SPRINGFIELD FARM

Technical Appendix 3.2: Outline Landscape and Biodiversity Management Plan

April 2025

ABSELINE
LANDSCAPE PLANNING

Contents

Figures

Role	Who	Date
Author	Mary Fisher	15 April 25
Reviewer	Mark Evans	23 May 25

1 Introduction

1.1 Purpose

1.1.1 This outline Landscape and Biodiversity Management Plan (oLBMP) has been prepared to accompany the application for consent for the construction, operation and decommissioning of the proposed Springfield Farm Solar Farm (hereinafter referred to as the 'Proposed Development').

1.1.2 The oLBMP provides a framework for delivering the Green Infrastructure elements of the Proposed Development for the construction and operational phases of the development, including the successful establishment and future management of the proposed landscape and ecological works for the duration of its operation. It sets out the short and long-term measures and practices that will be implemented by the Applicant to establish, monitor and manage landscape and ecology mitigation and enhancement (including Biodiversity Net Gain (BNG)) measures embedded into the design.

1.1.3 The oLBMP has been informed by consultation and engagement with relevant consultees as part of the application process. Full details of the consultation undertaken are outlined in EIA Report Chapter 6: Landscape and Visual Amenity and Chapter 8: Ecology and Ornithology.

1.2 oLBMP Management Area

1.2.1 This oLBMP relates to all land included within the application boundary as shown on Figure 3.2.1 - Landscape and Biodiversity Enhancements.

1.3 Other Documents

1.3.1 This oLBMP is set out in the context of the other environmental documentation plans submitted with the application for consent, in particular:

- Technical Appendix 3.1 Outline Construction and Environmental Management Plan (oCEMP);
- Technical Appendix 8.1 Habitats Survey Report;
- Technical Appendix 8.2 Protected Species Survey Report;
- Technical Appendix 8.3 Bat Survey Report;
- Technical Appendix 8.4 Confidential Badger Annex; and,
- Technical Appendix 8.5 Ornithological Technical Report.

1.3.2 The oLBMP has been informed by relevant legislation and other documents including:

- Planning Advice Note 60: Planning for Natural Heritage (2000)[1];
- Scotland's Biodiversity Strategy to 2045: Tackling the Nature Emergency[2];
- East Lothian Local Development Plan (2018) [3];
- East Lothian Special Landscape Areas Supplementary Planning Guidance (SLA SPG) (2018) [4]; and
- East Lothian Council Proposed Local Development Plan Technical Note 10: Planning for Biodiversity[5].

1.4 The Proposed Development

1.4.1 A description of the Proposed Development can be found in EIA Report Chapter 3: Development Description.

---

[1] Scottish Government (2000, updated 2008) *Planning Advice Note 60: Planning for Natural Heritage* Available at: https://www.gov.scot/publications/pan-60-natural-heritage/

[2] Scottish Government (2022) *Biodiversity Strategy to 2045: Tackling the Nature Emergency* Available at: https://www.gov.scot/publications/scottish-biodiversity-strategy-2045-tackling-nature-emergency-scotland/

[3] East Lothian Council (2018). Local Development Plan 2018. Available at: https://www.eastlothian.gov.uk/downloads/file/27791/local_development_plan_2018_adopted_270918

[4] East Lothian Council (2018). Special Landscape Areas Supplementary Planning Guidance. Available at: https://www.eastlothian.gov.uk/info/210547/planning_and_building_standards/12242/local_development_plan/3

[5] East Lothian Council 92016) *Proposed Local Development Plan Technical Note 10: Planning for Biodiversity* Available at: https://www.eastlothian.gov.uk/downloads/file/27787/technical_note_10_planning_for_biodiversity

1.4.2 Green Infrastructure has been an integral part of the design process and permeates the Proposed Development as illustrated in Figure 3.2.1 Landscape and Biodiversity Enhancements. Further details of the design evolution are provided within EIA Report Chapter 2: Site Design and Evolution.

2 Summary of Baseline Environment

2.1 Site Description

2.1.1 The Application Site is crossed by a network of minor roads and lies approximately 0.05km north of Oldhamstocks, and 7.8km southeast of Dunbar. The Application Site lies on a ridge, rising to approximately 177m above ordinance datum (AOD), and slopes to the north / northeast to approximately 85m AOD, as well as sloping to the south down to approximately 128m AOD at the southern boundary.

2.1.2 The Application Site is situated within an agricultural setting, with habitats dominated by a mixture of grazing pasture and arable fields. Fields are largely delineated by hedgerows. There are three areas of woodland within the Site, one of these, Cockit Hat Strip is listed on the Ancient Woodland Inventory (AWI) Scotland as an area of long established (of plantation origin) woodland. Within 500m of the Site, lies a further eight areas of woodland listed on the AWI (Scotland). A minor burn crosses the Application Site in a narrow, incised valley and Oldhamstocks Mains Farmhouse and Oldhamstocks Mains Cottages are located along the burn near the centre of the Application Site. An existing 132 kilovolt (kV) overhead power line (OHL) runs across the northeastern portion of the Application Site. EIA Report Chapter 6: LVIA, and Chapter 8: Ecology and Nature Conservation provide further description of the Site and baseline.

2.1.3 The Application Site is located within a transitional landscape of undulating small hills between the north-eastern end of the Lammermuir Hills and the sea. There are scattered properties and small settlements near the Application Site, including Oldhamstocks, Hoprig and Cockburnspath. Winding minor roads provide local access, whilst the A1 and East Coast Main Line railway facilitate major transport connections approximately 0.9km to the north-east. There are small wind farms located within 2km to the south of the Application Site, and larger schemes on the Lammermuir Hills beyond 3km to the south-west. Torness Nuclear Power Station is located 2.5km north. A network of Core Paths links inland and coastal settlements, with one path crossing the southern part of the Application Site.

2.2 Baseline Surveys

2.2.1 Baseline ecological surveys, detailed in EIA Report Technical Appendices 8.1 – 8.4 were undertaken during between May and October 2024, with baseline ornithological surveys, detailed in EIA Report Technical Appendix 8.5 completed between April and July 2023. Surveys recorded a variety of habitats and species within, and near to, the Site. The following section presents a summary of the baseline biodiversity conditions.

Designated Sites

2.2.2 The Site is not subject to any nature conservation designations. A total of two Special Protection Areas (SPA) and Ramsar sites with geese as a qualifying feature lie within 20km of the Site; two SPA and Ramsar with ornithological features lie within 10km of the Site, and five Special Conservation Areas (SACs) and Sites of Special Scientific Interest (SSSI). Details of these Sites are shown within EIA Report Chapter 8: Ecology and Ornithology.

2.2.3 There are 11 locally designated sites, such as Local Biodiversity Sites (LBSs), Scottish Wildlife Trust Sites (SWT) and Local Nature Conservation Sites (LNCS) located within 2km of the Site. Details of these Sites are shown within EIAR Report Chapter 8: Ecology and Ornithology.

2.2.4 None of the designated sites will be directly affected by the Proposed Development.

Habitats

2.2.5 The following habitats were recorded within the Site:

- Grassland (Other neutral grassland, *Holcus-Juncus* grassland, modified grassland);
- Woodland (Other lowland mixed deciduous woodland, other woodland mixed, other woodland mixed mainly broadleaved, other woodland mixed mainly conifer, coniferous woodland and felled woodland);

- Hedgerows and scrub (Native hedgerow, non-native ornamental hedgerow. Mixed scrub and gorse scrub);
- Arable (Arable field margins, cereal crops, winter stubble and non-cereal crops);
- Urban and suburban (Buildings, developed land sealed surface and built linear features); and
- Rivers and streams.

Protected Species

2.2.6 The following species were recorded using the Site:

- Badger (*Meles meles*);
- Bats (Nathusius' pipistrelle *(Pipistrellus nathusii*), brown long-eared bat (*Plecotus auritus*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), *Myotis spp.,* and *Nyctalus spp.*);
- Red squirrel (*Sciurus vulgaris*);
- Brown hare (*Lepus europaeus*); and
- Breeding birds, including a typical range of species for the geographic area and habitats.

3 Context and Rationale

3.1 Aims, Constraints and Opportunities

3.1.1 This oLBMP identifies opportunities for enhancement as well as providing the management required to mitigate the effects of development.

Ecology and Ornithology

3.1.2 The overarching aims of this management plan in terms of ecology are as follows:

- Increase diversity and quality of habitats across the Site;
- Ensure Site remains accessible for badger;
- Enhance the Site for badger, bats, red squirrel, brown hare and the breeding bird assemblage;
- Improve the connectivity across the Site for wildlife through the enhancement of green corridors, such as hedgerows; and
- Identify the monitoring procedures needed to measure the effectiveness of management.

3.1.3 Other ecological features which are not subject to protection, such as invertebrates, whilst not priorities for management action in the oLBMP are likely to benefit from the proposed management measures.

Landscape

3.1.4 The key aims of the management plan in terms of landscape features and character are to:

- Retain and improve the existing hedges and trees within the Site; and
- Establish vegetation in solar areas which will deliver biodiversity enhancement during the operational life of the Proposed Development and facilitate the return of the land to agriculture in good condition at decommissioning.

3.1.5 These aims address the following aspects of the management guidelines set out in the East Lothian SLA SPG:

- Innerwick Coast (east and centre of the Site):
  - *"A. Retain arable character;*
  - *B. Promote increase in roadside planting to reduce impact of major visual detractors without screening all views out;*
  - *D. Diversity of species in any new woodland planting should be increased;*
  - *E. Take account of vulnerability of coastline to further visual intrusion from all types of development;*
  - *I. Retain character of minor roads;* and
  - *J. Restore and maintain traditional hedge and stone wall field boundaries."*
- Eastern Lammermuir Fringe (western part of the Site):
  - *"B. Reinforce visual and ecological contrasts between open hill slopes and steep valley sides* (this guideline is reiterated for management of SLA4 Monynut to Blackcastle which this part of the Site lies within), and
  - *J. Restore and maintain traditional hedge and stone wall field boundaries."*

4 Objectives

4.1 Introduction

4.1.1 This oLBMP has the following objectives:

- Objective B1 – Protect breeding birds and their nests.
- Objective B2 – Install boxes to increase nesting opportunities for birds.
- Objective H1 – Establish new hedgerows and manage existing hedgerows to increase biodiversity value, as well as density and height to 2-2.5m to screen views into the Site from surrounding roads, access routes and residential areas.
- Objective H2 – Retain access where hedges adjoin access routes.
- Objective M1 – Protect mammals during construction.
- Objective M2 – Maintain access for mammals.
- Objective S1 – Establish species rich grass and wildflower meadows in solar areas to increase biodiversity and maintain soil quality.
- Objective V1 – Protect existing vegetation to be retained to ensure it is not damaged during construction.
- Objective W1 – Establish new woodland to screen views of the Proposed Development from homes at Oldhamstock Mains Cottages.

4.1.2 Each of the objectives within this plan requires management and/or monitoring measures. These have been combined into an integrated outline plan, which is set out in section 5 and 6.

Objective B1 – Protect breeding birds and their nests

4.1.3 For any wild bird species, it is an offence under the Wildlife and Countryside Act 1981 to intentionally or recklessly kill, injure or take a bird, take, damage, destroy or interfere with a nest of any bird while it is in use or being built, obstruct or prevent any bird from using its nest, and/or take or destroy an egg of any bird.

4.1.4 Clearance of vegetation during the peak breeding season (March to August) will be avoided where possible or will be subject to a pre-construction check by the appointed Ecological Clerk of Works (ECoW) no more than 48 hours prior to works commencing. If any nesting birds are present, an appropriate buffer zone will be required, within which works are excluded for the duration of the breeding attempt.

4.1.5 Skylark nests are difficult to find and, if construction is planned in the spring or summer, it is recommended that skylark breeding habitat, including arable crops and grassland, is cut or cleared prior to the breeding season and maintained at a height of no more than 15 cm to prevent skylarks from returning to nest.

4.1.6 Future management of habitats will be completed in a way that is sensitive to nesting birds, minimising the risk of affecting nesting birds.

Objective B2 – Install boxes to increase nesting opportunities for birds

4.1.7 As an enhancement, bird boxes will be installed. These will be targeted towards tree sparrow and therefore should have 28 mm holes and be placed in clusters, in accordance with guidance[6]. Twenty boxes will be installed, in two clusters of 10 boxes, with the location to be dictated by a suitably experienced ECoW or ecologist.

[6] https://www.rspb.org.uk/helping-nature/what-we-do/influence-government-and-business/farming/advice-for-farmers-helping-bird-species/tree-sparrow-advice-for-farmers

Objective H1 – Establish new hedgerows and manage existing hedgerows to increase biodiversity value, as well as density and height to 2-2.5m to screen views into the Site from surrounding roads, access routes and residential areas

4.1.8 Existing hedgerows indicated on Figure 3.2.1 will be gapped up with species that are appropriate to the local growing conditions and character and which will improve biodiversity. Hedges should not be allowed to markedly exceed the design height of 2-2.5m as this will create excessive visual enclosure. Density is as important as height in providing visual screening, so height increase should be gradual.

Objective H2 – Retain access where hedges adjoin access routes

4.1.9 In some places, hedges which will be maintained as part of the Proposed Development adjoin access routes needed for maintenance of the development, for farming operations and for recreation. Where this arises, checks are to be made during the growing season to ensure that access is maintained.

Objective M1 – Protect mammals during construction

4.1.10 The following measures have been included within the design of the Proposed Development to avoid impacts to protected and / or priority species. Any associated buffer zones should be demarked ahead of commencement of construction:

- Works will avoid all woodland areas and Root Protection Zone (RPZ) will be applied to trees within and adjoining the site. The RPZ will be specified by a competent arborist or landscape professional. No works or vehicle movements will be permitted within the RPZ without written permission from the arborist or landscape professional;
- No works will occur within 15 m from any areas of woodland listed on the AWI (Scotland);
- No works will occur within 5 m of any existing hedgerow
- No works will occur within 30 m of any known badger sett;
- In accordance with the SEPA Riparian Corridor dataset, which indicates that all watercourses within the Site should have a 10 m buffer where no development takes place, there will be no development within 10 m from any watercourse.

4.1.11 Full details of avoidance and mitigation measures to be implemented during construction can be found in Technical Appendix 3.1 oCEMP.

Objective M2 – Maintain access for mammals

4.1.12 Security fences around the panel areas and Site periphery will be permeable to badgers, with badger access points located in the fencing at locations close to existing badger paths to allow badgers and other small mammals, such as brown hares access into the Site. Initial access points have been included on Figure 3.2.1. However, the final number of badger access points will be determined following pre-construction surveys. A suitably qualified ecologist will determine the number and location of badger access points. These badger access points should be in place the same day that the fencing is installed and remain up until the point of fence removal at the end of decommissioning.

4.1.13 Regular checks of fencing will occur to ensure badger access points remain operational.

Objective S1 – Establish species rich grass and wildflower meadows in solar areas to increase biodiversity and maintain soil quality

4.1.14 As shown by Figure 3.2.1, two grass and wildflower mixes are included as part of the Proposed Development; a shade-tolerant mix to be seeded under the panels, and a mix better suited to higher light levels where shading is less likely.

4.1.15 The addition of a wildflower meadow mix will provide greater ecological diversity and species diversity compared to the existing farmland habitats. This will provide improved foraging habitat for a range of species including badger, bats, and breeding birds.

Objective V1 – Protect existing vegetation to be retained to ensure it is not damaged during construction

4.1.16 Design measures have been included in the Proposed Development so that development is offset from vegetation to be retained in order to reduce the risk of damage to vegetation during construction. Tree surveys will be undertaken prior to construction and detailed protection measures are to be agreed with East Lothian Council prior to construction and implemented during the construction process.

Objective W1 – Establish new woodland to screen views of the Proposed Development from homes at Oldhamstock Mains Cottages

4.1.17 As shown by Figure 3.2.1, a small area of woodland is proposed to the south of homes at Oldhamstocks Mains Cottage, to screen views of the nearby solar areas. The woodland planted is to be a mix of tree and understorey species in order to maintain dense vegetation at lower levels are the planting matures. Species will also be selected to improve biodiversity and be appropriate to the local growing conditions and character.

5 Management and Monitoring

5.1.1 Management measures are required to be taken pre-construction, during construction and after construction in order to achieve the objectives. Monitoring is necessary to check that the management measures are effective in achieving the objectives and to inform and prompt corrective action where measures are failing to achieve the objectives. The management measures and monitoring approaches are set out below.

Objective	Management measures for this objective	Monitoring for this objective
All	A suitably qualified and experienced Ecological Clerk of Works (ECoW) will be appointed by the developer to provide ecological advice and support to the Principal Contractor during construction, including monitoring of compliance with this LBMP and the EIAR	A weekly report shall be provided by the ECoW detailing measures put in place during the construction period.
B1 – Protect breeding birds and their nests	Pre-construction – Habitats will be reviewed for their suitability to support nesting birds and, if necessary, manipulated or cut prior to the breeding season to reduce their attractiveness to ground-nesting birds. Construction – Vegetation removal in the breeding season will be avoided where possible. Where avoidance isn't an option, pre-clearance checks by a suitably experienced ECoW or ecologist will be completed and reactive mitigation implemented as required if any nest is located. During operation – Long-term habitat maintenance (e.g. hedge or grass cutting) will be completed in a way that is sensitive to nesting birds.	Pre-construction and Construction – ECoW to provide a weekly report throughout construction detailing what has been undertaken to show measures are being followed.
B2 – Install boxes to increase nesting opportunities for birds	Operation – Boxes will be installed as per specification in section 4.1. Boxes can be within or near the Site and may be tree-building or post-mounted, depending on the opportunities available.	Operation – Boxes will be checked periodically to ensure they remain intact and suitable for use. Damaged or missing boxes will be replaced.
H1 - Establish new hedgerows and manage existing hedgerows to increase biodiversity value, as well as density and height to 2-2.5m to screen views into the Site from surrounding roads, access routes and residential areas	Pre-construction – Identify areas where gapping up is required and suitable species for gapping up and new hedgerow planting as part of developing detailed planting proposals. Construction – Planting is to be undertaken at the end of the construction period to avoid risk of new planting being damaged during construction. During operation (pre-establishment) – Remove shelters (if used) once plants are sufficiently established. During operation (established hedges) – Hedge cutting to achieve design height and increase density, outside the bird nesting	Provide detailed planting proposals, including specification, and agree with ELC prior to construction. Ensure areas for planting are suitably prepared. Check establishment of planting and replace failures if required. Cut established hedges annually to manage height and density.

Objective	Management measures for this objective	Monitoring for this objective
	season and in a manner sensitive to biodiversity e.g. allowing hedgerows to fruit.	
H2 - Retain access where hedges adjoin access routes	During operation – Cut hedges as required to maintain easy access.	At regular intervals during summer months, check if hedges are reducing access and implement management measure as required.
M1 – Protect mammals during construction	Pre-construction – Undertake surveys for Badger within 30 m of the Site and Otter within 200 m of the Site. Undertake surveys for bats if tree removals are required. All associated buffers to avoid harm to ecological feature should be demarked ahead of construction by a suitably qualified ecologist. Construction – All measures detailed within Technical Appendix 3.1 oCEMP will be followed. The ECoW will be responsible for measures that are relevant to ecology being implemented.	Pre-Construction – Following pre-construction surveys an updated survey report will be shared with ELC, along with the final CEMP. Construction – ECoW to provide a weekly report throughout construction detailing what has been undertaken to show measures are being followed. This will include where corrective measures have been applied.
M2 – Maintain access for mammals	Pre-construction – A suitably qualified ecologist will undertake badger surveys to determine the final number of badger access points and these will be demarked accordingly. Construction – The badger access points / gates should be installed under the presence of the ECoW at the same time the fencing is installed.	Construction - Once the badger gates have been installed these should be monitored throughout construction to ensure they remain in working order. Operation – A suitably qualified ecologist should check the badger gates annually to ensure that they remain operational. If any issues are raised by the ecologist, any issues with the badger gates should be fixed, and then checked again by the ecologist once corrective measures undertaken.
S1 - Establish species rich grass and wildflower meadows in solar areas.	Pre-construction – Identify suitable grass mixes for shaded and unshaded areas as part of developing detailed planting proposals. During operation (pre-establishment) – Cutting or grazing regimes during establishment should be tailored to the mix used and aim to establish a diverse sward. Flower seed should be allowed to set post flowering, prior to any mowing or grazing. During operation (established swards) – In areas where mowing is selected as the method for maintaining species rich grass and wildflower meadows, an annual cut should be undertaken in late summer/early autumn as appropriate for the selected seed mixes, and arisings to be removed. Cuts would be completed in a sensitive way that minimises potential effects on nesting birds and other biodiversity interests, such as reptiles. In areas where sheep grazing is selected as the method for maintaining species rich grass and wildflower meadows, grazing should either be	Provide detailed planting proposals, including specification, and agree with ELC prior to construction. Ensure areas for seeding are suitably prepared. Check establishment of sward and rectify failures if required.

Objective	Management measures for this objective	Monitoring for this objective
	at low densities for longer periods of time or higher densities for short periods, with the aim of encouraging floristic diversity and a mature sward across most of the habitat area to maximise benefits for biodiversity. In areas	
V1 – Protect vegetation during construction	Pre-construction – Undertake tree surveys to identify areas where protection is required and agree measures with ELC.	Provide surveys to and agree measures with ELC prior to construction. Inspect to ensure these measures have been implemented prior to commencement of construction.
W1 – Establish new woodland to the south of Oldhamstocks Mains Cottages	Pre-construction – Identify suitable species and sizes for planting as part of developing detailed planting proposals. Construction – Planting is to be undertaken at the end of the construction period to avoid risk of new planting being damaged during construction. During operation (pre-establishment) – Remove shelters (if used) once plants are sufficiently established. During operation (established hedges) – Manage understorey to ensure visual screening continues to be provided.	Provide detailed planting proposals, including specification, and agree with ELC prior to construction. Ensure areas for planting are suitably prepared. Check establishment of planting and replace failures if required. Manage as woodland, but ensure understorey continues to thrive, reducing tree canopy cover if required to increase light levels to understorey.

6 Implementation

6.1 Introduction

6.1.1 This outline plan describes the management and monitoring measures to deliver the landscape and ecological mitigation and enhancement reported in the ES. Further detail is needed post-consent in order to ensure that the measures proposed meet planning conditions imposed as part of the consenting process.

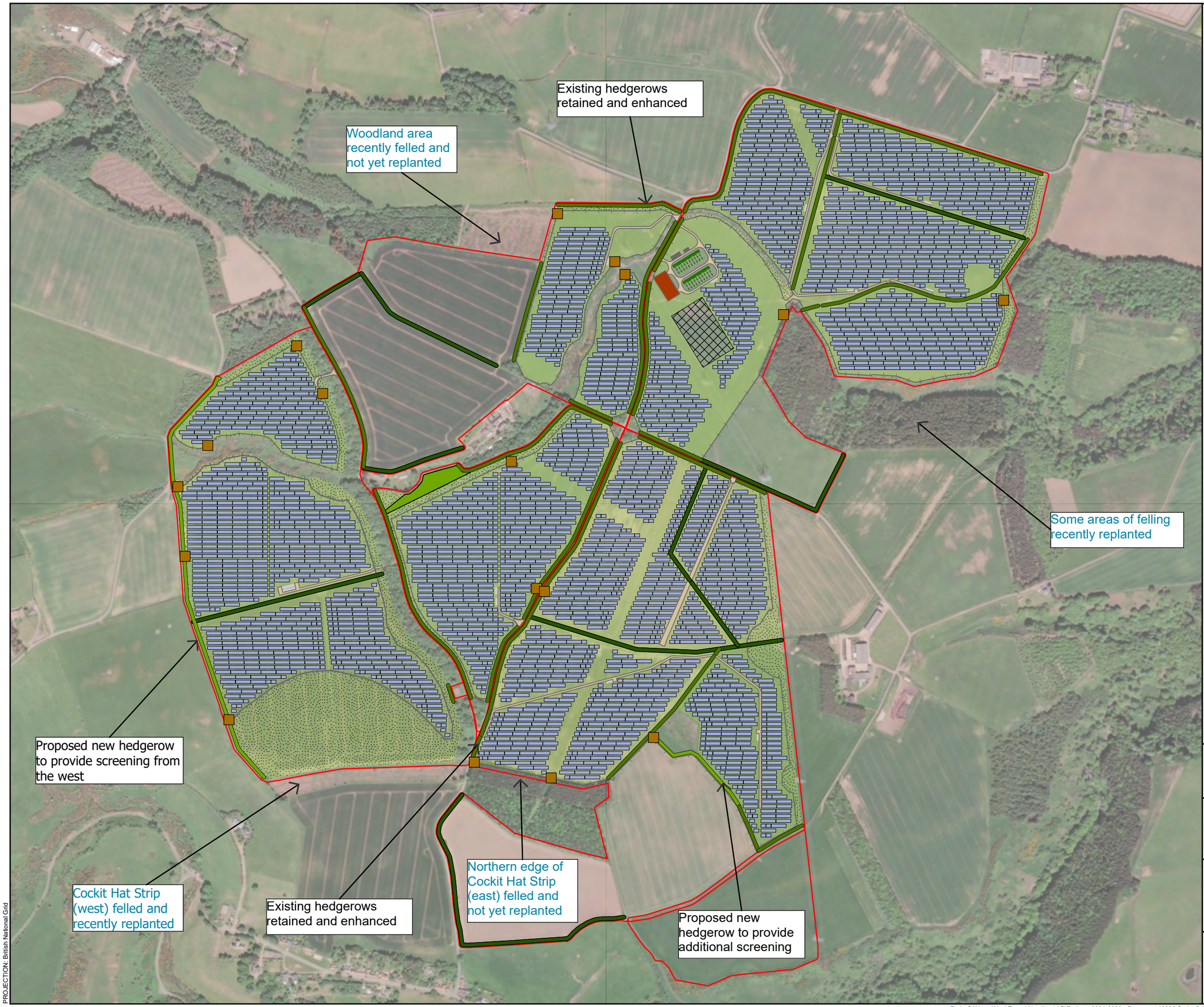
6.2 Responsibilities

6.2.1 Whilst there is currently no intent to transfer the option to develop to another party, the Management Plan would still need to be implemented in the event that this arises. The responsibility for delivery of these management measures and monitoring would continue to lie with whoever is undertaking or operating the Proposed Development – i.e. the developer (pre-construction and during construction) or the operator (during operation).

6.3 Funding

6.3.1 The delivery of this management plan will be entirely funded by the developer prior to construction and by the operator during operation.

Figures



Site Boundary

Proposed Development

- Area Reserved for TSO Substation
- BESS
- OM Building and Storage Containers
- PV Module
- Transformers
- Internal Access Track
- Fence
- HV Equipment

Landscape and Biodiversity Proposals

- Existing hedgerow retained
- Existing hedgerow retained, gapped up as required and managed to increase height
- Proposed native hedgerow
- Proposed woodland block
- Proposed wildflower grassland
- Proposed wildflower grassland - shade tolerant mix under panels
- Proposed mammal gate through fence

Blue Contextual notes

Black Proposals notes

0 100 200 300 400 Metres

N

SCALE: See Scale Bar	VERSION: A01
SIZE: A3	DRAWN: RK
PROJECT: Springfield Farm	CHECKED: MF
DATE: 23/05/2025	APPROVED: ME

Figure 3.2.1:
Landscape and Biodiversity Enhancements

ERM voltalia

PROJECTION: British National Grid

Path: C:\Users\MarkEvans\Abseline LLP\Projects 0001-0099 - Documents\0035 Springfield Farm\04 Working\02 Figures\03 Landscape proposals\0035_landscape_proposals.aprx