Green Hill Solar Farm
EN010170

Outline Landscape and Ecological Management Plan
Revision ~~B~~ D (Tracked)

Prepared by: Clarkson & Woods Ltd and Lanpro

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Schedule of Changes

Revision	Section Reference	Description of Changes	Reason for Revision
A	[cover]	Updated to Revision A	As required for submission at Deadline 1.
	[throughout]	Updates to document references	As required for submission at Deadline 1.
	Section 4.4 & Section 5	Management prescriptions for existing and newly established woodland added to Section 4.4: Woodland Copses and Shelterbelts, and monitoring for non-native invasive species in woodlands added to Section 5: Ecological Monitoring.	Updated in response to RR made by the Forestry Commission.
B	[cover]	Updated to Revision B	As required for submission at Deadline 3.
	[throughout]	Updates to document references	As required for submission at Deadline 3.
	Section 4.10	New section, 4.10, created detailing the specification of FLL mitigation fields and timings for their provision.	Updated in response to comments by Natural England **[REP1-182]**
D	[cover]	Updated to Revision D	As required for submission at Deadline 5
	[throughout]	Updates to document references	As required for submission at Deadline 5
	Section 4.9	Additional text on crop rotation and skylark plots.	As required for submission at Deadline 5
	Section 4.11	Additional text on delivery of enhancements.	Updated in response to comments by MKC Council **[REP1-169]**
	Section 5	Additional text on bat monitoring and remedial measures.	Updated in response to comments by MKC Council **[REP1-169]**

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Issue Sheet

Report Prepared for: Green Hill Solar Farm

Examination – Deadline 5

Outline Landscape and Ecological Management Plan Revision D

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1 Introduction

1.1.1 This Outline Landscape and Ecological Management Plan (OLEMP) sets out a framework for the planting, management and monitoring of landscaping and ecological mitigation and enhancement habitats for the proposed Green Hill Solar Farm (hereafter referred to as the Scheme). This OLEMP concerns works which will be required during both the construction and operational phases of the Scheme.

1.1.2 This OLEMP is to be read in conjunction with the following documents:

1.1.3 Landscape and Ecology Mitigation Plans **[~~EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_B~~REP3-042, REP3-044, APP-209, ~~REP1-111~~REP3-046, APP-211, ~~EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_B~~REP3-048, REP3-050, APP-214 ~~to~~ , APP-215, ~~EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_C~~REP3-052, APP-217, REP3-054, APP-219]** – Display the locations and specifications of all habitats to be planted and managed.

1.1.4 Outline Ecological Protection and Mitigation Strategy (OEPMS) **[~~REP1-139~~EX5/GH7.5_C]** – Document setting out how valuable ecological features will be protected (e.g. through fencing or avoidance measures), and adverse impacts mitigated for (e.g. through seasonal timing of works or supervision by an Ecological Clerk of Works (~~ECoW~~EcoCoW), during the construction phase.

1.1.5 This document is supported by the following figures:

- Figure 7.4.1: Broadleaved Woodland Biodiversity Opportunity Zones (Green Hill A - E)
- Figure 7.4.2: Broadleaved Woodland Biodiversity Opportunity Zones (Green Hill BESS, F & G)
- Figure 7.4.3: Combined Biodiversity Opportunity Zones (Green Hill A - E)
- Figure 7.4.4: Combined Biodiversity Opportunity Zones (Green Hill BESS F & G)
- Figure 7.4.5: Semi-Natural Grassland Biodiversity Opportunity Zones (Green Hill A - E)
- Figure 7.4.6: Semi-Natural Grassland Biodiversity Opportunity Zones (Green Hill BESS, F & G)

1.1.6 The purpose of this OLEMP is to set out planting, management and monitoring prescriptions to be followed by, or on behalf of, the undertaker, and will be approved by the relevant planning authority pursuant to Requirement in the Development Consent Order (DCO) for the Scheme. While as much detail has been included in this OLEMP as practicable to accompany the DCO application, it is anticipated that it shall be revised and finalised following the DCO examination process and post-consent. In some cases, in this report, several options are set out in order to leave some flexibility in specification, but all achieve the same ecological goals. However, the final LEMP must be substantially in accordance with this Outline LEMP. This document sets out a general

management strategy for the Scheme which will be applied in specific areas as the design process progresses.

1.1.7 This document focuses on the nine Sites known as Green Hill A, A.2, B, C, D, E, F and G, and the Battery Energy Storage System (BESS) Site known as Green Hill BESS, as shown in the Landscape and Ecology Mitigation Plans **[EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_BREP3-042, REP3-044, APP-209, REP1-111REP3-046, APP-211, EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_BREP3-048, REP3-050, APP-214 to , APP-215, EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_CREP3-052, APP-217, REP3-054, APP-219].**

1.2 Approach to Construction and Maintenance Access Gaps at Hedgerows

1.2.1 Wherever feasible, the Scheme utilises existing access points to accommodate internal access between fields, land areas, solar panel areas, substation sites, battery storage areas and along the Cable Route Corridor. In certain locations where existing access points do not exist, some minor hedgerow works (pruning and removal) are necessary. In other locations, existing gaps may need to be widened slightly or works carried out to hedgerows adjacent to private tracks or the public highway. These minor hedgerow works: pruning and removal, widening of existing gaps, and works to hedgerows adjacent to private tracks and the public highway, are required for the passage of vehicles during the construction, maintenance and operational phases or for any apparatus used in connection with the Scheme. In addition, minor hedgerow works may be required to facilitate the proposed hedgerow enhancement works.

1.2.2 Indicative locations of these minor hedgerow works relating to access points and the Cable Route Corridor are assessed in the Crossing Schedule **[APP-562REP3-068]**. These plans show both the temporary hedgerow works (pruning or removal) required during the construction phase for accesses and for the transport of abnormal indivisible loads (AILs) and also the removals that will be in place for the full operational lifetime of the Scheme. The first five sheets of the plans show the indicative locations of hedgerow sections which will contain new hedgerow works (pruning or removal). Temporary removals are required along the Cable Route Corridor only, and these will be replanted/reinstated once the cable installation is complete. Permanent removals for the duration of the operational period of the Scheme are required for maintenance tracks (this includes some locations along the Cable Route Corridor where maintenance tracks intersect with the proposed route) and are required to facilitate ongoing maintenance access and will be required for the full lifetime of the Scheme.

1.2.3 The length of individual instances of temporary hedgerow removal required for access and the Cable Route Corridor will range between 3 and 10m in order to accommodate a maximum arrangement of the cable trench, a haul route and a passing bay.

1.2.4 The length of individual instances of permanent hedgerow removal during the operational period for the Scheme will range between 3 and 6.5m, in keeping with typical gap sizes in an agricultural setting.

1.2.5 Further details on the methodology to be followed during the hedgerow works as well as the reinstatement/replanting of temporarily affected hedgerows is contained within Section 6.3 of the OEMPS [**REP1-139**OEPMS [**EX5/GH7.5_C**].

1.2.6 The extent of these minor hedgerow works (pruning and removal) and widenings of existing gaps will be confirmed post DCO consent. No hedgerow works (pruning and removal) can take place until a detailed Landscape and Ecological Management Plan has been approved by the relevant planning authority, as secured by Requirement of Schedule 2 of the Draft Development Consent Order. All minor hedgerow works (pruning and removal) will be carried out in accordance with the final, approved version(s) of the Landscape and Ecological Management Plan.

2 Aims

2.1.1 The overarching aim of this OLEMP is to set out prescriptions for habitat creation and management in order to provide significant ecological enhancements, strengthen the green infrastructure within the local area, and to provide landscape and visual mitigation through screening of the Scheme, where necessary.

2.1.2 This document considers the habitats and species recorded within the Sites to date, as well as those identified within the surrounding area during the desk study (Chapter 9: Ecology and Biodiversity **[REP1-003033]** refers), in order to maximise the biodiversity benefits of habitats within the Sites for local wildlife. An overview of how habitats will be managed to provide targeted mitigation for protected species likely to be impacted by the Scheme, such as ground-nesting birds, is also provided within this document, alongside requirements for any planting required to mitigate for visual impacts of the Scheme.

2.1.3 Local conservation priorities have been considered within this document and will be used to steer the design and refinement of detailed habitat enhancements. Reference has been made to the Northamptonshire Biodiversity Action Plan (Ref.1), as well as policies within the North Northamptonshire Local Nature Recovery Strategy (Ref.2) and North Northamptonshire Joint Core Strategy (Ref.3). Biodiversity Opportunities Mapping (BOM) produced by Natural Capital Solutions and Northamptonshire Biodiversity Records Centre (NBRC) has also been closely considered, as described in Section 2.2 below.

2.1.4 Public amenity has also been considered when planning the location and type of habitats to establish, for example, diverse pollinator mixes which are flower rich and have a long flowering season are focussed near residential dwellings or Public Rights of Way (PRoW).

2.2 North Northamptonshire LNRS

2.2.1 The North Northamptonshire Local Nature Recovery Strategy (LNRS) was published in March 2025, which was late in the design stage of the Scheme. Nevertheless, the following broad priorities listed in the LNRS are considered to be relevant to the Scheme, and the Scheme as designed will broadly contribute to these priorities:

- 001. All developments need to improve species abundance through multifunctional benefits;
- 002. Prevent severance and reduce fragmentation of existing habitats and corridors;
- 003. Ensure all new habitats created, including those through quarry restoration, are in positive management, leading to the creation of new priority habitats;
- 004. Enhance the network through increased connectivity between habitats by using corridors in the rural and urban area;

- 005. Enhance the individual identity for each character through co-ordinated habitat creation and landscape enhancements;
- 007. Connect different habitat areas to support diverse species populations, facilitate movement and build resilience to pressures;
- 009A. Increase area of land managed for priority birds, including Lapwing and Golden Plover across suitable habitat within 10km of the Upper Nene Valley Gravel Pits;
- 009B. Within those already identified and mapped areas of suitable habitat for Lapwing and Golden Plover, the land will be principally managed to support these qualifying species for the Upper Nene Valley Gravel Pits;
- 010. Increase management of all woodlands to diversify the structure and increase species to support ecological and future climate resilience;
- 012. Increase the land area of regenerative agriculture practices and management that maintains or improves soil health, biodiversity, water quality and reduces flood risk;
- 014. Increase the tree canopy to 17% by both planting and encouraging natural regeneration. Add new trees to urban settings of streets, parks and public spaces; extend and connect existing woodlands and plant along watercourses to provide habitat, reduce urban heat islands, improve air and water quality and draw down carbon contributing towards climate change mitigation;
- 015. Enhance the network of habitats through corridor and stepping stone improvements;
- 016. Increase land managed for priority species by restoring habitats, enhancing biodiversity corridors, and supporting sustainable land management practices;
- 017. Extend existing sites and improve management for habitats and species;
- 019. Support priority species across all habitats in North Northamptonshire;
- 020. Create large grasslands managed by late haycut for Skylarks and other ground nesting birds;
- 021. Create wet grasslands with tussocky swards that hold water through the spring for breeding waders like Redshank and Snipe;
- 022. Identify and conserve existing Black Poplars and plant cuttings at suitable new sites;
- 024. Provide Barn Owl nest boxes and creation of corridors of tussocky grasslands;

- 027. Increase hedgerow planting and provide a diversity of species to improve connectivity for priority species throughout the farmed landscape to link new and existing woodlands; and
- 030. Promote Bat friendly building design, installation of bat boxes and pollinator friendly gardens and open spaces.

2.2.2 The Sites lie in the Nene Valley and Ise Valley areas. Specific LNRS Practical Actions within those areas are referenced in the relevant subsections of this OLEMP.

2.3 Biodiversity Opportunity Mapping (BOM)

2.3.1 Core Policy 4 of the North Northamptonshire Joint Core Strategy seeks to deliver a net gain in biodiversity through protection of existing assets, enhancement of ecological networks, and recovery of priority habitats. County-level Biodiversity Opportunity Mapping (BOM) has been created by Natural Capital Solutions and NBRC to show which areas and habitats in Northamptonshire are of greatest potential strategic value for enhancement in order to achieve this goal. Inclusion of land within the mapping was led by data such as Northamptonshire BAP habitat data, priority habitats inventory, and green infrastructure datasets.

2.3.2 The BOM areas are shown in **Figure series 7.4.1 – 7.4.6** with the Order Limits overlaid. Habitat creation prescriptions for areas of the Sites identified above have been prepared with the objectives of the BOM in mind, where this is reasonably practicable. Areas of the Sites which are covered by BOM objectives are identified below, along with the level of habitat creation that will be delivered within the BOM areas which is considered relevant to the objectives of the BOM, as follows:

- **Green Hill A**: Several fields in the centre of Green Hill A fall within 'Broadleaved Woodland Opportunity Zones', specifically as 'buffer' and 'stepping stone' opportunities between parcels of existing woodland. Approximately 0.38ha of woodland will be delivered within 'buffer' opportunity areas within Green Hill A.
- **Green Hill A.2**: A single field within Green Hill A.2 is identified as a potential 'stepping stone' opportunity for broadleaved woodland.
- **Green Hill B**: Northern fields within Green Hill B fall within 'Semi-Natural Grassland Opportunity Zones', as 'buffer' opportunities. Approximately 1.6ha of 'Other Neutral Grassland' will be delivered within these areas through the Scheme, as well as additional areas of 'Modified Grassland'. The same fields, and additional areas along the western boundary of the Site, are also identified as 'buffer' opportunities for broadleaved woodland. Further 'stepping stone' opportunities for woodland have also been identified within the site.
- **Green Hill C**: All fields bar one within Green Hill C are identified in BOM, comprising 'buffer' and 'stepping stone' opportunities for broadleaved woodland, within which approximately 0.39 ha of woodland will be created.

Two fields within the site have also been identified as 'buffer' and 'stepping stone' opportunities for semi-natural grassland, within which 1.98ha and 1.97ha of Other Neutral Grassland will be delivered within semi-natural grassland buffer and stepping stone areas respectively.

- **Green Hill D:** The northernmost field in Green Hill D is identified in BOM as a 'stepping stone' opportunity, with two further fields identified as 'buffer' opportunities, for broadleaved woodland in the local area. Approximately 1.26ha and 0.33ha of woodland will be created within the broadleaved woodland buffer and stepping stone areas respectively at this site.
- **Green Hill E**: Much of the north and west of Green Hill E is identified as 'buffer' opportunities for broadleaved woodland, with occasional fields within the Site classified as 'stepping stone' opportunities. Within these areas, approximately 0.95ha and 0.29ha of woodland habitat will be delivered within the buffer and stepping stone areas respectively. Fields along the western boundary of Green Hill E are also largely classified as 'buffer' opportunities for semi-natural grassland habitat, within which approximately 20.81ha and 1.1ha of Other Neutral Grassland will be delivered within the buffer and stepping stone areas respectively.
- **Green Hill BESS**: The two southern fields of Green Hill BESS are identified as 'stepping stone' opportunities for broadleaved woodland, with the northern field classified as a 'buffer' opportunity for broadleaved woodland. Approximately 1.69ha of woodland will be delivered at this site, within the woodland stepping stone areas.
- **Green Hill F**: Much of the northern and southern fields within Green Hill F is identified as 'buffer' opportunities for surrounding parcels of woodland, including those immediately adjacent the Site Boundary. A small number of additional fields were also identified as 'stepping stone' opportunities for broadleaved woodland. Within these areas, approximately 1.29 and 0.68ha of woodland will be created, within the woodland buffer and stepping stone areas respectively. A single field to the east of Green Hill F is classified as a 'stepping stone' opportunity for semi-natural grassland, within which approximately 1.59ha of Other Neutral Grassland will be delivered.
- **Green Hill G**: The northern section of Green Hill G is included within a Biodiversity Opportunity Area provided by Buckinghamshire and Milton Keynes Environmental Records Centres (BMRC), associated with Yardley Chase SSSI. This Biodiversity Opportunity Area covers approximately 2,700ha of the local landscape, and seeks to improve the connectivity between Yardley Chase SSSI and other parcels of woodland and other habitats of ecological value, including the nearby Local Wildlife Sites of Long Furlong and Old Pastures, Threeshire's Wood, Nun Wood and Lavendon Wood.

3 Key Personnel

3.1.1 The final LEMP will set out the roles and responsibilities of those involved in creating, managing and monitoring the prescriptions within this document. A suitably qualified person will be appointed to oversee the coordination of implementing the LEMP, including sourcing seed/plants, which will need to be considered at an early stage given the quantities required for a Scheme of this scale.

4 Creation and Management Prescriptions by Habitat Type

4.1.1 This section sets out the various principles and prescriptions for habitat creation and management which will drive the requirements for both landscape and ecological mitigation and enhancement which have been identified in the Environmental Statement (ES).

4.1.2 The mitigation and enhancement measures are illustrated within the relevant Landscape and Ecology Mitigation Plans **[~~EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_B~~REP3-042, REP3-044, APP-209, ~~REP1-111~~REP3-046, APP-211, ~~EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_B~~REP3-048, REP3-050, APP-214 ~~to~~ , APP-215, ~~EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_C~~REP3-052, APP-217, REP3-054, APP-219]**, as referenced throughout this document. The relevant mitigation typologies from the Landscape and Ecology Mitigation Plans to which each management prescription applies to is clearly outlined below.

4.1.3 This section should be read in conjunction with Appendix A – Outline Management Prescription Timetable, which sets out the timetable for management prescriptions, along with any seasonal restrictions on management measures, which would be adopted for the duration of the Scheme.

4.2 General Planting Implementation and Management Prescriptions

General Implementation Prescriptions

4.2.1 Planting will be undertaken in the planting season between October and March during construction, or within the first available year/season post construction. Planting will be carried out during appropriate climatic conditions.

4.2.2 Where existing ground vegetation is retained or has re-established during the construction phase, the following clearance works should be undertaken prior to planting works:

- All grass and perennial vegetation should be cleared from the area, including epicormic and below ground growth.
- All rubbish, debris and stones over 25mm diameter should be cleared.
- All arisings should be removed from the area.

4.2.3 The handling of plants on site must be in accordance with National Plant Specification 'Handling and Establishing Landscape Plants' (Ref.4).

4.2.4 All plants and planting operations are to comply with the requirements and recommendations of all current relevant British Standard specification, including but not limited to:

- BS 8545:2014. Trees: From Nursery to Independence in the Landscape.
- BS 3936-1:1992. Nursery stock. Specification for trees and shrubs.
- BS 4428:1989. Code of practice for general landscape operations (excluding hard surfaces) (AMD 6784).

- BS 5837:2012. Trees in relation to design, demolition and construction – Recommendations.
- BS 3998:2010. Tree Work – Recommendations.

4.2.5 Topsoil within planting pits should be cultivated to a minimum depth of 400mm where tree/hedgerow/woodland planting is proposed, to ensure sufficient room to accommodate new planting and to provide appropriate growing conditions for new planting.

4.2.6 Topsoil in areas to be seeded with wildflower and grass seed mixes should be cultivated using minimum tilling or direct drilling of seed straight into stubble of the previous arable crop. This retains some surface protection offered by the stubble and reduces the number of cultivator passes across the soil surface.

4.2.7 No cultivation should take place in wet/ waterlogged conditions or within the root protection areas of existing trees, as defined by BS5837:2012, on land not previously subject to arable crop production. Where drilling is required within the root protection areas of existing trees located within land not currently subject to arable production, this should include surface scarification only and of no more than 50mm depth to ensure roots are not damaged.

4.2.8 No topsoil will be imported or exported from site and no grading of the topsoil should be undertaken.

4.2.9 In the interest of biodiversity protection, the use of herbicides should be kept to a minimum in the preparation or management of the planted or seeded areas.

4.2.10 All trees and shrubs are to be planted with the appropriate biodegradable tree or shrub guards, which will be removed subject to satisfactory establishment and growth within five years post construction, or as required to ensure establishment.

4.2.11 All tree/hedgerow specimens will be native and of UK provenance. Trees will be locally sourced and of local provenance where practicable. The 'Local Seed Zone Provenance' (i.e., the region within which the Scheme lies) is Region 402 (Ref.5).

General Management Prescriptions

4.2.12 Any plants and trees which are found to be dying, damaged or diseased following planting will be replaced with the same species and specification for Years 1-5 of the Scheme, as per the timetable in Appendix A. Thereafter, replacement planting will be required for any significant failures, identified through monitoring, and the specification for replacement planting will be appropriate to the conditions on site, acknowledging the potential for conditions to change over the 60-year lifetime of the Scheme.

4.2.13 Any maintenance works such as cutting of trees or flailing, should take place during October to February, which is outside of the main bird nesting season (March to August/September), for the duration of the Scheme. These works should also be carried out when the ground is dry enough to allow machinery access.

4.2.14 All shelters, guards, rabbit spirals and stakes will be checked annually and secured or replaced where necessary. Shelters will be removed from all plants and will be disposed of off-site (subject to satisfactory establishment and growth) by Year 5 post planting.

4.2.15 Autumn sowing is preferable, with the seed sown as soon as possible subsequent to construction of the array, to avoid a flush of unwanted species such as annual plants and injurious and invasive weeds (this is also dependent on careful preparation of the land prior to seeding, as set out above). Following this, weeds and invasive non-native species will be controlled by hand pulling, if not too excessive, or treated using a spot herbicide treatment if more widespread.

4.3 Native Hedgerows and Hedgerow Trees

4.3.1 The prescriptions in this section apply to the following mitigation typologies in the Landscape and Ecology Mitigation Plans **[~~EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_B~~REP3-042, REP3-044, APP-209, ~~REP1-111~~REP3-046, APP-211, ~~EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_B~~REP3-048, REP3-050, APP-214 ~~to~~ , APP-215, ~~EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_C~~REP3-052, APP-217, REP3-054, APP-219]**:

- Existing hedge reinforced with irregularly spaced native tree planting.
- Existing hedge reinforced with densely spaced native tree planting.
- Existing hedge reinforced with densely spaced native tree planting - Instant screening.
- New native species rich hedgerow with irregular spaced native hedgerow Trees.
- Secondary hedge native species rich hedgerow with densely spaced native hedgerow Trees (Retain control of hedgerow).

4.3.2 The following LNRS Practical Actions are considered to be relevant to this section:

- 027. Increase hedgerow planting and provide a diversity of species to improve connectivity for priority species throughout the farmed landscape to link new and existing woodlands.
- 074. Enhance farmed landscapes through creating semi-natural habitats like grassland, scrub, field margins and hedgerows. This would support species such as the harvest mouse.

4.3.3 Hedgerows and Hedgerow Trees are a Habitat of Principal Importance and listed on the Northamptonshire Biodiversity Action Plan (BAP). Ancient and Veteran Trees are also recognised as irreplaceable habitats.

4.3.4 A network of native hedgerows is present across the Sites, with frequent mature, standard trees present. Hedgerows are generally intact, however gaps between hedges exist often where hedgerows are adjacent to ditches, notably at Green

Hill A. Approximately a quarter of hedgerows across the Sites are currently species-rich in composition.

4.3.5 The Scheme offers significant opportunities for tree and hedgerow planting, as well as the enhancement of existing hedgerows, in line with local conservation priorities, national targets and to mitigate minor impacts to hedgerow habitat arising from the Scheme. Strengthening the local hedgerow network will significantly enhance the area for bat species, as well as birds and invertebrates, and contribute to local green infrastructure.

4.3.6 All tree/hedgerow specimens will be native and of UK provenance. Trees will be locally sourced and of local provenance where practicable, as defined in 4.2.11.

Hedgerow Planting

4.3.7 Proposed new hedgerows will provide additional linking habitat and reinforce the existing green network. Gaps in existing hedgerows will be 'gapped up' (infilled) wherever practicable with new hedgerow and tree planting.

4.3.8 All new hedgerows and infill planting will comprise a double staggered row of plants 400mm apart within each row; overall, six plants per linear metre. Species will be mixed throughout the hedge line in random groups of three/five/seven. A 500mm wide trench will be excavated to take plants and topsoil cultivated to 450mm depth prior to application of fertiliser. All species will be planted as bare root whips.

4.3.9 Locally appropriate species will be used, based on those already found within the local area. The planting of blackthorn *Prunus spinosa* will provide habitat for rare species such as black hairstreak butterfly *Satyrium pruni*, identified as a priority species within the Northamptonshire BAP. Sensitive management of hedgerows will be key for species such as black hairstreak, as well as for a range of other species including nesting and foraging birds.

4.3.10 A list of locally appropriate species is provided below in **Table 1** (those which have frequently been identified within hedgerows across the Sites).

Table 1: Hedgerow Species for Planting Within the Scheme

Common Name	Scientific Name	Size (m)	Form
Blackthorn	*Prunus spinosa*	0.4 - 0.6	Transplant (Bare Root)
Crab apple	*Malus sylvestris*	0.4 - 0.6	Transplant (Bare Root)
Dogwood	*Cornus sanguinea*	0.4 - 0.6	Transplant (Bare Root)
Dog rose	*Rosa canina*	0.4 - 0.6	Transplant (Bare Root)
Field maple	*Acer campestre*	0.4 - 0.6	Transplant (Bare Root)
Goat willow	*Salix caprea*	0.4 - 0.6	Transplant (Bare Root)
Grey willow	*Salix cinerea*	0.4 - 0.6	Transplant (Bare Root)
Hawthorn	*Crataegus monogyna*	0.4 - 0.6	Transplant (Bare Root)
Hazel	*Corylus avellana*	0.4 - 0.6	Transplant (Bare Root)
Oak (pedunculate)	*Quercus robur*	0.4 - 0.6	Transplant (Bare Root)

Common Name	Scientific Name	Size (m)	Form
Privet (wild)	*Ligustrum vulgare*	0.4 - 0.6	Transplant (Bare Root)
Purging buckthorn	*Rhamnus cathartica*	0.4 - 0.6	Transplant (Bare Root)
Wych elm	*Ulmus glabra*	0.4 - 0.6	Transplant (Bare Root)

4.3.11 The planting of new hedgerows adjacent to existing ones would provide a wildlife corridor and contribute to the green infrastructure policies in the local area. These 'green lanes' would likely provide important commuting routes and foraging resources for bats, birds and invertebrates. The mitigation typology 'Secondary hedge native species rich hedgerow with densely spaced native hedgerow trees', comprising the planting of a new hedgerow adjacent to an existing hedgerow, will effectively create these 'green lane' features. This mitigation type is proposed across all Green Hill Sites.

4.3.12 A total length of 15.5 linear km of new hedgerow is proposed within the Scheme. This comprises:

- 9.06 linear km of New Hedgerow with irregularly spaced trees; and
- 6.55 linear km of New Secondary Hedgerow.

4.3.13 A total length of 35.24 linear km of Existing Hedgerows will be reinforced. This comprises:

- 12.84 linear km of Existing hedge reinforced with irregularly spaced native tree planting;
- 20.94 linear km of Existing hedge reinforced with densely spaced native tree planting; and
- 1.46 of linear km Existing hedge reinforced with densely spaced native tree planting - Instant screening.

Hedgerow Management

4.3.14 Whilst most hedgerows are currently in 'Moderate' or 'Good' condition when considering the Biodiversity Net Gain Condition Assessment criteria (Chapter 9: Ecology and Biodiversity **[REP1-033]** refers), poor management of hedgerows was often noted during baseline ecological surveys in the form of over-management, lack of management, damage due to narrow field margins or drift of herbicides/pesticides. This OLEMP sets out appropriate management practices for hedgerows within the Scheme, with a focus on optimising this habitat for local wildlife.

4.3.15 Newly planted hedgerows should be regularly watered in their first summer and weeds should be controlled through the use of bark mulch. A 75mm layer of bark mulch 0.5m either side of new hedges will be spread along the length of the hedge immediately after planting to suppress weeds and retain soil moisture.

4.3.16 Newly planted hedgerows should be trimmed in at least the first two years to encourage bushy growth, allowing the hedge to become taller and wider at each cut.

4.3.17 Hedgerows will be enhanced through less regular mechanical cutting, for example, every two-three years, and on rotation (either by rotating hedgerows or cutting each side of the hedgerow on rotation). This will benefit species such as black hairstreak, which lay their eggs on the bark of young growth (two-three years) on mature blackthorn specimens.

4.3.18 Cutting must take place outside the bird nesting season, and a window of October-February is specified. Ideally, cutting will take place in January/February (where the ground is dry enough to allow machinery access), to ensure that food sources for birds, such as nuts and berries, remain in the hedgerows over the winter months. This may be focussed on hedgerows adjacent to roads and tracks where a tractor will be able to access in wet conditions without damaging the ground.

4.3.19 The shrubby element of hedgerows (excluding hedgerow trees) will be maintained to an optimum height of 4- 4.5m tall.

Hedgerow Tree Planting

4.3.20 All newly planted hedgerows will include Select Standard trees randomly spaced between 5-9 m centres. On occasions where visual receptors are likely to see visual effects in close proximity, denser tree planting of between 2-3m centres will be adopted to provide more instant screening effects. Where this occurs, species will be appropriately mixed to ensure large species trees are intermittently mixed with smaller species trees to ensure suitable growing conditions in perpetuity.

4.3.21 All hedgerow trees will be planted as Select Standard trees between 1.75m-3.5m tall. Select Standard trees will be planted in pits 800mm deep x 800mm wide x 700mm deep or dimensions of the root ball, whichever is greater.

4.3.22 All trees should be planted with a 75mm depth of bark mulch, 0.5m in diameter around each tree/shrub to suppress weeds and retain soil moisture.

4.3.23 Any trees planted in or alongside hedgerows as part of the proposed hedgerow enhancements, are to be planted with a 1.5m tall white tipped marker post. This will allow locations of newly planted trees to be noticeable to operators of flails during maintenance periods.

4.3.24 Planting will focus on long-lived trees in order to replace the many ash *Fraxinus excelsior* trees noted to be present within the hedgerow network, the majority of which can be expected to be lost in the coming years due to ash dieback.

4.3.25 The tree species selected will reflect the species identified within the Sites to ensure they are locally appropriate and may include species identified within the Northamptonshire BAP, such as lime *Tilia europaea* and black poplar *Populus nigra*.

4.3.26 Tree planting locations will require an appropriate offset from solar panels to ensure shading will not occur once the tree has matured, or leaf fall become a problem on the panel structures. Lower growing species will be planted adjacent to the proposed solar array to avoid overshadowing.

4.3.27 It may be desirable to plant trees not identified in the local area which are ecologically similar to ash or are resistant to both disease and climate change impacts. A list of locally appropriate and resistant trees is given in **Table 2** below.

Table 2: Hedgerow Tree Species for Planting Within the Scheme

Common Name	Scientific Name	Size (m)	Form
Bird Cherry	*Prunus padus*	2.5 - 3	Light Standard (Bare Root/Rootball)
Crab Apple	*Malus sylvestris*	2.5 - 3	Light Standard (Bare Root/Rootball)
Field maple	*Acer campestre*	2.5 - 3	Light Standard (Bare Root/Rootball)
Hawthorn	*Crataegus monogyna*	1.75 -2	Feathered Tree (Bare Root/Rootball)
Oak (pedunculate)	*Quercus robur*	2.5 - 3	Light Standard (Bare Root/Rootball)

Hedgerow Tree Management

4.3.28 An inspection and formative prune of all new hedgerow trees will be carried out annually in Years 1-5 of the Scheme, as per the timetable in Appendix A, in accordance with good arboricultural practice to BS 3998:2010. A clear stem of up to 2m will be maintained for all hedgerow trees in order to be distinguishable.

4.3.29 All trees and shrubs will be regularly watered in the first summer and thereafter as required to ensure successful establishment. Bark mulch is to be maintained at a depth of 75mm, 0.5m in diameter around each tree/shrub as required to suppress weeds and retain soil moisture.

4.4 Woodland Copses and Shelterbelts

4.4.1 The prescriptions in this section apply to the following mitigation typologies in the Landscape and Ecology Mitigation Plans **[~~EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_B~~REP3-042, REP3-044, APP-209, ~~REP1-111~~REP3-046, APP-211, ~~EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_B~~REP3-048, REP3-050, APP-214 ~~to~~**

, APP-215, ~~EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_C~~REP3-052, APP-217, REP3-054, APP-219]:

- Native Woodland Copse/ Shelter Belt (Shrub and Tree Planting);
- Dense linear native tree planting (Without shrub planting e.g. adjacent to existing hedgerows or shrub planting); and
- Native tree and shrub planting - Instant screening.

4.4.2 The following Nene and Ise Valley LNRS Woodland Practical Actions are considered to be relevant to this section:

- 046. Target woodland creation in optimum locations that connect ancient and priority woodlands. This would support species such as the Woodcock and an assemblage of woodland bat species;
- 047. Enhance resilience of new and existing woodland through the creation of diverse, mixed species stands using tree species best suited to individual site characteristics, and future climate projections;
- 064. Buffer and connect ancient and priority habitat woodlands to reduce fragmentation and create wildlife corridors. This would support species such as the Woodcock and an assemblage of Woodland Bats;
- 087. Create more transitional environments around and between woodlands to support diverse wildlife species such as the Nightingale; and
- 103. Create riparian buffers along watercourses to minimise flooding in the catchment.

4.4.3 Tree planting will largely target planting within the hedgerow network, but planting of copses and shelterbelts have also been incorporated into the proposals. Small copses and shelter belts can provide ‘stepping stones’ between larger areas of woodland, reflecting the aims of the BOM for the area. Copses and shelterbelts comprising native species have been included at Green Hill D, E, BESS, F and G, with extensive shelterbelts which will contribute to existing woodland blocks around Green Hill BESS. Native tree and shrub planting for instant screening purposes have been included at Green Hill A.

4.4.4 Shelter belts are typically 10-15m wide and comprise mixed native tree planting. Species to be included are indicated in **Table 3** below.

4.4.5 The tree species selected will reflect the species identified within the Sites to ensure they are locally appropriate. Tree planting locations will require an appropriate offset from solar panels to ensure shading will not occur once the tree has matured, and to ensure leaf fall on the panel structures does not present an issue. Lower growing species will be planted adjacent to the proposed solar array to avoid overshadowing, details of which will be provided in Detailed Landscape Proposal plans which would be prepared prior to the construction of the Scheme. Detailed Landscape Proposals plans would include detailed planting specification and schedules as well as locations of all proposed planting.

4.4.6 A total area of 14.4 ha of woodland is proposed across the Scheme. This comprises:

- 13.2ha of Native Woodland Copse/ Shelter Belt (Shrub and Tree Planting); and
- 1.2ha of Native Tree and Scrub Planting - Instant Screening.

4.4.7 An additional 7.88 linear km of Dense linear native tree planting (Without shrub planting e.g. adjacent to existing hedgerows or shrub planting) is also proposed.

Woodland and Shelterbelt Planting

4.4.8 Trees within woodland copses and shelterbelts will be planted at 1m centres. Plant species will be a planted as a mix of sizes from 60-90cm Transplants, 125-150cm Whips and 200-250cm Feathered trees. Tree species will be planted in groups of one, three, five or seven (of the same species) to reinforce a natural layout of species within the landscape.

4.4.9 Trees will be planted appropriately depending on size. Trees will be planted as Whips, Transplants and Feathered specimens in pits approximately 300mm deep x 300mm wide x 400mm deep, or the dimensions of the root ball, whichever is greater.

4.4.10 All trees should be planted with a 75mm depth of bark mulch, 0.5m in diameter around each tree/shrub to suppress weeds and retain soil moisture.

4.4.11 Planting will focus on long-lived trees in order to replace the frequent ash trees noted to be present within the hedgerow network, the majority of which can be expected to be lost in the next five years due to ash dieback.

4.4.12 It may be desirable to plant trees not identified in the local area which are ecologically similar to ash or are resistant to both disease and climate change impacts. A list of locally appropriate and resistant trees is provided in **Table 3** below.

Table 3: Woodland Tree Species for Planting Within the Scheme

Common Name	Scientific Name	Size (m)	Form
Bird Cherry	*Prunus padus*	1.25 - 1.5	Whip (Bare Root/Rootball)
Black poplar	*Populus nigra*	2 - 2.5	Feathered (Bare Root)
Crab Apple	*Malus sylvestris*	1.25 -1.5	Whip (Bare Root/Rootball)
Dogwood	*Cornus sanguinea*	0.6 - 0.8	Transplant (Bare Root)
Dog rose	*Rosa canina*	0.6 - 0.8	Transplant (Bare Root)
Field maple	*Acer campestre*	2 - 2.5	Feathered (Bare Root)
Hawthorn	*Crataegus monogyna*	1.25 - 1.5	Whip (Bare Root/Rootball)
Hazel	*Corylus avellana*	0.6 - 0.8	Transplant (Bare Root)
Oak (pedunculate)	*Quercus robur*	2 - 2.5	Feathered (Bare Root)
Privet (wild)	*Ligustrum vulgare*	0.6 - 0.8	Transplant (Bare Root)
Small-leaved lime	*Tilia cordata*	1.25 - 1.5	Feathered (Bare Root)
Wych elm	*Ulmus glabra*	1.25 - 1.5	Feathered (Bare Root)

4.4.13 Local priority species should be included within proposed new planting, in appropriate locations, such as native black poplar, plus small-leaved lime to target lime-bark beetle. Local genetic stock is to be sourced where available ensuring that they are not hybridised and a mixture of male and female plants would be planted. Seed fall would be monitored and self-sown specimens that may negatively impact the solar panels or adjacent land would be removed.

4.4.14 All trees and shrubs will be regularly watered in the first summer and as required thereafter to ensure successful establishment. Bark mulch will be maintained at a depth of 75mm, 0.5m in diameter around each tree/shrub as required to suppress weeds and retain soil moisture.

4.4.15 Hand pulling of persistent weeds will be undertaken or treated using a spot herbicide where weeds are more widespread.

Woodland and Shelterbelt Management

4.4.16 This section details prescriptions for the management of existing retained woodlands, as well as newly created woodland areas following their successful establishment. New woodlands are considered established once trees have an average height of 1.5m and a minimum 80% survival rate (typically Year 5-10).

4.4.17 The primary aim of woodland management is to maximise their value for biodiversity whilst providing effective visual screening, where required. Prescriptions focus on increasing the variation in canopy height, age and structure, in order to provide a diverse range of opportunities for plants, invertebrates and other wildlife.

4.4.18 Selectively removing trees within dense stands or those lacking structural diversity may be undertaken to thin the canopy and increase the availability of sunlight for ground flora within the woodland. Non-native species or those exhibiting poor form would be prioritised for removal. Where selective thinning is undertaken, this will be in consultation with the ECoWEcoCoW to ensure that trees containing features suitable for roosting bats are fully assessed and the potential impacts of woodland management on other protected/notable species are considered. Tree removal will also be conducted outside of the nesting bird season (March – August/September inclusive). The requirement for cyclical thinning will be assessed every 10-15 years throughout the 60-year operational lifespan of the Scheme, commencing in Year 5.

4.4.19 Where selective thinning or other tree removal is conducted, log piles will be created from the timber to create sheltering and hibernation features for amphibians, reptiles and invertebrates. Log piles would be created in areas of suitable habitat outside of the array security fencing (such as in the grassland margins or at hedgerow bases), and ideally in close proximity to other suitable

habitat, such as ponds or areas of dense scrub. Log piles will measure a minimum of 2m x 2m.

4.4.20 The retention of standing deadwood habitats is crucial for cavity-nesting birds, whilst both standing deadwood and creation of deadwood piles may benefit saproxylic invertebrates and fungi. The retention of standing deadwood will be favoured where this does not pose an unacceptable health and safety risk or risk damage to the solar panels or other infrastructure within the Scheme. The integrity of all retained standing deadwood would be subject to a safety review by a suitably qualified arboriculturist every 5 years through the operational phase of the Scheme.

4.4.21 The woodlands will be inspected for non-native invasive woody species such as Japanese knotweed *Reynoutria japonica*, Rhododendron *Rhododendrum ponticum* or cherry laurel *Prunus paurocerasus,* at the onset of ecological monitoring post-construction. Where found, dense stands of these woody invasive species which suppress native woodland regeneration and ground flora will be prioritised for phased removal. Control of these species will primarily comprise cutting followed by a targeted herbicide treatment by a certified contractor, although other measures may be conducted as recommended by the contractor. Extreme care must be taken to avoid herbicide application to non-target native species. Invasive species treatment and removal will typically be conducted in late autumn/winter to avoid impacts to nesting birds.

4.4.22 All arisings will be removed from the Site and disposed of in accordance with controlled waste regulations (where relevant), such as the Environmental Protection Act 1990.

4.4.23 Monitoring for invasive species will be conducted in accordance with the ecological monitoring strategy outlined in Section 5 of this document, or otherwise more regularly if recommended by a specialist contractor.

4.5 Scattered Trees with Native Shrub

4.5.1 The prescriptions in this section apply to the following mitigation typologies in the Landscape and Ecology Mitigation Plans **[~~EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_B~~REP3-042, REP3-044, APP-209, ~~REP1-111~~REP3-046, APP-211, ~~EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_B~~REP3-048, REP3-050, APP-214 ~~to~~ , APP-215, ~~EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_C~~REP3-052, APP-217, REP3-054, APP-219]**:

- River Corridor Planting - Ecology. Majority ground cover with scattered shrubs and isolated trees;
- River Corridor Planting - Flooding. Densely planted native riparian shrub planting (No tall species);
- River Corridor Planting - Instant Screening. Densely planted native riparian tree and shrub planting;

- Native shrub planting with scattered trees; and
- Low Density Scrub.

4.5.2 The following LNRS Practical Actions are considered to be relevant to this section:

- 074. Enhance farmed landscapes through creating semi-natural habitats like grassland, scrub, field margins and hedgerows. This would support species such as the Harvest Mouse;
- 099. Create and improve habitat along water courses to help reduce the inflow of surface water carrying nutrient and sediment pollutants whilst also acting as wildlife corridors; and
- 105. Review existing pattern of coverts and linear planting along watercourses and encourage new tree planting around these areas.

4.5.3 Bands of scattered trees with lower canopy shrub planting are also proposed throughout Green Hill A, A.2, C, D, E, BESS, F and G. This planting typology has been specified along watercourses and to provide additional vegetative layering within the landscape. The mix of shrub and scattered tree planting is to provide effective screening of up to 3-12m without compromising the open aspects of particular views.

4.5.4 The tree species selected will reflect the species identified within the Sites to ensure they are locally appropriate. Tree planting locations will require an appropriate offset from solar panels to ensure shading will not occur once the tree has matured, or leaf fall become a problem on the panel structures.

4.5.5 An area of 23.64ha of scrub habitat will be established across the Sites, with wide strips of River corridor planting along watercourses at Green Hill Site C, E and F; areas of Native Scrub and Scattered Trees at Green Hill A.2, C, D, BESS and F; and areas of Low Density Scrub at Sites A and E. This comprises:

- 5.63ha of River Corridor Planting – Ecology.
- 5.68ha of River Corridor Planting – Flooding.
- 1.54ha of Proposed River Corridor Planting for Instant Screening.
- 2.61ha of Native Scrub and Scattered Trees.
- 8.18ha of Low Density Scrub.

Scattered Trees with Native Shrub Planting

4.5.6 Shrub planting will be planted at 1m centres (in the case of typologies with densely planted shrub planting) or 10-15m centres (in the case of typologies with scattered/low density shrub planting) to form a dense lower canopy. Scattered trees will be planted at 5-15m centres. All tree and native shrub species will be planted in groups of one, three, five and seven (of the same species) to reinforce a natural layout of species within the landscape.

4.5.7 Plant species will be planted as a mix of sizes from 60-90cm Transplants, 125-150cm Whips and 200-250cm Feathered trees.

4.5.8 Trees will be planted appropriately depending on size. Trees will be planted as Whips, Transplants and Feathered specimens in pits approximately 300mm deep x 300mm wide x 400mm deep, or the dimensions of the root ball, whichever is greater.

4.5.9 All trees should be planted with a 75mm depth of bark mulch, 0.5m in diameter around each tree/shrub to suppress weeds and retain soil moisture.

4.5.10 A list of locally appropriate species is given below in **Table 4** (those which have been identified within the Sites).

Table 4: Tree Species for Planting Within the Scheme

Common Name	Scientific Name	Size (m)	Form
Scattered Trees			
Black poplar	*Populus nigra*	2 - 2.5	Feathered (Bare Root)
Field maple	*Acer campestre*	2 - 2.5	Feathered (Bare Root)
Oak (pedunculate)	*Quercus robur*	2 - 2.5	Feathered (Bare Root)
Wych elm	*Ulmus glabra*	1.25 - 1.5	Feathered (Bare Root)
Small-leaved lime	*Tilia cordata*	1.25 - 1.5	Feathered (Bare Root)
Understorey Shrub/Trees			
Blackthorn	*Prunus spinosa*	0.4 - 0.6	Transplant (Bare Root)
Crab apple	*Malus sylvestris*	0.4 - 0.6	Transplant (Bare Root)
Dogwood	*Cornus sanguinea*	0.4 - 0.6	Transplant (Bare Root)
Dog rose	*Rosa canina*	0.4 - 0.6	Transplant (Bare Root)
Field maple	*Acer campestre*	0.4 - 0.6	Transplant (Bare Root)
Goat willow	*Salix caprea*	0.4 - 0.6	Transplant (Bare Root)
Grey willow	*Salix cinerea*	0.4 - 0.6	Transplant (Bare Root)
Hawthorn	*Crataegus monogyna*	0.4 - 0.6	Transplant (Bare Root)
Hazel	*Corylus avellana*	0.4 - 0.6	Transplant (Bare Root)
Privet (wild)	*Ligustrum vulgare*	0.4 - 0.6	Transplant (Bare Root)
Wych elm	*Ulmus glabra*	0.4 - 0.6	Transplant (Bare Root)

Scattered Trees with Native Shrub Management

4.5.11 Due to the naturalised appearance of the shrub and scattered trees, this particular planting typology will require little maintenance once established.

4.5.12 All trees and shrubs will be regularly watered in the first summer and as required thereafter to ensure successful establishment. Bark mulch will be maintained at a depth of 75mm, 0.5m in diameter around each tree/shrub as required to suppress weeds and retain soil moisture.

4.5.13 Hand pulling of persistent weeds will be undertaken if they are not too excessive, or they will be treated using a spot herbicide treatment if more widespread.

Buffer around Ditches/Rivers

4.5.14 Rivers are a Habitat of Principal Importance, and are also listed as a priority habitat within the Northamptonshire BAP.

4.5.15 Generally, the quality of ditches across the Sites is poor, likely due to agricultural impacts such as runoff. The cessation of intensive agricultural land use in proximity to these watercourses will likely lead to better water quality over the duration of the Scheme. In addition, wide buffers of at least 8m (and up to 30m) will enhance the ditch and river habitats for associated protected and notable species, including water vole, otter, birds and invertebrates.

4.5.16 Habitats adjacent watercourses will be managed to enhance the structural and species diversity of marginal vegetation. This may be achieved through a combination of seeding and rotational cutting, as described in Section 4.5 'Scattered Trees with Native Shrub', and targeted scrub removal where encroachment is detrimental to ditch condition.

4.5.17 Ditch management will be carefully considered, with works being undertaken on a rotational basis so that undisturbed areas remain annually. Ditch management can be carried out every two to five years, with cutting being undertaken in autumn/winter and only one side of the bank cut each time.

4.5.18 Planting of trees will also be undertaken adjacent to ditches and rivers, as detailed in Section 4.5, with sufficient distance from the ditch to prevent damage, and on the northern side where practicable to prevent shading impacts.

4.6 Permanent Grassland Habitat

4.6.1 The prescriptions in this section apply to the following mitigation typologies in the Landscape and Ecology Mitigation Plans **[~~EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_B~~REP3-042, REP3-044, APP-209, ~~REP1-111~~REP3-046, APP-211, ~~EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_B~~REP3-048, REP3-050, APP-214 ~~to~~ , APP-215, ~~EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_C~~REP3-052, APP-217, REP3-054, APP-219]**:

- Existing vegetation to be retained and enhanced.
- Proposed Diverse Meadow Creation (Beneath Panels).
- Tussock Grassland Margins.

4.6.2 The following Nene and Ise Valley LNRS Grassland and Farmland Practical Actions are considered to be relevant to this section:

- 074. Enhance farmed landscapes through creating semi-natural habitats like grassland, scrub, field margins and hedgerows. This would support species such as the Harvest Mouse.
- 91. Promote and support the delivery of soil conservation practices that enhance fertility, reduce soil erosion, and increase carbon sequestration.

4.6.3 Tussocky and flower-rich grassland buffers represent locally appropriate habitat types, as arable field margins were noted across the Sites at baseline and are in keeping with the character of the local landscape. Diversification of grassland management maximises the available niches for invertebrates to lay eggs, overwinter and forage and in turn drives opportunities for diversification up the food chain.

4.6.4 Conservation management of grassland will be applied throughout all grassland habitats within the Scheme (i.e., no management during the flowering season), and differing seed mixes and creation prescriptions have been specified between different habitat types, adjacent buffer zones, as well as the array footprint.

4.6.5 The widening of existing arable field margins and the creation of additional, larger ecological buffer zones will have the beneficial effect of enhancing neighbouring features, such as hedgerows, ditches and woodland edges. This in turn will contribute to the connectivity of habitats within the Scheme and within the neighbouring landscape, a key tenet of the National Planning Policy Framework, NPS (EN1, EN3 and EN5) and local planning policy.

4.6.6 It has been assumed within this Outline LEMP that any grassland creation on previously arable land would require seeding given that the land has been under agricultural production for many years. However, Plantlife suggest that natural regeneration is preferable in order to maintain a local genestock and distinctiveness (Ref.6). There may be opportunities to use a local donor site to provide green hay. For example, Walgrave East Meadow LWS lies within 0.55km of Green Hill A; Hardwick Lodge Meadow SSSI lies within ~2km of Green Hill C and D; and Bozeat Meadow SSSI lies within 0.1km of Green Hill F. Opportunities for green hay donor sites will be explored prior to the preparation of the detailed LEMP.

4.6.7 Where the above is not practicable, wildflower and grass seed will be required. Given the size of the Scheme, it is likely that a large proportion of seed will need to be purchased from outside the local area. Whilst this is acceptable it is important that seed is sourced as locally as practicable and as a minimum will be native to the UK and UK sourced.

4.6.8 The following principles will be used when considering seeding:

- If there is evidence that the land was previously grassland (as opposed to arable cropland) or there is a diverse grassland habitat nearby, soil inversion and natural regeneration will be considered in the first instance.
- Where practicable, local donor sites will be used to source seed.

- Where seed requires purchase from a supplier, the source will be as local as practicable (e.g., Habitat Aid gives details of their donor sites).
- Seed will be native to the UK and the supplier will have adopted the Flora Locale code of practice (Ref.7) (unless otherwise specified in the LEMP).

4.6.9 It will be important to gain an understanding of soil conditions prior to any seeding being carried out – this will include an assessment of soil type and pH, as well as nutrient levels which may affect the species that will establish. Consequently, the information in this outline LEMP may be subject to revision following completion of such investigations, which would further tailor and refine the appropriate seed mixes and habitat establishment techniques to be adopted.

Diverse Meadow

Creation and Early Establishment

4.6.10 The Sites are generally arable in character, with cropped fields comprising the majority of habitat area. Arable fields within the Sites are typically intensively farmed monocultures; whilst the exact management practices are not known, it is likely that these fields receive periodic fertiliser and pesticide treatments with soils ploughed on a regular basis.

4.6.11 The arable fields across all Sites are therefore generally botanically poor and contain little ecological interest, save for their value to a relatively small number of ground-nesting bird species and arable specialists including hunting raptors (several of which are notable species of conservation concern) and brown hare.

4.6.12 Considerable opportunities for the enhancement of these fields' ecological value, whilst being compatible with a solar array and usable by hunting raptors and mammals such as brown hare, are possible. Reversion from intensive agriculture to low (or no) input (fertiliser and soil improvers) grassland alone would be expected to provide a modest net gain in plant and invertebrate species diversity over time. The establishment of meadows within a predominately arable landscape will drive the diversification of local habitats toward that of historical land use patterns where agriculture in the region was characterised by a mix of arable and pasture farming, which supported a greater abundance of wildlife.

4.6.13 Habitat areas within the security fencing will be targeted for grassland creation of varying diversity.

4.6.14 It has been shown that diverse grassland can be created within a solar array, where managed appropriately (Ref.8). This can have a significant benefit to biodiversity but can also benefit surrounding agricultural land through offering an increase in pollinator species. Other benefits in terms of ecosystem services include an increase in water quality as a result of the cessation of fertilisation and herbicide spraying as well as an increase in soil health as a result of the cessation of ploughing.

4.6.15 Lowland meadows are a Habitat of Principal Importance under the Natural Environment and Rural Communities Act 2006 and are a Northamptonshire BAP priority.

4.6.16 Diverse grassland can take time to develop on previously arable land which has been fertilised and ploughed. However, with an appropriate seed mix selected and correct habitat management implemented, wildflower meadows have been created on many solar farms in the UK (Ref.9). The preparation of the fields before reversion to grassland will be key and must aim to minimise the impact of competition between desirable, sown species and unsown agricultural weeds and cereals (Ref.9).

4.6.17 Prior to finalisation of the detailed LEMP, soil investigations will be essential to ensure appropriateness of seed mix/establishment techniques and promote a high likelihood of success. The seed mix will be selected to reflect the soil type, pH and nutrient levels in order to ensure that they establish successfully. A mix such as Habitat Aid's Solar Farm Wildflower Meadow Seed Mix (Ref.10) would be appropriate as it contains a diversity of native wildflowers and non-vigorous grasses.

4.6.18 Autumn sowing is preferable, with the seed sown as soon as practicable after construction of the array to avoid a flush of unwanted species such as annual plants and injurious weeds (as well as careful preparation of the land prior to seeding, as set out above).

4.6.19 Where existing grassland exist, the fields will be scarified to create at least 50% bare ground, then seeded with suitable mix. A number of existing grasslands will be enhanced following the measures set up in this section.

4.6.20 Management during the first year is critical, with more regular cutting taking place to tackle annual or agricultural plants and injurious weeds. Herbicide application may be necessary should there be an abundance of injurious weeds.

Long-term Management

4.6.21 After Year 1, management would either be in the form of a late season "haycut" between late July and September or grazing by sheep. Grazing post-cutting is also possible (aftermath grazing). The fields would be "shut up", with no grazing or cutting between April and late July to allow the flowering species to grow, flower and set seed.

Cutting

4.6.22 As well as array fields, on-site mitigation for ground-nesting bird species, such as skylark, will also comprise the creation of meadow grassland. Such fields designated for skylark mitigation will not be subject to grazing during the breeding season as this would inhibit nesting, and therefore will be managed via cutting.

4.6.23 Management by cutting would entail a late season "haycut" between August and September. No cutting will take place between April and July, to allow the flowering species to grow, flower and set seed.

4.6.24 Where practicable, cutting will be carried out using a cut-and-collect system to minimise nutrient build up in the soil which stifles species diversity. It will be necessary to balance the requirement for a late cut to allow plants to flower and set seed and ensuring that the cut is not taken so late that too much dead material

is present, rendering the baled material unsuitable for agricultural applications. Careful monitoring and selection of seed mixes will be required in order to achieve both a diverse meadow and a use for the arisings collected. Alternatively, there may be an opportunity to use the cuttings within local composting sites such as anaerobic digesters or open-air windrows. Grazing post-cutting is also possible (aftermath grazing).

4.6.25 An alternative to use of arisings for feedstock or composting is to use hay collected from the established meadow as a source of seed for other sites in the vicinity. However, this would be more appropriate where the meadow has been established using local seed, which will be defined in the LEMP, to be completed as a Requirement under the DCO substantially in accordance with this OLEMP.

4.6.26 Cutting or mowing can be carried out relatively quickly and cost-effectively, particularly with single axis tracker panels (although the type of panel to be implemented in the Scheme is not currently confirmed), which can be moved so that they are vertical to allow machinery to access between panel rows.

4.6.27 Where grassland becomes too long and shading of panels is a problem, a ‘shade cut’ may be taken along the leading edge of the panels (i.e., a strip no more than 1m wide) in order to reduce the sward height during the late summer months (as shown in **Figure 1** below). However, careful selection of an appropriate seed mix may reduce the necessity of this type of management.

Figure 1: Sites where a "Shade Cut" has been employed during the growing season to prevent shading of panels, but allow flowering meadow elsewhere

Grazing

4.6.28 Low intensity grazing throughout the year may be employed, with a low enough stocking density to ensure a varied sward establishes, however, this type of management will need to be carefully monitored as it can lead to a lower number of flowering species, given that sheep will preferentially graze flowers. However, a diverse grassland can still develop under this management, which will benefit birds and invertebrates.

4.6.29 Pulse grazing with sheep at higher densities for shorter periods of time may be possible as an alternative management strategy. Under this method, sheep would graze discrete parts of the Sites, i.e., individual fields or portions of fields (electric fencing can be sued to delineate areas) and then moved onto different areas once the sward reaches an appropriate height.

4.6.30 Grazing too often or too densely carries the risk of depleting botanical diversity through the raising of nutrient levels, favouring of fewer vigorous species, and inhibition of flowering and seed-setting. Ideal grazing regimes would include the

limiting of number of animals per hectare/acre to 'conservation grazing' or Higher-Level Stewardship (agri-environment scheme) rates. If practicable, sheep should be removed for at least eight weeks between April and August to allow for plants to flower and set seed.

4.6.31 The above management prescriptions will apply to all areas of the Sites where panel arrays are proposed, totalling approximately 690.92ha of Proposed Diverse Meadow Creation (Beneath Panels).

4.6.32 In addition to the above, 36.91ha of existing vegetation is retained and enhanced.

4.6.33 In addition to the above, 120.67ha of Proposed Wildflower Meadow is proposed across the Scheme.

Tussock Grassland Margins

4.6.34 Low intensity managed grassland can provide valuable tussocky habitat (see **Figure 2** below) for a range of birds, providing a food source both during breeding and wintering, as well as nesting habitat for species such as corn bunting *Emberiza calandra*, grey partridge *Perdix perdix*, reed bunting *Emberiza schoeniclus* and yellowhammer *Emberiza citrinella*.

4.6.35 The tussocks also provide breeding and wintering habitat for a range of invertebrates and optimal habitat for amphibians, reptiles and small mammals (which in turn benefits species such as bats and barn owl *Tyto alba*).

4.6.36 Tussocky field margins created on arable land will be seeded with an appropriate tussock forming seed mix such as Habitat Aid's Tussock Mix (Ref.10) or similar. Where grassland margins already exist, management can be altered in order to encourage a tussocky sward to form.

4.6.37 Once established, the tussocky grassland should be cut (ideally) or grazed on a rotational basis once every three years in September, to allow plants to flower and set seed and also avoid impacts on nesting birds using the hedgerows/margins.

Figure 2: Tussocky Field Margin Created Between Security Fencing and Field Boundary

The Landscape and Ecological Management Plans show this habitat being created extensively across the Scheme, with a total area of approximately 121.76ha.

4.7 Wetland Habitats

4.7.1 The prescriptions in this section apply to the following mitigation typologies in the Landscape and Ecology Mitigation Plans **[~~EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_B~~REP3-042, REP3-044, APP-209, ~~REP1-111~~REP3-046, APP-211, ~~EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_B~~REP3-048, REP3-050, APP-214 ~~to~~ , APP-215, ~~EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_C~~REP3-052, APP-217, REP3-054, APP-219]**:

- Damp Grassland.
- Newly created pond.
- Proposed cluster of wader scrapes.

4.7.2 The following Nene and Ise Valley LNRS Water Practical Actions are considered to be relevant to this section:

- 071. Create wet grassland habitats outside of the Special Protection Area to buffer and link existing habitats as well as provide less disturbed habitat to support species such as the Curlew.
- 082. Encourage the creation of new ponds and enhancement of existing, particularly those that existed historically. Great-Crested Newt mitigation schemes and/or similar could deliver this. This would also support Pondweeds and Stoneworts.
- 88. Promote and support the delivery of floodplain meadow restoration and creation.
- 89. Identify, protect and manage land used by qualifying species of the Special Protection Area, namely priority species Golden Plover and Lapwing.

4.7.3 On-site mitigation for wintering bird species associated with the Upper Nene Valley Gravel Pits Special Protection Area (SPA), such as golden plover *Pluvialis apricaria* and lapwing *Vanellus vanellus*, will comprise the creation of damp grassland and scrapes.

Ponds

4.7.4 Ponds are a Habitat of Principal Importance and are listed as a priority habitat in the Northamptonshire BAP.

4.7.5 Ponds are of significant ecological value, and any creation of such features would strengthen the existing network of ponds and wetland habitat within and surrounding the Sites. Ponds could be created within field margin buffer zones (see **Figure 3**) and have a role to play in flood risk alleviation and water attenuation. These could take the form of linear ponds such as deepened swales, where this type of drainage is required for the development.

4.7.6 Creation of wetland habitats such as ponds will benefit a range of species that have been recorded within the Site, including birds of conservation concern/ notable species such as cuckoo *Cuculus canorus*, grey wagtail *Motacilla cinerea*, golden plover, lapwing, mallard *Anas platyrhynchos*, moorhen *Gallinula chloropus,* reed bunting, sedge warbler *Acrocephalus schoenobaenus*, shoveler *Anas clypeata,* snipe *Gallinago gallinago,* teal *Anas crecca* and wigeon *Mareca penelope*. Ponds will also provide habitat for a range of amphibian species (including great crested newts), and a foraging resource for bats and mammals.

4.7.7 Ponds created will be sited outside the footprint of the arrays.

Figure 3: Pond Creation in Margin of Solar Farm

4.7.8 The ponds will allow for the widest variety of habitats practicable, with shallow margins (some wide and some narrow) and a deeper area of at least 1.5m, as recommended by the Million Ponds Project (Ref.15).

4.7.9 Principles for pond construction are as follows:

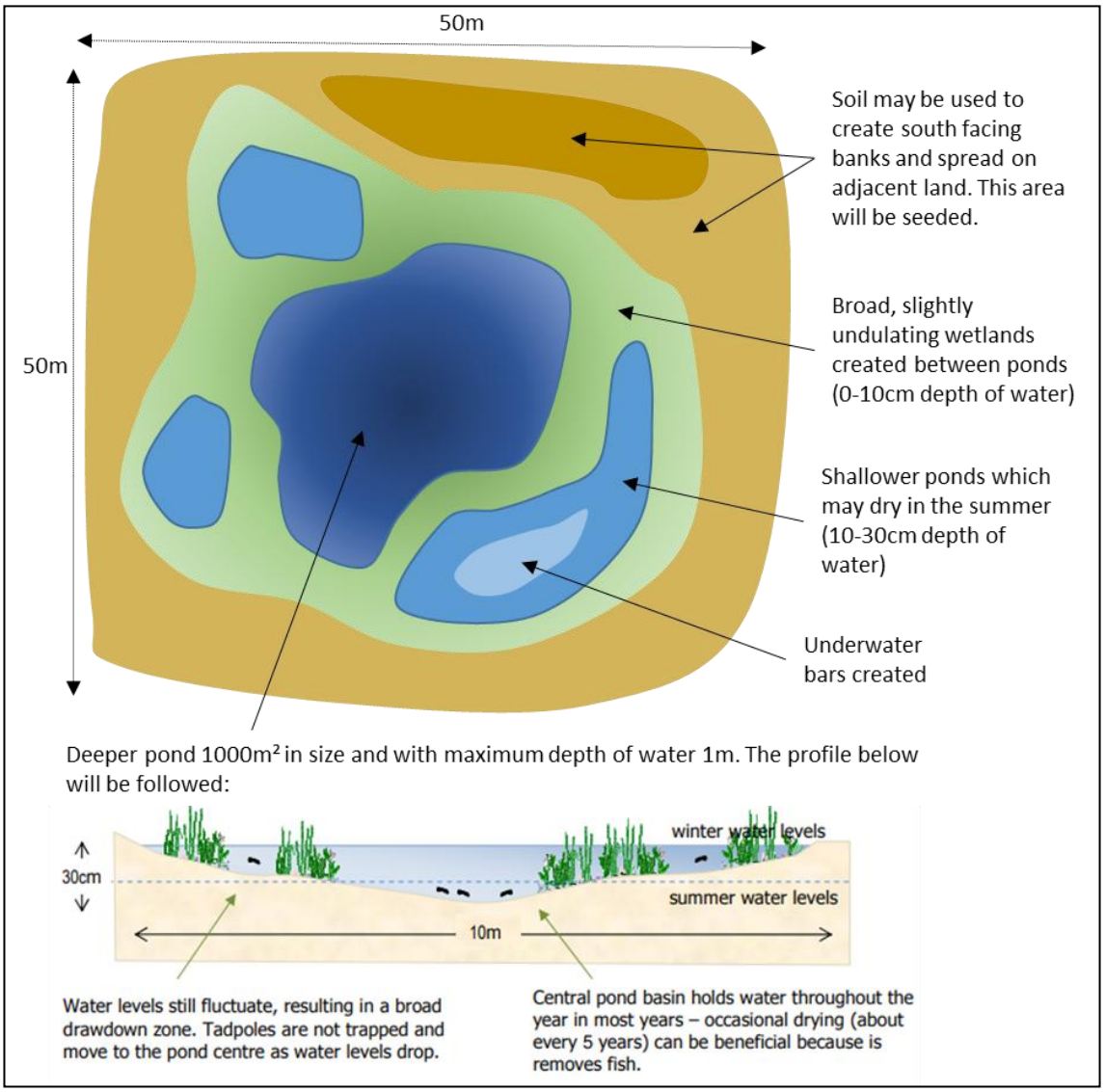
- No planting will be introduced so as to allow species which use early successional stages of ponds to establish.
- At every location where a pond to be created is shown on the Landscaping Plans, this will comprise one deep pond and three shallower ponds as shown in Figure 4 below.
- Pond slopes will be shallow: less than 1:5 (12°), and preferably 1:20 (3°).

4.7.10 Spoil will be used to create south facing bunds and spread on adjacent land, then seeded with a suitable native diverse mix (such as the mixes set out in previous sections).

4.7.11 Where grazing is utilised in fields that contain either existing or newly created ponds, measures will be implemented to prevent impacts associated with livestock poaching the banks of the waterbodies. These measures may include

additional shrub planting around the pond's edge, or the installation of stock-proof fencing around the pond.

Figure 4: Suitable Pond Design



4.7.12 The design of the pond ensures suitability for great crested newts, but also for other amphibians, such as palmate newt, which is a priority species in the Northamptonshire BAP. The areas of marshy wetland will create a mosaic of habitats and will increase the diversity of the area as a variety of plants will be able to establish. This will also attract a greater diversity of invertebrates.

4.7.13 The ponds will be checked during monitoring visits to ensure they are establishing without any problems.

4.7.14 Some management will be required, depending on the establishment of scrub, trees and prolific species such as bulrush (although the variety of pond depths

will ensure that some open water will be available). An ecologist will advise on the correct timing of any management required subsequent to the monitoring visits. Anticipated management will be as follows:

- Every five years: a cut of vegetation surrounding the ponds to prevent tree growth and shading. This will be carried out in the winter months using hand-tools. Some patches of scrub can be left to develop on the northern side of the pond. Arisings will be left in a pile close to the pond area (but over 20m from open water to prevent nutrients entering the pond system).
- Every ten years: Some hand pulling, or mechanical dredging may be required if there is a build-up of vegetation within the ponds. This will only be carried out where there is a risk of all open water being covered and will be carried out under the direction of an ecologist as great crested newts may be present.

4.7.15 Opportunities to create new areas of standing water within the Scheme have been explored, with six indicative locations for pond creation being outlined on the landscaping plans. The indicative locations have been based on topographical information, and are generally based in close proximity to watercourses or in other habitats which are known to be damp/wet, such as the damp grassland present in parts of Green Hill F.

4.7.16 Indicative pond locations have been outlined at Green Hill E, F and BESS (see Landscape and Ecology Mitigation Plans **[EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_BREP3-048, REP3-050, APP-214 to , APP-215, EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_CREP3-052, APP-217, REP3-054]**), and will be located outside of the development area and within other habitats of value for wildlife, such as permanent grassland. Following the consent of the DCO application, advice from a hydrologist will be sought to ascertain the most suitable locations for new ponds across the Scheme, which may also be informed by soil percolation tests and other means.

4.7.17 Several existing ponds within the Order Limits are also overgrown and could be enhanced by applying management as set out above.

Scrapes

4.7.18 Wetland habitat creation within the Sites will comprise the creation of a mosaic of different habitat types, including scrapes, damp grassland and ponds (as detailed above). Clusters of wader scrapes will be excavated in appropriate locations within Field FF7 at Green Hill F. Wader scrapes are shallow depressions, and the aim would be to ensure they hold water until at least June. The scrapes would be up to 0.5m deep, with shallow margins and irregular outlines as well as a variety of depths to create as many niches as practicable. The minimum size for each scrape would be 20m². A cluster of relatively small scrapes is more desirable than fewer larger ones. As FF7 lies within Flood Zone 3 and is generally relatively wet, it is considered likely that scrapes within this field will hold water over the winter period.

4.7.19 **Figure 5** shows an example of an irregular edged scrape, taken from RSPB guidance (Ref.16).

Figure 5: Scrape Connected to Ditch Line

4.7.20 The habitat around the scrapes would be managed as damp meadow grassland, suitable for nesting and foraging birds typical of wetlands. Ideally, the sward will be maintained between 5-15cm, and short tussocks would be present, to benefit a range of species. The best way to achieve this sward would be through cattle grazing from late summer onwards to ensure the sward remains short over the winter period. Alternatively, the area could be cut and chain harrowed to create this sward. Rushes would need to be topped annually to prevent spread, after the nesting season (August onwards).

4.8 Damp Grassland

4.8.1 Damp grassland will be created within the Sites, at Green Hill A, E, BESS and F. There are several existing floodplain meadow sites close by to the Scheme which may act as donor sites for green hay collection. This will be explored further before purchasing seed from elsewhere. In addition, soil measurements in terms of nutrient levels and pH will also require assessment prior to seeding to ensure that the site is suitable.

4.8.2 Where green hay from local donor sites cannot be sourced, a suitable seed mix from a reputable supplier will be used (such as Habitat Aid's Wet Wildflower Mix (Ref.17)).

4.8.3 In terms of management, the habitat will be subject to a hay cut as per the other wildflower areas, with the cut being taken in September to avoid ground nesting birds. Arisings will be collected and may be used as a source for seed once the meadow is established.

4.8.4 Damp grassland creation has been focussed within Green Hill BESS, A and E. There are large unpanelled areas within these Sites and so creation of damp grassland will also provide opportunities for ground nesting birds. The total area of this habitat measures approximately 20.68ha in Green Hill A, E and F.

4.9 Farmland Habitat

4.9.1 The prescriptions in this section apply to the following mitigation typologies in the Landscape and Ecology Mitigation Plans **[~~EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_B~~REP3-042, REP3-044, APP-209, ~~REP1-111~~REP3-046, APP-211, ~~EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_B~~REP3-048, REP3-050, APP-214 ~~to~~ , APP-215, ~~EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_C~~REP3-052, APP-217, REP3-054, APP-219]**:

- Ground nesting bird mitigation - Set Aside.
- Ground nesting bird mitigation - Continued Arable Land.

4.9.2 The following Nene and Ise Valley LNRS Farmland Practical Actions are considered to be relevant to this section:

- 089. Identify, protect and manage land used by qualifying species of the Special Protection Area, namely priority species Golden Plover and Lapwing.
- 092. Encourage best farming practices such as introducing winter cereal crops into planned rotation to improve soil structure and provide opportunities for Golden Plover to forage (within a 10km buffer of the Special Protection Area).

4.9.3 As set out in Chapter 9: Ecology and Biodiversity **[REP1-033]** of the ES, several areas will be managed specifically to mitigate for the potential adverse impacts of the Scheme on a small number of bird species.

4.9.4 These include species typical of open arable fields such as skylark *Alauda arvensis* and yellow wagtail *Motacilla flava*. Additionally, bird surveys have also informed the impact assessment relating to the Upper Nene Valley Gravel Pits Special Protection Area (SPA), for which wintering birds are a reason for designation. This includes the identification of any Functionally Linked Land (FLL) within the Sites, of importance to golden plover and lapwing, which may be associated with the SPA.

4.9.5 Two fields have been identified as FLL within the Order Limits and another four additional fields identified as potentially constituting FLL on a precautionary basis. The extent of retained FLL and additional Bird Mitigation Habitat equates to approximately 96.6ha of mitigation land for wintering golden plover and lapwing.

4.9.6 Habitat creation and enhancement measures that comprise mitigation for these species are set out below. The area of mitigation habitat required, and further habitat prescriptions will be set out within the detailed LEMP document.

4.9.7 On-site mitigation for ground-nesting bird species, such as skylark, will comprise the maintenance of some fields under arable crop rotation, provision of areas of set-aside habitat and creation of meadow grassland.

4.9.8 Fields allocated for golden plover and lapwing will either be grassland or arable crop rotation; set-aside fields may be less suitable for these species over winter.

4.9.9 Several fields will function for both ground-nesting birds and wintering wader mitigation. These fields will also provide broader benefits to other breeding and overwintering birds, and other wildlife.

Arable Crop Rotation

4.9.10 Where they remain under arable crop rotation, fields will be sown predominantly with spring-sown cereals to provide nesting opportunities for ground-nesting bird species such as grey partridge, lapwing, quail *Coturnix coturnix*, skylark and yellow wagtail. In a spring-sown cereal regime, the crop remains shorter and so provides suitable habitat for nesting for longer during the breeding season, compared to winter-sown cereals. crops. Spring-sown cereals will be the principal crop within the rotation, with other crops sown as needed in rotation years to restore nutrient levels and facilitate soil recovery.

4.9.11 TheseWhere winter-sown crops are required within the crop rotation for land management purposes, these fields may also contain undrilled 'skylark plots' which will. Skylark plots would remain unsown and uncultivated to provide low growing weedy areas for nesting and foraging. The plots would be created in line with the specification set out within the Agri-Environment Scheme AB4 - Skylark and in line with the following criteria:

- Plots should be at least 3m wide and have a minimum area of 16m^2 (e.g. 4x4m or 3x6m).
- Plots should be distributed within fields at a density of two plots per hectare (ha).
- Plots should be located at least 50m from field boundaries.
- The position of plots within fields should be varied from year to year.
- Plots to be created in fields >5ha in size, and/or in fields with a short axis of no less than 200m.
- Plots should not be created in fields bounded by tree lines or adjacent to woodland areas.
- Plots should not be located within tramlines, field boundaries or existing margins.

4.9.12 Plots can be created either by turning off the drill for short periods whilst sowing the crop to leave the required area un-seeded, or by sowing the entire field and then treating the proposed plot areas with herbicide to prevent crop growth.

4.9.13 These fields will also be suitable for golden plover and lapwing.

4.9.14 A total area of 9.51ha of this habitat is set out within Landscaping and Ecology Mitigation and Enhancement Plans **[~~EX3/GH6.4.4.10_B, EX3/GH6.4.4.11_B~~REP3-042, REP3-044, APP-209, ~~REP1-111~~REP3-046, APP-211, ~~EX3/GH6.4.4.14_B, EX3/GH6.4.4.15_B~~REP3-048, REP3-050, APP-214~~ to~~ , APP-215, ~~EX3/GH6.4.4.17_B, REP1-113, EX3/GH6.4.4.19_C~~REP3-052, APP-217, REP3-054, APP-219]**, with a large area in Green Hill D.

Permanent Set-Aside Habitat

4.9.15 Areas of permanent set-aside habitat will be created within the Sites, to provide foraging and nesting habitat for ground-nesting bird species. These areas would be cultivated every 2-5 years and left to establish naturally, with arable weeds and early colonising species. Targeted management to remove encroaching scrub or undesirable species would be implemented as required.

4.9.16 As set out in the ES Chapter 9: Ecology and Biodiversity **[REP1-033]**, skylark will likely be displaced from the footprint of the arrays and so it is the intention to mitigate for this as far as practicable by replacing the existing moderately-suitable arable habitat (which supports skylark nesting at a low to moderate density) with optimal habitat enabling a greater number of territories to occupy a smaller space. The aim would be to create a short weedy sward which is suitable both for foraging and nesting.

4.9.17 During management years, the fields will be lightly disced in February - March to a depth of no more than 7cm. A cut will then be taken at the same time, to remove any encroaching scrub and other vegetation. Timings avoid the bird nesting season.

4.9.18 Monitoring will focus on these habitats in order to check for the spread of undesirable plants, which may proliferate on clay and nutrient rich soils. Remedial action will need to be taken should the spreads of these species be identified.

4.9.19 A total area of 71.01ha of this habitat is set out within Landscaping and Ecology Mitigation Plans, with areas predominately being located in Green Hill A, C, E and F.

4.10 Functionally Linked Land Mitigation Fields

4.10.1 A number of fields have been identified and allocated to the mitigation of loss of Functionally Linked Land (FLL) in relation to the Upper Nene Valley Gravel Pits Special Protection Area (SPA). This is set out within **Habitats Regulations Assessment (Revision ~~A) [REP1-153~~B) [EX5/GH7.21_B]**.

4.10.2 Relevant fields and their baseline and proposed habitat types are set out in **Table 5** below. Relevant habitat creation and management measures are detailed

above in this document under Permanent Grassland Habitat, Wetland Habitats and Farmland Habitat.

Table 5: FLL Mitigation Field Specifications

Field Reference	Size (ha)	Current Land Management	Proposed Land Management
BF1	14.54	Grassland	Conservation grassland
EF25	8.29	Arable, cereal crops	Conservation grassland
CF2	8.29	Arable, cereal crops	Conservation grassland
DF4	10.56	Arable, cereal crops	Arable, spring-sown cereals
EF26	8.07	Arable, cereal crops	Conservation grassland
EF29	10.54	Grassland, grazed	Conservation grassland
EF30	10.45	Arable, cereal crops	Conservation grassland
FF7	18.35	Arable, cereal crops	Conservation grassland with wader scrapes
FF13	7.53	Arable, cereal crops	Conservation grassland
Total Area	**96.62**		

4.10.3 All fields detailed in **Table 5** above will be made available to target species (golden plover and lapwing) from the outset of construction. Where temporary cabling works are required across FLL mitigation fields, this will adhere to pre-works inspections as detailed in the Outline Ecological Protection and Mitigation Strategy [REP1-139**EX5/GH7.5_C**].

4.10.4 Where arable fields are scheduled to be converted to grassland, or existing grassland enhanced via seeding, this may happen after the commencement of construction, given that grass seeding is time-constrained, and construction will not occur simultaneously across all Sites. However, in such cases, these fields shall be maintained as per their baseline habitat in the interim period until seeding takes place, which would ensure the provision of suitable foraging habitat for plovers.

4.11 Habitat Boxes & Wildlife Enhancement Features

4.11.1 Habitat boxes can be a useful tool for monitoring and can provide nesting/roosting opportunities where there is a lack of natural features within the landscape. For this OLEMP, exact locations and plans for bat and bird boxes have not been produced., however enhancement features will be spread across all of the Green Hill Sites, taking into account the size of each of the Sites, as well as the availability of suitable habitat and trees to support the features and target species. It is anticipated that a finalised location and specification plan will be produced as part of the detailed LEMP.

Bird Boxes

4.11.2 Bird boxes that mimic cavities can be installed on the Sites where there is a lack of mature trees which may naturally provide these features. Boxes can be installed according to the species which have been identified during the breeding bird surveys and their distribution. Marsh tit *Poecile palustris*, starling *Sturnus vulgaris*, tawny owl *Strix aluco* and tree sparrow *Passer montanus* are cavity-nesting species of conservation concern which may benefit from bird boxes.

4.11.3 Barn owl boxes are known to be particularly successful on solar sites (Ref.17), especially when placed close to areas of rough grassland where there will be an abundance of small mammals. Where no mature trees are present, barn owl boxes can be post-mounted (although trees are preferable). Barn owl is identified as a priority species within the Northamptonshire BAP.

4.11.4 Additional tree-mounted boxes for species such as kestrel *Falco tinnunculus* may be installed on suitably mature trees.

4.11.5 The numbers of boxes proposed for the Scheme have been calculated as approximately 1 box for every 1km of hedgerow (based on an estimate of 91km of existing hedgerows/lines of trees). This gives a total of 91 boxes which have been split between various target species depending on what has been recorded within the surveys.

4.11.6 **Table 6** gives outline details of which boxes will be installed together with numbers, distribution and siting recommendations. Where the exact boxes cannot be sourced, a similar model will be secured and all boxes will be constructed from long-lasting materials such as woodcrete, where practicable. All bird boxes will be installed out of direct sunlight, facing away from prevailing wind (northernly, easterly or south-easterly preferably). Boxes should also be placed clear of vegetation and away from ivy growth. All boxes will be placed 3m off the ground unless otherwise specified.

4.11.7 Opportunities for installing bird boxes on buildings such as the structures associated with the battery storage site will be explored and if feasible, boxes for species such as swift *Apus apus*, house sparrow *Passer domesticus* and house martin *Delichon urbicum* will also be included within the final LEMP.

4.11.8 Measures for confidential species are discussed in Appendix 9.11 Confidential Schedule 1 Bird Information **[APP-094]**.

Table 6: Bird Box Specifications

Box Type	No.	Description	Placement
Schwegler 2GR (32mm entrance)	20	Suitable for tree sparrow, with a specially designed predator protection entrance	Installed in clusters of 15 placed over a group of trees

Box Type	No.	Description	Placement
Schwegler 1b (26mm entrance)	30	Suitable for tit species and wrens	On mature trees, half placed at a lower height (1.5m) within the hedgerow network and within vegetation to attract wrens
Schwegler 3S (45mm hole)	20	Suitable for nesting starlings and roosting woodpeckers	On suitable trees
Schwegler 28 Kestrel box	5	Nest box with perch	On a solitary tree on the edge of woodland
Barn Owl Trust nest box	8	Nest box with platform for young	At least 1km from a motorway/fast unscreened main road. Placed on a solitary tree with a high canopy and few/no lower branches, with the entrance clearly visible.
Schwegler 5 Tawny owl box	8	Suitable for tawny owls and stock doves	On suitable trees

Bat Boxes

4.11.9 As with bird boxes, bat boxes can be particularly useful where natural cavities are limited. The installation of boxes suitable for crevice-dwelling bat species, such as common pipistrelle *Pipistrellus pipistrellus*, may act as an enhancement and could also provide an important monitoring tool.

4.11.10 Boxes could be installed in a variety of places including hedgerow trees, woodland or post mounted. Double panel bat boxes may be more desirable in some cases, as these prevent birds from nesting within the boxes.

4.11.11 **Table 7** below provides indicative details of the boxes which will be installed, together with numbers, distribution and siting recommendations. Where the exact boxes cannot be sourced, a similar model will be secured and all boxes will be constructed from long-lasting materials such as woodcrete, where practicable. Bat boxes will be placed in sunny locations without obscuring vegetation and away from ivy growth. Boxes will be placed approximately 3m from the ground and preferably on south facing mature trees.

4.11.12 The numbers of bat boxes installed are based on one box for every 2km of existing hedgerows (totalling 46 boxes), as trees suitable for roosting bats are considered to already be widely present across the Order Limits.

Table 7: Bat Box Specifications

Box Type	No.	Description	Placement
Schwegler 2F (with front panel)	20	Especially suitable for pipistrelle species	On suitable trees
Schwegler 1FF	20	Suitable for pipistrelle species	On suitable trees
Schwegler 1FS Large colony box	3	Suitable for groups of breeding bats including noctule, Nathusius' pipistrelle and long-eared bats	On suitable trees
Schwegler 1FW Hibernation box	3	Suitable internal insulation for hibernating bats	On suitable trees

Other Wildlife Enhancement Features

4.11.13 Log piles and hibernacula, comprising buried logs and rubble, will be created; these will be created around the Sites, but targeted close to ponds and tussocky or scrub mosaic grassland. These habitat features provide shelter and hibernation opportunities for species such as reptiles, amphibians and invertebrates.

4.11.14 The creation of these features will ideally utilise wood and stone generated during construction. Additional log or brash piles may also be created throughout the lifetime of the Scheme, using materials resulting from habitat management, e.g. hedgerow or tree cutting.

4.11.15 A total of two hibernacula will be created at each proposed new pond location (in total 12 adjacent to 6 newly created ponds) as well as an additional 30 within suitable tussocky or mosaic habitats, or around the margins existing ponds within the Order Limits.

4.11.16 Bee banks could be created as an enhancement for bees and other invertebrates. Bee banks would be created in line with Buglife guidance (Ref.19) and would comprise south-facing bare earth bunds which can be colonised by nesting solitary bees. The bunds would then be capped with low nutrient material, such as sand or sub-soil to suppress weeds and provide a substrate for bees to burrow into. Bare ground is also important for butterflies and beetles; these species in turn serve as food to other species.

5 Ecological Monitoring

5.1.1 An outline ecological monitoring strategy is set out below, however, further details for essential regular monitoring of the developing habitats will be set out within the more detailed and final iterations of the LEMP, based on a standardised approach (Ref.20). This monitoring will be carried out more regularly during the first five years of operation, when habitats are in the early stages of developing. This regular monitoring will identify issues early on so that remedial measures or changes in management can be applied.

5.1.2 Habitat specific monitoring will be required as part of Biodiversity Net Gain delivery/progress reporting and is included as a 'UKHab' survey along with Condition Assessments of the habitats recorded.

5.1.3 The monitoring strategy will include:

- **UKHab Survey** – a habitat survey as well as Condition Assessments of the establishing habitats, will be undertaken to ensure the habitats are developing as desired, and in line with Biodiversity Net Gain (BNG) commitments. As rough guidance, it is suggested that this assessment is undertaken every two years for the first eight years, then every five years until the proposed habitats and conditions are achieved. The requirements for monitoring under Biodiversity Net Gain will be fully detailed in a Habitat Management and Monitoring Plan document, to be prepared alongside the detailed LEMP. Monitoring visits will also include checks for non-native invasive plant species, particularly in woodlands within the Order Limits.
- **Botanical Quadrats** – fixed point quadrats will be recorded at selected locations. The distribution of quadrats will be designed to ensure each habitat is sampled, with the number of quadrats to be based on the size of the area and estimated species diversity of the proposed habitat. This will help to track establishment and identify any problems should the habitat not be forming as required. Where these quadrats are undertaken within panelled fields, locations will ensure that all habitats are sampled, including directly beneath and between the strings of panels, as well as within the field edges, outside of the array.
- **Soil Survey** – a soil survey would provide a helpful measurement, particularly within an area that had previously been subject to intensive agricultural production for many years. It is therefore proposed that such a survey is carried out prior to seeding and habitat establishment across the Scheme, although this could be targeted or sampled according to needs identified during the finalisation of this document for a DCO requirement. Basic measurements may include pH, soil type, soil organic matter, bulk density, soil moisture, infiltration capacity, and texture. Additional measurements may include soil carbon, nitrogen, phosphorous, potassium and magnesium. There may also be opportunities to monitor other indicators such as fungal:bacterial ratio or fungal DNA.

- **Bird Surveys** – Given that robust baseline data on the use of the Scheme by birds has been obtained, this can be compared to similar surveys undertaken post construction. Surveys should focus on areas where high numbers of notable birds have been identified, as well as the mitigation habitats to be established. Species of particular interest due to the identification of potential residual adverse effects requiring mitigation would be skylark, yellow wagtail, golden plover and lapwing. The surveys should be undertaken using the same methodology as employed for the baseline surveys and a suitable schedule may be Year 2, 4, 10, 20, 30, 40, 50 (although this may need to be adjusted should remedial measures be required where bird mitigation habitat is not establishing as desired).

5.1.4 Additional survey elements that may be included within the monitoring strategy include:

- **Bat Surveys** – Again, given that baseline information of bat activity has been obtained, monitoring should seek to replicate this (i.e., with the same static bat detector locations used) in order to assess how bat activity changes post construction. As with the birds, a suitable schedule may be Year 2, 4, 10, 20, 30, 40, 50.
  - Where ecological monitoring identifies any significant changes to bat activity compared to recorded baseline levels, remedial measures which may help to improve the value of the Site/Sites for bats will be explored by the EcoCoW and recommended to the Site Operator as appropriate.
  - Given the extensive baseline survey information, the range of habitats to be created and the size of the Scheme, there may be opportunities to link up with academic research either through supplying the collected baseline data to an academic body to analyse or through establishment of research plots within the Scheme. There may also be opportunities to link up with NGOs such as the BTO or Bumblebee Trust (who have been involved in monitoring bumblebees on solar sites). Any such monitoring would be additional and not secured within the LEMP.

6 References

Ref.1 Northamptonshire Biodiversity Action Plan (3rd edition, 2015-2020). Available at: https://www.northnorthants.gov.uk/conservation-and-protection/biodiversity [Accessed 15th April 2024].

Ref.2 North Northamptonshire Local Nature Recovery Strategy (2025). Available at: https://www.northnorthants.gov.uk/conservation-and-protection/local-nature-recovery-strategy [Accessed 25th March 2025]

Ref.3 North Northamptonshire Joint Core Strategy 2011-2031 (adopted July 2016). Available at: [redacted] Accessed 28th Feb 2024]

Ref.4 The National Plant Specification – Handling and Establishment (November 1995). Available at: [redacted] (Accessed August 2024).

Ref.5 Herbert, R., Samuel, S. & Patterson, G. (August 1999). Using Local Stock for Planting Native Trees and Shrubs. Forestry Commission. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/797909/Regions_of_provenance_and_seed_zone_map.pdf. (Accessed August 2024).

Ref.6 Plantlife – The Good Meadow Guide. Available at: The-Good-meadow-guide-Plantlife.pdf (Accessed August 2024).

Ref.7 Flora Locale – Code of Practice for Collectors, Growers and Suppliers of Native Flora. 2012.

Ref.8 Blaydes, H., Gardner, E., Whyatt, D., Potts, S.G., Armstrong, A. (30.04.2022). Solar park management and design to boost bumble bee populations. In: Environmental Research Letters, Vol. 17, No. 4, 044002.

Ref.9 Habitat Aid. Standard Pollen and Nectar Wildflower Only Mix. Available at: [redacted] (Accessed August 2024).

Ref.10 Habitat Aid. Tussock Seed Mix. Available at: [redacted] (Accessed August 2024).

Ref.11 H. Montag, G Parker & T. Clarkson. (2016). The Effects of Solar Farms on Local Biodiversity; A Comparative Study. Clarkson and Woods and Wychwood Biodiversity.

Ref.12 [redacted]

Ref.13 Blakesley, D. and Buckley, G.P. (2016) Grassland Restoration and Management. Exeter: Pelagic Publishing, UK.

Ref.14 Habitat Aid. Seed Mixes. Available at: [redacted] (Accessed August 2024).

Ref.15 Freshwater Habitats Trust. Pond Creation Toolkit. Available at: [redacted] (Accessed August 2024).

Ref.16 RSPB Farming for Wildlife Advice Note – Scrape Creation for Wildlife.

Ref.17 [redacted]

Ref.18 Solar View 2019. Clarkson & Woods Ltd. Available at: [redacted] (Accessed August 2024).

Ref.19 Buglife (2020) How to create a Bee Bank. Available at: [redacted] (Accessed October 2024).

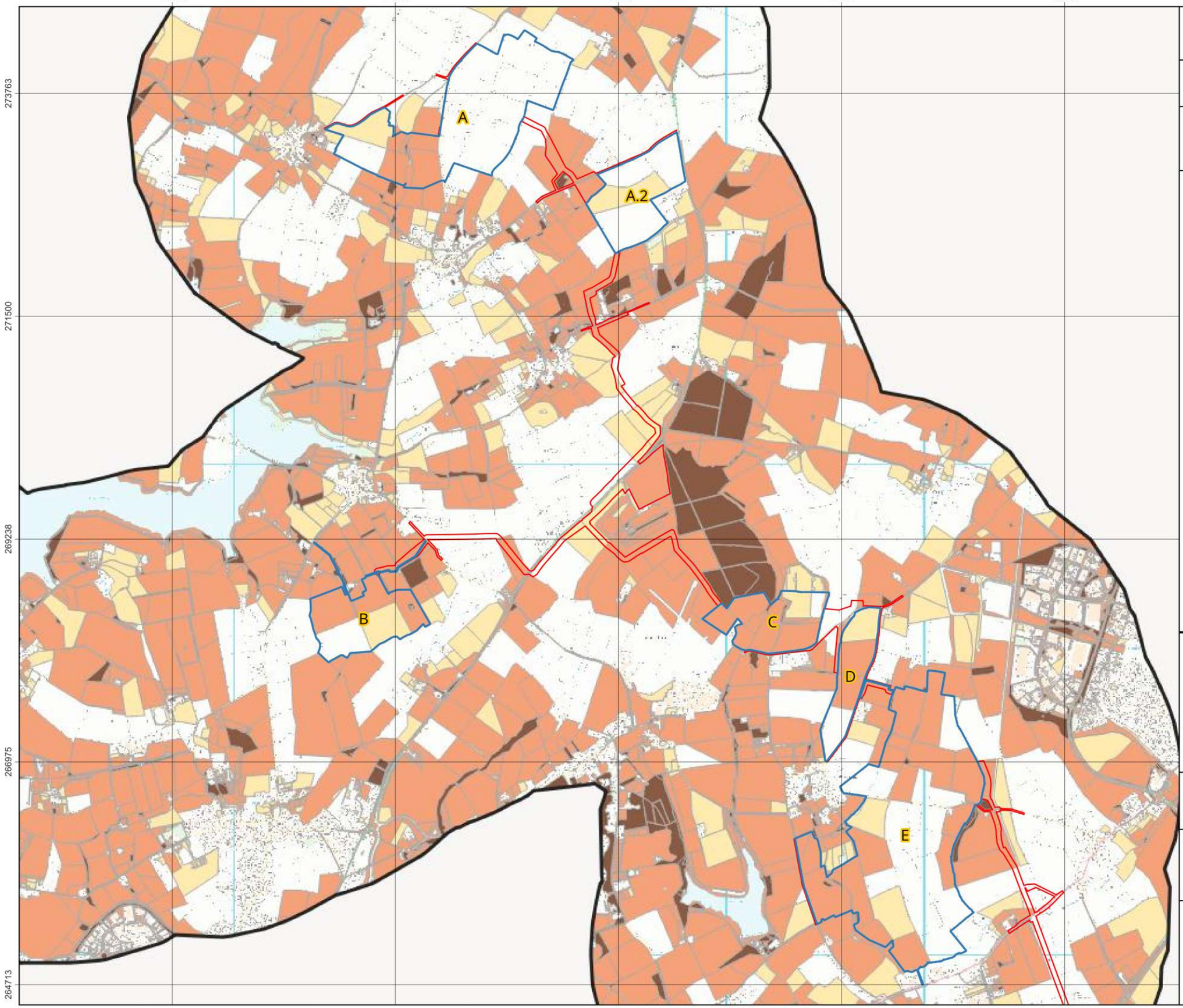
Ref.20 Solar Energy UK. A Standardised Approach to Monitoring Biodiversity on Solar Farms. Available at: [redacted] (Accessed August 2024).

Appendix A – Outline Management Prescription Timetable

Operation Management Prescription	Frequency per Annum	Season	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 onwards
Hedgerow								
Maintain weed free planting area through herbicide spot treatment and topping up bark mulch	Twice yearly	April - August						
Mechanical cut	2-3 years on rotation	October - February						Ongoing
Replace all dead plants	Check annually	Next available planting season						
Replace any significant failures	Check annually	Next available planting season						Ongoing
Hedgerow Trees								
Maintain weed free planting area through herbicide spot treatment and topping up bark mulch	Twice yearly	April - August						
Inspection and formative prune carried out annually in accordance with good arboricultural practice to BS 3998:2010. A clear stem will be maintained for all hedgerow trees in order to be distinguishable	Annually	October - February						
Replace all dead plants	Check annually	Next available planting season						
Replace any significant failures	Check annually	Next available planting season						Ongoing
Woodland Copse & Shelter belts								
Maintain weed free planting area through herbicide spot treatment and topping up bark mulch	Twice yearly	April - August						
Thinning / coppicing	Every 5 years, after Year 10 once planting has established	October - February						From Year 10
Replace all dead plants	Check annually	Next available planting season						
Replace any significant failures	Check annually	Next available planting season						Ongoing
Scattered Trees & Shrub Planting								
Maintain weed free planting area through herbicide spot treatment and topping up bark mulch	Twice yearly	April - August						
Mechanical cut on a rotational basis after Year 15, once scrub has established	Mechanically cut rotational areas once every 10 years	October - February						Ongoing
Replace all dead plants	Check annually	Next available planting season						
Replace any significant failures	Check annually	Next available planting season						Ongoing
Ditches								
Cutting of bankside vegetation	Mechanically cut one bank on rotation, every 2-5 years	August - September						Ongoing
Scrub removal from channel (as needed)	Where required	October - February						

Operation Management Prescription	Frequency per Annum	Season	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6 onwards
Tussock Grassland Margins								
Spot herbicide application	Where required	April - August						Ongoing
Hay cut / graze	On a rotational basis; once every 3 years	September						Ongoing
Scrub Management								
Mechanical cut on a rotation basis after Year 15, once scrub has established	Mechanically cut rotational areas once every 10 years	October - February						Ongoing
Mechanical cut along internal edges to keep fence line clear	Annually	October - February						Ongoing
Spot herbicide application	Where required	April - August						Ongoing
Diverse Meadow Creation and Management								
Year 1 only - regular cutting after seeding	3 times, spread across the year	March - September						
Option 1 - Hay Cut (including all grassland skylark mitigation areas)	Annually after Year 1	August - September						Ongoing
Option 2 - Grazing at a low stocking density (excluding skylark mitigation areas)	Annually after Year 1	Year-round, subject to winter ground conditions; ideally with sheep removed for 8 weeks in summer						Ongoing
Option 3 – Pulse grazing at a higher stocking density (excluding skylark mitigation areas)	Annually after Year 1	Year-round, subject to winter ground conditions; ideally with sheep removed for 8 weeks in summer						
Spot herbicide application	Where required	April - August						Ongoing
Wetland Bird Mitigation Habitat								
Option 1 - Cattle grazing	Annually	August - February						Ongoing
Option 2 - Chain harrowed to create varied sward	Annually	August - February						Ongoing
Rushes to be topped	Annually	August						Ongoing
Ponds								
Marginal vegetation thinning	Every 5 years	November - February						Ongoing
Emergent vegetation removal/ dredging	Every 10 years	November - February						Ongoing
Set-Aside Habitat								
Lightly disced to a depth of no more than 7cm	Every 2-5 years	February - March						Ongoing
Mechanical cut of vegetation	Every 2-5 years	February - March						Ongoing
Bird & Bat Boxes								
Install boxes	Year 1	Any time, Jan-Dec						
Inspect condition and clean out boxes (excluding bat and barn owl boxes)	Annually after Year 1	October - February						Ongoing
Log Piles & Hibernacula								
Install features	Year 1	Any time, Jan-Dec						
Inspect condition and repair as needed	Annually after Year 1	August - September						Ongoing

Appendix B – Biodiversity Opportunity Zone Supporting Figures



GREEN HILL SOLAR FARM

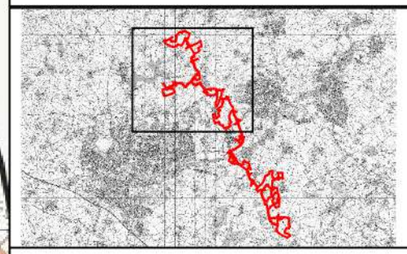
Title: 7.4.1 Broadleaved Woodland Biodiversity Opportunity Zones (Green Hill A - E)

Document: Volume 1 Outline Landscape and Ecological Management Plan

Legend:

- Order Limits
- Site Boundaries
- Buffer
- Existing habitat
- Stepping stone

Data: IGP, 2025,
Biodiversity Opportunity Mapping: Natural Capital Solutions Ltd., 2018; Northamptonshire Biodiversity Records Centre. Published in 2024.
Biodiversity Opportunity Areas Buckinghamshire & Milton Keynes Environmental Records Centre
Base Maps: '© Crown copyright and database rights 2024 Ordnance Survey 0100031673'
Imagery ©2024 Landsat / Copernicus, Maxar Technologies, Map Data ©2024



APFP Regulation: 5(2)(q)

Application Doc no.: EN010170/APP/GH7.4

Drawing no.: CW.ES.MP.1

Co-ordinate system: OSGB36 / British National Grid

Scale: 1:36200 @ A3

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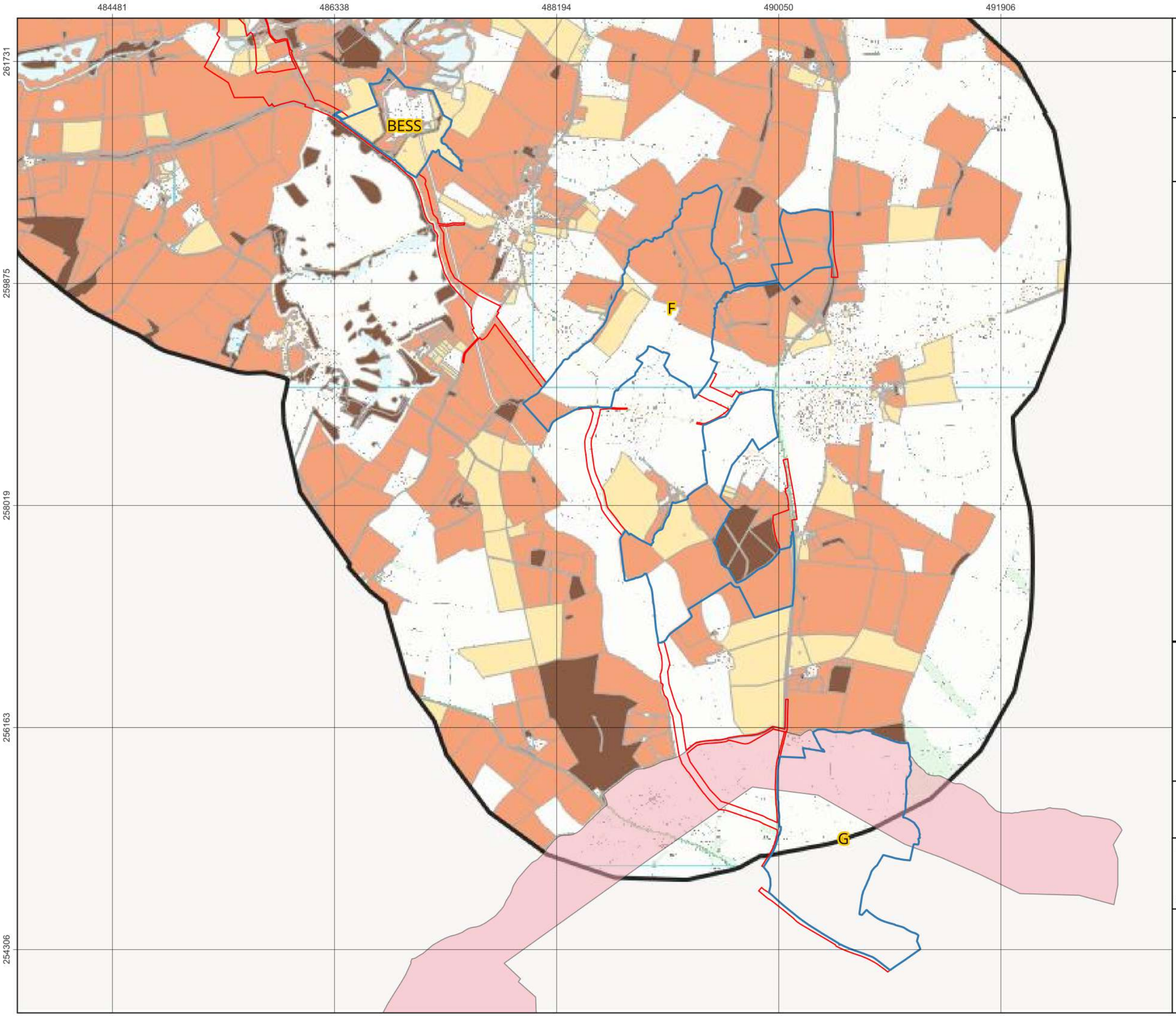
Island GREEN POWER

CLARKSON & WOODS ECOLOGICAL CONSULTANTS



GREEN HILL SOLAR FARM

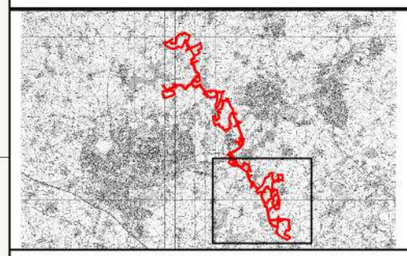
Title: 7.4.2 Broadleaved Woodland Biodiversity Opportunity Zones (Green Hill BESS, F & G)

Document: Volume 1 Outline Landscape and Ecological Management Plan

Legend:

- Order Limits
- Site Boundaries
- Buckinghamshire & Milton Keynes Environmental Records Centre - Biodiversity Opportunity Areas
- Buffer
- Existing habitat
- Stepping stone

Data: IGP, 2025,
Biodiversity Opportunity Mapping: Natural Capital Solutions Ltd., 2018; Northamptonshire Biodiversity Records Centre. Published in 2024.
Biodiversity Opportunity Areas Buckinghamshire & Milton Keynes Environmental Records Centre
Base Maps: '© Crown copyright and database rights 2024 Ordnance Survey 0100031673'
Imagery ©2024 Landsat / Copernicus, Maxar Technologies, Map Data ©2024



APFP Regulation: 5(2)(q)

Application Doc no.: EN010170/APP/GH7.4

Drawing no.: CW.ES.MP.2

Co-ordinate system: OSGB36 / British National Grid

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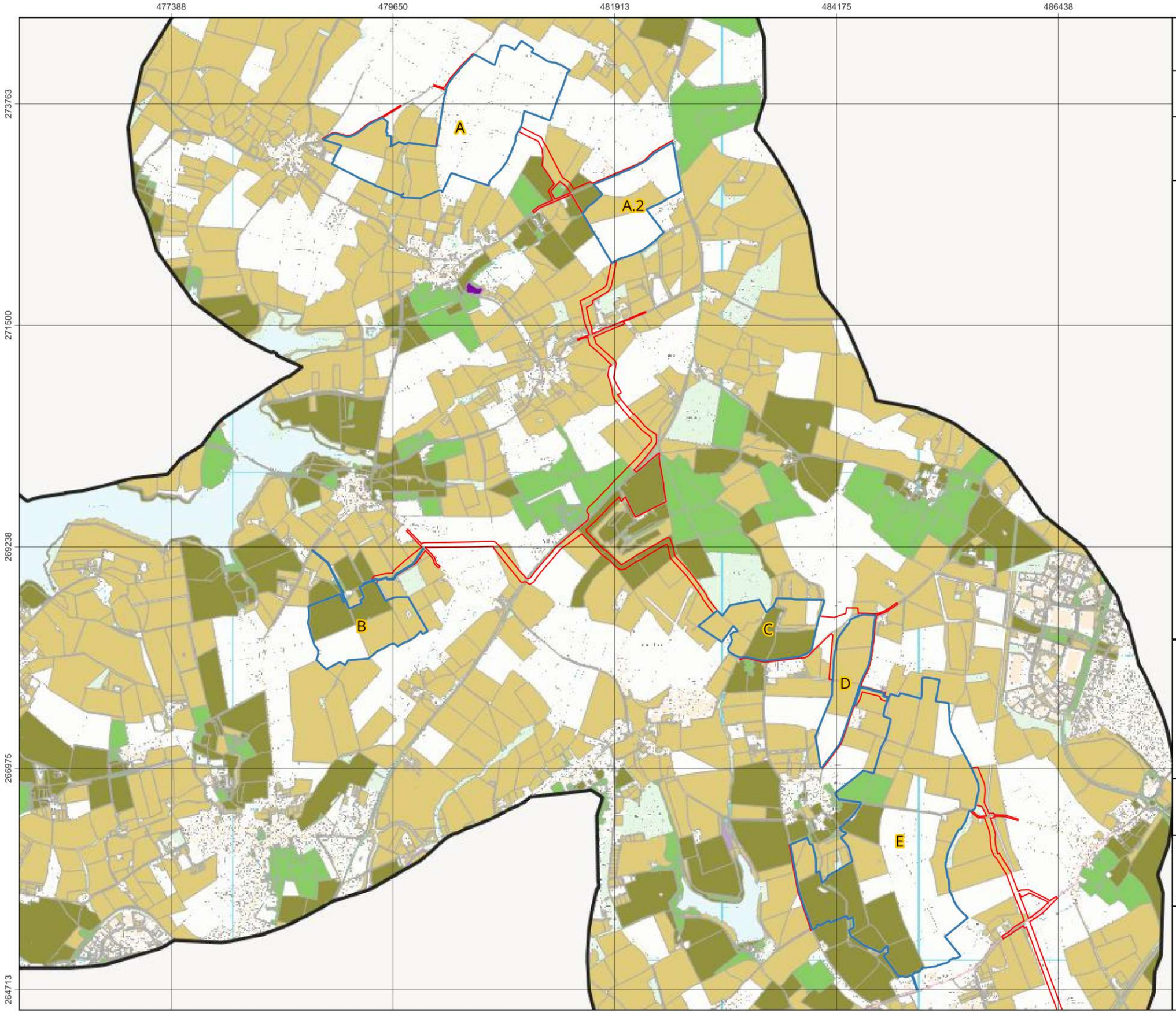
Island GREEN POWER

CLARKSON & WOODS ECOLOGICAL CONSULTANTS



GREEN HILL SOLAR FARM

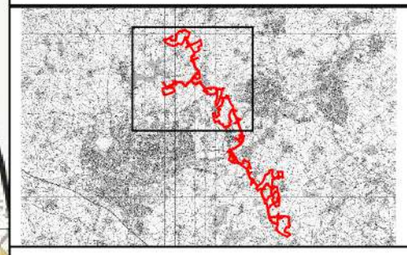
Title:
7.4.3 Combined Biodiversity Opportunity Zones (Green Hill A - E)

Document:
Volume 1
Outline Landscape and Ecological Management Plan

Legend:

- Order Limits
- Site Boundaries
- Grassland
- Grassland or wetland
- Grassland or woodland
- Grassland, woodland or wetland
- Wetland
- Wetland or woodland
- Woodland

Data: IGP, 2025,
Biodiversity Opportunity Mapping: Natural Capital Solutions Ltd., 2018; Northamptonshire Biodiversity Records Centre. Published in 2024.
Biodiversity Opportunity Areas Buckinghamshire & Milton Keynes Environmental Records Centre
Base Maps: '© Crown copyright and database rights 2024 Ordnance Survey 0100031673'
Imagery ©2024 Landsat / Copernicus, Maxar Technologies, Map Data ©2024



APFP Regulation: 5(2)(q)

Application Doc no.: EN010170/APP/GH7.4

Drawing no.: CW.ES.MP.3

Co-ordinate system: OSGB36 / British National Grid

Scale: 1:36200 @ A3

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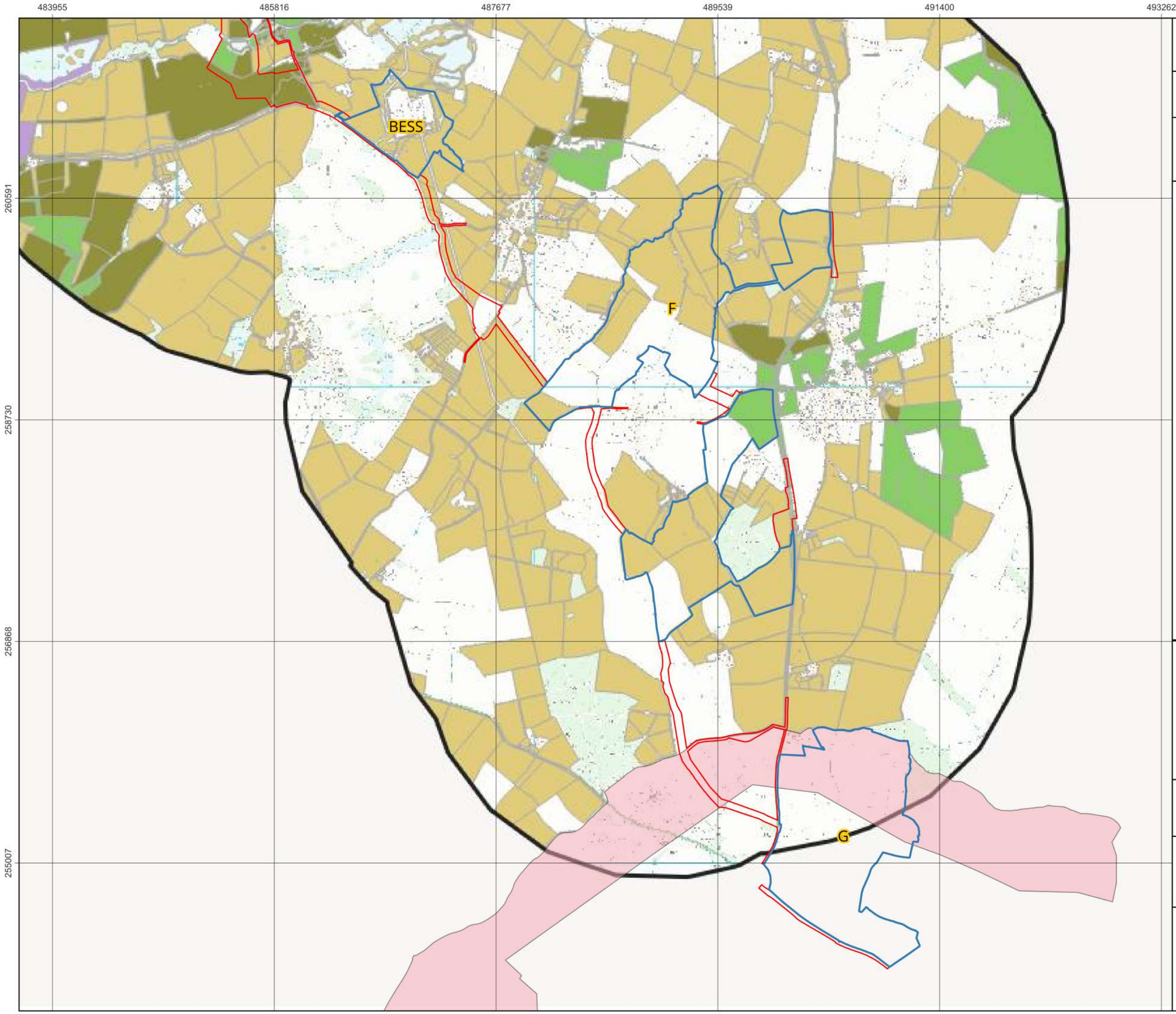
Island GREEN POWER

CLARKSON & WOODS ECOLOGICAL CONSULTANTS



GREEN HILL SOLAR FARM

Title: 7.4.4 Combined Biodiversity Opportunity Zones (Green Hill BESS, F & G)

Document: Volume 1 Outline Landscape and Ecological Management Plan

Legend:

- Order Limits
- Site Boundaries
- Buckinghamshire & Milton Keynes Environmental Records Centre - Biodiversity Opportunity Areas
- Grassland
- Grassland or wetland
- Grassland or woodland
- Grassland, woodland or wetland
- Wetland
- Wetland or woodland
- Woodland

Data: IGP, 2025,
Biodiversity Opportunity Mapping: Natural Capital Solutions Ltd., 2018; Northamptonshire Biodiversity Records Centre. Published in 2024.
Biodiversity Opportunity Areas Buckinghamshire & Milton Keynes Environmental Records Centre
Base Maps: '© Crown copyright and database rights 2024 Ordnance Survey 0100031673'
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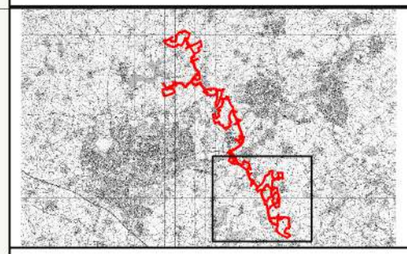

APFP Regulation: 5(2)(q)

Application Doc no.: EN010170/APP/GH7.4

Drawing no.: CW.ES.MP.4

Co-ordinate system: OSGB36 / British National Grid

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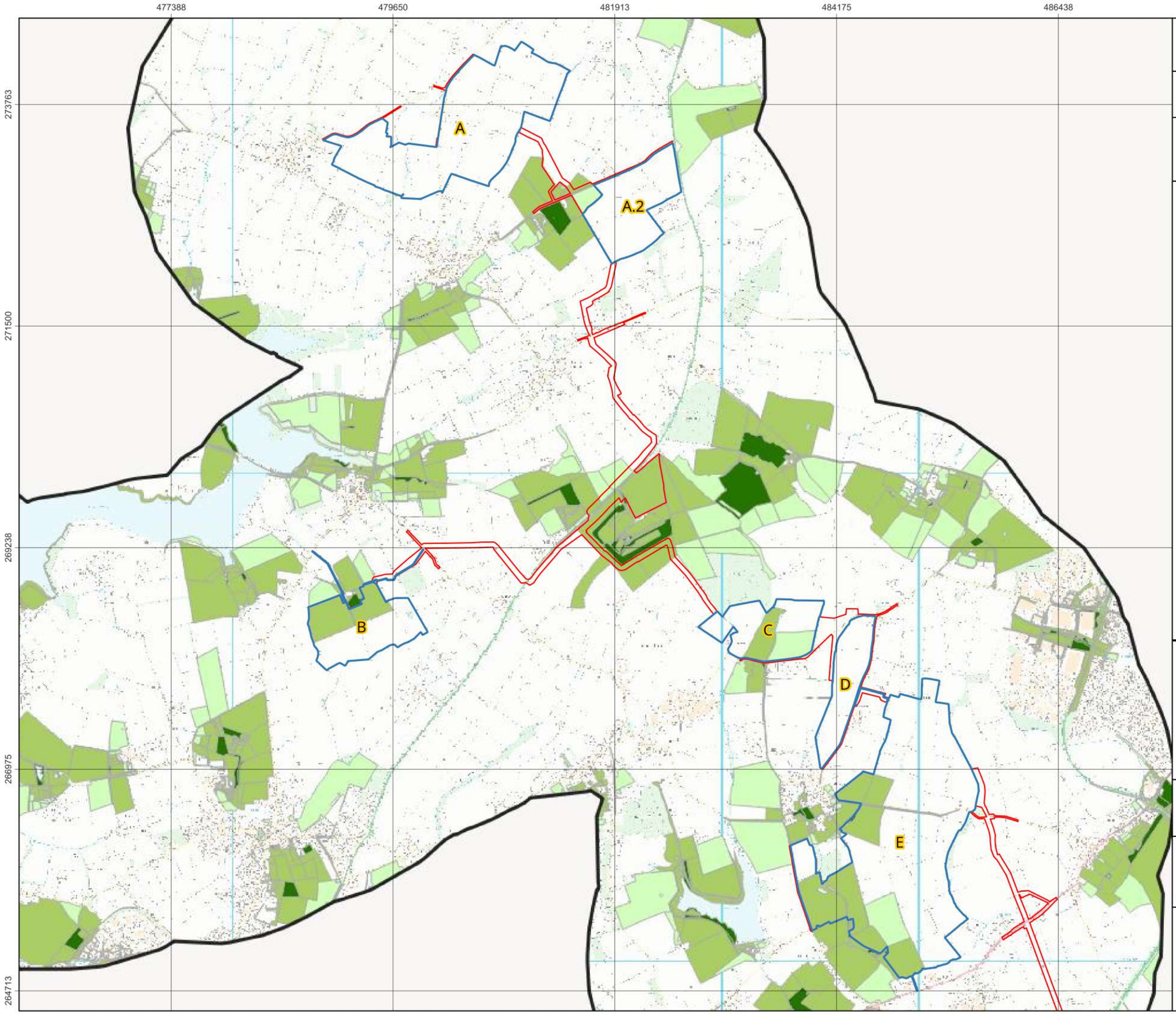
N W E S

Island GREEN POWER

CLARKSON & WOODS ECOLOGICAL CONSULTANTS



GREEN HILL SOLAR FARM

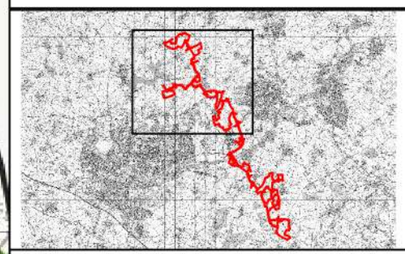
Title: 7.4.5 Semi-Natural Grassland Biodiversity Opportunity Zones (Green Hill A - E)

Document: Volume 1 Outline Landscape and Ecological Management Plan

Legend:

- Order Limits
- Site Boundaries
- Buffer
- Existing habitat
- Stepping stone

Data: IGP, 2025,
Biodiversity Opportunity Mapping: Natural Capital Solutions Ltd., 2018; Northamptonshire Biodiversity Records Centre. Published in 2024.
Biodiversity Opportunity Areas Buckinghamshire & Milton Keynes Environmental Records Centre
Base Maps: '© Crown copyright and database rights 2024 Ordnance Survey 0100031673'
Imagery ©2024 Landsat / Copernicus, Maxar Technologies, Map Data ©2024



APFP Regulation: 5(2)(q)

Application Doc no.: EN010170/APP/GH7.4

Drawing no.: CW.ES.MP.5

Co-ordinate system: OSGB36 / British National Grid

Scale: 1:36200 @ A3

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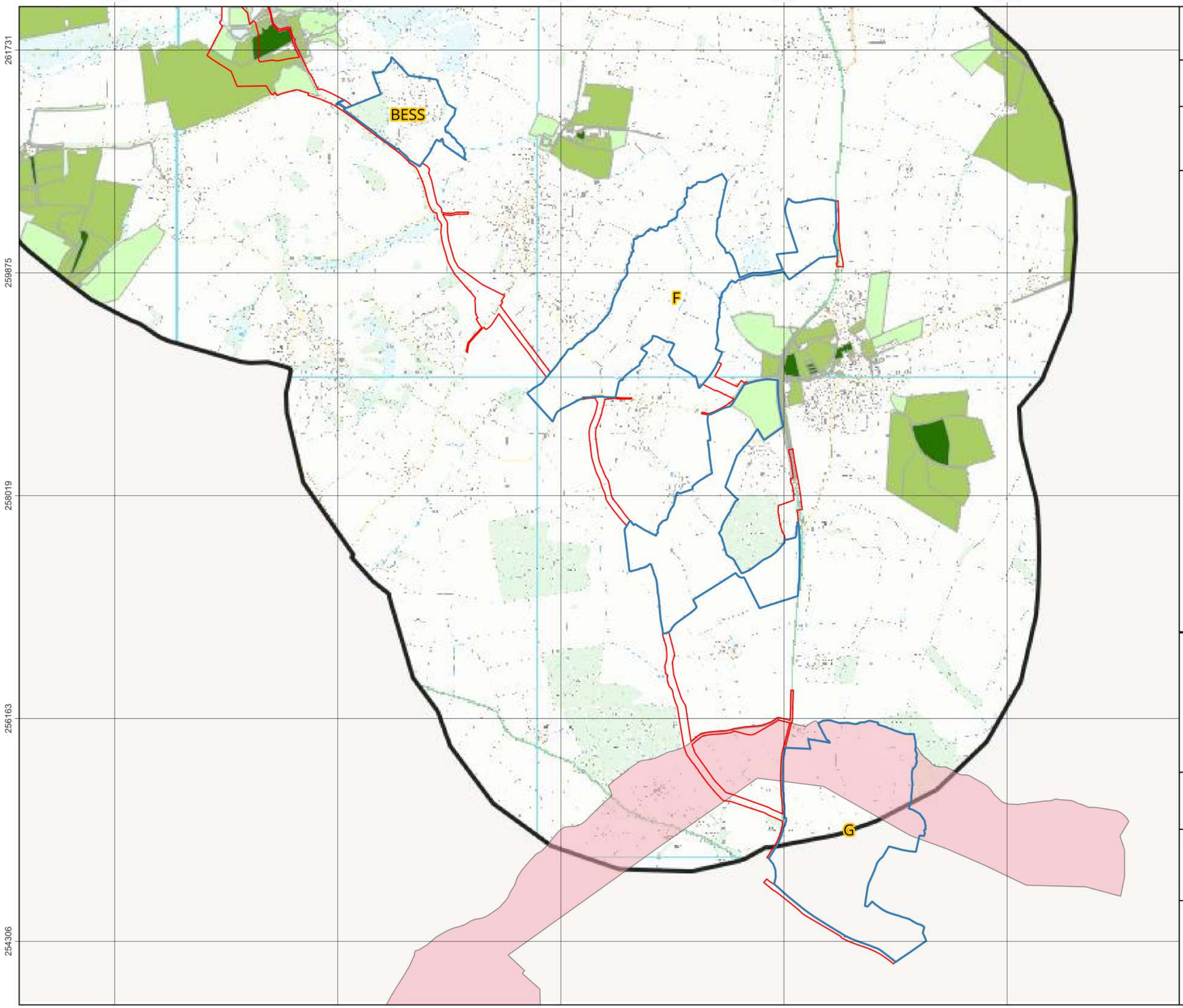
N W E S

Island GREEN POWER

CLARKSON & WOODS ECOLOGICAL CONSULTANTS



GREEN HILL SOLAR FARM

Title: 7.4.6 Semi-Natural Grassland Biodiversity Opportunity Zones (Green Hill BESS F & G)

Document: Volume 1 Outline Landscape and Ecological Management Plan

Legend:

- Order Limits
- Site Boundaries
- Buckinghamshire & Milton Keynes Environmental Records Centre - Biodiversity Opportunity Areas
- Buffer
- Existing habitat
- Stepping stone

Data: IGP, 2025,
Biodiversity Opportunity Mapping: Natural Capital Solutions Ltd., 2018; Northamptonshire Biodiversity Records Centre. Published in 2024.
Biodiversity Opportunity Areas Buckinghamshire & Milton Keynes Environmental Records Centre
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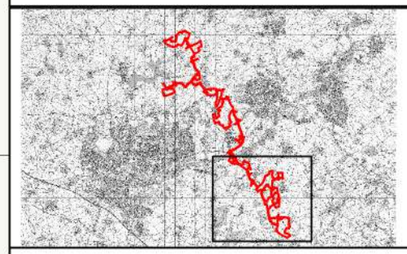

APFP Regulation: 5(2)(q)

Application Doc no.: EN010170/APP/GH7.4

Drawing no.: CW.ES.MP.6

Co-ordinate system: OSGB36 / British National Grid

Scale: 1:29700 @ A3

N W E S

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Island GREEN POWER

CLARKSON & WOODS ECOLOGICAL CONSULTANTS