

Rosefield Solar Farm

Outline Landscape and Ecological Management Plan (Clean)

EN010158/APP/7.6.5
Revision 05
Deadline 4
June 2026
Rosefield Energyfarm Limited

APFP Regulation 5(2)(q)
Planning Act 2008
Infrastructure Planning
(Applications: Prescribed Forms
and Procedure) Regulations 2009



Table of Contents

Table of Contents	1
1. Introduction	3
1.1. Purpose.....	3
1.2. The Order Limits	4
1.3. The Proposed Development.....	4
1.4. Outline LEMP Management Area	5
1.5. Relationship with other Documents and Future LEMPs.....	5
1.6. Legislation	6
1.7. Policy and Guidance	7
2. Summary of Baseline Environment	8
2.1. Site Description and Biodiversity Evaluation.....	8
2.2. Landscape Features.....	20
3. Green and Blue Infrastructure Strategy	27
3.1. Green Infrastructure Strategy	27
3.2. Blue Infrastructure Strategy	35
3.3. Management Objectives	37
4. Pre-Construction and Construction.....	48
4.1. Introduction	48
4.2. Community Liaison Group (CLG).....	48
4.3. Pre-Construction.....	49
4.4. Construction.....	56
4.5. Species-specific and Habitat-specific Mitigation	57
5. Operational Management.....	66
5.1. General Management.....	66
5.2. Habitat Management	69
5.3. Biodiversity Net Gain	75
5.4. Species mitigation and enhancement.....	76
6. Roles, Responsibilities and Monitoring	83
6.1. Roles and Responsibilities.....	83
6.2. Monitoring	83
7. Requirements for Detailed LEMP(s).....	89
8. References	90

Appendix 1: Green and Blue Infrastructure Parameters

Appendix 2: Landscape and Ecological Mitigation and Enhancements

Appendix 3: Vegetation Removal Parameters

Appendix 4: Management Programme Schedule

Appendix 5: Green and Blue Infrastructure Parameters - Buffer Widths

Appendix 6: Grazing Analysis

1. Introduction

1.1. Purpose

- 1.1.1. This **Outline Landscape and Ecology Management Plan (Outline LEMP)** has been prepared on behalf of Rosefield Energyfarm Limited ('The Applicant') to accompany the application for a Development Consent Order (DCO) for the construction, operation (including maintenance) and decommissioning of the proposed Rosefield Solar Farm (hereinafter referred to as the 'Proposed Development').
- 1.1.2. This document has been updated at Deadline 4 to secure that Tree Preservation Order protected trees which are removed during the operational (including maintenance) phase would also be replanted following matters raised at Issue Specific Hearing 2; to update text on the bat monitoring strategy and creation of lowland grassland following Issue Specific Hearing 1; to add Year 4 and Year 5 onwards (annually) to hedgerow maintenance in Table A4.1 in response to comment from Buckinghamshire Council; and to clarify that early planting will be undertaken no later than one year prior to construction in accordance with **ES Volume 4, Appendix 7.17: Biodiversity Net Gain Assessment [EN010158/APP/6.4.3]** in response to comments from Buckinghamshire Council. References to other application documents have not been updated from the original submission. Please refer to the **Guide to the Application [EN010158/APP/1.2.10]** for the list of current versions of documents.
- 1.1.3. This **Outline LEMP** provides a framework for delivering the Green and Blue Infrastructure elements of the Proposed Development for the construction and operation phases of the development including the successful establishment and future management of the proposed landscape and ecological works for the duration of its operation. It sets out the short and long-term measures and practices that will be implemented by the Applicant to establish, monitor and manage landscape and ecology mitigation and enhancement (including Biodiversity Net Gain (BNG)) measures embedded into the design.
- 1.1.4. This **Outline LEMP** has been produced with reference to the Biodiversity – Code of Practice for Planning and Development British Standard: BS42020:2013 **[Ref.1-1]** and in particular, Section 11.1 which provides details on the content of management plans.
- 1.1.5. This **Outline LEMP** has been informed by consultation and engagement with relevant consultees as part of the DCO Application process including Natural England, Buckinghamshire Council and Berks, Bucks and Oxon Wildlife Trust, and local residents. Full details of the consultation undertaken are outlined in **Environmental Statement (ES) Volume 2,**

Chapter 10: Landscape and Visual [EN010158/APP/6.2] and ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2].

- 1.1.6. This **Outline LEMP** has also been fully informed by survey work undertaken to inform the Ecological Assessment as outlined in **ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2]**, in particular the survey work using paired static bat detectors gives confidence that the approach to mitigation for foraging and commuting bat species by retaining woodland and protecting connecting hedgerows with suitable buffers is appropriate and likely to be effective in reducing habitat fragmentation for foraging and commuting bat species.

1.2. The Order Limits

- 1.2.1. The extent of the Order Limits are shown in **Location, Order Limits and Grid Coordinate Plans [EN010158/APP/2.1]** and the Proposed Development is described in full in **ES Volume 1, Chapter 3: Proposed Development Description [EN010158/APP/6.1]** and shown spatially on the **Works Plans [EN010158/APP/2.3]**.

1.3. The Proposed Development

- 1.3.1. The Proposed Development comprises the construction, operation (including maintenance), and decommissioning of solar photovoltaic ('PV') development and energy storage, together with associated infrastructure and an underground cable connection to the National Grid East Claydon Substation.
- 1.3.2. The Proposed Development would include a generating station with a total exporting capacity exceeding 50 megawatts ('MW').
- 1.3.3. The location of the Proposed Development is shown on **ES Volume 3, Figure 1.1: Location Plan [EN010158/APP/6.3]**. The Proposed Development would be located within the Order Limits (the land shown on the **Works Plans [EN010158/APP/2.3]** within which the Proposed Development can be carried out). The Order Limits plan is provided as **ES Volume 3, Figure 1.2: Order Limits [EN010158/APP/6.3]**. Land within the Order Limits is known as the 'Site'.
- 1.3.4. Green Infrastructure has been an integral part of the design process and permeates the Proposed Development as secured through this **Outline LEMP** in the **Green and Blue Infrastructure Parameters in Appendix 1**. Further details of the design evolution of Green Infrastructure are provided within the **Design Approach Document [EN010158/APP/5.8]** and in **ES Volume 1, Chapter 4: Reasonable Alternatives Considered [EN010158/APP/6.1]**.

- 1.3.5. Landscape structural planting, including tree planting, hedgerows, scrub, etc., created to deliver biodiversity mitigation and enhancement associated with the Proposed Development would be left in situ when the Site is returned to the landowner.

1.4. Outline LEMP Management Area

- 1.4.1. This **Outline LEMP** relates to all land included within the Order Limits as shown on the **Works Plans [EN010158/APP/2.3]** principally in relation to **Work Number 10** ('Work No.') (Green and Blue Infrastructure), but also other Work No. where management of the soft landscaping within or underneath development is required (e.g. underneath Solar PV modules in **Work No. 1**).

1.5. Relationship with other Documents and Future LEMPs

- 1.5.1. This **Outline LEMP** is set out in the context of the other environmental documentation plans submitted with the DCO Application including:
- **Design Approach Document [EN010158/APP/5.8].**
 - **Outline Construction Environmental Management Plan (Outline CEMP) [EN010158/APP/7.2].**
 - **Outline Operational Environmental Management Plan (Outline OEMP) [EN010158/APP/7.3].**
 - **Outline Decommissioning Environmental Management Plan (Outline DEMP) [EN010158/APP/7.4].**
 - **Outline Construction Traffic Management Plan (Outline CTMP) [EN010158/APP/7.5].**
 - **Outline Soil Management Plan [EN010158/APP/7.7].**
 - **Outline Rights of Way and Access Strategy (Outline RoWAS) [EN010158/APP/7.8].**
- 1.5.2. This **Outline LEMP** has also been informed by other documents including:
- **Forward to 2030: Biodiversity Action Plan (2023) [Ref.1-2].**
 - **Vision and Principles for the Improvement of Green Infrastructure in Buckinghamshire and Milton Keynes (2016) [Ref.1-3].**
 - **Green Infrastructure Opportunities Mapping - Buckinghamshire and Milton Keynes Natural Environment Partnership (2018) [Ref.1-4].**
 - **Reconnecting Bernwood, Otmoor and the Ray - A call to action (2023) [Ref.1-5].**
 - **Buckinghamshire Pilot Draft Local Nature Recovery Strategy (2021) [Ref. 1-6]**

- Interim Strategic Significance & Spatial Risk Guidance for Biodiversity Net Gain in Buckinghamshire Council's Local Planning Authority Area (2023) [Ref. 1-7]

- 1.5.3. Should the DCO be granted consent, detailed LEMP(s) will be produced for the Proposed Development in accordance with the DCO Requirement in Schedule 2 of the **Draft DCO [EN010158/APP/3.1]**. The LEMP(s) will require approval prior to commencement of construction and will be required to be substantially in accordance with the framework set out in this **Outline LEMP**, including the **Green and Blue Infrastructure Parameters** presented in **Appendix 1**, the **Landscape and Ecological Mitigation and Enhancements** in **Appendix 2** and **Vegetation Removal Parameters** presented in **Appendix 3**.
- 1.5.4. The Proposed Development is likely to be constructed in phases or parts, and it is envisaged that detailed LEMP(s) may be prepared, approved, and implemented for individual parts or phases of the Proposed Development. As a result, there could be multiple LEMP(s) prepared in accordance with this **Outline LEMP**. Each LEMP will be produced in line with this **Outline LEMP** following grant of the DCO and approved by the local planning authority in consultation with relevant parties in advance of the date of commencement of the relevant phase or part of the Proposed Development.
- 1.5.5. Each LEMP will include details of the location, number, species, size and planting density of any proposed planting including the details of any proposed tree, hedgerow and shrub planting and the proposed times of such planting.
- 1.5.6. Each LEMP will also include an update to the BNG Assessment and calculator to ensure that BNG above the mandatory 10% is delivered as identified by Project Principle 5.7 of the **Design Approach Document [EN010158/APP/5.8]**. The Applicant is committing a minimum net gain of 40% area habitat units, 17% hedgerow units and 10% watercourse units.

1.6. Legislation

- 1.6.1. This **Outline LEMP**, future LEMP(s) and all maintenance works must comply with relevant legislation and policy where applicable. Full details are provided in **ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2]** and **ES Volume 2, Chapter 10: Landscape and Visual [EN010158/APP/6.2]**. A non-exhaustive list of relevant legislation, policy and guidance is provided below:
- European Commission Birds Directive (2009/147/EC) [Ref.1-8].
 - Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (Habitats Directive) [Ref. 1-9].

- The Conservation of Habitats and Species Regulations 2017 (for England and Wales) (the Habitats Regulations) [Ref. 1-10].
- Wildlife and Countryside Act (WCA) 1981 (as amended) [Ref. 1-11].
- Countryside & Rights of Way Act 2000 (as amended) [Ref. 1-12].
- Natural Environment and Rural Communities (NERC) Act 2006 (as amended) [Ref. 1-13].
- The Environment Act 2021 [Ref. 1-14].
- Protection of Badgers Act 1992 (as amended) [Ref. 1-15].
- Hedgerow Regulations 1997 (as amended) [Ref.1-16].
- Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 [Ref. 1-17].
- Animal Welfare Act 2006 [Ref. 1-18].
- Invasive Alien Species (Enforcement and Permitting) Order 2019 [Ref. 1-19]

1.7. Policy and Guidance

1.7.1. Policy and guidance that has informed the production of this **Outline LEMP** includes:

- Overarching National Policy Statement for Energy (NPS EN-1) (2023) [Ref.1-20].
- NPS for Renewable Energy Infrastructure (NPS EN-3), (2023) [Ref. 1-21].
- NPS for Electricity Networks Infrastructure (NPS EN-5) (2023) [Ref. 1-22].
- National Planning Policy Framework (NPPF) (2024) [Ref. 1-23].
- Planning Practice Guidance (PPG) Biodiversity Net Gain/Natural Environment/ Renewable and Low Carbon Energy (2023-2025) [Ref. 1-24].
- A Green Future: Our 25-year plan to improve the Environment (2023) [Ref. 1-25].
- Environmental Improvement Plan 2023 [Ref. 1-26].
- Biodiversity 2020: A strategy for England's wildlife and ecosystem services [Ref. 1-27].
- Vale of Aylesbury Local Plan (VALP) 2013 – 2033 (Adopted September 2021) [Ref. 1-28].

The Statutory Metric: User Guide (2024) [Ref. 1-29].

2. Summary of Baseline Environment

2.1. Site Description and Biodiversity Evaluation

Site Description

- 2.1.1. The Site comprises four parcels of land (Parcel 1, 1a, 2 and 3), the Interconnecting Cable Corridor(s), the Grid Connection Cable Corridor, the National Grid East Claydon Substation, and associated access. These parcels and cable corridors are outlined in **ES Volume 3, Figure 1.2: Order Limits [EN010158/APP/6.3]** and detailed further within **Paragraph 2.3.3 of ES Volume 1, Chapter 2: Location of the Proposed Development [EN010158/APP/6.1]**.
- 2.1.2. The Order Limits predominantly consist of agricultural fields and pastureland interspersed with hedgerows, ditches, woodland blocks and farm access tracks. The hedgerows within the Site range from dense tall vegetation with sporadic shrubs and trees present. The fields are bordered by a mix of hedgerows, woodland, trees and ditches. **ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2]** provides further description of the Site and the baseline.
- 2.1.3. The full details of the ecological baseline conditions are presented in **ES Volume 4, Appendices 7.1-7.17 [EN010158/APP/6.4]**. The following section presents a summary of the baseline conditions for the receptors/matters scoped into the biodiversity assessment.

Statutory designated sites

- 2.1.4. There are no nationally protected statutory designated nature conservation sites within the Order Limits. However, there are three nationally protected statutory designated nature conservation sites within 2km of the Order Limits:
- Sheephouse Wood SSSI – directly adjacent to Parcel 1 and 1a;
 - Finemere Wood SSSI – directly adjacent to Parcel 2; and
 - Grendon and Doddershall Woods SSSI – 1.36km south west of Parcel 1a.
- 2.1.5. In addition, whilst recognising that Ham Home-cum-Hamgreen Woods SSSI is located 3.2km south west of the Order Limits and therefore outside of the study area, the Applicant is aware that Natural England is in the process of designating a new landscape-scale Bernwood SSSI that encompasses the above existing SSSIs and also extended to include neighbouring areas of ancient woodland. However, at the time of writing (July 2025), limited information on the proposed Bernwood SSSI

designation is publicly available and the date for designation is not yet known. Therefore, the proposed Bernwood SSSI has not been considered as a receptor in its own right. However, Sheephouse Wood SSSI, Finemere Wood SSSI, Grendon and Doddershall Woods SSSI, ancient woodland and Bechstein's bats (all of which would fall under the proposed Bernwood SSSI designation) have all been assessed individually, with appropriate mitigation requirements for these receptors included within this **Outline LEMP**.

- 2.1.6. The locations of these sites are detailed in **ES Volume 3, Figure 7.1: Location of Statutory Designated Sites [EN010158/APP/6.3]**. All citations for the SSSI sites are provided within **ES Volume 4, Appendix 7.1: Preliminary Ecological Appraisal 2022 [EN010158/APP/6.4]** and **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal 2025 [EN010158/APP/6.4]**.

Non-statutory designated sites

- 2.1.7. Two non-statutory designated sites are partially located within the Order Limits; Romer Wood LWS and Greatsea Wood LWS. These two sites are located to the north of Parcel 1a and are included in the Order Limits to enable the use of an existing access track through the woodlands to access mitigation and enhancement areas within Parcel 1a for habitat creation and ongoing maintenance, as HS2 has also done. The use of this access track will involve no loss of woodland habitat, and no built development is proposed along the access track.
- 2.1.8. Non-statutory designated sites located outside of the Order Limits but directly adjacent (all of which are ancient woodland) are:
- Shrub Woods LWS – directly adjacent to Parcel 1;
 - Decoypond Wood LWS – directly adjacent to Parcel 1;
 - Runt's Wood LWS – directly adjacent to Parcel 2;
 - Finemere WTR – south of Parcel 2;
 - Home Wood, Middle Claydon LWS – adjacent to the Interconnecting Cable Corridor between Parcels 1 and 2; and
 - Balmore Wood LWS is located approximately 95m west of Parcel 2.
- 2.1.9. The Bernwood Biodiversity Opportunity Area (a landscape scale non-statutory designation) is located within the Order Limits and overlaps with Parcel 1, 1a and 2 and the Interconnecting Cable Corridor(s), as detailed in **ES Volume 3, Figure 7.2: Location of Non-statutory Designated Sites [EN010158/APP/6.3]**. Biodiversity Opportunity Areas are specific locations identified by Buckinghamshire Council as having the greatest potential for improving biodiversity, often serving as buffers or to connect

existing protected areas. They are areas where habitat creation and restoration efforts can be focused to maximize their positive conservation impact, potentially leading to a more efficient approach to wildlife conservation.

- 2.1.10. The locations of these sites are detailed in **ES Volume 3, Figure 7.2: Location of Non-statutory Designated Sites [EN010158/APP/6.3]**. Citations for the non-statutory designated sites are provided within **ES Volume 4, Appendix 7.1: Preliminary Ecological Appraisal 2022 [EN010158/APP/6.4]** and **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal 2025 [EN010158/APP/6.4]**.
- 2.1.11. The Applicant is aware that the proposed landscape-scale Bernwood SSSI could encompass all these areas of ancient woodland that are currently classified as non-statutory designated sites. As stated in paragraph 2.1.5 above, limited information on the proposed Bernwood SSSI designation is publicly available and the date for designation is not yet known.

Ancient Woodland

- 2.1.12. Two areas of ancient woodland are located within the Order Limits, Romer Wood and Greatsea Wood, as explained in **Paragraph 2.1.7**. Multiple areas of ancient woodland are located directly adjacent to the Order Limits in several locations. These comprise ancient and semi-natural woodland and ancient replanted woodland parcels, located within Shrubs Wood, Sheephouse Wood, Home Wood, Romer Wood, Decoypond Wood, Finemere Wood and Runt's Wood. Balmore Wood is located approximately 95m west of Parcel 2. All of these ancient woodland sites are also non-statutory designated sites.

Hedgerows and hedgerow trees

- 2.1.13. The majority of fields across the Site are bounded by hedgerows, with several of the hedgerows supporting mature trees and dry ditches. 43 hedgerows within the Order Limits were classified as 'important' under The Hedgerows Regulations 1997, Part 2, 'wildlife and landscape criteria for important hedgerow selection' **[Ref. 1-16]**.
- 2.1.14. Further details regarding hedgerows are provided in **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025) [EN010158/APP/6.4]**.

Individual trees, lines of trees, ancient and veteran trees

- 2.1.15. Multiple individual mature trees and lines of mature trees were recorded across the Site, of which several were classified as ancient and/or veteran.

- 2.1.16. Further details regarding individual trees and lines of trees are provided in **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025) [EN010158/APP/6.4]**. Further details regarding ancient and veteran trees are provided in **ES Volume 4, Appendix 7.13: Arboricultural Impact Assessment [EN010158/APP/6.4]**.

Cereal and non-cereal crops

- 2.1.17. Within Parcel 1, Parcel 1a, Parcel 2 and south of Parcel 3, the majority of the fields comprised arable cropland cereal crop, with a few fields comprising non-cereal crops. Several arable cropland fields were also recorded within the Interconnecting Cable Corridor(s). Locations of cereal and non-cereal crops are presented in **ES Volume 3, Figure 7.3: UKHab Habitat Classification Survey Results [EN010158/APP/6.3]**.

Lowland mixed deciduous woodland and other woodland

- 2.1.18. Within Parcel 1, Parcel 2, Parcel 3 and the Grid Connection Cable Corridor and Interconnecting Cable Corridor(s), small copses of woodland were recorded; however, these were limited in extent, with larger areas of woodland recorded along the Order Limits. The majority of the woodland areas was recorded as other woodland; broad-leaved with smaller number of areas recorded as lowland mixed deciduous woodland. Locations of lowland mixed deciduous woodland and other woodland are presented in **ES Volume 3, Figure 7.3: UKHab Habitat Classification Survey Results [EN010158/APP/6.3]**.

Arable field margins

- 2.1.19. The majority of cropland fields supported grassland margins ranging approximately 1-3m in width. No species-rich or priority arable field margins were identified within the Order Limits. Locations of arable field margins are presented in **ES Volume 3, Figure 7.3: UKHab Habitat Classification Survey Results [EN010158/APP/6.3]**.

Ponds, watercourses and ditches

- 2.1.20. A number of ponds and ditches were recorded within the Order Limits, including several that at the time of survey were dry. The Claydon Brook was recorded along the northern boundary of Parcel 3, with a tributary branch located along the eastern boundary of Parcel 3. A small watercourse was recorded on the northern boundary of Parcel 1a and the northeast corner of Parcel 1. Locations of ponds, watercourses and ditches are presented in **ES Volume 3, Figure 7.3: UKHab Habitat Classification Survey Results [EN010158/APP/6.3]**. Further details regarding ponds, watercourses and ditches are provided in **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025) [EN010158/APP/6.4]**.

Mixed scrub, bramble scrub, other neutral grassland and modified grassland

- 2.1.21. Several grassland fields were recorded within Parcel 1 (predominantly to the west), Parcel 1a (predominantly to the south and west) and Parcel 2 (predominantly to the south) and south of Parcel 3 (predominantly to the north), and along the Grid Connection Cable Corridor and Interconnecting Cable Corridor(s). The majority of these fields comprised modified grassland with several currently grazed by stock. Smaller areas of other neutral grassland were recorded throughout the Order Limits, primarily to the west and south of Parcel 1 and north of Parcel 1a and south of Parcel 2 which included areas recently planted as part of HS2 mitigation.
- 2.1.22. A small amount of mixed scrub habitat and Bramble scrub was recorded within Parcel 1, Parcel 2 and Parcel 3, Interconnecting Cable Corridor(s), Grid Connection Cable Corridor and the National Grid Substation, typically surrounding ponds and along field edges and grassland edges. Locations of mixed scrub, bramble scrub, other neutral grassland and modified grassland are presented in **ES Volume 3, Figure 7.3: UKHab Habitat Classification Survey Results [EN010158/APP/6.3]**.

Black Hairstreak and brown hairstreak butterfly

- 2.1.23. The background desk study identified records within the Order Limits for black hairstreak (*Satyrrium pruni*) and brown hairstreak (*Thecla betulae*).
- 2.1.24. During the preliminary ecological appraisal survey undertaken in 2023, 2024 and 2025, the food source for black and brown hairstreak caterpillars, Blackthorn (*Prunus spinosa*), was recorded abundantly across the Site within hedgerows and woodland areas.
- 2.1.25. Natural England has released several reports in support of the proposed Bernwood SSSI designation [Ref. 2-1, Ref. 2-2 and Ref. 2-3]. Invertebrate surveys undertaken within the Bernwood area have highlighted that the woodland areas, scrub and hedgerow habitats support a diverse range of important invertebrate species, including black hairstreak and brown hairstreak butterfly. The woodlands and hedgerows in the area make a significant contribution towards the maintenance of the local meta-population and colonies of black hairstreak and brown hairstreak butterfly, which are considered important in a national context.
- 2.1.26. Further details are provided in **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025) [EN010158/APP/6.4]**.

Terrestrial invertebrates (excluding black hairstreak and brown hairstreak butterfly)

- 2.1.27. The background desk study identified 141 records of protected or otherwise notable invertebrates (excluding black hairstreak and brown

hairstreak butterfly) within 2km of the Order Limits. Of particular note are, wood white (*Leptidea sinapis*), white admiral (*Limenitis camilla*), white-letter hairstreak (*Satyrion w-album*) and purple emperor (*Apatura iris*), all of which are dependent of woodland and hedgerow habitats.

- 2.1.28. The majority of the habitats present within the Order Limits were considered likely to support a common assemblage of invertebrate species, typical of arable field margins, hedgerows, woodland and scrub and grassland habitats. Further details are provided in **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025)** [EN010158/APP/6.4].

Great crested newt (GCN)

- 2.1.29. No records of GCN (*Triturus cristatus*) were identified within the Order Limits. However, the background desk study identified records of GCN within 2km of the Order Limits. A total of eight GCN Natural England class survey licence returns between 2016-2017 were identified within Parcel 1, indicating that GCN were present.
- 2.1.30. The GCN Habitat Suitability Index and environmental DNA surveys undertaken in 2022 and 2023 identified 12 ponds within the Site and within 500m from the Order Limits that had a confirmed positive presence of GCN environmental DNA.
- 2.1.31. The areas of woodland, grassland margins and hedgerows within the Order Limits were considered suitable to provide foraging, refuge and hibernation opportunities for GCN. GCN are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) [Ref. 1-11] and Schedule 2 of the Habitats Regulations [Ref. 1-16] and is included within Section 41 of the NERC Act 2006 [Ref. 1-13]. The Order Limits falls within the great crested newt District Level Licensing red and amber impact risk zones, where there is a very high chance of encountering GCN, with red areas considered most important areas for GCN.
- 2.1.32. Further details of survey results are provided in **ES Volume 4, Appendix 7.5: Great Crested Newt Habitat Suitability Index and Environmental DNA Report (2023)** [EN010158/APP/6.4].

Reptiles

- 2.1.33. No records of reptiles were identified within the Order Limits. However, the background desk study identified records of grass snake (*Natrix helvetica*), common lizard (*Zootoca vivipara*) and slow-worm (*Anguis fragilis*) within 2km of the Order Limits.
- 2.1.34. Within the Order Limits, most of the land comprised arable and modified grassland fields, which are considered sub-optimal to support reptiles;

however, smaller areas of rough grassland and scrub habitats were considered suitable sheltering and foraging habitat to support common reptile species however these were limited in extent.

- 2.1.35. Further details are provided in **ES Volume 4, Appendix 7.1: Preliminary Ecological Appraisal 2022 [EN010158/APP/6.4]** and **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025) [EN010158/APP/6.4]**.

Ground nesting birds

- 2.1.36. The background desk study identified records of grey partridge (*Perdix perdix*), skylark (*Alauda arvensis*) and yellow wagtail (*Motacilla flava*) ground nesting bird species of Principal Importance for conservation in England [**Ref. 1-13**].
- 2.1.37. Grey partridge breeding was recorded as probable within the survey area during the 2022 breeding bird surveys and recorded again during the 2024 field surveys. Skylark and yellow wagtail were recorded as confirmed breeding with the survey area with skylark having 34 breeding territories recorded during the 2022 breeding bird surveys. Both species were also recorded breeding during the 2024 field surveys.
- 2.1.38. The areas of grassland and arable field margins were considered suitable habitat for ground nesting species as outlined above. Arable fields, hedgerows and scrub within Parcels 1 and 2 were of greatest value to breeding birds in 2024, with Parcel 2 supporting the greatest diversity of farmland bird species including grey partridge.
- 2.1.39. Full details of the surveys and results are detailed in **ES Volume 4, Appendix 7.4: Breeding Bird Survey Report (2022)** and **ES Volume 4, Appendix 7.12: Breeding Bird Survey Report (2024) [EN010158/APP/6.4]**.

Non-ground nesting birds

- 2.1.40. During the breeding bird surveys undertaken between March and June 2022, 11 species listed as a Priority Species in the UK were confirmed to be holding breeding territories within the survey area or were thought to have probable/possible territories. Ten species included on the Birds of Conservation Concern Red List and 11 species included on the Birds of Conservation Concern Amber List were either confirmed to be holding breeding territories within the survey area, or were thought to have probable/possible territories.
- 2.1.41. During the breeding bird surveys undertaken between March and July 2024, 11 listed as a Priority Species in the UK were recorded breeding or potentially breeding. In addition, 11 species included on the Birds of

Conservation Concern Red list and 11 species included on the Birds of Conservation Concern Amber list were either confirmed to be holding breeding territories within the survey area, or were thought to have probable/possible territories.

- 2.1.42. Full details of the surveys and results are detailed in **ES Volume 4, Appendix 7.4: Breeding Bird Survey Report (2022)** and **ES Volume 4, Appendix 7.12: Breeding Bird Survey Report (2024)** [EN010158/APP/6.4].

Barn owl, red kite, hobby and peregrine falcon (listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended))

- 2.1.43. Barn owl (*Tyto alba*) and hobby (*Falco subbuteo*) were recorded during the breeding bird surveys undertaken between March and June 2022 and were believed to be holding breeding territories within the Order Limits. Hobby were also recorded in 2024 as breeding. Barn owl were observed within the Order Limits during the 2024 surveys, however no occupied breeding sites were confirmed within the Order Limits.
- 2.1.44. Red kite (*Milvus milvus*) were recorded holding breeding territories within the Order Limits during the breeding bird surveys undertaken between March and June 2022. They were also recorded in 2024 as breeding or potentially breeding within the Order Limits.
- 2.1.45. Peregrine falcon (*Falco peregrinus*) were recorded as breeding or potentially breeding within the Order Limits during breeding bird surveys undertaken between March and July 2024. However, they were not recorded during the 2022 breeding bird surveys.
- 2.1.46. Woodland habitat, trees and electricity pylons and infrastructure within the National Grid East Claydon Substation located within and adjacent to the Order Limits were considered suitable breeding habitat for these species. The areas of grassland and arable field margins were considered suitable foraging habitats for these species and foraging raptors were recorded frequently across the Site. Barn owl boxes were also recorded across the Site.
- 2.1.47. Full details of the surveys and results are detailed in **ES Volume 4, Appendix 7.4: Breeding Bird Survey Report (2022)** and **ES Volume 4, Appendix 7.12: Breeding Bird Survey Report (2024)** [EN010158/APP/6.4].

Wintering birds

- 2.1.48. A total of 59 bird species were recorded during wintering bird surveys undertaken between October 2021 and March 2022. This included four species listed on Annex 1 of the EC Birds Directive [Ref. 1-8], 12 included

under Section 41 Species of Principal Importance of the NERC Act 2006 [Ref. 1-13], 12 species included on the Birds of Conservation Concern Red List [Ref. 2-4] and 16 species included on the Birds of Conservation Concern Amber List [Ref. 2-4]. The surveys identified that Parcels 1 and 2 were of greatest value to wintering birds.

- 2.1.49. A total of 60 bird species were recorded during wintering bird surveys undertaken between November 2023 and February 2024. These included three species included on Annex 1 of the EC Birds Directive [Ref. 1-8], 11 species included under Section 41 Species of Principal Importance of the NERC Act 2006 [Ref. 1-31], 12 species included on the Birds of Conservation Concern Red List [Ref. 2-4] and 18 species included on the Birds of Conservation Concern Amber List [Ref. 2-4]. The surveys identified that Parcels 1 and 2 were of greatest value to wintering birds.
- 2.1.50. Full details of the surveys and results are detailed in **ES Volume 4, Appendix 7.3: Wintering Bird Survey Report (2022) and ES Volume 4, Appendix 7.11: Wintering Bird Survey Report (2024)** [EN010158/APP/6.4].

Bats

- 2.1.51. The background desk study identified one record of Bechstein's bat within the Order Limits.
- 2.1.52. The background desk study returned multiple records of bat roosts, foraging and commuting activity for 13 bat species and three groups that could not be identified to species level within 2km of the Order Limits comprising:
- Bechstein's bat (*Myotis bechsteinii*);
 - Natterer's bat (*Myotis nattereri*);
 - Daubenton's bat (*Myotis daubentonii*);
 - Brandt's bat (*Myotis brandtii*);
 - Whiskered bat (*Myotis mystacinus*);
 - Whiskered/Brandt's bat (*Myotis mystacinus/brandtii*);
 - Unspecified *Myotis* species;
 - Serotine (*Eptesicus serotinus*);
 - Leisler's bat (*Nyctalus leisleri*);
 - Noctule bat (*Nyctalus noctule*);
 - Western barbastelle (*Barbastella barbastellus*);
 - Common pipistrelle (*Pipistrellus pipistrellus*);

- Soprano pipistrelle (*Pipistrellus pygmaeus*);
- Nathusius's pipistrelle (*Pipistrellus nathusii*);
- Unspecified Pipistrelle species; and
- Brown long-eared bat (*Plecotus auritus*).

- 2.1.53. High concentrations of bat records were located within the woodland blocks adjacent to the Order Limits, including multiple records of the Habitats Directive Annex II listed Bechstein's bats [Ref. 1-9] located within Finemere Wood, Sheephouse Wood, Home Wood, Shrubs Wood and Decoypond Wood. These records are beyond the Order Limits but for the one record of Bechstein's bat identified within the Order Limits. Further details are provided in **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025) [EN010158/APP/6.4]**.
- 2.1.54. During the preliminary ecological appraisal surveys undertaken in 2023, 2024 and 2025 the hedgerows, field margins, woodland and pond habitats were assessed as offering highly suitable foraging and commuting habitat. The arable and modified grassland fields were assessed to be of less value to foraging bats. Further details are provided in **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025) [EN010158/APP/6.4]**.
- 2.1.55. Based on the bat activity recorded during the walked transect surveys and the static automated detector surveys undertaken between July 2022 and September 2023, the Site is considered to support an assemblage of at least ten bat species. The assemblage comprises: common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's, serotine, brown long-eared, barbastelle, Daubenton's bat and *Myotis* species that could not be identified to species level. There are six resident species of *Myotis* species in the UK, all with similar call characteristics, and therefore it is likely that the *Myotis* calls represent more than one species. From survey work carried out for HS2 by Natural England [Ref. 2-5], it is known that five species of *Myotis* are present within the vicinity of the Order Limits, comprising Bechstein's bat, whiskered bat, Brandt's bat, Daubenton's bat and Natterer's bats. On the basis of both the recorded bat activity, and survey work undertaken by HS2, the site is likely to support an assemblage of 13 bat species.
- 2.1.56. The majority of activity recorded during the transects was of common pipistrelle bats across all Parcels, followed by soprano pipistrelle, in line with the relative abundance of these species as well as the relative detectability of their calls. Key areas of bat activity were identified in the following locations (see **ES Volume 4, Appendix 7.10: Bat Activity Survey Report (2024), Figure 11 [EN010158/APP/6.4]**):

- Within Parcel 1 along the margins of Shrubs Wood, a hedgerow extending east from Shrubs Wood, the margins of Sheephouse Wood and the hedgerows connecting Shrubs Wood and Sheephouse Wood;
- Within Parcel 1a, activity was distributed across the Parcel, recorded along all hedgerows and the margins of Sheephouse Wood and Romer Wood;
- Within Parcel 2, activity was predominantly concentrated around the margins of Runt's Wood and Finemere Wood, and a hedgerow extending south west from Runt's Wood and the hedgerows extending east from Finemere Wood; and
- Within Parcel 3, activity was predominantly concentrated along the eastern margin of the Parcel, along the western boundary of Claydon Brook that forms the eastern boundary of the Order Limits.

2.1.57. From work carried out for HS2, Natural England has concluded that the population of Bechstein's bat (comprising at least three breeding colonies) of the Bernwood area, whilst not in Favourable Conservation Status nationally, and whilst genetically and geographically isolated locally, is nonetheless 'stable and viable'. However, the conservation status of the species could be threatened by expansion of built developments, habitat fragmentation and loss, and uncoordinated land management **[Ref. 2-5]**. The Core Sustenance Zone¹ and home range² of Bechstein's bat, as derived from multiple years of study, is detailed in **ES Volume 3, Figure 7.4: Bechstein's Bat Home Range and Core Sustenance Zone in relation to Rosefield Solar Farm Order Limits [EN010158/APP/6.3]**. Parcels 1, 1a and 2 are wholly within the Core Sustenance Zone for Bechstein's bat. The home range – generated from radio-tracking 'fixes' (i.e., from bats which have been caught, tagged and located as they travel through the landscape) is a smaller area which nonetheless encompasses much of Parcel 1, all of Parcel 1a and the southern most parts of Parcel 2, as well as the Interconnecting Cable Corridor(s) (though much of that would be underground).

2.1.58. Results from the paired bat static detector surveys identified up to 13 bat species across the two paired static detector survey periods. Overall bat

¹ The Core Sustenance Zone is the area surrounding a maternity roost within which habitat availability and quality will have a significant influence on the resilience and conservation status of the colony using the roost **[Ref. 2-6]**. The Core Sustenance Zone size for Bechstein's bat has been determined as being a 3km radius from each maternity roost.

² The home range of an animal is defined as the total area within which it lives and moves on a regular basis and contains all the resources that the animal requires to survive and reproduce.

activity was found to be consistently higher levels on hedgerow detectors, with this accounting for 81.7% of all activity in October 2024 and 91.8% of all activity in May 2025.

- 2.1.59. In line with overall activity patterns, both barbastelle bat and the 'all other species' group demonstrated consistently greater levels of activity on hedgerow detectors across both survey periods, with hedgerow activity levels ranging from double to 120 times more than on field detectors across all detector pairings and survey periods.
- 2.1.60. Based on species level identifications, Bechstein's bat were only recorded during the May 2025 survey and then only from hedgerow detectors. However, due to the difficulties involved in distinguishing between *Myotis* species from echolocation calls alone, for wider assessment species level *Myotis* identifications were grouped together in a *Myotis* species group. As a group, *Myotis* activity did not demonstrate significant variation between hedgerows and fields during the October 2024 survey period. However, in May 2025, hedgerow *Myotis* species activity was found to be 26 to 191 times that recorded by detectors within the fields.
- 2.1.61. The findings of these surveys indicate that within the Order Limits, the hedgerows are likely to provide a more valuable and well used resource than open areas within fields with no evidence found to indicate a significant reliance on open field areas for foraging or commuting at the paired static detector locations.
- 2.1.62. Due to the bat assemblage present within the Order Limits, and the relative importance of habitats both within the Order Limits and within the wider landscape, bat species have been split into three receptors in order to permit the nuanced assessment of impacts as a result of the Proposed Development and inform the and subsequent mitigation proposals. The three bat receptors are as follows:
- Bechstein's bat (foraging, commuting and roosting);
 - Barbastelle bat (foraging commuting and roosting); and,
 - other bat species (foraging commuting and roosting) (common pipistrelle, soprano pipistrelle, Nathusius' pipistrelle, noctule, Leisler's bat, serotine, brown long-eared bat, Daubenton's bat and other *Myotis species*³).

³ Although not specifically identified from recorded echolocation calls, a thriving population of Natterer's bat are known to be present within Finemere Wood, adjacent to the Site and therefore, this other *Myotis* sp. group is likely to include activity from Natterer's bat.

- 2.1.63. Full details of the surveys and results are detailed in **ES Volume 4, Appendix 7.2: Bat Preliminary Roost Assessment (2022)**, **ES Volume 4, Appendix 7.10: Bat Activity Survey Report (2024)**, **ES Volume 3, Figure 7.4: Bechstein's Bat Home Range and Core Sustenance Zone in relation to Rosefield Solar Farm Order Limits**, **ES Volume 4, Appendix 7.14: Bat Preliminary Roost Assessment (2025)**, and **ES Volume 4, Appendix 7.16: Paired Static Detector Survey Report (2025) [EN010158/APP/6.4]**.

Otter

- 2.1.64. Otter resting sites, including a single holt and couch, have been recorded as present along Claydon Brook.
- 2.1.65. Further details are provided in **ES Volume 4, Appendix 7.8: Otter and Water Vole Survey Report (2023) [EN010158/APP/6.4]**.

Badger

- 2.1.66. **ES Volume 4, Appendix 7.15: Badger Survey Report (2025) – Confidential** presents evidence of badger activity within the Order Limits, which was widespread.

2.2. Landscape Features

Landscape designations

- 2.2.1. No part of the Site or its immediately surrounding context falls within a statutory designated landscape. The Chilterns National Landscape is located more than 18km from the Site.
- 2.2.2. The southern area of Parcel 2 lies within the locally designated Quainton-Wing Hills Area of Attractive Landscape (AAL), with Quainton Hill located approximately 2 km southeast of Parcel 2, as shown in **ES Volume 3, Figure 10.1: Landscape Study Area, Context and Designations [EN010158/APP/6.3]**. This Area of Attractive Landscape is defined within the document 'Defining the Special Qualities of Local Landscape Designations in Aylesbury Vale District' **[Ref 2-7]** as *"A large area of undulating hills and ridges spanning east – west and populated with a series of small villages"*.
- 2.2.3. Relevant extracts and observations relating to Quainton-Wing Hills AAL are provided in **ES Volume 4, Appendix 10.2: Extracts from Published Landscape Character Assessments [EN010158/APP/6.4]** with key characteristics relevant to the study area summarised as follows:
- *"Spectacular panoramic views from frequent vantage points;*

- *Strong sense of rural tranquillity, openness and a coherent landscape character;*
- *Cultural features providing a sense of history;*
- *Public rights of way and road network which enable views of and appreciation of the landscape;*
- *The importance of the hills in views from other areas of the district, providing a backdrop and sense of enclosure to Aylesbury Vale; and*
- *Remaining ancient woodland in the west of the area that was once part of the medieval hunting forest of Bernwood, irregular and assart fields."*

2.2.4. In addition, the following criteria identified within 'Defining the Special Qualities of Local Landscape Designations in Aylesbury Vale District' [Ref 2-7], could be impacted as a result of the Proposed Development:

- *"Distinctiveness*
Distinctive band of low, generally open limestone hills, ridges and plateau to the north of Aylesbury Vale.
- *Perceptual character*
Strong sense of rural tranquillity, openness and sense of the dominance of landscape... Views to the Vale of Aylesbury to the south from vantage points and many of the villages perched on the ridge– e.g. Quainton Hill... with the landscape providing an attractive setting to villages.
- *Landscape and scenic quality*
High scenic quality of the undulating hills and ridges from within the area and within views from outside the area.
- *Natural character*
Ancient woodlands, with a particular concentration in the west of the area – many of which are also SSSI/ LWS.
- *Cultural character*
Strong sense of history – remaining ancient woodland in the west of the area that was once part of the medieval hunting forest of Bernwood, irregular and assart fields.
- *Function*
Good network of public rights of way including long distance trails – e.g. the Bernwood Jubilee Way, North Buckinghamshire Way, Outer Aylesbury Ring, Matthew's Way."

National Character Area

2.2.5. The Proposed Development is located primarily within National Character Area (NCA) 108 Upper Thames Clay Vale **[Ref. 2-8]**, including the entirety of Parcels 1, 1a, 2 and 3, with only a short section of the road access within the Order Limits extending into the north western edge of NCA 109: Midvale Ridge **[Ref. 2-9]**, as shown in **ES Volume 3, Figure 10.3: National Character Areas [EN010158/APP/6.3]**.

2.2.6. Relevant extracts and observations relating to NCA 108: Upper Thames Clay Vale and NCA 109: Midvale Ridge are provided in **ES Volume 4, Appendix 10.2: Extracts from Published Landscape Character Assessments [EN010158/APP/6.4]** including a summary description, key characteristics relevant to the study area, details on current land use and character, and details of the *Statement of Environmental Opportunity (SEO)* within the NCA.

2.2.7. NCA 108 is located between the Bedfordshire and Cambridgeshire Claylands to the north and the Chilterns to the south and east. The summary description of the NCA states:

“The Upper Thames Clay Vales National Character Area (NCA) is a broad belt of open, gently undulating lowland farmland on predominantly Jurassic and Cretaceous clay... The area encircles the Midvale Ridge NCA and covers an extensive area of low-lying land extending from Wiltshire and Gloucestershire to the west of Swindon through to Aylesbury in Buckinghamshire in the east. It comprises two separate sub-character areas: the Wiltshire, Oxfordshire and Buckinghamshire Vales to the north; and the Vales of White Horse and Aylesbury to the south. The area is dominated by watercourses, including the Thames and its tributaries, and there are also lakes associated with mineral extraction areas, such as the Cotswold Water Park. Watercourses and lakes provide important areas for wildlife and recreation. There are a number of major transport routes and patches of intensive industrial influence, including Didcot Power Station. There is little woodland cover (around 3 per cent) but hedgerows and mature field and hedgerow trees are a feature, and many watercourses are fringed with willow or poplar.”

2.2.8. The key characteristics of NCA 108 are recorded as follows:

- *“Low-lying clay-based flood plains encircle the Midvale Ridge. Superficial deposits, including alluvium and gravel terraces, spread over 40 per cent of the area, creating gently undulating topography. The Upper Jurassic and Cretaceous clays and the wet valley bottoms give rise to enclosed pasture, contrasting with the more settled, open, arable lands of the gravel.*

- *The large river system of the River Thames drains the Vales, their headwaters flowing off the Cotswolds to the north or emitting from the springline along the Chilterns and Downs escarpments. Where mineral extraction takes place, pits naturally fill with water, and limestone gravels from the Cotswolds give rise to marl formation. There are a high number of nationally important geological sites.*
- *Woodland cover is low at only about 3 per cent, but hedges, hedgerow trees and field trees are frequent. Watercourses are often marked by lines of willows and, particularly in the Aylesbury Vale and Cotswold Water Park, native black poplar.*
- *Wet ground conditions and heavy clay soils discourage cultivation in many places, giving rise to livestock farming. Fields are regular and hedged, except near the Cotswolds, where there can be stone walls. The Vale of White Horse is made distinct by large arable fields, and there are relict orchards on the Greensand.*
- *In the river corridors, grazed pasture dominates, with limited areas of historic wetland habitats including wet woodland, fen, reedbed and flood meadow. There are two areas of flood meadow designated for their importance at a European level as Special Areas of Conservation (SAC). There are also rich and extensive ditch systems.*
- *Gravel extraction has left a legacy of geological exposures, numerous waterbodies and, at the Cotswold Water Park, a nationally important complex of marl lakes.*
- *Wetland habitat attracts regionally important numbers of birds including snipe, redshank, curlew and lapwing and wintering wildfowl such as pochard. Snake's head fritillary thrives in the internationally important meadows. The area also supports typical farmland wildlife such as brown hare, bats, barn owl, tree sparrow and skylark.*
- *Blenheim Palace World Heritage Site, including its Capability Brown landscape, is the finest of many examples of historic parkland in this NCA. There are many heritage features, including nationally important survivals of ridge and furrow, Roman roads, deserted medieval villages and historic bridges.*
- *Brick and tile from local clays, timber and thatch are traditional building materials across the area, combined with limestone near the Cotswolds and occasional clunch and wichert near the Chilterns.*
- *Settlement is sparse on flood plains, apart from at river crossings, where there can be large towns, such as Abingdon. Aylesbury and Bicester are major urban centres, and the outer suburbs of Oxford and Swindon spread into this NCA. Market towns and villages are strung along the springlines of the Chilterns and Downs. Major routes include mainline rail, canals, a network of roads including the M40 and M4 and The Ridgeway and Thames Path National Trails."*

- 2.2.9. Several headline Statements of Environmental Opportunity (SEOs) are provided by Natural England for NCA 108. Of relevance to the Proposed Development is SEO2: *“Manage farmland across the Upper Thames Clay Vales to produce food sustainably and to maintain sense of place. Taking a catchment approach, improve filtration of pollutants and regulation of water flow by realising a farmland habitat mosaic that incorporates strategic areas of wet grassland, reedbed, wet woodland and ponds as well as ditches and hedgerows”*.

Local Landscape Character

- 2.2.10. At a district level, the Aylesbury Vale Landscape Character Assessment **[Ref. 2-10]** identifies Landscape Character Types (LCTs), which are subdivided into Landscape Character Areas (LCAs). As shown in **ES Volume 3, Figure 10.4: District Landscape Character Types and Areas [EN010158/APP/6.3]**, approximately half of the Site is located within LCT 7: Wooded Rolling Lowlands and specifically LCA 7.3: Claydon Bowl. This includes the whole of Parcel 1 and 1a, and the north-western section of Parcel 2. The southern section of Parcel 2 is located in LCT 9: Low Hills and Ridges and specifically LCA 9.1: Finemere Hill. Parcel 3 is located in LCT 5: Shallow Valleys, with the majority located in LCA 5.7: Hogshaw Claylands and just the northernmost extents located in LCA 5.6: Claydon Valley. The southern extents of the Order Limits, along Snake Lane/Fidlers Field, passes through LCA 7.4 Kingswood Wooded Farmland and LCA 5.9 Westcott Claylands to the south.
- 2.2.11. Relevant extracts from the Aylesbury Vale Landscape Character Assessment **[Ref. 10-26]** are provided in **ES Volume 4, Appendix 10.2: Extracts from Published Landscape Character Assessments [EN010158/APP/6.4]**.
- 2.2.12. Site survey work has identified that there are notable differences in the landscape character across Parcels 1, 1a, 2 and 3, and these reflect the boundaries of the LCAs relatively accurately. Parcel 1 and 1a is more contained by topography and areas of mature woodland whereas the landscapes within Parcels 2 and 3 are generally more open with limited woodland structure except for the southern area of Parcel 2. Relevant Key Characteristics for the three main LCAs are described in the Aylesbury Vale Landscape Character Assessment **[Ref. 2-10]** as follows:
- LCA 5.7: Hogshaw Claylands
 - *“Gently sloping bowl of low ground*
 - *Mixed agriculture with more pasture*
 - *Good hedgerow pattern*
 - *Meandering streams”*

- LCA 7.3: Claydon Bowl
 - *“Bowl with high ground around the edge*
 - *Gently sloping ground*
 - *Moderate level of woodland cover*
 - *Mixed farming with slightly more arable*
 - *Small straight lanes*
 - *Settlement on high ground*
 - *Claydon House and parkland”*
- LCA 9.1: Finemere Hill
 - *“Hill with steep sides particularly to the south*
 - *Very high level of woodland cover*
 - *Source of several streams including the river Ray*
 - *Predominantly grassland, half of which is unimproved*
 - *Good Rights of Way network following distinctive historic tracks*
 - *Ancient woodland with probable assarts.”*

Water resources

- 2.2.13. There are no Main Rivers located within the Site. The nearest Environment Agency Main River is the River Ray, located approximately 200m to the south of Parcel 2 directly south of Finemere Wood, and a tributary of the River Ray located 400m to the south west of Parcel 1a, and directly south of Sheephouse Wood, as shown in **ES Volume 3, Figure 16.1: Watercourses [EN010158/APP/6.3]**.
- 2.2.14. OS mapping also identifies a number of Ordinary Watercourses crossing the Site, as shown in **ES Volume 3, Figure 16.1: Watercourses [EN010158/APP/6.3]**. These watercourses are unnamed but appear to form the headwaters of the Padbury Brook (in the north west), the Claydon Brook (in the north/north east) and the River Ray (to the south). The upstream section of the River Ray that flows through the south eastern area of Parcel 1a is known as the Muxwell Brook. There are also a number of drainage ditches located within hedgerows of field boundaries throughout the Site, some of which connect into the wider drainage and watercourse network.
- 2.2.15. As shown in **ES Volume 3, Figure 16.2: Environment Agency Flood Zones [EN010158/APP/6.3]**, the majority of the Site is located within Flood Zone 1. There are areas of Flood Zone 2 and Flood Zone 3 associated with the Claydon Brook Tributary that runs along the eastern boundary of Parcel 3 and the Claydon Brook in the north east corner of the

Site. There is also a small area of Flood Zone 2 and Flood Zone 3 located at the northern extent of the Order Limits. An area surrounding the Muxwell Brook in the south western area of the Site is also located within Flood Zone 2 and Flood Zone 3.

- 2.2.16. With reference to the Environment Agency's Surface Water Flood Risk Mapping (2025) as shown in **ES Volume 3, Figure 16.3: Environment Agency Risk of Surface Water Flooding [EN010158/APP/6.3]**, there are several overland flow routes identified across the Site, most notably along the channels of the Ordinary Watercourses in the eastern and western areas of the Site and within the woodland areas to the south.
- 2.2.17. The Site is not located within a Source Protection Zone. However, it is located within a Surface Water Drinking Water Safeguarding Zone.

Access and Recreation

- 2.2.18. Parcels 1 and 2 are bordered to the north by Calvert Road which provides direct access to Botolph Claydon and Calvert. East Claydon Road, which lies to the north of Parcel 3, provides direct access to the National Grid East Claydon Substation and the settlement of East Claydon.
- 2.2.19. Parcel 1a is bounded by Sheephouse Wood, Romer Wood, Greatsea Wood and Muxwell Brook and is only accessible via a public right of way (PRoW) heading south from Knowl Hill.
- 2.2.20. The Site is currently accessible from several existing field accesses capable of accommodating large agricultural machinery.
- 2.2.21. There is an extensive network of PRoW within and adjacent to the Site, which provide links to the surrounding settlements as shown in **ES Volume 3, Figure 2.1: Environmental Considerations [EN010158/APP/6.3]** and **Figure 2.2: Existing Public Rights of Way [EN010158/APP/6.3]**. The Bernwood Jubilee Way long distance path runs from north to south in Parcel 2 and the North Bucks and Midshires Way long distance paths intersect Parcel 3 as shown in **Volume 3, Figure 2.2: Existing Public Rights of Way [EN010158/APP/6.3]**.

3. Green and Blue Infrastructure Strategy

3.1. Green Infrastructure Strategy

3.1.1. This management plan seeks to contribute positively to Green Infrastructure (GI) priorities both within the Order Limits and connecting beyond where appropriate. These priorities relate to local character, biodiversity, recreation and amenity, as well as unlocking wider benefits.

3.1.2. Relevant priorities identified in existing published strategies include:

- Forward to 2030: Biodiversity Action Plan (2023, The Buckinghamshire & Milton Keynes Natural Environment Partnership) **[Ref. 1-2]**
 - Retain, enhance, expand and create priority habitats everywhere, with a focus on Biodiversity Opportunity Areas (BOAs) and strategically identified areas. Lowland mixed deciduous woodland, lowland meadows, and hedgerows (at least 2m wide) are identified as priority habitats. The Bernwood BOA covers the majority of Parcels 1, 1a and 2 as shown in **ES Volume 3, Figure 7.2: Location of Non-statutory Designated Sites [EN010158/APP/6.3]**.
 - Increase the overall land area of wildlife-important habitats and of land positively managed for wildlife and high nature value habitats. Important habitats referenced include remains of historic hunting forests, networks of hedgerows, arable field margins, and ancient woodland.
 - Enhance existing habitats and improve habitat condition.
 - Create and manage buffers around existing and new areas of priority habitat and other core and high-quality biodiversity and habitat sites following best practice guidelines.
 - Connect quality habitats across the landscape to enable species movement across larger areas to improve habitat and species resilience to external pressures, with a focus on connectivity within and between BOAs as well as into the wider landscape. Actions to maintain and enhance hedgerows and field/hedgerow trees, and to restore and connect ancient and semi-natural woodlands in Aylesbury Vale.
 - Improve people's connectedness with nature, so that communities across Buckinghamshire and Milton Keynes value and understand the role of nature in mental and physical wellbeing.
 - Ensure biodiversity is a key factor in the design of the urban environment and of new developments. Action to encourage access to nature in Aylesbury Vale.

The habitat creation and enhancement measures outlined within this **Outline LEMP** contribute to the BOA targets through the creation of

additional hedgerows and ponds and long-term management of these newly created habitats and existing hedgerows and ponds. This along with the other habitat creation measures 'embedded' into the design of the Proposed Development will ensure the connections between the existing SSSIs and ancient woodland adjacent to the Site would be enhanced. By creating species-rich grassland and arable margins along with scrub and tree planting. This will create a coherent ecological network that will link the Site to the wider landscape, reducing fragmentation across the wider landscape and supporting the movement of local wildlife, particularly bats.

- Vision and Principles for the Improvement of Green Infrastructure in Buckinghamshire and Milton Keynes (2016, The Buckinghamshire & Milton Keynes Natural Environment Partnership) **[Ref. 1-3]**
 - All development should: protect, improve and provide well-designed GI within, and surrounding, development sites; give due consideration to linking and enhancing GI opportunities falling beyond development site boundaries; provide wildlife habitat and on-site enhancements that link to biodiversity assets in the wider countryside; and include a long-term management plan.
 - Sites, routes and links taken together should seek to create a multi-functional and connected network.
- Green Infrastructure Opportunities Mapping - Buckinghamshire and Milton Keynes Natural Environment Partnership (2018, The Buckinghamshire & Milton Keynes Natural Environment Partnership) **[Ref. 1-4]**
 - Main GI opportunities within the Bernwood Ray and hinterland GI opportunity zone include protection, buffering and enhancement of existing GI functions (including ancient woodland and landscapes, including parklands), and scope for more wildlife and green space access.
- Reconnecting Bernwood, Otmoor and the Ray - A call to action (2023, Berkshire, Buckinghamshire & Oxfordshire Wildlife Trust) **[Ref. 1-5]**
 - Relevant priority projects include:
 - Bernwood Forest, which includes reference to creation of new woodland, restoration of habitat mosaics and linking existing woodlands;
 - access to nature, which includes reference to both habitat connectivity and increasing people's access to nature; and
 - hedges and edges, which includes reference to the creation and enhancement of linear habitats such as hedges and verges.

- Buckinghamshire Pilot Draft Local Nature Recovery Strategy (2021, Buckinghamshire Council) **[Ref. 1-6]**
 - Buckinghamshire’s aim for the eventual finalised LNRS is for it to support nature’s recovery to create more, bigger, better, and joined-up habitats across Buckinghamshire and deliver wider nature-based environmental benefits.
 - it is intended that the creation of a LNRS will:
 - help to channel investment into local priorities for nature’s protection and enhancement
 - encourage all organisations and individuals interested in nature recovery locally to work effectively together to achieve agreed Outcomes for nature within Buckinghamshire
 - guide local initiatives to conserve and enhance biodiversity
 - support delivery of the Buckinghamshire Biodiversity Accounting system, which currently being developed to meet the upcoming mandatory biodiversity net gain requirements and provide a financial incentive for development to support the delivery of LNRSs. The LNRS will identify priority zones where offsetting sites could be located
 - be incorporated into local planning decision-making including as an evidence base to the New Local Plan for Buckinghamshire

The habitat creation and enhancement measures outlined within this **Outline LEMP** contribute to the draft LNRS targets through the creation and long-term management of habitats that of higher biodiversity value than is currently present within the Site. Mitigation habitats and locations, including large dedicated mitigation areas for biodiversity have been chosen to ensure the connections between the existing SSSIs and ancient woodland adjacent to the Site would be enhanced to create a coherent ecological network that will link the Site to the wider landscape, reducing fragmentation across the wider landscape and supporting the movement of local wildlife, particularly bats. The ecological mitigation and enhancement areas will deliver a minimum gain of 40% for area habitat, 17% for hedgerows and 10% for watercourses in line with the legislative requirement and in fact, is expected to substantially exceed this. Although not yet mandatory for Nationally Significant Infrastructure Projects (such as the Proposed Development), the Applicant is still committing to achieving this as a minimum level of BNG.

- National Character Areas (2015, Natural England)
 - Upper Thames Clay Vales **[Ref. 2-8]**
 - Along the Thames and its tributaries, promote sustainable farming and best practice mineral working in order to conserve and restore seminatural habitats.
 - Maintain a sense of place.
 - Seek opportunities to restore the wider historic setting of historic feature, particularly in relation to the historic Royal Hunting Forests of Bernwood, Braydon and Wychwood.
 - Create and manage greenspace to provide benefits for biodiversity, filtration of pollutants, tranquillity and recreation, and secure strategic access routes between town and country.
 - Midvale Ridge **[Ref. 2-9]**
 - Ensuring that permitted development is well integrated to preserve local distinctiveness and sense of place and providing green space and recreational opportunities for the health and wellbeing of residents and visitors.
 - Manage, enhance and expand the valuable semi-natural habitats of the Midvale Ridge to benefit biodiversity, prevent soil erosion, support pollinators and protect and enhance wildlife corridors.
 - Manage and enhance the woodland cover and expand areas of native broadleaved woodland to benefit landscape character and biodiversity, for carbon sequestration, to prevent soil erosion, supply renewable fuel and to provide access and recreation opportunities.
- Aylesbury Vale Landscape Character Assessment (2008, Land Use Consultants for Aylesbury Vale District Council) **[Ref. 2-10]**

Table 3.1: Landscape Guidelines relevant to GI

Landscape guideline	Relevant LCA
Encourage the retention and strengthening of the historic hedgerow pattern by infilling gaps and establishing new hedgerow trees. Oak and ash trees are a feature of hedgerows in this area.	7.3: Claydon Bowl 5.6: Claydon Valley 5.7: Hogshaw Claylands 5.9 Westcott Claylands

Landscape guideline	Relevant LCA
Maintain and improve the condition of existing hedgerows through traditional cutting regimes.	7.3: Claydon Bowl 9.1: Finemere Hill 5.6: Claydon Valley 5.7: Hogshaw Claylands 5.9 Westcott Claylands 7.4 Kingswood Wooded Farmland
Maintain the condition and extent of existing woodland and promote the establishment of new woodland.	7.3: Claydon Bowl
Maintain the condition and extent of unimproved and semi-improved grassland. Encourage good management practices.	7.3: Claydon Bowl 5.6: Claydon Valley 5.7: Hogshaw Claylands 5.9 Westcott Claylands
Promote the connectivity of habitats, particularly woodland.	7.3: Claydon Bowl
Maintain extent of parkland and broadleaved woodland.	7.3: Claydon Bowl
Survey, maintain and restore features of Claydon estate which extend into the surrounding agricultural area.	7.3: Claydon Bowl
Promote the conservation and interpretation of rich historic environment.	7.3: Claydon Bowl
Identify key views to Claydon house and parkland and ridge top villages from publicly accessible land and promote the preservation and enhancement of these views.	7.3: Claydon Bowl
Encourage the retention and strengthening of the existing historic hedgerow pattern with new hedgerow trees, predominantly oak.	9.1: Finemere Hill 7.4 Kingswood Wooded Farmland
Encourage the restoration of the historic hedgerow pattern where it has been lost. To enhance the landscape character and strengthen connectivity of habitats.	9.1: Finemere Hill

Landscape guideline	Relevant LCA
Maintain the condition and extent of woodland using traditional techniques to create and manage a wide diversity of habitats.	9.1: Finemere Hill
Support and promote recreational access by footpaths and bridleways to the hill.	9.1: Finemere Hill
Maintain the sparsely settled (and slightly) remote character of the landscape.	9.1: Finemere Hill 7.4 Kingswood Wooded Farmland
Retain and enhance views from publicly accessible land.	9.1: Finemere Hill
Conserve the pattern of smaller field and woodland parcels.	5.6: Claydon Valley
Encourage the management of existing woodland and consider promoting the establishment of new woodland particularly where it will reduce the visual impact of pylon lines.	5.6: Claydon Valley 5.7: Hogshaw Claylands
Maintain and enhance connectivity.	5.6: Claydon Valley
Identify key views to surrounding higher ground from publicly accessible land and promote the preservation and enhancement of these views.	5.6: Claydon Valley 5.7: Hogshaw Claylands
Encourage the preservation of historic earthworks and ridge and furrow by maintaining a continuous grass sward (and do not allow bare patches of soil to develop).	5.6: Claydon Valley 5.7: Hogshaw Claylands 5.9 Westcott Claylands 7.4 Kingswood Wooded Farmland
Improve the management of historic meadows and pastures.	5.7: Hogshaw Claylands
Enhance connectivity of habitats.	5.7: Hogshaw Claylands
Encourage the management of existing woodland and promote the establishment of new woodland.	5.9 Westcott Claylands

Landscape guideline	Relevant LCA
Maintain connectivity of habitats.	5.9 Westcott Claylands
Encourage the survey and preservation of veteran trees.	7.4 Kingswood Wooded Farmland
Maintain the extent and condition of woodland particularly ancient broadleaved woodland, using traditional techniques to create and manage a wide diversity of habitats.	7.4 Kingswood Wooded Farmland
Retain and enhance views from publicly accessible land to surrounding higher ground.	7.4 Kingswood Wooded Farmland
Consider encouraging the establishment of new woodland reflecting the historic pattern to reduce the visual impact of intrusive elements such as pylon lines.	7.4 Kingswood Wooded Farmland
Encourage the preservation of small historic agricultural buildings, which are a distinctive feature of the landscape.	7.4 Kingswood Wooded Farmland
Encourage the preservation and interpretation of the areas rich historic environment including that of the medieval hunting forest of Bernwood.	7.4 Kingswood Wooded Farmland
Encourage the preservation and restoration of parkland landscapes.	7.4 Kingswood Wooded Farmland

- 3.1.3. By creating larger areas of semi-natural habitat, it is hoped that this will facilitate flora and fauna movement within the landscape. By taking land out of intensive agricultural production, the mitigation and enhancement measures outlined in this document will help improve water quality whilst also resting soils and improving soil health over the operational life of the Proposed Development, thereby not compromising food production in the future.
- 3.1.4. Green Infrastructure corridors will form habitat networks, comprising a mosaic of retained and enhanced neutral grassland meadows, arable margins, hedgerows and woodlands.
- 3.1.5. This landscape will support a wide range of species including ground nesting and non-ground nesting birds, wintering birds, bats, badgers

(*Meles meles*), otter (*Lutra lutra*), European hedgehog (*Erinaceus europaeus*), amphibians (including GCN), reptiles, butterflies (including black hairstreak and brown hairstreak) and pollinating insects. New hedgerow and tree planting will soften the appearance of the Proposed Development and where appropriate provide screening whilst at the same time enhancing biodiversity. The paired static detector surveys (see **ES Volume 4, Appendix 7.16: Paired Static Bat Detector Survey Report [EN010158/APP/6.4]**) indicate the importance of the hedgerow resource to the bat assemblage, including both foraging and commuting Bechstein's bat and barbastelle bat. Surveys undertaken by Natural England [**Ref. 3-1**] indicate the importance of the woodland resource for Bechstein's bat. This provides confidence that the approach to the Proposed Development design and mitigation is appropriate to maintain connectivity across the Site and to the wider landscape.

- 3.1.6. Some temporary diversions of PRoW may be required during construction. As part of the **Outline RoWAS [EN010158/APP/7.8]**, a programme of PRoW temporary closures and diversions would be produced by the Applicant and its Principal Contractor prior to the commencement of the construction phase.
- 3.1.7. In some cases, diversions made to existing PRoW at the start of the construction phase will become permanent into and beyond the operation (including maintenance) and decommissioning phase of the Proposed Development. Where this is the case, these permanently diverted PRoW will reflect an equivalent design to the existing PRoW that they are replacing, based on user requirements. Further detail on the permanently diverted PRoW is found under Management Objective 6 below.
- 3.1.8. Three new permissive paths and a new bridleway link during the operation (including maintenance) phase of the Proposed Development are also proposed, linking to existing routes and contributing positively to the wider network. These will be implemented during the construction phase, remain open and accessible to the public during the operation (including maintenance) phase and would then be retained or removed at the discretion of the landowner post-decommissioning.
- 3.1.9. Specific mitigation measures/strategies are proposed in **ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2]** for the following terrestrial habitats and species, with measures to successfully establish and manage set out within following sections of this **Outline LEMP**:
- Statutory designated sites, non-statutory designated sites and ancient woodland
 - Hedgerows and hedgerow trees, individual ancient and veteran trees, individual trees and lines of trees;
 - Cereal and non-cereal crops;

- Lowland mixed deciduous woodland and other woodland;
- Arable field margins;
- Ponds, watercourses and ditches;
- Mixed scrub, bramble scrub, other neutral grassland and, modified grassland;
- Black hairstreak and brown hairstreak butterfly;
- Terrestrial invertebrates (excluding black hairstreak and brown hairstreak butterfly);
- Great crested newt;
- Reptiles;
- Schedule 1 breeding birds;
- Ground nesting birds;
- Non-ground nesting birds;
- Wintering birds;
- Bats;
- Otter; and
- Badger.

3.2. Blue Infrastructure Strategy

- 3.2.1. This management plan seeks to contribute positively to Blue Infrastructure (BI) priorities both within the Order Limits and connecting beyond where appropriate. These priorities relate to water resources and biodiversity, as well as unlocking wider benefits.
- 3.2.2. Priorities relating to BI identified in existing published strategies include:
- Forward to 2030: Biodiversity Action Plan (2023, The Buckinghamshire & Milton Keynes Natural Environment Partnership) **[Ref. 1-2]**
 - Retain, enhance, expand and create priority habitats everywhere, with a focus on Biodiversity Opportunity Areas (BOAs) and strategically-identified areas. Ponds, reedbeds, and rivers and streams are identified as priority habitats.
 - Enhance existing habitats and improve habitat condition. Action to restore and create wetland habitats in Aylesbury Vale.
 - Create and manage buffers around existing and new areas of priority habitat and other core and high-quality biodiversity and habitat sites following best practice guidelines.

- Ensure biodiversity is a key factor in the design of the urban environment and of new developments.
- Green Infrastructure Opportunities Mapping - Buckinghamshire and Milton Keynes Natural Environment Partnership (2018, The Buckinghamshire & Milton Keynes Natural Environment Partnership) **[Ref. 1-4]**
 - Main GI opportunities within the Bernwood Ray and hinterland GI opportunity zone include flood protection/alleviation.
- Reconnecting Bernwood, Otmoor and the Ray - A call to action (2023, Berkshire, Buckinghamshire & Oxfordshire Wildlife Trust) **[Ref. 1-5]**
 - Relevant priority projects include river restoration, includes reference to the Claydon Brook area.
- National Character Areas (2015, Natural England)
 - Upper Thames Clay Vales **[Ref. 2-8]**
 - Along the Thames and its tributaries, promote sustainable farming and best practice mineral working in order to conserve and restore seminatural habitats to regulate water flow in the area and downstream.
 - Taking a catchment approach, improve filtration of pollutants and regulation of water flow by realising a farmland habitat mosaic that incorporates strategic areas of wet grassland, reedbed, wet woodland and ponds as well as ditches and hedgerows.
 - Create and manage greenspace to provide benefits for floodwater management.
 - Midvale Ridge **[Ref. 2-9]**
 - Manage, enhance and expand the valuable semi-natural habitats of the Midvale Ridge to improve water regulation and quality.
 - Manage and enhance the woodland cover and expand areas of native broadleaved woodland to improve water quality.
- Aylesbury Vale Landscape Character Assessment (2008, Land Use Consultants for Aylesbury Vale District Council) **[Ref. 2-10]**

Table 3.2: Landscape Guidelines relevant to BI

Landscape guideline	Relevant LCA
Promote the management and conservation of vegetation adjacent to (the meandering) watercourses including the pollarding of willow.	7.3: Claydon Bowl 5.6: Claydon Valley 5.7: Hogshaw Claylands 5.9 Westcott Claylands

Landscape guideline	Relevant LCA
Close to watercourses promote the use of permanent pasture, with low stocking density and flooding regimes to promote biodiversity and landscape enhancement.	5.6: Claydon Valley 5.7: Hogshaw Claylands 5.9 Westcott Claylands
Maintain and enhance connectivity.	5.6: Claydon Valley
Encourage the restoration and management of ponds and the area around them to provide a succession of habitats from open water through to mature trees.	5.6: Claydon Valley 5.7: Hogshaw Claylands
Where possible link ponds to adjacent hedgerows with grassland.	5.7: Hogshaw Claylands

- 3.2.3. Maintaining a 10m buffer from ditches, ponds and watercourses will retain vegetation connectivity and help to stabilise banks. It will also maintain the vegetated watercourse corridor habitat for aquatic species, riparian mammals and foraging and commuting bats. Arable to grassland reversion will reduce soil erosion, protect watercourses from sedimentation run-off and cause reduction in use of herbicides and pesticides, which will improve water quality. It will also improve the riparian area of these habitats, enhancing the overall functionality of these habitats, improving overall connectivity across the landscape.
- 3.2.4. Increasing the number of ponds within the Order Limits, through restoration of former ponds and creation of new ponds, will strengthen the pond network and provide additional breeding habitat for GCN and foraging habitat for bats.
- 3.2.5. Otter resting sites, including a single holt and couch, have been recorded as present along the Claydon Brook. Pre-construction otter surveys will be undertaken to confirm any active holts, including further monitoring of resting places through the use of camera traps to determine use by otters, with appropriate buffers maintained to prevent disturbance. Such measures are detailed within and secured by the **Outline CEMP [EN010158/APP/7.2]** and **Outline DEMP [EN010158/APP/7.4]**.

3.3. Management Objectives

- 3.3.1. To set a framework for the operational management of Green and Blue Infrastructure of the Proposed Development, 15 Management Objectives have been identified within this **Outline LEMP**. The Management Objectives are aligned to the Project Principles set out within the **Design Approach Document [EN010158/APP/5.8]** as follows:

Management Objective 1 – Retain existing vegetation wherever reasonably practicable to retain the fabric of the site and aid assimilation of development into its context.

- 3.3.2. A strong network of vegetation is present across the Order Limits and will be retained wherever reasonably possible by the Proposed Development in accordance with Project Principle 5.1. The Vegetation Removal Parameters presented in **Appendix 3** identify the likely worst case scenario vegetation for removal for construction purposes, which will be reinstated where practicable and retained during the operation (including maintenance) phase of the Proposed Development.
- 3.3.3. Existing vegetation not only provides important visual softening and screening functions but also biodiversity habitats and connectivity. Retention of existing vegetation will include:
- Retention of the existing field pattern and wildlife corridors both during the construction and operation of the Proposed Development;
 - Protection of existing habitat for nesting birds and foraging and roosting bats;
 - Protection of existing habitat corridors along these features;
 - Protection of the functionality and ecosystem services of the landscape and its watercourses; and
 - Providing and maintain suitable growth levels/heights of visual screening.
- 3.3.4. The following embedded mitigation measures have been designed to ensure corridors to reduce potential displacement effects from Solar PV modules and associated infrastructure to foraging and commuting bats.
- Retention of all statutory and locally designated wildlife sites and ancient woodland with a minimum 30m offset from the fence line,
 - Minimum 30m offset from the fence line to woodland and hedgerows located along the boundaries of Field D29 and partially in Field D28
 - Retention of existing woodland habitat and HS2 mitigation planting with a minimum 20m offset to the proposed fence line,
 - Minimum 15m offset from the fence line to existing hedgerows located within Fields B3 and B7, between fields B7 and B8/B10 and between Fields B8/B10 and B9/B11
 - Minimum 10m offset from the fence line to all other existing hedgerows (with the exception of where the Internal Access Corridor and/or Interconnecting and Grid Connection Cable Corridors are required to cross an existing feature

Management Objective 2 – Use land under and between solar panels to deliver biodiversity benefit for pollinators and farmland birds.

- 3.3.5. Land under and between solar panels will be used to deliver biodiversity benefits and improve soil health in accordance with Project Principle 5.6. This will comprise creation of species-rich neutral grassland meadow.
- 3.3.6. Creation of species-rich grassland will increase floristic diversity and consequently increase invertebrate diversity and abundance. An increase in invertebrate diversity and abundance will provide a foraging source for birds and bats across the Site.

Management Objective 3 – Establish new planting at the earliest practicable opportunity.

- 3.3.7. The Proposed Development includes c. 8.8ha of new tree belts and c. 4335m of hedgerow planting. New planting will be established at the earliest practicable opportunity within the construction programme in accordance with Project Principle 5.3.
- 3.3.8. Proposed locations for early planting/habitat management are set out at paragraph 4.3.13 and will be undertaken ahead of construction activities starting (see **Appendix 1** and **Appendix 2** for locations). Early planting refers to planting that can take place following DCO consent (if it is granted) and before construction is started as far as reasonably practicable.
- 3.3.9. The early planting/management is intended to improve foraging and commuting habitat for bats between woodland blocks; to improve connectivity across the Site and to the wider landscape; compensate for hedgerows lost; improve retained hedgerows; improve foraging, nesting/roosting habitat for birds and bats; and provide habitat for black hairstreak and brown hairstreak butterfly. Early planting/management will also provide benefits to other species including other invertebrate species, amphibians, reptiles, badgers, and other mammals such as hedgehog and rodents.
- 3.3.10. A phasing strategy for new planting will be developed at the detailed design stage of the Proposed Development within the detailed LEMP(s). This will identify priority areas for new planting to be implemented. The Applicant is open to suggestions of early planting from the Community Liaison Group (CLG) at the appropriately timed LEMP.

Management Objective 4 – Deliver a biodiversity net gain of a minimum of 10%

- 3.3.11. The Environment Act 2021 mandatory requirement for 10% BNG [**Ref. 1-14**] does not yet apply to Nationally Significant Infrastructure Projects like

the Proposed Development until May 2026, at the earliest. Although not yet mandatory, the Applicant is committing to achieving above this minimum level of BNG, with a minimum net gain of 40% area habitat units, 17% hedgerow units and 10% watercourse units. The BNG assessment is presented in **ES Volume 4, Appendix 7.17: Biodiversity Net Gain Assessment, [EN010158/APP/6.4]**.

- 3.3.12. For this current stage of the DCO process, Defra's Statutory Biodiversity Metric 2024 **[Ref. 3-2]** was used to assess the value of the baseline and proposed habitats and understand the net change in value of the Site based on the Green Infrastructure Parameters presented in **Appendix 1** and **Appendix 2**. The metric provides a separate assessment for habitat areas (referred to as habitat units), linear vegetated habitats (referred to as hedgerow units), and linear aquatic habitats (referred to as watercourse units). The results of this assessment are detailed in full in **ES Volume 4, Appendix 7.14: Biodiversity Net Gain Assessment [EN010158/APP/6.4]** and at present a minimum gain of 40% for area habitat, 17% for hedgerows and 10% for watercourses will be delivered.

Management Objective 5 – Retain all existing PRow and protect their amenity.

- 3.3.13. Existing PRow that cross the Site have been retained as far as practicable and have been incorporated within multifunctional green and blue infrastructure corridors, in accordance with Project Principle 9.1 and the **Outline RoWAS [EN010158/APP/7.8]**. Steps have been taken to protect their amenity in accordance with Project Principles 2.3 and 9.1 to 9.3. Temporary closure of PRow is to be avoided as far as practicable, and temporary diversions would be preferred and provided for instead of temporary closures, where required. If a temporary diversion or closure is required, then it has been assumed that this would be in place for a period of up to 6 months during the construction phase.
- 3.3.14. A total of 34 PRow and one permissive footpath currently run through the Order Limits and several more run adjacent to the Order Limits boundary in various locations. The Proposed Development is proposing to enhance the connectivity in the local area through the inclusion of three new operation (including maintenance) phase permissive footpaths and a new operation (including maintenance) phase bridleway link within the Site as well as five permanent diversions to existing PRow to rationalise and improve the network, as shown in **ES Volume 3, Figure 3.10: Existing and Proposed PRow and Permissive Footpaths [EN010158/APP/6.3]**. The five permanent diversions to existing PRow will serve to better connect the local network of piecemeal PRow whilst also minimising the extent to which PRow interact with **Work Nos. 1 - 9**.

- 3.3.15. An important objective is to minimise where possible the perceived detrimental impacts of the Proposed Development on recreational amenity. This has been addressed by:
- Omitting Solar PV development from areas of land to break up the amount of development along footpaths and to create green infrastructure corridors aligned to them.
 - Perimeter fencing surrounding the Solar PV development will be offset at least 10m from either side of existing PRow, to minimise any perceived channelling/funnelling of the visual experience from PRow.
 - Creation of new native planting along existing routes to screen and filter close views to the Proposed Development, comprising a combination of tree belt, hedgerow and grassland with wildflower planting.
 - Siting of perimeter fencing behind new planting in a range of places to reduce visual impact.
 - Implementation of interpretation boards at appropriate junctions of PRow within the Order Limits, which will allow for opportunities to better understand the Proposed Development, local history and ecology and the benefits of renewable energy.
 - Providing support for initiatives that improve the access and visitor experience at Claydon House.

Management Objective 6 – Enhance the footpath and cycle network by providing new and improved routes to increase connectivity and link local settlements

- 3.3.16. Permanently diverted PRow and permissive paths will be created as part of the Proposed Development in accordance with Project Principles 2.3 and 9.4. The five permanent diversions to existing PRow would serve to better connect the local network of piecemeal PRow whilst also minimising the extent to which PRow interact with **Work Nos. 1 - 9**. They would rationalise existing routes or allow routes to follow field boundaries, creating variety of user experiences along the routes and creating stretches of the routes where Solar PV development would be located to one side only. These permanently diverted PRow would reflect an equivalent design to the existing PRow that they are replacing, based on user requirements.
- 3.3.17. These are shown in **ES Volume 3, Figure 3.10 Existing and Proposed PRow and Permissive Footpath [EN010158/APP/6.3]** and include:
- Five PRow permanently diverted as follows:
 - A diversion to the existing PRow Footpath (reference 'ECL/4/2') (463m to-be-stopped up) to the north of Parcel 3 to align the PRow

Footpath with the field boundaries of Fields E10 and E11, rather than crossing Field E11 (new length 559m).

- A diversion to the existing PRoW Footpath (reference 'ECL/7/2') (244m to-be-stopped up) to the east of Parcel 2 to align the PRoW Footpath with the field boundary of Field D19 (new length 274m).
- A diversion to the existing PRoW Footpath (reference 'SCL/13/2') (323m to-be-stopped up) to the south of Parcel 1 (between Shrubs Wood and Decoypond Wood) to align the PRoW Footpath with the field boundary of Field B7 (new length 410m).
- Diversions to three existing PRoW Footpaths (references 'SCL/13/1', 'SCL/12/2' and a further diversion to 'SCL/13/2') (1,470m to-be-stopped up) to rationalise them into a single PRoW Footpath providing access between Pond Farm and Calvert Road (new length 1,027m).
- Three new operation (including maintenance) phase permissive footpaths aligned as follows:
 - A new public route across Parcel 1 by connecting the to-be-rationalised PRoW Footpath (reference 'SCL/13/2') before tracking east to the south of Shrubs Wood, east across Knowl Hill (Field B17) and then tracking north towards Three Points Lane (approximate length 1.9km);
 - A new public route across Parcel 1 connecting the above permissive path beginning from the intersection between Fields B17, B20 and B21 which then runs north to the west of B21 and B22 to Calvert Road and onwards to PRoW Footpath (reference 'MCL/13/1') (approximate length 0.7km); and
- A new public route across Parcel 2 which connects the existing PRoW Footpath (reference 'ECL/8/1') before tracking west along the north of D3 (South) to PRoW Footpath (reference 'ECL/9/2') and PRoW Bridleway (reference 'ECL/10/2') (approximate length 0.5km).
- A new bridleway link across Parcel 2, which would be accessible to the public during the operation (including maintenance) phase of the Proposed Development. It would connect to the existing PRoW Bridleway (reference 'ECL/10/5'), before tracking south west along the proposed internal access track through Field D27 and then along PRoW Footpath (reference 'QUA/41/1') to join the PRoW Bridleway (reference 'QUA/40/2' and 'QUA/40/3') that runs along the southern edge of Fields D28 and D29. The total distance of the link would be approximately 0.9 km long, of which the northern section of 0.6km follows the alignment of the proposed internal access track/permissive path and the southern section of which 0.3 km follows the alignment of PRoW Footpath reference 'QUA/41/1'.

Management Objective 7 – Provide education and interpretation of the solar farm and the site.

- 3.3.18. The Proposed Development will be designed to provide education and interpretation of the Proposed Development in accordance with Project Principle 4.2.
- 3.3.19. Opportunities for the local community to engage with and learn about the natural environment will be provided. This will include the provision of informal, low-key interpretation boards at appropriate, strategic points across the Order Limits that will allow the local community to learn about and engage with nature. Information will also be provided on the Proposed Development, local history and ecology and the benefits of renewable energy. Way-markers and interpretation boards will be provided at appropriate junctions of the existing footpaths or where they enter the Order Limits to aid interpretation and will be installed prior to the first anniversary of the date of final commissioning of the relevant phase of the Proposed Development to which they relate. The detailed LEMP(s) will confirm the proposed content and location of the interpretation boards.
- 3.3.20. These will be agreed with the relevant local planning authority prior to their installation and in consultation with local communities via the CLG formed pursuant to the **Outline CEMP [EN010158/APP/7.2]** and a Requirement in Schedule 2 of the **Draft Development Consent Order [EN010158/APP/3.1]**.

Management Objective 8 – Design for resilience and adaptation to future climate change.

- 3.3.21. The Proposed Development will be designed for resilience and adaptation to future climate change in accordance with Project Principle 1.1.
- 3.3.22. The enhancement of existing vegetation and the implementation of proposed planting will slow water flow across the Site, whilst also providing water quality treatment before it enters the watercourses within and surrounding the Order Limits [**Ref. 3-3**].
- 3.3.23. Species should be resilient to climate change impacts and disease/pests as far as is practicable and foreseeable. Detailed design and accompanying LEMP(s) will provide further details in relation to species selection.

Management Objective 9 – Management and/or restoration of existing ponds and creation of new ecological ponds.

- 3.3.24. The Proposed Development will include the establishment of ecological ponds through either the restoration of former ponds or creation of new ponds in appropriate locations (see **Appendix 2** for indicative locations).

- 3.3.25. Increasing the number of ponds within the Order Limits will strengthen the pond network and provide additional breeding habitat for GCN and other amphibian species and provide additional foraging habitat for bats through an increase in invertebrate abundance. The ponds will also provide additional habitat to support a range of invertebrate species. Detailed design and accompanying LEMP(s) will provide further details in relation to pond design and planting proposals/species selection.

Management Objective 10 – Create mitigation areas for ground nesting birds and bats.

- 3.3.26. The Proposed Development will provide open nesting habitat for ground nesting birds to compensate for habitat lost due to placement of Solar PV modules and improve habitat and carrying capacity for ground nesting birds. Skylark have been used as a proxy for all ground nesting bird species to determine the minimum area required to mitigate for loss of ground nesting bird habitat. The species-rich grassland created will also likely boost invertebrate diversity, providing new foraging and commuting habitat for bats, birds and other species across the landscape. Arable to grassland reversion will also reduce soil erosion, protect watercourses from sedimentation run-off and cause reduction in use of herbicides and pesticides.
- 3.3.27. Management of grassland within the Order Limits will be undertaken by a combination of sheep (under panels) and cattle grazing (areas with no panels). If grazing for any reason is not possible then a late summer cutting regime will be implemented. See section 5.2 for further details.

Management Objective 11 – Enhance the area along watercourses, including the existing Claydon Brook.

- 3.3.28. The Proposed Development will provide an enhancement area along the existing Claydon Brook watercourse, with the potential to include wetter species of grassland and discrete areas of scrub creation for bat corridor enhancement. There will be a minimum of 10m offset from ditches, ponds and ordinary watercourses and a minimum 20m offset from the stretch of Claydon Brook along the boundary of Fields E20, E11, E10 and north section of E21.
- 3.3.29. Any bridge crossing of the existing Claydon Brook watercourse will be designed to promote longitudinal connectivity for flora and fauna along the riparian corridor.
- 3.3.30. Maintaining a 10m buffer from ditches, ponds and watercourses will retain vegetation connectivity, help to stabilise banks and help provide protection from pollution such as runoff. It will also maintain the vegetated

watercourse corridor habitat for fish and aquatic invertebrate species, riparian mammals such as otter and foraging and commuting bats.

- 3.3.31. Detailed design and accompanying LEMP(s) will provide further details in relation to design of this offset and planting proposals/species selection.

Management Objective 12 – Create mitigation corridors for bats.

- 3.3.32. The Proposed Development will include a minimum (see **Appendix 5** for locations):
- 30m offset from the fence line to statutory and non-statutory designated sites, ancient woodland and woodland and hedgerows located along the boundaries of Field D29 and partially in Field D28
 - 20m offset from the fence line to all other woodland, HS2 mitigation planting and Claydon Brook in Fields E20, E11, E10 and north section of E21.
 - 10m offset from ditches, ponds and ordinary watercourses
- 3.3.33. Within these buffer regions habitats will be created comprising a mosaic of species rich grassland and scrub planting, along with woodland planting along the boundaries of Field D29 and partially in Field D28 to increase the connectivity between Finemere Wood and Runt's Wood.
- 3.3.34. The Proposed Development will improve and strengthen the existing hedgerow corridors, within Fields B3 and B7, between Fields B7 and B8/B10 and between Fields B8/B10 and B9/B11, with a 15m offset from these hedgerows either side providing an overall 30m corridor. Native scrub and woodland species planting will be undertaken in these hedgerows, along with species rich grassland and scrub habitat within the buffer region. This will improve connectivity between Shrubs Wood, Decoypond Wood and Sheephouse Wood.
- 3.3.35. There will be a minimum 10m offset either side of all other existing hedgerows from the fence line providing an overall 20m corridor (with the exception of where the Internal Access Corridor and/or Interconnecting and Grid Connection Cable Corridors are required to cross), As outlined above hedgerows will be strengthened with native species planting and a mosaic of species-rich grassland and scrub planting undertaken within the buffer region.
- 3.3.36. The provision of neutral grassland, creation of woodland and scrub within Fields B17, B9, C1, C2, C3, D27 and D30-D37 along with the creation/restoration of defunct ponds across the Site will likely boost invertebrate diversity and abundance, providing new foraging and commuting habitat for bats across the Site.

- 3.3.37. The paired static detector surveys (see **ES Volume 4, Appendix 7.16: Paired Static Bat Detector Survey Report [EN010158/APP/6.4]**) indicate the importance of the hedgerow resource to the bat assemblage, including both foraging and commuting Bechstein's bat and barbastelle bat. Surveys undertaken by Natural England [**Ref. 3-1**] indicate the importance of the woodland resource for Bechstein's bat. This provides confidence that the approach to the Proposed Development design and mitigation is appropriate.

Management Objective 13 - Manage the Proposed Development to respond to the distinctive and unique local character of the Site, informed by relevant local studies such as the Aylesbury Vale Landscape Character Assessment.

- 3.3.38. New structural planting, in the form of tree belts and hedgerows, will help to soften and screen built development and integrate it to the existing landscape, whilst also providing habitat for biodiversity. Planting will be designed and managed to complement the existing vegetation mix, structure and pattern of the landscape. It will be informed by an understanding of the environmental context and aspirations of the Buckinghamshire & Milton Keynes Biodiversity Action Plan, Reconnecting Bernwood, Otmoor and the Ray: A call to action' report and landscape character studies which encourage planting of native species, enhancement of unimproved and semi-improved grassland areas, retention and strengthening of hedgerows and addition of new hedgerow trees, and planting of tree belts and individual trees. In addition, planting within Parcel 1 will respect the 'designed' character of the woodland blocks, retaining straight edges to the woodland blocks, in locations that relate to the historic wider landscape of Claydon House, ensuring the northern areas of Parcel 1 that relate visually to Claydon House appear more formal whilst other areas of the Site are more naturalistic. This will ensure:
- An enhanced landscape structure with greatly improved green infrastructure corridors and connectivity around and within the Order Limits such as along existing field boundaries and PRoW.
 - Screening and filtering of close views to the Solar PV development and associated built elements from PRoW, local roads (such as Calvert Road and Claydon Road) and other publicly accessible areas within and immediate adjacent to the Order Limits.

Management Objective 14 – Create a mosaic of habitats, such as new grassland and arable margins, to support farmland birds such as skylark and grey partridge and species such as brown hare.

- 3.3.39. A mosaic of new habitats will be created to support key species across the Order Limits in accordance with Project Principle 5.3. These habitats will complement retained vegetation and create a network of valuable habitats

through the Proposed Development as shown in **Appendix 1** and **Appendix 2**. This network will maximise foraging, sheltering and breeding possibilities for a wide range of species, including bats, farmland birds, barn owl, hedgehog, reptiles, amphibians, badgers, invertebrates, brown hare and rodents. New habitats will include:

- Species-rich neutral grassland;
- Arable field margins (wild bird cover/seeding);
- Grassland open fields and margins with wildflowers;
- Wildflower grassland (underneath Solar PV modules);
- Scrub along field margins;
- Strengthening of existing hedgerows; and
- Tree belt, tree and hedgerow planting.

Management Objective 15 – Use locally native species wherever possible to create new habitats, increase the number of pollinator species and create food sources for birds such as skylark and other animals during winter months.

- 3.3.40. New planting will comprise locally native species designed to increase the number of pollinator species and create food sources for birds such as skylark during winter months in accordance with Project Principle 5.5.
- 3.3.41. Locally sourced green hay or brush harvested seed will be used for grassland creation where practicable, and there will be emphasis on using seed mixes of local provenance should the first two options be unavailable.
- 3.3.42. The green infrastructure proposed will provide a large floristic resource across the Order Limits. This will comprise a mix of locally native species which will flower at different times of the year and provide a long summer foraging window for pollinators and other insects. It will also provide a summer food source of insects for birds, such as skylark, which will also benefit in the winter with the creation of the wild bird cover/seeded arable margins.
- 3.3.43. Fruiting, berry and nut bearing species will be used to provide food and foraging sources for a variety of wildlife including birds, foxes, badgers, rodents and insects.

4. Pre-Construction and Construction

4.1. Introduction

- 4.1.1. This section details the required works to help to ensure the objectives set out in Section 3 can be achieved. Works will be undertaken in accordance with the **Works Plans [EN010158/APP/2.3]** and substantially in accordance with the following plans and documents:
- **Green and Blue Infrastructure Parameters [Appendix 1].**
 - **Landscape and Ecological Mitigation and Enhancements [Appendix 2].**
 - **Vegetation Removal Parameters [Appendix 3].**
 - **Outline CEMP [EN010158/APP/7.2].**
- 4.1.2. All soft and hard works will be agreed with the relevant planning authority through the discharge of requirements and will be detailed in specifications included within the LEMP(s).

4.2. Community Liaison Group (CLG)

- 4.2.1. A CLG will be established for the duration of the construction period as set out in the **Outline CEMP [EN010158/APP/7.2]**. The aim of the CLG is to facilitate liaison between representatives of people living in the vicinity of the Order Limits and other relevant organisations in relation to the construction of the Proposed Development. Any complaints will be directed toward the Community Liaison Lead, who will ensure that all necessary action/ investigation is undertaken. While the CLG will not be in place during operation, updates will be given to the local community and stakeholders at key milestones to maintain an on-going relationship over the entire lifetime of the project. There will also be contact details onsite and online for members of the community and stakeholders to contact the asset operations team.
- 4.2.2. The Applicant will consult with the CLG on the proposals for the location and content of interpretation boards and waymarking signage, and the options for planting alongside PRoW and permissive paths, as appropriate.
- 4.2.3. Following consultation with the CLG, the detailed LEMP(s) will include the specification of the hedgerow and tree belt planting along permissive paths and PRoW and how it will be managed, including explaining how the feedback from CLG has been considered. The detailed LEMP(s) will be submitted to the relevant planning authority for approval pursuant to a Requirement of the **Draft DCO [EN010158/APP/3.1]**.

4.3. Pre-Construction

Principles

4.3.1. The **Outline CEMP [EN010158/APP/7.2]** sets out the broader framework in relation to pre-construction and construction activities. In relation to green infrastructure, the following pre-construction and construction principles will be followed and further developed as part of the detailed design and LEMP(s):

- An invasive non-native species walkover survey will be undertaken pre-construction that will cover both aquatic and terrestrial habitats and conducted by an appropriately experienced individual at an appropriate time of year. The pre-construction survey will be used to inform a biosecurity protocol if required.
- All new planting should be sourced from a reputable UK based provider who is able to demonstrate provenance of planting and adhere to all relevant biohazard controls and biosecurity measures including Landscape Institute Technical Note 1/15 Pests and Disease Threats **[Ref. 4-1]**.
- All new planting must be certified disease and pest free from the chosen supplier(s). Planting to be undertaken in suitable planting conditions. All new tree planting will be undertaken in accordance with the BS8545:2014 “Trees: from Nursery to Independence in the Landscape – Recommendations” **[Ref. 4-2]** document.
- Areas of bare earth and scarification as a result of the construction to be resown with a suitable seed mix of species to encourage sward diversity. Details of proposed planting areas are provided by the Green Infrastructure Parameters in **Appendix 1** and the Landscape and Ecological Mitigation and Enhancements in **Appendix 2**.
- Where vegetation removal/pruning is required for access and/or visibility splays, the works should be limited to that amount required to achieve the appropriate access/visibility required and substantially in accordance with the Vegetation Removal Parameters in **Appendix 3**. Pruning of vegetation will be preferred over removal wherever practical.
- Bat boxes will be installed on retained trees across the Order Limits, the details of which will be provided in the detailed LEMP(s). This will consist of a variety of bat boxes suited to a range of species.
- Bird boxes will be installed in mature trees and will include boxes for a range of species of principal importance, such as kestrel and barn owl tree sparrow, spotted flycatcher and marsh tit. Specific details and locations will be provided in the detailed LEMP(s) at the detailed design stage.

- Hibernacula created across the Site will provide hibernation/shelter location for species including reptiles, GCN and hedgehogs.

Pest and Disease Control and Biosecurity

- 4.3.2. All plant material shall be inspected for the presence of any pests or disease occurring within the Order Limits and appropriate action shall be taken to remedy the disease and eradicate pests.
- 4.3.3. Where species are known to be susceptible to disease (e.g. Dutch Elm Disease), disease resistant species should be favoured. In general, a variety of appropriate plant species will be specified at the detailed design stage, to ensure the greatest possible chances of proposed planting being able to withstand any future biosecurity issues.
- 4.3.4. Appropriate biosecurity measures will be implemented, and all plant material will be checked for invasive species and biosecurity hazards.
- 4.3.5. All materials used in connection with these works shall be of an approved type and be applied and used in accordance with the conditions for the use of herbicides which will be outlined in the specification documents at the construction stage.

Pre-Planting Preparation

- 4.3.6. Pre-planting preparation will be undertaken where required to ensure optimum chances of successful establishment and mitigation. Further details, including timings, for each planting typology are set out in **Appendix 4** and the LEMP(s) submitted at the detailed design stage will provide additional details once detailed specifications are confirmed.
- 4.3.7. The current nitrate and phosphate levels in the soils across the Order Limits are likely to be high due to years of inorganic fertiliser application. High levels of these nutrients favour coarse grasses and leads to a less floristically diverse sward. It is not anticipated that directly sowing species rich grassland mixes into nutrient-rich soils will be effective, as grasses will outcompete wildflowers, and the yield (and therefore extent of nutrient depletion) will be reduced compared to a conventional grass seed mix for silage or hay cropping. This will likely be a constraint for the areas set aside for creation of flower-rich neutral grassland and in particular Fields D34 and D36 where it is proposed to create lowland meadow but is not considered a constraint for the legume-rich sowing under panels which are better equipped at dealing with higher fertility levels. Note Fields D34 and D36 are currently other neutral grassland in moderate condition (the majority of grassland being poor condition) and are therefore the most flower rich grassland fields within the baseline and therefore likely to be on soils less nutrient rich than other areas of grassland.

- 4.3.8. Should the nutrient levels be too high to deliver grassland habitat mitigation, measures to reduce soil fertility may need to be implemented. The exact method will be detailed in the LEMP(s).
- 4.3.9. At the earliest opportunity, soil nutrient tests should be completed to determine the exact soil nutrient levels on each field. Following DCO consent, fertiliser application will end, thus preventing the continued build-up of these nutrients. Reducing these inputs, where required, will be critical to habitat creation.
- 4.3.10. A suggested approach to reducing soil fertility (avoiding topsoil stripping or deep ploughing), if required, is as follows:
- Initial establishment of a basal seed mix or conventional grass ley (e.g. Fescue mix) on former arable soils, with a cessation of fertiliser application. This grass mix will form the base for the construction works and should cover whole fields, with existing margins retained in their current state.
 - Prior to sowing, it may be necessary to cultivate and spray margins of former arable fields, where there is currently a high level of weed species, in autumn or spring once weeds have germinated to reduce weed levels and prevent reestablishment.
 - Cutting of grassland for silage or hay (without any fertiliser application) to deplete nutrients on at least 2-3 occasions per year, ideally 2-3 years before construction works start and prior to the sowing of wildflower seed.
 - Removing grass cuttings from site to stop nutrients re-entering the system.
 - Using this temporary grass cover as protection to the soil and ground surface during construction.
 - Following installation of the arrays, the temporary grass cover will be scarified, and wildflower seeds will be sown into the scarified turf (using hydroseeding or other suitable method) beneath the arrays, in spring or autumn.
 - This approach draws the nitrates and phosphates out of the soil and into the vegetation which is then trapped within the cut vegetation and removed from the soil. The resulting cut vegetation can then be used as forage for livestock, providing a saleable commodity.
- 4.3.11. The grassland will be maintained within the perimeter fence by mowing as required during construction and monitored to assess the need for any reseeded arising from trafficking of vehicles or construction activity creating areas of bare ground or a wider loss of the sward. Post-construction overseeding with a greater diversity of species will be required, including field margins.

Early Planting

- 4.3.12. The Applicant recognises the importance of establishing new planting at the earliest practicable opportunity to mitigate the Proposed Development and is committed to undertaking 'early' planting. Early planting refers to planting that can take place following DCO consent (if it is granted) and before a minimum of one year in advance of construction starting, unless this is not possible due to factors outside of the Applicant's control at any point in time or location(s), such as works being undertaken at the National Grid East Claydon Substation. This is referred to as early planting because it will be implemented earlier than the 'worst case' scenario assessed within the Environmental Statement which assumes new planting will be implemented after construction. Early planting locations have been identified in strategic locations which have been informed by survey works undertaken for bats, visual amenity and glint and glare. These measures will improve foraging and commuting habitat for bats between woodland blocks; improve connectivity across the Site and to the wider landscape and compensate for hedgerows lost and improve retained hedgerows. This will also improve foraging and nesting habitat for birds and provide habitat for black hairstreak and brown hairstreak butterfly and other invertebrate species. They will also reduce visual impacts for local residents and reduce the potential for glint and glare effects.
- 4.3.13. This will include early planting/habitat management proposed within (see **Appendix 1** and **Appendix 2**):
- Parcel 1
 - Strengthening hedgerows between Shrubs Wood, Sheephouse Wood and Decoypond Wood, to improve connectivity and reduce potential displacement effects for foraging and commuting bats.
 - Tree belts along field boundaries to the south of Calvert Cottages to provide visual screening for residents of the properties and other visual receptors nearby.
 - Tree belts to the east and west of Catherine Cottages and new hedgerows with hedgerow trees along the proposed edge of the PV panels in Field B22 and B23 (North) to provide visual screening for residents of the properties and other visual receptors nearby.
 - Parcel 1a
 - Woodland block along the northern boundary of Fields C1 and C2 to strengthen the adjacent HS2 planting and increase connectivity between Sheephouse Wood and Romer/Greatsea Wood.

- Parcel 2
 - Strengthening existing hedgerows along the western boundaries of Fields D28, D29 and D30 with woodland planting, to improve connectivity between Finemere Wood and Runt's Wood.
 - Strengthening existing hedgerows along northern boundary of Fields D30, D34 and D37 to improve bat foraging and commuting, and provide visual screening in views from the south east.
 - Woodland blocks along the south eastern boundary of Fields D8, D9, D19 and D26 to strengthen the adjacent hedgerow and provide visual screening in views from the east.
 - A woodland block along the northern boundary of Field D3 (South) to infill a gap in the existing woodland belt and provide visual screening in views from the north.
 - Reinforcement/replanting of the existing hedgerow with trees along the western boundary of Fields D6 and D44 to provide visual screening in views from the west, including from properties such as Hogshaw Farm.
- Parcel 3
 - Woodland blocks along the western boundary of Fields E11, E20, E22, E23 and the southern boundary of Field E23 to provide visual screening in views from the south and west, including from Sion Hill Farm, East Claydon and Botolph Claydon.

- 4.3.14. The Applicant remains open to potential further early planting in areas identified by the Green Infrastructure Parameters in **Appendix 1** or the Landscape and Ecological Mitigation and Enhancements in **Appendix 2**, where they:
- provide earlier mitigation of effects stated in the **ES [EN010158/APP/6.2]** through earlier establishment and growth;
 - do not hinder existing/future farming operations;
 - provide an environmental/biological benefit to the local area regardless of the Proposed Development. Such planting could include tree planting, planting new hedgerows, or infilling gaps in existing hedgerows.
- 4.3.15. A phasing strategy for new planting will be developed at the detailed design stage of the Proposed Development within the detailed LEMP(s). This will identify priority areas for early planting identified through engagement with the CLG, the relevant planning authority, the Environment Agency and Natural England, to be implemented based on areas that will have most benefit in reducing the short-term impacts of the Proposed Development.

Planting and Utilities

- 4.3.16. As indicated in **ES Volume 3, Figure 3.1: Height Parameters** and **Figure 3.5: Zonal Masterplan [EN010158/APP/6.3]**, given the uncertainty relating to the works at National Grid East Claydon Substation, offsets from the outermost overhead transmission line and from the base of the transmission towers will be applied when the revised alignment of overhead lines is finalised by National Grid.
- 4.3.17. In accordance with National Grid Guidance [**Ref. 4-3**], only slow and low growing species of trees and shrubs will be planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances. Planting specification will be confirmed within the LEMP(s). Planting will be regularly inspected to maintain clearance from overhead utilities.
- 4.3.18. Planting above underground utilities will accord with relevant utility provider guidance with suitable species selected that do not result in risk to buried utilities as a result of roots or soil shrinkage. Planting specification will be confirmed within the LEMP(s).

Permitted Preliminary Works – Vegetation Removal

- 4.3.19. Vegetation removal, including trees and hedgerows, is identified within the list of Permitted Preliminary Works which can be undertaken prior to “commencement” within the **Draft DCO [EN010158/APP/3.1]**, within the extents indicated by the Vegetation Removal Parameters in **Appendix 3**. These parameters identify the likely worst case scenario vegetation for removal for construction purposes, which will be reinstated where practicable and retained during the operation (including maintenance) phase of the Proposed Development. Vegetation will only be removed for cable/access requirements and minimum visibility splay requirements for road safety.
- 4.3.20. There are minor difference in the values stated for hedgerow loss and creation and tree loss within the this **Outline LEMP, ES Volume 4, Appendix 7.13: Arboricultural Impact Assessment** and **ES Volume 4, Appendix 7.17: Biodiversity Net Gain Assessment [EN010158/APP/6.4]**, and **ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2]**. These differences arise due to the data used within this Outline LEMP being based on topographical survey data and aerial photography, and data used with **ES Volume 4, Appendix 7.13: Arboricultural Impact Assessment** based on ‘BS5837: Trees in relation to design, demolition and construction – Recommendations’ [**Ref. 4-4**] survey data, supported by topographical baseline mapping. The data used within **ES Volume 4, Appendix 7.17: Biodiversity Net Gain Assessment, [EN010158/APP/6.4]** and **ES Volume 2, Chapter 7:**

Biodiversity [EN010158/APP/6.2] is based on data collected as part of UKHab surveys detailed within **ES Volume 4, Appendix 7.7: Preliminary Ecological Appraisal (2025) [EN010158/APP/6.4]**. While the locations of proposed vegetation removal and creation are accurately represented, variations may occur in the description of what is impacted. This is due to differences in classification methodologies applied to vegetation and trees across the respective disciplines.

- 4.3.21. Whilst no removals of trees subject to a Tree Preservation Order (TPO) are proposed, where an individual tree subject to a TPO must be removed (e.g. due to its dead or dangerous condition) and the relevant planning authority requires replacement, a new tree of equivalent species and ultimate size will be planted in the same place or as near as reasonably practicable to the position of the removed tree, subject to operational requirements. Replacement planting for individual trees will utilise standard to extra heavy standard tree stock as appropriate and depending on species, and will be planted in the next planting season following removal. The final species and planting location will be agreed in advance with the relevant planning authority. Any woodland or hedgerow planting would not require the use of standard to extra heavy standard planting stock but would be achieved using whips or feathered whips.
- 4.3.22. The **Outline CEMP [EN010158/APP/7.2]** provides details of pre-construction and construction works, including timings of vegetation removal. However, in relation to green infrastructure, minor works to vegetation such as lateral pruning or crown lifting will be undertaken where required as part of the permitted preliminary works to avoid damage to trees by construction activities. Some vegetation and tree clearance/pruning may also be required. These works will be undertaken by a qualified arborist and in accordance with an agreed specification set out within an Arboricultural Method Statement (AMS) that will form part of the detailed CEMP(s).
- 4.3.23. Preliminary bat roost assessment surveys of trees have been undertaken, as detailed in **ES Volume 4, Appendix 7.2: Bat Preliminary Roost Assessment Report (2022) [EN010158/APP/6.4]** and **Appendix 7.14: Bat Preliminary Roost Assessment Report (2025) [EN010158/APP/6.4]**. Trees that have been identified with bat roost potential will be protected by a buffer and demarcation fencing, as detailed within and secured by the **Design Commitments [EN010158/APP/5.9]**. However, if it is found that any trees with bat roost potential will experience direct impacts, they will be surveyed prior to impact to determine presence/or likely absence of a roost. Any loss of a confirmed bat roost will be mitigated and compensated under a European Protected Species licence from Natural England.

- 4.3.24. Tree Protection Fencing (TPF) will be erected before any permitted preliminary works begin on the Site. Location and alignment of tree protection fencing will be provided within the AMS. TPF will be in accordance with the principles set out within 'BS5837: Trees in relation to design, demolition and construction – Recommendations' [Ref. 4-4]. Where appropriate, the security fence shall act as an effective protection barrier but in some locations specific, temporary tree protection fencing will be required. Protection fencing may be erected and dismantled in phases as construction progresses across the Order Limits.
- 4.3.25. The TPF will be generally in line with the preliminary TPF alignment indicated in **ES Volume 4, Appendix 7.13: Arboricultural Impact Assessment [EN010158/APP/6.4]**. This reflects the Root Protection Areas (RPAs) identified in the Arboricultural Impact Assessment, which includes increased RPAs of 15x the stem diameter for veteran trees and 15m from the crown of ancient and semi natural woodland, as these features will be less able to respond to disturbance and changes in their local environment.
- 4.3.26. The removal of vegetation for the creation of passing bays within road verges will also be required as part of the permitted preliminary works and is indicated by the Vegetation Removal Parameters in **Appendix 3**.
- 4.3.27. Following consent detailed LEMP(s), with the content largely defined by this **Outline LEMP** will be produced to set out details of vegetation clearance, mitigation and protection measures for the Permitted Preliminary Works. However, as these activities will be undertaken ahead of the detailed landscape design coming forward, details of how the Proposed Development is achieving BNG targets will not be included at this stage.

4.4. Construction

Construction Phase Works

- 4.4.1. The **Outline CEMP [EN010158/APP/7.2]** provides details of pre-construction and construction works. However, in relation to green infrastructure, minor works to vegetation such as lateral pruning or crown lifting will be undertaken where required as part of the Permitted Preliminary Works to avoid damage to trees by construction activities. Some vegetation and tree clearance/pruning may also be required. These works will be undertaken by a qualified arborist and in accordance with an agreed specification set out within an Arboricultural Method Statement (AMS) that will form part of the CEMP.
- 4.4.2. Construction of the Proposed Development will accord with the AMS for where construction activities encroach into root protection areas of trees.

- 4.4.3. Topsoil stripping will be limited to the construction of the Rosefield Substation, Battery Energy Storage System (BESS), collector compounds, access tracks, Inverter and Transformer Stations (ITS) and cable routes. All soil will be managed in accordance with the Soil Management Plan produced in accordance with the **Outline Soil Management Plan [EN010158/APP/7.7]** secured pursuant to the requirement in **Schedule 2** of the **Draft DCO [EN010158/APP/3.1]**.
- 4.4.4. The removal of vegetation for the creation of passing bays within road verges will also be required as part of the permitted preliminary works and is indicated by the Vegetation Removal Parameters in **Appendix 3**.

Construction Reinstatement Planting

- 4.4.5. New planting serving as reinstatement/mitigation planting for construction activities will be implemented post construction. The detailed LEMP(s) will detail the locations and specification of this planting.
- 4.4.6. Reinstatement planting will include replacement of hedgerows removed for site access, with new hedgerows planted along highway boundaries but outside visibility splays as soon as possible after works (e.g. along Three Points Lane), as well as lengths of hedgerow removed for Grid Connection Cable Corridors and/or Interconnecting Cable Corridor(s).
- 4.4.7. Planting of individual trees, as direct replacement of trees in hedgerows and tree belts lost during construction, will be required in accordance with the numbers identified in **ES Volume 4, Appendix 7.17: Biodiversity Net Gain Assessment [EN010158/APP/6.4]**. These trees will be located along existing and proposed hedgerows, and will be planted as standard to extra heavy standard tree stock as appropriate, depending on species and location.
- 4.4.8. New planting will have appropriate measures to ensure long term protection from grazers such as deer and grey squirrels.

4.5. Species-specific and Habitat-specific Mitigation

- 4.5.1. A brief summary of the species-specific and habitat specific mitigation measures for flora and fauna relevant to the operation (including maintenance) phase is given below but as indicated above this should be read in conjunction with the **ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2]**. Those measures that will be implemented during the Construction and Decommissioning phases will be detailed in the **Outline CEMP [EN010158/APP/7.2]** and **Outline DEMP [EN010158/APP/7.4]** respectively.
- 4.5.2. Statutory designated sites, non-statutory designated sites and ancient woodland The **Outline CEMP [EN010158/APP/7.2]**, and **Outline SMP**

[EN010158/APP/7.7] detail and secure the control measures that will be implemented during construction to protect designated sites and , ancient woodland which include, but are not limited to:

- Using fencing and signage where appropriate to establish and maintain appropriate buffer zones.
- Mitigation for habitat degradation from potential construction related effects including dust deposition, air pollution, pollution incidents and water quality, will be provided through the adoption of construction industry good practice and environmental protection legislation during construction. For example, prevention of surface and ground water pollution, soil removal and appropriate re-instatement.
- Any hedgerow sections that require removal will be reinstated in the same location. If reinstatement is not possible on the original alignment, then planting a mixture of native species will be undertaken within an appropriate location within the Order Limits as directed by a suitably qualified ecologist. For Site access, new hedgerows will be planted along new highway boundaries and visibility splays as soon as possible after works.

Hedgerows and hedgerow trees, individual ancient and veteran trees, individual trees and lines of trees, cereal and non-cereal crops, lowland mixed deciduous woodland and other woodland, arable field margins, ponds, watercourses and ditches, mixed scrub, bramble scrub, other neutral grassland and modified grassland

4.5.3. The **Outline CEMP [EN010158/APP/7.2]**, **Outline SMP [EN010158/APP/7.7]** and this **Outline LEMP** detail and secure the control measures that will be implemented during construction to protect hedgerows and hedgerow trees, individual ancient and veteran trees, individual trees and lines of trees, cereal and non-cereal crops, lowland mixed deciduous woodland and other woodland, arable field margins, ponds, watercourses and ditches, mixed scrub, bramble scrub, other neutral grassland and modified grassland, which are:

- Using fencing and signage where appropriate to establish and maintain appropriate buffer zones.
- Mitigation for habitat degradation from potential construction related effects including dust deposition, air pollution, pollution incidents and water quality, would be provided through the adoption of construction industry good practice and environmental protection legislation during construction. For example, prevention of surface and ground water pollution, soil removal and appropriate re-instatement.

4.5.4. Any hedgerow sections that require removal would be reinstated in the same location where practicable. If reinstatement is not possible on the

original alignment, then planting a mixture of native species would be undertaken within an appropriate location within the Order Limits as directed by a suitably qualified ecologist. For Site access, new hedgerows would be planted along new highway boundaries and visibility splays as soon as possible after works.

- 4.5.5. Compensatory habitat creation, hedgerow re-instatement and improvement measures (such as tree planting, gapping-up existing hedgerows, improving species diversity) are detailed within and secured by this **Outline LEMP**.

Black hairstreak and brown hairstreak butterfly

- 4.5.6. The **Outline CEMP [EN010158/APP/7.2]**, and **Outline SMP [EN010158/APP/7.7]** set out the control measures that will be implemented during construction to protect the hedgerow resource used by black and brown hairstreak butterflies which include, but are not limited to:
- Using fencing and signage where appropriate to establish and maintain appropriate buffer zones.
 - Mitigation for habitat degradation from potential construction related effects including dust deposition, air pollution, pollution incidents and water quality, will be provided through the adoption of construction industry good practice and environmental protection legislation during construction. For example, prevention of surface and ground water pollution, soil removal and appropriate re-instatement.
 - Pre-construction surveys of hedgerow sections that will require removal will be undertaken during the winter months to assess for the presence of black hairstreak and brown hairstreak eggs. Blackthorn that is found to contain black hairstreak or brown hairstreak eggs will be translocated to an appropriate location within the Order Limits to enable the eggs to survive the winter and hatch the following spring. Pre-construction surveys are detailed within and secured by the **Outline CEMP [EN010158/APP/7.2]**.
 - Management of woodland, hedgerows and scrub habitat that contain Blackthorn would be undertaken in such a manner to ensure maintenance works do not damage or destroy Blackthorn that could support black or brown hairstreak eggs.

Terrestrial invertebrates (excluding black hairstreak and brown hairstreak butterfly)

- 4.5.7. The **Outline CEMP [EN010158/APP/7.2]**, **Outline SMP [EN010158/APP/7.7]** and this **Outline LEMP** set out the control measures that will be implemented during construction to protect the habitats used

by terrestrial invertebrates (excluding black hairstreak and brown hairstreak butterfly) which include, but are not limited to:

- Using fencing and signage where appropriate to establish and maintain appropriate buffer zones.
- Mitigation for habitat degradation from potential construction-related effects including dust deposition, air pollution, pollution incidents and water quality, would be provided through the adoption of construction industry good practice and environmental protection legislation during construction. For example, prevention of surface and ground water pollution, soil removal and appropriate re-instatement.

Great crested newt

- 4.5.8. Works with the potential to affect GCN will be carried out either under the Buckinghamshire District Level Licensing Scheme through NatureSpace Partnership or under a European Protected Species licence from Natural England. The licensable works will encompass clearance, and construction works required within the intermediate and distant habitat zones of ponds (likely up to 250m) within the Order Limits.

Reptiles

- 4.5.9. Any vegetation clearance or ground clearance proposed within areas of habitat suitable for reptiles will be supervised by a suitably qualified ecologist.
- 4.5.10. A vegetation removal regime will be followed whereby any animals present are encouraged away from the cutting into retained habitats and not isolated in an unsuitable area. Each area will be walked by the ecologist to disturb reptiles prior to works commencing.
- 4.5.11. Vegetation is to be cleared at a minimum 150mm from the ground in the first pass.
- 4.5.12. Subsequent to this, a suitable period of time as decided by the ecologist will be given to allow for any reptiles present at the time of works to move away from the cut areas.
- 4.5.13. The vegetation will then be cut to as close to ground level as possible with vegetation cuttings being stored/used in habitat piles.
- 4.5.14. Any suitable reptile sheltering features (e.g. log piles, compost heaps or debris) will be identified by the on-site ecologist. These will be avoided if possible, if not they will be checked by the ecologist before their removal (should this be required). Any removal of sheltering habitats will be supervised by the ecologist. These will be dismantled by hand; this should be overseen by the ecologist. If a reptile is found, the ecologist will decide

whether or not it is appropriate to relocate the animal. Shelter features that require removal must be reinstated near the clearance area in a quiet, sheltered location. This will ensure that no net loss of potential reptile shelter features takes place.

Ground nesting birds, non-ground nesting birds and wintering birds

- 4.5.15. Appropriate pre-construction nesting bird surveys will be undertaken. A suitably qualified ecologist will supervise all work during the nesting bird season and ensure appropriate measures are undertaken to prevent disturbance, injury and/or death to ground nesting and non-ground nesting birds. Pre-construction surveys are detailed within and secured by the **Outline CEMP [EN010158/APP/7.2]**.
- 4.5.16. The **Outline CEMP [EN010158/APP/7.2]** and this **Outline LEMP** detail and secure control measures for vegetation clearance, which would avoid the main nesting bird period (March to August inclusive) where possible.
- 4.5.17. Any vegetation clearance or ground clearance proposed within the nesting bird period (March to August inclusive) would be checked for the presence of any nests by a suitably experienced ecologist within 48 hours prior to vegetation removal or ground clearance. If active nests are found, appropriate buffer zones will be put in place and the area monitored until the young birds have fledged. Cleared ground would be maintained in a disturbed state in the run up to construction commencing to minimise the risk of ground nesting birds attempting to nest.
- 4.5.18. Unless otherwise agreed with Buckinghamshire Council, there would be no night-time (19:00 to 07:00) working and any artificial lighting would be kept to a minimum and directed away from habitat suitable for breeding birds.
- 4.5.19. The **Outline CEMP [EN010158/APP/7.2]** and this **Outline LEMP** detail and secure control measures to mitigate habitat degradation and to protect areas retained for ground nesting and non-ground nesting birds and wintering birds to avoid noise and visual disturbance. This includes measures such as demarcation fencing to prevent construction activity occurring within these areas. This would provide undisturbed areas for nesting and foraging.
- 4.5.20. The requirements for the successful maintenance of farmland bird populations are threefold:
- Availability of hedgerows or open ground for ground nesting species, including open fields and field margins.
 - Food during the breeding season, principally insects.

- Food during the non-breeding season, either insects or grains for granivorous species.

- 4.5.21. Despite individual species ecologies being slightly different the broad requirements are the same. Therefore, the strategy with regards farmland bird species has been to ensure the three requirements outlined above have been met. As the most numerous ground nesting species skylark have been used as a proxy ensuring that sufficient quantum of mitigation for skylark will benefit other species also. It is considered Solar PV modules may displace ground nesting birds so only the area directly under modules will require direct mitigation.
- 4.5.22. Survey work established that in 2024 there were 67 skylark territories across the survey area of 473ha, this equates to 0.14 skylark territories per ha (67 territories divided by 473 ha). Since the breeding bird surveys were undertaken, the design of the scheme has reduced substantially so that the actual area under Solar PV modules is 279ha, significantly less than the survey area of 473ha. The average density of skylark territories across the survey area (0.14 skylark territories per ha) has been used to estimate the number of skylark territories that might be present under the area of Solar PV modules, this being 0.14 multiplied by 279 ha, being an estimated 39 skylark territories likely to be present across the area of proposed Solar PV modules.
- 4.5.23. Typical skylark breeding territory densities range from 0.02 territories/ha in intensive grazed pasture to 0.56 territories/ha in organic set-aside, whilst arable farmland typically supports 0.28 territories/ha and coastal saltmarsh 0.7 territories/ha [Ref- 4.5]. It is assumed that with the package of measures outlined in this **Outline LEMP** that a density of at least 0.5 territories per ha would be achievable, as creation of species rich grassland would be similar to organic set aside.
- 4.5.24. Therefore, to quantify the amount of mitigation required, 39 territories divided by the estimated carrying capacity (0.5 territories per ha) = 78 ha of mitigation is required as a minimum and approximately 95 ha of species rich grassland is proposed. Mitigation would be delivered in blocks larger than 3ha as skylark and other ground nesting birds in general favour large open fields.
- 4.5.25. This 95ha of flower rich grassland (comprising other neutral grassland and two fields of lowland meadow in moderate condition), together with the retention and enhancement of hedgerows and field margins and the enhancement of vegetation under the Solar PV modules is likely to increase invertebrate and hence foraging. Whilst including a winter source of seed will help granivorous species during the winter months.

Barn owl, red kite, hobby and peregrine falcon (listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended))

- 4.5.26. Construction activities have the potential to disturb breeding barn owl, hobby, peregrine and red kite, if they are breeding within c.200m of the Order Limits. These species are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) **[Ref. 1-11]** and are protected against disturbance when they are nesting and/or have dependent young. Pre-construction surveys for Schedule 1 species will be undertaken, as detailed within and secured by the **Outline CEMP [EN010158/APP/7.2]**. If active nests are identified, then construction works will either be timed to avoid disturbance or suitable measures, including appropriate buffers from nests and demarcation during the breeding season, will be delivered to ensure disturbance is avoided in line with the relevant legislation.

Bats

- 4.5.27. The **Outline CEMP [EN010158/APP/7.2]** details and secures control measures to mitigate potential construction related effects to bats, including potential disturbance from light, noise and vibration.
- 4.5.28. Where construction lighting is required, it will conform to best practice guidelines with respect to minimising light spill into adjacent habitats to prevent disturbance to bats. Throughout construction, the use of motion detection or manually operated lighting will be used to avoid constant lighting. Inward/downward directional lighting will be used to avoid light spill onto adjacent hedgerows, woodlands, field margins and ponds, watercourses and ditches, which are likely to be used by bats and other nocturnal animals. Security lighting will use PID systems which should not affect bats.
- 4.5.29. For 'key' hedgerows where sections of 10m or more in length are proposed to be removed (such as along Three Points Lane), mitigation will be required in the bat activity season (April to October) to maintain linear connectivity for foraging/commuting bats. This will involve the temporary installation of structures in hedgerow gaps mimicking the hedgerow which bats could use for echolocation when commuting e.g. a double row of 'heras' type fencing with camouflage type netting on top or filled with brash; or shrubs/trees in movable planters every 5m. This mitigation will be installed immediately after hedge removal (if undertaken in the bat activity season April to October) and left in place until works are completed. If the mitigation needs to be removed for works such as construction traffic access, the mitigation will be re-instated at the end of each day and retained until any new or replacement hedgerow is sufficiently established as an effective flightline. These mitigation measures are detailed within and secured by the **Outline CEMP [EN010158/APP/7.2]**.

- 4.5.30. Preliminary bat roost assessment surveys of trees have been undertaken, as detailed in **ES Volume 4, Appendix 7.2: Bat Preliminary Roost Assessment Report (2022) [EN010158/APP/6.4]** and **Appendix 7.14: Bat Preliminary Roost Assessment Report (2025) [EN010158/APP/6.4]**. Trees that have been identified with bat roost potential will be protected by a buffer and demarcation fencing, as detailed within and secured by the **Design Commitments [EN010158/APP/5.9]**. However, if it is found that any trees with bat roost potential will experience direct impacts, they will be surveyed prior to impact to determine presence/or likely absence of a roost. Any loss of a confirmed bat roost will be mitigated and compensated under a European Protected Species licence from Natural England.
- 4.5.31. In addition, a variety of bat boxes will be installed in suitable locations on hedgerow trees or in woodland to increase roosting opportunities.

Otter

- 4.5.32. The **Outline CEMP [EN010158/APP/7.2]** details and secures control measures to mitigate potential construction related effects to otter, including potential disturbance from light, noise and vibration.
- 4.5.33. Pre-construction otter surveys will be undertaken to confirm any active holts, including further monitoring of resting places through the use of camera traps to determine use by otters, with appropriate buffers maintained to prevent disturbance. Pre-construction surveys are detailed within and secured by the **Outline CEMP [EN010158/APP/7.2]**. Where construction lighting is required, it will conform to best practice guidelines with respect to minimising light spill into adjacent habitats to prevent disturbance to otter. Throughout construction, the use of motion detection or manually operated lighting would be used to avoid constant lighting. Inward/downward directional lighting would be used to avoid light spill onto adjacent ponds, watercourses and ditches, which are likely to be used by otters. Security lighting would use PID systems which should not affect otters.
- 4.5.34. Unless otherwise agreed with Buckinghamshire Council, there would be no night-time (19:00 to 07:00) working and any artificial lighting would be kept to a minimum and not directed towards habitat suitable for otters.

Badger

- 4.5.35. The **Outline CEMP [EN010158/APP/7.2]** details and secures control measures to mitigate potential construction related effects to badgers, including potential disturbance from light, noise and vibration.
- 4.5.36. Pre-construction badger surveys will be undertaken to confirm status of existing badger setts and to identify the presence of any new setts with

appropriate buffers maintained to prevent disturbance or damage to setts. Pre- construction surveys are detailed within and secured by the **Outline CEMP [EN010158/APP/7.2]**. In the unlikely event that a sett cannot be avoided, then set closure will be considered under the appropriate licensing regime.

- 4.5.37. Where construction lighting is required, it will conform to best practice guidelines with respect to minimising light spill into adjacent habitats to prevent disturbance to badgers. Throughout construction, the use of motion detection or manually operated lighting would be used to avoid constant lighting. Inward/downward directional lighting would be used to avoid light spill onto adjacent habitats, which are likely to be used by badgers. Security lighting would use PID systems which should not affect badgers.
- 4.5.38. Unless otherwise agreed with Buckinghamshire Council, there would be no night-time (19:00 to 07:00) working and any artificial lighting would be kept to a minimum and not directed towards habitat suitable for badgers.

5. Operational Management

5.1. General Management

- 5.1.1. The following general management will be undertaken across the whole of the Order Limits. An indicative works schedule is presented in **Appendix 4** which will be further developed within the LEMP(s) at the detailed design stage.

Public Rights of Way and Permissive Paths

- 5.1.2. The management of Public Rights of Way (PRoW) and permissive paths, both existing and proposed, within the Order Limits is set out within the **Outline RoWAS [EN010158/APP/7.8]**. Details of any waymarking, signage and interpretation will be developed in consultation with the CLG.
- 5.1.3. The permissive paths will be made available to the public, 364 days a year, by permission of the Landowner. This applies to the northern section of the bridleway link which is a permissive path, whereas the southern section of the bridleway link is a PRoW Footpath ('QUA/41/1') which is to be enjoyed as though it were a bridleway for the operation (including maintenance) period as secured by way of requirement in the **Draft DCO [EN010158/APP/3.1.6]**. They will be managed by the Applicant and will include signs to make clear that its use is for the public by permission of the Landowner. At the end of the Proposed Development's operation, the area will be returned to the Landowner (with further detail to be included in the DEMP) when the land will be in private ownership and the permissive paths would be retained or removed at the discretion of the landowner post-decommissioning, including the northern section of the bridleway link. The enjoyment of PRoW footpath reference 'QUA/41/1' as though it were a bridleway (i.e. the southern section of the bridleway link) is only temporary and the right would terminate on the date of decommissioning as notified by the Applicant and secured by a requirement in the **Draft DCO [EN010158/APP/3.1.6]**.
- 5.1.4. In relation to Green Infrastructure, all routes will be maintained to allow unhindered passage. Vegetation will be checked periodically and pruned where necessary to maintain an obstruction free route. Stiles and gates will be checked to ensure they are safe and operationally effective.

Access through Field E23

- 5.1.5. The arrangement of Solar PV modules within Field E23 will be designed to create a corridor for grazing animals to pass through the Solar PV development for the tenants. The detailed design and the detailed LEMP(s) will provide further details in relation to design of this access and

the management requirements associated with it, in discussion with the tenant.

Fencing

- 5.1.6. All perimeter fencing for the Proposed Development will be regularly checked to ensure it is safe and fit for purpose, and clearances above ground sufficient to allow mammals such as hare and badger to squeeze underneath, or mammal gates to permit the passage of wildlife if required. Repairs and replacement of fencing will be made as soon as practically possible as and when required.
- 5.1.7. Stock proof fencing may be used where necessary to manage grazing rotation and ensure grazing animals (including deer) do not impinge on other habitat areas.
- 5.1.8. Details of fencing will be approved under Requirement 8 of the **Draft DCO [EN010158/APP/3.1]**.

Maintenance of Tree Supports

- 5.1.9. Supporting tree stakes, ties and tree guards used for more mature tree planting where used will be biodegradable and maintained in good condition, replaced as necessary and preferably removed when trees are self-supporting (normally after two years).
- 5.1.10. Tree ties will be adjusted for tightness as necessary to avoid strangulation of the stem.

Watering of New Structure Planting

- 5.1.11. All new tree and hedgerow planting will be monitored regularly and additional watering from a mains water source using bowzers will be provided where required during times of prolonged heat and/or drought/dryness to ensure new planting establishes. Additional watering will be carefully applied on a specific basis to ensure new planting establishes successfully but not to the extent as to create a permanent dependency on additional watering.
- 5.1.12. Detailed LEMP(s) will include a 5-year defects replacement planting period, which is common practice for landscape maintenance contracts.

Protection from damage by deer and squirrels

- 5.1.13. New planting will have appropriate measures to ensure long-term protection from grazers such as deer and grey squirrels.

Control of Litter/Vandalism

- 5.1.14. Grounds maintenance will be delivered throughout the Proposed Development. The Proposed Development will be kept clean, and litter removed from planted areas as part of the regular maintenance of the Order Limits. Response to acts of vandalism or graffiti will be dealt with swiftly and the repair or replacement implemented as soon as practically possible.
- 5.1.15. Interpretation boards and signages will be regularly checked and maintained to ensure they are in good condition.

Avoidance of Fertiliser and Herbicides

- 5.1.16. In order to maximise the biodiversity value of the Proposed Development, and avoid water pollution, fertiliser use will be avoided, including areas used for productive purposes (such as grazing land), unless required for successful establishment of new planting.
- 5.1.17. It is likely that fertilizers and herbicides will continue to be used for the arable areas retained in agricultural use, e.g. within the Interconnecting Cable Corridor(s) or the Grid Connection Cable Corridor.
- 5.1.18. Herbicide use will be limited to areas where it is specifically required under the Solar PV modules and avoided elsewhere within the Order Limits to prevent damage to adjacent habitats, and only then when this is considered absolutely necessary. Any herbicide application will be carried out by suitably licensed persons following appropriate guidance and legislation.

Tree Preservation Orders

- 5.1.19. As with the construction phase, whilst no removals of trees subject to a TPO are proposed, if an individual tree subject to a TPO must be removed (e.g. due to its dead or dangerous condition) and the relevant planning authority requires replacement, a new tree of equivalent species and ultimate size will be planted in the same place or as near as reasonably practicable to the position of the removed tree, subject to operational requirements. Replacement planting for individual trees will utilise standard to extra heavy standard tree stock as appropriate and depending on species, will be planted in the next planting season following removal. The final species and planting location will be agreed in advance with the relevant planning authority. Any woodland or hedgerow planting would not require the use of standard to extra heavy standard planting stock but would be achieved using whips or feathered whips.

5.2. Habitat Management

Watercourses and ponds

- 5.2.1. Watercourses, including ditches, and ponds will be managed for biodiversity enhancements whilst maintaining flow levels. Monitoring of silt levels in ponds will be required, with appropriate de-silting activities undertaken on rotation at the appropriate time of year. Management will aim to improve the quality of the aquatic and marginal habitat.

Vegetation Management and Grazing

- 5.2.2. Vegetation management will be undertaken at an appropriate time of year so as to avoid nesting bird season and in such a way as to avoid incidental injuring or killing of reptiles and amphibians. Cutting of grassland and similar habitats will be carried out no lower than 150mm to avoid harm to reptiles and amphibians. Wood vegetation will be cut during January or early February to avoid the nesting season and allow berries and other fruit to remain in place into the early part of the winter. Checks will also be carried out for ground nesting birds and brown hare leverets if ground clearance of any suitable habitat is carried out between March and September. Management of woodland, hedgerows and scrub habitat that contain Blackthorn would be undertaken in such a manner to ensure maintenance works do not damage or destroy Blackthorn that could support black or brown hairstreak eggs.
- 5.2.3. Habitat management is often undertaken through mechanical means (i.e. grass cutting). However, grazing can be effectively utilised in the management of natural and semi-natural habitats. Conservation grazing uses herbivores to maintain habitats in a specific desired state in line with a habitat management plan. The density of animals is typically far lower than conventional grazing. Grazing is a common technique used for vegetation management on solar farm developments. The Applicant intends to secure grazing as the preferred grassland management method. An alternative option of mechanical mowing and collection would be used in the unlikely event that grazing is not possible due to factors outside of the Applicant's control at any point in time or location(s), such as disease outbreak which limits livestock grazing or in the highly unlikely event that the Applicant cannot procure flock(s) of sheep or herd(s) of cattle. Details such as timings and stocking densities to be provided in the LEMP(s) at the detailed design stage. If grazing is not possible, light scarifying every three years after the hay cut will help mimic light poaching creating gaps for new species to colonise.
- 5.2.4. For the Proposed Development the habitats that will benefit from conservation grazing are the other neutral grassland areas for ground nesting birds, species rich grassland in general mitigation areas, and the

legume-rich grassland beneath and around the panels created for biodiversity enhancement. Grazing in and around panels will be carried out using sheep, as they are less likely to damage infrastructure than larger herbivores. However, cattle may be used to graze the larger grassland areas such as the other neutral grassland and lowland meadow areas set aside as mitigation for ground nesting birds (see **Appendix 5** for locations), with the exact grazing regime and stocking densities detailed in the Detailed Landscape and Ecological Management Plan.

- 5.2.5. **Appendix 6** provides an overview of the current grazing regime within the Order Limits that is located within the Core Sustenance Zone for Bechstein's bats and compares this to the proposed grazing regime that is intended to be in place during the operational phase of the Proposed Development. Overall, as outlined in paragraph **5.2.3** it is intended that there will be an increase in cattle grazed grassland within the Order Limits and therefore, the Proposed Development should not result in a net loss of cattle grazed grassland within the Bechstein's bat Core Sustenance Zone.
- 5.2.6. If any invasive species are recorded within the Order Limits, then specific control measures, depending on species, will be implemented.
- 5.2.7. A detailed vegetation management programme for habitats is set out in **Appendix 4**. This details the steps to managing each proposed habitat and the month and year (from year 6 to year 30) each step should be undertaken. Where possible, grazing or cutting (depending on the final management regime) will be over a three-year rotation to ensure there are always some areas of longer grassland to benefit invertebrate species.

Screening/Structure Planting – Woodland and Tree Belts

- 5.2.8. Substantial new tree belt planting throughout the Order Limits is proposed, principally along existing field boundaries, to bolster existing vegetation but also to create new tree belts providing screening and biodiversity benefits.
- 5.2.9. Structural planting of Woodland and Tree Belts are shown in **Appendix 2**.
- 5.2.10. Tree belts will be a combination of native broadleaf and coniferous species and include bushier smaller species such as hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*) and holly (*Ilex aquifolium*) to provide structure and screening at lower levels. Woodland and scrub are anticipated to achieve a minimum height of 4m after 10 years and will be maintained to ensure this is achieved.
- 5.2.11. The planting specification for trees will be confirmed within the LEMP(s) and will typically be planted as young transplants or 'whips' with the use of standards to extra heavy standards where more mature specimens are required. Individual trees planted as more mature specimens are

anticipated to achieve a minimum height of 6m after 10 years and will be maintained to ensure this is achieved.

- 5.2.12. As set out at paragraphs 4.3.24 to 4.3.25, TPF will be erected around all trees to be retained in accordance with the principles set out within 'BS5837: Trees in relation to design, demolition and construction – Recommendations' [Ref. 4-4], in advance of any construction taking place. During operation, the following offsets will be retained free from development, as detailed within and secured by the **Design Commitments [EN010158/APP/5.9.3]**:

- Minimum 30m offset from the fence line to existing statutory and locally designated wildlife sites, existing woodland and hedgerows located along the boundaries of Field D29, and partially in Field D28 and existing ancient woodlands.
- Minimum 20m offset from the fence line to all other existing woodlands, including HS2 planting.
- Principal components of the Proposed Development will avoid root protection areas of trees and hedgerows as far as reasonably practicable.

Screening/Structure Planting – Hedgerows and Scrub

- 5.2.13. New hedgerow planting throughout the Order Limits is proposed, both to bolster existing hedgerows but also to create new hedgerows to provide screening and biodiversity benefits. New hedgerow planting is shown in **Appendix 2**.
- 5.2.14. A native mix of scrubby species such as hawthorn, blackthorn, holly, willow (*Salix* sp.), honeysuckle (*Lonicera periclymenum*) and hazel will be used, interspersed with taller tree species such as crab apple (*Malus sylvestris*), field maple (*Acer campestre*) and oak (*Quercus* sp.) which will mature to become large hedgerow trees. Sallow (*Salix caprea*), Alder (*Alnus glutinosa*), buckthorn (*Rhamnus cathartica*) and disease resistant elm (*Ulmus* sp.) will also be included within the planting mix to benefit butterfly species including purple emperor (*Apatura iris*), brimstone (*Gonepteryx rhamni*) and white letter hairstreak (*Satyrrium w-album*) butterflies.
- 5.2.15. Existing field hedgerows will be gapped up/filled in with new planting and will be allowed to grow out more fully and managed for visual screening and biodiversity benefits for the duration of the Proposed Development. These hedgerows will be managed to achieve a height of 3-3.5m, increasing height gradually (approximately 0.15-0.2m per year), to ensure that existing hedgerows remain dense and do not become overgrown. This will be particularly important for hedgerows containing elm, to reduce susceptibility to Dutch Elm Disease.

- 5.2.16. As set out at paragraphs 4.3.24 to 4.3.25, TPF will be erected around all trees to be retained, including hedgerow trees, in accordance with the principles set out within 'BS5837: Trees in relation to design, demolition and construction – Recommendations' [Ref. 4-4], in advance of any construction taking place. During operation, the following offsets will be retained free from development, except where a hedgerow crossing is required for access tracks and/or cable routes, as detailed within and secured by the **Design Commitments [EN010158/APP/5.9.3]**:
- Minimum 15m offset from the fence line to existing hedgerows located within Fields B3 and B7, between Fields B7 and B8/B10 and between Fields B8/B10 and B9/B11.
 - Minimum 10m offset from the fence line to all other existing hedgerows (with the exception of where the Internal Access Corridor and/or Interconnecting and Grid Connection Cable Corridors are required to cross an existing feature).
 - Principal components of the Proposed Development will avoid root protection areas of trees and hedgerows as far as reasonably practicable, except where a hedgerow crossing is required for access tracks and/or cable routes.
- 5.2.17. Prior to submission of the detailed LEMP(s), a landscape architect will undertake a detailed survey of all hedgerows within the Order Limits and identify lengths of hedgerow which require infilling of gaps or increasing in density to provide a reasonable degree of screening to mitigate the visual effects of the Proposed Development. Linear gaps of more than 1m and lengths of hedgerow where in the opinion of the landscape architect the hedgerow is sparse or thin will be geo-referenced and recorded. Gaps identified will be infilled with new hedgerow plants and where hedgerows are considered to be insufficiently dense by the landscape architect, a supplementary row of hedgerow planting will be implemented as part of the detailed planting proposals submitted with the LEMP(s).
- 5.2.18. The planting specification for screening/structure planting will be confirmed within the LEMP(s) and will typically be planted as young transplants or 'whips' with the use of standards to extra heavy standards where more mature specimens are required.
- 5.2.19. The Applicant is open to discussion where early planting might be appropriate via the CLG.
- 5.2.20. Once established (likely to be 10 years), new hedgerow planting will be managed by light trimming every 3-5 years as required with only one side being trimmed in any one year. Existing and gapped up hedgerows will have a relaxation in management so that they become tall and bushy with long term management by light trimming every 3-5 years. Existing and new hedgerow trees will be managed to ensure the long-term health of the

trees in accordance with best practice set out in 'BS 3998: 2010 Tree Work – Recommendations' [Ref. 5-0].

Neutral Grassland

- 5.2.21. Neutral grassland is proposed through the Order Limits, where the underlying geology is suitable. Areas of Neutral grassland are shown in **Appendix 2**. The neutral grassland will provide suitable habitat for ground nesting birds and foraging bats.
- 5.2.22. The neutral grassland will be managed either through extensive grazing or a hay cut late in the summer after ground nesting birds have fledged.
- 5.2.23. Note it is not expected that all the grass and wildflower species will be sown but this is an indicative list of appropriate species. As an example, Emorsgate mix EM3 or EM4 for neutral grassland are similar to the mix of grass and flower species required to achieve appropriate habitats, but other suppliers are available.

Lowland meadow

- 5.2.24. Two areas (Fields D34 and D36) that currently support other neutral grassland in moderate condition will be enhanced to lowland meadow also in moderate condition. Fields D34 and D36 have been chosen as they support a greater diversity of flowers than do other areas of other neutral grassland and are therefore likely to have a lower soil nutrient status than other areas of grassland within the baseline.
- 5.2.25. The lowland meadow grassland will provide suitable habitat for ground nesting birds and foraging bats.
- 5.2.26. The lowland meadow will be managed either through extensive grazing or a hay cut late in the summer after ground nesting birds have fledged.
- 5.2.27. As outlined in paragraph 4.3.8 (with an outline approach given in paragraph 4.3.10) these fields will be subject to soil nutrient testing pre-construction and if nutrient levels, in particular phosphate be high, then a period of nutrient stripping will be implemented prior to sowing of lowland meadow seed mix.

Legume-Rich Grassland

- 5.2.28. Grassland under the Solar PV modules will be managed as legume-rich grassland, increasing the diversity of grassland sward whilst still being grass dominated and suitable for grazing commercially by sheep. The herbal ley will be either extensively grazed or cut in late summer or autumn or grazed all year at very low stocking densities moving the stock frequently so that plants can flower and set seed.

Wildflower Grassland

- 5.2.29. Wildflower grassland is proposed throughout the Order Limits, providing a mitigation buffer along Public Rights of Way and new permissive paths.
- 5.2.30. The wildflower grassland will be managed by a late summer hay cut, in a similar way to identified above. These will provide a valuable foraging resource for invertebrates and birds whilst forming a wide buffer, safeguarding non-ground-nesting birds that may be nesting in adjacent hedgerows from operational activities.

Species Rich Grassland

- 5.2.31. Species rich grassland is proposed through the Order Limits, providing a mitigation buffer around woodland and hedgerows for bats.
- 5.2.32. The species rich grassland will be managed in a similar way by a late summer hay cut as identified above for both other neutral grassland and lowland meadow. These will provide a valuable foraging resource for invertebrates and birds whilst forming a wide buffer, safeguarding non-ground-nesting birds that may be nesting in adjacent hedgerows from operational activities.

Winter Bird Mix

- 5.2.33. Either a small proportion of the margins to the hedgerow buffers or a dedicated area of within one of the larger grassland areas e.g. within Field B5 or B22 will be sown with winter bird seed covering mix to provide seed for ground nesting and other bird species during the winter months, this being an important aspect of maintaining farmland bird populations. Seed mixes as specified by farmland agricultural environmental schemes will be suitable.

Wet grassland

- 5.2.34. Wet grassland is proposed as part of the enhancement area adjacent to existing watercourses within the Order Limits.
- 5.2.35. Areas of wet grassland planting contain moisture-loving grass and wildflower species situated around the periphery of water bodies or in grassland areas prone to be seasonally inundated with water.
- 5.2.36. Wet grassland will be managed as for other areas of grassland by either late summer grazing or a haycut.

Ecological Ponds

- 5.2.37. Ecological ponds are proposed within the Proposed Development design, their primary function being to offset the loss of existing water bodies, and to provide links between retained habitat.
- 5.2.38. They do not form an integral part of the Proposed Development drainage design, and will be designed to maximise their biodiversity value, following good practice guidance such as Natural England Technical Information Note TIN079 Illustrated guide to ponds and scrapes (2010) **[Ref. 5-1]**: ponds will have a range of depths; native species of submergent and marginal vegetation and an absence of fish. Features that form an integral part of the drainage strategy, as outlined in the **Outline Drainage Strategy [EN010158/APP/7.11]**, will be designed as a Sustainable Drainage System (SuDS) and will be grassed and designed in accordance with the best practice guidance in the CIRIA SuDS Manual C753 **[Ref. 5-2]**.
- 5.2.39. Ponds will be managed to ensure they do not become silted up choked with vegetation, carried out in early winter (November–December) on rotation of >5 years.
- 5.2.40. Marginal vegetation around ponds will be managed either through grazing or a cutting regime to create diverse vegetation including taller areas of plants, which are beneficial for spiders and damselflies and bare muddy areas which are beneficial to other invertebrates. Cattle are good at producing bare muddy areas; however, it may be necessary to exclude stock from some pond margins. Areas of scrub or un-grazed rough grassland alongside fenced off ponds will provide important nesting, shelter, and foraging for song birds, invertebrates, amphibians and reptiles.

5.3. Biodiversity Net Gain

Biodiversity Net Gain Plan and Habitat Management and Monitoring Plan

- 5.3.1. A Biodiversity Net Gain Plan will establish the framework for how the Proposed Development will achieve BNG. The purpose of the plan is to:
- Clearly and consistently demonstrate how the Proposed Development meet the statutory requirements;
 - Provide evidence for BNG decisions; and
 - Help authorities to determine whether the Proposed Development meets the BNG requirements.
- 5.3.2. The plan will include:

- A completed metric tool calculation, and
- Pre-development and post-development plans (showing the location of on-site habitat, the direction of north and drawn to an identified scale).

5.3.3. **ES Volume 4, Appendix 7.17: Biodiversity Net Gain Assessment, [EN010158/APP/6.4]** presents the net gain from habitats proposed in this **Outline LEMP**, summarised in Management Objective 4. The updated BNG calculations undertaken at detailed design and LEMP(s) will be used to deliver the Biodiversity Gain Plan as part of those LEMP(s) following the granting of the DCO.

5.3.4. A description of how significant on-site gains will be managed and monitored will also be required as part of the biodiversity gain plan. GOV.UK provide a Habitat Management and Monitoring Plan (HMMP) template **[Ref. 5-3]** for this purpose, which details how land will be managed over at least 30 years to:

- Create and enhance habitats for BNG, and
- Manage and monitor the BNG.

5.3.5. The detailed LEMP(s) will contain the information that the HMMP is designed to provide; therefore, an additional document is not required. This will include the following content:

- Project background: including project information, funding, legal agreements, high level summary of proposals, Order Limits, phasing strategy, roles and responsibilities, and baseline information.
- Planned management activities: including aims and objectives, design principles informed by baseline information, habitats and condition targets, details of retained habitats, habitat creation, enhancement and management targets and prescriptions, and a risk register with remedial measures.
- Monitoring schedule: including a monitoring strategy, monitoring methods and intervals, reporting information, and an adaptive management summary.

5.4. Species mitigation and enhancement

5.4.1. A brief summary of the mitigation and enhancement measures for flora and fauna relevant to the operation (including maintenance) phase is given below but as indicated above this should be read in conjunction with the **ES Volume 2, Chapter 7: Biodiversity [EN010158/APP/6.2]**.

Statutory designated sites, non-statutory designated sites and ancient woodland, hedgerows and hedgerow trees, individual ancient and veteran trees

- 5.4.2. The following measures are all indicated in **ES Volume 3, Figure 3.5: Zonal Masterplan [EN010158/APP/6.3]** and **Appendix 2**.
- 5.4.3. All statutory and locally designated wildlife sites and ancient woodland will be retained, with a minimum 30m offset from the fence line. There will also be a minimum 30m offset from the fence line to woodland and hedgerows located along the boundaries of Field D29 and partially in Field D28. This is to help reduce potential displacement effects from Solar PV modules and associated infrastructure to foraging and commuting bats to maintain foraging and commuting corridors and links to the wider landscape, reducing fragmentation. All other woodland habitat and HS2 mitigation planting will be retained and safeguarded with a minimum 20m offset from the fence line.
- 5.4.4. There will be a minimum 15m offset from the fence line to existing hedgerows located within Fields B3 and B7, between fields B7 and B8/B10 and between Fields B8/B10 and B9/B11. There will be a minimum 10m offset from the fence line to all other existing hedgerows (with the exception of where the Internal Access Corridor and/or Interconnecting and Grid Connection Cable Corridors are required to cross an existing feature; crossings will be kept to a minimum and restored where practical). Where an Interconnecting Cable Corridor or Grid Connection Cable Corridor crosses a hedgerow and the hedgerow is removed, these will be reinstated post-construction and maintained through the operational period.
- 5.4.5. There will be a minimum 10m offset from the fence line of Solar PV development to all existing trees and hedgerow trees unless the Root Protection Area is greater than 10m, which will include veteran trees. Principal components of the Proposed Development will avoid root protection areas of trees and hedgerows as far as reasonably practicable, except where a hedgerow crossing is required for access tracks and/or cable routes.

Individual trees and lines of trees, cereal and non-cereal crops, lowland mixed deciduous woodland and other woodland, arable field margins, ponds, watercourses and ditches, mixed scrub, bramble scrub, other neutral grassland, modified grassland

- 5.4.6. Appropriate management and monitoring of mitigation habitats would be required for a period of 30 years (as required by the Environment Act 2021 [**Ref 1-14**]) to ensure successful establishment and condition.
- 5.4.7. As the operational life of the Proposed Development is 40 years, this **Outline LEMP** will be reviewed during the 30-year period to ensure the management prescriptions are still appropriate.

Black hairstreak and brown hairstreak butterfly

- 5.4.8. Creation of a mosaic of species-rich neutral grassland and scrub along field margins. This will improve connectivity across the Site to the wider landscape and provide habitat for black hairstreak and brown hairstreak butterfly.
- 5.4.9. Strategic planting of hedgerows and tree belts, and improvement of existing hedgerows by bolstering them with a diversity of appropriate native species (e.g. Blackthorn) and 'gapping-up' where required. This strategic planting will provide habitat for black hairstreak and brown hairstreak butterfly.
- 5.4.10. Management of woodland, hedgerows and scrub habitat that contain Blackthorn would be undertaken in such a manner to ensure maintenance works do not damage or destroy Blackthorn that could support black or brown hairstreak eggs.

Terrestrial invertebrates (excluding lack hairstreak and brown hairstreak butterfly)

- 5.4.11. Retention of all woodland and deadwood habitat with minimum buffers to the fence line. Creation of a mosaic of species-rich neutral grassland and scrub along field margins, new hedgerow planting and creation and restoration of ponds. Creation of 95ha of species-rich neutral grassland. The species-rich grassland created will likely boost invertebrate diversity and abundance for a range of species including white letter hairstreak, purple emperor and brimstone butterflies.

Great crested newt

- 5.4.12. Establishment of ecological ponds, through the restoration of former ponds and creation of new ponds. Increasing the number of ponds within the Order Limits will strengthen the pond network and provide additional breeding habitat for GCN and foraging habitat for bats.
- 5.4.13. Creation of a mosaic of species-rich neutral grassland and scrub along field margins to improve connectivity across the Site to the wider landscape and provide terrestrial habitat for GCN.
- 5.4.14. Strategic planting of hedgerows and tree belts, and improvement of existing hedgerows by bolstering with a diversity of appropriate native species and 'gapping-up' where required. This strategic planting will provide terrestrial habitat for GCN.
- 5.4.15. Retention of all woodland and deadwood habitat with minimum buffers to the fence line.

- 5.4.16. Hibernacula created across the Site will provide hibernation/shelter location for GCN.

Reptiles

- 5.4.17. Creation of a mosaic of species-rich neutral grassland and scrub along field margins to improve connectivity across the Site to the wider landscape and provide habitat for reptiles.
- 5.4.18. Strategic planting of hedgerows and tree belts, and improvement of existing hedgerows by bolstering with a diversity of appropriate native species and 'gapping-up' where required. This strategic planting will provide habitat for reptiles.
- 5.4.19. Retention of all woodland and deadwood habitat with minimum buffers to the fence line.
- 5.4.20. Hibernacula created across the Site will provide hibernation/shelter location for reptiles.

Ground nesting birds, non-ground nesting birds, Barn owl, red kite, hobby and peregrine falcon (listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended)) and wintering birds

- 5.4.21. Creation of approximately 95ha of grassland, to provide open nesting habitat for ground nesting birds to compensate for habitat lost due to placement of Solar PV modules and improve habitat and carrying capacity for ground nesting birds. The species-rich grassland created will also likely boost invertebrate diversity, providing new foraging and commuting habitat. It will also improve habitat for a variety of small rodent species, which in turn will provide an increase in prey availability or species such as barn owl.
- 5.4.22. Provision of a winter seed source for birds along a proportion of the field margins (5%), to compensate for loss of foraging habitat (open, arable habitat lost due to placement of Solar PV modules) and to improve foraging for wintering birds including ground nesting species.
- 5.4.23. Creation of a mosaic of species-rich neutral grassland and scrub along field margins. This will improve connectivity across the Site to the wider landscape and will improve foraging and provide nesting habitat for birds.
- 5.4.24. Strategic planting of hedgerows and tree belts, and improvement of existing hedgerows by bolstering with a diversity of appropriate native species and 'gapping-up' where required. This strategic planting will improve foraging, nesting and roosting habitat for birds.
- 5.4.25. Installation of a variety of bird boxes across the Site.

Bats

- 5.4.26. Retention of all woodland and deadwood habitat with minimum buffers to the fence line. Loss of hedgerows and individual trees have been kept to a minimum with re-instatement of hedgerows undertaken in the majority of cases.
- 5.4.27. The locations of mitigation areas have been chosen to ensure the connections between the existing SSSIs and ancient woodland adjacent to the Site would be enhanced by creating species-rich grassland and arable margins along with scrub and tree planting. This will create a coherent ecological network that will link the Site to the wider landscape, reducing fragmentation across the wider landscape and supporting the movement of bats.
- 5.4.28. Creation of a mosaic of species-rich neutral grassland and scrub along field margins. This will improve connectivity across the Site to the wider landscape, reducing fragmentation and provide commuting habitat for bats. It will also improve foraging for bats.
- 5.4.29. Strategic planting of hedgerows and tree belts (including replacement hedgerow planting along Three Points Lane), and improvement of existing hedgerows by bolstering with a diversity of appropriate native species and 'gapping-up' where required. This strategic planting will improve foraging and commuting habitat for bats between woodland blocks and improve connectivity across the Site and to the wider landscape; compensate for hedgerows lost; improve retained hedgerows; and improve roosting habitat for bats.
- 5.4.30. Rosefield Substation, Main Collector Compound, BESS and Satellite Collector Compound will be surrounded by acoustic fencing. This will help attenuate high frequency noise which could impact and displace foraging and commuting bats.
- 5.4.31. The lighting design will use directional fittings facing away from woodland and hedgerow boundaries and into the Order Limits. The lighting design will limit impact on sensitive receptors by directing lighting downward and away from the Order Limits and existing vegetation. During operation (including maintenance), no part of the Proposed Development will be continuously lit. Manually operated and motion detection lighting will be utilised for operational and security purposes. Passive infrared detectors (PID) will be implemented around Solar PV modules, and lighting sensors implemented around the Rosefield Substation and BESS compound. Use of lighting only when necessary and directing lighting downward, away from woodland and hedgerow boundaries and vegetation, will reduce impact to bats.

- 5.4.32. The paired static detector surveys (see **ES Volume 4, Appendix 7.16: Paired Static Bat Detector Survey Report [EN010158/APP/6.4]**) indicate the importance of the hedgerow resource to the bat assemblage, including both foraging and commuting Bechstein's bat and barbastelle bat. Surveys undertaken by Natural England [**Ref. 2-5**] indicate the importance of the woodland resource for Bechstein's bat. This provides confidence that the approach to the Proposed Development design and mitigation is appropriate.

Otter

- 5.4.33. A minimum 10m offset will be provided from all watercourse, ditches and ponds, with a 20m offset provided from the Claydon Brook in Fields E20, E11, E10 and north section of E21.
- 5.4.34. The lighting design will use directional fittings facing away from watercourses, ponds, ditches, woodland and hedgerow boundaries and into the Order Limits. The lighting design will limit impact on sensitive receptors by directing lighting downward and away from the Order Limits and existing vegetation. During operation (including maintenance), no part of the Proposed Development will be continuously lit. Manually operated and motion detection lighting will be utilised for operational and security purposes. Passive infrared detectors (PID) will be implemented around Solar PV modules, and lighting sensors implemented around the Rosefield Substation and BESS compound. Use of lighting only when necessary and directing lighting downward, away from watercourses, ponds, ditches, woodland and hedgerow boundaries and vegetation, will reduce impact to otters.

Badger

- 5.4.35. A 30m offset will be provided from main badger setts. Large main badger setts can extend up to 30m underground, so the buffer will avoid damage to the setts and reduce disturbance. Fencing that will enclose the Solar PV development will not be buried and it is likely that badgers will push under the fence at low points, if required mammal gates, to permit the passage of species such as badger and hare will be installed. Appropriate buffer zones (e.g. 30m from statutory and locally designated wildlife sites and ancient woodland) will be marked by demarcation fencing and signage during construction and decommissioning. Mammal gates and clearance gaps under fences will allow badgers to fully access areas under Solar PV modules for foraging and to allow dispersal across the area.
- 5.4.36. The lighting design will use directional fittings facing away from woodland and hedgerow boundaries and into the Order Limits. The lighting design will limit impact on sensitive receptors by directing lighting downward and away from the Order Limits and existing vegetation. During operation

(including maintenance), no part of the Proposed Development will be continuously lit. Manually operated and motion detection lighting will be utilised for operational and security purposes. Passive infrared detectors (PID) will be implemented around Solar PV modules, and lighting sensors implemented around the Rosefield Substation and BESS compound. Use of lighting only when necessary and directing lighting downward, away from woodland and hedgerow boundaries and vegetation, will reduce impact to badgers.

Other Species

- 5.4.37. Fencing that will enclose the Solar PV development will not be buried and it is likely that species such as hares and hedgehogs will push under the fence at low points, if required mammal gates will be installed. Appropriate buffer zones (e.g. 30m from statutory and locally designated wildlife sites and ancient woodland) will be marked by demarcation fencing and signage during construction and decommissioning. Mammal gates and clearance gaps under fences will allow animals, such as brown hare and hedgehogs, to fully access areas under Solar PV modules for foraging and to allow dispersal across the area.
- 5.4.38. The 10m wide buffer zone between fences and hedgerows/field margins will also allow animals such as deer to disperse along the buffer through the wider landscape.
- 5.4.39. Hibernacula created across the Site will provide hibernation/shelter location for species including hedgehogs.

6. Roles, Responsibilities and Monitoring

6.1. Roles and Responsibilities

- 6.1.1. Protected species surveys and checks by a suitably qualified Ecological Clerk of Works (ECoW) will also be required prior to any works which may disturb or cause harm. These will include bird nest checks, badger surveys, barn owl surveys and bat 'roost' surveys (if any trees/structures with bat roost potential are to be affected by works) as appropriate - depending on nature and timings of works.
- 6.1.2. There will be a full review and update of the detailed LEMP(s) every 5 years by a suitably qualified ecologist and landscape architect.
- 6.1.3. Where the delivery of the detailed LEMP(s) is not being met for whatever reason(s) appropriate action will be identified and taken to rectify failings. This may entail making changes to specification of planting species if these are failing to establish successfully, including additional planting and/or replacement planting for planting that has failed to establish. Equally, where successes are identified, these should be promoted further and lessons learned from both success and failure fed into the next iteration of the detailed LEMP(s).
- 6.1.4. Any works to trees identified as a result of monitoring will be undertaken by a suitably qualified arborist. A list of approved contractors is available from the Arboricultural Association.

6.2. Monitoring

- 6.2.1. The detailed LEMP(s) will continue to be monitored for the entirety of the operation (including maintenance) phase of the Proposed Development.
- 6.2.2. Note that the timeline for the operational life of the Proposed Development is 40 years, which exceeds the 30-year timeline for mandatory biodiversity net gain. After 30 years, the management of habitats will fall under the general management prescriptions set out within the detailed LEMP(s).
- 6.2.3. Once the 30-year commitment for habitats created to deliver BNG has ceased the management plan and monitoring requirements will be reviewed for the remaining 10 years of the operational life of the Proposed Development.
- 6.2.4. Following completion of construction, monitoring of all habitats being created and enhanced for the delivery of biodiversity net gain will be undertaken in years 1, 2, 3 and 5, 10, 15, 20, 25 and 30 against the BNG Metric target habitat types and condition.

- 6.2.5. Monitoring of new tree and hedgerow heights and densities will be undertaken in years 1, 2, 3, 5 and 10 to help ensure they reach the target heights set out in the Environmental Statement. For hedgerows, the target height is 3- 3.5m, depending on specific screening requirements, with a width of at least 1.5m at 1.5m above ground level by Year 10. For woodland and scrub, the target height is at least 4m by Year 10.
- 6.2.6. Results of each monitoring visit will be compiled into a short monitoring report for the Site. These should follow BNG monitoring guidance **[Ref 6-1]** and present survey details, summary of progress, an overview of site wide successes and challenges, detailed review of the progress of each ecological feature and a list of actions or adaptive management practices required for the next monitoring period.
- 6.2.7. Protected species monitoring will be undertaken. This will involve surveys for ground nesting birds and bats.
- 6.2.8. For bats, monitoring of bat activity would be undertaken during the operation (including maintenance) phase to confirm the expected effectiveness of the embedded mitigation and the effect of Solar PV modules and associated infrastructure on bats. The baseline activity surveys (carried out in spring, summer and autumn) will be repeated in years 1, 3, 5 and 10, commencing in the 'bat active' season following construction works. The need for any further monitoring will then be reviewed. The results of each bat monitoring survey visit would be compiled into a monitoring report. The monitoring data would be compared with the baseline bat activity data and assessed, in line with Table 6.1. The report would detail any actions or adaptive management practices required where appropriate, and their timescales.
- 6.2.9. The bat monitoring strategy has been structured in line with CIEEM's Bat Mitigation Guidelines (Chapter 9) and will be finalised in consultation with Natural England to monitor the effectiveness of the mitigation proposed in relation to bats. The Strategy will identify:
- who is responsible for monitoring: responsibility for monitoring will remain with the Applicant unless/until the Proposed Development is passed to a third party, when the responsibilities for monitoring will be similarly transferred as required by compliance with the DCO requirements;
 - how it will be funded: responsibility for funding will remain with the Applicant unless/until the Proposed Development is passed to a third party, when the responsibility for funding the monitoring will be similarly transferred as required by compliance with the DCO requirements;
 - how the monitoring will be carried out (methods, equipment, survey effort, licensing): the monitoring will follow the outline in Table 6.1; details to approved by the relevant planning authority in consultation with relevant parties e.g. Natural England;

- how access for monitoring will be ensured (even where assets have changed hands): responsibility for access will remain with the Applicant unless/until the Proposed Development is passed to a third party, when the responsibility for access will be similarly transferred as required by compliance with the DCO requirements;
- how and when the results are to be reported, and to whom: reporting arising from the monitoring will follow the outline in Table 6.1; results to be approved by the relevant planning authority in consultation with relevant parties e.g. Natural England; and
- the party(ies) responsible for any remedial measures that are required: responsibility for remedial measures will remain with the Applicant unless/until the Proposed Development is passed to a third party, when the responsibility for remedial measures will be similarly transferred as required by compliance with the DCO requirements.

6.2.10. The bat monitoring strategy will:

- define the elements that are to be monitored, and when: The monitoring will follow the outline in Table 6.1; details to be approved by the relevant planning authority in consultation with relevant parties e.g. Natural England;
- outline the monitoring methods to be used given that audio devices such as static detectors do not clearly distinguish Bechstein calls from other *Myotis* sp.: The monitoring will follow the outline in Table 6.1; details to be approved by the relevant planning authority in consultation with relevant parties e.g. Natural England;
- have clearly defined and measurable objectives: The monitoring will follow the outline in Table 6.1; details to be approved by the relevant planning authority in consultation with relevant parties e.g. Natural England;
- include a clear definition of success for each mitigation and compensation feature: The monitoring will follow the outline in Table 6.1; details to be approved by the relevant planning authority in consultation with relevant parties e.g. Natural England;
- include proportionate and appropriate methods for data collection and analysis: The monitoring will follow the outline in Table 6.1; details to be approved by the relevant planning authority in consultation with relevant parties e.g. Natural England;
- outline triggers (thresholds) for remedial action, and what that remedial action should be: The monitoring will follow the outline in Table 6.1; details to be approved by the relevant planning authority in consultation with relevant parties e.g. Natural England; and

- contribute to a wider understanding of the measures applied through relevant publications.

Table 6.1 Developing bat monitoring strategy objectives

Objective	Test and methods	Trigger for remedial action	Remedial action
The buffers provided to prevent bats being displaced are adequate. The strategic planting and buffers have maintained connectivity for bats.	Bat activity will be measured along selected corridors (known or assumed commuting routes) before and after the deployment of solar panels. Locations alongside different buffer widths should be assessed. Data will need to be collected using static detectors. Relative activity will be compared before and after installation and after habitat establishment.	A clear and consistent (statistically significant) decline in relative activity which persists beyond the point of habitat maturity.	The buffers should be reviewed to ensure they are delivering their habitat objectives and action taken if not. The need for such remedial action should take into consideration bat activity across the whole of the local landscape, as well as any results from HS2's monitoring as well as emerging solar-related research.
The species-rich grassland to be developed in areas set aside for mitigation is generating an invertebrate resource for bats.	This could be broadly tested by measuring species diversity of the habitats as they enhance (a quadrat-based assessment) or more specifically, either by:	The grasslands are not considered adequately species-rich after the appropriate time has elapsed for	Remedial action could include reseedling with additional plant species and reviewing the cattle-grazing or cutting

	measuring changes in bat activity (as measured by static detectors) over a period of years and/or measuring changes in invertebrate community/diversity (method to be determined) to give an indication of grassland quality	them to reach the desired ecological condition (taking into account any establishment or nutrient reduction phase if required) as indicated in the final Biodiversity Net Gain Assessment – part of which is passing a criterion for the number of plant species per metre square.	management regime.
The species-rich grassland to be developed under and between solar PV panels, including buffers, is generating an invertebrate resource for bats.	The assumption behind the provision of buffers is that some bats might be avoiding panels. However, areas between panels may generate flying insects which can then move to other areas. This may also include a broad-scale invertebrate prey assessment before and after construction works (or, more usefully, after habitat establishment).	As above.	As above.

A specific radio-tracking objective to be set.	[radio-tracking analyses]	[to be determined after the 2029 baseline is established]	The need for any remedial action should take into consideration bat activity across the whole of the local landscape, as well as any results from HS2's monitoring as well as emerging solar-related research.
---	---------------------------	---	--

- 6.2.11. The detailed monitoring programme for the operational period would include monitoring of breeding and wintering birds. Monitoring for breeding bird species will be undertaken for all farmland bird species. The final bird monitoring programme within the final Landscape and Ecological Management Plan would be submitted to and approved in writing by the relevant local planning authority, in consultation with the Environment Agency and Natural England, prior to the operational phase of the Proposed Development.
- 6.2.12. For ground nesting birds monitoring of habitat condition of the areas set aside for ground nesting birds would be undertaken to ascertain if created habitat within areas meet the required condition and monitoring establishment against condition criteria. Site visits will comprise of one survey per year during years 1 to 3 after habitat creation and then at five yearly intervals subsequently up to year 30. The surveys would be undertaken during the period May to July to ensure habitat condition criteria are being met.
- 6.2.13. A programme of arboricultural inspections will be undertaken by a qualified arboriculturalist, comprising annual inspections for the first 3–5 years post-construction, followed by inspections at a minimum of every 3 years thereafter. Veteran trees and other sensitive features will be subject to more frequent monitoring (every 1–2 years). Additional inspections will be undertaken following severe weather events or where concerns are identified.

7. Requirements for Detailed LEMP(s)

7.1.1. The information to be set out in the detailed LEMP(s) for the purposes of general landscape and ecology management should follow the structure of this **Outline LEMP** and should include:

- Detailed mitigation and enhancement measures for each phase.
- Detailed specification of new planting including the location, number, species, mixes, size and planting density of any proposed planting.
- An implementation timetable for new planting.
- Programme for management and maintenance of proposed hard landscape areas.
- Monitoring of artificial ecological installations.
- Timings of maintenance and management of aquatic/marginal planting.
- Management of waterbodies.
- Management and monitoring of grassland, for habitat establishment, including in regularly trafficked areas.
- Programmes for the management of trees, woodland, wetland, hedgerow and any further edge of woodland/scrub planting.
- Programme for the management of existing vegetation/habitats.
- Details of Invasive Non-Native Species Strategies, if required.
- Results of habitat maintenance monitoring.
- Habitat condition monitoring.
- Habitat condition assessments and species monitoring and whether this results in any additional or revised management recommendations.
- Detailed species strategies.

8. References

- Ref. 1-1** British Standards Institute (2013) BS42020:2013 Code of Practice for Planning and Development.
- Ref. 1-2** The Buckinghamshire & Milton Keynes Natural Environment Partnership (2023) Forward to 2030: Biodiversity Action Plan.
- Ref. 1-3** The Buckinghamshire & Milton Keynes Natural Environment Partnership (2016) Vision and Principles for the Improvement of Green Infrastructure in Buckinghamshire and Milton Keynes.
- Ref. 1-4** The Buckinghamshire & Milton Keynes Natural Environment Partnership (2018) Green Infrastructure Opportunities Mapping - Buckinghamshire and Milton Keynes Natural Environment Partnership.
- Ref. 1-5** Berkshire, Buckinghamshire & Oxfordshire Wildlife Trust (2023) Reconnecting Bernwood, Otmoor and the Ray - A call to action.
- Ref. 1-6** Buckinghamshire Council (2021) Buckinghamshire Pilot Draft Local Nature Recovery Strategy.
- Ref. 1-7** Buckinghamshire Council (2023) Interim Strategic Significance & Spatial Risk Guidance for Biodiversity Net Gain in Buckinghamshire Council's Local Planning Authority Area.
- Ref. 1-8** Directive 2009/147/EC on the conservation of wild birds (the codified version of Council Directive 79/409/EEC as amended).
- Ref. 1-9** Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora.
- Ref. 1-10** The Conservation of Habitats and Species Regulations (2017) (as amended).
- Ref. 1-11** Wildlife and Countryside Act 1981 (as amended).
- Ref. 1-12** Countryside & Rights of Way Act 2000 (as amended).
- Ref. 1-13** Natural Environment and Rural Communities Act 2006 (as amended).
- Ref. 1-14** The Environment Act 2021.
- Ref. 1-15** Protection of Badgers Act 1992 (as amended).
- Ref. 1-16** Hedgerow Regulations 1997 (as amended).
- Ref. 1-17** Water Environment (Water Framework Directive) (England and Wales) Regulations 2017.
- Ref. 1-18** Animal Welfare Act 2006.
- Ref. 1-19** Invasive Alien Species (Enforcement and Permitting) Order 2019.
- Ref. 1-20** Department for Energy Security and Net Zero (2023). Overarching National Policy Statement for Energy (EN-1).

- Ref. 1-21** Department for Energy Security and Net Zero (2023). National Policy Statement for Renewable Energy Infrastructure (EN-3).
- Ref. 1-22** Department for Energy Security and Net Zero (2023). National Policy Statement for Electricity Networks Infrastructure (EN-5).
- Ref. 1-23** Ministry of Housing, Communities and Local Government. (2024). National Planning Policy Framework.
- Ref. 1-24** Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government and Department for Levelling Up, Housing and Communities. (2023-2025). Planning Practice Guidance – Biodiversity Net Gain/Natural Environment/Renewable and Low Carbon Energy.
- Ref. 1-25** Department for Environment, Food & Rural Affairs. (2023). A Green Future: Our 25 Year Plan to Improve the Environment.
- Ref. 1-26** Department for Environment, Food & Rural Affairs (2023). Environmental Improvement Plan 2023.
- Ref. 1-27** Department for Environment, Food and Rural Affairs (2020). Biodiversity 2020: A strategy for England's wildlife and ecosystem services.
- Ref. 1-28** Buckinghamshire Council (2021). Vale of Aylesbury Local Plan 2013 – 2033 Adopted Plan.
- Ref. 1-29** Department for Environment, Food & Rural Affairs (2024). The Statutory Metric: User Guide.
- Ref. 2-1** Natural England (2023). Bernwood Area Invertebrate Surveys 2017-2021 NERR129.
- Ref. 2-2** Natural England (2023). Bernwood Invertebrate Surveys 2021. Saproxylic and Hymenoptera focused surveys in Ham Home-cum-Hamgreen Woods SSSI and Grendon and Doddershall Woods SSSI, Buckinghamshire.
- Ref. 2-3** Natural England (2024). A Survey of the Black Hairstreak Butterfly in North Buckinghamshire. The results of surveys of the distribution of Black Hairstreak, *Satyrrium pruni* in a complex of woodlands in the Bernwood Area.
- Ref. 2-4** Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747.
- Ref. 2-5** Natural England (2024). The Bernwood population of Bechstein's Bats.
- Ref. 2-6** Bat Conservation Trust (2016) Core Sustenance Zones: Determining zone size.

- Ref. 2-7** Land Use Consultants for Aylesbury Vale District Council (2016) Defining the Special Qualities of local landscape designations in Aylesbury Vale District.
- Ref. 2-8** Natural England (2015). National Character Area (NCA) Profile 108: Upper Thames Clay Vale.
- Ref. 2-9** Natural England (2015). National Character Area (NCA) Profile 109: Midvale Ridge.
- Ref. 2-10** Land Use Consultants for Aylesbury Vale District Council (2008) The Aylesbury Vale Landscape Character Assessment.
- Ref. 3-1** Natural England (2024). The Bernwood population of Bechstein's Bats. A Non-Technical Summary (NECR558).
- Ref. 3-2** Defra's Statutory Biodiversity Metric 2024.
- Ref. 3-3** Cook and McCuen (2013) Hydrologic Response of Solar Farms, Journal of Hydrologic Engineering.
- Ref. 4-1** Landscape Institute (2015) Technical Information Note: Pest and Disease Threats.
- Ref. 4-2** British Standards Institute (2012) BS:8545:2012 Trees from Nursey to Independence in the Landscape.
- Ref. 4-3** National Grid (2008) Development Near Overhead Lines.
- Ref. 4-4** British Standards Institute (2012) Trees in Relation to Design, Demolition and Construction.
- Ref. 4.5** The Skylark, Paul Donald (2004) published by Poyser.
- Ref. 5-0** British Standards Institute (2010) Tree Work – Recommendations.
- Ref. 5-1** Natural England (2010) Natural England Technical Information Note TIN079 Illustrated guide to ponds and scrapes.
- Ref. 5-2** Construction Industry Research and Information Association (2015) The SUDs Manual (C753).
- Ref. 5-3** Gov.uk online Habitat Management and Monitoring Template.
- Ref. 6-1** Natural England (2024) Biodiversity Net Gain.

Appendix 1

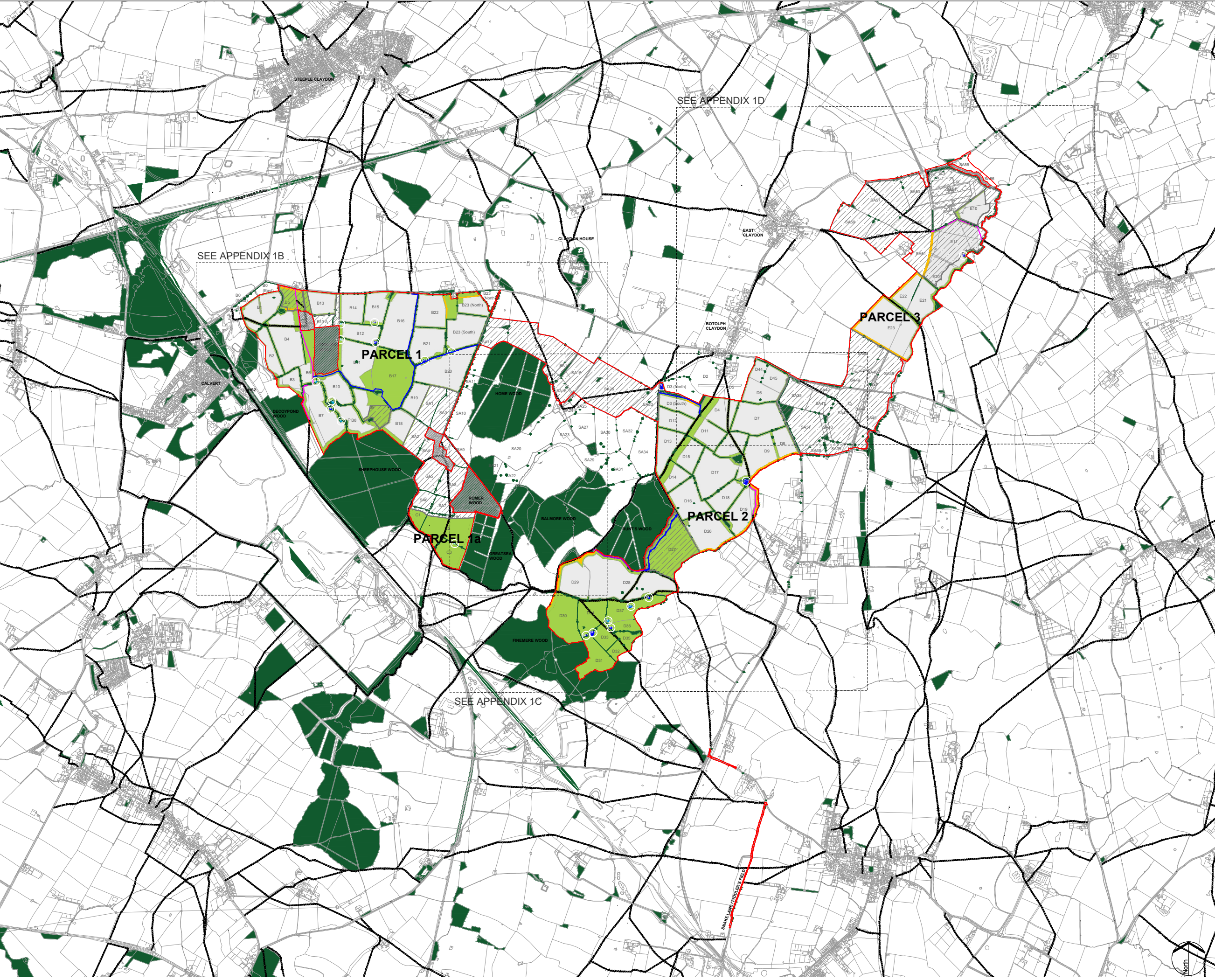
Green and Blue

Infrastructure Parameters



Appendix 1 – Green and Blue Infrastructure Parameters

Drawing number	Revision number	Drawing title	Scale
1A	03	Green and Blue Infrastructure Parameters – Key Plan	1:30,000 (Key Plan) @ A3
1B	03	Green and Blue Infrastructure Parameters – Parcel 1	1:10,000 @ A3
1C	02	Green and Blue Infrastructure Parameters – Parcel 2	1:10,000 @ A3
1D	02	Green and Blue Infrastructure Parameters – Parcel 3	1:10,000 @ A3



KEY:

Order Limits

Areas outside the Order Limits

Existing landscape features

Existing vegetation (Trees and hedgerows)

Existing watercourse

P1

Existing ponds (priority habitat)

P2

Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement)

Proposed green and blue infrastructure

Indicative area for mitigation and/or enhancement

Indicative area for Solar PV and / or ancillary development, to include mitigation and enhancement under panels

Indicative locations for strategic early planting / vegetation management

Indicative areas for potential cattle or sheep grazing (cattle grazing preferred)

P3

Former ponds (non-priority habitat - potential to consider recreation)

P4

Indicative locations for proposed ecological pond

Area for underground cable routes and / or access tracks (locations to be determined)
Grid connection corridor may include above-ground infrastructure within the National Grid East Claydon Substation

Existing routes

Existing Public Right of Way

Existing permissive footpath

Indicative proposed routes

Proposed Public Right of Way Diversion

Proposed permissive path

- NOTES:
1. The location of features shown are indicative only. Exact locations to be confirmed on site.

2. Additional features may be present on site that have not been identified on the topographical plan.

3. Parameter plan drawings are based on OS MasterMap information

4. Refer to Appendix 2 Indicative Landscape and Ecological Mitigation and Enhancements for indicative types of mitigation and enhancement

5. Refer to Figure 3.5 Zonal Masterplan for proposed development types and indicative locations

6. No proposals are shown for the areas of proposed Highways Works along Snake Lane/Fiddler's Field as the intention would be to reinstate existing vegetation post works. This would be specified at the detailed design stage.

03	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
02	MAR 2026	DEADLINE 1	LDA	LDA	EDF
01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

Rosefield

Solar Farm

DOCUMENT:

PART 7 - ADDITIONAL PRESCRIBED INFORMATION AND OTHER DOCUMENTS
REGULATION 5(2)(q)

TITLE:

APPENDIX 1A
GREEN AND BLUE INFRASTRUCTURE PARAMETERS - KEY PLAN

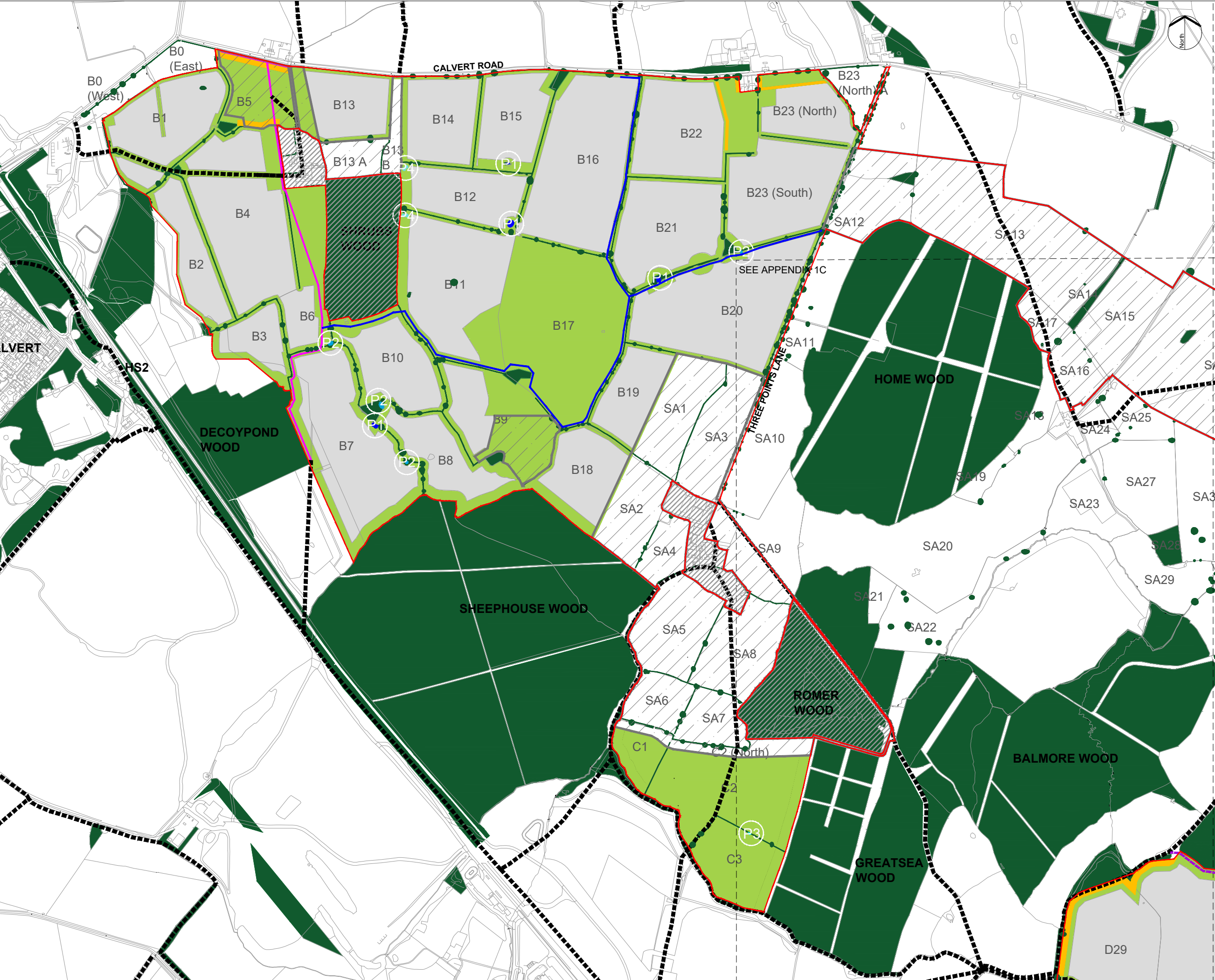
PINS REFERENCE NUMBER:

EN010158/APP/7.6.4

SCALE : 1:30,000 @ A3

01km

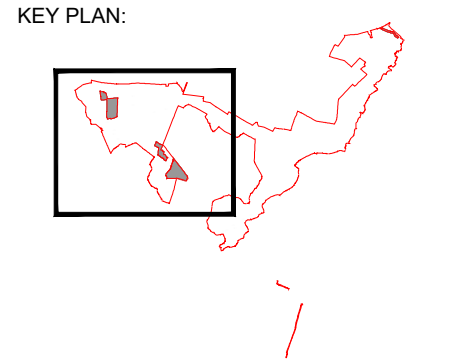
REV: 03



KEY:

- Order Limits
- Areas outside the Order Limits
- Existing landscape features
 - Existing vegetation (Trees and hedgerows)
 - Existing watercourse
- Existing ponds (priority habitat) (P1)
- Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement) (P2)
- Proposed green and blue infrastructure
 - Indicative area for mitigation and/or enhancement
 - Indicative area for Solar PV and / or ancillary development, to include mitigation and enhancement under panels
 - Indicative locations for strategic early planting / vegetation management
 - Indicative areas for potential cattle or sheep grazing (cattle grazing preferred)
- Former ponds (non-priority habitat - potential to consider recreation) (P3)
- Indicative locations for proposed ecological pond (P4)
- Area for underground cable routes and / or access tracks (locations to be determined) Grid connection corridor may include above-ground infrastructure within the National Grid East Claydon Substation
- Existing routes
 - Existing Public Right of Way
 - Existing permissive footpath
- Indicative proposed routes
 - Proposed Public Right of Way Diversion
 - Proposed permissive path

NOTES:
1. Refer to Appendix 1A for drawing notes.



03	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
02	MAR 2026	DEADLINE 1	LDA	LDA	EDF
01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

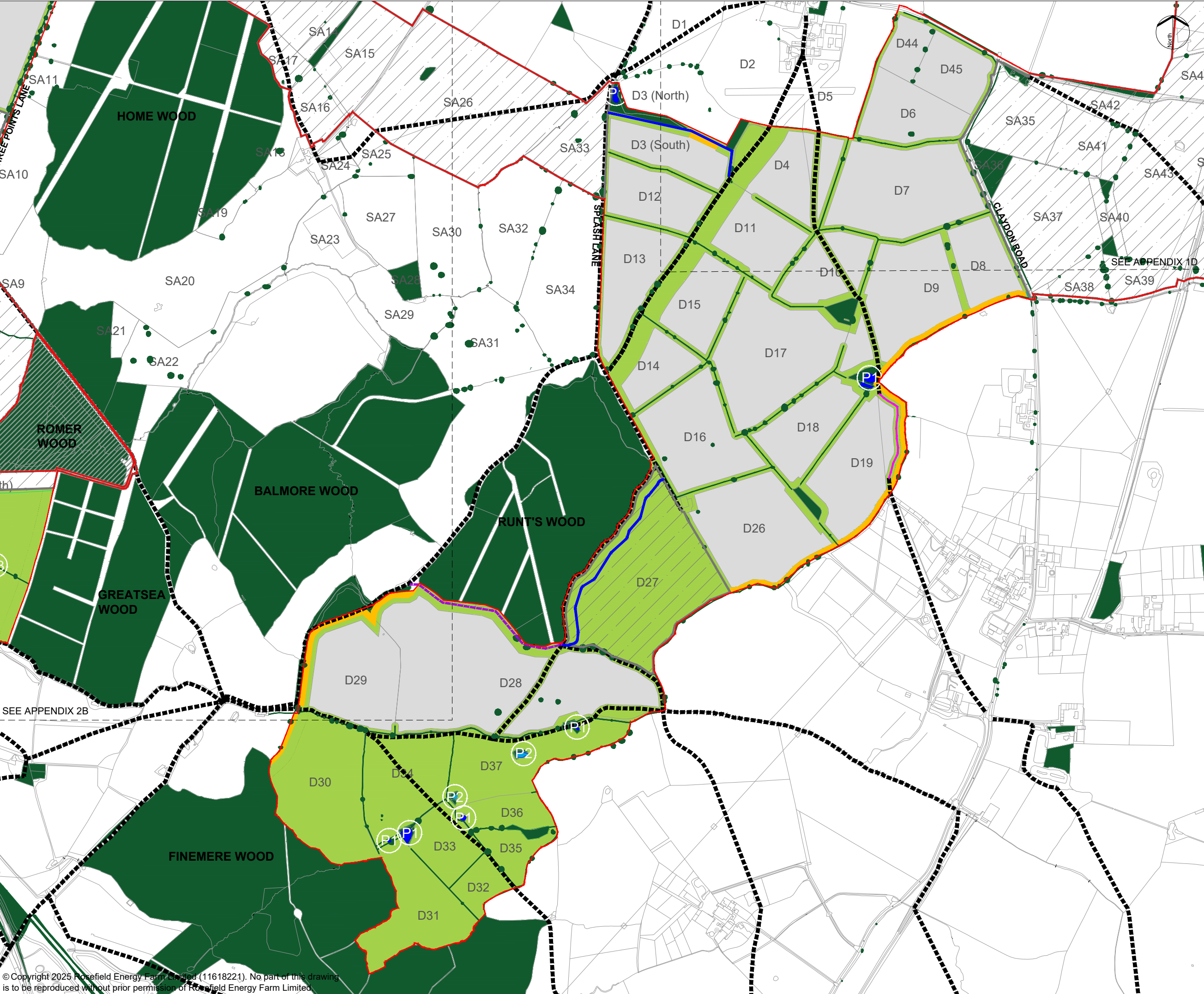
DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION AND OTHER DOCUMENTS
REGULATION 5(2)(q)

TITLE:
APPENDIX 1B
GREEN AND BLUE INFRASTRUCTURE PARAMETERS - PARCELS 1 & 1A

PINS REFERENCE NUMBER:
EN010158/APP/7.6.4

SCALE : 1:10,000 @ A3

REV: 03



KEY:

Order Limits

Areas outside the Order Limits

Existing landscape features

Existing vegetation
(Trees and hedgerows)

Existing watercourse

P1

Existing ponds (priority habitat)

P2

Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement)

Proposed green and blue infrastructure

Indicative area for mitigation and/or enhancement

Indicative area for Solar PV and / or ancillary development, to include mitigation and enhancement under panels

Indicative locations for strategic early planting / vegetation management

Indicative areas for potential cattle or sheep grazing (cattle grazing preferred)

P3

Former ponds (non-priority habitat - potential to consider recreation)

P4

Indicative locations for proposed ecological pond

Area for underground cable routes and / or access tracks (locations to be determined)
Grid connection corridor may include above-ground infrastructure within the National Grid East Claydon Substation

Existing routes

Existing Public Right of Way

Existing permissive footpath

Indicative proposed routes

Proposed Public Right of Way Diversion

Proposed permissive path

NOTES:

1. Refer to Appendix 1A for drawing notes.

KEY PLAN:

02	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(g)

TITLE:
APPENDIX 1C
GREEN AND BLUE INFRASTRUCTURE PARAMETERS -
PARCEL 2

PINS REFERENCE NUMBER:
EN010158/APP/7.6.4

SCALE : 1:10,000 @ A3

0

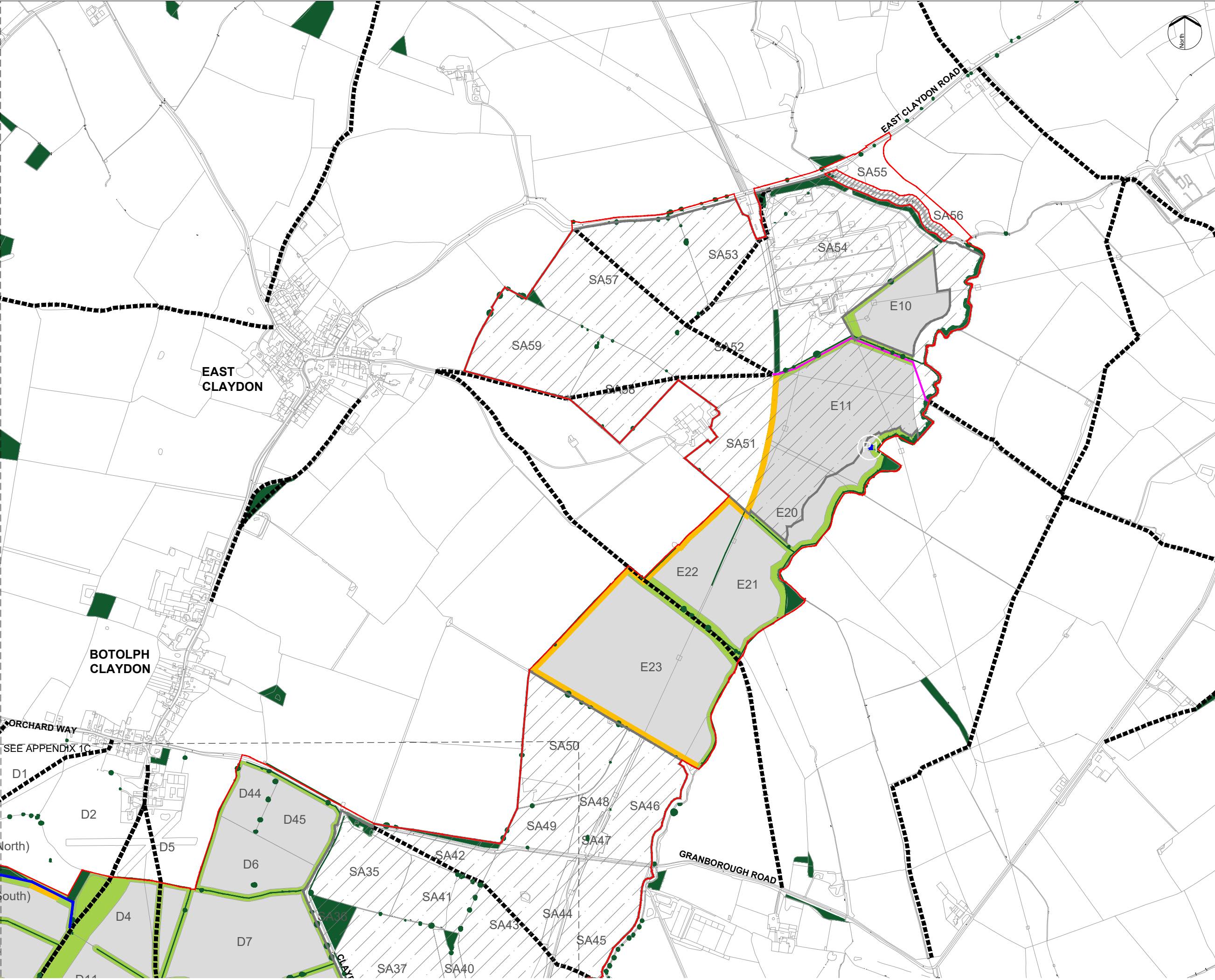
500m

REV:
02

© Copyright 2025 Rosefield Energy Farm Limited (11618221). No part of this drawing is to be reproduced without prior permission of Rosefield Energy Farm Limited.

This drawing may contain: Ordnance Survey material by permission of Ordnance Survey on behalf of Her Majesty's Stationery Office © Crown Copyright 2023. All rights reserved. Reference number 0100031673

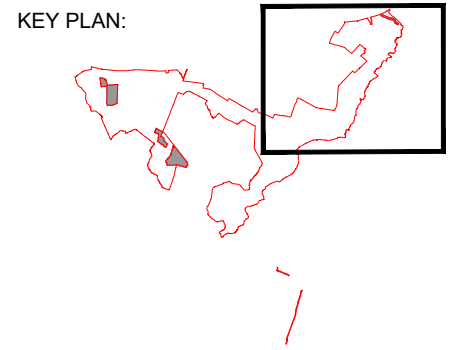
OS Open data / © Natural England / © DEFRA / © DECC / © English Heritage. Aerial Photography - ESRI, DigitalGlobe, GEOEye, i-cubed, USDA FSA,USGD, AEX, Getmapping, Aerogrid, IGN,IGP,swisstopo, the GIS User Community



KEY:

- Order Limits
- Areas outside the Order Limits
- Existing landscape features
 - Existing vegetation (Trees and hedgerows)
 - Existing watercourse
- Existing ponds (priority habitat) (P1)
- Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement) (P2)
- Proposed green and blue infrastructure
 - Indicative area for mitigation and/or enhancement
 - Indicative area for Solar PV and / or ancillary development, to include mitigation and enhancement under panels
 - Indicative locations for strategic early planting / vegetation management
 - Indicative areas for potential cattle or sheep grazing (cattle grazing preferred)
- Former ponds (non-priority habitat - potential to consider recreation) (P3)
- Indicative locations for proposed ecological pond (P4)
- Area for underground cable routes and / or access tracks (locations to be determined)
Grid connection corridor may include above-ground infrastructure within the National Grid East Claydon Substation
- Existing routes
 - Existing Public Right of Way
 - Existing permissive footpath
- Indicative proposed routes
 - Proposed Public Right of Way Diversion
 - Proposed permissive path

NOTES:
1. Refer to Appendix 1A for drawing notes.



02	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION AND OTHER DOCUMENTS
REGULATION 5(2)(q)

TITLE:
APPENDIX 1D
GREEN AND BLUE INFRASTRUCTURE PARAMETERS - PARCEL 3

PINS REFERENCE NUMBER:
EN010158/APP/7.6.4

SCALE : 1:10,000 @ A3
0 500m

REV:
02

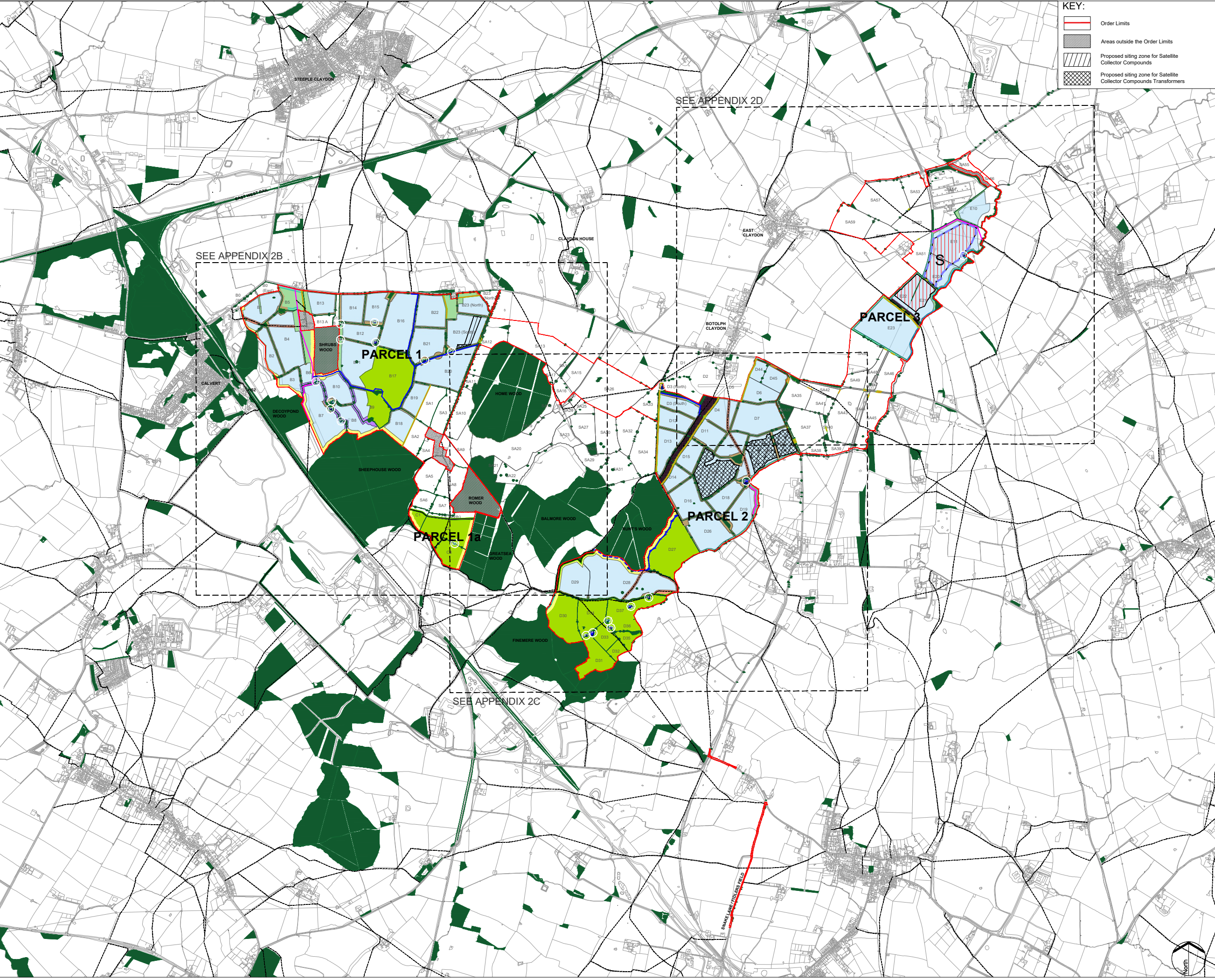
Appendix 2

Landscape and Ecological Mitigation and Enhancements



Appendix 2 – Landscape and Ecological Mitigation and Enhancements

Drawing number	Revision number	Drawing title	Scale
2A	03	Landscape and Ecological Mitigation and Enhancements – Key Plan	1:30,000 (Key Plan) @ A3
2B	03	Landscape and Ecological Mitigation and Enhancements – Parcel 1	1:10,000 @ A3
2C	02	Landscape and Ecological Mitigation and Enhancements – Parcel 2	1:10,000 @ A3
2D	02	Landscape and Ecological Mitigation and Enhancements – Parcel 3	1:10,000 @ A3



KEY:

Order Limits

Areas outside the Order Limits

Proposed siting zone for Satellite Collector Compounds

Proposed siting zone for Satellite Collector Compounds Transformers

Proposed siting zone for BESS

Proposed siting zone for Main Collector Compound

Proposed siting zone for Rosefield Substation

Existing woodland

Existing hedgerow

Existing ponds (priority habitat)

Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement)

Former ponds (non-priority habitat - siting zone with potential to consider recreation)

Siting zone for proposed ecological pond

Existing Public Right of Way

Existing permissive footpath

Proposed Public Right of Way diversion

Proposed permissive path

Indicative area for Solar PV development - potential for creation of 'other neutral grassland' with high proportion of legume species under and between solar panels

Indicative mitigation area for ground nesting birds and bats - potential for 'other neutral grassland' to increase species diversity (with potential for grazing by sheep or cattle)

Indicative general mitigation area - potential for species rich grassland

Indicative mitigation buffer around woodlands for bats - potential for mosaic of species rich grassland and scrub planting

Indicative mitigation corridor for bats - potential enhancement and strengthening of hedgerow corridors with native scrub and woodland species planting in hedgerows and species rich grassland to improve connectivity between Shrubs Wood, Decoypond Wood and Sheephouse Wood

Indicative mitigation buffer along hedgerows for bats - potential for mosaic of species rich grassland and scrub planting. A small proportion of margins to be sown with winter bird cover seed mix

Indicative mitigation buffer along key Public Rights of Way - potential to create green infrastructure corridors

Indicative mitigation buffer along Public Rights of Way - potential to incorporate hedgerow planting and wildflower grassland

Indicative ecological enhancement / mitigation screening - potential to provide ecological enhancement / screening through provision of tree belts or woodland blocks

Indicative mitigation screening - potential to provide screening through provision of tree belts (early planting implemented prior to construction)

Indicative mitigation screening - potential to provide screening through enhancement and management of existing hedgerows/trebelts

Indicative mitigation screening - hedgerows with early management regime to slowly increase height

Indicative hedgerow planting - to include hedgerow trees except where planted over underground cables

Indicative enhancement area along watercourse - potential to include wetter species rich grassland and discrete areas of scrub creation for bat corridor enhancement

03	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
02	MAR 2026	DEADLINE 1	LDA	LDA	EDF
01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(q)

TITLE:
APPENDIX 2A
LANDSCAPE AND ECOLOGICAL MITIGATION AND
ENHANCEMENTS - KEY PLAN

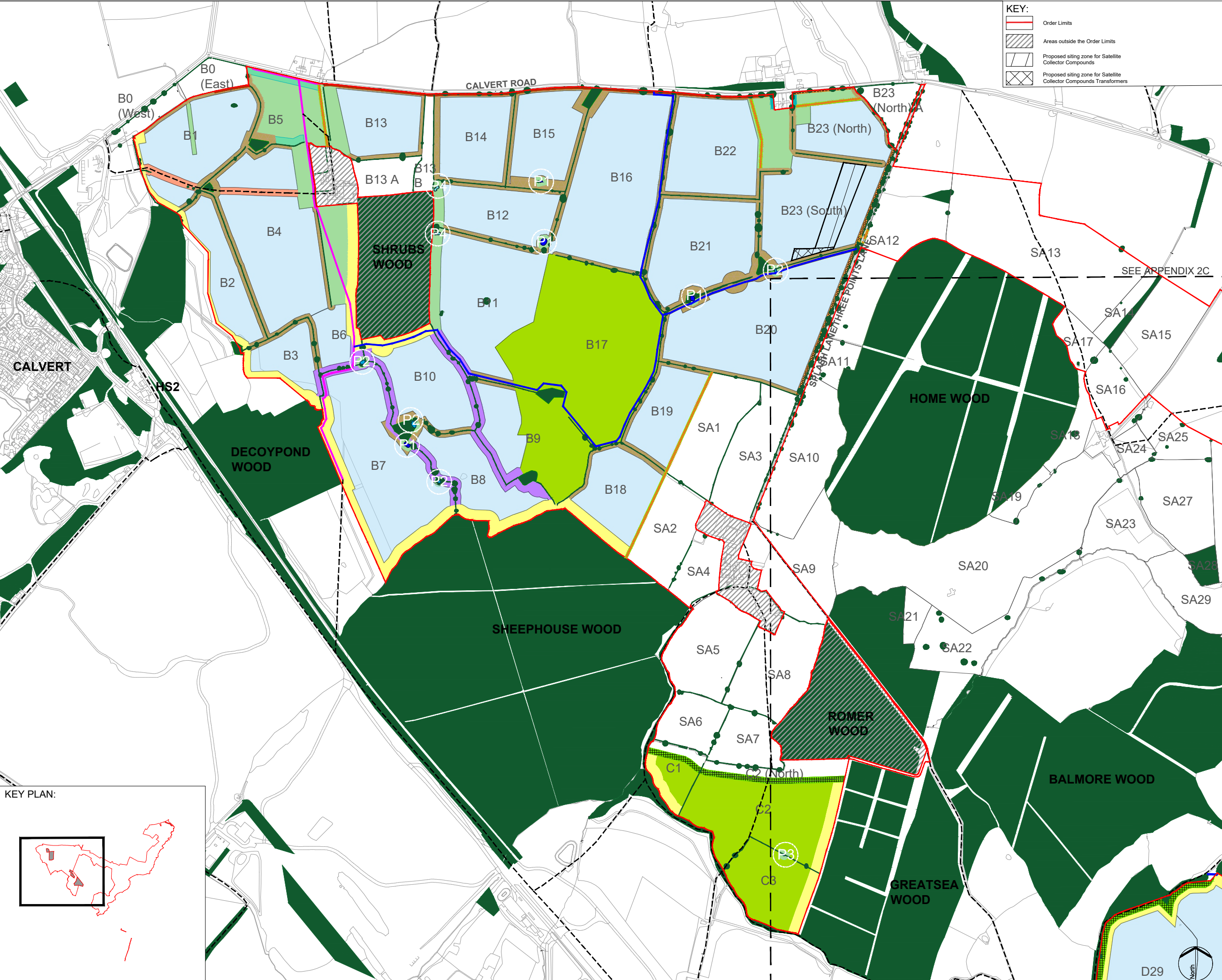
PINS REFERENCE NUMBER:
EN010158/APP/7.6.4

SCALE : 1:30,000 @ A3

REV:
03

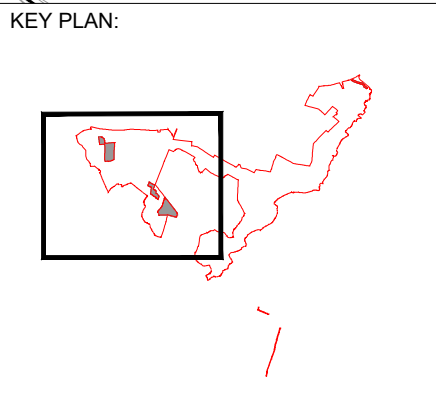
© Copyright 2025 Rosefield Energy Farm Limited (11618221). No part of this drawing is to be reproduced without prior permission of Rosefield Energy Farm Limited.

This drawing may contain: Ordnance Survey material by permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown Copyright 2023. All rights reserved. Reference number 0100031673
OS Open data / © Natural England / © DEFRA / © DECC / © English Heritage. Aerial Photography - ESRI, DigitalGlobe, GEOEye, i-cubed, USDA FSA,USGD, AEX, Getmapping, Aerogrid, IGN,IGP,swisstopo, the GIS User Community



- KEY:
- Order Limits
 - Areas outside the Order Limits
 - Proposed siting zone for Satellite Collector Compounds
 - Proposed siting zone for Satellite Collector Compounds Transformers

- Proposed siting zone for BESS
- Proposed siting zone for Main Collector Compound
- Proposed siting zone for Rosefield Substation
- Existing woodland
- Existing hedgerow
- Existing ponds (priority habitat)
- Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement)
- Former ponds (non-priority habitat - siting zone with potential to consider recreation)
- Siting zone for proposed ecological pond
- Existing Public Right of Way
- Existing permissive footpath
- Proposed Public Right of Way diversion
- Proposed permissive path
- Indicative area for Solar PV development - potential for creation of 'other neutral grassland' with high proportion of legume species under and between solar panels
- Indicative mitigation area for ground nesting birds and bats - potential for 'other neutral grassland' to increase species diversity (with potential for grazing by sheep or cattle)
- Indicative general mitigation area - potential for species rich grassland
- Indicative mitigation buffer around woodlands for bats - potential for mosaic of species rich grassland and scrub planting
- Indicative mitigation corridor for bats - potential enhancement and strengthening of hedgerow corridors with native scrub and woodland species planting in hedgerows and species rich grassland to improve connectivity between Shrubs Wood, Decoypond Wood and Sheephouse Wood
- Indicative mitigation buffer along hedgerows for bats - potential for mosaic of species rich grassland and scrub planting. A small proportion of margins to be sown with winter bird cover seed mix
- Indicative mitigation buffer along key Public Rights of Way - potential to create green infrastructure corridors
- Indicative mitigation buffer along Public Rights of Way - potential to incorporate hedgerow planting and wildflower grassland
- Indicative ecological enhancement / mitigation screening - potential to provide ecological enhancement / screening through provision of tree belts or woodland blocks
- Indicative mitigation screening - potential to provide screening through provision of tree belts (early planting implemented prior to construction)
- Indicative mitigation screening - potential to provide screening through enhancement and management of existing hedgerows/treebelts
- Indicative mitigation screening - hedgerows with early management regime to slowly increase height
- Indicative hedgerow planting - to include hedgerow trees except where planted over underground cables
- Indicative enhancement area along watercourse - potential to include wetter species rich grassland and discrete areas of scrub creation for bat corridor enhancement



03	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
02	MAR 2026	DEADLINE 1	LDA	LDA	EDF
01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

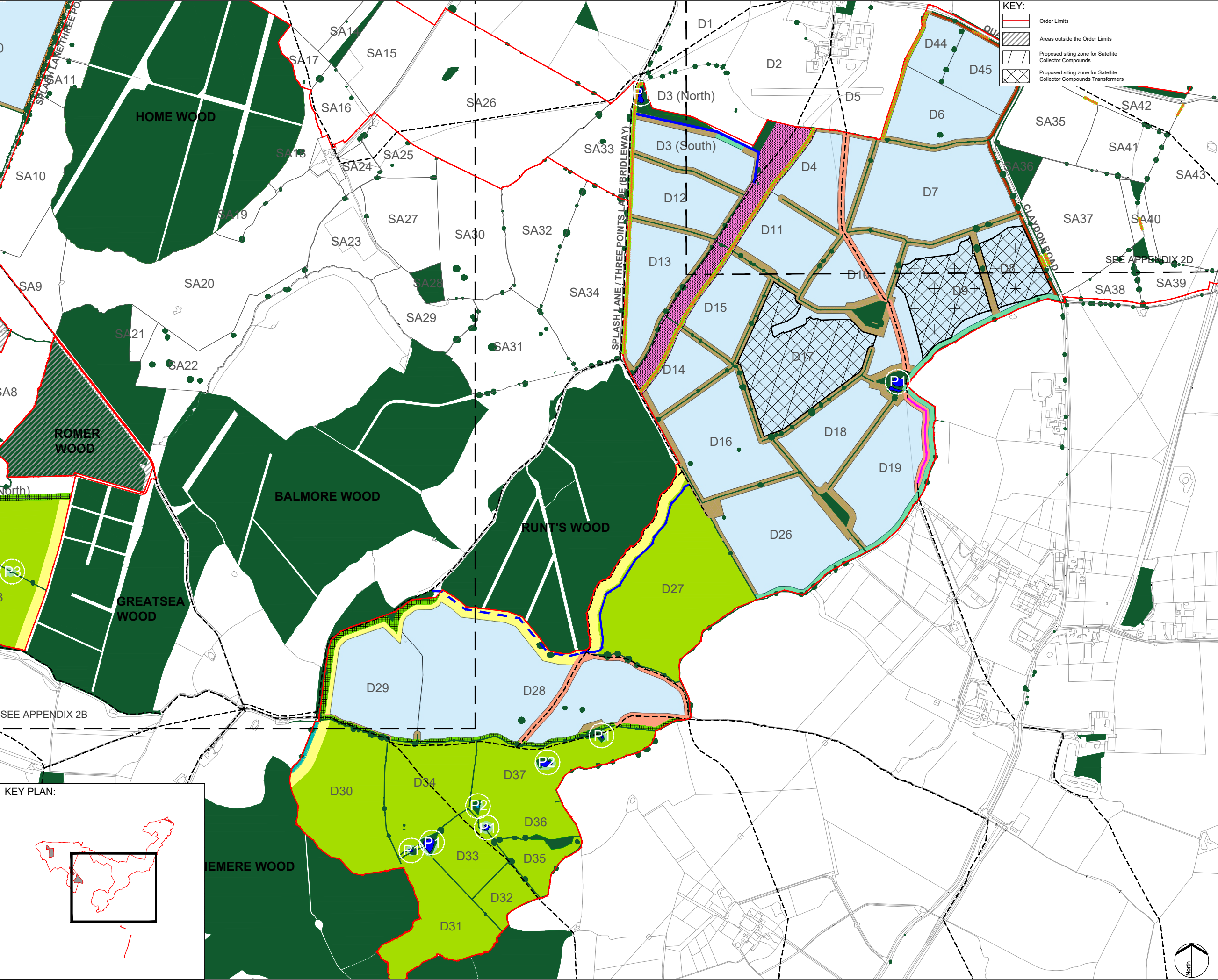
DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(q)

TITLE:
APPENDIX 2B
LANDSCAPE AND ECOLOGICAL MITIGATION AND
ENHANCEMENTS - PARCEL 1 & 1A

PINS REFERENCE NUMBER:
EN010158/APP/7.6.4

SCALE : 1:10,000 @ A3

REV: 03



- KEY:
- Order Limits
 - Areas outside the Order Limits
 - Proposed siting zone for Satellite Collector Compounds
 - Proposed siting zone for Satellite Collector Compounds Transformers

- Proposed siting zone for BESS
- Proposed siting zone for Main Collector Compound
- Proposed siting zone for Rosefield Substation
- Existing woodland
- Existing hedgerow
- Existing ponds (priority habitat)
- Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement)
- Former ponds (non-priority habitat - siting zone with potential to consider recreation)
- Siting zone for proposed ecological pond
- Existing Public Right of Way
- Existing permissive footpath
- Proposed Public Right of Way diversion
- Proposed permissive path
- Indicative area for Solar PV development - potential for creation of 'other neutral grassland' with high proportion of legume species under and between solar panels
- Indicative mitigation area for ground nesting birds and bats - potential for 'other neutral grassland' to increase species diversity (with potential for grazing by sheep or cattle)
- Indicative general mitigation area - potential for species rich grassland
- Indicative mitigation buffer around woodlands for bats - potential for mosaic of species rich grassland and scrub planting
- Indicative mitigation corridor for bats - potential enhancement and strengthening of hedgerow corridors with native scrub and woodland species planting in hedgerows and species rich grassland to improve connectivity between Shrubs Wood, Decoypond Wood and Sheephouse Wood
- Indicative mitigation buffer along hedgerows for bats - potential for mosaic of species rich grassland and scrub planting. A small proportion of margins to be sown with winter bird cover seed mix
- Indicative mitigation buffer along key Public Rights of Way - potential to create green infrastructure corridors
- Indicative mitigation buffer along Public Rights of Way - potential to incorporate hedgerow planting and wildflower grassland
- Indicative ecological enhancement / mitigation screening - potential to provide ecological enhancement / screening through provision of tree belts or woodland blocks
- Indicative mitigation screening - potential to provide screening through provision of tree belts (early planting implemented prior to construction)
- Indicative mitigation screening - potential to provide screening through enhancement and management of existing hedgerows/trebelts
- Indicative mitigation screening - hedgerows with early management regime to slowly increase height
- Indicative hedgerow planting - to include hedgerow trees except where planted over underground cables
- Indicative enhancement area along watercourse - potential to include wetter species rich grassland and discrete areas of scrub creation for bat corridor enhancement

02	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm



DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(q)

TITLE:
APPENDIX 2C
LANDSCAPE AND ECOLOGICAL MITIGATION AND
ENHANCEMENTS - PARCEL 2

PINS REFERENCE NUMBER:
EN010158/APP/7.6.4

SCALE : 1:10,000 @ A3	REV: 02
0 500m	

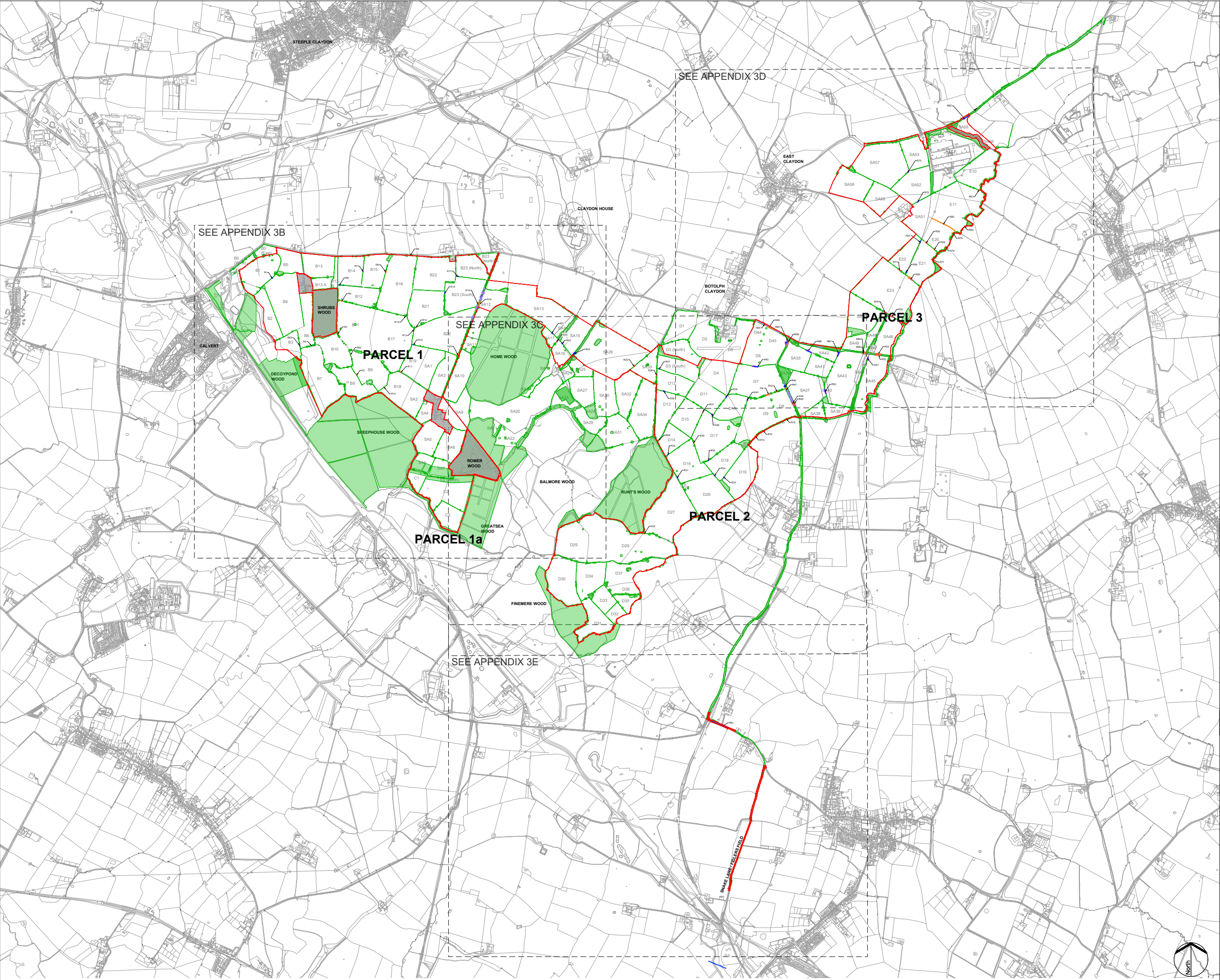
Appendix 3

Vegetation Removal Parameters



Appendix 3 – Vegetation Removal Parameters

Drawing number	Revision number	Drawing title	Scale
3A	01	Vegetation Removal Parameters – Key Plan	1:30,000 (Key Plan) @ A3
3B	01	Vegetation Removal Parameters – Parcel 1	1:10,000 @ A3
3C	01	Vegetation Removal Parameters – Parcel 2	1:10,000 @ A3
3D	01	Vegetation Removal Parameters – Parcel 3	1:10,000 @ A3
3E	01	Vegetation Removal Parameters – Parcel 3	1:10,000 @ A3



KEY:

- Order Limits
- Areas outside the Order Limits
- Existing vegetation (Trees and hedgerows)
- Trees and hedgerows to be removed
- Important hedgerows to be removed
- Vegetation to be clipped within visibility splay
- Hedgerow to be replanted above cable corridors
- Hedgerow to be replanted outside visibility splay for junction and highways works

- NOTES:**
1. Ordnance Survey (OS) MasterMap data adopted as the drawing base map.
 2. The location of features shown are indicative only. Exact locations to be confirmed on site.
 3. Additional features may be present on site that have not been identified on the OS data.
 4. The location of existing vegetation is based on tree survey data. The accuracy of the tree survey differs from the OS data which results in the existing vegetation not aligning with the line work shown on the base map.
 5. The location of vegetation to be removed assumes the maximum extent that may be required for the construction of highway works, internal access tracks and cable routes. Wherever practicable, these works are aligned to existing tracks, crossing and / or gaps in hedgerows to reduce the extent of vegetation removal.
 6. Vegetation Removal Parameters is prepared for the purposes of Schedule 12 to the DCO and provisions within the oLEMP.
 7. The vegetation Removal Parameters should be read in conjunction with Schedule 12 (Hedgerows to be removed) of the draft Development Consent Order.

01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drm	Chk	App

Rosefield Solar Farm



DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(q)

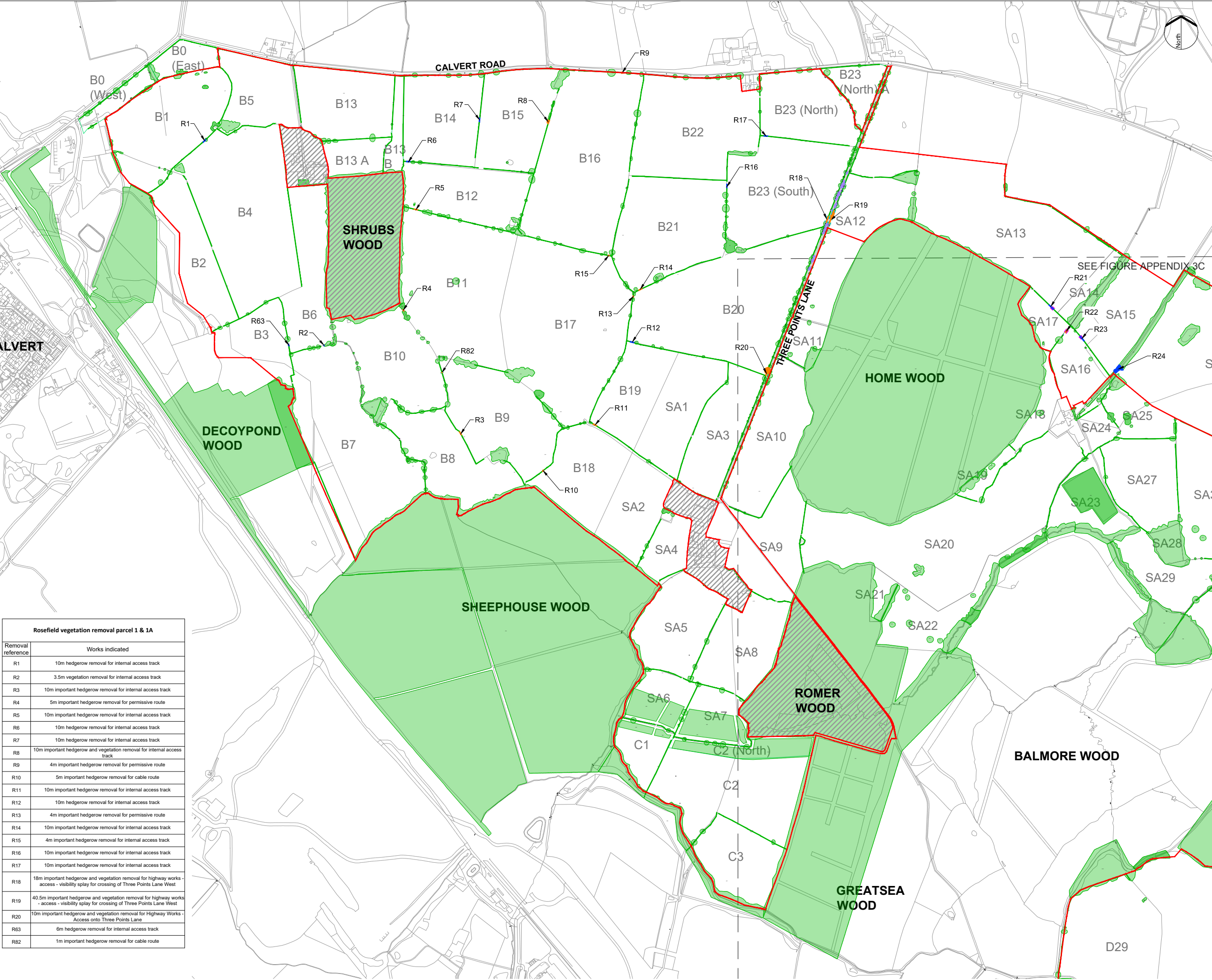
TITLE:
APPENDIX 3A
VEGETATION REMOVAL PARAMETERS - KEY PLAN

PINS REFERENCE NUMBER:
EN010158/APP/7.6.2

SCALE : 1:30,000 @ A3

REV:
01





Rosefield vegetation removal parcel 1 & 1A	
Removal reference	Works indicated
R1	10m hedgerow removal for internal access track
R2	3.5m vegetation removal for internal access track
R3	10m important hedgerow removal for internal access track
R4	5m important hedgerow removal for permissive route
R5	10m important hedgerow removal for internal access track
R6	10m hedgerow removal for internal access track
R7	10m hedgerow removal for internal access track
R8	10m important hedgerow and vegetation removal for internal access track
R9	4m important hedgerow removal for permissive route
R10	5m important hedgerow removal for cable route
R11	10m important hedgerow removal for internal access track
R12	10m hedgerow removal for internal access track
R13	4m important hedgerow removal for permissive route
R14	10m important hedgerow removal for internal access track
R15	4m important hedgerow removal for internal access track
R16	10m important hedgerow removal for internal access track
R17	10m important hedgerow removal for internal access track
R18	18m important hedgerow and vegetation removal for highway works - access - visibility splay for crossing of Three Points Lane West
R19	40.5m important hedgerow and vegetation removal for highway works - access - visibility splay for crossing of Three Points Lane West
R20	10m important hedgerow and vegetation removal for Highway Works - Access onto Three Points Lane
R63	6m hedgerow removal for internal access track
R82	1m important hedgerow removal for cable route

KEY:

Order Limits

Areas outside the Order Limits

Existing vegetation
(Trees and hedgerows)

Xxx

Area of vegetation to be removed

Trees and hedgerows to be removed

Important hedgerows to be removed

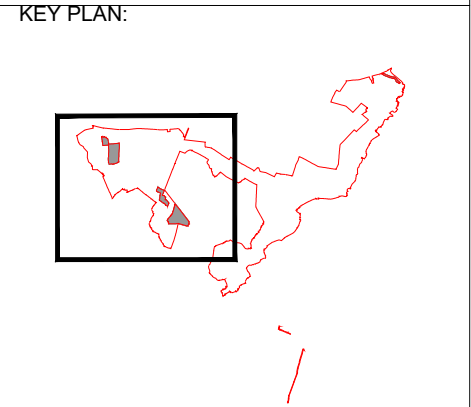
Vegetation to be clipped within visibility
splay

Hedgerow to be replanted above
cable corridors

Hedgerow to be replanted outside
visibility splay for junction and highways
works

NOTES:

1. Refer to Figure 3A for drawing notes.



01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Dm	Chk	App

Rosefield Solar Farm

DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(q)

TITLE:
APPENDIX 3B
VEGETATION REMOVAL PARAMETERS -
PARCEL 1 & 1A

PINS REFERENCE NUMBER:
EN010158/APP/7.6.2

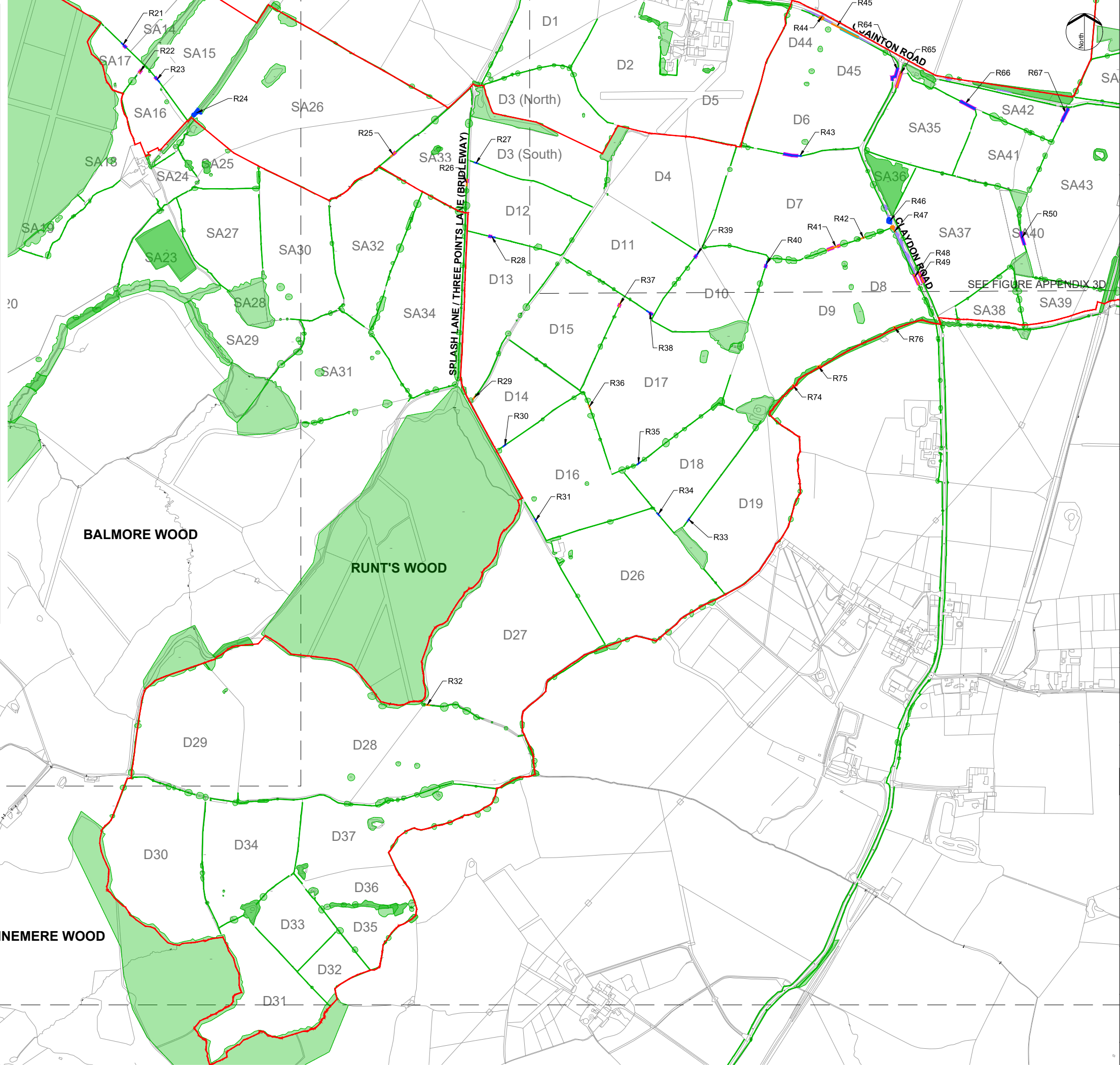
SCALE : 1:10,000 @ A3

REV: 01

0

500m

Rosefield vegetation removal parcel 2	
Removal reference	Works indicated
R21	18m hedgerow removal for internal access track and cable route
R22	18m important hedgerow removal for internal access track and cable route
R23	18m hedgerow removal for internal access track and cable route
R24	24m hedgerow removal for internal access track and cable route
R25	18m important hedgerow removal for internal access track and cable route
R26	18m important hedgerow removal for internal access track and cable route
R27	10m hedgerow removal for internal access track
R28	18m hedgerow removal for internal access track and cable route
R29	10m important hedgerow removal for internal access track
R30	10m hedgerow removal for internal access track
R31	10m hedgerow removal for internal access track
R32	10m important hedgerow removal for internal access track
R33	10m hedgerow removal for internal access track
R34	10m hedgerow removal for internal access track
R35	10m hedgerow removal for internal access track
R36	10m important hedgerow removal for internal access track
R37	18m important hedgerow removal for internal access track and cable route
R38	18m hedgerow removal for internal access track and cable route
R39	18m hedgerow removal for internal access track and cable route
R40	18m hedgerow removal for internal access track and cable route
R41	35m important hedgerow removal for internal access track and cable route
R42	10m hedgerow removal for internal access track
R43	47.6m important hedgerow removal for internal access track and cable route
R44	25m important hedgerow removal for highway works - visibility splay
R45	78.5m important hedgerow removal for highway works - access onto Three Points Lane
R46	19m hedgerow removal for highway works - access onto Three Points Lane
R47	27m important hedgerow removal for highway works - access onto Three Points Lane
R48	35m important hedgerow removal for cable routes collection
R49	35m important hedgerow removal for cable routes collection
R50	35m hedgerow removal for main cable route
R65	43.43m important hedgerow removal for main cable route
R66	44.13m hedgerow removal for main cable route
R67	43.43m important hedgerow removal for main cable route
R68	21.33m important hedgerow removal for main cable route
R69	7.26m important hedgerow removal for main cable route

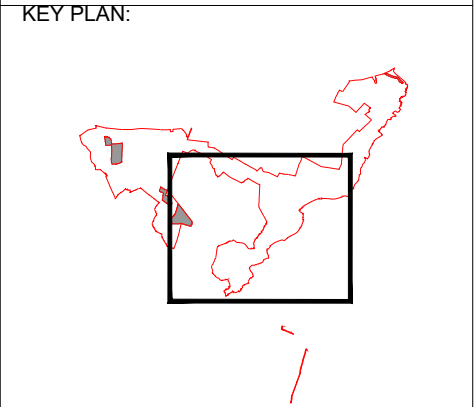


KEY:

- Order Limits
- Areas outside the Order Limits
- Existing vegetation (Trees and hedgerows)
- Area of vegetation to be removed
- Trees and hedgerows to be removed
- Important hedgerows to be removed
- Vegetation to be clipped within visibility splay
- Hedgerow to be replanted above cable corridors
- Hedgerow to be replanted outside visibility splay for junction and highways works

NOTES:

1. Refer to Figure 3A for drawing notes.



01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Dm	Chk	App

Rosefield Solar Farm

Rosefield
Solar Farm

DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(q)

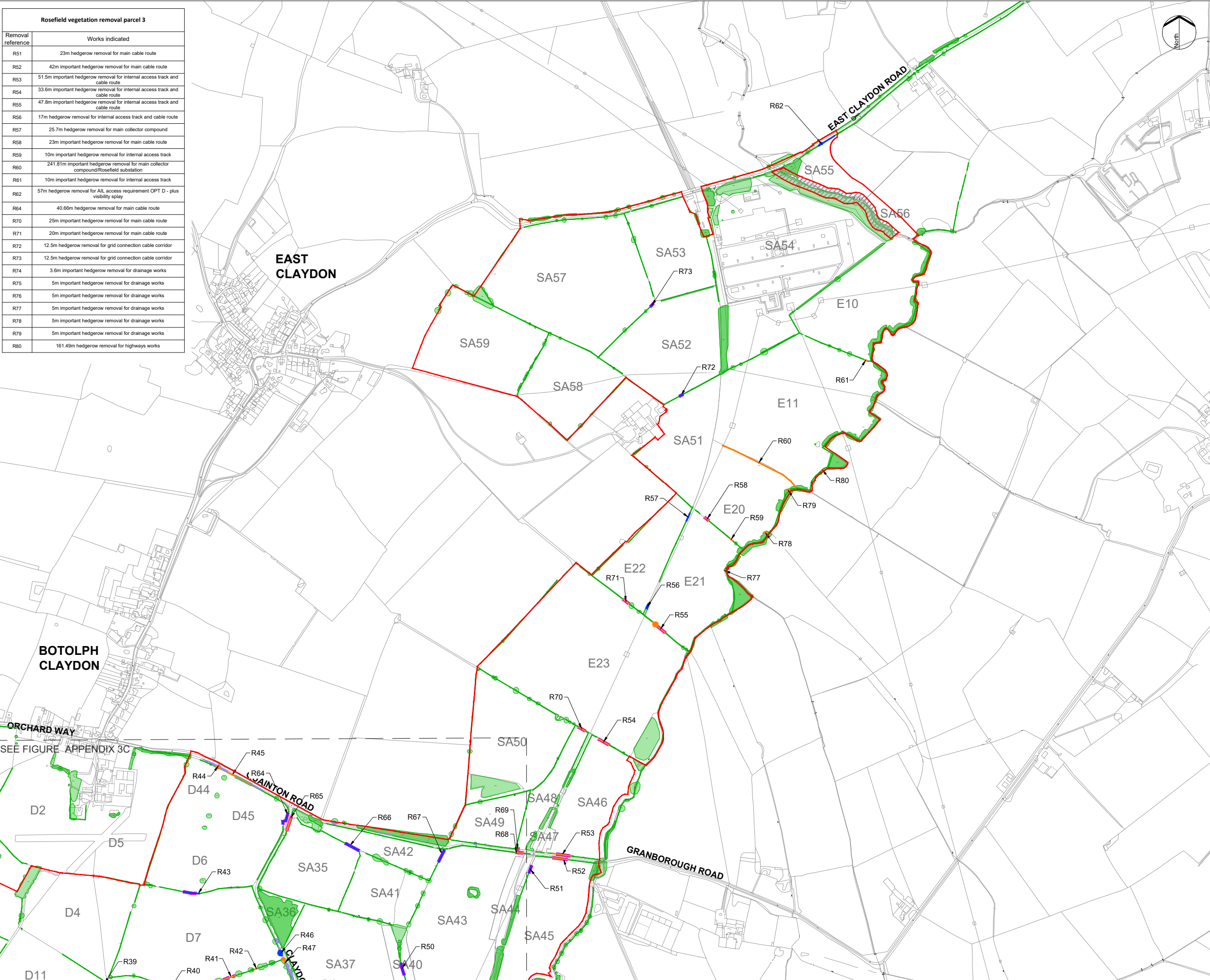
TITLE:
APPENDIX 3C
VEGETATION REMOVAL PARAMETERS - PARCEL 2

PINS REFERENCE NUMBER:
EN010158/APP/7.6.2

SCALE : 1:10,000 @ A3

REV: 01

Rosefield vegetation removal parcel 3	
Removal reference	Works indicated
R51	23m hedgerow removal for main cable route
R52	42m important hedgerow removal for main cable route
R53	51.5m important hedgerow removal for internal access track and cable route
R54	33.6m important hedgerow removal for internal access track and cable route
R55	47.8m important hedgerow removal for internal access track and cable route
R56	17m hedgerow removal for internal access track and cable route
R57	25.7m hedgerow removal for main collector compound
R58	23m important hedgerow removal for main cable route
R59	10m important hedgerow removal for internal access track
R60	241.81m important hedgerow removal for main collector compound/Rosefield substation
R61	10m important hedgerow removal for internal access track
R62	57m hedgerow removal for AIL access requirement OPT D - plus visibility splay
R64	40.66m hedgerow removal for main cable route
R70	25m important hedgerow removal for main cable route
R71	20m important hedgerow removal for main cable route
R72	12.5m hedgerow removal for grid connection cable corridor
R73	12.5m hedgerow removal for grid connection cable corridor
R74	3.6m important hedgerow removal for drainage works
R75	5m important hedgerow removal for drainage works
R76	5m important hedgerow removal for drainage works
R77	5m important hedgerow removal for drainage works
R78	5m important hedgerow removal for drainage works
R79	5m important hedgerow removal for drainage works
R80	161.49m hedgerow removal for highways works



KEY:

Order Limits

Areas outside the Order Limits

Existing vegetation
(Trees and hedgerows)

Xxx

Area of vegetation to be removed

Trees and hedgerows to be removed

Important hedgerows to be removed

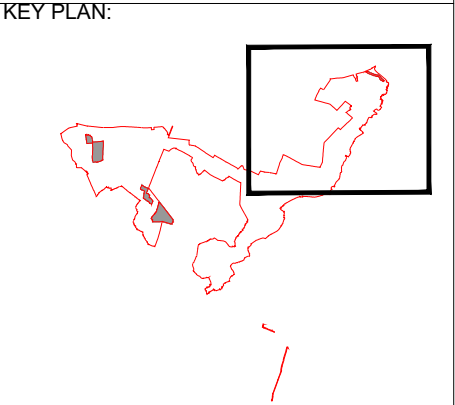
Vegetation to be clipped within visibility
splay

Hedgerow to be replanted above
cable corridors

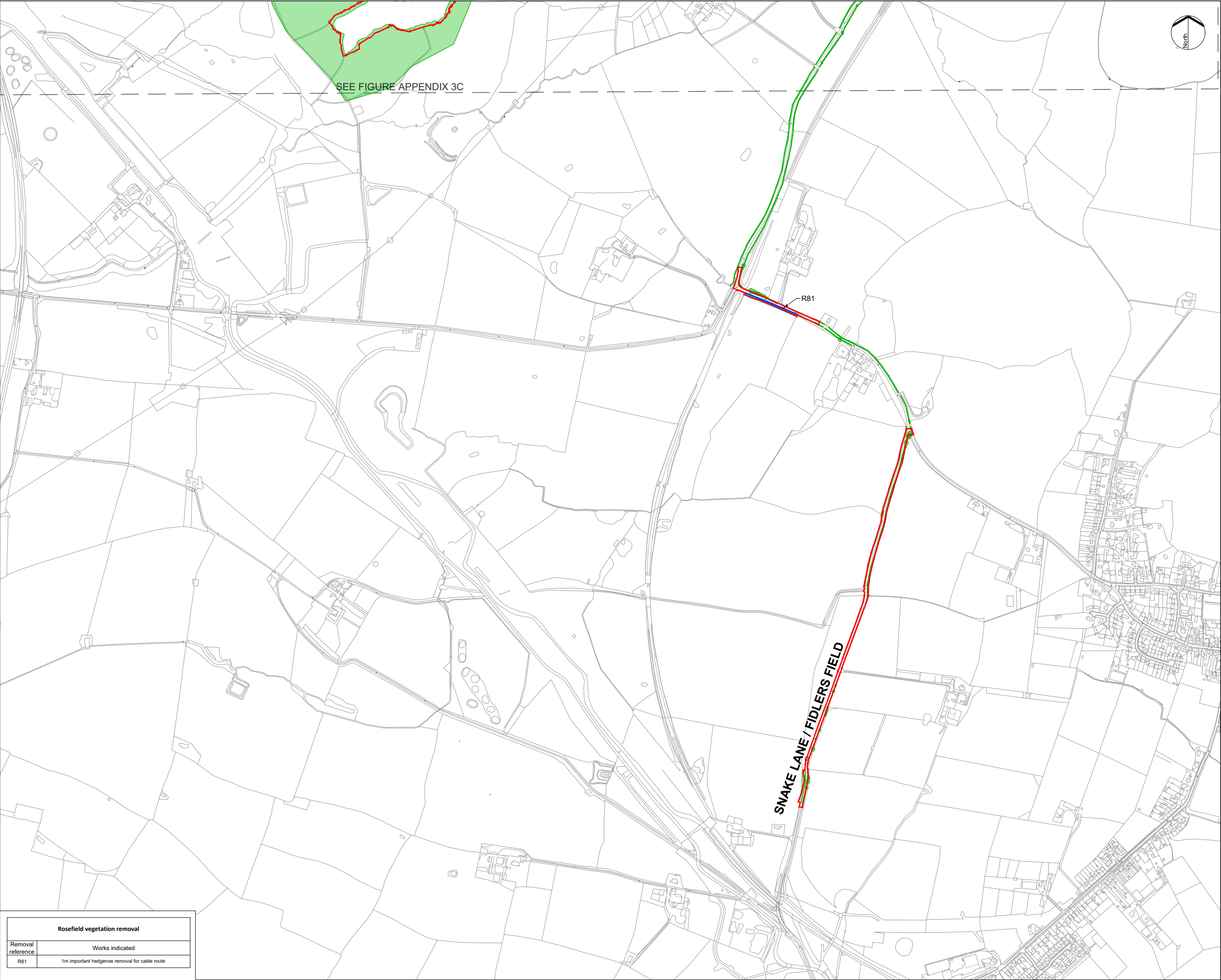
Hedgerow to be replanted outside
visibility splay for junction and highways
works

NOTES:

1. Refer to Figure 3A for drawing notes.



01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drm	Chk	App
Rosefield Solar Farm					
Rosefield Solar Farm					
DOCUMENT: PART 7 - ADDITIONAL PRESCRIBED INFORMATION AND OTHER DOCUMENTS REGULATION 5(2)(q)					
TITLE: APPENDIX 3D VEGETATION REMOVAL PARAMETERS - PARCEL 3					
PINS REFERENCE NUMBER: EN010158/APP/7.6.2					
SCALE : 1:10,000 @ A3					REV: 01
0 500m					



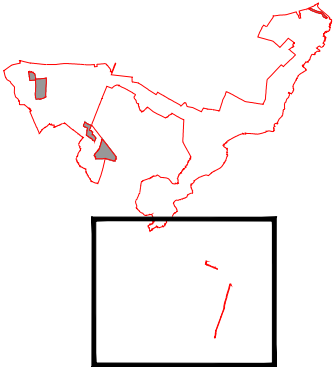
KEY:

- Order Limits
- Areas outside the Order Limits
- Existing vegetation (Trees and hedgerows)
- Area of vegetation to be removed
- Trees and hedgerows to be removed
- Important hedgerows to be removed
- Vegetation to be clipped within visibility splay
- Hedgerow to be replanted above cable corridors
- Hedgerow to be replanted outside visibility splay for junction and highways works

NOTES:

- Refer to Figure 3A for drawing notes.

KEY PLAN:



01	SEPT 2025	DCO SUBMISSION	LDA	LDA	EDF
REV	Date	Description	Drm	Chk	App

Rosefield Solar Farm



DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(q)

TITLE:
APPENDIX 3E
VEGETATION REMOVAL PARAMETERS - PARCEL 3

PINS REFERENCE NUMBER:
EN010158/APP/7.6.2

SCALE : 1:10,000 @ A3
0 500m
REV: 01

Rosefield vegetation removal	
Removal reference	Works indicated
R81	1m important hedgerow removal for cable route

Appendix 4

Management Programme Schedule



Table A4.1: General Enabling and General Management

Management Prescription	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 5 onwards (annually)	Every 5 Years
Enabling/Pre Commencement								
Trees/Vegetation								
Removal/pruning of vegetation substantially in accordance with Vegetation Removal Parameters and AIA/AMS as part of CEMP	✓							
Erection of tree protection fencing in accordance with Tree Protection Plan as part of CEMP	✓							
Construction of development within root protection areas in accordance with AMS as part of CEMP	✓							
Operational Maintenance								
Trees								
Annual visual inspection of trees to ensure duty of care to users of PRoW and permissive paths and operational performance of the Development.		✓	✓	✓	✓	✓	✓	
Pruning if required by qualified arborist to be undertaken in late winter (February), inspections to monitor health of trees and to remove dead, dying or diseased wood where necessary in accordance with BS3998:2010. Safe stacking of logs in small piles in situ.		✓	✓	✓	✓	✓	✓	

Management Prescription	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 5 onwards (annually)	Every 5 Years
Hedgerows								
New hedgerow planting will be monitored and managed to ensure successful establishment. This will include control of weed and grass growth, replacement planting, and firming tree stakes and guards where required.		✓	✓	✓	✓	✓	✓	
Following establishment, and for existing retained hedgerows, maintenance of hedgerows to a target height of 3-3.5m, depending on specific screening requirements, with a width of at least 1.5m at 1.5m above ground level. Pruning if required to maintain operational performance and integrity of grassland verges undertaken in later winter (February) in accordance with BS3998:2010, inspections to monitor health of trees and to remove dead, dying or diseased wood where necessary. Chippings to be removed. Management of hedgerows that contain Blackthorn should be undertaken in such a manner to ensure maintenance works do not damage or destroy Blackthorn that could support black or brown hairstreak eggs.		✓	✓	✓	✓	✓	✓	
Control of litter and vandalism								
Grounds maintenance of the Order Limits will ensure it is kept clean and tidy. Response to acts of vandalism or graffiti will be dealt swiftly with the repair or replacement.		✓	✓	✓	✓	✓	✓	

Management Prescription	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 5 onwards (annually)	Every 5 Years
Existing and Proposed PRoW and permissive paths								
Pruning of vegetation (September to February) as appropriate to maintain unobstructed passage.	✓	✓	✓	✓	✓	✓	✓	
Monitoring and Review								
General monitoring and surveys as required							✓	
Full LEMP(s) review and amendment of management regime if required.								✓

Table A4.2: Mitigation Habitat Implementation and Management Programme

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Lowland Meadow															
Soil nutrient testing	Soil should not be tested within three months of the last application of lime, slurry or chemical fertiliser in order to achieve accurate results. Late autumn or winter	x	x								x	x	x	1-2	N/A
If nutrient levels are high: Cut existing modified grassland sward and remove arisings no fertilizer to be used.	Soil should not be tested within three months of the last application of lime, slurry or				x	x	x	x	x	x	x			1-3	N/A

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
	chemical fertiliser in order to achieve accurate results. Late autumn or winter.														
Source seed	Seed mix to ideally be of local provenance advised by local wildlife trust. Consider green hay or brush harvested seed from local site. Early spring or summer to early autumn.	x	x	x			x	x	x	x				1-2	N/A
Lightly scarify area to prepare for seeding	Using chain harrow or similar, ensure at least 50% of bare ground is present. Take care around hedgerows, leaving a buffer as appropriate.			x	x		x	x		x	x			1-2	N/A
Seed primary mitigation neutral grassland areas (brush harvested seed or seed mix option)	Surface sow with the aim to get an even distribution across the entire area. Firm seed with a roll or tread into soil to give good contact. Spring or early autumn.			x	x					x	x			1-2	N/A
Seed primary mitigation neutral grassland areas (green hay option)	Apply directly after harvesting from donor site in the summer. After spreading the hay, roll or tread in seeds with livestock to encourage germination.						x	x						1-2	N/A

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Cut to 5cm height and remove flush of annual weed	Early summer. There may be a flush of annual weeds from the soil as the wildflower seeds germinate. Cut and remove arisings from site. Spring to early autumn.				x	x	x	x	x	x				2-3	N/A
Restrict vegetation growth in autumn and winter – if required. Undertake on a 3-year rotation so that at least 1/3 of grassland does not get a winter or spring cut in any one year	This should reduce dominance of vigorous grasses and could be achieved through a late autumn cut. Cut again, in early spring if winter growth is high before ground nesting bird season	x	x							x	x	x		2-5	6-30
Cut grassland once a year but ensure 1/3 of grassland uncut each year on rotation to leave a foraging resource for invertebrates	Undertake a cut in late summer (August) when conditions are suitable. Consider rotational cutting of the 2/3rds to be cut over the summer and into autumn i.e., cut 25% then cut the next 25% a month later to leave a floral resource for invertebrates for as long as possible. Allow arisings to dry where possible before removing them from the area. Cut from the centre towards the hedgerow, leaving a buffer uncut.									x	x	x	x	3-5	6-30

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Grazing Option Aftermath grazing following summer cut. Monitor grazing and move stock regularly to ensure a mixture of long and shorter sward heights all year so that no more than 75% of sward is short.	Use cattle at a low stocking density to avoid overgrazing and poaching. Remove when conditions become too wet. Move stock regularly to maintain a mosaic of sward heights.	x	x								x	x	x	4-5	6-30
Control of problem perennial species i.e., Bracken, docks and scrub.	As and when needed. Control before seeding. Mechanical removal or electro control will be preferable. Spot spray as a last resort. Late autumn or winter.	x	x								x	x	x	1-2	N/A
Neutral Grassland															
Soil nutrient sampling	Soil should not be tested within three months of the last application of lime, slurry or chemical fertiliser in order to achieve accurate results. Late autumn or winter.	x	x								x	x	x	1-2	N/A
If nutrient levels are high: Cut existing modified grassland sward and remove arisings	Undertake multiple times over the summer to reduce nutrient levels in the soil. Remove arisings from the grassland. Keep vegetation short prior to scarification. Spring to early autumn.			x	x	x	x	x	x	x	x			1-2	N/A

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Source seed	Seed mix to ideally be of local provenance advised by local wildlife trust. Consider green hay or brush harvested seed from local site. Early spring or summer to early autumn.	x	x	x			x	x	x	x				1-2	N/A
Lightly scarify area to prepare for seeding	Using chain harrow or similar, ensure at least 50% of bare ground is present. Take care around hedgerows, leaving a buffer as appropriate.			x	x		x	x		x	x			1-2	N/A
Seed primary mitigation neutral grassland areas (brush harvested seed or seed mix option)	Surface sow with the aim to get an even distribution across the entire area. Firm seed with a roll or tread into soil to give good contact. Spring or early autumn.			x	x					x	x			1-2	N/A
Seed primary mitigation neutral grassland areas (green hay option)	Apply directly after harvesting from donor site in the summer. After spreading the hay, roll or tread in seeds with livestock to encourage germination. Early summer.						x	x						1-2	N/A
Cut to 5cm height and remove flush of annual weed	There may be a flush of annual weeds from the soil as the				x	x	x	x	x	x				2-3	N/A

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
	wildflower seeds germinate. Cut and remove arisings from site. Spring to early autumn.														
Restrict vegetation growth in autumn and winter – if required. Undertake on a 3-year rotation so that at least 1/3 of grassland does not get a winter or spring cut in any one year	This should reduce dominance of vigorous grasses and could be achieved through a late autumn cut. Cut again, in early spring if winter growth is high before ground nesting bird season	x	x						x	x	x			2-5	6-30
Cut grassland once a year but ensure 1/3 of grassland uncut each year on rotation to leave a foraging resource for invertebrates	Undertake a cut in late summer (August) when conditions are suitable. Consider rotational cutting of the 2/3rds to be cut over the summer and into autumn i.e., cut 25% then cut the next 25% a month later to leave a floral resource for invertebrates for as long as possible. Allow arisings to dry where possible before removing them from the area. Cut from the centre towards the hedgerow, leaving a buffer uncut.					x	x	x	x					3-5	6-30
Grazing Option Aftermath grazing following summer cut. Monitor grazing and move stock regularly to ensure a mixture of long and shorter sward	Use cattle or sheep at a low stocking density to avoid overgrazing and poaching. Remove when conditions become too wet. Move stock regularly to								x	x	x	x		3-5	6-30

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
heights all year so that no more than 75% of sward is short.	maintain a mosaic of sward heights.														
Control of problem perennial species i.e., Bracken, docks and scrub.	As and when needed. Control before seeding. Mechanical removal or electro control will be preferable. Spot spray as a last resort. Late autumn or winter.	x	x								x	x	x	4-5	6-30
Arable Field Margins – Wild Bird Cover/Seed															
Create a fine and firm seedbed	Remove existing vegetation and cultivate to a fine tilth. Spring to early summer.		x	x	x	x	x							1-5	6-30
Sow wild bird seed mix	Seed mixes could be varied and include a variety across the available margin areas, including 1-year mixes and 2-year mixes. Seed mix to ideally be of local provenance advised by local wildlife trust or similar organisation, sourced commercially. Consider green hay if appropriate.	x	x	x	x	x								1-5	6-30
Retain vegetation throughout winter		x	x	x	x			x	x	x	x	x	x	1-5	6-30

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Re-establish to maintain seed production	Repeat sow 1-year mixes annually and 2-year mixes every other year. Re-sow winter bird plots that fail to establish.	x	x	x	x	x	x							1	6-30
Legume-rich Grassland – Solar PV Area															
Where baseline habitat is grassland - cut existing grassland sward and remove arisings	Remove arisings from the grassland. Keep vegetation short prior to scarification.			x	x					x	x			1	N/A
Where baseline habitat is arable - Form the landscape and create a sterile seed bed	Remove any vegetation and cultivate to a fine tilth. Apply Glyphosate only if necessary.			x	x					x	x			1	N/A
Source seed	Choose suitable legume-rich seed mix.	x	x	x					x	x	x			1	N/A
Lightly scarify any existing grassland areas to prepare for seeding	Using chain harrow or similar, ensure at least 50% of bare ground is present prior to seed application.			x	x					x	x			1	N/A
Seed Solar PV modified grassland areas	Surface sow with the aim to get an even distribution across the entire area. Firm with a roll or tread into soil to give good contact.			x	x					x	x			1	N/A
Overseeding may be required post construction to any areas damaged.	Any compaction of soils should be alleviated and surface scarified as per steps above prior to seeding.			x	x					x	x			1	N/A

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Cut to 5cm height and remove flush of annual weed	There will be a flush of annual weeds from the soil bank as the wildflower seeds germinate. Cut and remove arisings from site.			x	x	x	x	x	x	x				1	N/A
Restrict vegetation growth in autumn and winter – if required	Cut again, in early spring if winter growth is high before ground nesting bird season. Remove arisings from the area.	x	x							x	x	x		1-5	6-30
Cut Solar PV grassland once a year	Undertake a cut in summer when conditions are suitable. Consider rotational cutting over the summer into the autumn i.e., cut 25% then cut the next 25% a month later to leave a floral resource for invertebrates for as long as possible. Remove arisings from the area.						x	x	x	x				2-5	6-30
Grazing Option Graze solar PV area over Autumn and Winter but ensure that no more than 75% of area is a short sward.	If sheep used for grazing. Stocking density to be low (max 7sheep per ha) to avoid overgrazing and poaching. Remove livestock if ground conditions are too wet and move sheep regularly to ensure some longer areas of grass and a floral resource for as long as possible during autumn and leaving some	x	x								x	x	x	2-5	6-30

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
	longer areas of grass for invertebrates over the winter.														
Control of problem perennial species i.e., Bracken and scrub	As and when needed, before seeding. Mechanical removal or electro control will be preferable. Spot spray as a last resort.				x	x								2-5	6-30
Species Rich Grassland/Wildflower Grassland/Wetter Grassland															
Soil nutrient sampling	Soil should not be tested within three months of the last application of lime, slurry or chemical fertiliser in order to achieve accurate results.	x	x								x	x	x	1-2	N/A
Where baseline habitat is grassland Cease addition of fertilizer to the soil. Cut existing grassland sward and remove arisings	Undertake multiple times over the summer to reduce nutrient levels in the soil Remove arisings from the grassland. Keep vegetation short prior to scarification.			x	x	x	x	x	x	x	x			1-2	N/A
Where baseline habitat is arable Form the landscape and create a sterile seed bed	Consider the need for nutrient reduction. Remove any vegetation and cultivate to a fine tilth. Consider sculpting the ground to provide variations in topography. Apply Glyphosate if only necessary.	x	x	x	x			x	x	x	x	x	x	1-2	N/A

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Source seed	Seed mix to ideally be of local provenance. Consider green hay or brush harvested seed from local site before using seed mix.	x	x	x			x	x	x	x	x			1-2	N/A
Lightly scarify any existing grassland areas to prepare for seeding	Using chain harrow or similar, ensure at least 50% of bare ground is present prior to seed application. Take care around hedgerows and individual trees, leaving a buffer if appropriate.			x	x		x	x		x	x			1-2	N/A
Seed primary mitigation species rich/wildflower grassland areas (brush harvested seed or seed mix option)	Surface sow with the aim to get an even distribution across the entire area. Firm seed with a roll or tread into soil to give good contact.						x	x		x	x			1-2	N/A
Cut to 5cm height and remove flush of annual weed	There may be a flush of annual weeds from the soil as the wildflower seeds germinate. Cut before they seed and remove arisings from site.				x	x	x							2-3	N/A
Restrict vegetation growth in autumn and winter – if required undertake on a 3-year rotation so that at least 1/3 of grassland does not get a winter or spring cut in any one year.	This should reduce dominance of vigorous grasses and could be achieved through a late autumn cut. Cut again, in early spring if winter growth is still high before ground nesting bird season.	x	x							x	x	x		2-5	6-30

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Cut species rich/wildflower grassland once a year, but ensure 1/4 of grassland uncut each year on rotation to leave a foraging resource for invertebrates	Undertake a cut in late summer (August onwards) when conditions are suitable. Consider rotational cutting of the ¾ quarters to be cut over the summer into autumn i.e., cut 25% then cut the next 25% a month later to leave a floral resource for invertebrates for as long as possible. Allow arisings to dry where possible before removing them from the area. Cut from the centre towards the hedgerow, leaving a buffer uncut.						x	x	x	x				3-5	6-30
Grazing Option Graze species rich/wildflower grassland instead of, or in conjunction with, cutting. Monitor grazing and move stock regularly to ensure a mixture of long and shorter sward heights all year so that no more than 75% of sward is short.	Use sheep or smaller cattle at a low stocking density to avoid overgrazing and poaching. Exclude grazing in summer to allow plants to flower and set seed. Move stock regularly so that there is a mosaic of sward heights.	x	x	x					x	x	x	x	x	3-5	6-30
Control of problem perennial species i.e., Bracken, docks and scrub	As and when needed. Control before seeding. Mechanical removal or electro control will be preferable. Spot spray as a last resort.				x	x								4-5	6-30

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Scrub and Hedgerow Planting Establishment															
Clear area of excess weeds, etc.										x	x			1	N/A
Plant bare root plants between Nov - Mar	Use tree guards as required when planting.	x	x	x								x	x	1	N/A
For hedges in the first spring, cut back the plants to about 60cm to encourage bushier growth	For hedges with early management regime continue cutting back each spring to desired height.					x	x							1	2-30
Water during first year in hot dry spells						x	x	x	x	x	x			1	N/A
Clear area of excess weeds etc											x	x		1	N/A
Plant bare root plants between Nov - Mar	Use tree guards as required when planting	x	x	x								x	x	1	N/A
Replace plants as required		x	x	x								x	x	2-5	N/A
Remove guards in year 2/3														2-3	N/A
Woodland and Tree Belt Establishment															
Clear area of excess weeds etc											x	x		1	N/A
Plant bare root plants between Nov - Mar	Use tree guards as required when planting. Stake larger trees as required at time of planting	x	x	x								x	x	1	N/A

Management Prescription	Additional Details	Timing (months)												Delivery (years)	Management (years)
		J	F	M	A	M	J	J	A	S	O	N	D		
Water during first year in hot dry spells					x	x	x	x	x	x				1	N/A
Replace plants as required		x	x	x								x	x	2-5	N/A
Remove guards and stakes in year 2/3														2-3	N/A

Appendix 5

Green and Blue

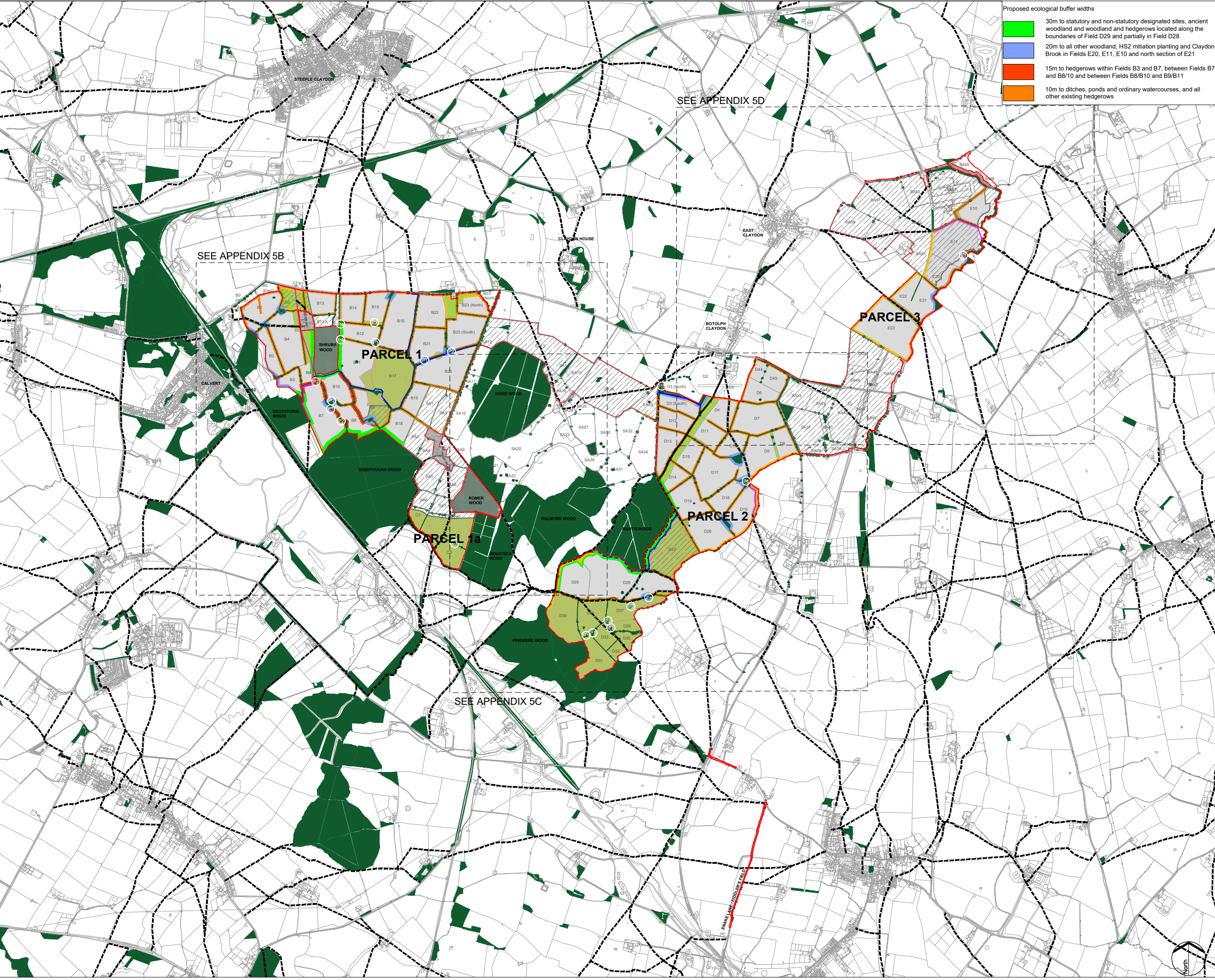
Infrastructure Parameters -

Buffer Widths



Appendix 5 – Green and Blue Infrastructure Parameters - Buffer Widths

Drawing number	Revision number	Drawing title	Scale
5A	02	Green and Blue Infrastructure Parameters - Buffer Widths – Key Plan	1:30,000 (Key Plan) @ A3
5B	02	Green and Blue Infrastructure Parameters - Buffer Widths – Parcel 1	1:10,000 @ A3
5C	02	Green and Blue Infrastructure Parameters - Buffer Widths – Parcel 2	1:10,000 @ A3
5D	02	Green and Blue Infrastructure Parameters - Buffer Widths – Parcel 3	1:10,000 @ A3



Proposed ecological buffer widths

- 30m to statutory and non-statutory designated sites, ancient woodland and woodland and hedgerows located along the boundaries of Field D29 and partially in Field D28
- 20m to all other woodland, HS2 mitigation planting and Claydon Brook in Fields E20, E11, E10 and north section of E21
- 15m to hedgerows within Fields B3 and B7, between Fields B7 and B8/10 and between Fields B8/B10 and B9/B11
- 10m to ditches, ponds and ordinary watercourses, and all other existing hedgerows

KEY:

Order Limits

Areas outside the Order Limits

Existing landscape features

- Existing vegetation (Trees and hedgerows)
- Existing watercourse
- Existing ponds (priority habitat)
- Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement)

Proposed green and blue infrastructure

- Indicative area for mitigation and/or enhancement
- Indicative area for Solar PV and / or ancillary development, to include mitigation and enhancement under panels
- Indicative locations for strategic early planting / vegetation management
- Indicative areas for potential cattle or sheep grazing (cattle grazing preferred)
- Former ponds (non-priority habitat - potential to consider recreation)
- Indicative locations for proposed ecological pond
- Area for underground cable routes and / or access tracks (locations to be determined) Grid connection corridor may include above-ground infrastructure within the National Grid East Claydon Substation

Existing routes

- Existing Public Right of Way
- Existing permissive footpath

Indicative proposed routes

- Proposed Public Right of Way Diversion
- Proposed permissive path

- NOTES:
- The location of features shown are indicative only. Exact locations to be confirmed on site.
 - Additional features may be present on site that have not been identified on the topographical plan.
 - Parameter plan drawings are based on OS MasterMap information
 - Refer to Appendix 2 Indicative Landscape and Ecological Mitigation and Enhancements for indicative types of mitigation and enhancement
 - Refer to Figure 3.5 Zonal Masterplan for proposed development types and indicative locations
 - No proposals are shown for the areas of proposed Highways Works along Snake Lane/Fiddler's Field as the intention would be to reinstate existing vegetation post works. This would be specified at the detailed design stage.

02	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
01	MAR 2026	DEADLINE 1	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

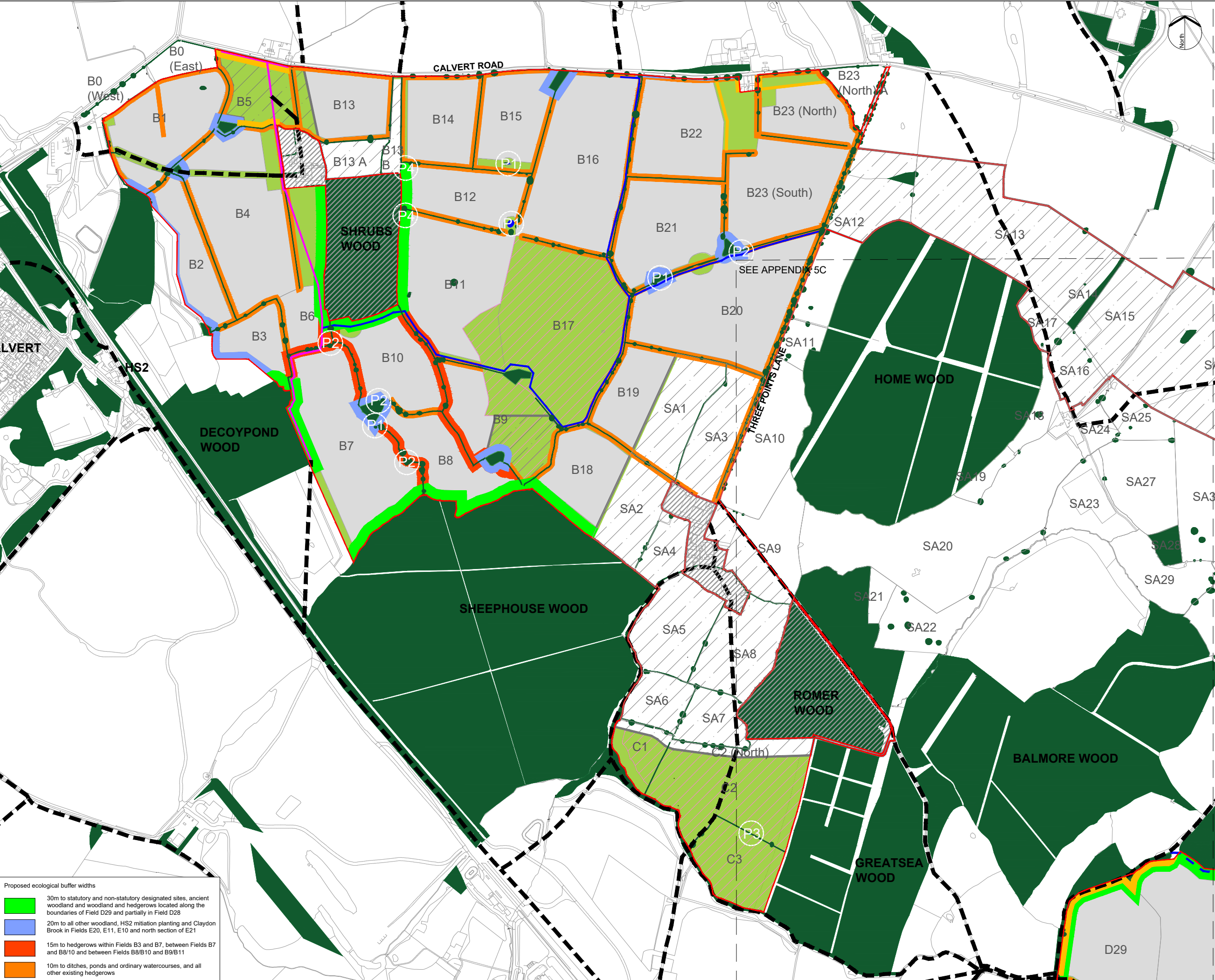
DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(g)

TITLE:
APPENDIX 5A
GREEN AND BLUE INFRASTRUCTURE PARAMETERS
BUFFER WIDTHS - KEY PLAN

PINS REFERENCE NUMBER:
EN010158/APP/7.6.4

SCALE : 1:30,000 @ A3

REV: 02



KEY:

Order Limits

Areas outside the Order Limits

Existing landscape features

Existing vegetation (Trees and hedgerows)

Existing watercourse

P1

Existing ponds (priority habitat)

P2

Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement)

Proposed green and blue infrastructure

Indicative area for mitigation and/or enhancement

Indicative area for Solar PV and / or ancillary development, to include mitigation and enhancement under panels

Indicative locations for strategic early planting / vegetation management

Indicative areas for potential cattle or sheep grazing (cattle grazing preferred)

P3

Former ponds (non-priority habitat - potential to consider recreation)

P4

Indicative locations for proposed ecological pond

Area for underground cable routes and / or access tracks (locations to be determined)

Grid connection corridor may include above-ground infrastructure within the National Grid East Claydon Substation

Existing routes

Existing Public Right of Way

Existing permissive footpath

Indicative proposed routes

Proposed Public Right of Way Diversion

Proposed permissive path

NOTES:

1. Refer to Appendix 5A for drawing notes.

KEY PLAN:

02	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
01	MAR 2026	DEADLINE 1	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

DOCUMENT:

PART 7 - ADDITIONAL PRESCRIBED INFORMATION AND OTHER DOCUMENTS REGULATION 5(2)(q)

TITLE:

APPENDIX 5B
GREEN AND BLUE INFRASTRUCTURE PARAMETERS - BUFFER WIDTHS - PARCELS 1 & 1A

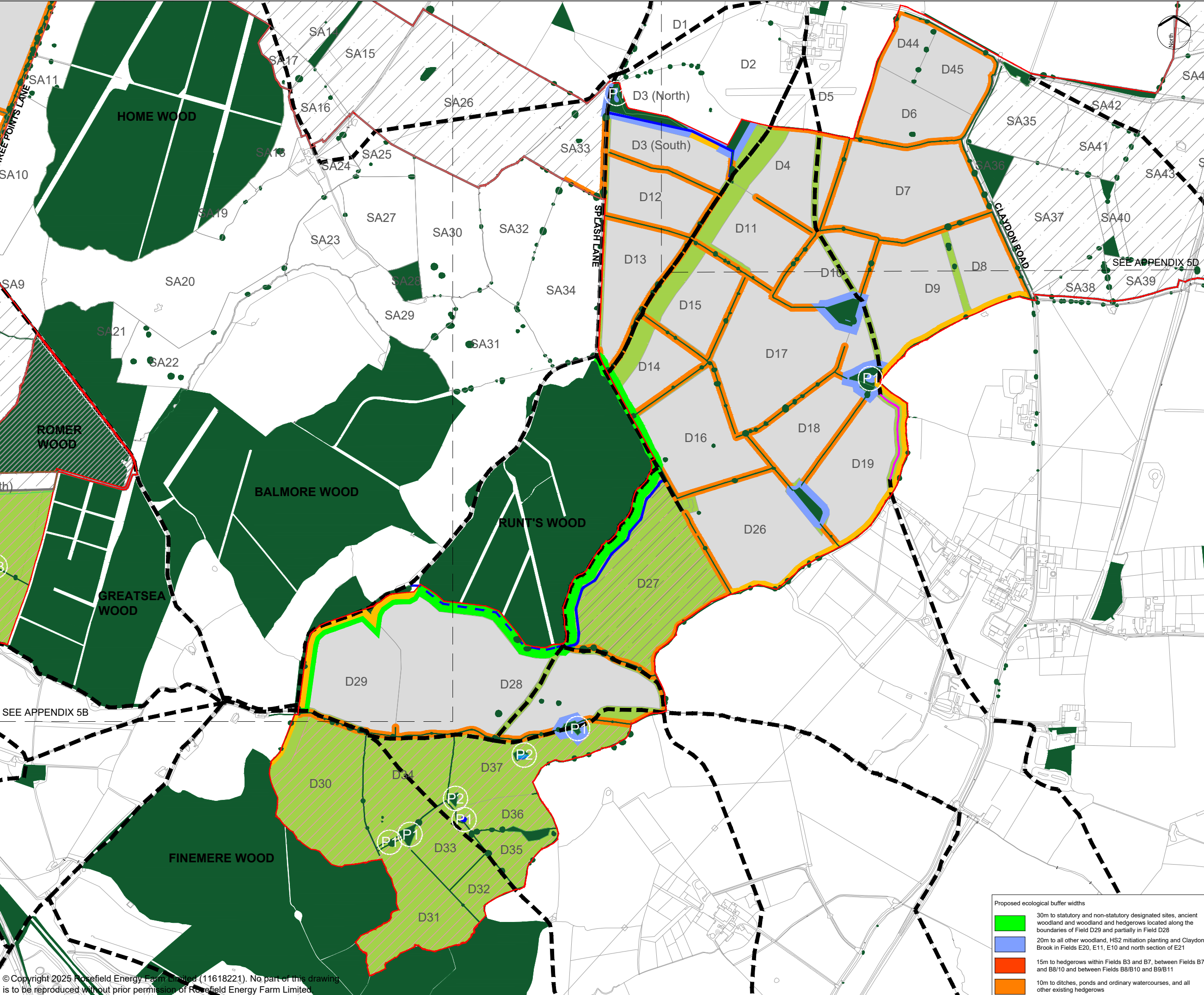
PINS REFERENCE NUMBER:

EN010158/APP/7.6.4

SCALE : 1:10,000 @ A3

REV:

02



KEY:

Order Limits

Areas outside the Order Limits

Existing landscape features

Existing vegetation (Trees and hedgerows)

Existing watercourse

Existing ponds (priority habitat)

Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement)

Proposed green and blue infrastructure

Indicative area for mitigation and/or enhancement

Indicative area for Solar PV and / or ancillary development, to include mitigation and enhancement under panels

Indicative locations for strategic early planting / vegetation management

Indicative areas for potential cattle or sheep grazing (cattle grazing preferred)

Former ponds (non-priority habitat - potential to consider recreation)

Indicative locations for proposed ecological pond

Area for underground cable routes and / or access tracks (locations to be determined)

Grid connection corridor may include above-ground infrastructure within the National Grid East Claydon Substation

Existing routes

Existing Public Right of Way

Existing permissive footpath

Indicative proposed routes

Proposed Public Right of Way Diversion

Proposed permissive path

NOTES:

1. Refer to Appendix 5A for drawing notes.

KEY PLAN:

02	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
01	MAR 2026	DEADLINE 1	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

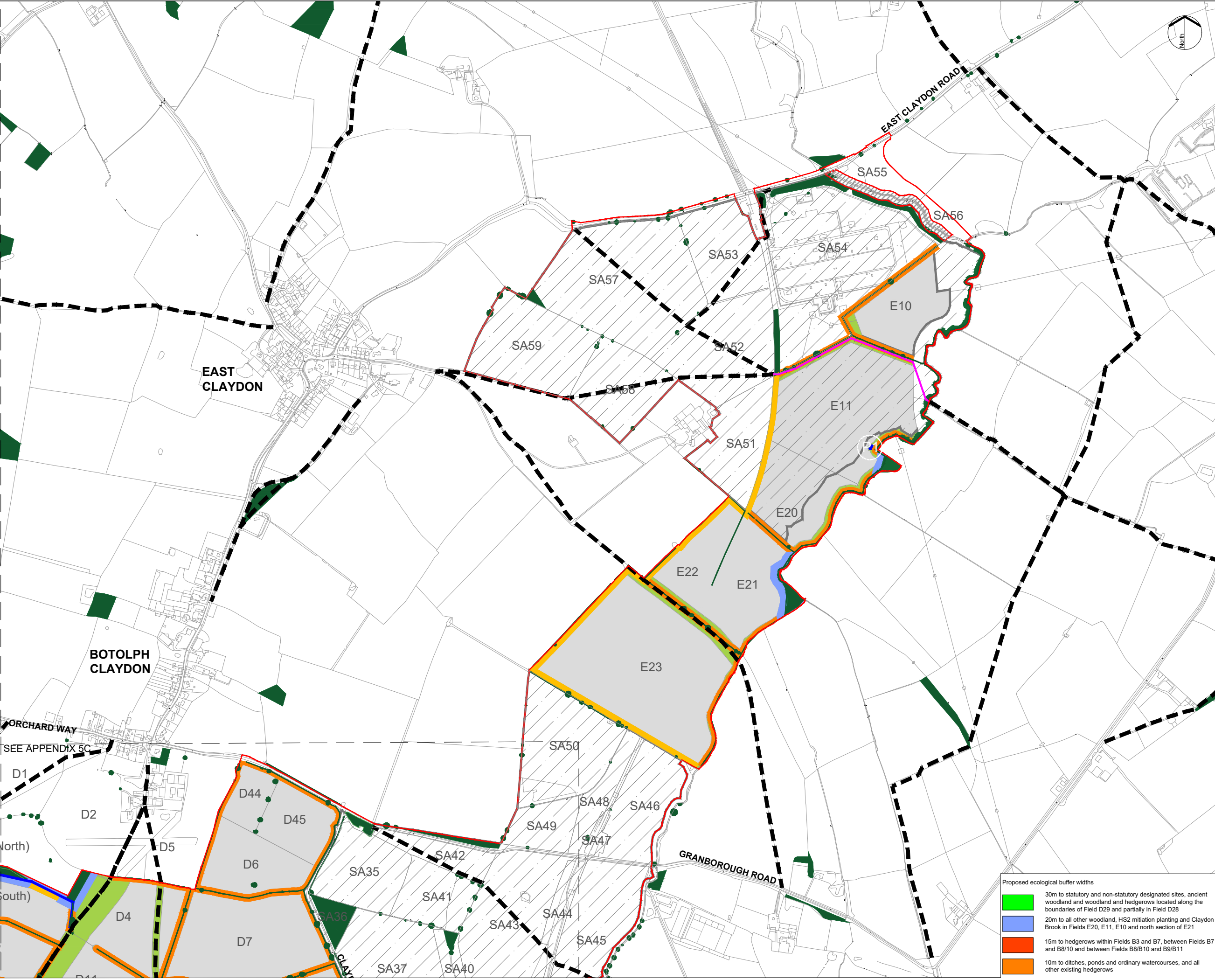
DOCUMENT:
PART 7 - ADDITIONAL PRESCRIBED INFORMATION
AND OTHER DOCUMENTS
REGULATION 5(2)(q)

TITLE:
APPENDIX 5C
GREEN AND BLUE INFRASTRUCTURE PARAMETERS -
BUFFER WIDTHS - PARCEL 2

PINS REFERENCE NUMBER:
EN010158/APP/7.6.4

SCALE : 1:10,000 @ A3

REV: 02



KEY:

- Order Limits
- Areas outside the Order Limits
- Existing landscape features
 - Existing vegetation (Trees and hedgerows)
 - Existing watercourse
- Existing ponds (priority habitat)
- Existing ponds (non-priority habitat - potential to consider restoration and/or enhancement)
- Proposed green and blue infrastructure
 - Indicative area for mitigation and/or enhancement
 - Indicative area for Solar PV and / or ancillary development, to include mitigation and enhancement under panels
 - Indicative locations for strategic early planting / vegetation management
- Former ponds (non-priority habitat - potential to consider recreation)
- Indicative locations for proposed ecological pond
- Area for underground cable routes and / or access tracks (locations to be determined) Grid connection corridor may include above-ground infrastructure within the National Grid East Claydon Substation
- Existing routes
 - Existing Public Right of Way
 - Existing permissive footpath
- Indicative proposed routes
 - Proposed Public Right of Way Diversion
 - Proposed permissive path

NOTES:

1. Refer to Appendix 5A for drawing notes.

KEY PLAN:

02	JUNE 2026	CHANGE APPLICATION	LDA	LDA	EDF
01	MAR 2026	DEADLINE 1	LDA	LDA	EDF
REV	Date	Description	Drn	Chk	App

Rosefield Solar Farm

DOCUMENT:

PART 7 - ADDITIONAL PRESCRIBED INFORMATION AND OTHER DOCUMENTS REGULATION 5(2)(g)

TITLE:

APPENDIX 5D
GREEN AND BLUE INFRASTRUCTURE PARAMETERS - BUFFER WIDTHS - PARCEL 3

PINS REFERENCE NUMBER:

EN010158/APP/7.6.4

SCALE : 1:10,000 @ A3

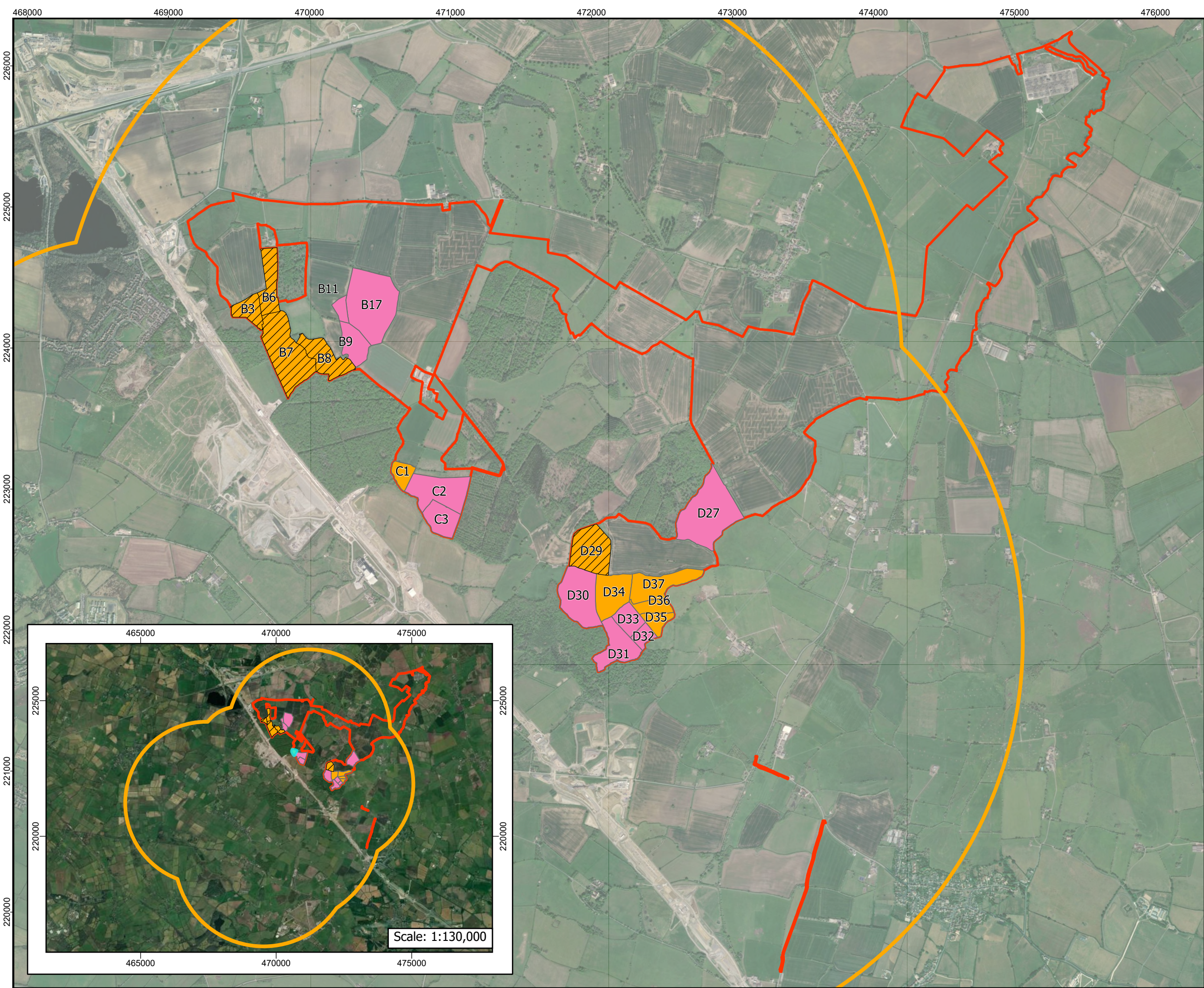
REV:

02

Appendix 6

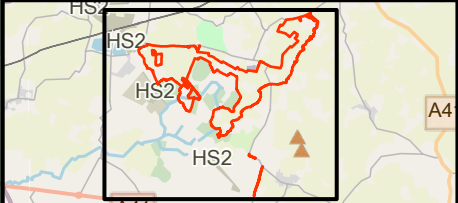
Grazing Analysis





- LEGEND:
- Order Limits
 - Currently grazed by cattle and lost to solar (34.33 ha)
 - Currently grazed by cattle and retained (22.24 ha)
 - New areas of cattle grazing (76.49 ha)
 - Bechsteins Bats Core Sustenance Zone

Coordinate System: British National Grid
Projection: Transverse Mercator
Datum: OSGB 1936 Units: Meter



02	17/04/2026	Deadline 2	RPH	RJ	PT
Rev	Date	Description	Drn	Chk	App

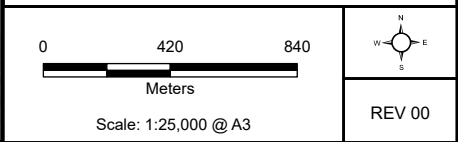
Rosefield Solar Farm



DOCUMENT: PART 7 - ADDITIONAL
PRESCRIBED INFORMATION AND OTHER
DOCUMENTS REGULATION 5(2)(q)

TITLE:
APPENDIX 6 GRAZING ANALYSIS

PINS REFERENCE NUMBER:
EN010158/APP/7.6.3





rosefieldsolarfarm.co.uk