LING HALL SOLAR DEVELOPMENT

Construction Environment Management Plan

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Table of Contents

1.0 INTRODUCTION ................................................................. 1
  1.1 Background to the Project .................................................. 1
  1.2 Objectives ......................................................................... 1
  1.3 Scope, Purpose and Structure of the CEMP ................................ 1
    1.3.1 Scope and Purpose ..................................................... 1
    1.3.2 CEMP Structure ....................................................... 1

2.0 PROJECT DESCRIPTION ...................................................... 2
  2.1 Site Description ............................................................... 2
  2.2 Project Overview ............................................................. 2
  2.3 Construction Programme ................................................... 2

3.0 STATUTORY REQUIREMENTS ............................................... 2
  3.1 Species Protection ........................................................... 2
    3.1.1 Badger ................................................................. 3
    3.1.2 Reptiles ............................................................... 3
    3.1.3 Breeding Birds ....................................................... 3
  3.2 Non-Native Plants ............................................................. 4
  3.3 Biodiversity Action Plans (BAPs) ......................................... 4
  3.4 National Planning Policy .................................................... 5

4.0 ECOLOGICAL BASELINE CONDITIONS .................................. 5
  4.1 Survey Methodology ......................................................... 6
  4.2 Results Summary ............................................................. 7
    4.2.1 Sites of Nature Conservation Interest ............................... 7
    4.2.2 Habitats and Flora ................................................. 8
    4.2.3 Fauna ................................................................. 8
  4.3 Ecological Objectives ....................................................... 9

5.0 METHOD STATEMENTS .................................................... 11
  5.1 Vegetation Clearance, Birds and Reptiles ............................ 11
  5.2 Pollution Control ........................................................... 11
  5.3 Landscaping ................................................................. 12

6.0 IMPLEMENTATION AND CONTROL ...................................... 12
6.1 Roles and Responsibilities: Environmental Staff ................................................................. 12
6.2 Environmental Support Staff .................................................................................................. 13
6.3 Competence, Training and Awareness ...................................................................................... 13
6.3.1 Training Objectives .............................................................................................................. 13
6.3.2 Induction and Training .......................................................................................................... 13
6.3.3 Environmental Training ........................................................................................................ 14
6.3.4 Training Records .................................................................................................................. 14
6.4 CEMP Reporting ..................................................................................................................... 14
6.0 CHECKING AND CORRECTIVE ACTION ................................................................................ 14
7.1 Checking Procedures ................................................................................................................ 14
7.2 Inspections .............................................................................................................................. 14
7.2.1 Ecological Clerk of Works Inspection Report ...................................................................... 14
7.2.2 Biodiversity Champions Weekly Inspection ......................................................................... 15
7.3 Non-Conformance, Corrective and Preventative Action .......................................................... 15
8.0 RECORD KEEPING AND MANAGEMENT REVIEW ............................................................. 15
8.1 Record Keeping and Archiving ............................................................................................... 15
8.2 Management Review ............................................................................................................... 15
9.0 REFERENCES AND BIBLIOGRAPHY .................................................................................... 16

TABLES
Table 1: Habitats Recorded during the Phase 1 Habitat Survey (Golder, 2014) ........................................ 5
Table 2: Activities Undertaken to Inform the Ecology Assessment .................................................. 6
Table 3: Statutory and Non-statutory Sites of Nature Conservation Value ......................................... 7
Table 4: Species Recorded During the Desk Study and Phase 1 Habitat Survey ................................... 8
Table 5: Ecological Objectives ........................................................................................................ 10
Table 6: Environmental Training ................................................................................................... 14

APPENDICES
APPENDIX A
Drawings
APPENDIX B
Schedule of Ecological Works
1.0 INTRODUCTION

1.1 Background to the Project

The Construction Environment Management Plan (‘the CEMP’) has been developed in accordance with the granting of planning permission reference RBC/14CM029 on 17 October 2014 for the construction of a frame mounted solar project (‘the Project’) at the Ling Hall Site (‘the Site’), Coal Pit Lane, Rugby, CV23 9HH.

Planning Condition 10 as detailed below defines this requirement as follows:

**Condition 10:** The development hereby permitted shall not be commenced until a Construction and Environmental Management Plan (“CEMP”) has been submitted to and approved in writing by the County Planning Authority and any pre-commencement measures in it have been carried out. The CEMP shall include pre-commencement checks for breeding birds, badgers, reptiles and amphibians and identify appropriate working practices and safeguards for wildlife that are to be employed during construction works. Once approved, the CEMP shall be implemented in full for the duration of the construction works.

**Reason:** To ensure that protected species are not harmed by the development.

1.2 Objectives

The principal objective of the CEMP is to mitigate the impact of the Project on the environment as set out in the ecological impact assessment (EcIA, Golder, 2014). The Project mitigation measures take into consideration current legislation, policy and best practice in order to deliver a Project that:

- Minimises adverse impacts on flora and fauna;
- Integrates the Project within the existing landform;
- Minimises the impact on notable and rare species of flora and fauna within the Site;
- Ensures that commitments made during the EcIA process are implemented;
- Ensures that environmental commitments made to the local authority and all statutory and non-statutory consultees are delivered; and
- Implements all methods and controls to safeguard the environment and mitigate the effects of the Project construction.

1.3 Scope, Purpose and Structure of the CEMP

1.3.1 Scope and Purpose

The CEMP describes the way in which the Project will be controlled to satisfy the general requirements to safeguard the environment and mitigate the adverse effects of the Project during construction. It also addresses, where appropriate, any beneficial measures that will be taken to enhance the nature conservation value of the wider area surrounding the Site. The CEMP may also fulfil environmental management systems protocol such as the ISO14001 system.

The application of the procedures outlined in the CEMP is obligatory to all staff on the Project.

1.3.2 CEMP Structure

In order to facilitate environmental management for the Project the CEMP is structured in a standard format, as follows:

- **Section 1** provides a general background to the Project and outlines the framework for the document;
- **Section 2** provides an outline description of the Project, proposals and construction programme;
- **Section 3** outlines the legislative requirements of the Project, incorporates a schedule of licences and approvals required, and highlights any relevant planning constraints which are applicable to the Project;
Section 4 details the baseline conditions for the Project and predicted impacts upon ecological receptors. This section describes the ecological objectives based on the baseline conditions and predicted impacts, and provides a structure by which ecological mitigation will be developed and implemented;

Section 5 incorporates best practice method statements for the identified ecological receptors (Environmental Protection Zones), detailing the construction control procedures to be followed. These are illustrated, where appropriate, with suitably scaled plans showing where construction activities are restricted and where protective measures will be installed or implemented.

The following Method Statements are likely to be required:

- Pre-construction checks;
- Vegetation clearance to avoid effects to birds and reptiles; and
- Pollution control and contingency plan.

Section 6 covers the environmental management of the construction works outlining the management structure established and training required to deliver the Project; and

Section 7 describes the checking and corrective procedures for the Project including inspection, incident reporting and auditing processes.

2.0 PROJECT DESCRIPTION

2.1 Site Description

The Site is situated adjacent to an active landfill, which at present is dominated by large expanses of disturbed ground with sheep grazed grassland, scrub and standing water on the periphery outside the footprint of the active landfill. The Site is generally rural and not overlooked by residential or other receptors.

2.2 Project Overview

The Project footprint amounts to an area of 35.4 ha of restored landfill. The PV arrays are positioned within four separate parcels of land which are connected by a simple unsurfaced track way. These parcels of land are situated in the north, south-east and south-west of the Project Site.

2.3 Construction Programme

The following indicative Construction Programme was issued during April 2017:

- Pre Commencement works August 2017 / September 2017;
- Site Establishment September 2017 / October 2017;
- Civil and Electrical groundworks October 2017 - December 2017;
- Electrical Fit-out November 2017 - January 2018;
- Control Buildings / Electrical units install February 2018; and

3.0 STATUTORY REQUIREMENTS

3.1 Species Protection

A level of statutory protection is afforded to specific species, largely as a consequence of dramatic declines in populations caused by habitat loss and/or degradation (both direct and indirect impacts) and persecution. The various statutes that provide this protection include the following:
The Wildlife and Countryside Act 1981 (as amended);
- The Conservation of Habitats and Species Regulations 2010;
- The Protection of Badgers Act 1992; and

### 3.1.1 Badger

The badger, *Meles meles*, is protected in the UK under the Protection of Badgers Act 1992 (as amended). The law offers considerable protection to both badgers and badger setts. Not only is it an offence to cruelly ill-treat, kill or take badgers, but it is also illegal to damage or disturb the badger sett, obstruct the access or entrance, or cause a dog to enter the sett while the sett is still occupied. The definition of ill treatment is no longer limited to the direct killing of badgers, but can be taken to include the destruction or severance of large areas of foraging territory.

Licences can be granted to disturb badgers in respect of development. Guidance from Natural England – *Interpretation of ‘Disturbance’ in relation to badgers occupying a Sett* (Natural England, 2009) – provides greater clarity of activities which may need a licence. Natural England advice identifies that badgers can be relatively tolerant of moderate levels of noise and activity around their setts and that even moderate levels of ‘disturbance’ may not actually disturb the badger occupying the sett. Therefore licences should only be sought where the activity will in fact disturb a badger, such as high levels of noise/activity around a sett, damaging the sett or obstructing access to a sett.

Licences to disturb badger setts in respect of development may be issued by Natural England if the applicants can convince the licensing authority of the necessity for the proposed action. Natural England has produced useful guidelines for development activities within a given range of a sett, which would require a licence (English Nature, 2002). Notwithstanding the Natural England June 2009 guidance, these guidelines remain useful for the following:

- Using very heavy machinery (generally tracked vehicles) within 30 m of any entrance to an active sett;
- Using lighter machinery (generally wheeled vehicles), particularly for any digging operation, within 20 m; and
- Light work such as hand digging or scrub clearance within 10 m.

Some activities, such as the use of explosives or pile driving, may cause disturbance at greater distances and require individual consideration. Penalties for offences under the Act are up to six months in prison and a fine of £5,000 for each offence.

### 3.1.2 Reptiles

All four of the widespread British species of reptile; common lizard *Lacerta vivipara*, slow-worm *Anguis fragilis*, grass snake *Natrix natrix* and adder *Vipera berus* are protected in Britain under Section 9 of the Wildlife and Countryside Act 1981 (as amended).

This prohibits intentional or reckless killing, injury or taking and trade of animals and/or parts of animals. It can be argued, that if the animals are disturbed or damaged, whilst occupying their places of shelter (i.e. favourable habitat) then this would amount to intent to injure or kill the animals.

### 3.1.3 Breeding Birds

All birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence, with certain exceptions (e.g. game birds) to intentionally:

- Kill, injure or take any wild bird;
- Take, damage or destroy the nest of any wild bird while it is in use or being built; and
- Take or destroy the egg of any wild bird.
Schedule 1 of the Act contains a list of birds which are conferred extra protection and for which all offences carry harsher penalties. Under the legislation it is illegal to: intentionally or recklessly disturb a Schedule 1 bird while it is building a nest or is in or near a nest containing eggs or young; and intentionally or recklessly disturb dependent young of such a bird. Examples of species covered under Schedule 1 include the barn owl Tyto alba, kingfisher Alcedo atthis and little-ringed plover Charadrius dubius.

3.2 Non-Native Plants

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence "to plant or otherwise cause to grow in the wild any plant listed in Schedule 9, Part II". This includes Japanese knotweed Fallopia japonica, giant hogweed Heracleum mantegazzianum, Himalayan balsam Impatiens glandulifera and rhododendron Rhododendron ponticum. This could include cutting the plant or roots and disturbing surrounding soil if not correctly managed.

3.3 Biodiversity Action Plans (BAPs)

Following the Rio Convention on Biodiversity in June 1992, the UK Government made a commitment to conserve and enhance our national biodiversity. As part of its commitment 'Biodiversity: the UK Biodiversity Action Plan (BAP)' was launched and subsequently a BAP Steering Group established.

The main aim of the UK BAP framework was to describe the UK's biological resources and commit a detailed plan for the protection of these resources. As a result, three types of Action Plan (Species Action Plans (SAPs), Habitat Action Plans (HAPs) and Local Biodiversity Action Plans (LBAPs)) were developed which set priorities for nationally and locally important habitats and wildlife. Each plan has costed actions and targets and reporting on the targets is done on a 3-5 year cycle using a nationally Biodiversity Action Reporting System (BARS).

There are 65 ‘Priority’ habitats, all of which have been selected due to their rarity and/or a significant decline in national distribution over recent decades.

The main framework involving the species, has led to the production of UK BAP Priority SAPs and Grouped SAPs. Of the former, 1150 species are included, and the current issues affecting each species and broad policies that are being initiated are identified. This includes, for example, numerous species of bat, butterfly and farmland bird. A similar approach is afforded to the latter; however, these address a group of species rather than a single species.

As a result of new drivers and requirements, the 'UK Post-2010 Biodiversity Framework', published in July 2012, has succeeded the UK BAP. In particular, due to devolution and the creation of country-level biodiversity strategies, much of the work previously carried out under the UK BAP is now focussed at a country level. Additionally, international priorities have changed: the framework particularly sets out the priorities for UK-level work to support the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and its five strategic goals and 20 'Aichi Targets', agreed at the CBD meeting in Nagoya, Japan, in October 2010; and the EU Biodiversity Strategy (EUBS), launched in May 2011.

The UK BAP lists of priority species and habitats remain; however, important and valuable reference sources. Notably, they have been used to help draw up statutory lists of priority species and habitats in England, Scotland, Wales and Northern Ireland (see NI species and NI habitats lists), as required under Section 41 (England) and Section 42 (Wales) of the Natural Environment and Rural Communities (NERC) Act 2006, Section 2(4) of the Nature Conservation (Scotland) Act 2004, and Section 3(1) of the Wildlife and Natural Environment Act (Northern Ireland) 2011.

Habitats on Site are provided in Table 1. The Project footprint is dominated by grassland swards with many of the habitats listed in Table 1 occurring off the Project footprint Site.
Table 1: Habitats Recorded during the Phase 1 Habitat Survey (Golder, 2014)

<table>
<thead>
<tr>
<th>Habitat Type</th>
<th>Habitat Status</th>
<th>Description</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broad-leaved plantation woodland A1.1.2 and Scattered trees</td>
<td>No recognised conservation status</td>
<td>Narrow bands of species poor broad-leaved plantation habitat surrounds some of the Site. Some areas of woodland extend into dense and scattered scrub habitats (see below). Scattered trees occur in a number of small groups outside of the Site.</td>
<td>Off Site.</td>
</tr>
<tr>
<td>Dense scrub A2.1, Scattered scrub A2.2</td>
<td>No recognised conservation status</td>
<td>Dense scrub is restricted in distribution, and limited in structural and species diversity. Scattered scrub, is frequent across the areas of semi-improved grassland (see Target Note 1, Golder 2014).</td>
<td>On Site.</td>
</tr>
<tr>
<td>Semi-improved neutral grassland B2.2</td>
<td>Field margins are Local BAP habitat</td>
<td>Areas of tall, species poor semi-improved neutral grassland occur across the northern and western part of the Site interspersed by scrub (see Target Note 1, Golder 2014).</td>
<td>On Site.</td>
</tr>
<tr>
<td>Swamp F1</td>
<td>Reedbed is a UK BAP habitat</td>
<td>Reedbed occurs around the margins of lagoons.</td>
<td>Off Site.</td>
</tr>
<tr>
<td>Standing water G1</td>
<td>Ponds are UK BAP and Local BAP habitat</td>
<td>Shallow ponds and scrapes are present within the south-west of the Site.</td>
<td>On Site.</td>
</tr>
<tr>
<td>Arable J1.1</td>
<td>None</td>
<td>Arable land is present within the south of the Blue Line Boundary.</td>
<td>Off Site.</td>
</tr>
<tr>
<td>Buildings and Hardstanding J3.6</td>
<td>None</td>
<td>This includes the landfill office and parking; and any buildings and hard standing beyond the Site boundary.</td>
<td>Off Site.</td>
</tr>
</tbody>
</table>

3.4 National Planning Policy

In March 2012, the Government published a new National Planning Policy Framework (NPPF), which sets out national planning policies for England and how they should be applied by local planning authorities. The NPPF condenses over 1000 pages of national planning policy into a single 59 page document and replaces the existing suite of national Planning Policy Statements, including Planning Policy Statement 9: Biodiversity and Geological Conservation (PPS9, 2005).

A core principle of the NPPF is a clear “presumption in favour of sustainable development” both in plan-making and decision-taking, putting the need to balance mutually dependent economic, social and environmental goals at the heart of planning.

4.0 ECOLOGICAL BASELINE CONDITIONS

A detailed ecological survey of the Site was completed in 2014 (refer Table 1) and subject of an Ecological Impact Assessment (Golder, 2014). The following section summarises the relevant results from these reports, which will form the cornerstone upon which the subsequent Method Statements will be based.
4.1 Survey Methodology

Baseline data collection consisted of a desk study (March to April 2014), a phase 1 habitat survey carried out by a suitably qualified ecologist1 on 9 April 2014, and a series of targeted phase 2 ecological surveys between the months of April and June 2014. The baseline activities undertaken are summarised in Table 3.

Table 2: Activities Undertaken to Inform the Ecology Assessment

<table>
<thead>
<tr>
<th>Activity</th>
<th>Methodology</th>
<th>Extent of Survey/Search (Golder, 2014)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desk Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obtaining records of protected species and</td>
<td>Desk Study consisted of a desk study (March to April 2014), a phase 1</td>
<td>Up to 3 km from the central grid reference for protected</td>
</tr>
<tr>
<td>designated sites by consulting the following:</td>
<td>habitat survey carried out by a suitably qualified ecologist on 9 April</td>
<td>species records. Up to 500 m from the Site boundary for</td>
</tr>
<tr>
<td>Multi Agency Geographical Information for the</td>
<td>2014, and a series of targeted phase 2 ecological surveys between the</td>
<td>non-statutory sites, up to 5 km from the Site boundary for</td>
</tr>
<tr>
<td>Countryside (MAGIC online database); the UK</td>
<td>months of April and June 2014. The baseline activities undertaken are</td>
<td>SSSI sites and up to 10 km from the Site boundary for sites</td>
</tr>
<tr>
<td>Biodiversity Action Plan; the Warwickshire,</td>
<td>summarised in Table 3.</td>
<td>of international importance (SAC, SPA and Ramsar).</td>
</tr>
<tr>
<td>Coventry and Solihull Biodiversity Action Plan; Warwickshire Biological Records Centre; and Natural England Character Profile.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase 1 Habitat Survey</td>
<td>Mapping and describing habitats according to Phase 1 Habitat Survey</td>
<td>Within and up to 50 m from the blue line (landownership)</td>
</tr>
<tr>
<td>Habitat Suitability</td>
<td>methodology (JNCC, 2010). Key features identified during the Phase 1 Habitat</td>
<td>boundary.</td>
</tr>
<tr>
<td>Great crested newt (Habitat Suitability)</td>
<td>Habitat Suitability Index (HSI) assessment of waterbodies to assess their</td>
<td>Within and up to 50 m from the blue line boundary.</td>
</tr>
<tr>
<td>Water vole (Habitat Suitability)</td>
<td>suitability for great crested newts (ARG UK, 2010).</td>
<td></td>
</tr>
<tr>
<td>Reptiles (Habitat Suitability)</td>
<td>Survey of waterbodies to assess their suitability for water voles according</td>
<td>Within the blue line boundary.</td>
</tr>
<tr>
<td>Birds (Habitat Suitability)</td>
<td>Assessment of the suitability of the Site for reptiles.</td>
<td></td>
</tr>
<tr>
<td>Non-native invasive species (Mapping survey)</td>
<td>Assessment of the suitability of the Site for breeding birds.</td>
<td>Within the blue line boundary.</td>
</tr>
<tr>
<td>Hedgerow (Survey)</td>
<td>Recording the presence of non-native invasive plant species listed on</td>
<td>Within the blue line boundary.</td>
</tr>
<tr>
<td>Badger (Activity Survey)</td>
<td>Assessment of hedgerows according to Defra (2007) to identify hedgerows</td>
<td></td>
</tr>
<tr>
<td>Bat (Roost potential assessment)</td>
<td>Identifying evidence of badger activity according to Harris et al. (1989).</td>
<td>Within the blue line boundary.</td>
</tr>
<tr>
<td>Bird (Roost potential assessment)</td>
<td>Bat roost potential assessment of trees and buildings following The Bat</td>
<td>Within the blue line boundary.</td>
</tr>
<tr>
<td></td>
<td>animal surveys Good Practice Guidelines (Hundt, 20122).</td>
<td></td>
</tr>
</tbody>
</table>

1 Freddy Brookes MSc, MCIEEM
2 Now superseded by the 3rd edition, Collins (2016).
Great Crested Newt (presence/absence surveys) Presence/absence surveys follow the Natural England (English Nature, 2001) Great Crested Newt Mitigation Guidelines, including searching for newts by torchlight, egg searches on marginal/aquatic plants, and bottle trapping over a minimum of four visits. If Great Crested Newts are found to be present within a pond, two additional visits are conducted to obtain a population estimate. Within the blue line boundary.

Reptile Survey (presence/absence surveys) Artificial Cover Objects (ACOs) - pieces of corrugated tin or roofing felt are placed in suitable habitat to attract reptiles in order to confirm whether or not reptile species are present on the Site. The density of artificial refuges used at the Site is consistent with Froglife (1999) guidance and is sufficient to enable a population assessment to be made. ACOs were checked over seven visits. Within the blue line boundary.

Breeding Bird survey A specialist breeding bird survey was undertaken following the Common Bird Census methodology described by Bibby et.al (2000). Four survey visits were carried out, in suitable weather conditions covering the whole Site. The results of the surveys were subject to territory mapping analysis. Within the blue line boundary.

4.2 Results Summary

4.2.1 Sites of Nature Conservation Interest

Within the desk study area, there are three nationally designated Sites of Special Scientific Interest (SSSI) as described in Table 3. The Table includes the designating key features and the distance from the SSSIs to the Site and an analysis of potential for ecological connections (impact pathways).

<table>
<thead>
<tr>
<th>Site</th>
<th>Status</th>
<th>Key Features</th>
<th>Distance from Site</th>
<th>Potential Pathways</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandon Marsh</td>
<td>SSSI</td>
<td>Brandon Marsh is a diverse complex of flooded gravel pits, fen and scrub lying adjacent to the River Avon in central Warwickshire. It is a good example of open water with surrounding fen which is an uncommon habitat in Warwickshire. Brandon Marsh is also of regional importance for several species of breeding and wintering birds.</td>
<td>5 km</td>
<td>No pathways identified.</td>
</tr>
<tr>
<td>Wolston Gravel Pit</td>
<td>SSSI</td>
<td>Designated for geology.</td>
<td>3.5 km</td>
<td>No pathways identified.</td>
</tr>
<tr>
<td>Draycote Meadows</td>
<td>SSSI</td>
<td>The meadows are examples of a grassland community characterised by crested dog’s-tail Cynosurus cristatus and common knapweed Centaurea nigra.</td>
<td>2 km</td>
<td>No pathways identified.</td>
</tr>
</tbody>
</table>

Non-Statutory Sites
### 4.2.2 Habitats and Flora

A Phase 1 Habitat Survey Map showing baseline habitat distribution is presented at Appendix A. The Site is dominated by large expanses of semi-improved neutral grassland of differing sward lengths. Toward the west and north of the Site the perennial rye-grass *Lolium perenne* dominated sward has grown rank in the absence of a grazing regime. The sward is subject to scrub succession in places and blackthorn *Prunus spinosa*, silver birch *Betula pendula* and hawthorn *Crataegus monogyna* are colonising this habitat (Target Note 1, Golder 2014).

Within the southern and eastern Site boundary the grassland sward is hard grazed by sheep (Target Note 5, Golder 2014). The stocking density of sheep and lambs appeared high and the grassland sward offered little biodiversity value.

Within the western flanks of the Site some discrete areas of ponding water were recorded (Target Note 2, Golder 2014). Much of this habitat contained species assemblages indicative of a water permanence. Reed-mace *Typha Latifolia* dominance was recorded in the wettest areas. Other areas appeared to be more ephemeral in nature, where grassland species dominated the sward, with the presence of hard and soft rushes (*Juncus inflexus* and *Juncus effusus*) indicating wet conditions.

### 4.2.3 Fauna

Fauna identified through secondary (desk study) searches or primary (field survey) work is presented in Table 4 as follows:

<table>
<thead>
<tr>
<th>Species/Group</th>
<th>Status</th>
<th>Source</th>
<th>Likelihood of presence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bats</td>
<td>Protected (Wildlife and Countryside Act 1981 (as amended), Countryside and Rights of Way Act 2000 and Conservation of Habitats and Species Regulations 2010)</td>
<td>Survey (suitability) Desk Study</td>
<td>Potential (foraging and commuting habitat observed). Roosting and hibernating bats recorded within the desk study area. However, habitats present within the site unsuitable for roosting bats.</td>
</tr>
<tr>
<td>Badger</td>
<td>Protected (Protection of Badgers Act)</td>
<td>Survey (Activity)    Desk Study</td>
<td><strong>Confirmed foraging</strong> habitat for badger within the Site. Sett identified outside of the Site (Target Note 3, Golder 2014).</td>
</tr>
<tr>
<td>Breeding birds</td>
<td>Protected (Wildlife and Countryside Act 1981 (as amended)), Skylark and song thrush are Warwickshire BAP species</td>
<td>Breeding Bird Survey</td>
<td><strong>Confirmed</strong>: One Schedule 1, seven red listed and twenty amber listed birds of conservation concern (BoCC). Full species list and distribution provided in Appendix E (Golder, 2014).</td>
</tr>
<tr>
<td>Reptiles</td>
<td>Common lizard, slow-worm, grass snake and adder are protected under Sect 9 of the Wildlife &amp; Countryside Act 1981 (as amended).</td>
<td>Reptile Survey Desk Study</td>
<td><strong>Confirmed</strong>: Low population of grass snake (see Appendix E and Drawing 3, Golder 2014). Grass snake recorded within the desk study search area.</td>
</tr>
</tbody>
</table>
Great Crested Newt


GCN Survey Desk Study

Not present within the Site or broader Blue Line Boundary.

GCN recorded within the desk study search area.

4.3 Ecological Objectives

The ecological objectives listed in Table 5 are based on a précis of the key ‘baseline conditions’ and ‘statutory requirements’ described in the previous section, together with a summary of the proposed mitigation for the Project, as identified within the EcIA (Golder, 2014).

Table 5 should be read in conjunction with the Method Statements in Section 5.0.
<table>
<thead>
<tr>
<th>Ecological Receptor</th>
<th>Impact on Baseline Conditions</th>
<th>Objective</th>
<th>Specific Mitigation Proposed</th>
<th>Time Constraint</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nesting birds.</td>
<td>Harm to nesting birds caused by habitat management (vegetation clearance) taking place during the nesting bird season.</td>
<td>Undertake habitat management outside of the nesting bird season.</td>
<td>Be sensitive to nesting bird constraints during any habitat works (see Method Statement 5.1).</td>
<td>Commence habitat management September 2017 and finish before March 2018.</td>
</tr>
<tr>
<td>Badgers</td>
<td>Disturbance to badgers and their setts.</td>
<td>Avoid disturbance to badgers wherever possible.</td>
<td>Undertake a pre-construction walkover survey.</td>
<td>To be undertaken during September 2017.</td>
</tr>
<tr>
<td>Reptiles (grass snake).</td>
<td>Harm to reptiles during habitat management (vegetation clearance).</td>
<td>Undertake habitat management in areas where reptiles are absent, avoid killing and injury.</td>
<td>Be sensitive to reptiles (grass snakes) during habitat management (see Method Statement 5.1)</td>
<td>Commence habitat management September 2017.</td>
</tr>
</tbody>
</table>
5.0 METHOD STATEMENTS

The following Method Statements are supported by the programme of works illustrated in Section 2.3 and the Schedule of Environmental Works, at Appendix B.

5.1 Vegetation Clearance, Birds and Reptiles

Rationale

The entire Site has the potential to support nesting birds and some areas may also support low numbers of reptiles during the warmer months. Vegetation clearance (habitat management) will be necessary to enable the construction of the Project to proceed. Even simple operations such as driving vehicles or walking regularly across the Site may potentially result in disturbance or damage to nests that are in use or individual reptiles. The risks of adverse effects to reptiles is low as their presence was only confirmed outside of the Project footprint. Nonetheless, all common reptiles and birds, including their nests are protected under the Wildlife and Countryside Act 1981 (as amended). In order to avoid impacts upon nesting birds and reptiles the following approach is recommended.

Equipment/Machinery

Tractor mounted flail and strimmers.

Timing

The vegetation clearance should commence in September 2017 to avoid issues with nesting birds such as skylark being encountered. It is not considered that the Project footprint contains suitable habitat for over wintering reptiles (hibernacula). As such, any vegetation clearance work extending towards the cooler months of Autumn and Winter will have avoided adversely affecting reptiles. The vegetation will be kept in a condition so as it is not suitable for nesting birds or reptiles until the commencement of full Site establishment.

Working Method

- Ecological Clerk of Works (ECoW) to provide a ‘Toolbox Talk’ to the Site clearance team before works commence.
- Clearance of vegetation should take place across the Project footprint.
- Any clearance that needs to take place during the bird nesting season must be preceded by an inspection for nesting birds by the ECoW. Should nesting birds be present, then clearance in these areas should stop until young have fledged.
- Once cleared, the Project footprint must be maintained in a condition that will reduce the likelihood of birds nesting. This can be achieved through regular cutting until full Site establishment.
- Bird scaring techniques may also need to be applied, subject to the effectiveness of the cutting and the relevant schedules. Such techniques would be recommended (if appropriate) by the ECoW, who will undertake fortnightly monitoring visits to check for nesting birds should the Site clearance work extend into the bird nesting season.

Measurement of Outcome

No reptiles or birds are killed, injured or disturbed as a result of the development.

5.2 Pollution Control

In order to prevent any pollution incidents that might potentially cause the deterioration of the terrestrial environment, it is proposed that a series of measures are introduced, with the onus being placed firmly upon
the adoption of the Environment Agency’s *Prevention Guidelines* (PPG 05)\(^3\). *Pollution.* Accordingly, in order that best working practice is adhered to, the following will be implemented:

- The Biodiversity Champion (see Section 6.0) shall record all spills, leaks, incidents and complaints in a “Foreman’s Logbook” and report all incidents to the ECoW, regardless of magnitude; and
- A ‘Hydrocarbon Spill Clean-up Kit’ will be held on the Site at all times – located within a suitably waterproof container. The Principal Contractor shall maintain adequate supplies of pollution clean-up equipment at the Site.

5.3 Landscaping

Landscaping is due to commence in early 2018 (Appendix B). Species composition and area coverage as defined by LDA Design\(^4\) is provided in the following drawings, which address planning conditions not covered by this report:

- Soft Landscape Plan: Southern Extent (5782 _001);
- Soft Landscape Plan: Northern Extent (5782 _002); and

The landscape design is geared toward maximum biodiversity value by utilising considered planting schemes of local provenance.

6.0 IMPLEMENTATION AND CONTROL

6.1 Roles and Responsibilities: Environmental Staff

Roles and responsibilities of key personnel are given in the following accounts:

**ECoW:** Freddy Brookes, Golder Associates, will be the nominated Ecological Clerk of Works (ECoW) who will be the central point for all ecological/environmental issues, liaising as appropriate with the nominated Principal Contractor, Biodiversity Champion, and statutory consultees in order to deliver the objectives of the CEMP.

The ECoW is responsible for the following:

- Monitoring compliance with the CEMP, and in particular the Method Statements;
- Managing Site activities of environmental specialists;
- Liaison with consultees;
- Liaison and incident reporting to the Biodiversity Champion;
- Site inspections and reporting; and
- Providing training and information about the importance of ecologically sensitive receptors to all construction personnel on Site through delivery of ‘Toolbox Talks’ as required.

The ECoW will not have a full-time presence on Site. The ECoW will attend at the start of works to review the delivery of the CEMP details in accordance with each of the following items in the Method Statements, and towards the completion of works in order to certify the quality of the work. It will be necessary for the ECoW to be present at other times in the interim period, although this will be defined by the complexity of the task and the potential for disturbance to existing sensitive features. Only once the ECoW is satisfied with the outcome of each item will they be considered as a completed action.

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\(^3\) Withdrawn in Dec 2015
\(^4\) [http://www.lda-design.co.uk/](http://www.lda-design.co.uk/)
Biodiversity Champion: (Appointed Principal Contractor)

Is responsible for the following:

- Ensuring the CEMP is adhered to on Site;
- Ensuring the implementation of environmentally sensitive working practices;
- Delivering Site inductions;
- Responding to environmental incidents, and ensure all reporting carried out correctly;
- Reviewing incidents with the Environmental Team to prevent repeat occurrence; and
- Liaising with environmental stakeholders as required.

6.2 Environmental Support Staff

The following Environmental Support Staff will advise on the following:

Ecology: Freddy Brookes ECoW Golder Associates (GA)
Archaeology: Paul Wheelhouse (GA)
Ground Conditions: Paul Hopper (GA)
Surface Water: Matt Goode (GA)

6.3 Competence, Training and Awareness

6.3.1 Training Objectives

Training constitutes a fundamental element in ensuring environmental performance improvement; indeed the effectiveness of any system to improved performance is dependent on the adequacy of information held and the application of that information by personnel. All personnel working for or on behalf of REG should have the appropriate awareness and competence to meet the requirements of the CEMP.

The primary objectives of training are to ensure that:

- Personnel are fully aware of the REG Environmental, Sustainable Development and Energy Policies;
- Personnel are fully aware of the potential environmental impact of their work and associated environmental issues;
- Individually and collectively, personnel are committed to the provision of a sound environmental performance; and
- Effective communication in respect of environmental issues exists within the Project team.

6.3.2 Induction and Training

The Principal Contractor’s Site induction shall cover environmental issues specific to the Project and outline the procedures that shall be taken to minimise the potential environmental impacts of construction activities outlined within the CEMP. The Principal Contractor’s Environmental Manager or Biodiversity Champion shall administer this induction.

The induction shall be supplemented with regular ‘Toolbox Talks’, which will be undertaken by the nominated ECoW or Biodiversity Champion dependent on the nature and complexity of the task. The Toolbox Talks and watching briefs must take place prior to and during all Method Statement operations as defined within the CEMP. Table 6 summarises the environmental training that will be necessary.
Table 6: Environmental Training

<table>
<thead>
<tr>
<th>Task</th>
<th>Personnel Involved</th>
<th>Provision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Induction containing an Environmental awareness briefing covering the requirements of the CEMP</td>
<td>Operatives and Staff</td>
<td>Biodiversity Champion</td>
</tr>
<tr>
<td>Toolbox Talks</td>
<td>Operatives and Staff</td>
<td>Provided by ECoW and the Biodiversity Champion dependent on the context of the task</td>
</tr>
<tr>
<td>Specific training following an environmental incident.</td>
<td>Operatives and Staff</td>
<td>Provided by the Principal Contractor Environmental Manager and Biodiversity Champion as directed by the REG Environmental Manager</td>
</tr>
</tbody>
</table>

6.3.3 Environmental Training

Where necessary, job and role specific training will be provided by the Client to raise an awareness of environmental matters specific to the activity.

6.3.4 Training Records

Training records will be held by the Contractor’s Environmental Manager for all training attended by staff, including formal and informal (e.g. Toolbox talks) training. Records will be maintained in accordance with the applicable policies and procedures.

6.4 CEMP Reporting

Environmental performance will be monitored against the objectives outlined in Section 1.2 of this document. Performance against these objectives will be monitored continually and findings reported in a bi-annual CEMP review. The Principal Contractor Biodiversity Champion will oversee this process and the ECoW will review this process.

7.0 CHECKING AND CORRECTIVE ACTION

7.1 Checking Procedures

In order to determine compliance with the requirements of the CEMP, Site inspections and audits must be undertaken regularly. These procedures will include the following processes:

- Regular Site inspections, carried out by the ECoW, in accordance with this report;
- Formal Audits, will be undertaken periodically in accordance with the REG and Principal Contractor’s environmental management systems;
- Management Review with REG / environmental management and the Principal Contractors; and
- All records of evaluation will be maintained and controlled in accordance with REG and the Principal Contractors environmental management systems e.g. ISO14001.

7.2 Inspections

7.2.1 Ecological Clerk of Works Inspection Report

The ECoW will undertake a detailed Site Inspection to assess environmental compliance with the CEMP. The inspection frequency will be determined by the occurrence of critical works at times of the year when disturbance to sensitive environmental receptors is likely to be greatest. For the duration of the Project, monthly inspections would be appropriate. However inspections would be more frequent, at fortnightly intervals during the following Phases of the Project:
CONSTRUCTION ENVIRONMENT MANAGEMENT PLAN

- Pre-Commencement Works (Vegetation Clearance); and
- Site Establishment.

7.2.2 Biodiversity Champions Weekly Inspection

The Principal Contractor nominated Biodiversity Champion will undertake an Environment inspection on a weekly basis. The aim of routine workplace inspections is to detect and rectify the simple and mainly obvious hazards that can often be the cause of accidents or environmental incidents.

7.3 Non-Conformance, Corrective and Preventative Action

All environmental non-conformances will be recorded on an Environment Incident Investigation and Report form generated by the ECoW or the Principal Contractor’s Biodiversity Champion or Environmental Manager.

Dependent on the severity of the non-conformity, differing actions may be required. These range from adapting working practice, additional Tool Box Talks, or in severe cases, the involvement of statutory bodies such as the Environment Agency.

Any corrective or preventative actions will be assigned a nominated owner, together with a timescale for reviewing and closing out the actions.

The results of any corrective or preventative actions will be recorded and held on Site throughout the duration of works and made available to third parties e.g. regulatory authorities on request.

8.0 RECORD KEEPING AND MANAGEMENT REVIEW

8.1 Record Keeping and Archiving

All environmental records will be maintained in accordance with applicable policy and procedures and relevant legal requirements (e.g. material delivery notes).

Records will be maintained in either hard copy or electronic format (as required) so as to be readily identifiable, retrievable and protected against damage, deterioration or loss.

Records will be maintained for the applicable duration of time and can only be disposed of by the individual responsible for them.

8.2 Management Review

The CEMP will be reviewed by the Contractor’s Environment Manager (in consultation with relevant stakeholders) on a case-by-case basis in the following circumstances:

- An incident investigation makes recommendations for changes in the management of environmental issues;
- An audit or inspection makes recommendations for improvements in working practice; or
- There is a significant change to worksite activities e.g. a new activity is proposed that requires additional risk control measures.

In addition, the CEMP will be reviewed by the Contractor’s Environment Manager at each phase of construction work, or on an annual basis, whichever is sooner, in order to ensure that the Plan remains relevant and current.

All changes to the CEMP will be communicated formally to the Client and other relevant stakeholders via the agreed communication routes. All changes to the CEMP will be communicated to Site workers during Toolbox talks and recorded on the training records and/or meeting notes.
9.0 REFERENCES AND BIBLIOGRAPHY


Report Signature Page

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Senior Ecologist

David Hybert  
Reviewer

FB/DH/gg

Date: 01 June 2017

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APPENDIX A
Drawings
SOLAR DEVELOPMENT POTENTIAL OF VEOLIA SITES

REG SOLARPOWER

LEGEND
- SITE BOUNDARY
- LAND OWNERSHIP BOUNDARY
- 5 km DESK STUDY AREA
- 10 km DESK STUDY AREA

SITES OF SPECIAL SCIENTIFIC INTEREST (SSSI)

REPORT ISSUE

SOLARPOWER

CONSERVATION VALUE WITHIN THE DESK STUDY AREA - LING HALL

SITE BOUNDARY

REPRODUCED FROM ORDNANCE SURVEY PHOTOGRAPHY ON BEHALF OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE © CROWN COPYRIGHT

1:100,000

METRES

0 2,500 5,000

SITE BOUNDARY

LEGEND
APPENDIX B
Schedule of Ecological Works
## APPENDIX B

### Schedule of Environment Works

<table>
<thead>
<tr>
<th>Task</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jan</td>
</tr>
<tr>
<td>Pre-commencement checks, Vegetation Clearance</td>
<td></td>
</tr>
<tr>
<td>Herpetofauna and Birds (Method Statement 5.1)</td>
<td></td>
</tr>
<tr>
<td>On-going ECoW Site Inspections</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2018</td>
</tr>
<tr>
<td>On-going ECoW Site Inspections (Method Statement 5.1)</td>
<td></td>
</tr>
<tr>
<td>Vegetation Clearance</td>
<td></td>
</tr>
<tr>
<td>Herpetofauna and Birds (Method Statement 5.1)</td>
<td></td>
</tr>
<tr>
<td>Landscaping</td>
<td></td>
</tr>
</tbody>
</table>

- 2017: Pre-commencement checks, Vegetation Clearance, Herpetofauna and Birds (Method Statement 5.1) are scheduled in October and November.
- 2018: On-going ECoW Site Inspections, Vegetation Clearance, and Herpetofauna and Birds (Method Statement 5.1) are scheduled in various months throughout the year.
- Landscaping is scheduled for different months across both years.
At Golder Associates we strive to be the most respected global company providing consulting, design, and construction services in earth, environment, and related areas of energy. Employee owned since our formation in 1960, our focus, unique culture and operating environment offer opportunities and the freedom to excel, which attracts the leading specialists in our fields. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees who operate from offices located throughout Africa, Asia, Australasia, Europe, North America, and South America.