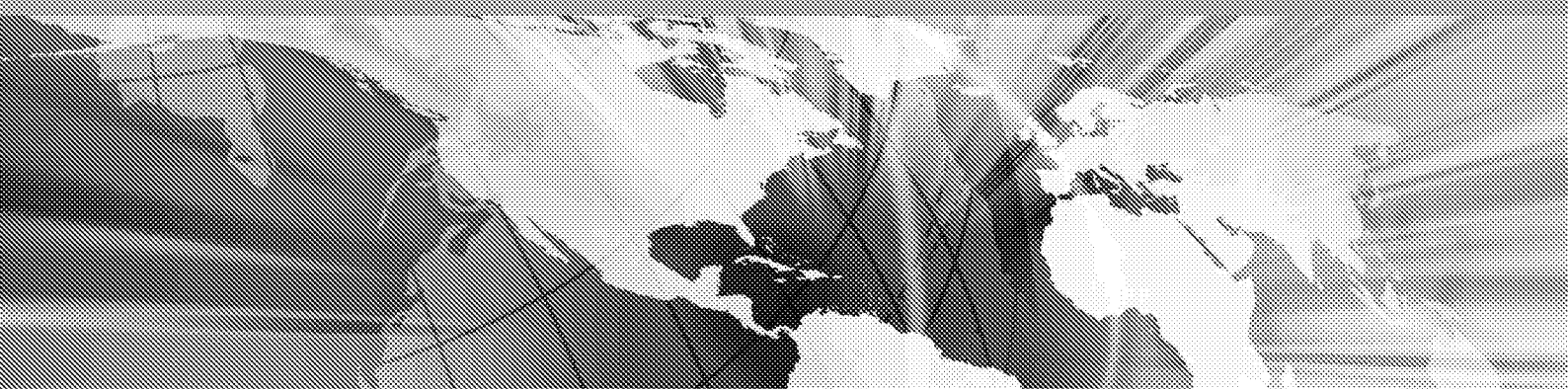


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LIGHTSOURCE RENEWABLE ENERGY LTD

PROPOSED SOLAR FARM AT LOWER FARM, YAPTON LANE, WALBERTON

PRELIMINARY ECOLOGICAL APPRAISAL

NOVEMBER 2014

your earth our world



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PROPOSED SOLAR FARM AT LOWER FARM, YAPTON LANE, WALBERTON

PRELIMINARY ECOLOGICAL APPRAISAL

NOVEMBER 2014

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CONTENTS

1	INTRODUCTION	1
1.1	Terms of Reference	1
1.2	Site Context	1
2	METHODOLOGY	3
2.1	Desk Study	3
2.2	Extended Phase 1 Habitat Survey	3
2.3	Nomenclature	4
2.4	Assessment Limitations	4
2.5	Quality Assurance & Environmental Management	4
3	RESULTS AND EVALUATION	5
3.1	Statutory and Non- Statutory Designated Sites	5
3.2	Habitats	5
3.3	Species	10
3.4	Ecological Evaluation	11
4	DISCUSSION AND RECOMMENDATIONS	16
4.1	Potential Constraints	16
5	Ecological Enhancements	21
5.1	Introduction	21
6	REFERENCES	22

TABLES

Table 3.1: Designated Sites Evaluation	5
Table 3.2: Habitat Description and Evaluation	7
Table 3.3: Trees with Bat Potential	10
Table 3.4: Bird Species Recorded	11
Table 3.5: Protected Species Evaluation	13
Table 4.1: Potential Constraints Summary.	20

APPENDICES

APPENDIX 1 – LEGISLATION AND POLICY SUMMARY

APPENDIX 2 – PRECAUTIONARY WORKING METHODS STATEMENT

DRAWINGS

SCALE

PE10439/001 Extended Phase 1 Habitat Survey Results

1:800@A3

PE10439/002 Water Bodies Map

1:700@A3

1 INTRODUCTION

1.1 Terms of Reference

Wardell Armstrong LLP (WA) was commissioned by Lightsource Renewable energy Ltd to undertake a Preliminary Ecological Appraisal (PEA) of a proposed solar farm scheme at land at Lower Farm, Yapton Lane, Walberton, West Sussex grid reference SU 983 047. This report has been produced with reference to current guidelines for preliminary ecological appraisal (Chartered Institute of Ecology and Environmental Management (CIEEM 2012)) and British Standard BS 42020:2013 (BSI 2013) which involves the evaluation of potential ecological constraints based on Extended Phase I (Joint Nature Conservation Committee (JNCC 2010)) survey data and background desk study.

The purpose of the appraisal is to satisfy the requirements of the National Planning Policy Framework (NPPF), identifying the likely presence of ecological features within or near the application site that could potentially pose a constraint to the proposed development. The following ecological features have been considered:

- Statutory and non-statutory designated conservation areas;
- UK and local Biodiversity Action Plan (BAP) habitats;
- Areas of Ancient Woodland;
- Legally protected species;
- UK and local BAP species; and
- Invasive species.

This report also seeks to identify any requirement for further specialist survey where the initial assessment cannot be relied upon to adequately determine presence or reliably infer absence of protected species/taxa. Mitigation and enhancement opportunities are also discussed.

1.2 Site Context

The area of detailed ecological study referred to as the site comprises of agricultural land consisting of improved grassland, approximately 9.9 hectares, bounded by defunct hedgerows with some mature trees along with a dry ditch to the north. The site lies

approximately 4.10km south-west of Arundel. The immediate surrounding area is agricultural with industrial units to the west and a railway line to the south.

2 METHODOLOGY

2.1 Desk Study

The desk study was informed by review of existing available information provided by Sussex Biodiversity Records Centre (SBRC) for a 2km search radius from the sites central grid reference. The Badger Trust Sussex were also contacted for badger records within a 2km radius of the site (at the time of writing this report no response had been received from this group). Ordnance Survey (OS) and satellite mapping was also used to gain contextual habitat information.

Specific information was sought for:

- Statutory designated sites;
- Locally designated sites;
- Ancient woodland;
- Protected and priority species; and
- Local BAP priority species.

2.2 Extended Phase 1 Habitat Survey

WA carried out an Extended Phase 1 Habitat Survey of the site on 23rd October 2014 which was carried out by an Ecologist from WA. The weather conditions during the survey were 14°C with 100% cloud cover with occasional light rain.

The survey followed the 'Extended Phase 1' methodology (Institute of Environmental Assessment (IEA), 1995 and JNCC 2010). Each of the main habitats were classified according to the relevant criteria including vegetation composition expressed according to the DAFOR¹ system.

In addition to the mapping and description of habitats, incidental observations of protected and/or BAP priority species and the potential for such species to occur on site (and in the surrounding landscape where relevant) were also noted.

Specific habitat features are mapped on Drawing PE10439/001.

¹ D – Dominant, A – Abundant, F – Frequent, O- Occasional, R-Rare.

2.3 Nomenclature

Vascular plant names follow '*New Flora of the British Isles*' (Stace 1997) with vernacular names as provided in the Botanical Society of the British Isles website (BSBI, 2013). All other flora and fauna names following the National Biodiversity Network (NBN) Gateway (NBN, 2013). The common and scientific name of species/taxa is provided (if available) when first mentioned in the text, with only the vernacular name referred to thereafter.

2.4 Assessment Limitations

Ecological surveys are limited by factors that affect the presence of plants and animals such as time of year, weather, migration patterns and behaviour. The survey was undertaken in October and therefore the survey data may not be representative of other times of year.

The absence of desk study records cannot be relied upon to reliably infer absence of a species/habitat. Often, the absence of records is a result of under-recording within the given search area.

2.5 Quality Assurance & Environmental Management

All ecologists employed by WA are members of CIEEM, and are bound by its code of professional conduct. All surveys and assessments have been undertaken with reference to the recommendations given in BS 42020.

3 RESULTS AND EVALUATION

3.1 Statutory and Non- Statutory Designated Sites

Desk study results for designated sites within the 2km search radius are evaluated in Table 3.1, below.

Sites which are considered potentially sensitive to the development proposals by virtue of the sensitivity of supported species or habitat assemblages, the distance/ecological connectivity to the application site and the nature of the perceived impacts are highlighted in bold text and are discussed in detail in the final sections of the report.

Sites for which potential adverse effects are not anticipated are excluded from further assessment.

Table 3.1: Designated Sites Evaluation		
Site Name and Status ²	Reason for Designation	Potential Constraint?
Binsted Wood Complex SNCI	The site is a complex of woodlands including Hundredhouse Copse and Stewards Copse. The woodlands are oak-hazel woodlands with occasional birch, sweet chestnut. The site supports a rich butterfly fauna including ringlet, silver-washed fritillary, white admiral and purple emperor.	No – the application site lies wholly outside of the designated area (all infrastructure will be at least 1.4km south-west), with no obvious ecological connectivity.

3.2 Habitats

All habitats within the survey area are described in Table 3.2, below, together with an indication of their BAP status, according to the definitions given in *UK BAP Priority Habitat Descriptions* (Anon 2008 updated 2010) and within the Sussex Biodiversity Partnership³. The

² SPA – Specially Protected Area, SAC – Special Area for Conservation, Ramsar – site designated under the Ramsar Convention, SSSI – Site of Special Scientific Interest, NNR – National Nature Reserve, LNR – Local Nature Reserve, SNCI- Site of Nature Conservation Importance.

³ <http://www.biodiversitysussex.org.uk/about/>

table also provides an evaluation of their potential to constrain development, indicated with bold text.

Habitats for which potential adverse effects are not anticipated are excluded from further assessment.

The location and extent of habitats is shown on Drawing PE10439/001, Extended Phase 1 Habitat Survey Results.

Table 3.2: Habitat Description and Evaluation

Table 3.2: Habitat Description and Evaluation				
Phase 1 Habitats		UK BAP	LBAP	Potential Constraint?
<u>Improved grassland</u> The main habitat type is dominated by perennial ryegrass <i>Lolium perenne</i> (D) and white clover <i>Trifolium repens</i> (D). The lower western field was recently sown with a rye grass mix but appeared to have been a maize crop prior to this. The lower southern field has been recently grazed by cattle and also included species such as Yorkshire fog <i>Holcus lanatus</i> (O), creeping bent <i>Agrostis capillaris</i> (O), broad-leaved dock <i>Rumex obtusifolius</i> (O) and soft rush <i>Juncus effusus</i> (O).		✓	x	No – The improved grassland is of low ecological value.
<u>Arable Field Margins</u> Arable field margins bound all of the site and are approximately 5m in width, apart from the field margin along the southern boundary which is between 5-10m in width. The field margins consist of Yorkshire fog <i>Holcus lanatus</i> (D), creeping bent <i>Agrostis capillaris</i> (D), cock's foot <i>Dactylis glomerata</i> (F), common couch <i>Elytrigia repens</i> (Locally F), creeping buttercup <i>Ranunculus repens</i> (Locally F), white clover <i>Trifolium repens</i> (F), ribwort plantain <i>Plantago lanceolata</i> (O), annual meadow grass <i>Poa annua</i> (O), false oat grass <i>Arrhenatherum elatius</i> (O), red fescue <i>Festuca rubra</i> (O), broad-leaved dock <i>Rumex obtusifolius</i> (O), scentless mayweed <i>Tripleurospermum inodorum</i> (O), bristly oxtongue <i>Picris echioides</i> (O), perennial sow-thistle <i>Sonchus arvensis</i> (O), spear thistle <i>Cirsium vulgare</i> (O), common nettle <i>Urtica dioica</i> (O), common mouse-ear <i>Cerastium fontanum</i> (O) and ragwort <i>Senecio jacobea</i> (R).		✓	✓	No – the arable field margins will not be affected by the development.

Table 3.2: Habitat Description and Evaluation

Phase 1 Habitats	UK BAP	LBAP	Potential Constraint?
<u>Defunct Hedgerows</u> There are a small number of defunct hedgerows bounding the west and bisecting the upper and lower fields. The hedgerow is dominated by hawthorn <i>Crataegus monogyna</i> (D). The defunct hedgerow bisecting the upper and lower fields and part of the eastern boundary consist of more mature trees of hawthorn (D), field maple <i>Acer campestre</i> (F), ivy <i>Hedera helix</i> (F), hazel <i>Corylus avellana</i> (F), ash <i>Fraxinus excelsior</i> (O) and pendunculate oak <i>Quercus robur</i> (O). There is a mature ash tree along the eastern boundary hedgerow that has potential to support roosting bats (see Table 3 for details and refer to Drawing PE10439/001 for location).		x	x
No – the hedgerows will be avoided by the proposals. An access road will pass through an existing gap in the hedgerow.			

Table 3.2: Habitat Description and Evaluation

Phase 1 Habitats		UK BAP	LBAP	Potential Constraint?
<u>Scrub</u> Areas of scattered scrub are present along sections of the defunct hedgerows and are dominated by bramble <i>Rubus fruticosus</i> agg. (D).		x	x	No – Areas of scrub will not be affected by the proposals.
<u>Dry Ditch</u> A dry ditch is present along the northern boundary of the site. The bankside vegetation is as per the arable field margins described above. The vegetation had recently been cleared. A single semi-mature pendunculate oak <i>Quercus robur</i> is present along the ditch.		x	x	No – The ditches will not be affected by the proposals.

Table 3.3: Trees with Bat Potential		
Tree number	Description	Category
T1	Mature ash tree with open hollow.	Category 1

3.3 Species

Recorded protected and/or invasive species from the field survey or evidence of the presence of protected or BAP priority species are described below.

Badger

All information on badgers is provided in the Confidential Badger Annex.

Birds

All birds recorded during the survey are summarised in Table 3.4, below together with a preliminary assessment of their likelihood to pose a constraint to the development. All nesting birds are discussed in the final section given the general legislative provisions relating to destruction of active nests. In addition, potential effects to species identified as potential constraints due to the presence extent and viability of supporting habitat, ecological connectivity and perceived nature and extent of effects also discussed in more detail (species highlighted in bold text) in the discussion section.

Table 3.4: Bird Species Recorded

Common name	Latin name	Status ⁴	Supporting Habitat	Potential Constraint?
Blackbird	<i>Turdus merula</i>	-	Yes – mature trees and improved grassland.	No – species is common and widespread. Site is unlikely to support significant local populations.
Buzzard	<i>Buteo buteo</i>	-	Yes – mature trees and improved grassland.	No – species is common and widespread. Site is unlikely to support significant local populations.
Tree Sparrow	<i>Passer montanus</i>	RL, UKBAP	Yes – mature trees and improved grassland	No – the mature trees will not be affected by the proposals and with enhancements there will be a net gain in habitat for tree sparrows.

Invasive Plants

No invasive species were recorded during the field survey.

3.4 Ecological Evaluation

Protected, UK & Local Biodiversity Action Plan species are evaluated in order to identify potential ecological constraints in Table 5 below, based on the desk study records, presence extent and viability of supporting habitat, ecological connectivity and perceived nature and extent of effects.

⁴ S1 – Schedule 1 Wildlife and Countryside Act, A1 – Annex 1 EU Birds Directive, RL - Birds of Conservation Concern 'red list', AL - Birds of Conservation Concern 'amber list', UKBAP – UK Biodiversity Action Plan Priority Species, LBAP Local Biodiversity Action Plan Priority Species.

Species/taxa for which potential adverse effects are not anticipated are excluded from further assessment.

Table 3.5: Protected Species Evaluation

Species/taxa	Desk Study record?	Status ⁵	Supporting Habitat	Potential Constraint?
Bats <i>Chiroptera</i>	Common Pipistrelle <i>pipistrellus pipistrellus</i> Soprano Pipistrelle <i>Pipistrellus pygmaeus</i> Nathusius' pipistrelle <i>Pipistrellus nathusii</i> Brown Long-eared Bat <i>Plecotus autitus</i> Grey long-eared bat <i>Plecotus austriacus</i> Noctule <i>Nyctalus noctula</i> Leisler's <i>Nyctalus leisleri</i> Serotine <i>Eptesicus serotinus</i> Greater horseshoe <i>Rhinolophus ferrumequinum</i> Lesser horseshoe <i>Rhinolophus hipposideros</i> Daubenton's bat <i>Myotis daubentonii</i> Natterer's bat <i>Myotis nattereri</i>	EPS, WCA, UKBAP,	Yes – Limited potential for foraging habitat (defunct hedgerows) on site. There is one ash tree with bat roosting potential but no buildings within the site boundary. Wide range of potential roosting habitat for all species within adjacent habitat.	No – poor quality foraging habitat restricted to defunct hedgerows.
Badger <i>Meles meles</i>	N/a (no records returned)	BA	Yes – foraging habitat in the form of improved grassland.	Yes – potential foraging and sett creation habitat may be impacted by the proposed works.

⁵ EPS – European Protected Species, WCA – Wildlife and Countryside Act, A1 – Annex 1 (Birds Directive), BA – Protection of Badgers Act, BAP – Biodiversity Action Plan Priority Species

Table 3.5: Protected Species Evaluation

Species/taxa	Desk Study record?	Status ⁵	Supporting Habitat	Potential Constraint?
Brown Hare <i>Lepus europaeus</i>	✓	UKBAP	Yes – foraging habitat in the form of improved grassland.	Yes- temporary disturbance to foraging and breeding habitat with a small loss of habitat to facilitate access roads.
European Hedgehog <i>Erinaceus europaeus</i>	✓	UKBAP	Yes – foraging habitat in the form of improved grassland and potential hibernation opportunities in scrub habitat.	Yes- temporary disturbance to foraging and breeding habitat with a small loss of habitat to facilitate access roads.
Dormouse <i>Muscardinus avellanarius</i>	✓	EPS, WCA, UKBAP	No – the defunct hedgerows are not well connected and therefore are not considered to have potential to support dormouse.	No potential constraint anticipated.
Otter <i>Lutra lutra</i>	x	EPS, WCA, UKBAP	Yes – Stream offers some potential for otters	No – the stream will not be affected by the proposals.
Water Vole <i>Arvicola amphibius</i>	✓	WCA, UKBAP	Yes – Stream has potential to support water vole.	No – the stream will not be affected by the proposals.
Reptiles	Slow worm <i>Anguis fragilis</i> Common lizard <i>Zootoca vivipara</i> Grass snake <i>Natrix natrix</i> Adder <i>Vipera berus</i>	WCA, UKBAP	Yes - Improved grassland and arable field margins provide foraging habitat for common reptiles.	Yes – potential foraging habitat may be lost/disturbed by the proposals. Foraging habitat will be lost to facilitate access road.
Great Crested Newt <i>Triturus cristatus</i>	✓	EPS, WCA, UKBAP	Yes – Improved grassland and arable field margins provide suitable terrestrial habitat for great crested newts.	Yes – A small footprint of sub-optimal terrestrial habitat will be lost to facilitate the solar panels

Table 3.5: Protected Species Evaluation

Species/taxa	Desk Study record?	Status ⁵	Supporting Habitat	Potential Constraint?
				and access road and potential disturbance to terrestrial habitat.
Common Toad <i>Bufo bufo</i>	x	UKBAP	Yes- terrestrial habitat in the form of improved grassland and arable field margins.	Yes – Terrestrial habitat will be lost to facilitate access road and potential disturbance to terrestrial habitat.
White-clawed Crayfish <i>Austropotamobius pallipes</i>	x	EPS, WCA, UKBAP	Yes – the stream has potential to support this species.	No – the stream will not be impacted by the proposed development.
Birds	A wide range of BoCC and Red List species and WCA Schedule listed species including: Grey partridge Eurasian bittern Hen harrier Northern lapwing Black-tailed godwit Turtle dove Lesser spotted woodpecker Willow tit Wood warbler Savi's warbler March warbler Tree sparrow and Corn bunting	UKBAP, WCA BoCC	Yes – Foraging and breeding habitat present around the periphery of site.	Yes – Potential breeding habitat may be lost/disturbed by proposals. Foraging habitat may also be lost.

4 DISCUSSION AND RECOMMENDATIONS

4.1 Potential Constraints

The following designated sites, habitats and species (receptors) have been evaluated as being potential ecological constraints:

- Badger;
- Brown Hare;
- Hedgehog;
- Reptiles and common toad;
- Great Crested Newts;
- Nesting birds (general).

Potential effects, requirements for further survey, and mitigation are discussed below for each of the identified potential constraints. Table 4.1 below, provides a summary of the discussion.

Badger

During the site survey there was significant evidence of badgers present and active within the site based on the field signs identified. Full details regarding the badger activity and recommendations are provided within the confidential annex.

Brown Hare

This species was not recorded by the surveys although the site contains suitable supporting habitat (arable field margins and improved grassland). It is understood that the solar panels will be mounted on supporting steel frames, elevating them above the ground surface. Grassland beneath the panels will be retained, and it is possible that this habitat would still be viable for brown hare post construction. However in the event that this species is present on site and is subsequently displaced, this effect is considered unlikely to result in any measurable reduction in conservation status; given the wide availability of similar habitat elsewhere on site and on adjacent land.

No further surveys or mitigation are considered necessary.

Hedgehog

This species was not recorded during the survey however desk records confirm its presence within 2km of the site and suitable supporting habitat for hedgehog is available within the site. It is likely that hedgehogs will be found within hedgerows surrounding the site. Under the current proposals this habitat is to remain untouched, thus causing no impact to hedgehogs. In the event that hedgehog is subsequently displaced however, this effect is considered unlikely to result in any measurable reduction in conservation status, given the wide availability of similar habitat elsewhere on site and adjacent land.

No further surveys or mitigation are considered necessary.

Reptiles and Common Toad

During the survey no field signs of reptiles and common toad were recorded however desk records confirm the presence of protected reptiles within 2km of the site. The arable field margins provide suitable foraging habitat for reptiles and common toad and the improved grassland field provides sub-optimal habitat for reptiles.

In order to avoid harm to reptiles and common toad it is recommended that, as a precaution, mitigation measures are implemented if present. Mitigation would include discouraging reptiles from the construction area by vegetation management whereby vegetation should be cleared or cut to ground level two weeks prior to construction, or graze the fields up until construction starts. If the fields are cut, any debris present within the affected areas, which could be utilised as refuges, should be removed. To minimise the risk to common reptiles, removal of debris should be undertaken before they start to hibernate in late September or after emergence from hibernation in March/April.

Improved grassland fields around the site provide suitable off site habitat for reptiles during the construction period.

After construction works have finished it is recommended that any loss to the grassland is re-sown to provide suitable foraging and breeding habitat for all species that are likely to be using the site.

Great Crested Newts

There were two ponds identified on site (Refer to Drawing PE10439/002) using OS mapping which were identified as no longer being ponds. There were 10 ponds identified within 500m (See drawing PE10439-002) of the site which could not be Habitat Suitability Index (HSI) assessed due to no access outside of the site boundary. There was suitable terrestrial habitat for great crested newts within the arable field margins, however the majority of the site offers poor quality terrestrial habitat (improved grassland) for great crested newts. Such poor quality habitat reduces the likelihood of great crested newts being present within the works area and therefore reduces the risk of an offence being committed under relevant legislation. The risk is further reduced as the data search by the SBRC provided no records of great crested newts within 500m of the site, with the closest record being approximately 1.1km northwest with no clear ecological connectivity.

This recommendation is dependent upon the implementation of an operational 5m buffer zone between the security fence and the hedgerows; as well as an operational 10m buffer from the erected solar panels and the site boundary is recommended, thereby retaining the suitable great crested newt terrestrial habitat (hedgerows, arable field margins and ground flora) on site. It is recommended that the security fence or “heras” type fencing is put up to protect the arable field margins and hedgerows. As the majority of the construction works are temporary and any disturbance or loss to great crested newt terrestrial habitat is minimal/reversible, it is considered that they can be carried out under Reasonable Avoidance Measures (RAMs) as detailed in the Precautionary Working Method Statement (PWMS) (Appendix 2). In addition, the majority of the site which is to be disturbed/lost is considered poor quality terrestrial habitat to support great crested newts. Terrestrial habitat present between the ponds and the site consisted of equally poor quality habitat to support great crested newts, being improved grassland and arable fields. Such poor quality habitat minimises the likelihood of great crested newts being present within the works area and therefore reduces the risk of an offence being committed under relevant legislation. Notwithstanding, an offence with regard to great crested newts would occur if an individual

great crested newt were killed or injured by the proposed works. Therefore, the following mitigation/PWMS are proposed to further reduce risk:

- The working footprint will avoid all optimal terrestrial habitats including boundary hedgerows, wet and dry ditches and arable field margins, as discussed earlier in the report;
- All works will be restricted to the winter hibernation period when great crested newts are unlikely to be dispersing across the site;
- If vegetation is required to be strimmed, it should be to no less than 100 mm, left for no less than 24 hours then strimmed to ground level (minimum of 24 hours prior to works commencing) to allow great crested newts to leave the area;
- Hand searching by an NE licenced ecologist during all soil stripping activities (see Appendix 2);
- Toolbox talks to inform all staff engaged in works at the site about great crested newts and protected species (See Appendix 2); and
- Appropriate working methods – vehicles to remain on cleared tracks, where possible no storage (see Appendix 2).

With these factors in mind (along with those presented within Appendix 2), the development activities are of such a type, scale and location that it is considered reasonably unlikely that an offence would be committed. However, in the unlikely event of a great crested newt being recorded on site, all works must stop immediately and advice sought from an appropriately experienced and licenced ecologist regarding the requirement for further detailed survey/European Protected Species Licence.

Birds (General)

The preliminary survey has confirmed that the site supports a range of bird species, mainly those associated with scrub, hedgerow and woodland edge. In order to avoid committing an offence under the relevant wildlife legislation it is recommended that any vegetation clearance works aim to avoid the breeding bird season (March-September inclusive). Should it prove necessary to carry out vegetation clearance works within the breeding bird season then it would be necessary to carry out a nesting bird check within 24 hours of works commencing. In the event that nesting birds are recorded within the works area, appropriate mitigation will need to be designed and implemented prior to start of works.

Table 4.1: Potential Constraints Summary.

Species/ Feature	Location	Potential impact/ mitigation required	Recommended survey	Survey timing
BAP Arable Field Margin	See drawing XXX-001	Loss of BAP Habitat. Compensate any losses by like-for –like provision.	None.	N/a
Badger	See Confidential Badger Annex	Loss of BAP habitat. Compensate loss by like- for-like provision.	Check for badgers prior to works starting	Any time
Brown hare	Arable field margins and improved grassland	Loss of foraging habitat and temporary disturbance to foraging habitat.	None	N/a
Hedgehog	Arable field margins and improved grassland	Loss of foraging habitat and temporary disturbance to foraging habitat.	None	N/a
Reptiles and common toad	Arable field margins and improved grassland	Loss of foraging habitat and temporary disturbance to foraging habitat.	Vegetation management. (Surveys would be required if mitigation is not adhered to).	N/a
Great crested newts	Arable field margins and improved grassland	Disturbance/loss of possible terrestrial habitat (i.e. foraging and hibernating)	Vegetation management. (Surveys would be required if mitigation is not adhered to).	N/a
Birds	Hedgerows and mature trees	Disturbance and loss of foraging habitat.	None	N/a

5 ECOLOGICAL ENHANCEMENTS

5.1 Introduction

Ecological enhancements including detailed habitat management, creation, maintenance and aftercare are detailed in the Biodiversity Management Plan.

6 REFERENCES

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APPENDIX 1 – LEGISLATION AND POLICY SUMMARY

Appendix 1 – Legislation and Policy Summary

Legislation for Habitats/Sites

Designated Site/Habitat	Status
Ramsar Sites	Ramsar Sites are wetlands of international importance designated following The Ramsar Convention. RAMSAR sites have the same level of protection as SSSIs under the Wildlife and Countryside Act 1981 (as amended).
SPA (Special Protection Areas)	SPAs are classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC), the Birds Directive. They are they seek to protect the habitats of rare and vulnerable birds, listed in Annex I of the Birds Directive, and for regularly occurring migratory species. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 implement the Birds Directive in the UK.
SAC (Special Areas for Conservation)	SACs are strictly protected areas which represent typical European Union of habitats and (non-bird) species listed in Annexes I and II of the EC Habitats Directive. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 implement the Habitats Directive in the UK.
SSSI (Sites of Special Scientific Interest)	SSSIs protect the best examples of the UK's flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were renotified under the Wildlife and Countryside Act 1981 (as amended). Modified provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000.
NNR (National Nature Reserves)	NNRs are examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. NNRs are declared by the statutory country conservation agencies under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 (as amended). Legal protection of NNRs is provided under The Wildlife and Countryside Act 1981 (as amended).

Designated Site/Habitat	Status
Hedgerows	All hedgerows are protected by the Hedgerows Regulations 1997, under which it is an offence to remove or destroy certain hedgerows without planning consent or permission from the Local Planning Authority. These regulations do not apply to any hedgerow within the curtilage of, or marking the boundary of the curtilage of, a dwelling house.
LNR (Local Nature Reserves)	Designated by the National Parks and Access to the Countryside Act 1949, LNRs may be declared for nature conservation by local authorities after consultation with the relevant statutory nature conservation agency. Legal protection of LNRs is provided under The Wildlife and Countryside Act 1981 (as amended).

Legislation for Species

Species	Legal Status
<i>European Legislation</i>	
Creeping Marshwort, Early Gentian, Fen Orchid, Floating-leaved Water Plantain, Killarney Fern, Lady's Slipper, Shore Dock, Slender Naiad, Yellow Marsh Saxifrage	Under the Conservation of Habitats and Species Regulations 2010 (and as amended), it is illegal to deliberately pick, collect, uproot or destroy any such species.
Bats, Dormouse, Otter, Wild Cat, Great Crested Newt, Natterjack Toad, Sand Lizard, Smooth Snake, Large Blue Butterfly	These animals and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species Regulations 2010 (and as amended), which makes it illegal to: • Deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; • Deliberately disturb⁶ such an animal; and • Damage or destroy a breeding site or resting place of such an animal.

⁶ Under the Conservation Regulations, disturbance of protected animals includes in particular any disturbance which is likely to: (i) impair their ability to survive, breed or reproduce, or to rear or nurture their young or to hibernate or migrate; (ii) significantly affect the local distribution or abundance of the species in question.

Species	Legal Status
	European Protected Species (EPS) licenses can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed, namely: • The development is for reasons of overriding public interest; • There is no satisfactory alternative; and • The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a duty to 'have regard to the requirements of the EC Habitats Directive' i.e. LPA's must consider the above 3 'tests' when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations.
<i>Domestic (UK) Legislations</i>	
Bats, Dormouse, Great Crested Newt, Heath Fritillary, High Brown Fritillary, Large Blue, Marsh Fritillary, Natterjack Toad, Pine Martin, Otter, Red Squirrel, Sand Lizard, Smooth Snake, Swallowtail, Water Vole, Wildcat	These animals receive full protection under the Wildlife and Countryside Act 1981 (and as amended), which makes it illegal (subject to certain exceptions) to: • Intentionally kill, injure or take any such animal; • Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and • Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.
Adder, Common Lizard, Grass Snake, Slow Worm, White-clawed Crayfish	These animals receive partial protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which provide protection against intentional killing or injury of any such animal.
Nesting Birds	All wild birds (as defined by the act) are protected under the Wildlife and Countryside Act 1981 (and as amended), which makes it illegal (subject to exceptions) to: • Intentionally kill, injure or take any wild bird; • Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.

Species	Legal Status
WCA Schedule 1 listed Birds	Additional protection is provided to birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (and as amended). In addition to the offences detailed above relating to all wild birds, it is illegal to: Intentionally or recklessly disturb any bird listed on Schedule 1, or their dependent young while nesting.
Badgers	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger, or attempt to do so and to intentionally or recklessly interfere with a Badger sett. This includes: - damaging or destroying an active sett; - obstructing access to a sett; and - disturbing a Badger while it is occupying a sett. Licences can be granted to permit sett closure and/or disturbance between July and November inclusive (i.e. outside the sow pregnancy/birth period).
Wild Mammals	The Wild Mammals (Protection) Act 1996 provides legal protection to all wild mammals (as defined by the act) against the following actions: mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, drown, crush, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.
<i>Invasive Species</i>	
WCA Schedule 9 listed animals (Part 1) and plants (part 2)	Certain species of plants and animals that do not naturally occur in Great Britain have become established in the wild and represent a threat to the natural fauna and flora. Section 14 of the Wildlife & Countryside Act prohibits the release of any animal species that are: <i>“not ordinarily resident in and is not a regular visitor to Great Britain in a wild state”</i>

Policy Summary

Section 40 of the Natural Environment and Rural Communities (NERC) Act imposes a legal duty on Planning Authorities to ‘have regard’ to the conservation of biodiversity when considering planning applications.

Section 41 of the NERC Act requires the Secretary of State to publish a list of species and habitats of principal importance for conserving biodiversity in the UK. Such Biodiversity Action Plan (BAP) Habitats and Species (2007) do not offer the species any specific protection but help to highlight the species importance at a national level. This list is used by Local Planning Authorities to identify the species and habitats that should be afforded priority when applying the requirements of the National Planning Policy Framework (NPPF).

The NPPF underpins the Government's planning policies for England and how these are to be applied. The central theme of the NPPF is a presumption in favour of sustainable development. This presumption does not apply where development requiring Appropriate Assessment under the Birds or Habitats Directives is being considered, planned or determined.

The NPPF states:

'When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- if significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- proposed development on land within or outside a Site of Special Scientific Interest (SSSI) likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs;*
- development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;*
- opportunities to incorporate biodiversity in and around developments should be encouraged;*

- *planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and*
- *the following wildlife sites should be given the same protection as European sites: potential Special Protection Areas (SPA) and possible Special Areas of Conservation (SAC); listed or proposed Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites.'*

The NPPF requires the Planning Authority to have a responsibility to promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan. In addition, the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

The National Planning Policy Guidelines (NPPG) provides information on the implementation of the policies set out within the NPPF and how these policies are associated with supporting legislation, policies and supplementary guidelines.

With regard to Schedule 1 and 2 projects, the NPPG explains the requirements of Town and Country Planning (EIA) Regulations 2011, including the legislation, stages and implementation of the act.

In terms of planning applications which fall out with the EIA regulations the NPPG provides the following broad guidelines (extracts below):

Section 40 of the Natural Environment and Rural Communities Act 2006, places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity. A key purpose of this duty is to

embed consideration of biodiversity as an integral part of policy and decision making throughout the public sector, which should be seeking to make a significant contribution to the achievement of the commitments made by Government in its Biodiversity 2020 strategy.

Guidance on statutory obligations concerning designated sites and protected species is published separately Local planning authorities should take a pragmatic approach – the aim should be to fulfil statutory obligations in a way that minimises delays and burdens.

The National Planning Policy Framework is clear that pursuing sustainable development includes moving from a net loss of biodiversity to achieving net gains for nature, and that a core principle for planning is that it should contribute to conserving and enhancing the natural environment and reducing pollution.

APPENDIX 2 – PRECAUTIONARY WORKING METHODS STATEMENT

PRECAUTIONARY WORKING METHODS

Natural England Guidance

In cases where a licence is considered not to be required, Natural England urges that

‘... reasonable precautions be taken to avoid affecting European Protected Species during works’. (Natural England 2001).

The following measures comprise such a precautionary method of working.

Site Preparation

Improved grassland fields are currently subject to occasional cattle grazing. This will be maintained until immediately prior to construction.

Timing

Since the proposed development footprint does not contain potential hibernacula, the most appropriate time for construction works is during the winter hibernation period of November to February inclusive and potentially extending into March if minimum night time temperatures do not exceed 5 degrees centigrade. Carrying out works at this time of year will significantly reduce the risk of encountering foraging great crested newt as this species is unlikely to be active at temperatures below 5 degrees centigrade.

Hand Searching and Supervision of Topsoil Strip

Immediately prior to (no more than 24hrs before) commencement of works the proposed footprint will be walked by an ecologist holding a Natural England survey licence (or an accredited agent acting under such a licence) to search for any potential refuges. Works shall not commence until the ecologist is satisfied that the working footprint contains no suitable refuges. Depending upon the condition of ground directly beneath the surface the ecologist may be required to remain on site during all site clearance works.

Toolbox Talk

All site operatives will receive a briefing by a Natural England licenced ecologist to include details of the legal protection afforded to great crested newt, the precautionary methods of working outlined in this document, advice on identification of great crested newts and procedures to follow should the species be discovered during works.

Working Methods

Light machinery only with a gross weight of less than 1.5 tonnes will be used for trenching operations. All other vehicles will remain on existing surfaced tracks. All excavated material won from trenches must be immediately removed or used to backfill excavations, no excavated materials will be stored on site overnight (to prevent risk of great crested newts using these as hibernacula or refugia). All material storage and parking will be on areas of existing track or hardstanding located away from the working area. If a great crested newt is found at any time during construction, all works will cease immediately and an ecologist contacted (if not already on site) to make an assessment of the situation and determine if further survey/European Protected Species Licence is required before work proceeds. If considered necessary, advice would be sought from Natural England.

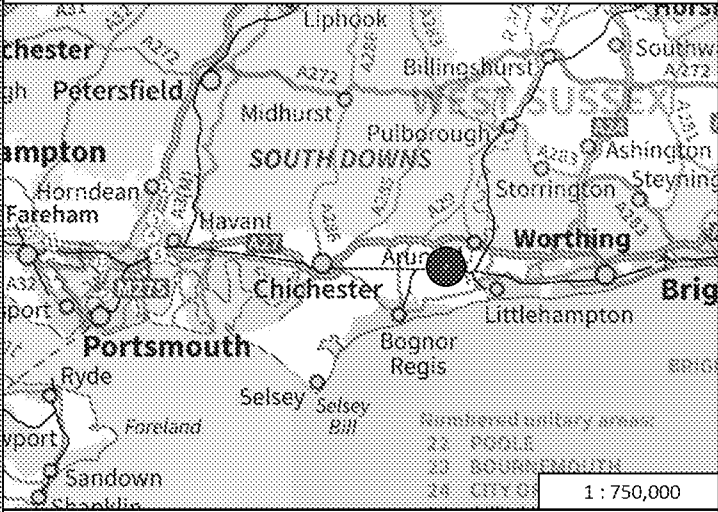
Habitat Re-instatement

On completion of installation of solar arrays, security fencing, access tracks and substation, all areas beneath the arrays will be established with a suitable native wildflower and grass seed mix and managed to ensure a net gain in suitable habitat for amphibians which may be present within the local area.

DRAWINGS



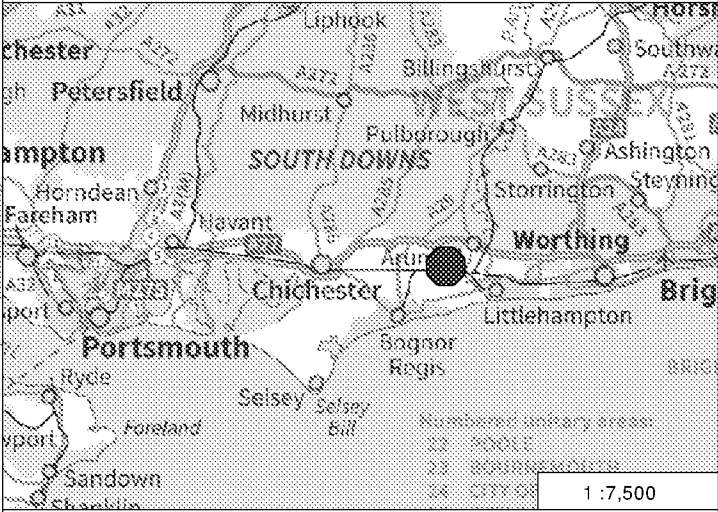
- Site Boundary
- Arable Field Margin
- Defunct Hedgerow
- Dry Ditch
- Defunct Hedgerow with Trees
- Defunct Hedgerow
- Scrub
- T1** Tree with Bat Potential
- I** Improved Grassland



0 100 Metres		1 : 1,700 @ A3	
BNG Ref: 498400: 104650		OS 100km Grid: SU	Landranger Ref: 197
Long : Lat DD -0.60210° : 50.83450°		Long : Lat DMS -0° 36' 7.5: 50° 50' 4.2	
			
Wardell Armstrong LLP Wheal Jane Earth Science Park Baldhu, Truro, TR3 6EH		Tel: +44 (0) 1872 560738 email: info@wardell-armstrong.com web: www.wardell-armstrong.com	
Drawn By: SH		Date: 25.11.2014	
Checked By: SC		Date: 25.11.2014	
Extended Phase 1 Habitat Map Proposed Solar Farm, Lower Farm, Yapton Lane Arun District			
PE10439		Figure 001	



Site Boundary
500m Buffer



1 : 7,000 @ A3		
BNG Ref: 498400: 104650	OS 100km Grid: SU	Landranger Ref: 197
Long : Lat DD -0.60210° : 50.83450°	Long : Lat DMS -0° 36' 7.5: 50° 50' 4.2	
		
Wardell Armstrong LLP Wheal Jane Earth Science Park Baldhu, Truro, TR3 6EH		Tel: +44 (0) 1872 560738 email: info@wardell-armstrong.com web: www.wardell-armstrong.com
Drawn By: SH		Date: 25.11.2014
Checked By: SC		Date: 25.11.2014
Water Bodies Map Proposed Solar Farm at Lower Farm, Yapton Lane, Walberton		
PE10439		Figure 002

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