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Construction Environmental Management Plan (CEMP) Biodiversity

Common Farm Solar Park

Presented to: OnPath Energy Limited

Issued: April 2025

Report Details

Client	J. Murphy & Sons Limited
Report Title	Construction Environmental Management Plan (CEMP): Biodiversity
Site Address	Common Farm, Bookers Lane, Dinnington, Rotheram
Contract Reference	126177.655636
Lucion Contract	Joseph Valentine (joseph.valentine@luciongroup.com)

Quality Assurance

Issue No.	Status	Issue Date	Comments	Author	Technical Review	Authorised
3	Final	7th April 2025	Text and formatting changes	Joseph Valentine Senior Ecologist	Jonathan Spencer Associate Ecologist	Jonathan Spencer Associate Ecologist

About us

Lucion Delta-Simons is part of Lucion, a technology-led environmental services company dedicated to protecting people and the planet. With expert advice, guidance, and a comprehensive array of services, we support you at every stage of your asset lifecycle, helping you mitigate regulatory impact, improve business practices, and ensure safety and environmental protection.

As part of Lucion's group of companies, we can support you with a broader range of holistic services. Through our pool of multidisciplinary experts, we help you navigate complex regulatory frameworks, saving you time and money.

Being part of your sustainable supply chain is a key goal for our team. As a member of the UN Global Compact and a commitment to sustainability, we are the partner of choice for businesses looking to make informed decisions and mitigate risks across your portfolio.

Lucion is carbon neutral. We annually measure and report our Scope 1, Scope 2 and specified Scope 3 carbon emissions, and offset 100% of residual emissions through verified carbon credits, supporting carbon reduction and prevention projects overseas. We are taking steps to reduce our carbon emissions and have committed to setting and achieving near-term and Net Zero Science-Based carbon reduction targets in line with the goals of the Paris Agreement to limit global warming to 1.5°C above pre-industrial levels. Lucion is a signatory of Pledge to Net Zero and Members of the United Nations Global Compact.

If you would like support in understanding your carbon emissions, or those of your supply chain, please get in touch with your Lucion contact above who will be happy to help.

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1.0 Background to the Project

1.1 Context and Purpose

Lucion Delta-Simons has been instructed by OnPath Energy Limited (the "Client") to produce a Construction and Environmental Management Plan (CEMP): Biodiversity for the proposed installation a solar energy park and associated infrastructure (the "Proposed Development") at Common Farm, Bookers Lane, Dinnington, Rotherham (the "Site").

The Site boundary is shown in Figure 1.

The CEMP: Biodiversity is required in order to allow the discharge of Condition 18 of the granted planning application submitted under Section 73 of the Town and Country Planning Act 1990 (ref: RB2024/1311), pursuant to full planning permission for the Proposed Development (ref: RB2022/1203) granted by Rotherham Metropolitan Borough Council on 13th June 2023.

"Condition 18

No development shall commence until a Construction Environmental Management Plan (CEMP) has been submitted to and approved in writing by the Local Planning Authority. The CEMP shall include the following:

i) Identification of "biodiversity protection zones";

ii) Identification of any sensitive area where invasive non-native species are present and measures to control these species.

iii) A risk assessment of any construction activities that may result in the disturbance of or have an effect on wildlife to identify measures to avoid or reduce impacts during construction;

iv) Hours of construction activity to minimise any impacts on wildlife;

v) The times during construction when specialist ecologists need to be present on site to oversee works; vi) Details of an ecological clerk of works to be appointed to manage the implementation of the CEMP and any other biodiversity related conditions and licences applicable to the development.; and

vi) Details of protective fences, exclusion barriers and warning signs required to limit construction related impacts on wildlife

The approved CEMP shall be adhered to and implemented throughout the construction period in accordance with the approved details.

Reason: In the interests of retaining, protecting and enhancing existing site features of biodiversity value in the interests of biodiversity, visual amenity, landscape character and the Green Belt and in accordance with Local Plan Policy"

The CEMP: Biodiversity aims to ensure that impacts on ecological receptors during the construction phase of the Proposed Development are adequately mitigated or compensated for. This Report describes measures to avoid, reduce, mitigate and compensate for likely adverse effects on ecological receptors resulting from the construction phase of the Proposed Development. Ecological receptors include sites, habitats and floral and faunal species, which are the subject of international or national protection, or are recognised as being of local rarity and sensitivity.

For the purpose of this document the working area is defined as any area where there will be a requirement for temporary or permanent works to facilitate construction of the Proposed Development, including areas required for access, temporary and permanent construction and temporary storage areas.

1.2 Scheme Overview

The Proposed Development comprises the installation and operation of a solar energy park and associated infrastructure as well as soft landscaping including the creation of a lapwing *Vanellus Vanellus* management area and several skylark *Alauda arvensis* plots.

The construction phase shall comprise:

- Installation and subsequent removal of a temporary construction compound, equipment and welfare areas;
- Installation of ground mounted solar photovoltaic (PV) arrays and associated infrastructure including a Battery Energy Storage System (BESS);
- Construction of a new Site access junction off Long Road and internal access tracks;
- Retention of all existing trees and hedgerows within the Site (with the exception of minor cut throughs required for Site access); and
- Implementation of soft landscaping and biodiversity enhancement measures detailed within the submitted Biodiversity Enhancement and Management Plan (Lucion Delta-Simons, 2025).

2.0 Legislation

Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of legislation, including:

- National Planning Policy Framework (NPPF, 2024);
- The Conservation of Habitats and Species Regulations 2017;
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities Act (NERC) 2006;
- The Hedgerow Regulations 1997; and
- The Protection of Badgers Act 1992.

Where relevant, this appraisal takes account of the legislative protection afforded to specific habitats and species. The legislation surrounding each faunal or floral species or group is below.

Birds

All wild birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended). Subsection 1(1) makes it an offence to intentionally kill, injure, or take any wild bird; take, damage or destroy the nest of any such bird whilst it is in use or being built; or take or destroy an egg of any such wild bird. It is, furthermore, an offence to either intentionally, or recklessly, disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird. The law covers all species of wild birds including common, pest or opportunistic species.

Amphibians

All native amphibians are protected under the WCA 1981 (as amended), with some species also protected under the European Habitats Directive (92/43/EC), transposed in England and Wales through the Conservation of Habitats and Species Regulations 2017. All amphibians are protected from keeping, transporting, selling or exchanging. This means that in practice reasonable measures must be taken to avoid their incidental mortality.

The Great Crested Newt (GCN) is protected under the Conservation of Habitats and Species Regulations 2017 and Schedule 5/9(4)(b) and (c) of the WCA 1981 (as amended). It is an offence to deliberately kill, injure, capture GCN or to deliberately disturb this species, or to intentionally or recklessly obstruct access to their places of shelter or protection, to damage or destroy their breeding sites or resting places, or to intentionally or recklessly disturb a GCN whilst in a place of shelter or protection. The legislation applies to all stages of the life cycle including eggs, larvae and juveniles. It should be noted that GCNs spend the majority of their lives on land, venturing up to 500 m (but more usually 250 m) from their breeding ponds and as such any ground works within 500 m of a breeding pond could potentially have an adverse effect on GCNs.

Reptiles

All six native species of reptiles are protected under the 1981 WCA (as amended), from intentional killing or injury. As such, all reasonable steps must be taken to avoid their incidental mortality when carrying out works.

Bats

All bats and their resting places are protected under Section 9(4)(b) and (c) of the WCA 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2010 (as amended).

It is an offence to destroy or damage a breeding site or resting place of a bat, to intentionally or recklessly obstruct access to any place of shelter or protection for bats, to deliberately disturb bat species, to intentionally or recklessly disturb a bat whilst in its place of shelter or protection, or deliberately capture, injure or kill a bat. It should be noted that a breeding site or resting place of a bat is protected whether or not bats are present, as long as it is likely that they will return, and

any activity or works damaging or destroying such a breeding site or resting place are likely to require a Natural England European Protected Species Licence (EPSL).

Badgers

Badgers *Meles meles* and their setts are protected under the 1992 Protection of Badgers Act. Under this Act it is an offence to wilfully kill, injure, take, possess or cruelly ill-treat badgers, or to attempt to do so. It is also an offence to intentionally or recklessly damage, destroy, or obstruct access to any part of a sett, or to disturb an occupied sett, either by intent or negligence. When interpreting the Act, Natural England defines a sett as any structure within an area used by badgers that shows signs of having been occupied by badgers within the last 12 months.

Invasive Species

Invasive Species are plant species which are prohibited from release into the wild. There is an extensive list (currently 42) which are set out in section 14(2) of the WCA 1981 (as amended) which states that *'if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence.'*

3.0 Baseline Information and Assessment of Impacts

The baseline conditions for the biodiversity of the Site and an assessment of the impacts resulting from the Proposed Development are detailed in Appendix A.

4.0 Required Actions, Controls or Mitigation

The potential impacts of the proposed works on the ecological receptors identified above have been assessed and the following mitigation principles will be applied in order to avoid, reduce, mitigate or compensate for these impacts.

4.1 Hours of Construction Activity

Working hours during the construction phase shall be 07:00 – 19:00 Monday to Friday and 07:00 – 13:00 on Saturdays. Adherence to these working hours is considered to limit the potential for significant disturbance adverse impacts upon fauna likely to utilise habitats within the Site, particularly bats, badger and hedgehog.

4.2 Designated Sites, Habitats and Biodiversity Protection Zones

Adherence to the species-specific protection measures detailed below during habitat enhancement works within Brampton Common LWS, particularly with regards to breeding birds, shall mitigate against adverse impacts upon qualifying features of the designation.

All construction works will be carefully controlled in terms of their potential environmental impacts through implementation of best practice methodology. Adherence to these best practice methodologies will minimise the impact of dust and the risk of pollution events upon retained habitats and nearby designated sites.

The following measures will be applied to prevent damage to retained habitats and nearby designated and to minimise the temporary impacts to any faunal species that may occur within the Site or immediately surrounding habitats:

- The trees to be retained on-Site and immediately adjacent to the Site will receive appropriate protection during the construction phase, including the use of Construction Exclusion Zones and barriers in accordance with BS5837: 2012, where appropriate;
- Best practice methodologies will be applied in order to minimise the spread of dust onto adjacent habitats during excavations. Where necessary this will include regular damping down;
- All works shall be undertaken in accordance with the UK governments 'Pollution Prevention for Business's' guidance (www.gov.uk);
    - Develop Pollution Prevention Plan, including spillage response measures, prior to construction.
    - Prepare appropriate method statements for working with and storing oils and chemicals in line with the requirements of the Control of Pollution (Oil Storage) Regulations 2001.
    - Contractor to implement a Construction Method Statement.
    - Design an Environmental Incident Control Plan (EICP) so protective measures are implemented to deal with both normal and emergency situations.
    - Contractors to undertake construction work to best practice standards; and
- Appropriate measures will be taken to prevent the spread of invasive weeds.
- Access to sensitive areas (i.e lapwing management and skylark areas) shall be carefully controlled through the implementation of Biodiversity Protection Zones, utilising appropriate fencing and signage to prevent accidental intrusion. Example fencing specifications are provided in Appendix B. Where appropriate and as agreed by the project EcOW, brightly coloured barrier tape may be used to mark out Biodiversity Protection Zones. Further details are provided within the relevant species-specific sections below. Biodiversity Protection Zones are shown in Figure 1.

4.3 Species Protection Measures

Breeding Birds

Areas of habitat suitable to support nesting birds, including minor lengths of hedgerow, are likely to require removal in order to facilitate the Proposed Development. Construction activity and vehicle movements within areas suitable to support ground nesting species such as skylark and lapwing, including those associated with habitat enhancement works within the lapwing management area (as shown in Figure 1), may result in adverse impacts upon individuals through killing/injury, destruction of nests and disturbance.

Throughout the construction phase of the Proposed Development the lapwing management area and skylark areas shall be shall be appropriately protected from intrusion through the use of appropriate fencing and signage. Suggested fencing specifications are provided in Appendix B. Where appropriate and in agreement with the project ECoW, brightly coloured barrier tape may be used. Suggested signage to be affixed to protective fencing is provided in Appendix C.

Where practicable, clearance of any vegetation suitable to support nesting activity within the Site will be undertaken outside of the main nesting bird season (i.e., clearance carried out between September and February inclusive).

Arable habitats and grassland within the works footprint shall be managed to a height not exceeding 15 cm prior to the core nesting period (taken to be March – August, inclusive) and throughout the construction phase, in order to discourage ground nesting activity.

Should clearance of suitable nesting habitat or construction activity (including vehicle movements) within areas of habitat suitable to support ground nesting that has not been managed to a short sward length be required during the bird nesting period (March – August, inclusive), a suitably experienced ecologist/Ecological Clerk of Works (ECoW) will undertake a nesting bird check a maximum of 24 hours prior to the commencement of any works.

The following characteristics help to define an active nest:

- A nest containing eggs;
- A nest containing young;
- Bird incubating eggs;
- Adult birds carry food items to a nest;
- A nest that is under construction; and/or
- Alarm calling or agitated adults associated with a nest.

If any active nests are found, then an appropriate buffer zone will be created around the nest location using brightly coloured barrier tape. The extent of the buffer zone will depend on the location of the nest and the density of the surrounding vegetation. The ecologist will estimate the time period until all chicks have fledged and will return to check the nest after this time has passed. The buffer zone will remain in situ until the ecologist is content that all chicks have fledged the nest.

Following the nesting bird check the ecologist will give a toolbox talk to all staff involved in clearance works before they commence.

If a nest is discovered during clearance works by a contractor all works should cease. The Site supervisor as well as the ecologist should be contacted immediately. The ecologist will check the nest and confirm whether or not it is active. If confirmed active, work will only continue once a buffer zone large enough to ensure that the nest will not be disturbed has been created around the nest site. The buffer zone will be marked out using bright coloured tape as previously stated and will be left in place until the ecologist confirms that all chicks have fledged the nest.

Retained trees within and immediately adjacent to the Site, which may provide suitable nesting habitat, will receive appropriate protection during the construction phase, including the use of barriers in accordance with BS5837: 2012, where appropriate.

Barn Owl

Prior to the commencement of construction activity within 20 m of the three barn owl nest boxes previously recorded within the Site (shown in Figure 1), the relevant box(s) shall be checked for evidence of nesting activity by a suitably experienced ecologist holding a barn owl class survey license (CL29). If nesting barn owl are identified within the Site, an appropriate Biodiversity Protection Zone shall be established surrounding the nesting activity under direction of the ECoW, within which no construction activity or vehicle movements may take place.

Any Biodiversity Protection Zone shall be appropriately protected from intrusion through the use of appropriate fencing or barrier tape and signage as shown in Appendix C. The size of the Biodiversity Protection Zone shall be determined by the ECoW based on the disturbance risk of nearby construction phase activities, in line with best practice guidance (Shawyer, 2011).

Any active nests shall be subject to regular monitoring by a suitably experienced and licenced ecologist, with mitigation reviewed as required in order to ensure its continued effectiveness and proportionality. Any Biodiversity Protection Zones shall remain in place until such time as it is confirmed via a nest inspection undertaken by a suitably experienced and licensed ecologist that all chicks have fledged.

Amphibians

Construction-phase mitigation applied in relation to reptiles (below) shall also serve to protect amphibians (non-GCN) from direct adverse impacts as result of site clearance and construction activity. Any amphibians found during the precautionary working methods applied to reptiles shall be removed by the ECoW to a suitable, pre-determined receptor area comprising suitable habitat away from construction activity.

In the unlikely event that GCN are encountered, all works shall cease immediately with advice sought from the project ECoW.

Reptiles

Given the residual risk of reptiles being present within areas of suitable habitat across the Site (i.e areas of semi-improved grassland, scrub, ruderal vegetation, hedgerows and rubble piles) clearance of vegetation suitable to support reptile species shall be carried out under the following Reasonable Avoidance Methods (RAMs) in order to mitigate the risk of harm to individuals that may be present within the Site. Areas suitable to support reptiles shall be determined in collaboration with the project EcOW prior to the commencement of clearance works.

The RAMs are to be followed during the clearance of any habitat considered suitable to support reptiles:

- Prior to the commencement of any works within habitats considered suitable to support reptiles as detailed above, the ECoW for the Site shall provide a toolbox talk to all site operatives, including contractors and subcontractor staff involved in any vegetation or Site clearance works. The briefing will include details of the legal protection afforded to all reptiles, the precautionary methods of working (outlined in this document), tips on the identification of reptiles, and the procedures to follow should individuals be discovered during the works;
- Initial clearance of any habitats deemed by the project EcOW as suitable to support reptile species shall be preceded by phased strimming and/or a fingertip search undertaken by the ECoW, during the season that reptiles are active (between March and October inclusive, depending on weather conditions) and under suitable weather conditions (above 9°c and dry), as described below;
- The ECoW will first undertake fingertip within the area to be cleared/managed. Any reptiles observed will be captured by hand by the ECoW and placed in a suitable container for subsequent release within a suitable, pre-determined on-Site receptor area comprising suitable habitat away from construction activity;
- Following the completion of the fingertip search, phased strimming will initially remove vegetation down to a maximum height of 15 cm to make the habitat less suitable for reptiles and enable any individuals present, to disperse. A further cut to ground level will be undertaken a minimum of one week following the initial strimming;
- Strimming/clearance shall be undertaken from the centre of the area to be cleared towards retained boundary habitats to further encourage any remaining reptiles (if present) to disperse out of the working area;
- Any common lizard or other reptiles captured during the above watching briefs will be placed in a suitable container for subsequent release at an appropriate, pre-determined receptor site comprising retained habitat within the Site

and away from construction activities. This container will be kept in the shade until the ECoW is able to transport the reptiles across the Site. A record of the species, sex and age (where possible) of all reptiles moved will be made. Reptiles will be released as soon as practically possible to ensure individuals are not held captive for too long;

- Once cleared/managed to a short sward height, the working area will be maintained as short grassland/bare ground throughout the construction phase, in order to discourage reptiles accessing the working area; and
- During the enabling and construction works, materials shall either be stored upon bare ground, or alternatively upon pallets, away from retained grassland and scrub, in order to prevent use by reptiles as refugia/hibernacula. Arisings including brash, rubble and logs shall not be stored in such a way as they may provide opportunities for refuge and/or hibernation.

Bats

Due to the elapsed time since the completion of the 2021 PEA survey, any trees that require removal in order to facilitate the Proposed Development may now support PRFs. Therefore, the following precautionary approach shall be taken in order to mitigate the risk of adverse impacts upon roosting bats as a result of tree felling:

- A 'toolbox talk' will be given to all contractors working on the Site before works commence. The toolbox talk will summarise current relevant legislation and the correct procedures to be followed should roosting bats be discovered during demolition works;
- Any trees requiring removal during the construction phase of the Proposed Development shall be subject to an updated Ground Level Tree Inspection (GLTA) by the ECoW in order to determine their suitability to support roosting bats;
- Following the completion of the updated GLTA, any PRFs identified that are considered suitable to support only individual or small numbers of roosting bats (PRF-I) shall be subject to a pre-felling survey immediately prior to felling works;
- The pre-felling survey shall comprise a PRF aerial inspection undertaken by a suitable qualified and licenced ecologist or, if the tree is not safely accessible for aerial inspection, a dawn return survey undertaken by an appropriate number of suitably experienced ecologist;
- If no evidence of roosting bats is identified following the pre-felling survey, the tree may be felled immediately;
- Any PRFs identified as suitable to support multiple bats and therefore that may be used by a maternity colony (PRF-M) shall be subject to a suite of three aerial inspection or dusk emergence surveys in order to determine the presence/likely absence of roosting bats;
- Should roosting bats be identified, no works to the tree may be undertaken until a suitably experienced ecologist is consulted on how to proceed. Further survey work is likely to be required in order to inform a European Protected Species (EPS) licence application alongside the implementation of suitable mitigation;
- Any aerial inspection surveys or nocturnal surveys must be undertaken between May and August/September, inclusive and in appropriate weather conditions. Multiple nocturnal surveys must be separated by a period of at least three weeks.

The location of any Site compound, storage and use of security lighting during the construction phase will be determined with input from the EcOW, avoiding close proximity and light-spill onto existing vegetated corridors and trees supporting PRFs.

Badger

Prior to the commencement of construction activity, the EcOW will undertake a precautionary pre-commencement check for badger setts within the works footprint and surrounding land within 30 m. Due to the large Site area, multiple pre-commencement checks may be required prior to the commencement of each phase of activity. The schedule for pre-commencement checks shall be determined in collaboration with the project ECoW.

In the event that a previously unrecorded, active badger sett is identified, appropriate surveys and monitoring will be undertaken in order to establish the status of the sett. Following the completion of surveys, a badger mitigation licence will be sought from Natural England to facilitate development where impacts upon active setts cannot be avoided. Should

a newly discover sett require temporary or permanent closure under a Natural England Mitigation Licence, this may only be undertaken between 1st July and 30th November.

Where possible during the development works, excavations will be left at the end of each day in a condition where no mammal can fall in. This will be achieved by securing a cover over all excavations with a 1-2 m overlap around the edges to prevent mammals digging beneath. Where this is not possible the excavations will be left such that mammals can easily escape. Should excavations be left uncovered, either ramps will be installed in the form of wooden planks, or the banks will be profiled to no steeper than 45°.

A visual inspection of the excavations for the presence of mammals will be undertaken at the commencement of each working day by one of the Site contractors, whom will be nominated by the Site Manager. If any mammal is discovered within the excavations, a safe exit will be created, and the animal encouraged to disperse away from the construction activities. The reason for the entrapment will be assessed, and the mitigation plan updated appropriately. In the event that a mammal cannot be released from the excavation or appears injured, the project ECoW will be contacted for advice.

Any pipes greater than 150 mm diameter installed in a trench must not be left open-ended overnight. Should the pipe not be connected up at both ends before the end of the day, the exposed ends will be sealed off to prevent mammals becoming trapped within them. The seals must be tight, made of a rigid material and cover the whole end of the pipe.

During any ground works the creation of large spoil heaps should be avoided since they could be dug into overnight by burrowing mammals. Where unavoidable, any spoil heaps over 5 x 5 m left overnight must be inspected by a member of the Site contractors for signs of fresh digging each morning. Should any significant digging be identified, the project ECoW will be contacted for advice.

Other notable species

Clearance of suitable vegetation such as scrub and hedgerows shall be undertaken with an awareness for the potential presence of hedgehog. Areas of suitable vegetation are to be checked for the presence of individuals prior to clearance with any individuals found moved carefully with gloved hands to an area of suitable habitat away from the working area.

Construction-phase mitigation applied in relation to badgers (above) shall also serve to protect hedgehogs and brown hare from direct adverse impacts as result of construction activity.

Invasive Non-Native Species

In line within recommendations included within the Floral Invasive Non-Native Species Report (Rocket Ecology, 2024), an INNS management plan shall be implemented by a specialist contractor to ensure that stands of Japanese knotweed are properly managed, removed and treated to avoid spread of them both on and off-Site.

The locations of Japanese knotweed shall be added to the Site hazard plan and all personnel attending Site should be informed of its presence.

5.0 Ecological Clerk of Works

5.1 Role Responsibilities

Table 4: Timing of Ecologist/ECoW Presence

Sensitive Feature	Specialist Presence Required	Timing
Tree Protection	During initial marking out of root protection zones and barriers	None
Breeding Birds	Pre-commencement nesting bird checks required should suitable nesting habitat (i.e. scrub/trees) require removal during the core nesting period (March – August, inclusive).	March – August, inclusive
Barn Owl	Check of three barn owl boxes for evidence of nesting activity. Implementation of Biodiversity Protection Zones if required.	None
Reptiles/amphibians	EcOW presence required during the clearance of any habitat suitable to support reptiles/amphibians (i.e. scrub, grassland) under the RAMs in Section 4.2.	March – October, inclusive
Bats	Updated GLTA of trees requiring removal.	None
	Pre-felling aerial inspection/nocturnal surveys (if required).	May - August/September, inclusive in suitable weather conditions.
Badgers	ECoW will undertake a pre-commencement check prior to the commencement of works.	None
	Undertaking the closure of setts under a Natural England Mitigation Licence, if required.	1st July - 30th November

In addition to the Site attendance of an EcOW during the activities identified above, the ECoW will ensure ongoing communication and advice is available should unexpected constraints arise.

5.2 Lines of Communication

The ECoW will provide a point of contact for Site contractor staff, whilst in turn the ECoW will update the Site manager following each visit.

Table 5: Contact Details

Ecological Clerk of Works			
Overall Scheme Ecologist (Main office contact for general ecology enquiries and staffing)	Lucion Delta-Simons	Joseph Valentine	07866 821 266

5.3 Documentation

Records should be kept enabling demonstrable compliance with this CEMP: biodiversity. The ECoW will provide a completion report, to include photographic evidence, to demonstrate compliance with each relevant element in Table 4. It is recommended that similar documentation be created as relevant by the arboriculturalist contractor/site team, and appropriately stored by site management for audit purposes.

Figure 1 – Ecological Constraints Plan

Barn owl box
Skylark Area
Lapwing Management Area
Barn owl box
Skylark Area
Skylark Area
Skylark Area
Barn owl box

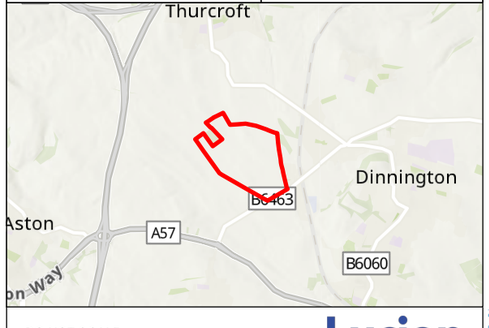
Legend

- Biodiversity Protection Zones
- Brampton Common LWS within Site
- Trees previously assessed as suitable to support roosting bats
- Japanese knotweed stands

0 75 150 225 300 Meters

N

Figure	Ecological Constraints		
Job	Common Farm Solar Park		
Client	OnPath Energy Limited		
Figure No. 1	Revision A	Date 03/04/2025	
Drawn J V	Checked J S	Scale 1:6,500 @ A3	
Job No. 126177.655636		Central GR 450070E 386589N	



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Appendix A - Baseline Information and Assessment of Impacts

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Baseline Information and Assessment of Impacts

The baseline conditions for the biodiversity of the Site and an assessment of the impacts resulting from the Proposed Development are detailed below.

Baseline Information

Tables 1, 2, and 3, identify ecologically sensitive features associated with the proposed development, which have been accepted in good faith and extracted from the following third-party reports instructed previously by the Client:

- Preliminary Ecological Appraisal (Arcus Consultancy Services, 2021);
- Ecological Impact Assessment (Arcus Consultancy Services, 2022); and
- Floral Invasive Non-Native Species Report (Rocket Ecology, 2024).

Table 1: Designation Baseline

Designation Level	Description
International	There are no internationally designated statutory sites located within 5 km of the Site boundary.
National	A single nationally designated statutory Local Nature Reserve (LNR) lies approximately 1.9 km south-east of the Site. Anston Stones Wood LNR comprises and area of limestone ancient woodland supporting ash *Fraxinus excelsior* and wych elm *Ulmus glabra* in the lower valley alongside native lime *Tilia* sp, field maple *Acer campestre* and rowan *Sorbus aucuparia*. The upper valley supports oak *Quercus* sp, ash-lime and birch *Betula* sp woodland. The site includes an area of ungrazed species-rich limestone grassland.
Local	Seven non-statutory designated Local Wildlife Sites (LWS) lie within 2 km of the Site boundary. The closest designation, Brampton Common LWS, lies partially within the Site itself and comprises open pasture, farmland and rough grassland separated by ditches and streams. Brampton Common qualifies as an LWS through supporting breeding populations of skylark and for the presence of species-rich hedgerows. The extent of the designation falling within the Site comprises approximately 0.8 ha of arable land within the north-western extent of the Site, as shown in Figure 1. Two further designations, Thurcroft Mineral Line LWS and Dinnington Marsh LWS, lie within 200 m of the Site boundary. Thurcroft Mineral Line LWS is located approximately 100 m north-east of the Site and comprises a disused railway line, neutral and calcareous grassland as well as species-rich hedgerows. Dinnington Marsh LWS lies approximately 200m north-east of the Site and comprises an area of open grassland, scrub, developing woodland and a fishing pond. The LWS is known to support a breeding population of grasshopper warbler *Locustella naevia*. The remaining four LWS are all located more than 1 km from the Site boundary. Further details are provided within the submitted PEA.

Table 2: Habitats Known to be Present on, or within Close Proximity to the Proposed Development

Flora/Habitats	Description
Arable fields	At the time of PEA survey, the Site was mostly comprised of arable fields, some were ploughed down to bare earth and others comprised of short crops.
Defunct hedge - species-poor	Species-poor bramble *Rubus fruticosus* agg. and hawthorn *Crataegus monogyna* hedgerow were present along the field margins and were associated with variously wet and dry ditches.
Intact hedge – species-poor	Occasionally, hawthorn hedgerows around the field margins were intact and well-managed. Understoreys supported a variety of ground flora including cleavers *Galium aparine*, white-dead-nettle *Lamium album*, dove-foot cranesbill *Geranium molle*, docks, ribwort plantain *Plantago lanceolata* and white clover *Trifolium repens*.
Hedge with trees - species-poor	Several species-poor hedgerows containing trees including ash, sycamore *Acer pseudoplatanus*, oak and occasional dogwood *Cornus sanguinea* were recorded dividing arable fields within the Site.
Dry ditch	Occasional ditches bordering arable fields appeared to remain largely dry year-round.
Running water	Several ditches containing flowing water were identified during the previous PEA. Ditches along the eastern Site boundary supported water cress *Rorippa nasturtium-aquaticum*, soft rush *Juncus effusus* and reedmace *Typha latifoli* and was turbid at the time of survey. No aquatic invertebrates were recorded. Ditches present along the south-western boundary were situated in open fields with steep banksides, which had been recently cut.
Semi-improved neutral grassland	Semi-improved neutral grassland was present within the field at the eastern extent of the Site. The sward height varied, with some areas cut very short and others approximately 30 cm in height. Further areas of semi-improved neutral grassland were identified along the field and ditch margins throughout the Site. A detailed species list is provided within the submitted PEA.
Standing water	A single pond (P1) was recorded within the Site boundary, as shown in Figure 1 of the submitted PEA. Vegetation surrounding the pond comprised of bramble and hard rush *Juncus inflexus*. No waterfowl or aquatic invertebrates were recorded. A further pond (Pond 2) was recorded adjacent to farm buildings at the centre of the Site, outside of the application boundary.
Dense scrub	Areas of dense scrub comprising of bramble and dogwood were recorded at the northern boundary of the Site, surrounding P1.
Bracken	A small area of continuous bracken was recorded within the northern extent of the Site.
Scattered scrub	Gorse *Ulex europaeus* scrub was occasionally recorded scattered along the field margins.
Scattered trees	Scattered broadleaved trees were recorded along the field margins. Species included ash, silver birch *Betula pendula*, sycamore, willow *Salix* sp. and oak. Scattered coniferous trees were recorded along the field margins within the western extent of the Site. The scattered trees across the Site were of varying age and size.
Buildings	A farmhouse and several farm buildings were recorded within the centre of the Site. The buildings are not included within the application boundary.
Bare ground	Several access tracks comprising bare ground were recorded across the Site.

Other Tall herb and fern – ruderal	Small areas of tall ruderal were recorded along the south-western boundary of the Site. Tall ruderal species mostly comprised of teasel *Dipsacus fullonum*, common nettle *Urtica dioica* and occasional bramble.

Table 3: Fauna Potentially Supported at the Site

Fauna	Opportunities
Breeding Birds	The Site contained habitats including trees, hedgerows and scrub that are suitable to support nesting activity, whilst arable fields and grassland provide opportunities for ground nesting species. Breeding bird surveys carried out in 2021 identified a typical assemblage of species utilising habitats within the Site, most of which were widespread and/or of low conservation concern. Priority farmland species were identified including grey partridge *Perdix perdix*, linnet *Linaria cannabina*, yellowhammer *Emberiza citrinella* and tree sparrow *Passer montanus*. Breeding skylark and lapwing were recorded within the Site.
Barn Owl	Three tree-mounted barn owl nest boxes were recorded within the Site during the previous PEA survey. It is understood that annual monitoring undertaken prior to 2021 has never identified nesting barn owl using the boxes. No barn owl surveys were carried out in support of the submitted EcIA.
Amphibians	A total of 12 waterbodies are located within 500 m of the Site boundaries. Survey of accessible ponds within 250 m of the Site boundaries through eDNA analysis identified no evidence of great crested newt (GCN) populations. The previous Ecological Impact Assessment considers GCN absent from the Site. Other amphibian species including palmate newt *Lissotriton helveticus* were identified within on-Site waterbodies, with suitable terrestrial habitat present within the Site.
Reptiles	Areas of semi-improved grassland, scrub, ruderal vegetation, hedgerows and rubble piles may represent habitat to support reptile species and provide opportunities for basking, foraging and hibernation. No further survey for reptile species was carried out in support of the previous EcIA and therefore there remains the risk of individuals being present within areas of suitable habitat.
Bats	Several trees within the Site have been identified as suitable to support roosting bats. The previous EcIA identified habitats across the Site as of 'low-moderate' suitability to support foraging and commuting bats. Features including hedgerows, scrub, rough grassland and trees provide opportunities for foraging and dispersal. No specific bat activity surveys have been undertaken.
Badger	No badger *Meles meles* setts or evidence of badger activity was recorded within the Site or 30 m of the Site boundary during the previous PEA survey undertaken in 2021. Habitats present within the Site including hedgerows, grassland and ruderal vegetation provides potential opportunities for foraging and dispersal such that individuals may access the Site.
Other notable species	Habitats including hedgerows and grassland are considered suitable to provide opportunities for foraging, shelter and dispersal such that hedgehog *Erinaceus europaeus* are likely to be present or utilise habitats within the Site. Brown hare *Lepus europaeus* were recorded within arable fields during the previous PEA survey.
Invasive Non-Native Species (INNS)	A floral invasive species walkover survey undertaken in August 2024 identified several stands of Japanese knotweed *Fallopia japonica* within and adjacent to the Site, as shown in Figure 1. Japanese knotweed is an INNS listed within Schedule 9 of the Wildlife and

	Countryside Act 1981 (as amended). It is an offence to allow the spread of Japanese knotweed onto neighbouring land.

Assessment of Impacts from Construction Activities

Statutory and Non-Statutory Designated Sites

It is understood that no construction activity is proposed within the area of Brampton Common LWS which falls within the north-western extent of the Site. However, habitat enhancement measures including species-rich grassland and scrub creation are proposed within the LWS extent, and therefore there is a risk of adverse impacts upon qualifying features of the designation including breeding skylark as a result. Potential adverse impacts upon qualifying features include through direct killing/injury and nest destruction, as well disturbance, dust deposition and pollution.

Thurcroft Mineral Line LWS and Dinnington Marsh LWS are both located within 200 m of the Site boundary and therefore in the absence of sufficient mitigation, there is a risk of adverse impacts upon the designation as a result of dust deposition and/or pollution.

The remaining identified designated sites, including the nationally designated Anston Stones Wood LNR, lie over 1 km from the Site boundary. Owing to the nature of the Proposed Development and the relative separation between the Site and the remaining designations, no impacts are anticipated during the construction phase.

Habitats

Any works (including vehicular movement and equipment storage) within close proximity to retained habitats represents the potential to cause damage to such habitats including the structure, roots and health of retained trees. Without mitigation, the construction phase also has the potential to result in degradation of retained habitats through dust deposition and pollution events.

Species

Breeding Birds

It is understood that features including hedgerows, scrub and individual trees are to be retained with the Proposed Development. In the absence of sufficient mitigation, any clearance of suitable nesting habitat (i.e removal of minor areas of hedgerow to facilitate Site access) represents the potential for direct adverse effects on nesting birds that are permanent in nature as a result of such clearance. In addition, construction activity being carried out within proximity to nesting birds may affect them indirectly, depending on the works being carried out, and the species of bird affected. Noise and vibration disturbance effects may result in birds being repeatedly flushed off nests, causing disruption to feeding activity, or even abandonment of nests.

In the absence of mitigation, construction activity (including vehicle movements) within arable and grassland habitats suitable to support ground nesting species such as skylark and lapwing, which are known to breed within the Site, represents the potential for direct adverse impacts through killing and injury, as well as disturbance.

Barn Owl

No evidence of nesting barn owl was identified within the Site during the 2021 PEA, including within the three recorded barn owl boxes. There remains the possibility of individuals nesting within the boxes or other natural features within the Site. Therefore, there is a risk of adverse disturbance impacts upon nesting barn owl arising from construction activity (including vehicle movements) should individuals be nesting within the Site during the construction phase of the Proposed Development. Barn owl are listed under Schedule 1 of the Wildlife and Countryside Act 1981, which makes it an offence to intentionally or recklessly disturb while it is building a nest or is in, on or near a nest containing eggs or young; or disturb its dependant young. As such, disturbance of nesting individuals during the construction phase of the Proposed Development may constitute an offence under the Act.

Amphibians

As GCN are considered likely absent from the Site the risk of adverse impacts upon the species during the construction phase of the Proposed Development is considered negligible.

There remains the risk of direct adverse impacts upon other amphibian species during the construction phase as a result of the clearance of suitable habitats, if required. There is also the risk of harm should individuals fall into pits or trenches left open overnight during the works. Should any become trapped they may be at greater risk of predation, starvation and susceptibility to extreme weather conditions.

Reptiles

It is understood that the majority of suitable reptile habitat including semi-improved grassland, scrub, ruderal vegetation, hedgerows and rubble piles within the Site are to be retained within the Proposed Development. However, the clearance of any suitable habitat, if required, represents a risk of direct harm to individual reptiles should they be present within the Site.

Bats

It is understood from the previously submitted EcIA that no trees identified during the 2021 PEA as suitable to support roosting bats require removal in order to facilitate the Proposed Development, these trees are shown in Figure 1.

However, given the intervening time since the original assessment was undertaken, there remains the risk that any trees requiring removal now contain Potential Roost Features (PRFs) suitable to support roosting bats. As such, there remains a residual risk of direct harm to roosting bats as a result of such clearance.

The construction phase of works has the potential to result in temporary disturbance to bats through increased lighting, noise and vibration.

Working hours during the construction phase shall be 07:00 – 19:00 Monday to Friday and 07:00 – 13:00 on Saturdays. As a result, it is anticipated that during the main active bat season (April-October, inclusive), construction works will generally cease, or be winding down before dusk when bats emerge and will not begin before dawn when bats return to roosts. Therefore, generally additional artificial lighting will not be required, and there are not anticipated to be any negative effects upon bat foraging and commuting behaviour from noise across the Site since construction works will not coincide with the timing of bat activity.

In certain circumstances, for example, in late autumn or early spring when daylight hours are limited but weather conditions may be suitable for bats to be active, there may be a brief overlap between bat activity and on-Site construction works. During this period, lighting may be required to enable the construction works to progress, and this along with any associated noise, may temporarily alter bats foraging and commuting activity across an area of the Site. The combined effects of lighting and noise from construction works during these occasional circumstances would only be a temporary deterrent to foraging and commuting bats in a concentrated area, and not across the wider Site and this is not anticipated to have any adverse impact upon bats.

Badgers

Whilst setts were considered absent from the Site following the PEA undertaken in 2021, badger activity is transient and therefore there remains a risk of setts being established within the Site prior to the construction phase of the Proposed Development. Any construction activity within 30 m of an active sett carries risks of direct harm and/or adverse impacts as a result of disturbance.

There is also the potential for individuals to venture across the Site during the construction phase for the purposes of foraging and/or dispersal and there is, therefore, the direct risk of harm should individuals fall into pits or trenches left open overnight during the works.

Other notable species

Whilst no evidence of this species was recorded during the survey, hedgehogs may occur on-Site whilst brown hare have been recorded across the Site. Therefore, there is the direct risk of harm to hedgehogs during the clearance of suitable vegetation, if required. There also remains a risk of direct adverse impacts upon both hedgehog and brown hare should individuals fall into pits or trenches or enter pipework left open overnight during the construction phase. Should any individuals become trapped they may be at greater risk of predation, starvation and susceptibility to adverse weather conditions.

Invasive Non-native Species

In the absence of sufficient mitigation measures there remains the risk of construction-phase activity causing or allowing the spread of Japanese knotweed beyond the Site boundaries, which would constitute an offence under the Wildlife and Countryside Act 1981 (as amended).

Appendix B – Suggested Temporary Protective Fencing Construction

Suggested Temporary Protective Fencing Construction

Where required (i.e. to mark out Biodiversity Protection Zones), the following protective fencing specification is suggested. In some instances, it may be appropriate to mark out areas using brightly coloured barrier tape, where approved by the project EcOW.

- Temporary protective fencing panels shall be weldmesh "Heras" panels of at least 2.0 m in height;
- The panels shall butt together and be securely fixed;
- No fixing shall be made to any tree and all possible precautions shall be taken to prevent damage to tree roots when locating posts;
- A 600 mm x 300 mm warning sign (see Figure A, below) shall be fixed to every 10 m length of protective fencing; and
- Protective fencing shall be regularly inspected for signs of damage or defect.

Appendix C – Biodiversity Protection Zone Signage

Biodiversity Protection Zone Signage

– BIODIVERSITY PROTECTION ZONE – KEEP OUT!

THE FOLLOWING MUST BE OBSERVED BY ALL PERSONNEL:

- Δ **THE PROTECTIVE FENCING MUST NOT BE MOVED**
- Δ **NO PERSON SHALL ENTER THE CONSTRUCTION PROTECTION ZONE**
- Δ **NO MACHINE, PLANT OR VEHICLES SHALL ENTER THE PROTECTION ZONE**
- Δ **NO MATERIALS SHALL BE STORED IN THE PROTECTION ZONE**
- Δ **NO SPOIL SHALL BE DEPOSITED IN THE PROTECTION ZONE**
- Δ **NO EXCAVATION SHALL OCCUR IN THE PROTECTION ZONE**
- Δ **NO FIRES SHALL BE LIT IN THE PROTECTION ZONE**

ANY INCURSION INTO THE PROTECTION ZONE MUST BE WITH THE WRITTEN PERMISSION OF THE PROJECT ECOLOGICAL CLERK OF WORKS