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Report prepared for: Statera Energy Limited

For the Site of: Land Adjacent to Pelham Substation, Berden Rd, Herts, SG9 0JA

Version:	Written by:	Checked by:	Final:
Draft	Martin O'Connor 03/06/2019		
Final	Martin O'Connor 03/06/2019	Tanya O'Connor 04/06/2019	Martin O'Connor 06/06/2019
Update survey	Martin O'connor 16/09/2020	Tanya O'Connor 17/09/2020	Martin O'Connor 18/09/2020
Additional update survey	**Rob Beer 03/02/2022**	**Tanya O'Connor /02/2022**	**Rob Beer /02/2022**

Cherryfield Ecology has prepared this report for the named clients use only.

Ecological reports are limited in shelf life, Natural England usually expect reports for licenses to be no more than 12 months old and therefore should the project not proceed within 12 months of this report an updated survey should be undertaken in order to check for changes that may have occurred on site. Information is believed to be accurate at the time of survey; recommendations are made without bias based on good practice guidelines within the industry. However, species presence and ecological parameters can change over time.

Martin O'Connor Dip, BSc (Hons), CBiol, MRSB

Bat license level 3 and 4. GCN level 1, Dormouse level 1 and Barn Owl

[redacted]

Contents

Ecological Appraisal (EA)

0.0 Non Technical Summary

0.1 Background -

The survey undertaken follows national guidelines JNCC (2010) allowing for a day-time inspection and recommends for further surveys if considered necessary. If a deviation from the guidelines has been made this will be detailed in the Method Section.
The following report details the findings and recommendations for the site of Land Adjacent to Pelham Substation, Berden Rd, Herts, SG9 0JA.
The client commissioned Cherryfield Ecology to undertake an EA as the proposals include for building a large solar panel generation system.

0.2 Results and Findings -

The site consists of arable fields, two of which are currently fallow, hedging and a dry ditch system and two small copses. A badger sett was located in the copse to the eastern side of the site, along with several trees that are suitable for roosting bats. These however are to be retained in the plan. Skylark was noted on site; these are a UK red list bird and ground nesting.
2020 update: - no material change has occurred on site, other than general farming operations e.g. fields are now ploughed ready for sowing winter wheat, the remaining site remains as it was in 2019.
2022 update: - No material change has occurred on site.

0.3 Impact Assessment and Recommendations -

No impacts foreseen on badgers or the potential bat habitat, however skylark nesting will be lost.

No further surveys are considered necessary, however sensible precautions are provided in section 4. There is scope for biodiversity net-gain on site and suggestions are provide in section 4, please refer.

2020 update – No material change.

2022 update: - No material change.

1.0 Introduction

1.1 Aim

The aim of this report is to inform of ecological constraints that may affect the development proposals and recommend to the client if further surveys are required for protected species. An impact assessment is undertaken at this stage, however if further surveys are required additional and unexpected impacts may result.

1.2 Background information

The client, Statera Energy Limited, has commissioned Cherryfield Ecology to undertake an EA for the site of Land Adjacent to Pelham Substation, Berden Rd, Herts, SG9 0JA. Planning permission is being sought to build a new solar power site.

This survey has checked all habitats, buildings, trees (from ground level only) or structures due to be affected by the proposals on site, it includes checking for protected species, signs of protected species or habitat value e.g. crevices, badger setts, ponds etc. as well as mapping the habitats on site.

The inspection was conducted on the 03/06/2019, 16/09/2020 & **01/02/2022**.

The survey can only ever provide a 'snap shot' of the site at the time of the survey and circumstances may change following this report. Health and Safety restrictions or obstructions may limit the ability to find evidence.

Biological records have been requested to give the report context and allow a study of the surrounds. The information is often sensitive and therefore a synopsis is provided.

The survey can be conducted year round with the optimal period between mid-March and mid-October (south)/1st April and 30th September (north). However it can be limited due to bad weather and in the winter, when some species are not as active, thus evidence and species are often not found. During these periods habitat value (likely presence) becomes more important to the assessment of the site.

Summary of legislation and National Planning Policy that protects wildlife in England:

- Conservation of Habitats and Species Regulations 2017.
- Wildlife and Countryside Act 1981 as amended.

- Countrywide and Rights of Way Act 2000.
- Natural Environment and Rural Communities Act 2006.
- National Planning Policy Framework ("NPPF").
- Circular 06/05.

This legislation makes it illegal to:

- Intentionally or deliberately kill, injure or capture a protected species.
- Deliberately disturb a protected species, whether at rest or not.
- Damage, destroy or obstruct access to a resting place.
- Possess or transport a protected species or any part of that species, unless acquired legally.
- Sell, barter or exchange a protected species, or any part of a species.

1.3 Species Specific information: -

All EU protected species have the same protection and the detail under Bats also applies to GCN, Dormouse, Otters and the two EU protected reptiles.

1.3.1 Breeding birds

All nesting birds are protected under the Wildlife and Countryside Act (as amended) 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. Furthermore a number of birds enjoy further protection under that Act and are listed on Schedule 1 of the Act. These further protected birds are also protected from disturbance and it may be necessary to operate a "no-go" buffer zone around such nests – typically out to 5m.

1.3.2 Bats

All 18 species of bat common in the UK (17 known to be breeding) are fully protected under the Wildlife and Countryside Act (as amended) 1981 through inclusion in Schedule V of the Act. All bat species in the UK are also included in Schedule II of the Habitats Regulations 2017 which transpose Annex II of the Council Directive 92/43/EEC 1992 on

the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive") which defines European protected species of animals.

Bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

This combined legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport bats, unless acquired legally.
- Sell, barter or exchange bats.

1.3.3 Reptiles

There are six species of reptiles in Great Britain (Edgar *et al*. 2010) and four of these are commonly found; the grass snake (*Natrix natrix*) and/or the barred grass snake, (*Natrix Helvetica),* adder (*Vipera berus*), common lizard (*Zootoca vivipara*) and slow worm (*Anguis fragilis*).

All native British species of reptiles are legally protected through their inclusion in Schedule V of the Wildlife and Countryside Act 1981. As such, all species are protected from deliberate killing or injury. Therefore, where development is permitted, and there will be a significant change in land use, a reasonable effort must be undertaken to avoid committing an offence. The same act makes the trading of native reptile species a criminal offence without appropriate licensing.

Two species of reptile; the smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*), are further protected through their inclusion in Schedule II of the Habitats Regulations 2017 which transposes Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive"), which defines European protected species of animals ("rare reptiles.")

1.3.4 Badgers

Badgers (*Meles meles*) Both the badger and its habitat are protected under The Protection of Badgers Act 1992, Schedule V of the Wildlife and Countryside Act 1981, and Appendix III of the Bern Convention 1979.

This legislation makes it an offence to:

- Kill, injure, take or possess a badger.
- Interfere with, damage or destroy a badger sett including e.g. obstruct access to a badger sett.
- Cruelly treat or harm a badger.
- Disturb a badger in a sett.

1.3.5 Great Crested Newts

Great crested newts (GCN) *Triturus cristatus* are listed in both Annex IV of the EC Habitats Directive and in Schedule V of the Wildlife and Countryside Act 1981.

GCN are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

2.0 Methods

The survey follows the national guidelines JNCC (2010) and the following equipment is available for the inspection:

- Torches (e.g. LED Lensar type).
- Ladders (Standard 4m telescopic surveying ladder).
- Endoscope where holes, cracks and crevices are accessible.
- Mirrors (extendable and movable mirror face).
- Binoculars (Pentax close focus).
- Thermometer/hygrometer.
- Camera.
- Sample bags for collecting dropping and feeding evidence.

Target notes are made when appropriate to highlight e.g. protected species or an 'other feature(s)' of ecological note.
If a deviation from the guidelines has been made the reason and justification will be explained below: -
No deviation from the standard guidelines has been made for this survey.

2.2 Limitations

This survey provides a snap –shot of the site at the time of the survey(s) only. Species are highly mobile and can and do turn-up from time to time unexpectedly. All care has been taken to ensure the results and recommendations are suitable to the context of the development and the information gathered on surveys.

Table 1: Habitat value (likelihood) of protected species presence assessed against Collis (2016), Edgar *et al* (2010) and NE (2007) etc.

Likelihood of species presence (Habitat Value)	**Features that species can and will use, regardless of evidence being present.**
Confirmed Presence	Species are found to be present during the survey. Evidence of species is found to be present during the survey.
Higher likelihood of presence.	Buildings, trees or other structures with features of particular significance for use by protected species e.g. nesting habitat, roosting opportunities, and ponds. Habitat of high quality for foraging e.g. broadleaved woodland, tree-lined watercourses and grazed parkland. Site is connected with the wider landscape by strong linear features that would be used by commuting species e.g. river and or stream valleys and hedgerows. Site is close to known locations of records for protected species.
Moderate and Lower likelihood of species presence.	Several potential habitat opportunities in buildings, trees or other habitats. Habitat could be used for foraging e.g. trees, shrub, grassland or water. Site is connected with the wider landscape by linear features that could be used by commuting species e.g. lines of trees and scrub or linked back gardens. A small number of less significant habitat opportunities. Isolated habitat for foraging e.g. a lone tree or patch of scrub. An isolated site not connected by prominent linear landscape features.
Negligible likelihood of species presence.	No features suitable for roosting, minor foraging or commuting.

3.0 Results

The following section details the results of the desk study, inspection and survey, it includes MAGIC information, biological records data and map/aerial photo information. The results detail the building, structure or tree (numbered for reference) description of any evidence found and habitat value if no evidence has been located.

3.1 Desk Study

The desk study is centred on Grid Ref – TL461292 and postcode – SG9 0JA.

Table 2: Weather records –

	2019	2020
Temperature	15C	24C
Cloud cover	100	0
Precipitation	heavy	none
Wind	1/8	0/8

3.2 Magic:

The following statutory sites have been located on the search (2km) see Figure 1 –

- There are no SSSI's or EPS licenses issued in the search area.

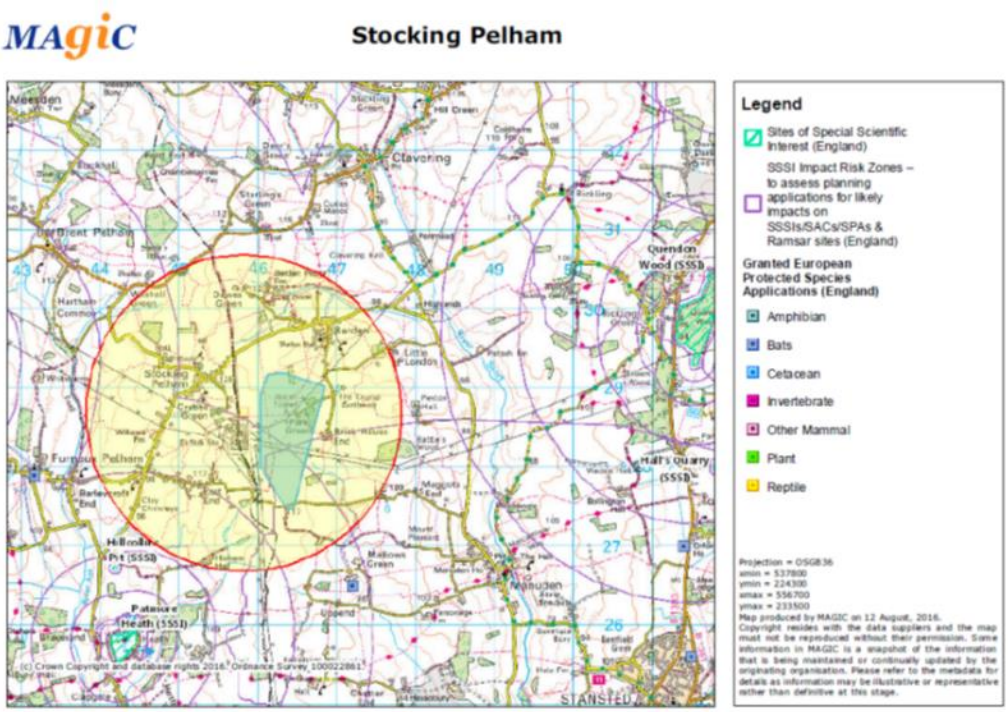


Figure 1: Magic search

3.3 Biological Records Data:

A standard 1km data search of existing records for protected species and nature reserves has been commissioned, below details the results and site context:

Biological records have been ordered from Herts and Essex Records Centres (HERC and EBC, 2019). There are two local wildlife sites situated close to the development. The first is known as Stocking Pelham Field Centre and is designated for neutral grassland. The second is Crabbs Green Common and is designated for being common land on the edge of a rural village (see Figures 2 and 3).

There are 391 species records for the general area, none of which are from the site itself. Most are either flying bird records or moth records from traps. There are several bat and badger records from the general area. The records range in date from 1943 until 2014, with bat and badger records in the 1980's.

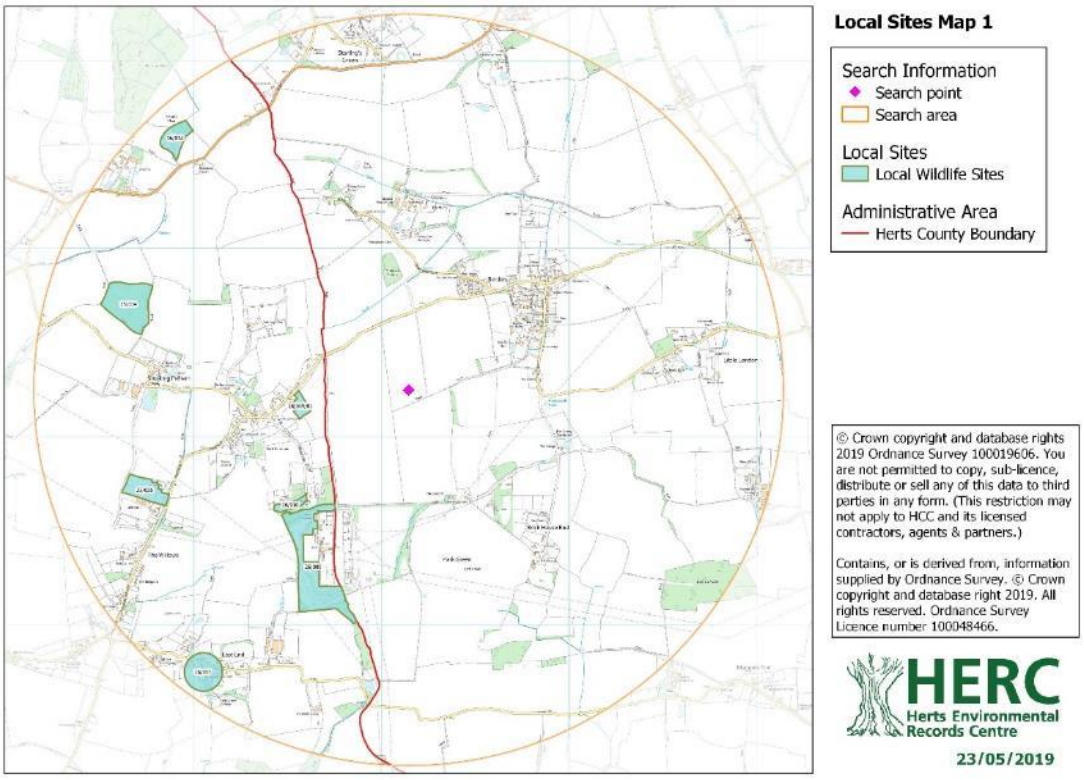


Figure 2: Herts LWS

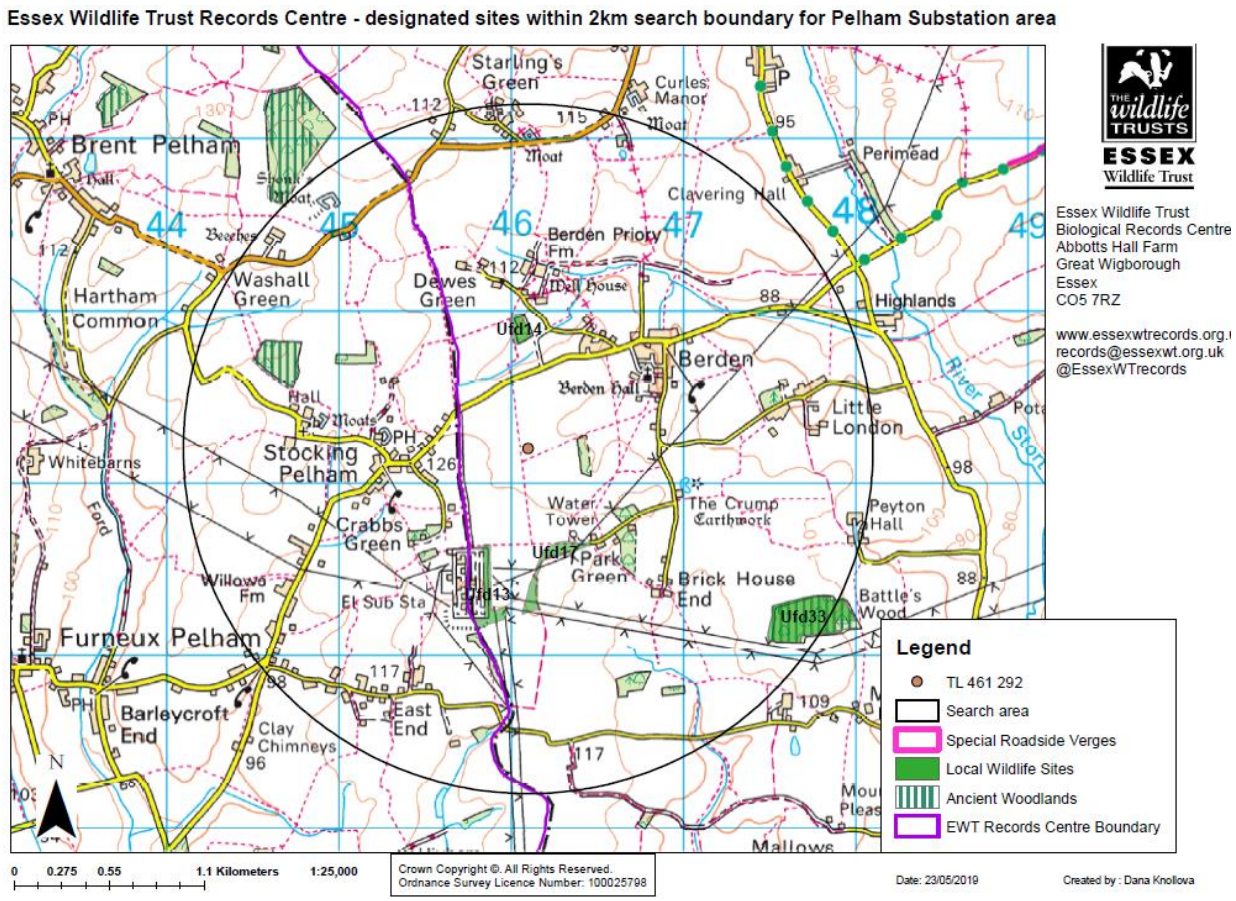


Figure 3: Essex LWS

3.4 Site Location and Surrounds:

The site is located in Essex, Bishops Stortford and is surrounded by arable fields in the immediate local. Table 3 details the commuting, feeding and habitat features in a 1km radius of the site.

Table 3: Habitat features suitable for use by protected species

Feature	Description
Water course	There are agricultural ditches in the general area.
Water bodies	There is an agricultural pond in the farmhouse garden approx. 300m west.
Woodland	Small woodland to the West; part of the Pelham Nature Reserve. Divided from the site by a small (<3metres wide) tarmac road.
Linear e.g. hedgerows	Tree and hedge lined to the immediate South (approx. 3m wide) and West (<1m wide).
Pasture/arable	The site consists of mostly wheat fields.

Other	Set aside margins with wildflowers, grass verges to road. Public footpath along South edge of the substation. Large power station to the Southwest.

3.5 Habitat, Building, Tree or Other Structure

This section details the structures/habitat reference and descriptions (see Figure 17 for site plan).

3.5.1 Habitats

3.5.2 Arable/Fallow

The total area of the site is approx. 76.707Ha of which, 95% consists of arable crops. These include winter wheat and two fallow fields with a crop of legumes (see Figures 4 to 8).

2020 update – no material change has occurred other than the fields being ploughed, ready for the next winter wheat crop (see Figure 4a).

2022 update – No material changed has occurred apart from the fields being ploughed and or left fallow.

Figure 4: Example of arable

Figure 4a: Example of ploughed fields.

Figure 4c: Example of ploughed fields (2022).

Figure 5: Example of arable

Figure 6: Example of fallow field

Figure 6a: Example of fallow field (2022).

Figure 7: Arable crop

Figure 8: Arable

3.5.3 Hedges/Set-aside and Dry Ditches

Criss-crossing the site is a system of hedges and dry-ditches, these are dominated by hawthorn *Crataegus monogyna,* with occasional dogwood *Cornus sanguinea* and an occasional standard tree, such as, oak *Quercus robur* or ash *Fraxinus excelsior*. The hedges have a strip of set-aside along their lengths. This varies in size from as little as 1m wide to 5 to 6m wide depending on the field. These areas are dominated by ruderal species such as dock *Rumex sp.* and nettle *Urtica dioica* or by flowering plants such as oxe-eye daisy *Leucanthemum vulgare*, birds foot trefoil *Lotus corniculatus* and common knapweed *Centaurea nigra.* Along much of the lengths of the hedges a dry – ditch runs parallel to the hedges, these are somewhat covered in ruderal vegetation and along the copse boundaries trees and understory species (see Figures 9 to 12).

2020 update – No material change has occurred, the set-aside had recently been cut (see Figure 9a).

2022 update – No material change has occurred. There appears to be an increase in scrub in places with areas of dense bramble *Rubus fruticosus agg* dominating.

Figure 9: Example of Hedging

Figure 9a: Hedging and set – aside.

Figure 9b: Hedging (with dense scrub encroachment) and set – aside (2022).

Figure 10: Example of standard trees in the hedges.

Figure 10a: Example of standard trees in the hedges (2022).

Figure 11: Example of set-aside

Figure 12: Example of dry ditch.

Figure 12a: Example of dry ditch (2022).

Figure 12b: Dense scrub found along parts of the hedgerow found on site (2022).

3.5.4 Woodland

Two copses are located within the fields, these are linked to the hedges and are found to the east and centrally to the north of the site. These are both dominated by deciduous trees, with a canopy level of oak or ash. The understorey is a mix of hawthorn and dogwood. The ground layer is dominated by bramble or is clear of vegetation *Rubus fruticosus agg* (see Figures 13 and 14).

2020 update – No material change has occurred on site (see Figure 13a).

2022 update – **No material change has occurred on site (see Figures 13b and 14a)**

Figure 13: Example of the internal area of the copse, central north area

Figure 13a: Woodland in 2020.

Figure 13b: Central east copse 2022 example.

Figure 14: Further woodland example.

Figure 14a: Central north copse 2022 example.

3.5.5 Farm Tracks

A series of farm tracks are found crisscrossing the fields and farmland, these are made up of rough stone and type 1 stone chippings (see Figure 15).

2020 update – No material change (see Figure 15a).

2022 update – No material change (see Figure 15b).

Figure 15: Farm track

Figure 15a: Farm tracks.

Figure 15b: Example of farm vehicle track.

Table 4: Target notes

Target Note	Description
T1	[redacted]
T2	[redacted]

3.6 Species List

Alder	*Alnus glutinosa*
Annual Meadow-grass	*Poa annua*
Annual Mercury	*Mercurialis annua*
Ash	*Fraxinus excelsior*
Beech	*Fagus sylvatica*
Bent	*Agrostis* sp.
Black Horehound	*Ballota nigra*
Black Medick	*Medicago lupulina*
Blackthorn	*Prunus spinosa*
Bramble	*Rubus fruticosus agg.*
Bristly Oxtongue	*Picris echioides*
Cat's-ear	*Hypochaeris* sp.
Cleavers	*Galium aparine*
Cock's-foot	*Dactylis glomerata*

Common Bent	*Agrostis capillaris*
Common Bird's-foot-trefoil	*Lotus corniculatus*
Common Chickweed	*Stellaria media*
Common Chicory	*Cichorium intybus*
Common Knapweed	*Centaurea nigra*
Common Mallow	*Malva sylvestris*
Common Sorrel	*Rumex acetosa subsp. acetosa*
Cotoneaster	*Cotoneaster* sp.
Cow Parsley	*Anthriscus sylvestris*
Crane's-bill	*Geranium* sp.
Creeping Thistle	*Cirsium arvense*
Daisy	*Bellis perennis*
Dandelion	*Taraxacum officinale*
Dock	*Rumex* sp.
Dogwood	*Cornus sanguinea*
Elder	*Sambucus nigra*
False Oat-grass	*Arrhenatherum elatius*
Field Bindweed	*Convolvulus arvensis*
Garlic Mustard	*Alliaria petiolata*
Germander Speedwell	*Veronica chamaedrys*
Goat Willow	*Salix caprea*
Ground-ivy	*Glechoma hederacea*
Groundsel	*Senecio vulgaris*
Hawthorn	*Crataegus monogyna*
Hedge Woundwort	*Stachys sylvatica*
Herb-Robert	*Geranium robertianum*
Horse-chestnut	*Aesculus hippocastanum*
Ivy	*Hedera helix*
Ivy-leaved Speedwell	*Veronica hederifolia*
Leyland Cypress	*Cuprocyparis leylandii*
Mouse-ear chickweed	*Cerastium vulgatum*
Mugwort	*Artemisia vulgaris*
Mullein	*Verbascum sp.*
Nettle	*Urtica dioica*
Oak	*Quercus* sp.
Oxeye Daisy	*Leucanthemum vulgare*
Perennial Rye-grass	*Lolium perenne*
Poplar	*Populus* sp.
Portugal Laurel	*Prunus lusitanica*
Prickly Sow-thistle	*Sonchus asper*
Red Clover	*Trifolium pratense*
Red Dead-nettle	*Lamium purpureum*
Ribwort Plantain	*Plantago lanceolata*

Spear Thistle	*Cirsium vulgare*
Sycamore	*Acer pseudoplatanus*
Teasel	*Dipsacus fullonum*
Timothy	*Phleum pratense*
Traveller's-joy	*Clematis vitalba*
Wall Barley	*Hordeum murinum*
White Clover	*Trifolium repens*
White Dead-nettle	*Lamium album*
Willow	*Salix* sp.
Willowherb	*Epilobium* sp.
Yarrow	*Achillea millefolium*
Yorkshire-fog	*Holcus Lanatus*

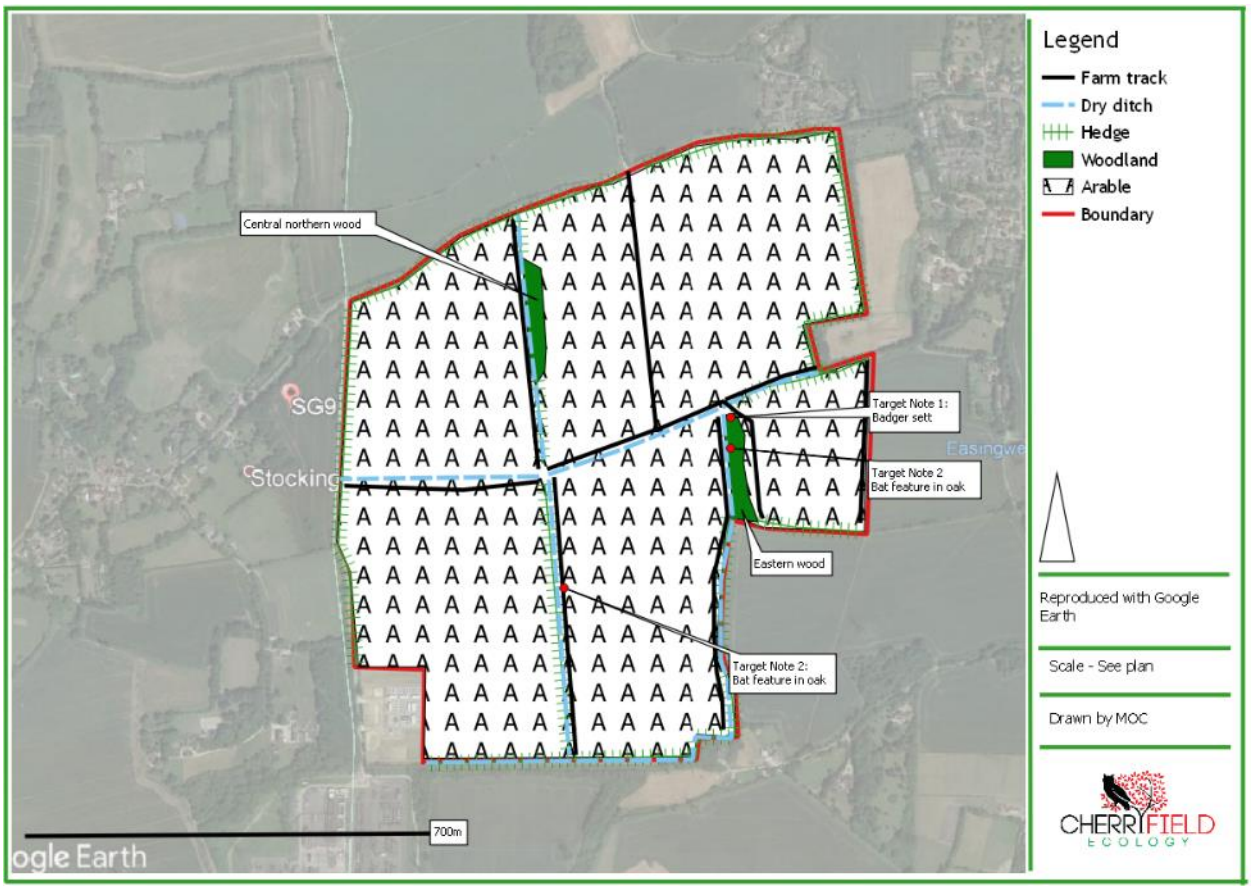


Figure 17: Site plan (no change in 2020)

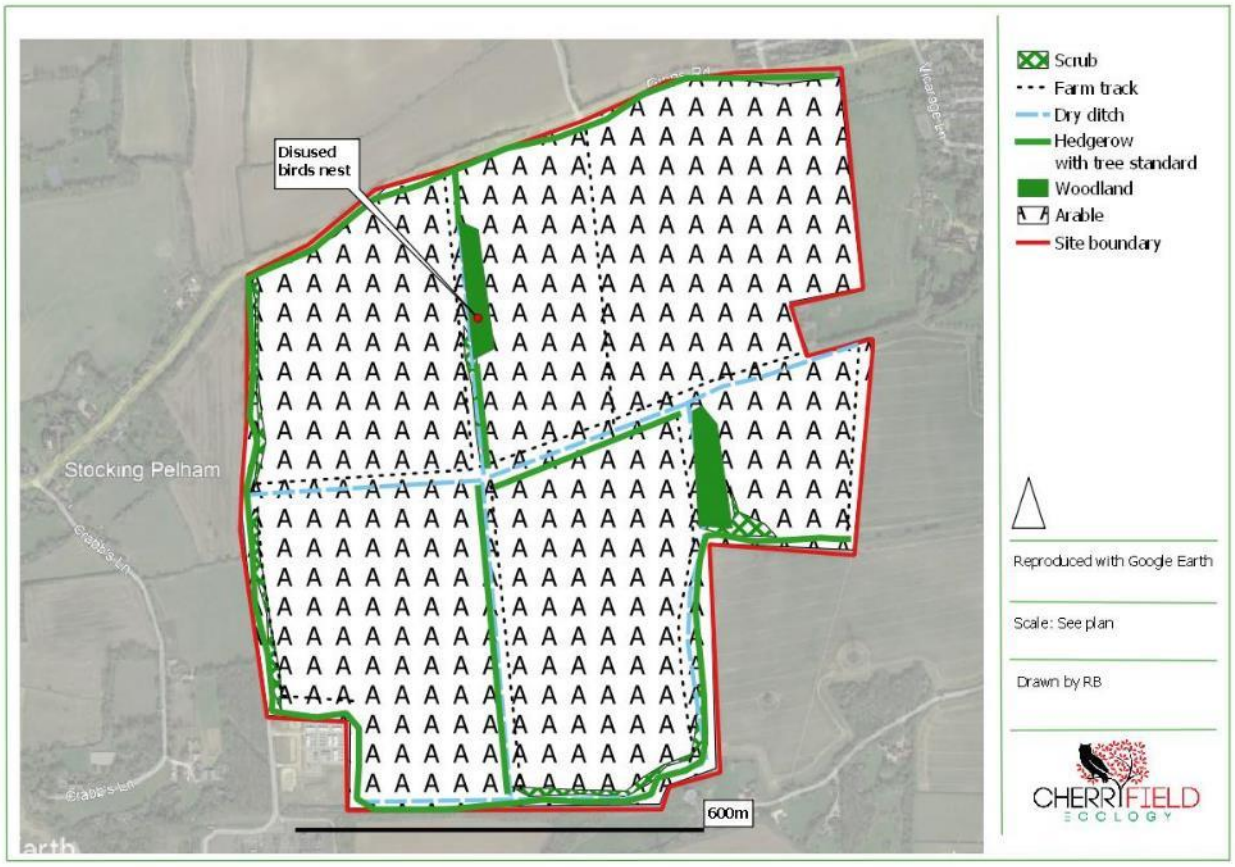


Figure 17a: 2022 site plan.

3.7 Evidence or Likelihood of Species Presence

This section details the evidence located and likelihood of species presence.

3.7.1 Bats

Table 5: Bats, evidence or the potential for the species.

Bats found	No bats found on update site visit in 2022.
Evidence of bat use	No bat evidence found on update site visit in 2022
Potential for bat use	Level of likelihood of presence –High Two oak trees located in the eastern woodland had suitable roosting features within the truck (see Figure 18), however it is understood these will be retained. 2020 no change.

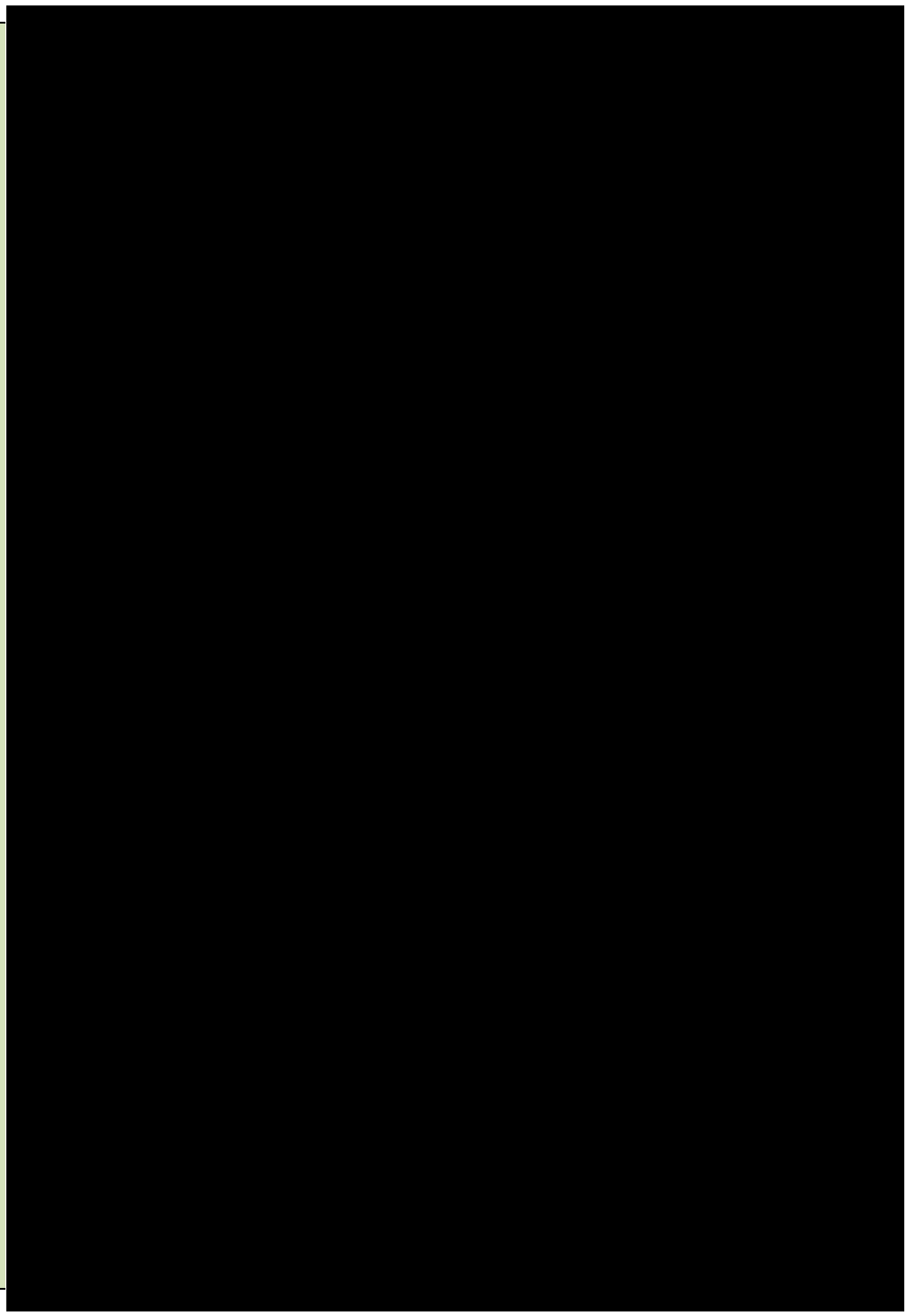
	2022 update: All trees on site were inspected from ground level for their potential for roosting bats. No material change has occurred on site with the same oaks in the eastern copse found to have a small number of suitable potential roosting features. It is currently understood that all woodland and hedging with trees found on site are to remain in situ and therefore will not be affected by the proposals. There is suitable foraging for bats across site with trees and hedging providing commuting pathways across site and with the wider surrounds.

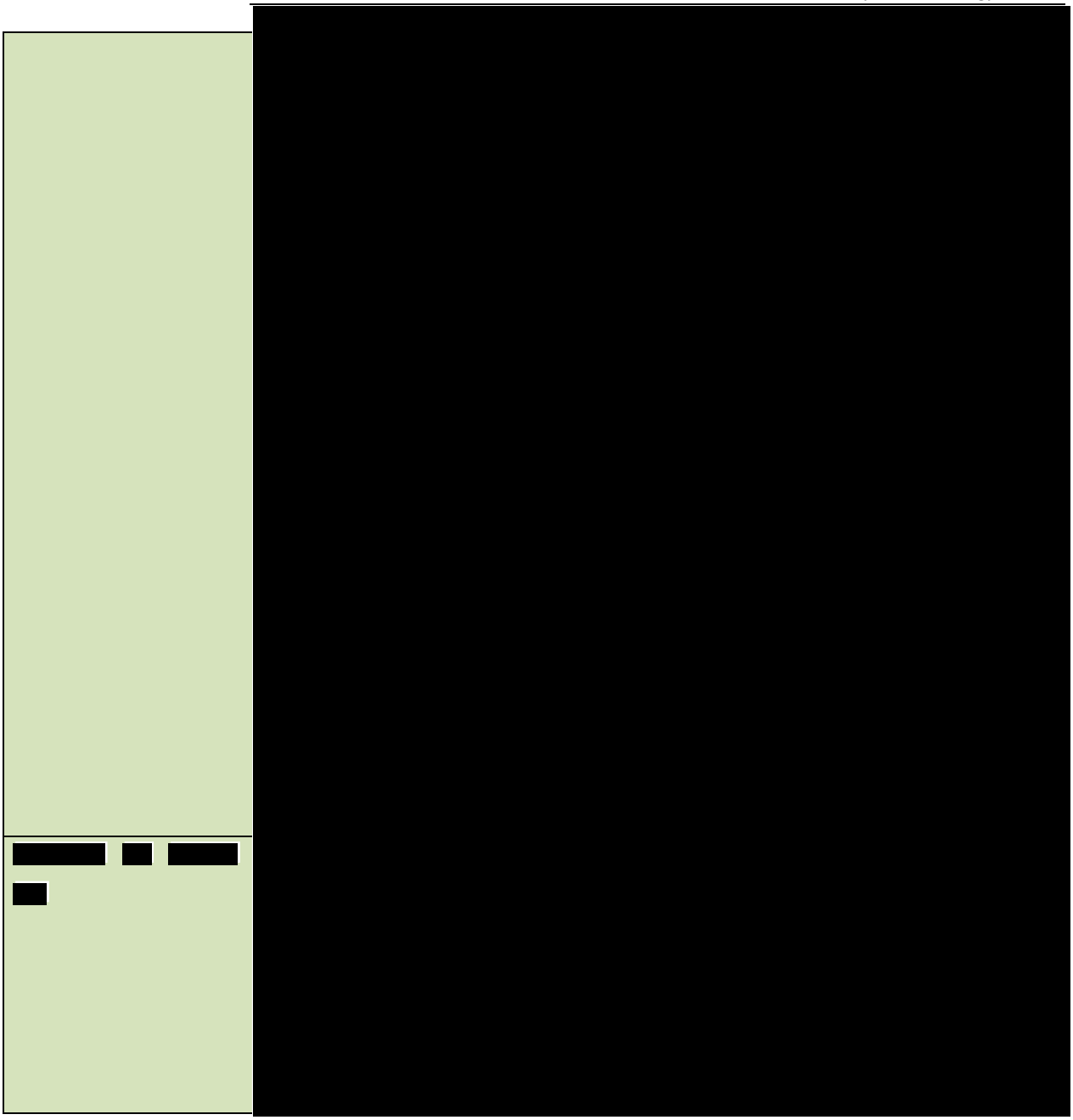
Figure 18: Oak with suitable roosting features, red arrow indicates

3.7.2 Badgers

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]





3.7.3 Breeding Birds

Table 7: Breeding birds, evidence or potential for the species

Breeding birds found	Skylark *Alauda arvensis* seen and heard singing on site whilst walking around the fields. No change in 2020 No breeding birds found on update site visit in 2022.

Evidence of breeding bird use	Skylark found to be present on site. No change in 2020 A single disused nest was found in the central north copse on update site visit in 2022.  Figure 21: Disused birds nest found in central north copse.
Potential for breeding bird use	Level of likelihood of presence – Confirmed. Male birds were advertising their territories by song-flight, during which the bird rises vertically, hovering for several minutes and then gliding down. No change in 2020. **2022 update: The site overall provides high potential for breeding birds in the hedgerow with trees, woodland areas and also suitable habitat for ground nesting birds.**

3.7.6 Amphibian

Table 8: Amphibians, evidence or potential for species use.

Amphibians found	No GCN found on update site visit in 2022.
Evidence of amphibian use	No evidence found on update site visit in 2022
Potential for amphibian use	Level of likelihood of presence –low It is possible that the ditches could be used for commuting, however these are currently dry, and no evidence of presence was located. No change in 2020.

	2022 update: The site overall provides low potential for GCN in the hedgerows and ditches for commuting. These ditches were all found to be dry at the time of site visit.

3.7.7 Reptile

Table 9: Reptiles, evidence or potential for species use.

Reptiles found	No reptiles found on update site visit in 2022.
Evidence of reptile use	No evidence found on update site visit in 2022
Potential for reptile use	Level of likelihood of presence –low It is possible common reptiles could utilize the woodland edges, hedges and set-aside for commuting around fields, however given the crops are likely to be sprayed regularly and lack of suitable habitat within the site in general it is considered to be a low likelihood. No change in 2020. **2022 update: The site overall provides low potential** for common reptiles with suitable habitat found in the woodland edges, scrub and hedgerows. The majority of the site is considered to be unsuitable for reptile due to its arable usage.

3.7.8 Other Species e.g. dormouse

Table 10: Other protected species, evidence or potential for species use.

Species found	None found on update site visit in 2022.
Evidence of species use	No evidence found on update site visit in 2022
Potential for species use	Level of likelihood of presence – negligible No suitable habitat found. No change in 2020. **2022 update: No material change.**

3.7.9 Invasive none/native

Cotoneaster was found growing in the central northern most woodland.

No change in 2020.

2022 update: No material change.

4.0 Conclusions, Discussion, Impacts and Recommendations

The following section details the conclusions, discussion, impacts and recommendations in the context of the proposed works.

4.1 Conclusion and Discussion

The development will involve building a solar panel farm, utilizing the current arable fields as the location for these. The master plan shows that all hedging and woodlands will be fully retained in the development and a buffer zone around these features will be maintained. The masterplan also shows for new woodland planting. Therefore, the badger sett and trees suitable for roosting will be fully retained in the development. A buffer of no less than 30m will be required around the badger sett, in order to prevent any damage or further survey works. However, the skylark nesting habitat will be lost in the development.

No change has occurred in 2020 and recommendations presented above are still relevant and should be followed.

2022 update: No material change has occurred and so recommendations for site remain the same and should be followed.

4.2 Potential Impacts

Impact assessments must be proportionate to the scale of the development (CIEEM, 2018) and the following Table 5 details a proportionate impact assessment based on current information –

Table 11: Impact assessment

Impact	Skylark nesting habitat will be lost. No change in 2020. **No change in 2022.**

Characterisation of unmitigated impact on the feature	A low impact on the skylark nesting habitat will occur on site, causing a local level impact. No change in 2020. **No change in 2022.**
Effect without mitigation	Skylark nesting habitat will be lost to the solar panel arrays when these are built, the nests could be destroyed if works occur between April and August when skylarks are nesting. No change in 2020. **No change in 2022.**
Mitigation and Potential enhancements	See table 12 No change in 2020. **No change in 2022.**
Significance of effects of residual impacts (after mitigation)	Assuming the mitigation and enhancements are followed no net-loss of biodiversity will occur, as the site is mostly arable fields there are opportunities for net-gain, by increasing the available habitats to wildlife in and around the solar panels. No change in 2020. **No change in 2022.**

4.3 Recommendations

All works must occur outside of the nesting season. If this is not possible, a check for ground nesting birds will be made and a buffer no less than 16m to 24m squared will be installed around the nests to provide habitat, until the nest is finished with.

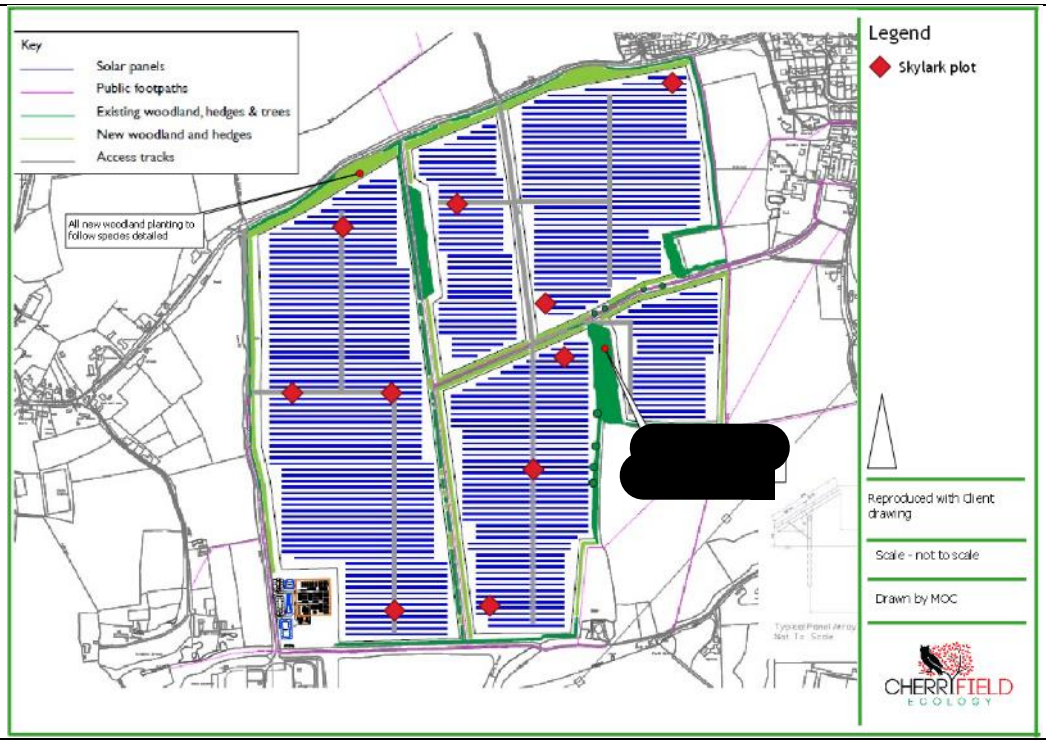
No change in 2020.
No material change occurred in 2022, recommendations remain relevant.

4.4 Suggested Mitigation and Enhancements

The local authority has a duty to enhance biodiversity in its day to day duties, the following are suggested enhancements that are easily installed into a development and can be cost effective whilst ensuing a gain for local wildlife.

Table 12: Recommended enhancements or mitigation

Work	Specification
Skylark Mitigation	As Skylarks are a red list species and habitat will be lost to the solar panel arrays the following will mitigate for the loss – • It is best to create skylark plots in fields of 5ha or more. • Two plots per Hectare are considered optimal. • The vegetation should be kept to a height of between 20 to 50cm. • Plots of no less than 16m to 24m2 will be installed. These are 4x4m or 3x6m in size. • Plots must be no closer than 24m from a field boundary with hedges or woodland.
Enhancements	Plants that will attract insects, including butterflies and bumblebees. These include a mix of native and garden plants that are known to provide insects with a food source, thus providing a food-web for larger animals: The following is a list that can be used for planting on site – Shrubs - • Cistus x purpureus • *Cornus sanguinea* • *Cornus sericea 'Kelseyi'* • *Elaeagnus x ebbingei* • Elaeagnus ebbingei 'Limelight' • Euonymus fortunei 'Darts Blanket' • Hebe pinguifolia 'Pagei' • Hydrangea paniculata 'Bombshell' • Lonicera nitida 'Maygreen' • Pachysandra terminalis • Phormium 'Tom Thumb' • Viburnum tinus 'Eve Price' • Viburnum x davidii Herbs – • Calamagrostis x acutiflora 'Karl Foerster' • Carex morrowii 'Ice Dance' • *Deschampsia cespitosa* • Dryopteris filix-mas • Dryopteris Wallichiana • *Echinacea purpurea* • Epimedium youngianum 'Niveum' • *Euphorbia amygdaloides robbiae* • Hakonechloa macra • *Iris foetidissima* • Liriope muscari • *Luzula nivea* • Pennisetum alopecuroides 'Redhead' • Polystichum tsussimense • *Salvia nemerosa 'Caradonna'* • *Sedum spectabile 'Autumn Joy*

	Trees and hedging that can be planted in the soil conditions on site – • *Oak *Quercus sp.* * • Liquidambar styraciflua 'Worplesdon' • Quercus palustris • *Sorbus aria* • Fagus sylvatica All plants that are native or wildlife friendly above should be sourced from a stockiest of native and local origin plants. Flora locale (2018) can provide details of local, native sourced plants and seeds. As well as being useful for insects the oak and beech will provide fruits for smaller mammals to utilize in the autumn months. These native trees are known to be useful on clay soils, they will help reduce moisture and improve soil conditions on site (Gardens World, 2018). *Plants marked * are native or wildlife friendly
Plan	

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6.0 Appendix (Proposed plans 2022 with skylark plot locations)