Quantock Ecology
ENVIRONMENTAL CONSULTING

Ecological Appraisal

Prepared for: **Whitley Solar Park (Ashcott Farm) Limited**

For the site of: **Whitley Solar Park, TA7 9QA**

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Executive Summary

Quantock Ecology undertook an Ecological Appraisal on an area of land at Whitley Solar Park, Ashcott, Somerset TA7 9QA. This included an extended Phase 1 Habitat Survey (P1HS). The aim of the assessment was to establish the baseline ecological condition of the site, and to conduct an assessment of the significance of ecological impacts of the proposed development.

The development proposals briefly comprise the development of a new Battery Energy Storage Scheme and associated infrastructure, including the installation of a new track connecting the development to the entrance of the site. Preliminary development proposals are included in Appendix 2. A planning application has not been submitted to date.

Taking into consideration the desk study and site survey findings, this report concludes that the proposed development poses some risk to ecological receptors. A further survey, including mitigation to avoid harm to protected species and habitat enhancements are recommended. See table 1 below for summary.

Table 1: Summary of survey results, conclusions and recommendations

Baseline Conditions (from table 8)	
Designated Sites	The site is not subject to any designation. There are no statutory sites within ~1000m to be affected by any proposed development.
Habitats and trees	There are no protected or notable habitats or trees within the survey site boundaries. The Whitley Wood (a small area of ancient woodland) is located to the east and northeast of the site, beyond the site's boundaries. However, this is not anticipated to be directly affected by the proposed developments.
Protected Species	The general site has habitat value for badgers, commuting and foraging bats, reptiles, amphibians and ground nesting birds. No further protected species were identified as being likely to utilise the habitats recorded on site.
Invasive and non-native species	No invasive species was found on site during the time of the survey.
Conclusions and Recommendations (from table 9)	
Designated Sites	No effect on any designated site. No further surveys.

Habitats	No effect on any protected habitat or trees. No further surveys.
Protected Species	Precautionary measures are recommended to avoid harm to any badgers that may be onsite during the proposed development. It is understood that the development plans will include the installation of a low number of small, LED, downward directional and manually operated lights. These will be installed for emergency and maintenance use only and are not likely to be used regularly. A simple lighting plan could be created to demonstrate this. Due to the low impact anticipated from proposed lighting, no further surveys will be required. However, if plans change to include any further lighting, then a static bat detector survey should be undertaken on the site prior to development, to establish the use of the site by bat. The development should ideally be undertaken outside of the breeding bird season to avoid impacts on nesting birds. If this timeframe cannot be avoided, then the site should be checked for ground nesting birds by an experienced ecologist immediately prior to the works commencing. Work should not be carried out within 5.0m of any in-use nest. Mitigation in the form of pre-development clearing is recommended to avoid harm to any individual reptiles that may be present on site during the works. Habitat Suitability Index (HSI) calculations are recommended on the nearby ponds located to the north of the site's boundary. These will be used to assess their suitability for great crested newts. Enhancements are recommended to improve the site for the local wildlife.
Invasive and non-native species	None found. No further surveys, however, remain vigilant.

1.0 Introduction and Context

1.1 Background

Quantock Ecology were commissioned by Whitley Solar Park (Ashcott Farm) Limited to undertake an Ecological Appraisal on land at Whitley Solar Park, Somerset with consideration of surrounding land, where accessible ('the site'). The survey included an Extended Phase 1 Habitat Survey, in line with methodology set out in JNCC's *Handbook for Phase 1 habitat survey – a technique for environmental audit* (JNCC, 2010); the assessment is based on the *Guidelines for Preliminary Ecological Appraisal* (IEEM, 2012).

A previous Ecological Assessment has been undertaken on the wider site by the Landmark Practice in 2013. This was for the creation of the main solar park found just to the south of the current survey area.

1.2 Scope of the Report

This report describes the baseline ecological conditions at the site; evaluates habitats within the survey area in the context of the wider environment; and describes the suitability of those habitats for notable or protected species. It identifies significant ecological impacts as a result of the development proposals; summarises the requirements for further surveys and mitigation measures, to inform subsequent mitigation proposals, achieve Planning or other statutory consent, and to comply with wildlife legislation.

The aim of the EA was to obtain data on existing ecological conditions, and to conduct an assessment of the likely significance of ecological impacts on the proposed development. To achieve this, the following steps were taken:

- The desk *study area* and field *survey area* (including the 'zone of influence' of the scheme) have been identified.
- A desk study has been carried out, including a request from the Somerset Environmental Records Centre (SERC).
- Baseline information on the site and surrounding area has been recorded through an 'Extended Phase 1 Habitat Survey', including a Phase 1 Habitat Survey (JNCC 2010) and recording further details in relation to notable or protected habitats and species if present on site.
- The ecological features present within the survey area have been evaluated, if present and where possible (IEEM, 2006).
- Invasive plant and animal species (such as those listed on Schedule 9 of the Wildlife & Countryside Act [WCA]) have been identified, if present.

- Likely impacts on features of value, as a result of the development proposals, have been identified if present.
- Recommendations for further survey and assessment have been made where applicable.
- Recommendations for mitigation and opportunities for enhancement have been provided based on current information where applicable.

The Phase 1 habitat map of the survey area, with supporting target notes (if applicable) is included in Appendix 1. The proposed Project Plan is included in Appendix 2 (if provided). Photographs taken during the site survey are included in Appendix 3 and a summary of relevant legislation can be found in Appendix 4. A summary of the desk study results is outlined in Appendix 5.

1.3 Project Description

This report is prepared to accompany a future planning application to be submitted to Mendip District Council. The development proposals briefly comprise the development of a new Battery Energy Storage Scheme and associated infrastructure, including the installation of a new track connecting the development to the entrance of the site (see preliminary plan in Appendix 2).

The programme for the scheme is not known at the current time. All works areas, storage and haul routes will be included within the site boundary; access will be provided by existing roads and as such, no additional working footprints are anticipated.

The site does not fall within any statutory or non-statutory designated nature conservation sites.

2.0 Methodology

2.1 Site Context and basic description

The site is located at national grid reference ST 447 370 and comprises an area of approximately 0.53ha. The site is formed from an area of poor semi-improved grassland and marshy grassland. A small building surrounded by hardstanding and ephemeral/short perennial habitat was present at the western end of the site.

2.2 Desk Study background and scope

Existing records relating to the site and a surrounding 2km radius (the study area) have been received from the Somerset Environmental Records Centre (SERC). The results of this are summarised in the desk study section of this report. The data search is confidential information that is not suitable for public release.

A review of the following information sources has also been undertaken to inform the assessment:

- Landscape structure using aerial images from Google Earth
- Designated sites, habitat and species data held on magic.gov.uk.
- Information on the surrounding area using OS Opendata 2022

2.3 Desk Study results

A summary of desk study results are provided below; further details are included in Appendix 5.

2.3.1 Designated sites

A review of the MAGIC database and SERC data search results suggest that the site and surrounding 2km search area are subject to two statutory nature conservation designations and nine non-statutory sites.

Table 2: Designated sites within 2km of the site

Designated Site Name	Distance and direction from Site (approx.)	Reasons for Notification and integral value
Statutory Sites		
Shapwick Heath National Nature Reserve (NNR) and Site of Special Scientific Interest (SSSI)	1.8km north	"*From November to February, Shapwick Heath is one of the best places in England to see huge flocks of starlings come to roost in winter. For further information call the Starling Hotline (07866 554142). There is also a spring migration of hobbies arriving from tropical Africa. Around 64 different species of birds nest here, including Cetti's warbler and great-crested grebes, while dragonflies and over 27 species of butterfly abound in the summer. These include the silver-washed fritillary, purple hairstreak and orange-tip, while the path to Meare Hide is the best place to see the large and impressive white admiral. Over 24 different mammals have also been seen at Shapwick, including water voles, lesser horseshoe bats and, of course, otters. Habitats include lush green wildflower meadows; still, dark ditches; damp, secretive fens, shady, wet fern woods; and open water, fringed with rustling reedbeds and Shapwick is also the location of the Neolithic Sweet Track, the oldest man-made routeway in Britain*." – Taken from the Natural England citation.
Somerset Levels and Moors Ramsar Site and Special Protection Area (SPA)	1.8km north	"*The Ramsar Site is designated for its internationally important wetland features including the floristic and invertebrate diversity and species of its ditches". "The Somerset Levels and Moors is the largest area of lowland wet grassland and associated wetland habitat remaining in Britain*" – Taken from the Natural England citation.

Non-statutory Sites		
Bradley Stream Wood Local Wildlife Site (LWS)	650m north	"Ancient semi-natural broadleaved woodland" – Taken from the SERC data search.
Ashcott Field (LWS)	790m southwest	"Unimproved calcareous grassland." – Taken from the SERC data search.
Combe Height (LWS)	1.3km southwest	"Unimproved calcareous grassland and scrub." – Taken from the SERC data search.
Ham Wall RSPB Reserve	1.4km northeast	"Species-rich aquatic habitat "
Great Huckham Bank (LWS)	1.4km south	"Unimproved calcareous grassland and orchard" – Taken from the SERC data search.
Pedwell Hill Woods (LWS)	1.5km southwest	"Broadleaved woodland and unimproved grassland with nationally notable Grasshopper" – Taken from the SERC data search.
Fifteen Acre Copse (LWS)	1.6km northwest	"Ancient semi-natural broadleaved woodland with clearings and new plantations" – Taken from the SERC data search.
South Drain (LWS)	1.6km northeast	"Rhyne network with rare invertebrates & legally protected species" – Taken from the SERC data search.
Priest Hill Bank (LWS)	1.6km southwest	"Unimproved calcareous grassland with deciduous woodland and scrub" – Taken from the SERC data search.

2.3.2 Description of site within landscape structure

A review of the designated sites, aerial photographs, the MAGIC database and OS maps shows that the site is situated ~630m east of the village of Ashcott, Somerset. The surrounding landscape comprises a mixture of arable and pastural farmland bordered by both mature hedgerows and Rhynes. The Rhyne networks are located ~790m east, ~1.7km south and ~1.4km north of the site. A large wetland area is located ~1.6km north of the site. A small area of ancient woodland runs close to the eastern and part of the northern boundary of the site.

2.3.3 Habitats of principal importance

A review of the MAGIC database shows the following habitats present within 2km of the site:

Three large areas of coastal and floodplain grazing marsh area found ~1km east, ~1.4km north and ~1.8km south of the site. Patches of lowland calcareous grassland are located ~790m and ~1.4km southwest, as well as ~1.4km to the south. A single area of good quality semi-improved grassland lies ~1.5km to the southwest. Several traditional orchards are found scattered around the search area. MAGIC suggests the closest traditional orchard to the site lies ~20m to the north. However, this is also characterised as broadleaved woodland (and was confirmed to be woodland during the survey). A single area of ancient and semi-natural deciduous woodland is located along the eastern boundary of the site. Further small, wooded areas are found sparsely scattered around the search area.

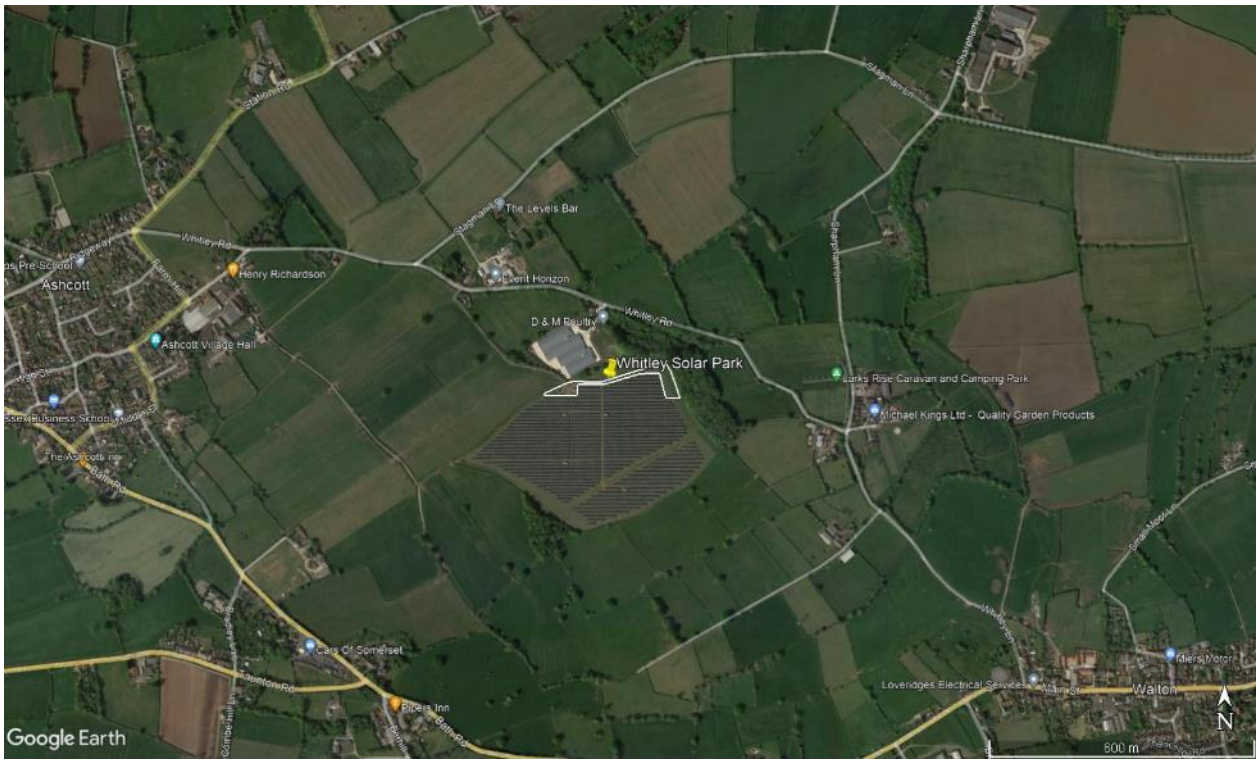
2.3.4 Granted European Protected Species Mitigation Licences (EPSML)

The MAGIC database also suggests the following granted EPSML's (all species) are present within the local area:

Table 3: Granted EPSML's within 2 km of the site

Case reference of granted application	**Approx. distance from site**	**Species Effected**	**Licence Start Date:**	**Licence End Date:**	**Impacts allowed by licence**
2018-38005-EPS-MIT	1km south	C-PIP	19/11/2018	30/11/2019	Destruction of a resting place.
2018-36833-EPS-MIT	1.8km west	Hazel or common dormouse	25/09/2018	31/12/2021	Damage of a breeding site and resting place. Destruction of a breeding site and resting place.
2019-39753-EPS-MIT	1.9km southeast	BLE; C-PIP, L-HORSE	16/04/2019	01/10/2030	Destruction of a resting place.

2.3.5 Aerial photo of site showing landscape structure



2.3.6 Protected and notable species

The results below show a summary of the protected/notable species recorded present within 2km of the site, as confirmed by the Somerset Environmental Records Centre.

Table 4 Protected and notable species from historic biological records search

Plants		
Scientific Binominal	**Common name**	**Number of Records**
Ophrys apifera	Bee orchid	Two field records
Dactylorhiza incarnata	Early marsh orchid	Two field records
Platanthera chlorantha	Greater butterfly orchid	12 field records
Anacamptis morio	Green-winged orchid	One field record
Dactylorhiza maculata	Heath Spotted orchid	One field record
Platanthera bifolia	Lesser butterfly-orchid	11 field records
Anacamptis pyramidalis	Pyramidal orchid	Nine field records
Dactylorhiza praetermissa	Southern marsh-orchid	Four field records

Bats		
Scientific Binominal	**Common name**	**Number of Records**
Plecotus auritus	Brown long-eared bat	Ten field records, one roost record
Pipistrellus pipistrellus	Common pipistrelle	Eight field records, two roost records
Rhinolophus ferrumequinum	Greater horseshoe bat	Two field records
Nyctalus leisleri	Leisler's bat	Two field records
Rhinolophus hipposideros	Lesser horseshoe Bat	Ten field records
Plecotus sp.	Long-eared bat species	Four field records
Pipistrellus nathusii	Nathusius' pipistrelle	One field record
Nyctalus noctula	Noctule bat	Nine field records
Pipistrellus sp.	Pipistrelle bat	Three field records
Eptesicus serotinus	Serotine	Seven field records
Pipistrellus pygmaeus	Soprano pipistrelle	Eight field records
Vespertilionidae	Unidentified bats	Three field record
Barbastella barbastellus	Western barbastelle	Two field records
Other Fauna		
Scientific Binominal	**Common name**	**Number of Records**
Vipera berus	Adder	One field record
Tyto alba	Barn owl	56 records including breeding pairs and field records
Thecla betulae	Brown hairstreak	Five field records
Panurus biarmicus	Bearded tit	38 field records
Cygnus columbianus subsp. bewickii	Bewick's swan	One field record
Botaurus stellaris	Bittern	44 field records
Podiceps nigricollis	Black-necked grebe	Three field records
Phoenicurus ochruros	Black redstart	Three field records
Chlidonias niger	Black tern	Two field records
Thecla betulae	Brown hairstreak	16 field records
Cettia cetti	Cetti's warbler	24 field records

Emberiza cirlus	Cirl bunting	Six field records
Meles meles	Eurasian badger	Six dead individuals, 12 records of setts, two field records
Lutra lutra	European otter	119 records including droppings, field records, tracks and dead individuals
Bucephala clangula	Goldeneye	Four field records
Triturus cristatus	Great crested newt	Three field records
Muscardinus avellanarius	Hazel dormouse	Four field records
Circus cyaneus	Hen harrier	One field record
Alcedo atthis	Kingfisher	145 field records
Euphydryas aurinia	Marsh fritillary	Two field records
Pandion haliaetus	Osprey	Two field records
Anguis fragilis	Slow worm	One field record
Erinaceus europaeus	West European hedgehog	18 field records
Cygnus cygnus	Whooper swan	One field record

2.4 Extended Phase 1 Habitat Survey

The survey was undertaken by Assistant Ecologist Ella Colenso, BSc (Hons) on the 8th February 2022. Ella is accredited under the Natural England bat licence number: 2016-24382-CLS-CLS. The holder of the licence is Senior Ecologist Simon Pidgeon, BSc (Hons) MRSB. Simon is also a registered consultant with Natural England under the low impact bat mitigation class licence (CL21). The weather conditions during the survey are detailed in the table below.

Table 5: Environmental variables during survey

	08/02/2022
Temperature	11°C
Relative Humidity	80%
Cloud Cover	80%
Wind	1/8
Precipitation	None

The survey area generally focussed on the land that will be directly impacted by the proposals (within the site boundary), but also a buffer around this was considered. For details of the survey site, please refer to Appendix 1.

2.4.1 Habitats and flora

The methodology for the Phase 1 Habitat Survey (P1HS) was based on the best practice publication *Phase 1 Habitat Survey methodology* (JNCC, 2010). All land parcels were described and mapped according to JNCC P1HS habitat types. Target notes provide supplementary information on habitat conditions, features too small to map, species composition, structure and management. Scientific names are given after the first mention of a species in this report, subsequently common names are used.

2.4.2 Protected species and Species of Principal Importance

During the survey, habitats were assessed for their suitability to support protected species and notable species assemblages, and field signs indicating their presence or absence recorded. This assessment took into consideration findings of the desk study, habitat conditions on site and in the context of the surrounding landscape, and the ecology of the species.

2.4.3 Invasive / non-native species

The distribution and extent of invasive species listed on Schedule 9 of the Wildlife and Countryside Act (1981) were also noted throughout the survey area, if any.

2.5 Suitability Assessment and Ecological Value

2.5.1 Likelihood of the presence of protected species

The likelihood of occurrence of protected species is ranked according to the criteria listed in Table 6. The habitats on site were evaluated as to their likelihood to provide sheltering, roosting, foraging, basking or nesting habitat.

Table 6: showing criteria considered when assessing the likelihood of occurrence of protected species

Present	Species are confirmed as present from the current survey or historical confirmed records.
High	Habitat and features of high quality for species/species assemblage. Species known to be present in wider landscape (desk study records). Good quality surrounding habitat and good connectivity.

Medium	Habitat and features of moderate quality. The site in combination with surrounding land provides all habitat/ecological conditions required by the species/assemblage. Within known national distribution of species and local records in desk study area. Limiting factors to suitability, including small area of suitable habitat, some severance/poor connectivity with wider landscape, poor to moderate habitat suitability in local area.
Low	Habitats within the survey area poor quality. Few or no records from data search. Despite above, presence cannot be discounted as within national range, all required features/conditions present on site and in surrounding landscape. Limiting factors could include isolation, poor quality landscape, or disturbance.
Negligible	Very limited poor quality habitats and features. No local records from desk study; site on edge of, or outside, national range. Surrounding habitats considered unlikely to support species/species assemblage.

2.5.2 Assessment of Ecological Value

The ecological value of the survey area has been assessed based on the *Guidelines for Ecological Impact Assessment* (IEEM, 2006) and *Handbook of Biodiversity Methods: Survey, evaluation and monitoring* (David Hill, 2005), using geographic frames of reference. The biodiversity value of the identified designated sites, habitat types and associated species/assemblages has been considered. The criteria listed below have been used to reach an evaluation; examples under each category of biodiversity value are provided in Table 7.

- Presence of designated sites or features
- Presence of UK priority habitats and species (S41 of the NERC Act), and species listed as Birds of Conservation Concern (Eaton *et al* 2009)
- Size of habitat, diversity of species, or population
- Habitats or species which are rare, species which are on the edge of their range
- Large populations of uncommon species, or plant communities that are typical of valued natural/semi-natural vegetation types
- Habitats or features that have supporting value for high value habitats, designated sites or protected species, e.g. buffer habitat to ancient woodland
- Presence of legally protected species

Table 7: Examples of criteria defining conservation evaluation

Evaluation on geographical scale	Examples of criteria defining evaluation
International	Biodiversity feature that is designated or warrants designation as a European Protected Site
National	biodiversity feature that is designated or warrants designation as a National designated site (Site of Special Scientific Interest (SSSI) or National Nature Reserve (NNR))
Metropolitan or County	Biodiversity feature that is designated or warrants designation as a county wildlife site, local nature reserve, or a Site of Metropolitan Importance for Nature Conservation (SMI). Species and habitats of principle importance.
Borough	Biodiversity feature that is designated or warrants designation as a Site of Importance for Nature Conservation (SNCI), or other feature which is one of the best examples of its type within the Borough. Diverse and/or ecologically valuable hedgerow network, or ancient woodland greater than 0.25ha
Local	Biodiversity feature which is one of the best examples of its type within a local context (i.e. within ~1km of the scheme extent)/local Parish. Habitat complex considered to enrich the habitat/biodiversity resource within the context of the local neighbourhood.
within the vicinity of the site	Biodiversity features of value within the zone of influence (site plus approximately 50m buffer).
negligible	Biodiversity features of negligible value.

Following CIEEM guidance it should be noted that legal protection or UK Biodiversity Action Plan (BAP) status does not necessarily imply biodiversity status at the equivalent scale. For example, a badger *Meles meles* sett would receive legal protection at a national scale and a native hedgerow would be a UK BAP priority habitat, but neither feature is likely to be of biodiversity value at a national scale.

The ecological interest of the study area and the proposed development has also been evaluated in terms of the planning policies relating to biodiversity. It will be clearly stated where a preliminary value can be given and where further information is required.

2.6 General Limitations

It should be noted that whilst every effort has been made to describe the baseline conditions within the survey area, and evaluate these features, this report does not provide a complete characterisation of the site.

Where only four figure grid references are provided for some species records, it is not possible to determine their precise location as they could be present anywhere within the given 1km x 1km National Grid square.

This survey provides a preliminary view of the likelihood of protected habitats and species being present. This is based on suitability of the habitats on the site and in the local area, the ecology and biology of protected species as currently understood, and the known distribution of species as recovered during the desk study.

2.7 Specific Limitations to the site

No specific limitations regarding weather or time however, access into the small building at the west of the site was not possible during the survey as it was locked. Although the survey was undertaken outside the optimal survey season for plant species identification this was not deemed to be a significant limiting factor due to the simplistic nature of the habitats on site and the small scale of the survey area. Access to the nearby ponds to undertake a Habitat Suitability Index (HSI) for great crested newts was also not possible during the survey as the ponds were situated off site, on private land.

3.0 Results and Evaluation

3.1 Phase 1 Habitat Survey

3.1.1 Summary land use of the site

The survey area comprises a field of poor quality semi-improved grassland, with areas of marshy grassland, ephemeral/short perennial habitat and hardstanding. A small breezeblock building was situated to the west of the site.

3.1.2 Phase 1 habitats of the site

[B5] Marshy grassland

The grassland to the east of the site comprised a very similar composition to the poor semi-improved grassland that covers the majority of the (main) site. However, this area also included species such as common rush *Juncus effusus* and sedge species *Cyperaceae* sp. (see Appendix 3, photo 1).

[B6] Poor semi-improved grassland

The areas of grassland present on site were dominated by perennial ryegrass *Lolium perenne.* However, also included species such as cocks' foot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, bent *Agrostis* sp., creeping buttercup *Ranunculus repens*, field thistle *Cirsium arvense*, cover *Trifolium* sp., vetch *Vicia sativa*, bristly ox-tongue *Helminthotheca echioides*, nettle *Urtica dioica*, ground ivy *Glechoma hederacea*, speedwell *Veronica* sp. and cow parsley *Anthriscus sylvestris*. The grassland to the north of the fence line is more varied in height, with areas from 10-40cm, and has a slightly greater diversity of species than the grassland to the south which has a range of sward lengths from 10-20cm (see Appendix 3, photo 2).

[J1.3] Ephemeral/short perennial

The edges of the areas of gravel hardstanding on the site had been colonised by a number of pioneer species (see Appendix 3, photo 3). These included a mixture of petty spurge *Euphorbia peplus*, bristly ox-tongue, ragwort *Jacobaea vulgaris*, greater and ribwort plantain *Plantago major* and *P. lanceolata*, bent, cocks' foot and perennial ryegrass.

[J2.4] Fences

A tall metal fence runs across the site, enclosing the solar farm to the south (see Appendix 3, photo 2).

[J3.6] Buildings and hard standing

Building B1 comprises a small breezeblock unit with a very shallow pitched, corrugated metal roof (see Appendix 3, photo 4). The fascias around the building comprise a mixture of metal and plastic. The western and eastern plastic fascias were tightly fitted to the exterior rendered walls. While the southern and northern metal fascia often had shallow and exposed gaps under, these did not appear to form any suitable crevices and in places were covered by old cobwebs. Access into the building was not possible at the time of the survey. However, the doors were very tightly sealed and there were no obvious gaps or cracks that would lead into the interior of the building.

The ground surrounding the building as well as the track leading to the entrance of the site comprised compacted gravel (see Appendix 3, photos 3 and 4).

3.2 Protected habitat and species conclusions based on proposed development.

The survey evaluated the site for the presence of all protected and invasive species, summarised under general taxon groups in table 8 below.

Table 8: Assessment of likelihood of protected/invasive habitat/species occurrence, and if there are any impacts from the proposed development.

Habitat or taxon	Likelihood of impact in context of plans	Justification for evaluation and level of significance
Habitats	Negligible	There are no protected or important botanical habitats on site therefore no special mitigation is needed for habitats. It is noted that Somerset Levels and Moors Ramsar Site and Special Protection Area (SPA) is located ~1.8km north of the site. However, owing to the distance and current nature of the survey area, the proposals are not deemed to have a negative impact on the above designated sites. The small area of ancient woodland to the north and east is not anticipated to be physically affected by the proposed developments.

Invertebrates	Negligible	The site does not offer habitat to support large populations of rare and/or protected invertebrates. Floral assemblages are generally poor and only offer limited potential for more generalist species.
Amphibian	Low	There are no ponds on site. However, two ponds lie ~50m and ~130m to the north (HSI calculations were not undertaken on these ponds, as they were on private land and access was not possible at the time of the survey). Both ponds appear unfavourable and there are no ponds beyond the site to encourage commuting across the development area. However, the site boundary does offer some suitable terrestrial habitat for species such as great crested newts.
Badger	Low	There are no sett holes to be affected by the developments. However, badgers are likely to commute around the site as they may live and/or forage in the nearby woodland, where they have the chance to be harmed should they wander into the construction area. Therefore, mitigation is needed to avoid harm to badgers.
Bat	Low	The building on site does not provide any suitable habitat for roosting bats. There are no trees on site that possess suitable roosting features for bats. However, the woodland running close to the eastern and part of the northern boundary of the site could provide roosting opportunities. The areas of the site close to the field boundaries therefore have the potential to be utilised for commuting and foraging by bats.
Barn Owl	Negligible	There are no buildings or trees on site suitable for barn owl roosting or nesting, however the site provides some suitable hunting grounds.
Bird	Low	There are no trees, buildings or hedgerows on site that would provide any habitat for nesting birds. However, the grassland has the potential to support ground nesting birds. There is therefore potential for impacts from disturbance during the development.

Other terrestrial mammals e.g. otter, water vole	Negligible	No evidence of any other protected mammal was found. No habitat for otters, water voles or dormice. Mammal runs ran across the site from the woodland to the east and northeast of the site. This suggests the site comprises a regular commuting route for small mammal species (see Appendix 3, photo 5).
Reptile	Low	The grassland areas on site have the potential to provide suitable habitat for common reptile species if left to grow. Therefore, mitigation should be undertaken to reduce the impact on any reptiles that may be present in the longer areas of grassland.
Problematic Species	Negligible	None observed on site at the time of the survey.

4.0 Discussion and Recommendations

Table 9: Survey recommendations based on the conclusions within table 8.

Species/ Habitats	Likelihood of impact as described in Table 8.	Notes and recommendations
Sites	Negligible	The site is not subject to any statutory or non-statutory designations. Direct impacts on any designated sites are unlikely to arise as the works would be a sufficient distance to avoid dust, noise and visual effects on the reasons for designation especially as the proposed development is relatively small scale.
Habitats	Negligible	The development proposed impacts no protected botanical habitats, therefore no mitigation is needed for these.
Invertebrates	Negligible	No impact on protected invertebrates foreseen, therefore no further surveys required. However, enhancements recommended (see 4.3).
Amphibian	Low	The site offers very low habitat value for protected amphibians however, as a precautionary measure a Habitat Suitability Index (HSI) should be undertaken on the two ponds to the north of the site to assess whether these provide any value for great crested newts. Further evaluation can then be undertaken if required. Regardless, additional care will be taken during the proposed works by implementing reasonable avoidance measures (RAMS). The grassland will be maintained at a short sward length which will be kept at such a state during the construction/decommission. If GCN are found at any point during the developments, then a mitigation licence is likely to be required for works to continue. Any holes or trenches

		created will be covered or a rough sawn plank placed in them to act as a ramp for badgers or any other wildlife which may fall in. Materials will be stored either on hardstanding or off the ground on pallets/fixed blocks.
Badger	Low	No further surveys required. As a precautionary measure, the following recommendations are made to reduce harm to any badgers or mammals such as hedgehogs, during the development phase of the project. • Any trenches dug will either be covered at night or have a rough sawn plank placed in them to act as a ramp for badgers or any other wildlife which may fall in. • Security lighting to be directed away from the undergrowth and wood. • Any chemicals or pollutants used or created by the development will be stored and disposed of correctly according to COSHH regulations
Bats	Low	The site boundaries and open grassland areas are likely to support commuting and foraging bats. The development plans are understood to include a low number of LED, downward directional, manually operated lights. This is not anticipated to have a major impact on the nearby woodland due to them being infrequently used. No further surveys are recommended at this stage, however, a lighting design for bats should be produced to demonstrate there will be no impacts of lighting on the woodland edge. Should significant lighting be considered in the future then a static survey should be undertaken to ascertain the levels of bat activity along the boundaries. This will comprise the deployment of two static bat detectors across the site for a week at a time, over an initial three month period between April and October.

		All lighting installed on the site now, and in the future post development will be in-line with guidance given within the bat activity survey results (if undertaken) and guidance produced by the Bat Conservation Trust and Institute of Lighting Professionals: https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/. Any future lighting will be of low level, be on downward deflectors and ideally be on PIR sensors. This will ensure that the commuting route that the bats are likely to be using is maintained. Likely mitigation will involve the retention of a buffer to be maintained along the boundaries of the site to create a dark corridor and allow movement of bats along the site's boundaries.
Barn Owl	Negligible	No further surveys.
Bird	Low	The site has been identified as providing habitat suitability for ground nesting birds. It is recommended that the works are undertaken outside the nesting bird season (March to August inclusive) since all in-use bird's nests and their contents are protected from damage or destruction. If this time frame cannot be avoided, then the site should be checked for ground nesting birds by an experienced ecologist immediately prior to the works commencing. Work will not be carried out within 5.0m of any in-use nest. Standard planning conditions can be applied to ensure this.
Other mammals	Negligible	No further surveys. No impact on other protected mammals.
Reptiles	Low	The current habitats present on site do not offer suitable habitat for common reptiles, therefore no further surveys are recommended at this stage. However, the following mitigation

		will be undertaken to prevent harm to any common reptiles that may happen to be present within the development area. Pre-Development Clearing a) Before any development, the ground flora in the immediate vicinity of the building site will be strimmed down to 500mm. Any reptiles that are found should be placed outside of the development area by a suitably experienced ecologist. b) Rest period of at least 4-6 hours c) Strimming of remaining flora to ground level, to be maintained for the duration of the development. d) If at any other point reptiles are recorded, operations should cease immediately until further advice has been sought from the ecologist. However, if the grassland is left to grow before the commencement of the proposed development, then a reptile survey should be undertaken to assess the presence or likely absence of reptiles on the site. The survey will include the deployment of reptile felts/mats across the site, which will be left to 'bed in' for a period of two weeks. Checks of the felts/mats will be undertaken during the activity season (April to September) during suitable weather conditions. Checks will be undertaken three to five days apart and a minimum of seven checks will be undertaken. Suitable recommendations and mitigations can be made following the recommended surveys if necessary.
Problematic Species	Negligible	No further surveys required. However, remain vigilant.

4.1 Opportunities for enhancement

4.1.1 Recommendations for enhancement to increase biodiversity value post-development

The bullet points below represent some broad recommendations that should be considered with the development proposals. These recommendations should be developed further in coordination with the landscape designers and other specialists as the design progresses.

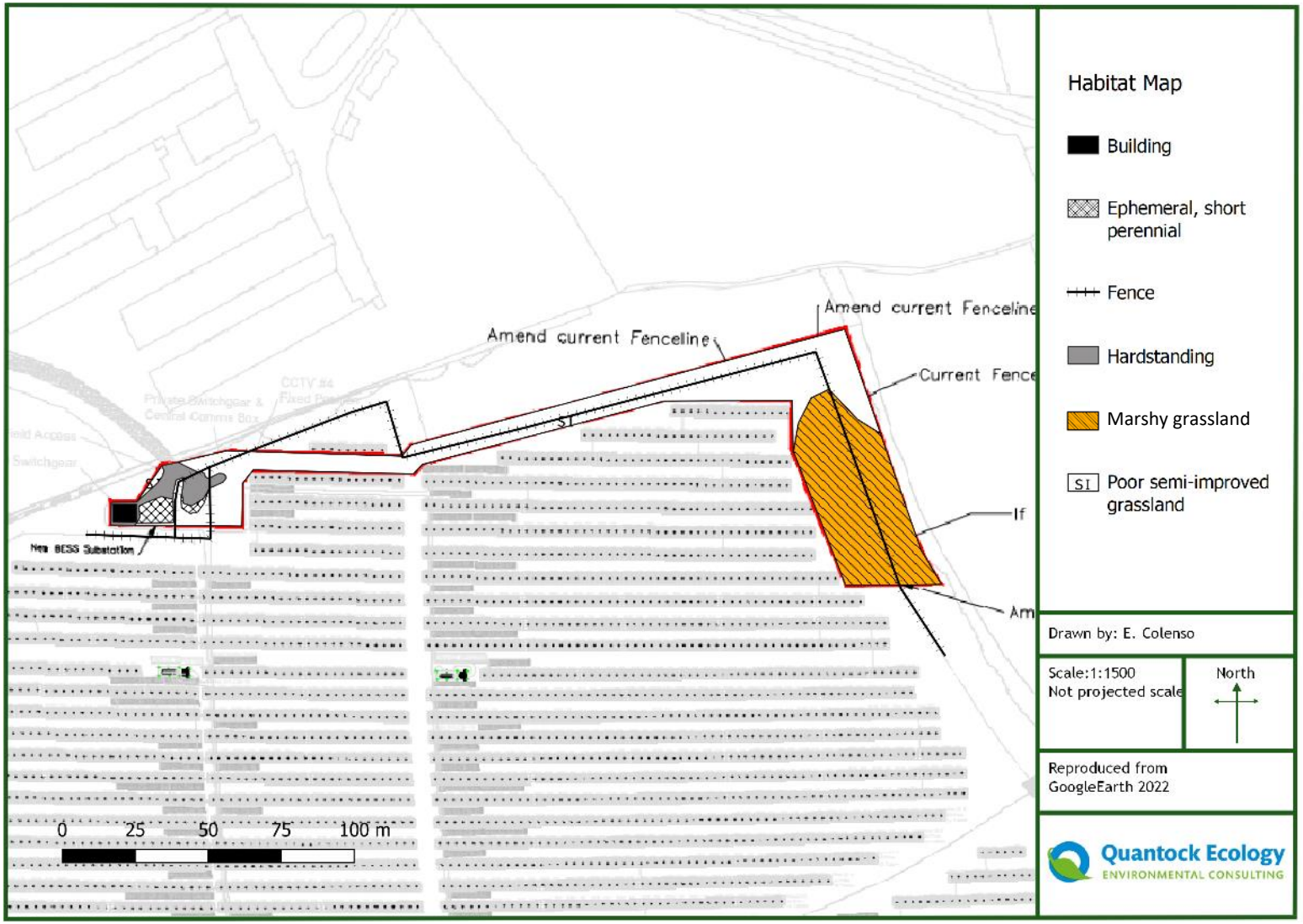
- Design of wildlife friendly lighting (if lighting is to be used).
- Erection of bird and bat boxes; e.g 4x Schwegler multi-purpose bird and/or bat erected on any trees on site.
- Installation of a barn owl box in a suitable tree on site.
- Creation of a dark corridor to be retained along the site's boundaries and creation of longer grassy areas along the boundaries to create habitat for barn owl hunting.
- Inclusion of plant species of known value to wildlife in any landscape design proposals.
- Log and brash piles could be created to encourage a plentiful supply of invertebrate prey.
- The creation of a permanent reptile hibernacula could be made near the eastern boundary of the site, where grass areas will be allowed to grow. Further specifications and details of hibernacula are provided in the Reptile Habitat Management Handbook, 2010 (p45 section 9.2). This document can be found at: http://www.arc-trust.org/habitat-management-handbooks.
- Management of the grassland on site to encourage invertebrate diversity. The grassland should be allowed to flower from May to late July/August and then be harvested as hay. Grazing in autumn and spring will also help maintain and enhance flower-rich grasslands, as will ensuring no chemical fertilisers are applied (Bumblebee conservation Trust, 2021). This document can be found at: https://www.bumblebeeconservation.org/wp-content/uploads/2021/08/BBCT_Land_Factsheet_8_Managing_traditional_orchards.pdf
- Creation of a wildflower meadow within the wider land ownership. Information can be found at https://www.bumblebeeconservation.org/wp-content/uploads/2017/08/BBCT_Land_Factsheet_4_Grassland_restoration.pdf (bumblebee Conservation Trust, 2017)

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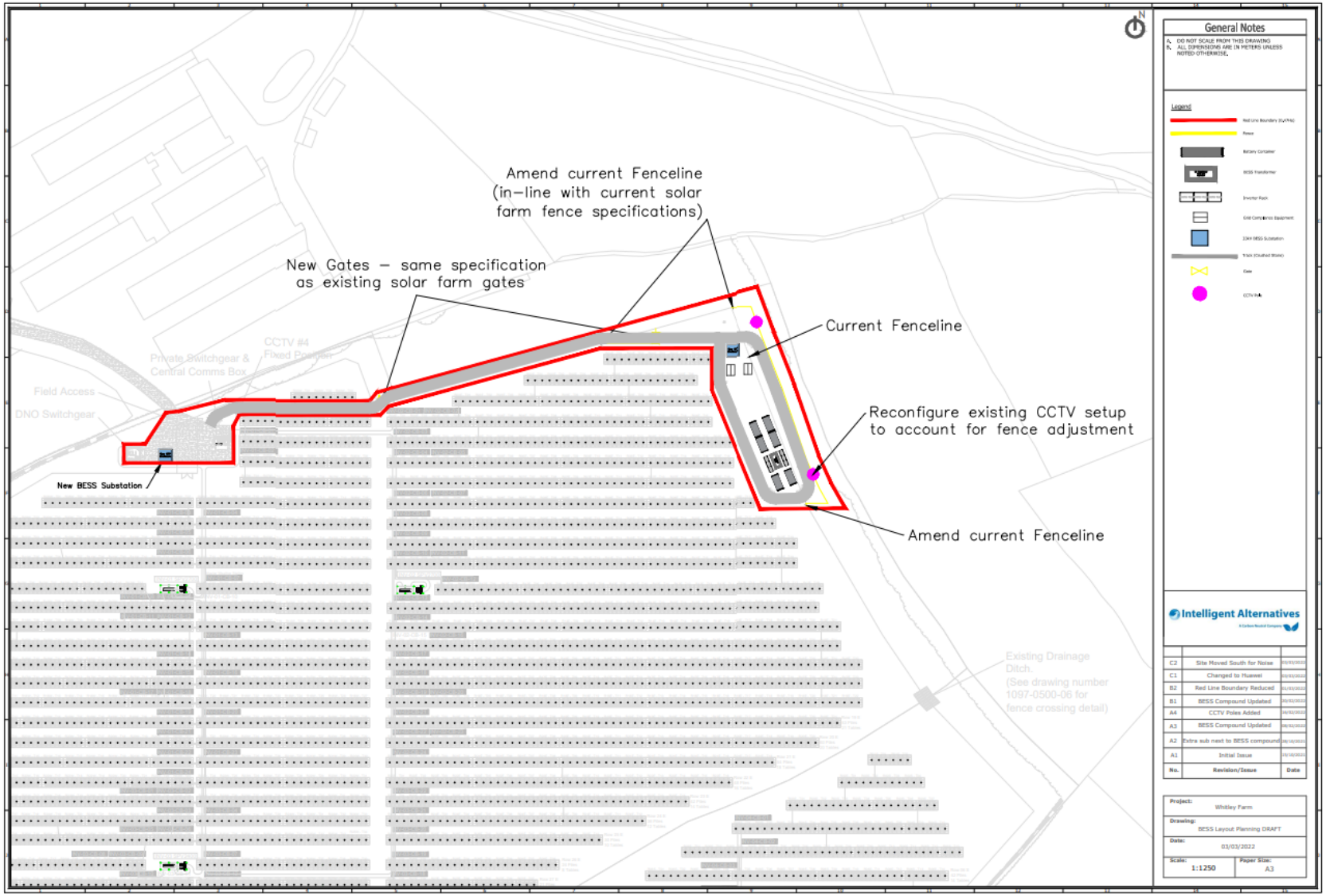
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Appendix 1: Survey Plan



Appendix 2: Site Plan/Proposals



Appendix 3: Photographs

Photo 1: Showing the area of marshy grassland to the east of the site.	
Photo 2: Looking west along the fence line, showing the slight variation in grassland either side of the fence.	

Photo 3: Looking northeast at the entrance of the site across the area of ephemeral short perennial and hardstanding.	
Photo 4: Showing the southern and eastern elevations of the building B1.	

Photo 5: An example of the small mammal runs crossing the site.	

Appendix 4: Legislation and Planning Policy

LEGAL PROTECTION

National and European Legislation Afforded to Habitats

International Statutory Designations

Special Areas of Conservation (SACs) and ***Special Protection Areas (SPAs)*** are sites of European importance and are designated under the EC Habitats Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) and the EC Birds Directive 2009/147/EC on the conservation of wild birds respectively. Both form part of the wider Natura 2000 network across Europe.

Under the Habitats Directive the, Article 3 requires the establishment of a network of important conservation sites (SACs) across Europe in order to conserve the 189 habitats and 788 species (non- bird) identified in Annexes I and II of the Directive (as amended).

SPAs are classified under Article 2 of the EC Birds Directive both for rare bird species (as listed on Annex I) and for important migratory species.

SACs and SPAs up to 12 nautical miles (nm) from the coast are afforded protection in the UK under the Conservation of Habitats and Species Regulations 2010 which consolidate all amendments made to the Conservation (Natural Habitats, &c.) Regulations 1994. In Scotland, the requirements of Habitats Directive are implemented through a combination of the 1994 and the 2010 (reserved matters) Regulations. The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a means for designating and protecting SACs in UK offshore waters (from 12‑200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and recognises the importance of wetland ecosystems in relation to global biodiversity conservation. The Convention refers to wetlands as "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres" however they may also include riparian and coastal zones. Ramsar sites are statutorily protected under the Wildlife & Countryside Act 1981 (as amended)

with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. The Government in England and Wales has issued policy statements which ensure that Ramsar sites are afforded the same protection as areas designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

National Statutory Designations

Sites of Special Scientific Interest (SSSI) are designated by nature conservation agencies in order to conserve key flora, fauna, geological or physio-geographical features within the UK. The original designations were under the National Parks and Access to the Countryside Act 1949 but SSSIs were then re-designated under the Wildlife & Countryside Act 1981 (as amended). As well as reinforcing other national designations (including National Nature Reserves), the system also provides statutory protection for terrestrial and coastal sites which are important within the European Natura 2000 network and globally. Further provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

Local Statutory Designations

Local authorities in consultation with the relevant nature conservation agency can declare ***Local Nature Reserves (LNRs)*** under the National Parks and Access to the Countryside Act 1949. LNRs are designated for flora, fauna or geological interest and are managed locally to retain these features and provide research, education and recreational opportunities.

Non- Statutory Designations

All non-statutorily designated sites are referred to as ***Local Wildlife Sites (LWS)*** and can be designated by the local authority for supporting local conservation interest. Combined with statutory designation, these sites are considered within Local Development Frameworks under the Town and Country Planning system and are a material consideration during the determination of planning applications. The protection afforded to these sites varies depending on the local authority involved.

Regionally Important Geological Sites (RIGs) are the most important geological and geomorphological areas outside of statutory designations. These sites are also a material consideration during the determination of planning applications.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are designed to protect 'important' countryside hedgerows. Importance is defined by whether the hedgerow (a) has existed for 30 years or more; or (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys without the permission of the local authority. Hedgerows 'within or marking the boundary of the curtilage of a dwelling-house' are excluded.

National and European Legislation Afforded to Species

The Habitats Directive

The EC Habitats Directive aims to promote the maintenance of biodiversity by requiring Member States to take measures to maintain or restore wild species listed on the Annexes to the Directive at a favourable conservation status, introducing robust protection for those species of European importance. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (the Conservation Regulations) and the Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended). The following notes are relevant for all species protected under the EC Habitats Directive:

In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Habitats Regulations do not define the act of 'migration' and, therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests':

the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment;

there is no satisfactory alternative; and

the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

The Wildlife and Countryside Act (WCA) 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection requirements of EC Birds Directive 2009/147/EC on the conservation of wild birds in Great Britain (the birds Directive). The WCA 1981 has been subject to a number of amendments, the most important of which are through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

Other legislative Acts affording protection to wildlife and their habitats include:

Deer Act 1991

Natural Environment & Rural Communities (NERC) Act 2006

Protection of Badgers Act 1992

Wild Mammals (Protection) Act 1996

Badgers

Badgers *Meles meles* are protected under The Protection of Badgers Act which makes it an offence to:

Wilfully kill, injure, take, or attempt to kill, injure or take a badger

Cruelly ill-treat a badger, including use of tongs and digging

Possess or control a dead badger or any part thereof

Intentionally or recklessly damage, destroy or obstruct access to a badger sett[1] or any part thereof

Intentionally or recklessly disturb a badger when it is occupying a badger sett

Intentionally or recklessly cause a dog to enter a badger sett

[1] A badger sett is defined in the legislation as *"any structure or place which displays signs indicating current use by a badger"*. This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

Sell or offers for sale, possesses or has under his control, a live badger

Effects on development works

A development licence will be required from the relevant countryside agency for any development works liable to affect an active badge sett, or to disturb badgers whilst they occupy a sett. Guidance has been issued by the countryside agency's to define what would constitute a licensable activity[2]. It is no possible to obtain a licence to translocate badgers.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the WCA. Among other things, this makes it an offence to:

Intentionally (or recklessly in Scotland) kill, injure or take any wild bird

Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built

Intentionally take or destroy an egg of any wild bird

Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

In Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest

Certain species of bird, for example the barn owl, bittern and kingfisher receive additional protection under Schedule 1 of the WCA and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC) and are commonly referred to as "Schedule 1" birds. This affords them protection against:

Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young

[2] For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

Intentional or reckless disturbance of dependent young of such a bird

In Scotland only, intentional or reckless disturbance whilst lekking

In Scotland only, intentional or reckless harassment

Effects on development works

Works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August3. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Schedule 1 birds are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and reptiles)

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita,* pool frog *Pelophylax lessonae* and great crested newt *Triturus cristatus* receive full protection under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

Deliberate killing, injuring or capturing of Schedule 2 species

Deliberate disturbance of species in such a way as:

to impair their ability to survive, breed, or reproduce, or to rear or nurture young;

to impair their ability to hibernate or migrate

to affect significantly the local distribution or abundance of the species

Damage or destruction of a breeding site or resting place

[3] It should be noted that this is considered the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

With the exception of the pool frog, these species are also listed on Schedule 5 of the WCA and they are additionally protected from:

Intentional or reckless disturbance (at any level)

Intentional or reckless obstruction of access to any place of shelter or protection

Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5, Section 9(1) & (5) of the WCA, i.e. the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis.* It is prohibited to intentionally or recklessly kill or injure these species.

Effects on development works

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places amphibian and reptile species protected under Habitats Regulations. A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation, but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the WCA.

Water voles

The water vole *Arvicola terrestris* is fully protected under Schedule 5 of the WCA. This makes it an offence to:

Intentionally kill, injure or take (capture) water voles

Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection

Intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection

Effects on development works

If development works are liable to affect habitats known to support water voles, the relevant countryside agency must be consulted. It must be shown that means by which the proposal can be re-designed to avoid contravening the legislation have been fully explored e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable, and measures to ensure minimal habitat loss. Conservation licences for the capture and translocation of water voles may be issued by the relevant countryside agency (e.g. Natural England) for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will then only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of works.

Otters

Otters *Lutra lutra* are fully protected under the Conservation Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

Deliberate killing, injuring or capturing of Schedule 2 species

Deliberate disturbance of species in such a way as:

to impair their ability to survive, breed, or reproduce, or to rear or nurture young;

to impair their ability to hibernate or migrate

to affect significantly the local distribution or abundance of the species

Damage or destruction of a breeding site or resting place

Otters are also currently protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from

Intentional or reckless disturbance (at any level)

Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works

An EPSM Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect otter breeding or resting places (often referred to as holts, couches or dens) or for operations likely to result in a level of disturbance which might impair their ability to undertake those

activities mentioned above (e.g. survive, breed, and rear young). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored

Bats

All species are fully protected by Habitats Regulations 2010 as they are listed on Schedule 2. Regulation 41 prohibits:

Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)

Deliberate disturbance of bat species in such a way as:

to impair their ability to survive, breed, or reproduce, or to rear or nurture young;

to impair their ability to hibernate or migrate

to affect significantly the local distribution or abundance of the species

Damage or destruction of a breeding site or resting place

Bats are afforded the following additional protection through the WCA as they are included on Schedule 5:

Intentional or reckless disturbance (at any level)

Intentional or reckless obstruction of access to any place of shelter or protection

Effects on development works

Works which are liable to affect a bat roost or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Dormice

Dormice *Muscardinus avellanarius* are fully protected under Habitats Regulations through their inclusion on Schedule 2. Regulation 41 prohibits:

Deliberate killing, injuring or capturing of Schedule 2 species

Deliberate disturbance of species in such a way as:

to impair their ability to survive, breed, or reproduce, or to rear or nurture young;

to impair their ability to hibernate or migrate

to affect significantly the local distribution or abundance of the species

Damage or destruction of a breeding site or resting place

Dormice are also protected under the WCA through their inclusion on Schedule 5. Under this Act, they are additionally protected from:
Intentional or reckless disturbance (at any level)
Intentional or reckless obstruction of access to any place of shelter or protection

Impacts of legislation on development works
Works which are liable to affect a dormice habitat or an operation which are likely to result in an illegal level of disturbance to the species will require an EPSM licence. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

White clawed crayfish
The white clawed crayfish *Austropotamobius pallipes* receives partial protection under Schedule 5 of the WCA in respect of Sections 9(1) and 9(5). This makes it an offence to intentionally take (capture) white-clawed crayfish.
Impacts of legislation on development works
The relevant countryside agency will need to be consulted about development which could impact on a watercourse or wetland known to support white clawed crayfish. Conservation licences for the capture and translocation of crayfish can be issued if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population. The licence will only be granted to a suitably experienced person if it can be shown that adequate surveys have been undertaken to inform appropriate mitigation measures. Identification and preparation of a suitable receptor site will be necessary prior to the commencement of the works.

Wild Mammals (Protection Act) 1996
All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Legislation afforded to Plants

With certain exceptions, all wild plants are protected under the WCA. This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits any person:

Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)

Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof

In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010. These are species of European importance. Regulation 45 makes it an offence to:

Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species

Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

Impacts of legislation on development works

An EPSM licence will be required from the relevant countryside agency for works which are liable to affect species of planted listed on Schedule 5 of the Conservation or Habitats and Species Regulations 2010. The licence is to allow derogation from the legislation through the application of appropriate mitigation measures and monitoring.

Invasive Species

Part II of Schedule 9 of the WCA lists non-native invasive plant species for which it is a criminal offence in England and Wales to plant or cause to grow in the wild due to their impact on native wildlife. Species

include Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera.*

Impacts of legislation on development works

It is not an offence for plants listed in Part II of Schedule 9 of the WCA 1981 to be present on the development site however it is an offence to cause them to spread. Therefore, if any of the species are present on site and construction activities may result in further spread (e.g. earthworks, vehicle movements) then it will be necessary to design and implement appropriate mitigation prior to construction commencing.

Injurious weeds

Under the Weeds Act 1959 any land owner or occupier may be required prevent the spread of certain 'injurious weeds' such as spear thistle *Cirsium vulgare*, creeping thistle *Cirsium arvense*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, and common ragwort *Senecio jacobaea*. It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

NATIONAL PLANNING POLICY (ENGLAND)

National Planning Policy Framework

The National Planning Policy Framework promotes sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and species. An emphasis is also made on the need for ecological infrastructure through protection, restoration and re-creation. The protection and recovery of priority species (considered likely to be those listed as UK Biodiversity Action Plan priority species) is also listed as a requirement of planning policy.

In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

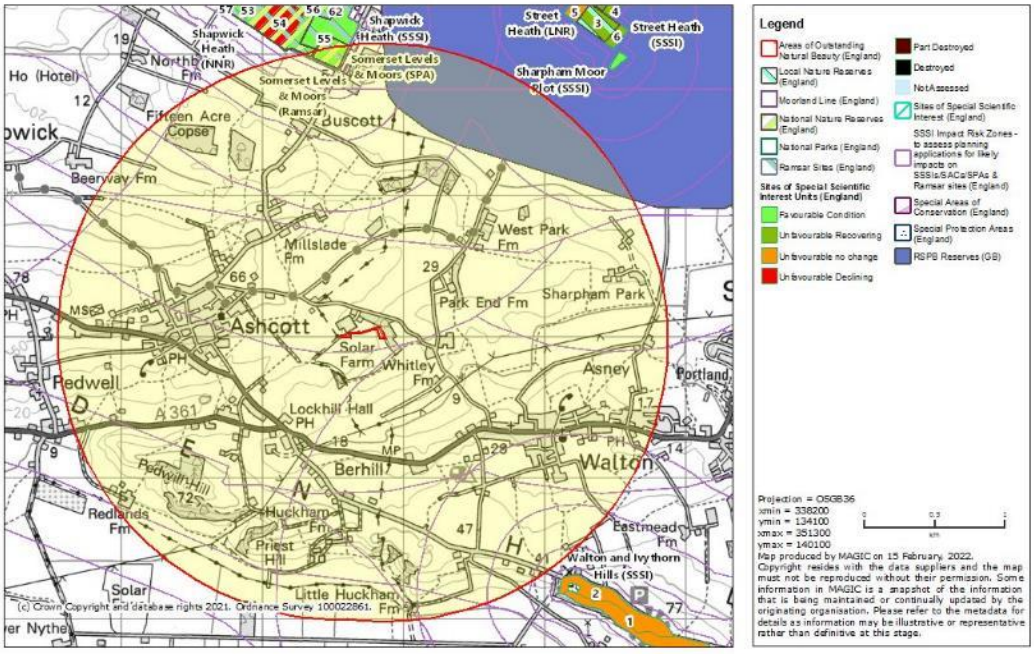
Section 40 of the Natural Environment and Rural Communities (NERC) Act, 2006, requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

Appendix 5: Desk Study Data

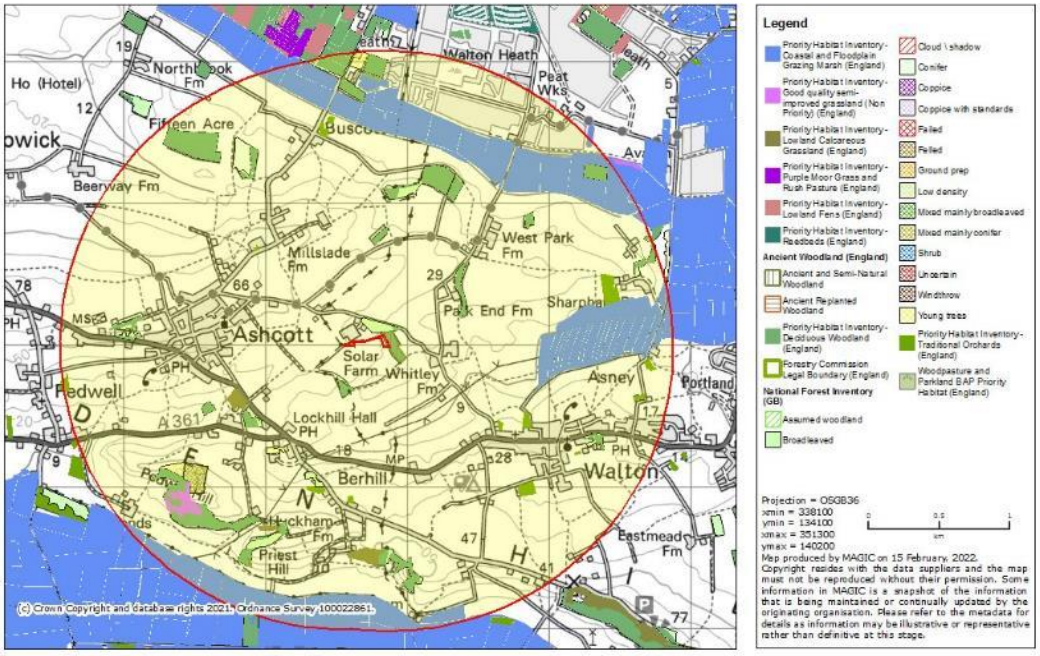
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Designated Sites



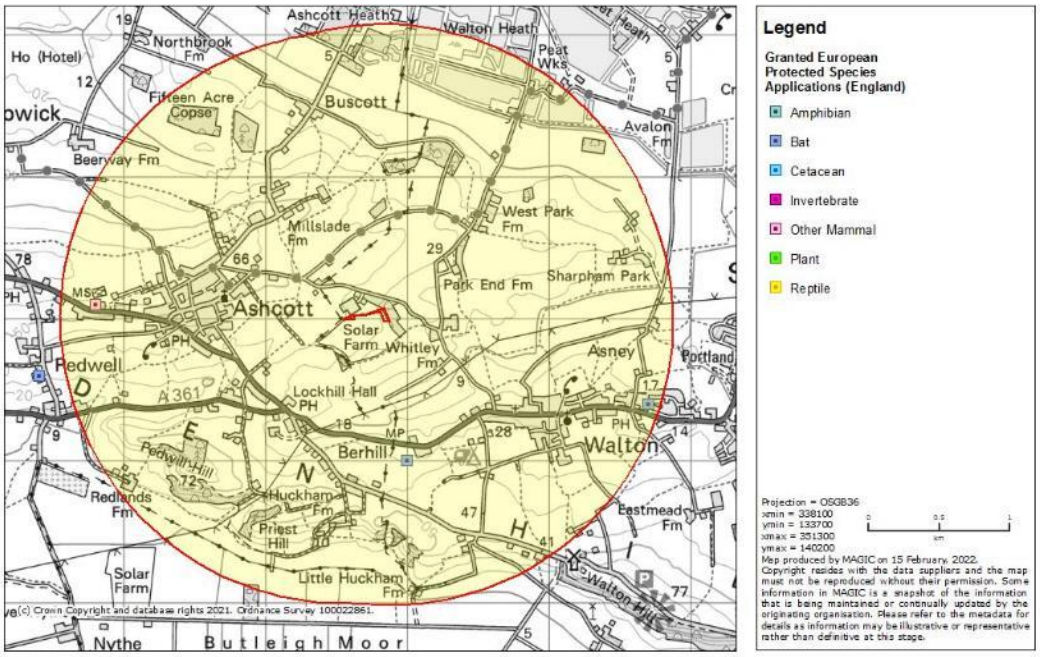
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Priority Habitats



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Granted EPSML



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