

6. Recommendations

6.1 Good Practice Construction Measures

As previously mentioned, the layout is focused on the arable fields, avoiding the more sensitive hedgerow and ditch habitats.

Working areas will be clearly marked, along with protective fencing ('Heras' style or similar) being in place to maintain suitable buffers of at least 2 m from the ditch and hedgerows.

Construction materials and vehicles will be stored in the construction compound when not in use. Access to/from working areas have been determined via the least sensitive and damaging route, using existing tracks where possible, including existing ditch crossings.

The installation of the security fencing will ensure that access for species utilising the ditch network can be maintained. In addition, small 'letter box' access gaps (1.5 m x 0.2 m) will be maintained at the base of the fencing in locations to be agreed with the Project Ecologist to allow the passage of small mammals such as hedgehog and hare.

When working in close proximity to the ditch there is a possibility the watercourses could become polluted. Work will be undertaken under a pollution protection plan, with good biosecurity measures in place, such as spraying boots and wheels to prevent spread of invasive species, and ensuring the materials used are animal friendly.

6.2 Habitat Creation and Enhancement

A landscaping plan (Landscape and Ecological Management Plan (LEMP)) has been produced for the Proposed Development (refer to: Figure 2.5 of Chapter 2: Landscape and Visual Impact Assessment) this outlines the proposed habitat creation and enhancements from the Proposed Development. The main habitat impacted by these works will be arable fields, no hedgerows or trees are to be removed, and the ditch will be retained, protected and enhanced.

Habitat creation includes the creation of modified grassland under the solar panel array. The planting of species rich grassland around the field boundary and to the south of the Site within the 'additional areas of environmental enhancement and BNG' and the planting of other broadleaved woodland. Further details on habitat conditions are detailed within the BNG report.

Hedgerows will be enhanced by the infilling of any gaps with local native species and additional species rich hedgerows with trees planted throughout the Site. If any area of hedgerow needs to be removed as part of the works, a further hedgerow survey will be required.

6.3 Protected Species

Amphibians

There are no suitable breeding ponds on or near the Site with all eDNA results were negative. There is some suitable terrestrial habitat, but this is within a largely unsuitable and fragmented landscape.

A number of enhancements are being put in place as a result of the Proposed Development which will increase the terrestrial habitat within the Site and therefore increase the dispersal of amphibians and reptiles within the Site and the wider area. Grassland is proposed to be planted under the solar panel array, a species rich grassland around the edge of the Site, patches of scrub planting, new hedgerow planting and infilling of current hedgerows are proposed to be planted throughout the Site. These habitats offer more suitable terrestrial habitat for commuting, foraging and for both amphibians and reptiles than the current arable habitat dominating the Site. The hibernation potential for



amphibians and reptiles will also be increase through the creation of four herptile hibernacula within the Site.

Good practice construction measures will be in place during the works to ensure there is no encroachment of materials or vehicles into the ditch and pollution prevention measures.

Breeding Birds

The nesting habitats on Site will be enhanced via the provision of bird boxes, hedgerow planting and secure ground nesting bird habitat due to the cessation of agricultural practices and installation of security fencing which will discourage access for ground-based predators.

The proposed development has the potential to adversely impact the local breeding population of skylark, however, the surrounding landscape is comprised of mostly agricultural land which is considered suitable breeding habitat for the species. The Site will still be used for foraging, however, nest sites will be displaced to neighbouring fields.

To mitigate for the loss of available nesting habitat, two skylark plots will be created in the southern field amongst wildflower grassland; as shown on the LEMP. Each plot will be at least 3m wide and will have a minimum area of 16m². Once created, plots will not be mechanically weeded between April and August but spot-treating with herbicide in April will help skylarks to access their nesting sites.

A total of six nest boxes will be a variety of hole sizes and types (e.g. tunnel front, open fronted) to appeal to a range of species. They will be constructed of woodcrete as this is more durable than wood and predator proof. Foraging habitat will be improved via planting of seed rich wildflower areas.

It is recommended that a pre-construction check is completed by the Project Ecologist prior to any works in the arable fields during the breeding season (March to August inclusive) to check for any ground nesting birds. If evidence of nesting is found, the Project Ecologist will identify a buffer area in which no works will take place until the young have fledged.

For the habitat enhancement measures including gapping up of hedgerows and seed planting, if this takes place in the breeding season, a check will be carried out of the planting/seeding area beforehand by an ecologist.

Bats

There are several trees with bat roost potential within the Site; however, these are to be retained. If any trees need to be removed as part of the works, further surveys will be required.

A total of six bat boxes will be installed in suitable trees around the boundaries of the Site to enhance the roosting habitat for bats. These will be selected to suit a range of crevice-dwelling bat species and will be constructed of woodcrete which is more durable than wood and also predator proof.

Hedgerow planting will improve habitat connectivity across the Site and will increase the availability of foraging habitats and flightlines for bats. Other enhancements within the Site for bats include the creation of wildflower rich grassland mix species within the Site will enhance the habitat for bat foraging by enhancing the habitat for invertebrates resulting in an increased food source

To prevent effects on foraging bats, there will be no additional night-time lighting of compounds or working areas during construction.

During the operation of the solar farm, in normal circumstances there will be no night-time lighting. A security light may be installed on the substation in case emergency work is required at night-time. This will be designed to be bat friendly, with a directional light pointing away from the hedgerows so



as to not affect foraging activity. Once details are known as to the light specification and location, a lighting plan will be developed in conjunction with the Project Ecologist to ensure the lighting (lux) levels do not affect foraging bats.

Badger

As badgers range onto Site, as a good practice measure, any excavations should be covered overnight, or a mammal ladder placed inside to prevent any ranging mammals (such as badger) from becoming trapped.

Otter and Water Vole

The ditch on Site is not considered suitable for these species due to the lack of cover and management practices. However, when these practices are no longer carried out, the area will likely become suitable over time. Therefore, the design of the solar farm should avoid any works within proximity of to the ditch. Where fencing crosses ditches, if necessary, it will be installed in such a way that free movement of animals along the watercourse can be maintained.

Working areas will be fenced via Heras fencing (or similar) to ensure there is no encroachment of vehicles or materials storage. Pollution prevention and sedimentation prevention measures will be adopted to avoid indirect impacts to this species through potential pollution of the watercourses.

Other Mammals

Free movement to/from the Site will be maintained via the inclusion of small gaps at the base of the security fencing, in locations to be agreed with the Project Ecologist.

Invertebrates

As mentioned above, a wildflower rich grassland mix will be planted beneath the solar panels and in a biodiversity area, along with a species rich hedgerow. These measures will provide a range of food sources and shelter invertebrates and enhance the Site for this species group.



7. Conclusions

A preliminary ecological appraisal report was undertaken to help inform the potential impacts of the proposed works at the Proposed Development.

The available information confirms that no statutory or non-statutory nature conservation designations are present within or adjacent to the Site, and none of the designations within the surrounding area are likely to be adversely affected by development at the Site.

A number of potential ecological constraints have been identified including:

- On site habitats;
- Amphibians and reptiles;
- Breeding birds;
- Bats;
- Badgers and other mammals;
- Otter and water vole; and
- Invertebrates

Arable land is the predominant habitat that will be lost, with habitats of elevated ecological value such as hedgerows and ditches being retained. Any habitat losses are being offset through habitat creation and habitat enhancement, as detailed within the BNG report.

The habitats within the site support several protected species. Accordingly, a number of mitigation measures have been proposed to minimise the risk of harm to protected species, with compensatory and enhancement measures proposed, where appropriate, in order to maintain the conservation status of local populations.

In conclusion, the Proposed Development has sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the Proposed Development will result in significant harm to biodiversity.



8. References

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.

English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature.

Gilbert G, Gibbons D and Evans J (1998). Bird Monitoring Methods. RSPB

Harris S, Cresswell P and Jefferies D (1989) Surveying Badgers, Mammal Society.

UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at https://www.ukhab.org)

Preliminary Ecological Assessment



9. Figures

Figure 1: UKHab Survey Results

Figure 2: Breeding Bird Survey Results







