been undertaken during the construction phase and at Years 1 and 15 of operation. The effects relating to the decommissioning of the Proposed Development have also been assessed.
- 7.9.11. None of the landscape receptors are anticipated to experience significant negative effects as a result of the construction phase of the Proposed Development. Three receptors would experience moderate, and therefore not significant effects. These are the tranquillity of the Site, the overall character of the Site and LCA 15 Camblesforth Farmland. The remainder of receptors will experience effects that are not significant.
- 7.9.12. Three visual receptor groups are likely to experience moderate and not significant negative effects as a result of the construction phase of the Proposed Development. These are users of PRowS within or adjacent to the Site, walkers and cyclists within or adjacent to the Site, and residents of properties that lie adjacent to the Site (Quosquo Cottages, Rosehill Farm, Primrose Hill). The remainder of receptors will experience effects that are also not significant.
- 7.9.13. Once operational at Year 1, only one landscape receptor has been identified as likely to experience significant negative effects: a major/moderate effect on the Fields receptor. There is also potential for a moderate, and therefore less than significant, negative effects on the overall character of the Site, the Tranquillity of the Site, LCA 13 Haddlesey Farmland, and LCA 15, Camblesforth. The remainder of receptors will experience effects that are not significant, including three landscape receptors that will experience minor positive effects as a result of extensive planting.
- 7.9.14. At Year 1 of the operational phase, the following significant negative visual effects have been identified: major/moderate effects on users of PRowS within or adjacent to the Site, reducing to moderate in limited medium range views from two viewpoints; major/moderate adverse effects on walkers and cyclists within or adjacent to the Site, reducing to moderate adverse in limited medium range views; major/moderate adverse effects on a limited number of residents (Primrose Hill) who are located adjacent to the Site. These effects primarily relate to viewpoints within or immediately adjacent to the Site (all eight viewpoints 1, 3, 5, 7, 8, 9, 10 and 11). The remainder

of receptors will experience effects that are not significant.

- 7.9.15. With respect to decommissioning, there would be no significant effects on any landscape receptors. However, a moderate negative (and therefore less than significant) effect has been identified on one landscape receptor: the tranquillity of the Site. The remainder of receptors will experience effects that are not significant.
- 7.9.16. The decommissioning phase is not anticipated to result in significant effects on visual receptors as a result of the combination of established planting throughout the Site and the temporary, short-term duration of decommissioning activities.
- 7.9.17. Measures will be adopted by the project as mitigation for effects during the Proposed Development's construction and decommissioning phases. The residual effects during the construction and decommissioning phases will be the same as those identified above.
- 7.9.18. In terms of residual effects at Year 15 of the Proposed Development's operational phase, taking account of the growth and establishment of proposed planting, there would be no significant landscape effects as a result of the proposed development.
- 7.9.19. Moderate, and therefore not significant, positive effects will be experienced by three landscape receptors: hedgerows, canopy trees and woodland, due to the establishment of extensive planting proposals. The overall character of the Site will be subject to a moderate effect, which would be both positive (due to extensive planting and enhanced biodiversity) and negative (due to the solar PV panels and other built form) in nature.
- 7.9.20. Moderate, and therefore not significant visual effects will be experienced by some users of PRowS within the Site, or within 5 metres of the Site, where views of the Proposed Development remain. No significant residual effects will be experienced in wider views.
- 7.9.21. A cumulative landscape assessment has been carried out, identifying that the construction phase is likely to result in temporary moderate negative, and less than significant, effects on LCA 15: Camblesforth. This receptor will also be subject to a moderate negative and less than significant cumulative effect at Year 1 of the operational phase. This effect will reduce to moderate/minor on establishment of proposed planting. The remainder of cumulative landscape effects identified would

all be not significant.

- 7.9.22. With respect to cumulative visual effects, a limited number of residents in Camblesforth are likely to experience moderate negative and not significant effects at Year 1 of the operational phase. However, following establishment of proposed planting at Year 15, there will be no cumulative effects on this receptor group. The remainder of cumulative effects visual identified are not considered to be significant.
- 7.9.23. No significant cumulative visual effects have been identified as a result of the decommissioning phase.
- 7.9.24. Table 7.13 contains a summary of the preliminary assessment of the likely significant effects of the Proposed Development.

Table 7.13: Table of Significance – Landscape and Views

Potential Effect	Nature of Effect*	Significance **	Secondary Mitigation/ Enhancement Measures	Geographical Importance ***						Residual Effects ****	
				I	UK	E	R	UA	L		
Construction Phase (accounting for Embedded Mitigation and Measures to be Adopted by the Project)											
Effects on Landscape Features	Temporary, Very Short	No effect – Minor Negative (Not Significant)	None required							x	No effect – Minor Negative (Not Significant)
Effects on Landscape Character	Temporary, Very Short	Negligible – Moderate Negative (Not Significant)	None required						x	x	Negligible – Moderate Negative (Not Significant)
Effects on Visual Receptors	Temporary, Short Term	Moderate Negative (Significant)	None required							x	Moderate Negative (Not Significant)
Operational Phase (accounting for Embedded Mitigation and Measures to be Adopted by the Project)											
Effects on Landscape Features	Temporary, Medium Term	Major/Moderate - Moderate Negative (Significant)	Maintenance and management of planting proposals carried out in compliance with the							x	Moderate Negative and Positive (Not Significant)

Potential Effect	Nature of Effect*	Significance **	Secondary Mitigation/ Enhancement Measures	Geographical Importance ***						Residual Effects ****	
				I	UK	E	R	UA	L		
			LEMP.								
Effects on Landscape Character	Temporary, Medium term	Moderate Negative (Not Significant)	Maintenance and management of planting proposals carried out in compliance with the LEMP.					x	x	Moderate Negative and Positive (Not Significant)	
Effects on Visual Receptors	Temporary, Long Term	Moderate Negative (Not Significant)	Maintenance and management of planting proposals carried out in compliance with the LEMP.						x	Moderate to no effect Negative/neutral (Not Significant)	
Decommissioning Phase (accounting for Embedded Mitigation and Measures to be Adopted by the Project)											
Effects on Landscape Features	Temporary, Very Short Term	No effect– Minor Negative (Not Significant)	None required							x	No effect – Minor Negative (Not Significant)
Effects on Landscape Character	Temporary, Very Short Term	Negligible – Minor Negative (Not Significant)	None required					x	x	Negligible – Minor Negative (Not Significant)	

Helios Renewable Energy Project
PEIR

Potential Effect	Nature of Effect*	Significance **	Secondary Mitigation/ Enhancement Measures	Geographical Importance ***						Residual Effects ****
				I	UK	E	R	UA	L	
Effects on Visual Receptors	Temporary, Short Term	No effect – Moderate Negative (Significant)	None required						x	No effect – Minor Negative (Not Significant)
Cumulative Effects										
<i>Construction Phase</i>										
Effects on Landscape Features	These receptors are entirely contained within the Site’s boundaries. Therefore, no cumulative effects will occur, as these receptors will not be affected by the cumulative schemes and have been scoped out of the assessment.									
Effects on Landscape Character	Temporary, Short Term	Moderate Negative (Not Significant)	None required					x	x	Moderate Negative (Not Significant)
Effects on Visual Receptors	Temporary, Short Term	Moderate Negative (Not Significant)	None required						x	Moderate Negative (Not Significant)
Operational Effects										
Effects on Landscape Features	These receptors are entirely contained within the Site’s boundaries. Therefore, no cumulative effects will occur, as these receptors will not be affected by the cumulative schemes and have been scoped out of the assessment.									
Effects on Landscape Character	Temporary, Medium Term	Moderate Negative (Not Significant)	Maintenance and management of planting proposals					x	x	Moderate Negative (Not Significant)

Helios Renewable Energy Project
PEIR

Potential Effect	Nature of Effect*	Significance **	Secondary Mitigation/ Enhancement Measures	Geographical Importance ***						Residual Effects ****	
				I	UK	E	R	UA	L		
			carried out in compliance with the LEMP.								
Effects on Visual Receptors	Temporary, Long Term	Negligible – Moderate Negative (Not Significant)	Maintenance and management of planting proposals carried out in compliance with the LEMP.						x	Negligible – Moderate Negative (Not Significant)	
<i>Decommissioning Phase</i>											
Effects on Landscape Features	These receptors are entirely contained within the Site's boundaries. Therefore, no cumulative effects will occur, as these receptors will not be affected by the cumulative schemes and have been scoped out of the assessment.										
Effects on Landscape Character	Temporary, Short Term	Moderate Negative (Not Significant)	None required						x	x	Moderate Negative (Not Significant)
Effects on Visual Receptors	Temporary, Short Term	Negligible – Minor Negative (Not Significant)	Maintenance and management of planting proposals carried out in compliance with the							x	Negligible – Minor Negative (Not Significant)

**Helios Renewable Energy Project
PEIR**

Potential Effect	Nature of Effect*	Significance **	Secondary Mitigation/ Enhancement Measures	Geographical Importance ***						Residual Effects ****
				I	UK	E	R	UA	L	
			LEMP.							
Nature of Effect *	Permanent or Temporary Short-term, Medium-term, or Long-term									
Significance **	Major/ Moderate/ Minor/ Negligible/Neutral					Beneficial/ Adverse				
Geographical Importance ***	I = International; UK = United Kingdom; E = England; R = Regional; UA = Unitary Authority; L = Local									
Residual Effects ****	Major / Moderate / Minor / Negligible / Neutral					Positive / Negative				