

**PELHAM SPRING SOLAR FARM
ENVIRONMENTAL STATEMENT
TECHNICAL APPENDICES**

**APPENDIX 4.1 – OUTLINE CONSTRUCTION
ENVIRONMENTAL MANAGEMENT PLAN**

On behalf of Low Carbon Solar Park 6 Limited

Date: January 2023



Document Management.

Version	Date	Author	Checked/ Approved by:	Reason for revision

**CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN
(ECOLOGY)**

PELHAM SPRING FARM SOLAR, ESSEX

prepared by



commissioned by

PEGASUS GROUP

on behalf of

LOW CARBON SOLAR PARK 6 LIMITED

JANUARY 2023



CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN (ECOLOGY)

PELHAM SPRING FARM SOLAR, ESSEX

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Project Title	Pelham Spring Solar Farm, Essex
Project Number	8124
Document Title	Construction Environmental Management Plan (Ecology)
Client	Low Carbon Solar Park 6 Limited
Author	Adèle Remazeilles
Status	Checked by Andrew Ross
	Approved by Peter Timms
	V1 Issued: 28 th November 2022 V2 Issued: 24 th January 2023

The information, data and advice which has been prepared and provided is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions. This report and its contents remain the property of Clarkson and Woods Ltd. until payment has been made in full.



1 INTRODUCTION

- 1.1.1 Clarkson and Woods Ltd. were commissioned by Pegasus Group on behalf of Low Carbon Solar Park 6 Limited to prepare a Construction Environmental Management Plan (Ecology) (CEMP Ecology) to accompany a planning application for land proposed to accommodate Pelham Spring Solar Farm, located north of Maggots End, Bishop's Stortford, CM23 1BJ in Essex hereafter referred to as the 'Site'.
- 1.1.2 This document has been informed by an Ecological Impact Assessment for the Site (Clarkson & Woods, September 2022) and Landscape Strategy (P20-1300_12, Pegasus, September 2022).

1.2 Scope

- 1.2.1 This CEMP (Ecology) outlines measures to prevent impacts to retained habitats and protected species, thus avoiding offences being committed under relevant legislation. The Plan provided in Appendix A illustrates where mitigation measures will be implemented and where Biodiversity Protection Zones are located.
- 1.2.2 This document focuses exclusively on the protection of biodiversity and ecological features from construction-phase operations. It covers ecological aspects only and should be read in conjunction with other relevant CEMP documents.
- 1.2.3 This CEMP (Ecology) follows the guidelines set out within the Biodiversity - Code of Practice for Planning and Development¹.
- 1.2.4 It is the responsibility of Low Carbon Solar Park 6 Limited to ensure that all Method Statements set out in this document are implemented as described.

2 RESPONSIBLE PERSONNEL & LINES OF COMMUNICATION

- 2.1.1 Low Carbon Solar Park 6 Limited are to be responsible for the implementation of this CEMP (Ecology) during the construction phase of the development and shall ensure that the Principal Contractor responsible for construction is enacting the measures detailed in this CEMP.
- 2.1.2 Low Carbon Solar Park 6 Limited or their Principal Contractor shall liaise with the Ecological Clerk of Works (ECoW) to commission and arrange an ecologist's input or Site attendance, where required.
- 2.1.3 Should management responsibilities of the Site change, new personnel will be made aware of and action this CEMP (Ecology).

2.2 Contact Details

Role	Company	Contact Details
Asset Owner	Low Carbon Solar Park 6 Limited Stirling Square, 5-7 Carlton Gardens, London, SW1Y 5AD	Samuel Dix [REDACTED]
Construction/ Management Company	TBC	TBC
ECoW	Clarkson & Woods Overbrook Business Centre Poolbridge Road, Blackford, BS28 4PA	Adèle Remazeilles [REDACTED] [REDACTED]

¹ The British Standards Institution (2013). BS42020: 2013 – Biodiversity: Code of Practice for Planning and Development. BSI Standards Ltd.



3 BIODIVERSITY WORKING METHOD STATEMENTS

- 3.1.1 Adherence to the Method Statements detailed below will ensure that construction activities remain legally compliant and follow best practice measures relating to biodiversity.
- 3.1.2 The Method Statements below have been set out in discrete sections to allow them to be extracted and passed on to relevant contractors or filed/placed on a notice board on Site, if required.
- 3.1.3 A plan showing where mitigation measures are required is shown in Appendix A.
- 3.1.4 A summary of timing restrictions relating to each Method Statement is provided in Appendix B.



METHOD STATEMENT No.1: Biodiversity Protection Zone (BPZ) Fencing

Project Name	Pelham Spring Solar Farm
Personnel Required	Construction Company / ECoW
Description of Work	BPZs to be maintained through provision of fencing according to BS 5837: 2012
Purpose	To ensure impacts on retained habitats and species are avoided as far as possible during construction works

The BPZs will prevent construction activities from resulting in physical damage to areas of sensitive habitat and species outside of the construction area. BPZs will be delineated by appropriate fencing for each habitat type/ feature to be protected, as detailed in the table below.

Buffer Types on Site

Feature	BPZ Minimum Specification	Fencing Type
Ancient woodland (Battle's Wood Local Wildlife Site)	15m from the edge of woodland	Security fencing or Temporary Heras/ similar
Other woodland	10m from the edge of woodland	Security fencing or Temporary Heras/ similar
Hedgerows	5m minimum from edge of hedgerow	Security fencing or Temporary Heras/ similar
Ditches	5m minimum from top of bank	Security fencing or Temporary Heras/ similar
Badger sett	10m from outlying sett entrance 20m from main and subsidiary sett entrance	Temporary Heras/ similar
Ground-nesting bird nest	50m around nest	Temporary Heras/ similar
Other bird nest	4m around nest	Temporary Heras/ similar

Fencing (except for fencing around nests) will be in accordance with British Standard 5837: 2012 Trees in relation to design, demolition and construction – Recommendations and will be marked with weather-proof signage (minimum A4 size) stating "Biodiversity Protection Zone – Keep Out".

The BPZs encompass the minimum area required for the root protection areas (RPAs) as specified within the Tree Survey & Constraints Plan, BHA_1082_01, Barton Hyett Associates, as submitted.

The fencing will be installed in accordance with Appendix A, prior to the commencement of ground works. Temporary fencing will remain in place until the development is completed and all site machinery and materials removed from Site. No Site personnel or machinery shall enter the BPZs and no equipment will be stored therein for the duration of construction.

The maintenance of the BPZs and condition of fencing will be inspected by an ECoW on installation to ensure it complies with the correct specification and is installed in the correct locations. Thereafter the fencing will be subject to regular checks by the ECoW as per MS9. However, it will be the responsibility of the Site manager to ensure the fence is appropriately maintained throughout the construction phase.



Gaps will be allowed under the security fencing of at least 15cm high and 20cm wide to ensure species such as hedgehog and brown hare can access. These gaps will be provided at all field corners. The gaps may be present due to natural undulations in the ground but where these are not present, reinforced gaps in the fencing will need to be provided.

Reporting Requirements

Ecological Inspection Proforma (EIP) to be provided to Low Carbon Solar Park 6 Limited as evidence of completion of work. EIP to be retained as evidence of installation of fencing as per the CEMP.

A compliance report, containing details of compliance works and photographic evidence, will be submitted to the LPA within three months of completion of construction.



METHOD STATEMENT No.2:

Toolbox Talk

Project Name Pelham Spring Solar Farm

Personnel Required Construction Company/ECoW

Description of Work Toolbox talk to be delivered regarding ecological constraints.

Purpose To ensure species and retained habitats are protected during construction and Site personnel are aware of their responsibilities in this regard.

Prior to the commencement of works on Site, a toolbox talk will be provided by the ECoW to the Site manager and contractors. The toolbox talk will include details of this CEMP (Ecology) and all relevant Method Statements, highlighting ecological features within the Site. It will detail protection measures required during construction, methods to avoid harm, the role of the ECoW and Site personnel during clearance works, and what to do if a protected species is found during works.

If installed, a check of the BPZ fencing will also be conducted to ensure that it is adequately installed.

In the event that a new Site manager is appointed, the toolbox talk will need to be provided to them by the appointed ECoW (either online or in person). The Site manager will be responsible for relaying information within the toolbox talk to all Site staff during their initial Site inductions.

Reporting Requirements ECoW to log the toolbox talk and confirm in writing that it has taken place. Site manager to keep a log to ensure all contractors have received the toolbox talk.
A compliance report, containing details of compliance works and photographic evidence, will be submitted to the LPA within three months of completion of construction.



METHOD STATEMENT No.3: Protection of Nesting Birds

Project Name Pelham Spring Solar Farm

Personnel Required Construction Company / ECoW

Description of Work Open habitats within the construction zone will be maintained as unsuitable for nesting birds prior to construction commencing. Thereafter, any suitable open areas or hedgerow habitat to be impacted during the nesting season will first be inspected by an ecologist.

Purpose To avoid harm to nesting birds, their eggs and young.

Ensuring Open Habitats Remain Unsuitable for Nesting

After the last harvest of crops prior to construction commencing, open areas of grassland and / or arable will be cut to ground level after 31st August and before 1st March to discourage nesting within the following nesting season. Habitats will be regularly rolled and flattened (at least weekly) thereafter to maintain them as unsuitable for nesting.

Nesting Bird Inspections

During the construction phase, any removal of vegetation that is suitable for nesting, including hedgerow and open areas over 100mm, which have not been maintained as unsuitable through the measures detailed above, should ideally be conducted outside the bird nesting season (which is usually March to August but variable dependent on climate).

However, in the event that works are required during this period, an inspection to confirm the absence of nesting birds must first be carried out by the ECoW to ensure that offences relating to nesting birds are not committed.

Open Field

If suitable habitats remain during the nesting season (vegetation >100mm), the ECoW will conduct a walkover survey within three days prior to construction commencing to check for nests within the open field. If no nests are found, the habitats should be cut short to maintain them as unsuitable for nesting within three days of the survey.

Woody Vegetation

A check of any hedgerow or scrub for nesting birds must be carried out no more than 48 hours prior to their removal.

General

If an active nest is found, a suitable exclusion zone (to be determined by the ECoW but minimum 50m for nests in open habitats and 4m for other nests) will be instigated around the nest to protect it until completion of nesting. The exclusion zone will be demarcated by barrier tape or appropriate temporary fencing (e.g. High Visibility Netlon or Heras) along with notices informing Site staff that the excluded area must not be disturbed. A brief proforma report will be issued to the Site manager/foreman immediately following the inspection which will detail the findings, any constraints, and confirmation of actions required.

The ECoW will monitor the nest periodically and determine when the chicks have fledged so the exclusion zone can be removed. In the unlikely instance that an active bird nest is subsequently identified during Site clearance in the absence of an ecologist, the activity must cease immediately and advice sought from the ECoW.

Reporting Requirements ECoW to provide summary report of findings.
A compliance report, containing details of compliance works and photographic evidence, will be submitted to the LPA within three months of completion of construction.



METHOD STATEMENT No.4: Protection of Badgers

Project Name	Pelham Spring Solar Farm
Personnel Required	Construction Company / ECoW
Description of Work	Protection of badgers known to be present on the Site
Purpose	To ensure that wildlife legislation is not contravened

An updated badger survey will be carried out within four weeks of construction commencing. This will cover the entire Site plus a 10m buffer around the Site boundary. All existing setts will be checked and a search made for new setts which may have been excavated.

Where setts are located close to the construction Site, a 10 to 20m buffer (depending on the sett status, see MS1) will be demarcated by the ECoW with posts and flagging and these buffers discussed with the Site manager. The installation of security fencing will need to ensure that the 10-20m buffer is maintained. No significant changes in the positioning of the security fencing are anticipated. However, where security fencing requires installation within 10-20m of a newly identified sett, a method of working will be supplied by the ECoW, which may involve supervision of installation of fencing, use of hand tools only or possibly a slight change to the positioning of the fence.

During construction, any trenches will be covered overnight to ensure badgers and other mammals or amphibians do not become trapped within them. If this is not possible, a plank will be used at an angle of no more than 45° to ensure there is a means of escape.

Reporting Requirements	ECoW to provide summary report of findings. A compliance report, containing details of compliance works and photographic evidence, will be submitted to the LPA within three months of completion of construction.
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METHOD STATEMENT No.5:

Ditch Clearance - Protection of Otters & Water Voles

Project Name Pelham Spring Solar Farm

Personnel Required Construction Company/ECoW

Description of Work Otter & Water Vole Reasonable Avoidance Measures (RAMS)

Purpose To ensure legislation relating to European Protected Species is not contravened

The development will result in the damage of approximately 5m of ditch to allow for access into the Site from the farm track to the south (see Appendix A). Should water voles or otters be present in the ditch habitat, there is the potential to kill/injure animals or damage burrows, which would result in an offence being committed.

A prior survey of the affected area for signs of water voles and otters and its suitability will be undertaken at an appropriate time (between mid-April and September) to ascertain if water voles or otters are present prior to any works occurring close to the ditch. If the results are inconclusive, a second survey may be required, as per current survey guidelines for water voles.

In the event that evidence of any burrows is discovered (either in advance through a specific water vole survey or during supervised works), works may require a licence from Natural England in order to proceed. In the absence of water voles signs, the potential for minor disturbance or damage to habitat should be mitigated for by carrying works out under an Ecological Watching Brief attended by the ECoW.

The construction area will be fenced prior to construction commencing with fencing (both security and stock-proof) located at least 5m from all other ditches.

In addition, pollution prevention measures outlined in MS8 will ensure these habitats are not impacted by pollution or run-off.

Reporting Requirements ECoW to provide summary report of findings.
A compliance report, containing details of compliance works and photographic evidence, will be submitted to the LPA within three months of completion of construction.



METHOD STATEMENT No.6: Hedgerow Removal - Protection of Dormice

Project Name Pelham Spring Solar Farm

Personnel Required Construction Company/ECoW

Description of Work Dormice Reasonable Avoidance Measures (RAMS)

Purpose To ensure legislation relating to European Protected Species is not contravened

The removal of two 5m gaps within two different hedgerows at the Site (to allow for access into the Site) has the potential to disturb or injure dormice if present within these short sections.

To ensure dormice are not harmed by the proposal, prior to the removal of vegetation the hedgerows will be thoroughly inspected by an appropriately experienced ecologist who holds a dormouse survey licence.

The methodology for hedgerow removal will follow the single stage habitat removal procedure outlined as part of the methodology associated with a dormouse class licence². This can be undertaken at any time of the year but due to nesting bird and hibernating reptiles/amphibians conflicts it is advised the removal is undertaken between September and October.

The removal of the hedgerow will be preceded by a fingertip search of the hedgerow and the base of the hedgerow for dormice and dormice nests. If dormice or signs of dormice are encountered, the vegetation clearance must be stopped and it is likely that a dormouse licence would be required before further vegetation removal can take place.

The vegetation clearance will initially be undertaken with hand tools (chainsaw and brushcutter) with woody vegetation removed to 30cm above ground level. Once the ecologist is satisfied that no dormice are present, the base of the hedgerow can be removed using an excavator in the presence of the ecologist.

Reporting Requirements ECoW to provide summary report of findings.
A compliance report, containing details of compliance works and photographic evidence, will be submitted to the LPA within three months of completion of construction.

² <https://www.gov.uk/guidance/hazel-or-common-dormice-surveys-and-mitigation-for-development-projects>



METHOD STATEMENT No.7: Construction Lighting Restrictions

Project Name Pelham Spring Solar Farm

Personnel Required Construction Company

Description of Work Protection of ecological features

Purpose To ensure impacts on habitats and species are avoided as far as possible during construction works

The use of artificial lighting will be avoided where possible during the construction phase.

Should any artificial lighting need to be employed, this will be directed away from boundary features including woodland, hedgerows, trees, ditches and ponds to ensure light spill is avoided in these areas.

Lighting will only be used during working hours and no lighting will be switched on overnight outside of these hours, unless under prior agreement with the ECoW, with lighting being on a motion sensor with a maximum agreed time limit.

Reporting Requirements Where lighting is required, a separate RAMS will be prepared by the ECoW and issued to the Site manager.



METHOD STATEMENT No.8:

Pollution Prevention

Project Name Pelham Spring Solar Farm

Personnel Required Construction Company

Description of Work Pollution Prevention Measures

Purpose To ensure impacts on habitats and species are avoided as far as possible during construction works

To avoid pollution incidents which may impact the retained and bordering habitats, measures to prevent pollution incidents, including the safe storage of chemicals and materials, shall be implemented.

Any potential contaminants (fuel, oils and chemicals) used during construction will be stored in designated compounds on an impermeable surface, at least 20m from any waterbody. These will be securely locked away when not in use.

Appropriate pollution control measures will be employed in accordance with those outlined in the NetRegs document Guidance for Pollution Prevention (GPP) 5: Works and maintenance in or near water (February 2018). Although not endorsed by the Environment Agency in England (as the EA do not currently provide good practice guidelines following the withdraw of Pollution Prevention Guidelines (PPG) 5), measures in this document (accessed at: [REDACTED]) should nevertheless be followed in order to prevent pollution of the nearby waterbodies and ensure any pollution events are dealt with swiftly.

A spill kit must be kept on Site with sand, earth or commercial products for the containment of fuel and other material spillages. All staff will receive appropriate training in the use of these kits and are to be made aware of where the kit is stored.

In the event of a spillage of oils or chemicals resulting in contamination of waterbodies or damage to habitats, the following procedure will be adopted:

- The appropriate spill kit is to be deployed immediately and the Site manager is to be informed.
- The incident is to be recorded within the Site log book.
- In the event of contaminants being discharged directly to water courses, or in the event of significant spillage (in excess of 10 litres), the Environment Agency is to be contacted on the incident hotline 0800 80 70 60.

The ditches present within the Site will be protected through appropriate buffers through the installation of security fencing prior to construction commencing. A meadow mix as prescribed in the landscape specification will be sown within the field margins of all arable fields prior to construction which will also help with pollution and sediment control. Note that different mixes are prescribed in different areas to meet ecological mitigation requirements.

The construction compound / DNO cabin will be located at least 20m from watercourses. No construction materials will be stored within 20m of a watercourse. Construction of these structures will be confined to dry periods where possible, with no construction taking place during extremely heavy precipitation events. Where there is a risk of silt runoff, prevention measures will be implemented in the form of sediment fencing.

Reporting Requirements Site Manager to keep relevant documents on Site and log any pollution incidents. A compliance report, containing details of compliance works and photographic evidence, will be submitted to the LPA within three months of completion of construction.



METHOD STATEMENT No. 9:

Monitoring

Project Name Pelham Spring Solar Farm

Personnel Required Construction Company/ECOW

Description of Work Periodic monitoring by the ECoW of Site condition and correct implementation of Method Statements 1-8

Purpose To ensure this CEMP (Ecology) is being adhered to and identify any issues as early as possible.

The Site manager will conduct a weekly check of fences and Biodiversity Protection Zones to ensure that they are functioning as intended and that fences are intact and no material or machinery is present within the Biodiversity Protection Zones.

At the outset of construction, and every one month thereafter during the construction phase, the ECoW will inspect the Site to ensure the compliance with the CEMP. This will include checking the following:

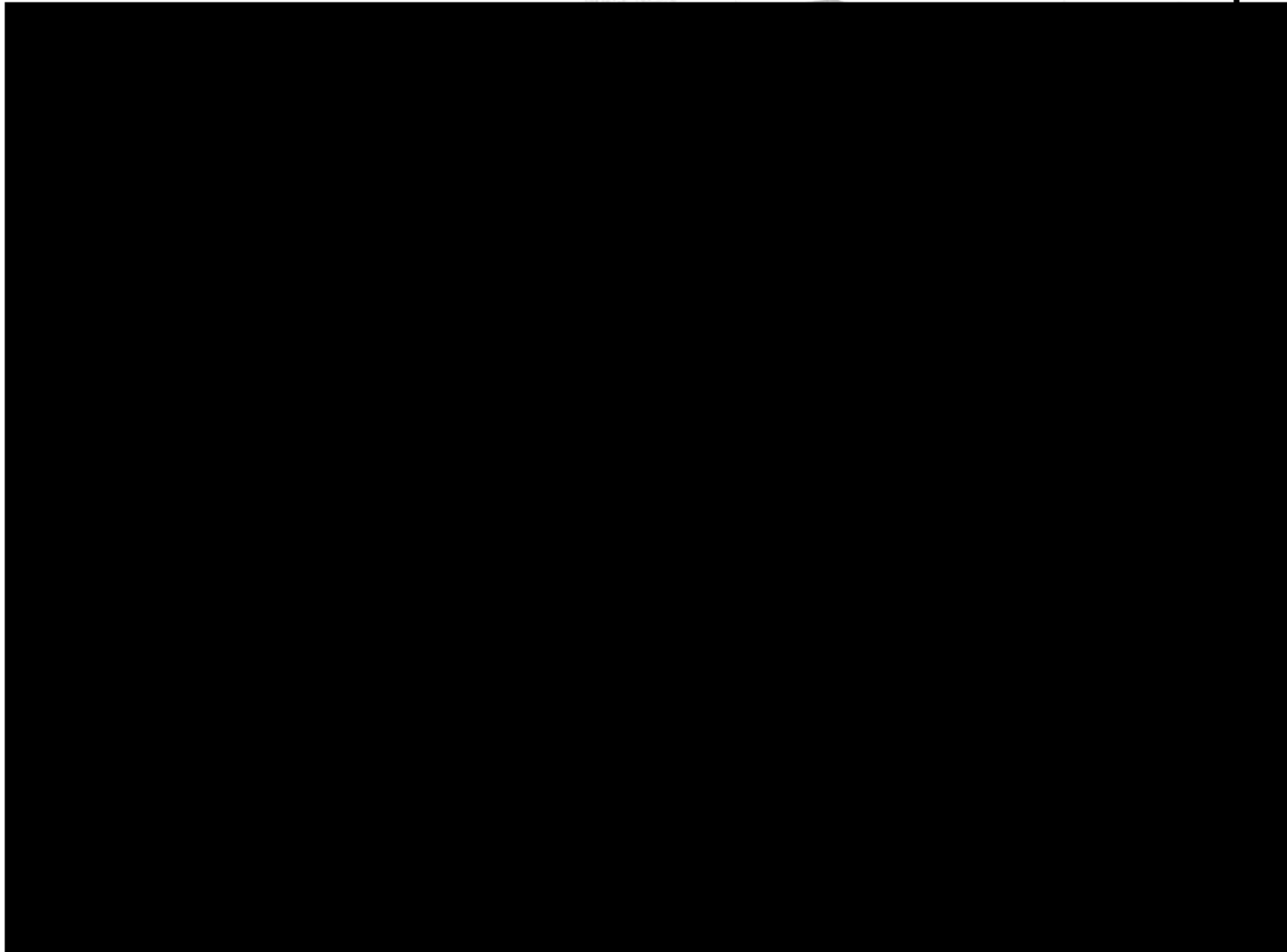
- Correct installation of fencing;
- Safeguarding of BPZs;
- Hedgerow and ditch condition;
- Implementation of precautionary Site maintenance measures;

Following inspections the ECoW will discuss monitoring outcomes with the Site manager and provide a written proforma of findings to Low Carbon Solar identifying any remedial actions and timescales for actions to be implemented.

Reporting Requirements Log of monitoring works undertaken.
A compliance report, containing details of compliance works and photographic evidence, will be submitted to the LPA within three months of completion of construction.



APPENDIX A: MITIGATION PLAN





APPENDIX B: MANAGEMENT PLAN DIARY

Method Statement		Timing Restrictions
MS1	Biodiversity Protection Zone Fencing (BPZ)	<ul style="list-style-type: none"> • Security fencing to be installed prior to the commencement of ground works. • Temporary fencing to remain in place until the development is completed and all site machinery and materials removed from Site. • No Site personnel or machinery to enter the BPZs and no equipment to be stored therein for the duration of construction.
MS2	Toolbox Talk	<ul style="list-style-type: none"> • Prior to the commencement of works on Site
MS3	Protection of Nesting Birds	<ul style="list-style-type: none"> • After the last harvest of crops prior to construction commencing, open habitats to be cut to ground level after 31st August and before 1st March • Habitats to be regularly rolled and flattened (at least weekly) thereafter. • During the construction phase, any removal of vegetation that is suitable for nesting birds, including hedgerow section(s) and open areas, to be conducted outside the bird nesting season (which is usually March to August but variable dependent on climate). • If suitable nesting habitats for ground nesting birds remain during the nesting season (grassland or arable crops with vegetation >100mm), the ECoW will conduct a walkover survey within three days prior to construction commencing. If no nests are found, the habitats should be cut short within three days of the survey. • A check of any hedgerow or scrub for nesting birds must be carried out no more than 48 hours prior to their removal.
MS4	Protection of Badgers	<ul style="list-style-type: none"> • Update badger survey to be carried out within four weeks of construction commencing.
MS5	Ditch Clearance – Protection of Otters & Water Voles	<ul style="list-style-type: none"> • Prior survey of the affected ditch area for signs of water voles and otters and its suitability to be undertaken at an appropriate time of year (between mid-April and September).



Method Statement		Timing Restrictions
MS6	Hedgerow Removal - Protection of Dormice	<ul style="list-style-type: none">• Precautional method to hedgerow removal to be undertaken between September and October if possible. If between March to August then nesting bird check required.
MS7	Construction Lighting Restrictions	<ul style="list-style-type: none">• Lighting to be only used during working hours and no lighting to be switched on overnight outside of these hours, unless under prior agreement with the ECoW, with lighting being on a motion sensor with a maximum agreed time limit.
MS8	Pollution Prevention	<ul style="list-style-type: none">• N/A
MS9	Monitoring	<ul style="list-style-type: none">• Site manager to conduct a weekly check of fences and Biodiversity Protection Zones.• At the outset of construction and every one month thereafter during the construction phase, the ECoW will inspect the Site.

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