NATURAL ENGLAND

Department for Environment Food & Rural Affairs

Habitat Management and Monitoring Plan



Site Name:	Gunthorpe Road Solar Farm Access Track – Land between East Bank / Gunthorpe Road and Gunthorpe Road Solar Farm, Walpole Bank, Walpole Marsh.
Date:	05/12/2025
Version:	Version 2

Author:

avianecology

Client:

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Version Control

The version control is used for updates to the content. Record the initial version and further version control details in this table each time the management plan is altered throughout the management and monitoring period.

Version	Issue Status	Prepared by / Date	Approved by / Date
Version 1	Draft	A Logan 05/06/2025	R. Freeman 02/07/2025

Document Details

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Authorship Details
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1. Project Background

Summarise the key aspects of your management plan in this section. Table PB-B01 can be extended to suit the specific needs of individual projects.

Site Overview PB-B01	
Project type	Access track for solar farm.
Development Name and Address	Land between East Bank / Gunthorpe Road and Gunthorpe Road Solar Farm, Walpole Bank, Walpole Marsh.
BNG Project Name and Address	N/A.
Author Organisation	Avian Ecology Limited.
Landowner	Access Route - landowner where access route is proposed. Frederick Robert Laming, Gunthorpe Farm, Walpole Marsh, Wisbech, Cambridgeshire, PE147JJ. Solar Farm – The landowner of the solar farm where habitat creation is proposed to achieve biodiversity net gain. E Bell and Co, Wingland Grange, Grange Road, King's Lynn, PE34 4HQ.
Land Manager	N/A.
Responsible person/organisation for creating or enhancing the habitat	Enso Green Holding R Limited.
Period covered by this management plan	40 years from 2027 connection.
Planning authority	South Holland District Council.
Planning reference (if applicable)	H18-0922-25.
BNG register reference (if applicable)	N/A.
Central OS grid reference	TF 46901 18057.
Metric revision/title	Statutory biodiversity metric from July 2024.

Are any Irreplaceable Habitats present onsite	Yes: ☐ No: ☒

Summary of Management Plan

Habitats to be Retained, Created and Enhanced PB-B02

Retained: None. All habitats within the footprint of the access track, predominantly comprising arable land with a small strip of modified grassland and sealed surface will be lost. The access will adopt and existing break in the hedgerow off Gunthorpe Road to the north. A broad-leaved tree adjacent to the southern site boundary will be protected and retained.

Created: An area of neutral grassland (0.3ha) will be created within an area of Gunthorpe Road Solar Farm referred to in the HMMP as the BNG Habitat Area.

Enhanced: N/A.

Timescales for Actions PB-B03

2027 - 2028: Habitat creation, to include grassland creation (grassland seeding).

2027/28-2032: Establishment and management, to include grassland cutting and targeted herbicide treatments where necessary.

2033 onwards: Long-term annual management to include annual cutting of grassland.

Created other neutral grassland expected to reach its target condition of moderate by year 5 (2032).

Monitoring Requirements PB-B04

Habitat management will be undertaken over the 40 year operational period of the solar farm. Habitat monitoring and reporting will be undertaken for a minimum of 30 years, in accordance with BNG best practice. Monitoring will be undertaken annually during the first 5 years, then in years 10, 20 and 30.

Monitoring will involve a habitat survey (between May and September) following the UKhab methodology and a condition assessment adopting the Statutory Biodiversity Metric - Technical Annex 1: Condition Assessment Sheets and Methodology.

Following each monitoring visit, a monitoring and compliance report will be produced outlining progress towards targets, and habitats or areas considered unlikely to achieve their stated target condition, along with suggested remedial actions to be implemented. If the monitoring identifies that a particular habitat or part of a habitat is not meeting (or on target to meet) the target condition or is not meeting the description for the proposed habitat type, then additional interventions and more regular monitoring may be required. If the habitat is still failing to meet target condition, contingency measures will be considered.

Required Consents and Licences PB-B05

Planning permission H18-0922-25.

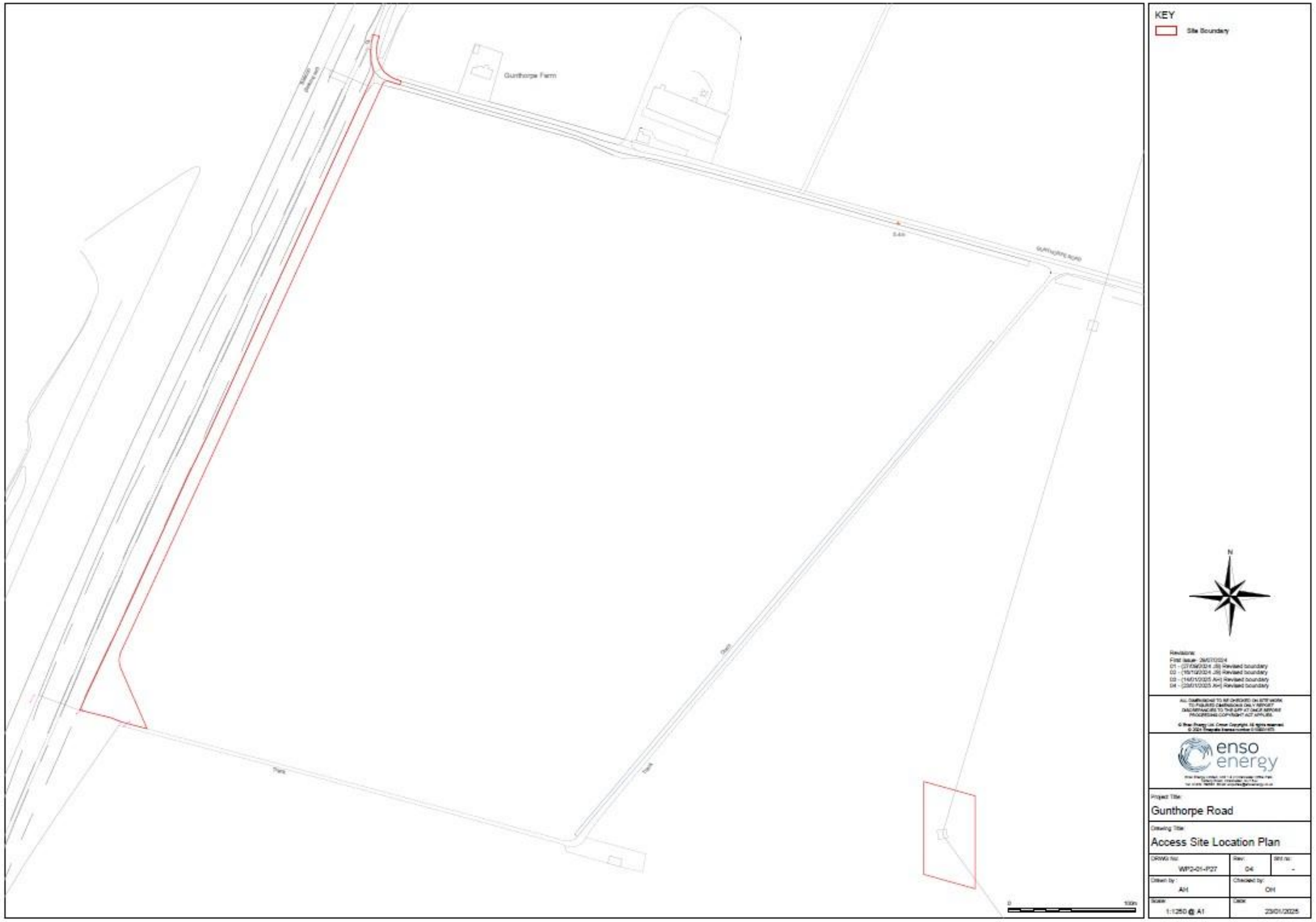
Funding PB-B06

Enso Green Holding R Limited will be responsible for delivery and funding of the HMMP.

Legal Agreement PB-B07

N/A.

Site Boundary Plan PB-F01



Site Context Plan PB-F02

This plan should show the location of the site, including the LPA, boundary, national character area, and any relevant landscape scale policy or guidance information.



Phasing strategy

Will the proposed work measures be delivered in phases? PB-B08	Yes: ☐ No: ☐
N/A.	

Roles and Responsibilities

Provide details of the responsible persons and organisation(s) for delivering this management plan.

Ecologist or Other Professional Responsible for HMMP PB-B09				
Name or Initials		A. Logan		
Organisation		Avian Ecology Limited		
Responsibility	Start Date:	2025	End Date:	2025
Production of this HMMP to support the Biodiversity Net Gain (BNG) Assessment adopting the Statutory Metric.				
Statement of Competency				
A. Logan is Principal Ecologist at Avian Ecology Limited, with over 19 years' experience in the ecology consultancy sector. He has undertaken numerous BNG assessments using the Statutory Metric as well as earlier version and has produced Biodiversity Management Plans (BMPs) and Habitat Management Plans (HMPs) for similar developments.				

Landowner or Land Manager PB-B10				
Name or Initials		N/A.		
Organisation		E Bell and Co, Wingland Grange, Grange Road, King's Lynn, PE34 4HQ.		
Responsibility	Start Date:	N/A	End Date:	N/A
No responsibilities under the HMMP.				
Statement of Competency				
N/A.				

Management Organisation(s) Responsible for Implementing the HMMP PB-B11				
Name or Initials		N/A		
Organisation		Enso Green Holdings R Limited.		
Responsibility	Start Date:	2027	End Date:	2067
Responsible for the implementation of this HMMP and construction, ongoing management during the operational life, followed by decommissioning of the Solar Farm.				
Statement of Competency				
Contractors yet to be appointed for the implementation of this HMMP.				

LPA or Responsible Body for Reviewing HMMP PB-B12				
Name or Initials		N/A		
Organisation		South Holland District Council		
Responsibility	Start Date:	2027	End Date:	2057
South Holland District Council will undertake monitoring of the HMMP and will assess the BNG provided on site over a 30 year period. Tasks will include site visits, assessing monitoring reports and negotiating any remedial actions required and keeping information up to date on the council database.				

Land Use Summary

Overview of Baseline Site Use PB-B13

The Site at the time of the baseline assessment was used as agricultural (arable) land. Site context photographs show the habitats within the footprint of the access track (top image) and the within the BNG Habitat Area (bottom image).

Other than typical agricultural land management practices, there are no other specific management operations currently in effect.

Overview of Proposed Site Use PB-B14

The Proposed Development is for the installation of an access track connecting Gunthorpe Road to Gunthorpe Road Solar Farm. Habitats within the footprint of the access road will be lost.

Habitat creation to provide BNG will be provided within an area of Gunthorpe Road Solar Farm (referred to as the BNG Habitat Area), where it is proposed that other neutral grassland will be created.

It is proposed that grassland areas will be seeded with an appropriate seed mix, such as Emorsgate EM2 Standard General Purpose Meadow Mixture or similar. The grassland once established will be managed by an annual cut to encourage a species and structurally diverse grassland for value to wildlife.

Site Context Photos PB-F03

Please include two overview photographs of the site in its current form here. Include additional photographs in an appendix if needed. Tick if additional photographs are provided in the Appendices

☐ Reference: Click or tap here to enter text.





Site Baseline, Environmental Information and Associated Impacts Checklist PB-T01

Consider the Baseline and Environmental Information listed below. These are likely to be appropriate factors informing your proposals and project design. They can provide the reviewer with important contextual information for the management prescriptions provided later in this document. Use your professional judgement to determine which factors are relevant to your specific project.

Please use the check box to indicate which are included in your plan. For any not included, provide brief reasons why the factor is not relevant to your project using your professional judgement. Where this information is provided elsewhere, you can reference existing reports and, or, plans that have informed your decisions. For the templates for each heading see pages 3-20 of the Companion Document.

Baseline and Environmental Information	Prompts for when these may be relevant. This is not an exhaustive list. Use your professional judgement to determine which are required for your HMMP	Check box if included	Document Reference or Reason if not included
Statutory / Non-statutory Designated Sites	Will your proposals lead to direct or indirect effects on designated sites?	☐	No statutory or non-statutory designated sites on or adjacent to the Site. See Ecological Impact Assessment report (Delta-Simons, 2021[1]) and Ecology Note (Logika Group, 2024[2]).
Protected and Notable Species	Does the presence or proximity of specific species on or near your site present any constraints or opportunities to project design or management?	☒	See Ecological Impact Assessment report (Delta-Simons, 2021) and Ecology Note (Logika Group, 2024). Considered in relation to timing of management operations.
Invasive Non-Native Species (INNS)	Are any INNS present onsite that could affect the proposals?	☐	No invasive non-native species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were identified within the Site. See Ecological Impact Assessment report (Delta-Simons, 2021) and Ecology Note (Logika Group, 2024).
Biological Records Plan - Sites and Species	Does the presence of designated sites or specific species on or near the site present any constraints or opportunities to proposals?	☐	No records or sites or species were provided which would provide specific constraints or opportunities for the HMMP. The objectives of the HMMP is to provide habitat which is beneficial to wildlife in general.
Baseline Habitats Survey	Is this current and important HMMP information located in a separate document? If so, provide details on where it is located.	☒	See baseline section below.
Public Access	Has public access, or proposals to allow public access, influenced your management prescriptions? If so, how?	☐	The Site is on private land. Public access has not influenced management prescriptions.
Climate	Are local climate conditions and, or, climate change likely to impact the target habitat retention, creation or enhancement?	☐	The Site lies within a climate change vulnerability buffer of low and moderate, as identified on the MAGIC website.
Geology and Topography	Any geological or topographical constraints or opportunities?	☒	No geological or topographical constraints or opportunities identified. However the Site has been modified by historic agricultural use and therefore may present a constraint with increased nutrient levels within the soil; this is considered within the Habitat Creation, Enhancement and Management Plan.

[1] Delta Simons (2021). Ecological Impact Assessment - Gunthorpe Road Solar Farm and Battery Storage Facility.
[2] Logika Group (2024) Ecology Note: Gunthorpe Road Solar Farm Access Road

Agricultural Land Status	Does the site support any land favourable for agricultural management? Could this affect the proposals?	☒	The agricultural land within the Site is Grade 1. An Agricultural Land Classification reports was produced for the Gunthorpe Road Solar Fram (Askew Land & Soil Limited, 2021[3]). The Site has been modified by historic agricultural use and therefore may present a constraint with increased nutrient levels within the soil; this is considered within the Habitat Creation, Enhancement and Management Plan.
Soils and Substrates	Do soils and substrates present any constraints or opportunities?	☒	Site has been modified by historic agricultural use and therefore may present a constraint with increased nutrient levels within the soil; this is considered within the Habitat Creation, Enhancement and Management Plan.
Contaminated Land	If there is any contaminated land, will this present any constraints?	☐	No contaminated land known within the Site. The site has been in agricultural use prior to development.
Hydrology and Drainage	Will the site hydrology present any constraints or opportunities?	☐	Hydrology and drainage not considered to provide constraint or opportunities to the HMMP. A Flood Risk Assessment and Surface Water Drainage Strategy was produced for the Gunthorpe Road Solar Fram (JBA Consulting, 2021[4]).
Flood Risk Zones	Is the site within a flood risk zone? Will that present any site management risks?	☐	The Site is Flood Zones 2 and 3; with the Site is at risk of flooding from fluvial and tidal sources. The site is defended from tidal flooding by EA-maintained flood defences, but future breaches could occur. The Site is considered low risk of groundwater flooding. The Site has not experienced flooding in the past. The solar farm site includes a surface water drainage strategy. Regular flooding is considered unlikely to be a constraint. A Flood Risk Assessment and Surface Water Drainage Strategy was produced for the Gunthorpe Road Solar Fram (JBA Consulting, 2021)
Landscape Character and Designations	Does the landscape character of the site present any constraints or opportunities?	☐	The Site and the immediately surrounding area are not located within any landscape designations. The Site is located in the Terrington St John Landscape Character Area. Landscape and character designations are not considered to be provide constraints or opportunities. A Landscape and Visual Impact Assessment was produced for the Gunthorpe Road Solar Farm (Landscape Visual, 2021[5])
Historic Land Use	Does the historic land use present any constraints or opportunities?	☒	Historic land use has been agricultural which may present a constraint with increased nutrient levels within the soil; this is considered within the Habitat Creation, Enhancement and Management Plan.
Historic Environment and Earth Heritage	Are there any historic environment designations? What are the implications for your plan?	☐	No notable archaeological or heritage constraints are identified with respect to the HMMP. A Heritage Statement was produced for the Gunthorpe Road Solar Fram (Pegasus, 2021[6])

[3] Askew Land & Soil Limited (2021) Agricultural Land Classification - Gunthorpe Road Solar Farm and Battery Storage Facility
[4] JBA Consulting (2021) Flood Risk Assessment and Outline Surface Water Drainage Strategy - Gunthorpe Road Solar Fram and Battery Storage Facility
[5] Landscape Visual (2021) Landscape and Visual Impact Assessment - Gunthorpe Road Solar Farm and Battery Storage Facility
[6] Pegasus (2021) Heritage Statement - Gunthorpe Road Solar Farm and Battery Storage Facility

Other – please specify	Any other details - for example underground services or overhead powerlines, which may impact habitat management.	☐	N/A

2. Baseline and Environmental Information

Baseline Habitats Survey

Ecologist responsible for baseline surveys (BI-T03)	
Name or Initials	Access Track – A Jackson. Solar Farm – Unnamed.
Organisation	Access Track – Logika Group. Solar Farm - Delta-Simons Limited.
Survey Date	Logika Group - 12th August 2024. Delta-Simons Limited – 25th March 2021.
Statement of Competency	
A Jackson MZool (Hons) is a qualified Ecologist with at least 6 years professional consultancy experience. The Delta-Simons Ecological Impact Assessment report (June 2021) and associated Biodiversity Net Gain Assessment November 2021) which report the baseline habitats within the solar farm were authored and quality assured by senior, principal and associate ecologists.	
Survey conditions and limitations	
The survey undertaken by Delta-Simons Limited was undertaken during the sub-optimal time of year for identifying plant species on the Site. However, as the site was mostly arable, potential misidentification of habitats and their value is not considered to be a substantive constraint. No constraints were identified during the survey undertaken by Logika Group in terms of assessing habitat types and habitat condition to the inform baseline for the purposes of BNG.	

Habitat Degradation

Are there any signs or evidence that the baseline habitats have been purposefully degraded since 30th January 2020? (BI-B05)
Historic satellite imagery shows the Site has remained under agricultural production since prior to 30th January 2020, and habitat types and condition are unlikely to have substantively changed during this period.

If habitats have been purposefully degraded, provide details of how this has been accounted for (BI-B06)
N/A.

Baseline Habitat Descriptions and Condition

Use the following tables to provide details of the relevant baseline habitats information. Provide a concise overview of the justification for the condition chosen for each parcel(s) in the appropriate column.

Habitats (BI-T04)

Parcel Refs	Habitat Type and Code	Irreplaceable	Priority	Description and Condition Justification	Condition	Area (ha)
BNG Habitat Area	Cropland – non-cereal crops c1d	No	No	BNG Habitat Area – Arable land within the Delta-Simons Ecological Impact Assessment report was described as 'being ploughed, part appeared recently planted with an unidentified crop and part supported oilseed rape. No condition assessment required. The Site is not located within any designated site or site identified within the local plan, as such 'not in local strategy' was selected for strategic significance. Area to be used for habitat creation to achieve BNG and current habitats would be lost.	N/A Agricultural	0.30
F1	Cereal Crop c1c	No	No	Cereal crop growing wheat at the time of survey - No condition assessment required. The Site is not located within any designated site or site identified within the local plan, as such 'not in local strategy' was selected for strategic significance. Habitat will be lost to facilitate the installation of the access track.	N/A Agricultural	0.66
G1	Modified Grassland g4	No	No	Modified grassland described in the Logika Group report as a 'small area of unmanaged modified grassland which was dominated by cocksfoot, with some field poppy, ribwort plantain and clover. Assigned Poor condition in the Logika Group report with the grassland likely failing condition criteria A, essential for achieving Moderate or High condition, requiring the grassland to include 6-8 vascular plant species per m^2, including at least 2 forbs. The Site is not located within any designated site or site identified within the local plan, as such 'not in local strategy' was selected for strategic significance.	Poor	0.005
U1	Developed land; sealed surface u1d	No	No	Area of existing road that site access from Gunthorpe Road - No condition assessment required The Site is not located within any designated site or site identified within the local plan, as such 'not in local strategy' was selected for strategic significance.	N/A Other	0.013

Hedgerows (BI-T05)

Feature Refs	Habitat Type and Code	Irreplaceable	Priority	Description and Condition Justification	Condition	Length (km)
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Watercourses (BI-T06)

Feature Refs	Habitat Type and Code	Irreplaceable	Priority	Description and condition justification	Condition	Length (km)
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Priority and Irreplaceable Habitats

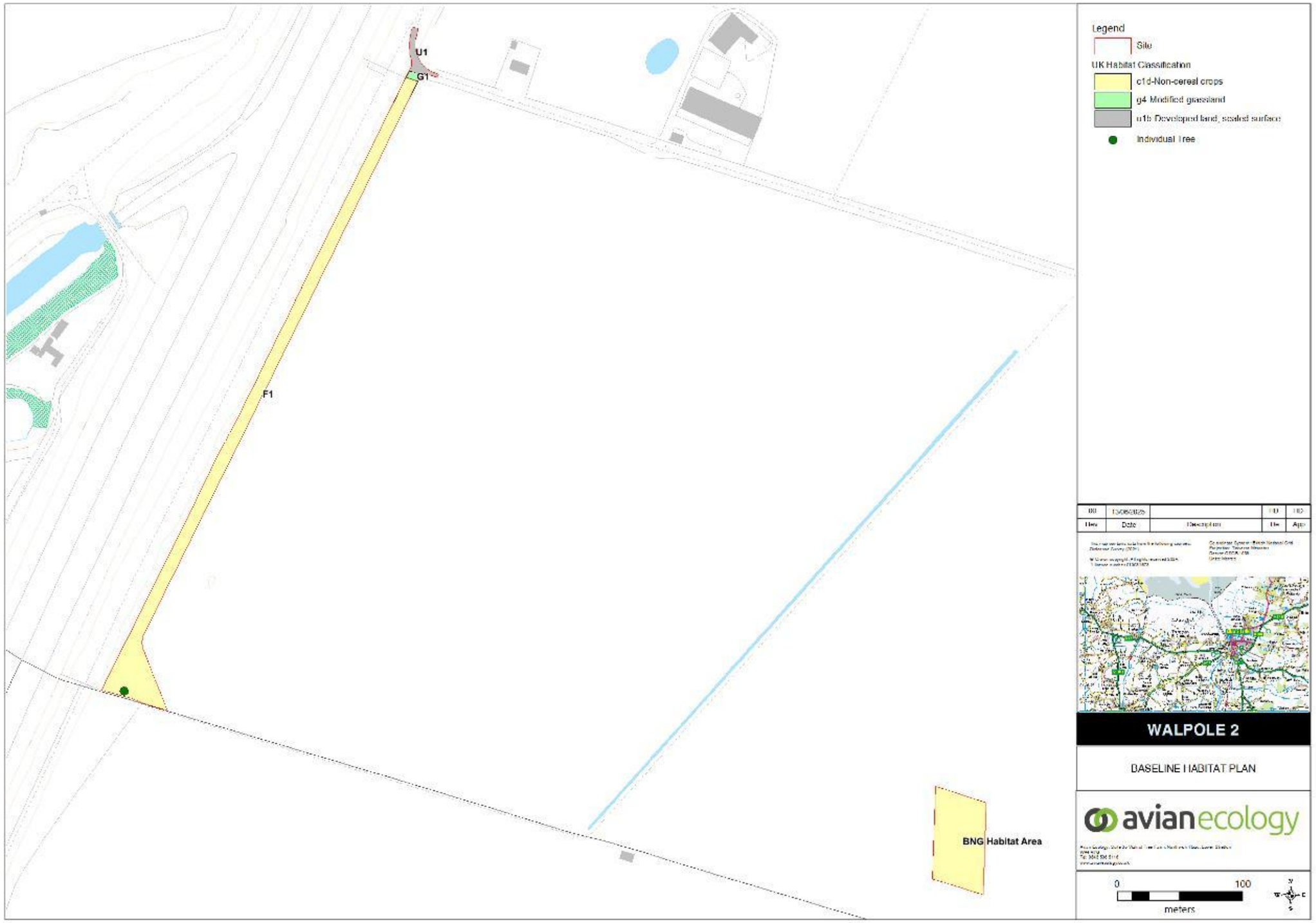
Summary of Priority and Irreplaceable Habitats (BI-B07)

No priority or irreplaceable habitats are located within the Site boundary.

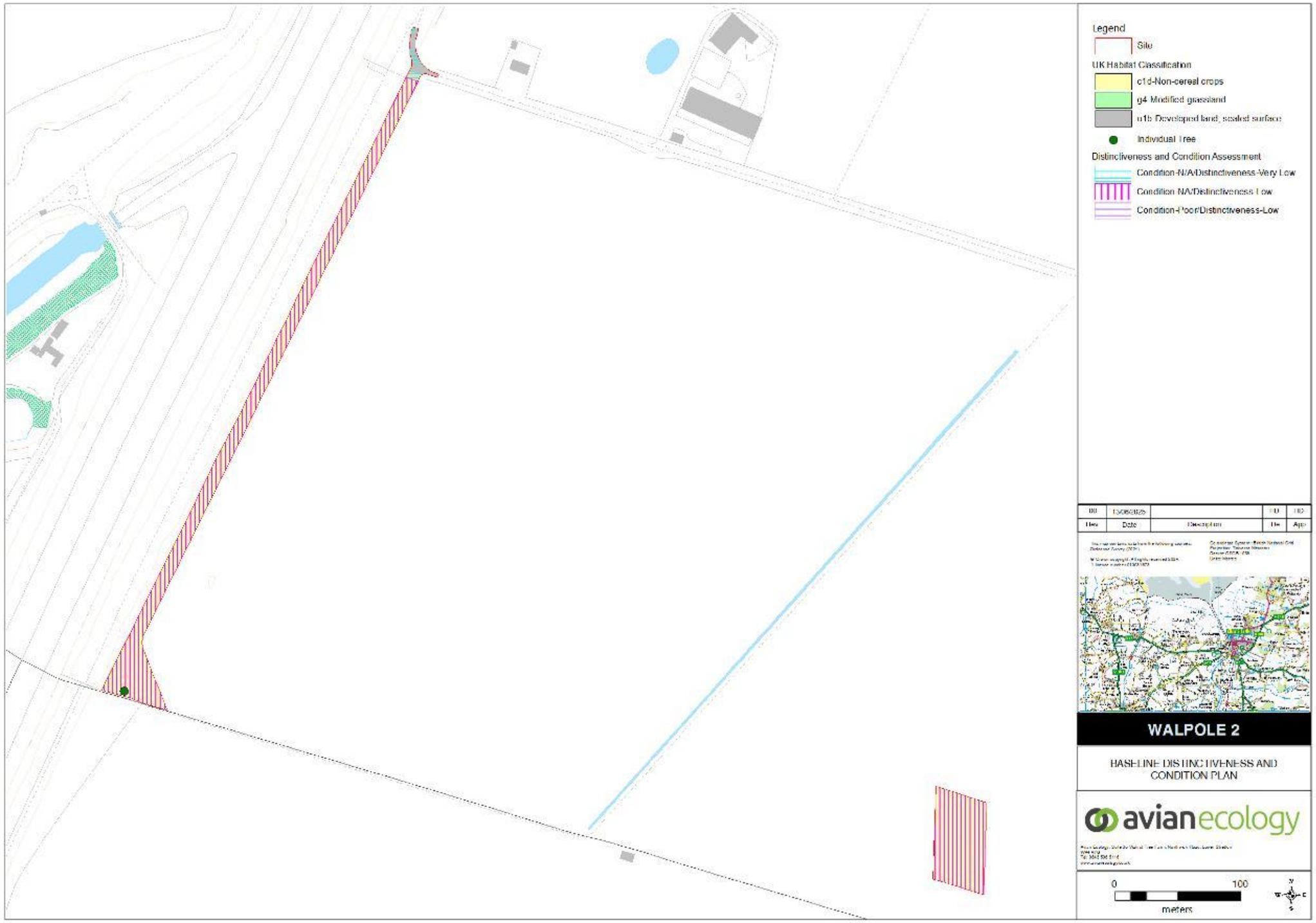
Potential Constraints and Opportunities for Project (BI-B08)

N/A.

Baseline Habitats Plan (BI-F02)



Baseline Distinctiveness and Condition Plan (BI-F03)



Land Tenure and Public Access

Relevant Land Tenure Information (EI-B01)

Enso Green Holdings R Limited have a lease with landowners, as necessary, to provide the necessary land rights to deliver to Gunthorpe Road Solar Farm and the BNG arising through the access track planning permission implementation. Enso Green Holdings R Limited will be responsible for the implementation of the HMMP for the duration of the Solar Farm and associated developments (including access track) operational life. They will manage, for the duration, the HMMP and all requirements herein.

Potential Impact to Scheme (EI-B02)

As above.

Public Access Information (EI-B03)

The Site is on private land. Public access has not influenced management prescriptions.

Potential Impact to Scheme (EI-B04)

As above.

Land Tenure and Public Access Plan (EI-F01)

3. Planned Management Activities

Provide the site-wide aims and objectives. These should consider the Project Background information section outlined above as well as the outcomes of the Metric.

Management Plan Aims and Objectives PM-B01

An area within Gunthorpe Road Solar Farm, identified as the BNG Habitat Area will be enhanced and managed to provide BNG in associated with the installation of the access track. Aims and objectives of the BNG Habitat Area are set out below:

The main aims of the management plan are:

- To create and manage habitats on Site to demonstrate a BNG of at least 10% to comply with national and local planning policy.
- To create habitats that would increase the biodiversity benefits of the Site.

The primary objectives are:

- Create structurally and species rich grassland and incorporate a mix of native species and beneficial to wildlife;
- Meet the UKHab habitat description of the stated habitat types; and,
- Achieve the stated condition as measured by the Statutory Metric Condition Assessment Sheet.

Maintenance of created habitats within the BNG Habitat Area would be undertaken in conjunction with existing requirements for the management of the solar farm and will be undertaken over a 40 year period and therefore in excess of the minimum 30 requirement for BNG.

Principles Informed by Design Stage

The project's BNG target(s) should be set and documented early in the design process. Outline how background and baseline information influenced key design principles for the project from an early stage. This can provide useful context for the proposed retention, creation and enhancement measures.

Design Principles Informed by Baseline Information PM-B02

The access track will predominantly pass through agricultural (arable) land of low ecological value.

Habitat interventions have also been targeted to lower value habitats. To achieve BNG and comply with national and local planning policy, an area within Gunthorpe Road Solar Farm was selected where habitats would be created for the benefit of biodiversity (the BNG Habitat Area). The BNG baseline described in this HMMP and used for the BNG calculations is pre-development (agricultural) habitat baseline; however, under the Gunthorpe Road Solar Farm landscape scheme, the BNG Habitat Area is proposed as modified grassland of moderate condition. The habitat creation as proposed within this HMMP would increase the biodiversity value of the BNG Habitat Area compared to both the pre-development baseline and the habitats proposed as part of the solar farm landscape scheme.

The section below in relation to Habitats and Condition Target discusses the BNG Area only.

Site is not located within any designated site or site identified within the local plan, as such ‘not in local strategy’ was selected for strategic.

Habitat and Condition Targets PM-T01

This table presents a summary record of what you have agreed to deliver based on the biodiversity metric. These habitat condition targets form the basis of what the management plan is setting out to achieve. Include the relevant 'Area', 'Hedgerow', and 'Watercourse' types to be implemented and managed throughout the period of 30 years or more.

Baseline Habitat Type	Target Habitat Type	Parcel / Feature Refs	Baseline Condition	Targeted Condition	Years to Targeted Condition	Condition Assessment Targets	Comments
Non-cereal crops	Other neutral grassland	BNG Habitat Area	N/A	Moderate	5 Years	Moderate condition will be targeted by achieving a pass in criteria's: A, B, C, D, E. Criteria F is unlikely to be achievable which is essential to achieve a good condition grassland.	

Habitat and Condition Targets Further Comments
N/A.

Habitat Retention

Provide a concise description of the habitats that are to be retained in their baseline condition. Habitats being retained may still require ongoing measures to maintain their baseline condition.

Measures to be Implemented to Protect Retained Habitats PM-03

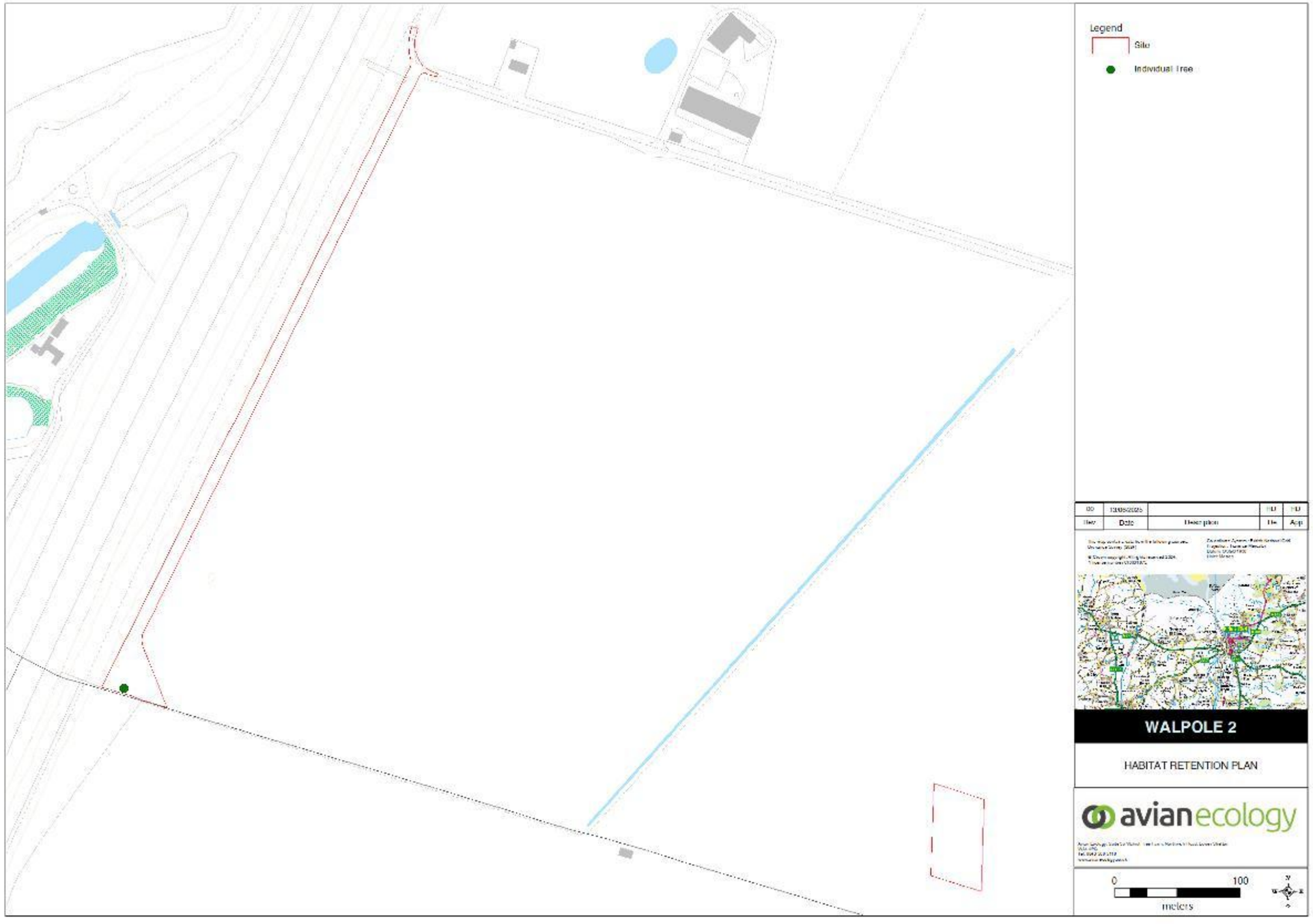
No habitats within the Site are identified as retained. However, an off-Site adjacent tree will be protected from damage during construction in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction.*

Specification of Protective Measures to be Used PM-04

As above.

Habitat Retention Plan PM-F01

Provide a plan with the locations of habitats to be retained (including whether to be protected and, or, enhanced) and those to be created under this HMMP. Include parcel references if needed. Tick box if any additional plans are provided in the Appendices ☐ . Reference: Click or tap here to enter text.



Habitat Creation, Enhancement and Management Plan EM-F01

Show the habitat Creation, Enhancement and Management measures in this plan. Present this as a single, side-wide masterplan. Alternatively, provide a separate plan showing the locations of each specific habitat to be delivered on the project site, copy this page into each of the habitat sheets below.



Grassland (Medium, High, and Very High Distinctiveness)

Creation, Enhancement and Management Summary (GH-T01)

Provide details of the approach to delivering each of the targeted condition criteria and habitat. Conditions from Statutory Biodiversity Metric habitat condition assessment sheets – Sheet 6. Grassland Med High and V. High.

Target Habitat						
Condition Assessment Criteria		**Targeted**	**Relevant Parcels**	**Creation Approach**	**Enhancement Approach**	**Management Approach**
A	The parcel represents a good example of its habitat type, with a consistently high proportion of characteristic indicator species present relevant to the specific habitat type. **Note – this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.**	Yes	BNG Habitat Area	Area identified for grassland creation to be seeded with a seed mix to ensure a variety of characteristic species present.	N/A	The grass seed mixes shall be sown in line with the supplier's guidance. Subject to annual cuts, typical of traditional hay meadow management. And subject to periodic overseeding, if required.
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes	BNG Habitat Area	Seeding to ensure variety of grass and herb species included.	N/A	Mowing regime to ensure a varied sward.
C	Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Yes	BNG Habitat Area	Ground to be seeded with two equal sowings in transverse directions and the seed and rolled in where possible to guarantee intimate contact with the soil.	N/A	Areas to be re-seeded if required to ensure coverage. Occasional ground disturbance, if required.
D	Cover of bracken *Pteridium aquilinum* less than 20% and cover of scrub (including bramble) less than 5%.	Yes	BNG Habitat Area	Habitat creation to ensure land is free of scrub prior to seeding.	N/A	Scrub to be selectively removed if establishing
E	Combined cover of species indicative of suboptimal condition and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging activities) accounts for less than 5% of total area. If any invasive non-native species (as listed on Schedule 9 of WCA) are present, this criterion is automatically failed.	Yes	BNG Habitat Area	Ground preparation works to reduce existing seedbank of sub-optimal species. Invasive non-native species to be selectively removed, if required. Soil testing to ensure nutrient levels are appropriate prior to seeding and remedial actions, if required.	N/A	Invasive and sub-optimal species to be selectively managed throughout management period Cut and collect regime to reduce soil nutrient levels over time.
F	There are 10 or more vascular plant species per m^2 present, including forbs that are characteristic of the habitat type.	No	BNG Habitat Area	N/A	N/A	N/A

	Note – this criterion is essential for achieving Good condition for non-acid grassland types only.					

Additional Management Prescriptions (GH-B01)

Grassland management will be timed to avoid main breeding bird season, typically considered to be between March and August inclusive.

Grassland cut will be no lower than 150mm to avoid killing / injuring terrestrial species. Cutting will take a systematic, working form in the inside out, to allow wildlife to safely vacate the area and find shelter.

Grassland (Medium, High, and Very High Distinctiveness)

Creation, Enhancement and Management Detailed Methods (GH-T02)

Provide detailed prescriptions for the creation and management of the habitat.

Action	Relevant Parcels	Timing	Prescriptions
Grassland creation	BNG Habitat Area	Year 1: March- September	An appropriate grassland seed mix, such as Emorsgate EM2 Standard General Purpose Meadow Mixture or similar will be sown within the area identified for grassland creation. The grassland will be managed to maintain a structurally and species diverse grassland. Any seed mixes used should contain a high proportion of native wildflower species. It is recommended that yellow rattle is also used, a hemi-parasitic plant species that reduces the vigour of grasses. <u>Ground Preparation</u> A level of available phosphate 'P' of less than 10 mg kg-1 is ideal to maximise floristic diversity within semi-natural grassland communities; however, values of 11 to 25 mg kg-1 have potential to achieve valuable grasslands, with a more reduced floral diversity and increased risk of competition from rank and pioneer species7 which will be addressed through suitable management. Efforts will be made to reduce the P levels in the soils in areas where these exceed the 25 mg kg-1 threshold, and where possible reduce the P levels in other areas closer to 10 mg kg-1. Possible remedial measures include soil inversion to bury more fertile topsoil and bring the subsoil to the surface. Additional measures to reduce soil P levels include the spreading of lime or use of cut and collect methods. Precise measures to be used will be informed by soil nutrient testing. Ground should be prepared to create areas of bare ground through lightly scarifying. Where necessary existing weeds will be manually removed or treated with a suitable herbicide as specified within the herbicide handbook (English Nature, 2003[8]) or hand-weeding. All extraneous matter such as plastic, wood, metal and stones greater than 50mm diameter will be removed from the Site to a registered waste disposal facility. <u>Sowing</u> Ideally seeding will take place in September, to allow establishment prior to winter and reduce seed loss to birds. If the soils and seed bed have been prepared before this period, any weed growth that has established in the meantime will be removed (or sprayed with glyphosate) and the seedbed will be re-prepared. Seeds will be broadcast by hand or approved lightweight machinery and following seeding, the area will be subject to rolling to incorporate the seed with the growing substrate. Seed mixes will be sown at a rate in accordance with the manufacturers specifications.
Initial management of grassland / meadows areas	BNG Habitat Area	Years 1-3: April, June and August	During the first year and in good growing conditions (warm soils and adequate rainfall) the grass will establish and need its first management around 6-10 weeks from sowing, by which time grass will have reached around 5cm height. Topping the initial growth will encourage the sward to thicken up and restrict any weed growth. Cuttings will be removed / removed so as not to leave mulched patches which will kill young grass. Problem perennial weeds will be controlled by hand pulling. This management should continue until grassland has established.

[7] https://cdn.forestresearch.gov.uk/2022/02/bpg_17.pdf

[8] https://www.whatdotheyknow.com/request/574168/response/1408137/attach/4/The%20Herbicide%20Handbook%202003%20PT1.pdf?cookie_passthrough=1

Long-term management - Cutting of grassland and collection of arisings	BNG Habitat Area	Years 4-5: February- March (suboptimal), September (optimal)	Following establishment (typically by Year 3), one or possibly two cuts will be taken per year comprising an early cut in February (if necessary) to manage regrowth, and a second later in the season September (each cut reducing sward height to approximately 150mm). No cutting will take place throughout the summer to allow the seeds of the later flowering species to fall prior to the cut. There may be circumstances when an additional summer cut is required for operational reasons, but this should be avoided where possible and the cut taken no lower that 150mm. Cutting should adopt a systematic method (i.e. working outwards towards the boundary features); this will allow fauna such as invertebrates, amphibians, birds and small mammals to temporarily and safely vacate the area. The management will take a flexible approach, and the exact dates will be dependent upon weather conditions. A phased cutting regime is recommended i.e. ideally the entire area should not be cut at the same time. Cuttings will remain on-Site for three to five days following the cut to allow seeds to disperse and then be removed or heaped in designated areas within the Site in order to remove nutrients and promote the development of a species-rich sward. Specific attention should be paid to the potential presence of the following injurious (harmful) weeds: common ragwort (*Senecio jacobaea*), spear thistle (*Cirsium vulgare*), creeping thistle (*Cirsium arvense*) curled dock (*Rumex crispus*) and broad-leaved dock (*Rumex obtusifolius*); which are all listed within the Weeds Act 1959. These species should be removed from the grassland areas prior to enhancement works commencing[9 & 10].
Long-term management - Cutting of grassland and collection of arisings	BNG Habitat Area	Years 5+: February- March (suboptimal), September to October (optimal)	See above.
Monitoring invasive species	BNG Habitat Area	Years 1-30: May- September	Monitoring across the site for invasive species, with immediate action taken if identified.

[9] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/525269/pb9840-cop-ragwort-rev.pdf
[10] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69296/pb7190-harmful-weed-control.pdf

Grassland (Medium, High, and Very High Distinctiveness) Species Lists (GH-T03)

Provide a detailed species list for the habitat to be created

Common Name	Scientific Name	Abundance / %	Comments
Yarrow	*Achillea millefolium*	0.75%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Betony	*Betonica officinalis*	*0.75%*	Grassland creation seed mix (Emorsgate EM2 Mixture).
Common Knapweed	Centaurea nigra	2.25%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Wild Carrot	*Daucus carota*	1.50%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Lady's Bedstraw	*Galium verum*	0.40%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Meadow Crane's-bill	*Geranium pratense*	0.40%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Oxeye Daisy	*Leucanthemum vulgare*	1.35%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Ribwort Plantain	*Plantago lanceolata*	1.50%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Salad Burnet	*Poterium sanguisorba*	1.50%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Cowslip	*Primula veris*	1.05%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Selfheal	*Prunella vulgaris*	1.10%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Meadow Buttercup	*Ranunculus acris*	0.15%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Common Sorrel	*Rumex acetosa*	0.40%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Bladder Campion	*Silene vulgaris*	0.75%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Common bent	*Agrostis capillaris*	8.50%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Crested dogstail	*Cynosurus cristatus*	29.75%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Red fescue	*Festuca rubra*	25.50%	Grassland creation seed mix (Emorsgate EM2 Mixture).
Smaller Cat's-tail	*Phleum bertolonii*	*4.25%*	Grassland creation seed mix (Emorsgate EM2 Mixture).
Smooth-stalked meadow grass	*Poa pratensis*	17.00%	Grassland creation seed mix (Emorsgate EM2 Mixture).

Other Supporting Information

Supporting Information (GH-B02)

The grassland vegetation within the BNG Habitat Area will be managed to provide a varied habitat structure providing nectar and pollen for invertebrates and shelter and over for species such as small mammals.

The mix may vary from above based on availability at the time of habitat creation but will include broadly similar diversity and species.

What Does Success Look Like? (GH-F01)

Habitat Creation and Management – Risk Register and Remedial Measures PM-T02

Provide a site-wide risk register associated with creating, enhancing and, or, managing each habitat type. Consider your approach to delivering the BNG targets in case the management prescriptions do not deliver as expected.

This is a pre-emptive list. The list of potential risks should be as comprehensive as possible to provide confidence in the delivery of the management plan objectives. Complete each habitat's management targets and prescriptions first, then consider the likelihood of the risk occurring and what impacts it may have if it was to occur. Consider how these may feed back into monitoring requirements.

Risk Identification Date	Habitat Type	Risk Factor	Trigger for Action	Remedial Measure
23/05/2025	Other neutral grassland.	High cover of bare ground.	Bare ground greater than 5%	If there are large areas of bare ground, it may be appropriate to re-seed the area. This should be done using a suitable mix and following the methodology outline in the habitat creation section above. It may be necessary to create patches of bare ground prior to seeding.
23/05/2025	Other neutral grassland.	Absence of bare ground.	Bare ground present in less than 1%	Many forbs require patches of bare soil to germinate. If areas of bare ground are not naturally occurring, it may be appropriate to periodically manually disturb the soil. This should be in in no more than 5% of the total area.
23/05/2025	Other neutral grassland.	Grasses are over-dominant.	Fewer than 4 forb species per m2 after year 5	Should grasses become over-dominant the management intensity may need to be increased. This could be achieved either through the introduction of an early spring (February) cut or an additional late summer/ autumn cut and overseeded with a flower only mix. Alternatively, it may be appropriate to introduce yellow rattle to the grassland area if not already included. This plant parasitises grasses, reducing their competitive ability.
23/05/2025	Other neutral grassland	Nutrient levels too high.	Species indicative of high nutrient environments is dominant e.g. dominance of a small number of competitive species such as nettles, spear thistle, white clover, coarse grasses.	If nutrient levels are too high, resulting in lack of species diversity and indicated by the dominance of a small number of competitive species efforts should be made to reduce the nutrient levels in the soils. A cut and collect regime is likely to achieve this over time. Cut and collect involves waiting for plants to reach a substantial height before mowing and then removing all arisings form the Site. Any nutrients taken in by the plants during growth will therefore

				be removed from the site. This method may take a number of years to be effective.
23/05/2025	Other neutral grassland	Scrub encroachment.	Scrub accounts for more than 20% (ideally should be absent form grassland habitats). Heavy shading of more than 10% of ditch.	Areas of scrub encroachment to be checked with scrub saplings removed to prevent spread. The annual cutting regime should prevent scrub from establishing within grassland areas.
23/05/2025	Other neutral grassland.	Sward with a uniformed height.	No variation in sward height (at least 20% should be less than 7cm and at least 20% greater than 20cm.	A change to the cutting regime may be required to introduce a phased cut, if not already included, so not all the grassland is cut at the same time.
23/05/2025	Other neutral grassland.	Presence of invasive non-native species (INNS).	A species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) identified or suspected.	A specialist contractor with experience of treating and removing INNS will be appointed.

4. Monitoring Schedule

To deliver BNG, a robust strategy is critical to monitor successes and challenges. Routine monitoring informs progress and facilitates the required management plan updates at set intervals.

Monitoring Strategy

Provide details of the monitoring strategy to encourage successful implementation of the management plan (MS-B01)
A walkover and habitat survey will be undertaken within the optimal botanical survey period annually in years 1 – 5 and then in years 10, 20 and 30 following completion of habitat creation works. The habitat surveys will follow the UKhab methodology, and a condition assessment undertaken using the Statutory Biodiversity Metric - Technical Annex 1: Condition Assessment Sheets and Methodology. This will involve an inspection of the grassland habitat created within the BNG Habitat Area to ensure it is being managed in a manner aligning with this HMMP, meeting the target condition and suitable for the enhancement of wildlife interest. The results of these monitoring surveys will be used to inform future changes in management and any amendments required to the management plan, if necessary, to maintain progress towards target conditions. If it is considered it is not possible to achieve either the proposed habitat type or target condition the biodiversity calculator will be revised to determine a revised offset unit value.

Monitoring Methods and Intervals MS-T01

Provide details of the methods you will use to adequately monitor the progress towards the targets stated in the management plan and as agreed with the Local Planning Authority.

Monitoring methods and frequency need to be considered according to habitat type. The text below is only for illustrative purposes. Plan according to your own project and habitat requirements.

Habitat Type	Monitoring Methods	Monitoring Interval and Timing
Other neutral grassland	Walkover of grassland areas to collect a botanical species list across grassland to check against target species list, estimate the number of vascular plants per m^2 and assess whether the cutting regime are being implemented and remain appropriate. Assess against relevant condition criteria. • Does the grassland represent a good example of the habitat type, with a high proportion of characteristic indicator species. • Records of sward heigh and if variation is present (is at least 20% of grassland <7cm, is a least 20% >7cm). • Percent bare ground cover (is this between 1% and 5%). • Percent cover of bracken and scrub (is bracken < 20%, and scrub < 5% of area). • Signs of damage (poaching, damage from machine, access) or sub-optimal condition based on species recorded. • Are there 10 or more vascular plant species per $m^{2,}$ including forbs that are characteristic of the habitat type.	Annually from years 1-5, then in years 10, 20 and 30 following completion of habitat creation works. Surveys to be completed between May and September.

Monitoring Reports

Following completion of habitat creation and initial enhancement works, prepare for your monitoring report for the Local Planning Authority or Responsible Body. You should monitor each habitat type comprising the BNG project. Provide sufficient detail for the reviewing authority to assess the progress. The 'Monitoring Report Template' can help you do this. The requirements and regularity with which the monitoring reports are required are at the discretion of the LPA or Responsible Body. Prepare the monitoring requirements below.

Monitoring Report Schedule MS-T02

Provide details of the person or organisation that will be responsible for submitting the monitoring reports. Also state the responsible organisation for receiving and reviewing the reports.

Organisation Responsible for Submitting the Monitoring Reports	Organisation Receiving and Responsible for Reviewing Reports
Enso Green Holding R Limited to appoint a suitably qualified ecologist to undertaken monitoring and reporting.	South Holland District Council

Provide details of when the monitoring surveys and reports will be undertaken and submitted. You can extend the table and adjust according to your required schedule.

Project Year	Month Report to be Submitted	Month Management Plan to be reviewed	Comments
Y1	October 2027	November	Report on initial grassland creation measures. Advise on any necessary remedial actions
Y2-5	October (annually)	November (annually)	Report on initial / early results of grassland creation measures. Advise on any necessary remedial actions
Y10, 20 and 30	October is monitoring years	November	Report on results of initial grassland creation measures and establishment against target condition.

Adaptive Management

Summary of Adaptive Management Approaches (MS-B02)

All monitoring reports will be accompanied by a list of suggested additional actions and alterations to planned management required to either maintain the current condition, if it is being achieved or to improve condition to meet the set target.

All monitoring reports will be authored by a suitably qualified and experienced ecologist with experience in habitat management.

Contractors undertaking routine management of the Site will be encouraged to feed back any failures or improvements that could be made, and this will be considered for inclusion in future management.

Any changes to management do not need to wait until the next reporting date and should be enacted as soon as possible where a benefit is anticipated to arise. A log of all decisions and resulting agreed actions should be kept.