



## Preliminary Ecological Appraisal (PEA)

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Land at Kirkgate Lane, Felkirk

**EPD Ltd.**

MAN.3073.001.EC.R.001



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## Preliminary Ecological Appraisal (PEA)

Project:	Land at Kirkgate Lane, Felkirk
For:	EPD Ltd.
Status:	Final
Date:	19 <sup>th</sup> December 2023
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## Non-Technical Summary

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- i. In October 2023 Enzygo Ltd was commissioned by EPD Ltd. (the client) to undertake a Preliminary Ecological Appraisal in respect of a proposed cable route associated with a Solar application off Kirkgate Lane, Felkirk, South Hiendley, Wakefield S72 9DK (central grid reference: SE 38383 12717) located within the Wakefield Council planning authority. This study will inform a planning application for the installation of the cable route, separate to the associated Solar Farm planning application.
- ii. The following key ecological features and associated recommendations have been identified:
  - **Dearne Valley Wetlands SSSI, Impact Risk Zone and Blue Infrastructure** – (*site lies within IRZ for which LPA are advised to consult Natural England on likely impacts to designated sites, and the proposed cable route crosses a single unnamed minor watercourse which is hydrologically connected to the SSSI*) – Construction works are to be conducted in accordance with best practice pollution prevention guidance to minimise the risk of any pollution of the wider water environment. At the discretion of the Planning Officer LPA to consult Natural England to confirm scheme will not impact nearby Dearne Valley Wetlands SSSI with mitigation measures proposed in this report;
  - **Bush Wood LWS, Ellis Laithe LWS, Deciduous Woodland Priority Habitat, Hedgerow Priority Habitat and Green Infrastructure** – (*The proposed cable route runs alongside Bush Wood and Ellis Laithe Local Wildlife Sites, and priority habitats comprising Lowland Mixed Deciduous Woodland and Hedgerow, which also provide notable wildlife corridor and green infrastructure function through the local landscape*) – the finalised cable route and method of installation is to be designed to minimise potential impact on existing habitats including trees and hedgerow. The working footprint is to be minimised as much as is feasible to permit development, and the areas are to be made good following the trenching;
  - **Wildlife Habitat Network** – (*The cable route and surrounding area is part of the Wakefield Council Wildlife Habitat Network to which Policy D6 of the Wakefield Development Policies document applies*) – to comply with the related local policy the proposals must demonstrate that disturbance is minimised, the site's ecological value is protected and enhanced, contribute to the Local Biodiversity Action Plan objectives, ensure appropriate management, and create new habitats above the value of those lost;
  - **Badger** – (*No Badger setts were identified along the proposed cable route or in immediately adjacent habitat. However, suitable habitat is present and there are records of Badger in the surrounding area*) – No further survey is required however, the construction phase shall implement a set of precautionary best practice measures to minimise the risk of killing/injury of Badger which may stray into the works areas;
  - **Birds (general nesting)** - (*Roadside habitats provide a limited extent of suitable nesting habitat for a range of species likely to be present in the area*) – Recommended site clearance is conducted outside of the nesting season, or if necessary within the nesting season, an Ecological Clerk of Works (ECoW) to advise and supervise works to ensure no active nests to be affected;

- **Great Crested Newt** – (*Roadside habitats provide a significantly limited extent of suitable terrestrial habitats for GCN, and there is known GCN metapopulation in the wider area*) - – No further pre-determination survey deemed necessary due to the restricted working area and low level of risk of any killing/injury of GCN, however, the construction phase to progress under a non-licensed Precautionary Working Method Statement to reduce the risk of killing/injury of GCN to a negligible level.
  - **Priority Species** – (*Roadside habitats provide a limited extent of suitable refuge and foraging habitat for Priority Species including Hedgehog and Common Toad*) – Precautionary measures to be adhered to during the construction phase to minimise the risk of killing/injury of Priority Species and other wildlife.
  - **Invasive Flora** (*No invasive species detected however the survey was not conducted at an optimal time of year and roadside verges frequently support species such as Indian Balsam*) – Any invasive flora detected during the works should be treated/eradication under the guidance of an invasive species contractor.
- iii. Proposals present opportunities for minor biodiversity enhancement through seeding with an appropriate wildflower seed-mix once the ground has been made good following the cable installation.
- iv. This report has demonstrated that, if the outlined mitigation measures are implemented in full then no significant residual impact could be expected, and the proposed application will result in ‘no net loss in biodiversity,’ whilst also providing opportunities for ‘biodiversity net gain’ in accordance with NPPF and Local Planning Policy.

## 1.0 Introduction

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### 1.1 Commission

1.1.1 In October 2023 Enzygo Ltd was commissioned by EPD Ltd. (the client) to undertake a Preliminary Ecological Appraisal in respect of a proposed cable route associated with a Solar application off Kirkgate Lane, Felkirk, South Hiendley, Wakefield S72 9DK (central grid reference: SE 38383 12717) located within the Wakefield Council planning authority. This study will inform a planning application for the installation of the cable route, separate to the associated Solar Farm planning application.

1.1.2 *Note: Enzygo Ltd are not considered to act as a Principal Designer for any mitigation/enhancement strategies identified within this document in accordance with the Construction (Design and Management) Regulations 2015 (CITB, 2016).*

### 1.2 Proposed Development/Identification of Impacts

1.2.1 The study will inform proposals for the installation of an approximately high voltage cable to connect the proposed ground mounted solar photovoltaic array development to the south of Kirkgate Lane (Wakefield Council planning reference 23/01900/FUL) to the point of connection at an existing substation to the east of Lund Hill Lane approximately 1.2km to the east. The cable route is to extend along the existing road network of Kirkgate Lane, Church Lane and Lund Hill Lane within the highway boundary for a total length of approximately 1.9km. The works will comprise a trench excavation 45cm wide by 60cm deep along a combination of the soft verge and the road and the roadway itself, and backfilled once the cable has been installed. The exact route of the cable is to be determined to minimise the impact on adjacent trees, hedgerow and other habitat, and is to use sensitive construction methods such as directional drilling where appropriate. A separate Arboricultural Survey Report (Enzygo, 2023a) and Arboricultural Impact Assessment (Enzygo, 2023b) have been produced detailing how these works are to be conducted in a sensitive manner and minimising impacts. It is understood that no additional land outside of the proposed solar development or existing substation land is to be utilised during the construction phase for any site compound etc. A corresponding zone of influence has been considered (this includes any transboundary effects regardless of administrative areas). Refer to Appendix A for the route of the proposed cable.

1.2.2 This report identifies ecological features, and potential anticipated impacts and effects, and outlines proportionate avoidance/mitigation/compensation strategies, followed by enhancements where appropriate. This information will advise the client on the potential constraints to proposals and inform the final site design.

### 1.3 Aims and Objectives

1.3.1 The purpose of this report is to provide biodiversity information which succinctly identifies ecological features on site and within the corresponding zone of influence, outlines potential impacts resulting from the proposals, with associated effects to ecological features, and recommends proportionate avoidance, mitigation and compensation strategies, and identifies enhancements that can be implemented in accordance with the British Standard for Biodiversity BS42020:2013 (BSI, 2013) to demonstrate 'no net loss in biodiversity' and a 'biodiversity net gain' in accordance with NPPF and Local Planning Policy.

1.3.2 This report has been produced with reference to current *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017a), *Guidelines for Ecological Impact Assessment in the UK and Ireland*,

*Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), *Guidelines for Ecological Report Writing* (CIEEM, 2017b), and British Standard BS42020:2013 (BSI, 2013).

## 1.4 Background/Acknowledgments

1.4.1 In September 2023, a planning application was submitted to Wakefield Council for “*Installation of a ground mounted solar photovoltaic array, together with associated infrastructure; access; fencing; CCTV; on-site biodiversity net gain and associated works*” (planning reference 23/01900/FUL). This application is currently awaiting decision at the time of writing and is supported by an *Ecological Impact Assessment* (Enzygo, 2023c), *Biodiversity Net Gain calculation* (Enzygo, 2023d), *Biodiversity Construction Environmental Management Plan* (Enzygo, 2023e), and *Landscape and Ecological Management Plan* (Enzygo, 2023). These supporting documents and associated relevant consultation responses have been reviewed and used to inform the scope of assessment presented here.

1.4.2 A search of Wakefield Council planning website has not identified any further previous planning applications associated with the site or immediate surrounds which have any pertinent nature conservation and biodiversity supporting information relevant to this assessment. This includes a search of the Barnsley Metropolitan Borough Council area to the south.

1.4.3 It is our understanding that to date, there has been no correspondence with the County Ecologist regarding this application. Additionally, we have not been informed of any Local Validation requirements i.e. biodiversity checklist for completion.

## 1.5 Local Planning Policy

1.5.1 The following policies of the Wakefield Council Core Strategy (Wakefield Council, 2009a) are applicable to biodiversity and nature conservation (provided in summary only, the full Core Strategy document should be viewed for full details):

- **Policy CS 10** - Design, Safety and Environmental Quality

1.5.2 In addition, following policies of the Wakefield Council Development Policies document (Wakefield Council, 2009b) are applicable to biodiversity and this assessment (again, refer to the original document for full details):

- **Policy D4** – Sites Designated for Biological or Geological Conservation
- **Policy D5** – Ecological Protection of Watercourses and Water Bodies
- **Policy D6** – Wildlife Habitat Network
- **Policy D7** – Protection of Trees and Woodland
- **Policy D9** – Design of New Development

1.5.3 No additional Supplementary Planning Documents (SPDs) or guidance has been identified which is applicable to this assessment.

1.5.4 Refer to Appendix C for relevant details of European and National Legislation, and National Planning Policy.

## 1.6 Site Context

1.6.1 The approximately 1.9km long proposed cable route lies within a rural location and runs within the highway boundary of Kirkgate Lane, Church Lane and Lund Hill Lane between the site of a proposed Solar Farm development and an existing substation which is to be the point of connection. Habitats along the route comprise the hardstand roadway itself with soft verges which support a combination of bare earth, neutral grassland, and native hedgerow, trees and scrub. The wider landscape is characterised by open countryside with abundant arable farmland and pasture with the villages of South Hiendley 700m to the east and Royston 1.5km to the south-west.

1.6.2 The site lies within the Nottinghamshire, Derbyshire and Yorkshire Coalfield National Character Area (Natural England, 2013) which is characterised as a “*generally low-lying area, with hills and escarpments above wide valleys, the landscape embraces major industrial towns and cities as well as villages and countryside.*”

**Figure 1 – Proposed Cable Route**

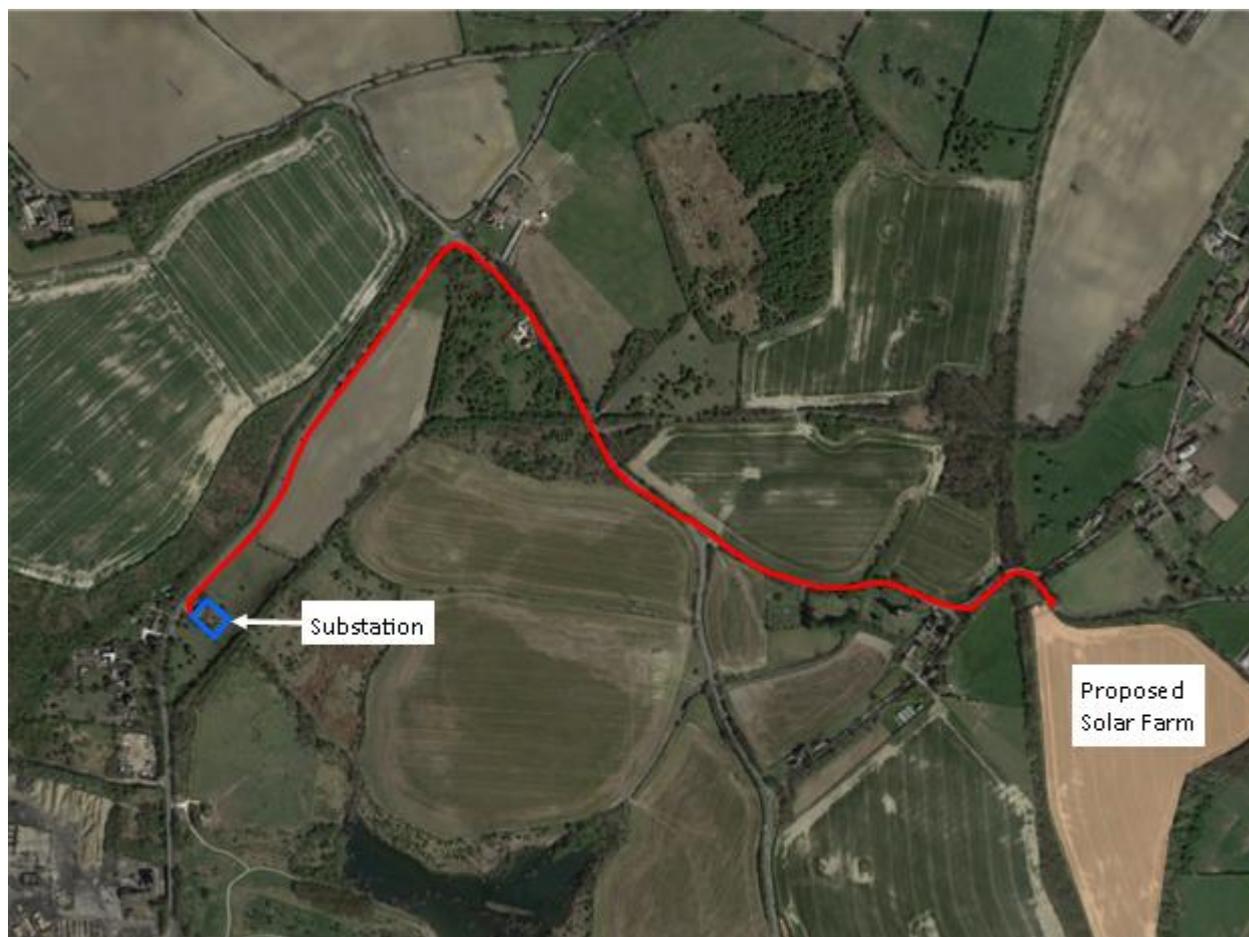


Image courtesy of Google Image Pro 7.3.2.5491, [Grid Ref: SE 38383 12717]. Imagery date 23<sup>rd</sup> April 2022. Image accessed 18<sup>th</sup> December 2023.

## 2.0 Methodology

### 2.1 Desk Study

2.1.1 Desk study details were obtained from the following sources on the associated dates to provide background on ecological features in the vicinity of the site. In each case the search included the site and the specified area beyond the site boundary based on the expected zone of influence. Candidate and potential designations are considered too as these are also legally protected. Records search for included:

- Statutory sites designated or classified under international conventions or European legislation within a 5km radius, statutory sites designated under national legislation (including Marine) existing EPS Licence applications and Great Crested Newt Pond Survey records within a 2km radius, and Priority Habitat & Ancient Woodland Inventory within a 0.5km radius [Magic Map, 18th December 2023] (DEFRA, 2023);
- Tree Preservation Orders (TPOs) and Biodiversity Conservation Areas within the immediate zone of influence [Wakefield Council website, 18th December 2023];
- Waterbodies within a 0.5km radius (Online mapping sources including: Google Maps; Magic Map; and Ordnance Survey Street View, 18th December 2023); and
- Locally designated wildlife sites & any notified Local Biodiversity Action Plan (BAP) Habitats, Legally protected species, any Priority species (which includes: National Biodiversity Species, Local BAP Species, Species of conservation concern and Red Data Book (RDB) species, Birds of Conservation Concern (BOCC), nationally rare and nationally scarce species, and OSPAR Commission list of threatened/declining species) and Invasive species (listed under section 14 of Schedule 9 only) within a 2km radius, and any important hedgerows/veteran trees within the immediate zone of influence [West Yorkshire Ecological Record (WYER)(30<sup>th</sup> November 2023) and Barnsley Biodiversity Record Centre (BBRC) (30<sup>th</sup> November 2023)].

2.1.2 The Data has been edited where relevant to prevent sensitive or confidential records being made public in accordance with Guidelines for Accessing, Using and Sharing Biodiversity Data (CIEEM, 2020).

### 2.2 Field Survey

2.2.1 Field Surveys were undertaken on the following dates by the identified staff, all of whom satisfy necessary field survey competencies as stipulated by the Chartered Institute for Ecology and Environmental Management (CIEEM). Weather conditions on the day of survey have been included and where relevant survey/class licence numbers referred to.

**Table 1 – Survey Dates and Conditions**

Survey	Date	Staff/Licence	Environmental Conditions and Times
Preliminary Ecological Appraisal	08/12/2023	Chris Schofield ACIEEM MSc. BSc. (Hons) [Principal Ecologist at Enzygo]	Overcast with showers (100% cloud cover), and 8°C with a light wind.

## **Preliminary Ecological Appraisal**

- 2.2.2 In accordance with Guidelines for Preliminary Ecological Appraisal 2<sup>nd</sup> Edition (CIEEM, 2017a) the Preliminary Ecological Appraisal (PEA) survey included the following.

### *UK Habitat Classification*

- 2.2.3 This assessment has utilised the UK Habitat Classification (UKHab) methodology (UKHab, 2023), as the recommended published method of habitat classification. It has been used to categorise and map the primary habitat types present within the survey area using a standard set of habitat categories, with associated secondary codes/features identified where applicable. Details of current management and habitat condition have also been recorded where appropriate.
- 2.2.4 Each of the main habitats has been described; including details of component plant species abundances (recorded using the DAFOR scale: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare). Additionally, any stands of non-native invasive plant species were recorded. Habitat extents have been visually mapped onto a topographic plan, with approximate location/areas recorded only (a GPS unit has not been utilised to accurately recorded these).

### *Assessment of possible presence/likely importance for Protected & Priority Species*

- 2.2.5 An assessment of the possible presence of protected or priority species, and the likely importance of habitat features present for such species has also been undertaken, particularly where uncommon or specialised habitats are present in accordance with current PEA guidelines (CIEEM, 2017a). However, no specific protected species survey has been undertaken unless listed under additional surveys as below. Any incidental sightings of protected or priority species, or field signs of such species has also been recorded. Species assessed include: Plants & Fungi; Terrestrial/aquatic invertebrates; Fish; Amphibians; Reptiles; Breeding, wintering and migratory birds; Bats (including potential roost sites, foraging and commuting habitats/features), Badger, and Other mammal species.

## **2.3 Assessment**

### **Assessment of Potential Development Impacts**

- 2.3.1 A level of importance has been assigned to each ecological feature, where sufficient baseline data is available to do so, in accordance with current guidance (CIEEM, 2018). This is defined within a geographical context as follows: International and European; National; Regional; Metropolitan, County, vice-county or other local authority-wide area; River Basin District; Estuarine system/Coastal cell; and Local (plus Negligible where no associated value has been identified). For example, importance of designated sites reflects the geographical context of the designation (where designated sites no longer meet designation criteria and those formally 'de-notified' or where an undesignated site meets published selection criteria must also be considered). When considering habitats and species contextual information about distribution and abundance of that habitat/species in the area must be considered (if the habitat/species status is currently in a degraded or unfavourable condition its potential value should be considered).
- 2.3.2 The assessment then considers potential impacts (both positive and negative) generated during the construction and operational phase of the proposed application. Only impacts that are likely to be significant are considered. Impacts that are either unlikely to occur, or if they did occur are unlikely to be significant, are not considered.

- 2.3.3 Cumulative impacts are then considered where the application meets criteria in accordance with national EIA screening guidance (GOV.UK, 2019), and where agreed with the competent authority during scoping. This takes into consideration existing background levels of threat or pressure, looks at critical thresholds, and assess both additive/incremental and associated/connected impacts and effects.
- 2.3.4 Relevant aspects of ecological structure and function are then considered when determining if identified impacts will have a significant effect upon ecological features. Where necessary, this assessment utilises information from other specialists i.e. air quality, hydrology etc, to determine the level of impact. In accordance with current guidance (CIEEM, 2018) these are described using the following characteristics, where relevant: positive or negative; extent; magnitude; duration; frequency and timing; and reversibility.
- 2.3.5 The mitigation hierarchy is then explored in accordance with BS42020:2013 (BSI, 2013). This seeks as a preference to avoid impacts, then to mitigate unavoidable impacts, and as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures. Justification has been provided by the client/their planner where the mitigation hierarchy cannot be followed, or for example where compensation is a preferred approach where the competent authority has adopted a County wide strategy i.e. District Level Licensing Schemes (GOV.UK, 2019). In this instance current national Biodiversity Offsetting guidance has also been consulted (GOV.UK, 2019). Additional information has also been provided by the client/their planner where the applicant wishes to demonstrate exceptional circumstances or where they wish to pursue alternative strategies. Any residual impacts following mitigation measures etc are then identified.
- 2.3.6 All mitigation measures follow species specific current best practice guidance and the source has been identified accordingly. Deviation from guidance has been explained by the ecologist and is proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed works.
- 2.3.7 It is important that planning decisions are based on up-to-date ecological data, and the specific timeframe over which survey data is considered valid follows general advice (CIEEM, 2019). Additionally, it should be noted that the presence/absence and status of protected species can change seasonally/annually. The age of data should also be assessed separately when considering the submission of an EPS Licence (i.e. Natural England may require data to be from the current season).
- 2.3.8 Local Environmental Records Centres (LERC) issue a licence for use of provided biodiversity data for 1 year only, after which time this should be renewed to validate an application (and reports updated accordingly to incorporate any new records). Following completion of surveys all relevant biodiversity data will be submitted to the relevant LERC and other groups as appropriate.

## **2.4 Limitations**

- 2.4.1 Data held by consultees may not be exhaustive; the absence of evidence does not indicate evidence of absence. Enzygo cannot take responsibility for the accuracy of external data sources and as such discrepancies and inaccuracies may occur.
- 2.4.2 Natural England do not hold information of Ancient Woodland less than 2ha in size.
- 2.4.3 Records over 10 years old for transient species (as these are likely to have moved during the interim) and species protected from sale only under the W&C Act 1981 and amendments, are excluded (as these are not relevant to a planning application). Additionally, given the large

number of priority species, these have only been included if identified from the desk study and/or habitats recorded on site have been assessed as providing suitable conditions.

- 2.4.4 Geological sites have only been included within this report where they have biodiversity or nature conservation components to their designation.
- 2.4.5 At certain times of year flora species may be in a state of senescence and are not readily identifiable. However, December represents a suitable time to identify the majority of flora species and it was possible to easily classify the commonly occurring habitat types. However, a precautionary approach has been adopted regarding the potential presence of invasive flora which may not be readily identifiable from their vegetative characteristics during the winter survey. As a result, the timing of the survey is not perceived as a significant survey or assessment limitation.
- 2.4.6 This document does not contain a comprehensive list of botanical species on site. Only plant species characteristic of each habitat and incidental observations of notable plant species were recorded.
- 2.4.7 WYER, BBRC and Wakefield Council do not supply information on Important Hedgerows or Veteran Trees.
- 2.4.8 The full length of the proposed cable route was fully accessible during the Preliminary Ecological Appraisal.

### 3.0 Baseline Ecological Conditions

3.1.1 Ecological features identified by the desk study/field survey are presented below, along with their details and associated ecological value. Refer to Drawings MAN.3073.001.EC.D.001 for the location/extent of ecological features where relevant.

**Table 2 – Ecological Features**

Ecological Feature	Details	Ecological Importance
<b>Statutory sites designated or classified under international conventions or European legislation</b>		
None within a 5km radius	-	N/A
<b>Statutory sites designated under national legislation (&amp; Impact Risk Zones)</b>		
Dearne Valley Wetlands Site of Special Scientific Interest (SSSI) 710m South	Dearne Valley Wetlands SSSI is of special interest for the following nationally important features: <ul style="list-style-type: none"> <li>- Breeding Gadwall (<i>Mareca strepera</i>), Shoveler (<i>Spatula clypeata</i>), Garganey (<i>Spatula querquedula</i>), Pochard (<i>Aythya farina</i>), Bittern (<i>Botaurus stellaris</i>), Black-headed Gull (<i>Chroicocephalus ridibundus</i>) and Willow Tit (<i>Poecile montanus</i>).</li> <li>- Non-breeding Gadwall and Shoveler.</li> <li>- Diverse assemblages of breeding birds of Lowland damp grasslands, Lowland scrub and a mixed assemblage of Lowland open waters and their margins and Lowland fen</li> </ul>	National
Impact Risk Zone (IRZ)	The site lies within an Impact Risk Zone (IRZ) for which the LPA should consult Natural England on the likely impacts of the following development types: <ul style="list-style-type: none"> <li>- Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.</li> <li>- Wind turbines.</li> <li>- Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil &amp; gas exploration/extraction.</li> <li>- Large non-residential developments outside existing settlements/urban areas where net additional gross internal floorspace is &gt; 1,000m<sup>2</sup> or footprint exceeds 0.2ha.</li> <li>- Residential development of 100 units or more.</li> <li>- Any residential development of 50 or more houses outside existing settlements/urban areas.</li> <li>- Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock &amp; poultry units with floorspace &gt; 500m<sup>2</sup>, slurry lagoons &amp; digestate stores &gt; 200m<sup>2</sup>, manure stores &gt; 250t).</li> </ul>	Underground cable meets criteria for which LPA should consult Natural England on likely impacts

Ecological Feature	Details	Ecological Importance
	<ul style="list-style-type: none"> <li>- General combustion processes &gt;20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.</li> <li>- Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.</li> <li>- Any composting proposal with more than 500 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.</li> <li>- Any discharge of water or liquid waste of more than 2m<sup>3</sup>/day to ground (ie to seep away) or to surface water, such as a beck or stream.</li> <li>- Large infrastructure such as warehousing / industry where net additional gross internal floorspace is &gt; 1,000m<sup>2</sup> or any development needing its own water supply .</li> </ul>	
<b>Local Nature Reserves</b>		
Haw Park Wood Local Nature Reserve (LNR) 1.9km North-west	This site was originally part of a much larger wood. Larch and pine have largely replaced oak and birch but a small area of remaining broadleaves is thought to be ancient woodland. Animals include fox, stoats and weasels and birds include sparrowhawks.	County
<b>Other locally designated wildlife sites</b>		
Bush Wood Local Wildlife Site (LWS) Immediately adjacent to the north and south	The site is a diverse mix of species rich neutral to acidic grasslands with scrub, a section of woodland adjacent to an old railway track, and a pond in the western section. Site qualifies for woodland Bluebell cover, diversity of neutral grassland and acid grassland, and for the habitat mosaic.	County
Ellis Laithe LWS Immediately adjacent to the west	The site is a strip around an arable field and is a mix of species rich neutral grassland, relatively species poor acid grassland, dense and scattered scrub, a section of semi-natural woodland, wet woodland and broadleaved plantation. Site qualifies for species-rich grassland, diverse woodland, overmature trees, hedgerow, standing water, and habitat mosaic.	County
South Hiendley Common LWS 810m South-east	The site comprises predominantly unimproved acid grassland with small pockets of neutral grassland, secondary woodland, scrub, running and standing water with a stream running along the western edge and a small pond/swamp in the southwestern corner of the northern section of the site. Site qualifies for lowland acid grassland, swamp/standing water, and habitat mosaic.	County
Winterset and Cold Hiendley Reservoirs LWS 910m North	The site comprises associated woodland along the fringes of the reservoirs, and dryer woodland in pockets, including Ryhill Pits woodland to the south of Winterset. There are occasional open grassland areas along the edges of the reservoirs. Site qualifies for swamp, fen, diverse woodland, overmature trees, bluebell cover, diverse neutral grassland, habitat mosaic, and breeding bird assemblage.	County

Ecological Feature	Details	Ecological Importance
<b>England HPI, Local BAP Habitats, Ancient Woodland, Important Hedgerows, Veteran Trees, TPOs and Conservation Areas</b>		
Lowland Mixed Deciduous Woodland HPI Immediately adjacent	A total of 17.95ha of Lowland Mixed Deciduous Woodland Priority Habitat is indicated within a 500m radius of the site, including 9.67ha associated with Ellis Laithe LWS immediately north-east (DEFRA, 2023). No woodland identified as Ancient Woodland within a 500m radius.	Local
Tree Preservation Orders (TPOs) Immediately adjacent	Areas of woodland and scrub immediately adjacent to the eastern section of the proposed cable route along Kirkgate Lane is identified by Wakefield Council as covered by TPOs (Wakefield Council TPO references TPO/10/00032/W and TPO/19/00134/W). Refer to the separate Arboricultural Survey Report (Enzygo, 2023a) and Arboricultural Impact Assessment (Enzygo, 2023b) for further details in relation to TPOs and proposed retention and protection measures.	Local
<b>Green/Blue &amp; Aquatic Infrastructure, Dark Zones, and Local Policy</b>		
Green Infrastructure	The hardstand roadway and soft verges do not provide any notable green infrastructure function. However, the immediately adjacent woodland, trees, scrub and hedgerows do contribute to notable habitat connectivity, structural diversity and wildlife corridor function across the arable landscape.	Local
Blue Infrastructure	Church Lane towards the east of the site crosses a single unnamed minor watercourse which appears to be hydrologically connected to Dearne Valley Wetlands SSSI. This watercourse provides a limited extent of habitat connectivity and wildlife corridor function through the landscape. In addition, a pond is located approximately 10m south of the Church Lane at the north-west of the proposed cable route within Bush Wood LWS, with this pond providing minor stepping stone function through the landscape.	Local
Dark Zones	There are no known dark zones across the site. In accordance with the standard guidance specified in the <i>Guidance Notes for Reduction of Obtrusive Lighting</i> (Institution of Lighting Professionals, 2020), the application site likely falls under Environmental Zone E2 (Rural – Low district brightness).	N/A
Wildlife Habitat Network	The entire length of the cable route either lies within or immediate adjacent to the Wakefield Council Wildlife Habitat Network to which Policy D6 of the Wakefield Development Policies document (Wakefield Council, 2009b) applies. Refer to the full Development Policies document for further details regarding this local policy.	Local

Habitat Types		
<p><b>Developed Land Sealed Surface (u1e), Other Neutral Grassland (g3c), Bramble Scrub (h3d) and Native Hedgerow (h2a)</b></p> 	<p>The proposed cable route runs approximately 1.9km within the highway boundaries of Kirkgate Lane in the east, along Church Lane and to Lund Hill Lane to the west. It is understood the footprint of the trench excavation is to be sited along a combination of the hardstand roadway itself and the immediately adjacent soft verge.</p> <p>The habitats along this route comprise the developed land sealed surface of the existing unvegetated and regularly disturbed hardstand road and pathways, unvegetated bare earth of disturbed verge, and sections supporting other neutral grassland, dense bramble scrub and native hedgerow.</p> <p>The areas of neutral grassland are characterised by abundant False Oat-grass (<i>Arrhenatherum elatius</i>), Common Nettle (<i>Urtica dioica</i>) and Red Fescue (<i>Festuca rubra</i>), with frequent Yorkshire-fog (<i>Holcus lanatus</i>), Bramble (<i>Rubus fruticosus</i> agg.), Ribwort Plantain (<i>Plantago lanceolata</i>), and occasional Tufted Hair-grass (<i>Deschampsia cespitosa</i>), Common Ragwort (<i>Senecio jacobaea</i>), Yarrow (<i>Achillea millefolium</i>), Dandelion (<i>Taraxacum officinale</i> agg.), Mugwort (<i>Artemisia vulgaris</i>) and Common Knapweed (<i>Centaurea nigra</i>). This represents a common and typical assemblage of road verges, with no indicators of any more uncommon or species-rich grassland types.</p> <p>The areas of dense scrub are typically characterised by dominant Bramble, with abundant Common Nettle, frequent False Oat-grass, Creeping Thistle (<i>Cirsium arvense</i>) and Cleavers (<i>Galium aparine</i>), and occasional Cow Parsley (<i>Anthriscus sylvestris</i>), Yorkshire-fog, Common Bent (<i>Agrostis capillaris</i>), Mugwort and Willow saplings (<i>Salix</i> sp.). This represents a species-poor and typical assemblage of unmanaged road verges.</p> <p>Sections of native hedgerow lie immediately adjacent to the roadway in the west, central and eastern sections. These habitats are typically characterised by a woody component of abundant Hawthorn (<i>Crataegus monogyna</i>), frequent Elder (<i>Sambucus nigra</i>), and occasional Holly (<i>Ilex aquifolium</i>), Blackthorn (<i>Prunus spinosa</i>), Pedunculate Oak (<i>Quercus robur</i>) and Ash (<i>Fraxinus excelsior</i>). The ground flora is typified by abundant Common Nettle, Cleavers and Bramble, with frequent Creeping Thistle and Ivy (<i>Hedera helix</i>), and occasional False Oat-grass, Cow Parsley, Garlic Mustard (<i>Alliaria petiolata</i>), and Hedge Bindweed (<i>Calystegia sepium</i>). Native hedgerow more than 20m long and up to 5m wide with greater than 80% native woody species qualifies as Hedgerow Priority Habitat (Maddock, 2008).</p> <p>Refer to the appended drawing and Appendix B for photos and details of ecological features along the full proposed route.</p>	<p>Local</p>

Legally Protected & Priority Species (& Consultation Zones where applicable)		
Bats	<p>No buildings, structures (including the road bridge crossing the unnamed stream) or trees along the proposed cable route providing any opportunities for roosting bats, although suitable mature trees may be present in adjacent woodland and scrub areas. It is understood that the final proposed route is to be designed to ensure all mature trees are retained. Refer to the separate Arboricultural Survey Report (Enzygo, 2023a) and Arboricultural Impact Assessment (Enzygo, 2023b) for further details.</p> <p>Although adjacent woodland and scrub habitats do provide suitable foraging and commuting habitat and connectivity to the surrounding landscape, the roadway and limited extent of vegetated soft verge where the cable is proposed provides <i>Negligible</i> habitat in accordance with current guidance (Collins, 2023). Sections of road, including Lund Hill Lane to the west and part of Church Lane, also have street lighting which further reduces the suitability for foraging and commuting bats.</p> <p>The data search has identified a total of 40 records of bats within a 2km radius in the last 10 years comprising Common Pipistrelle (<i>Pipistrellus pipistrellus</i>), Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>), Nathusius' Pipistrelle (<i>Pipistrellus nathusii</i>), Noctule (<i>Nyctalus noctula</i>), Leisler's Bat (<i>Nyctalus leisleri</i>), Daubenton's Bat (<i>Myotis daubentonii</i>), Whiskered/Brandt's Bat (<i>Myotis mystacinus/brandtii</i>), and Brown Long-eared Bat (<i>Plecotus auritus</i>). The closest is a 2020 record of Daubenton's Bat located 600m to the south. All other records lie beyond 1km from the site.</p> <p>One record of a previous EPS licence application with a 2km radius of the site, located 90m to the south off Slack Lane from 2012 and associated with roosts of Common Pipistrelle, Soprano Pipistrelle and Brown Long-eared Bat (licence reference EPSM2012-4331).</p>	Negligible
Badger	<p>No evidence of Badger was detected along the proposed cable route or the immediately adjacent habitat. The roadway and immediate verge do not provide suitable refuge or sett creation habitat for Badger, or any notable extent of foraging habitat.</p> <p>However, Badger are known to the present in the local area, with active setts reported in woodland adjacent to the proposed Solar Farm development to the west (Enzygo, 2023c), and a single further record reported by Barnsley Biodiversity Record Centre (BBRC) within a 2km radius in the last 10 years (specific locations withheld to keep Badger records confidential).</p>	Local
Dormouse	<p>Hedgerow and adjacent scrub and woodland provide suitable habitat for Dormouse (<i>Muscardinus avellanarius</i>), however, the site is in an area of the County where this species is significantly rare, if not extinct.</p> <p>No records of Dormouse within a 2km radius.</p>	Negligible

<p>Otter and Water Vole</p>	<p>The proposed cable route is to cross a single unnamed watercourse along Church Lane, which may provide suitable habitat for Otter and Water Vole. However, it is assumed that the cable route is to remain within the highway and utilise the existing road crossing.</p> <p>There is a single record of Otter within a 2km radius in the last 10 years, from Winterset Reservoir 1.5km north. There is a total of 8 records of Water Vole within a 2km radius in the last 10 years, with the closest two records from 2015 from 900m east.</p>	<p>Negligible</p>
<p>Other Protected Mammals</p>	<p>No evidence of, or specific opportunities for, any other species of protected mammal.</p> <p>No records of any other protected mammal species within a 2km radius.</p>	<p>Negligible</p>
<p>Specially Protected Birds</p>	<p>No evidence of, or significant specific opportunities for, any specially protected bird species within the site. For instance, no opportunities for nesting or roosting Barn Owl (<i>Tyto alba</i>) and limited extent of road verge represents notably poor suitability foraging habitat for this species, due to the dangers associated with passing traffic.</p> <p>The local data search has identified records of 16 specially protected Schedule 1 bird species within a 2km radius in the last 10 years. These comprise records of Barn Owl, Bittern (<i>Botaurus stellaris</i>), Black-necked Grebe (<i>Podiceps nigricollis</i>), Cetti's Warbler (<i>Cettia cetti</i>), Common Scoter (<i>Melanitta nigra</i>), Crossbill (<i>Loxia curvirostra</i>), Fieldfare (<i>Turdus pilaris</i>), Garganey (<i>Anas querquedula</i>), Great Northern Diver (<i>Gavia immer</i>), Hobby (<i>Falco subbuteo</i>), Kingfisher (<i>Alcedo atthis</i>), Little Ringed Plover (<i>Charadrius dubius</i>), Marsh Harrier (<i>Circus aeruginosus</i>), Peregrine (<i>Falco tinnunculus</i>), Redwing (<i>Turdus iliacus</i>) and Scaup (<i>Aythya marila</i>). The closest of these is a 2015 record of Barn Owl at Rabbit Ings 250m south.</p>	<p>Negligible</p>

<p>Breeding, Wintering and Migratory Birds</p>	<p>The roadside verges supporting a combination of rough grassland, scrub and hedgerow provide a limited extent of suitable nesting habitat for a range of nesting species which are likely present in the local area.</p> <p>The proximity to the roadway makes these areas entirely unsuitable for any notable ground-nesting farmland species such as Skylark (<i>Alauda arvensis</i>), or to provide any significant opportunities for any notable migratory or wintering birds. It is assessed that the site does not represent functionally-linked land (FLL), with no habitats complementing or contributing to the value of the nearby Dearne Valley Wetlands SSSI.</p> <p>The data search has revealed records of several Priority Species of bird within a 2km in the last 10 years including Bullfinch (<i>Pyrrhula pyrrhula</i>), Cuckoo (<i>Cuculus canorus</i>), Dunnock (<i>Prunella modularis</i>), Herring Gull (<i>Larus argentatus</i>), House Sparrow (<i>Passer domesticus</i>), Lapwing (<i>Vanellus vanellus</i>), Reed Bunting (<i>Emberiza schoeniclus</i>), Skylark (<i>Alauda arvensis</i>), Song Thrush (<i>Turdus philomelos</i>), Starling (<i>Sturnus vulgaris</i>) and Yellowhammer (<i>Emberiza citrinella</i>).</p>	<p>Local importance to a restricted range of common bird species.</p>
<p>Common Reptiles</p>	<p>The roadside verges, which are significantly limited in extent and disturbed by passing traffic and pedestrians, do not provide any notable extent of suitable habitat for common reptiles such as Slow-worm (<i>Anguis fragilis</i>) or Grass Snake (<i>Natrix helvetica</i>).</p> <p>The data search has identified a single record of Grass Snake within a 2km radius in the last 10 years, from 2017 and located 1km to the south. No records of any other reptiles in the last 10 years.</p>	<p>Negligible</p>

Great Crested Newt	<p>No waterbodies providing any potential for breeding Great Crested Newt (GCN) (<i>Triturus cristatus</i>) along the immediate route of the proposed cable installation, however, a pond lies approximately 10m south of Church Lane at the north-west of the route and there are others in close proximity. OS maps and aerial imagery indicate a total of 11 ponds within a 500m radius of the proposed cable route, with the closest ponds 10m south of Church Lane and between 70m and 150m west of Lund Hill Lane.</p> <p>The roadside verges provide a significantly limited extent of suitable foraging and refuge habitat for GCN, with the adjacent roadways themselves limiting the potential to support GCN as they represent dispersal barriers which GCN are unlikely to be able to cross.</p> <p>The entire length of the proposed route also lies within a Green Impact Risk Zone as identified by Natural England (Natural England, 2023), which “<i>contain sparsely distributed GCN and are less likely to contain important pathways of connecting habitat for this species.</i>”</p> <p>The data search has identified a total of eight records of GCN within a 2km radius in the last 10 years, with the closest associated with ponds at Rabbit Ings approximately 400m to the south recorded as recently as 2020. There is also a single previous Natural England EPS licence application within a 2km radius, located approximately 500m south from 2009 (licence reference EPSM2009-781).</p>	Local
Other Protected Herpetofauna	<p>No suitable habitats within or immediately adjacent to the site specifically suitable for other species of protected herpetofauna.</p> <p>No records of other protected amphibian or reptile species within a 2km radius.</p>	Negligible
Protected Fish/Marine	<p>No watercourses or waterbodies along the route with any notable potential to support any protected fish species.</p> <p>No records of any protected fish within a 2km radius.</p>	Negligible
White-clawed Crayfish	<p>The proposed cable route is to cross a single unnamed watercourse along Church Lane, which may provide suitable habitat for White-clawed Crayfish (<i>Austropotamobius pallipes</i>). However, it assumed that the cable route is to remain within the highway and utilise the existing road crossing with no impacts on the water channel.</p> <p>No records within a 2km radius.</p>	Negligible
Protected Invertebrates	<p>Only widespread and common habitats typical of the rural landscape and roadside conditions are present. No habitats present which are likely to support a range or diversity of invertebrates or likely to support any protected invertebrate species.</p> <p>The data record search has not revealed any protected invertebrate species within the search area.</p>	Negligible

Protected Flora	No protected flora species detected during the field survey. Only common and widespread habitats present, and unlikely to support any protected flora species. No records of protected flora within a 2km radius.	Negligible
Invasive Flora	No invasive flora detected during the field survey, however, roadside verges frequently support invasive species such as Indian Balsam ( <i>Impatiens glandulifera</i> ), which may not have been identifiable during the winter survey. The data search has identified records of Schedule 9 species within a 2km radius including Canadian Waterweed ( <i>Elodea canadensis</i> ), Indian Balsam, Japanese Knotweed ( <i>Reynoutria japonica</i> ), Japanese Rose ( <i>Rosa rugosa</i> ) and Variegated Yellow Archangel ( <i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i> ).	Local Potential for Schedule 9 species.
Invasive Fauna	No invasive species detected during the survey and no specific opportunities for any invasive species identified. Records in the wider area of American Mink ( <i>Mustela vison</i> ) and Grey Squirrel ( <i>Sciurus carolinensis</i> ).	Negligible
Priority Species	The roadside verges provide a significantly limited extent of suboptimal foraging and refuge habitat for other Priority Species such as Common Toad ( <i>Bufo bufo</i> ) and Hedgehog ( <i>Erinaceus europaeus</i> ). There are records within a 2km radius in the last 10 years of Hedgehog, Brown Hare ( <i>Lepus europaeus</i> ), Harvest Mouse ( <i>Micromys minutus</i> ), Common Toad, Dingy Skipper, Small Heath ( <i>Coenonympha pamphilus</i> ), and numerous Priority Species of moth.	Local

## 4.0 Assessment and Mitigation

- 4.1.1 Assessment of impacts and the associated ecological effect to identified ecological features are presented below. Ecological features have been screened out where these are of negligible importance, no likely significant impacts have been identified or where impact is unlikely to occur.
- 4.1.2 To clarify, other than the ecological features listed below, there are no perceived potential impacts on any other sites, habitats or species in the wider area. The proposals are of a type, scale (temporary linear footprint) and distance that any direct or indirect construction or operational impacts on the other identified ecological features are reasonably discounted. Specifically, no additional anticipated impacts of the proposals have been identified on Dearne Valley Wetlands SSSI. The proposals would not lead to the loss of any habitat which complements or contributes to the value of the SSSI, will not lead to any increase in recreational pressures at the SSSI, and it not anticipated to lead to any significant noise, dust or other construction or operational related impacts which may impact SSSI habitats and bird populations. The site is also assessed to not represent functionally-linked land to the SSSI, with no habitats present likely to attract the qualifying bird species associated with the SSSI.

**Table 3 – Assessment of effect and mitigation measures**

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Dearne Valley Wetlands SSSI and Impact Risk Zone	Potential degradation of habitats within SSSI, leading to indirect impacts on notable bird assemblage via pollution of unnamed watercourse. Significant adverse, temporary, irreversible impact	To minimise the risk of a pollution event at the unnamed ditch/watercourse, which Church Lane passes over, and which appears to be hydrologically connected to Dearne Valley Wetlands SSSI, measures are to be implemented to reduce any potential pollution event from the installation works. All construction works will be undertaken in accordance with best practice and the adoption of the appropriate Environment Agency guidance (refer to updated 2019 Environment Agency guidance “Pollution prevention for businesses.” This includes appropriate storage of chemicals, spill kits etc. It is confirmed that the site is sufficiently distant from the SSSI that no direct impacts of construction or operation of the proposals are anticipated (i.e. through noise, visual and/or vibration disturbance). At the discretion of the Planning Officer, Natural England are to be consulted to confirm the findings of this report. No SSSI notification form or further surveys are required.	None required.	No significant effect anticipated

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Bush Wood LWS, Ellis Laithe LWS, Deciduous Woodland Priority Habitat, Hedgerow Priority Habitat and Green Infrastructure	Risk of damage and/or degradation of Local Wildlife Sites and Priority Habitats, which are covered by TPOs and provide notable green infrastructure function. Significant adverse, temporary, reversible impact.	The adjacent areas of Deciduous Woodland Priority Habitat and mature trees and hedgerows are to be retained and protected through the works, with the working footprint for the cable installation to be minimise as far as possible. Refer to the separate Arboricultural Survey Report (Enzygo, 2023a) and Arboricultural Impact Assessment (Enzygo, 2023b) for further details the exact detail of the proposed cable route in relation to trees and hedgerow and the methods to be implemented to minimise impacts in accordance with BS5837:2012 <i>Trees in relation to design, demolition and construction. Recommendations.</i> Considering the trench is to be only 45cm wide, it is not considered these works will represent any significant loss or damage of habitat. Once the cable trenching and installation has been completed, the trench is to be backfilled and the ground made good. The above-described pollution prevention measures to be implemented throughout the cable installation phase will ensure the works do not lead to any run-off impacts on the surrounding environment including Bush Wood and Ellis Laithe LWSs.	None required.	No significant effect anticipated
Wildlife Habitat Network	Risk of damage and/or degradation of habitat within the Wildlife Habitat Network. Minor adverse, temporary, reversible impact	To ensure compliance with Policy D6, the proposals present the opportunity for wildflower grassland seeding of the disturbed ground, with Neutral Grassland a target habitat within the Wakefield Local Biodiversity Action Plan. See the enhancement section below for further details.	None required.	No significant effect anticipated

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Badger	Risk of killing/injury of Badger and during trenching and cable installation works Minor adverse, temporary, irreversible impact.	As Badger are known to be present at the site, all cable works shall be undertaken in accordance with a set of best practice precautionary reasonable avoidance measures. The following reasonable avoidance measures should be adhered to (with all relevant site contractors informed of these details) throughout the construction phase: <ul style="list-style-type: none"> <li>• No works will be conducted at night, or dawn/dusk when Badgers are likely to be active;</li> <li>• Any holes, trenches or other excavations in which Badger may fall into and become trapped will be covered overnight, or otherwise a means of escape provided (e.g. a plank of wood as a ramp);</li> <li>• If piles of soil are to be stored within the site, these will be left un-compacted and not permitted to grass over to reduce the likelihood of Badger using them for new sett creation;</li> <li>• Any pipes must be stored with caps on to prevent Badger access; and,</li> <li>• Any chemicals will be stored securely so that they cannot be accessed by inquisitive Badger.</li> </ul>	None required.	No significant effect anticipated
Nesting Birds	Risk of disturbance of nesting birds during installation phase. Minor adverse, temporary, irreversible impact. (no significant loss of habitat)	To avoid an offence being committed in respect of nesting birds, cable installation works and associated vegetation clearance will be planned to be conducted outside of the bird nesting season (March to August inclusive), where possible. If it is necessary to undertake these works during the bird nesting season, a suitably trained ECoW would supervise the clearance to ensure no active nests are affected. If any active nests are detected, an appropriate protection area around the nest(s) will be established until it can be determined that the nest is longer active.	None required.	No significant effect anticipated

Ecological Feature	Impact	Avoidance/Mitigation	Compensation	Significance of Residual Effect
Great Crested Newt	Significantly low risk of killing/injuring GCN. Low risk of minor, adverse, temporary, irreversible impact.	<p>The roadside verge habitats are significantly limited in extent and of poor suitability for GCN, however, works will take place in close proximity to ponds and there are records of GCN in the wider area, therefore the presence of GCN cannot be entirely discounted. However, considering the nature and extent of the works, it is not considered that further detailed GCN presence/absence survey is proportionate or justified in this instance, given the low risk of encountering GCN at the site, and best practice precautionary measures are recommended.</p> <p>It is proposed that non-licensed Reasonable Avoidance Measures (RAMs) or a Precautionary Working Method Statement (PWMS) be produced to minimise the already low risk of killing/injury of GCN during the cable installation phase to a negligible level, designed in accordance with the non-licensed avoidance measures details outlined in the <i>Natural England Great Crested Newt Method Statement for EPS Licence Application</i> document (Natural England, 2020).</p> <p>This would include a toolbox talk to all relevant contractors, the protocol to follow in the unlikely event a GCN is discovered, supervision of sensitive clearance of certain habitats (e.g. rough grassland removal) and general best practice construction measures. The detail of these RAMs or PWMS can be secured by way of a suitably worded planning condition.</p>	None required.	No significant effect anticipated
Priority Species	Low risk of killing/injury of Priority Species during the installation works. Minor adverse, temporary, irreversible impact.	The installation works will implement a series of best practice precautionary measures to minimise the risk of killing/injury of wildlife such Common Toad and Hedgehog. This shall include sensitive clearance of habitats (as described above) and avoiding leaving open any pits or trenches in which wildlife may become trapped. Any trenches or pits in which wildlife may become trapped should either be covered, infilled, or a suitable means of escape provided (e.g. plank of wood) overnight.	None required.	No significant effect anticipated
Invasive Flora	Low risk of causing the spread of Schedule 9 species in the wild. Minor adverse, temporary, irreversible impact.	In the event that any invasive flora is identified during the works, and invasive species contractor should be contacted for advice on appropriate treatment/eradication.	None required.	No significant effect anticipated

## 5.0 Enhancement and Monitoring

5.1.1 Opportunities for biodiversity enhancement (above and beyond those required to mitigate for any identified impacts) have been determined through consideration of: Ecological Features identified on site and within the zone of influence; Historical records of protected species/habitats present within the locality; National and Local planning policy including National and Local Biodiversity habitats/species; Local Development Plans including consideration of Green/Blue Infrastructure Resource; Consultation with third parties/stakeholders where applicable; and Other influencing factors such as underlying Geology/Hydrology, intended operational activities, and existing disturbance activities within the locality. This makes specific reference to Biodiversity Net Gain, Good practice principles for development (CIEEM, IEMA, CIRA, 2019).

5.1.2 It is recognised that the nature and extent of the works does not provide significant biodiversity enhancement opportunities, however, it is confirmed the below measures, in combination with the above-described mitigation measures, can demonstrate an overall net gain for biodiversity in accordance with national and local policy. It is not considered a separate Biodiversity Net Gain calculation (i.e. Defra Statutory Biodiversity Metric) is required or appropriate in this instance considering the nature and extent of the works.

**Table 4 – Enhancement & Monitoring**

Ecological Feature	Enhancement & Monitoring	Significance of Residual Effect
Landscape Planting	The proposals present the opportunity to sow a species-rich wildflower seed mix at the disturbed habitats once the cable has been installed. This would serve to enhance the value and species diversity of the existing verges. A Landscape Architect should advise on a seed mix which is appropriate to the site location and conditions.	Minor positive effect
Deadwood Hibernacula	It is recommended that informal deadwood hibernacula are created along the road verges to provide enhanced refuge, shelter and hibernation opportunities for a range of wildlife including small mammals, common amphibians and invertebrates. The woody arisings from any required scrub clearance would provide suitable materials for the creation of these piles rather than any requirement to import materials from off-site.	Minor positive effect

5.1.3 No post-determination monitoring is perceived necessary. To comply with guidance set out in BS42020:2013, a Construction Environment Management Plan (CEMP) which includes consideration of biodiversity will be produced prior to the commencement of construction activities, including site clearance works. A Landscape and Ecological Management Plan (LEMP) would also normally be produced prior to operation of the site.

## 6.0 Conclusion

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6.1.1 This assessment has confirmed the site provides opportunity to incorporate appropriate measures to mitigate any potential impacts to ecological features and to demonstrate 'biodiversity net gain in accordance with NPPF and local planning policy. As such, no significant residual impact can be expected which would prevent a positive determination of the planning application in ecological terms.

## 7.0 References

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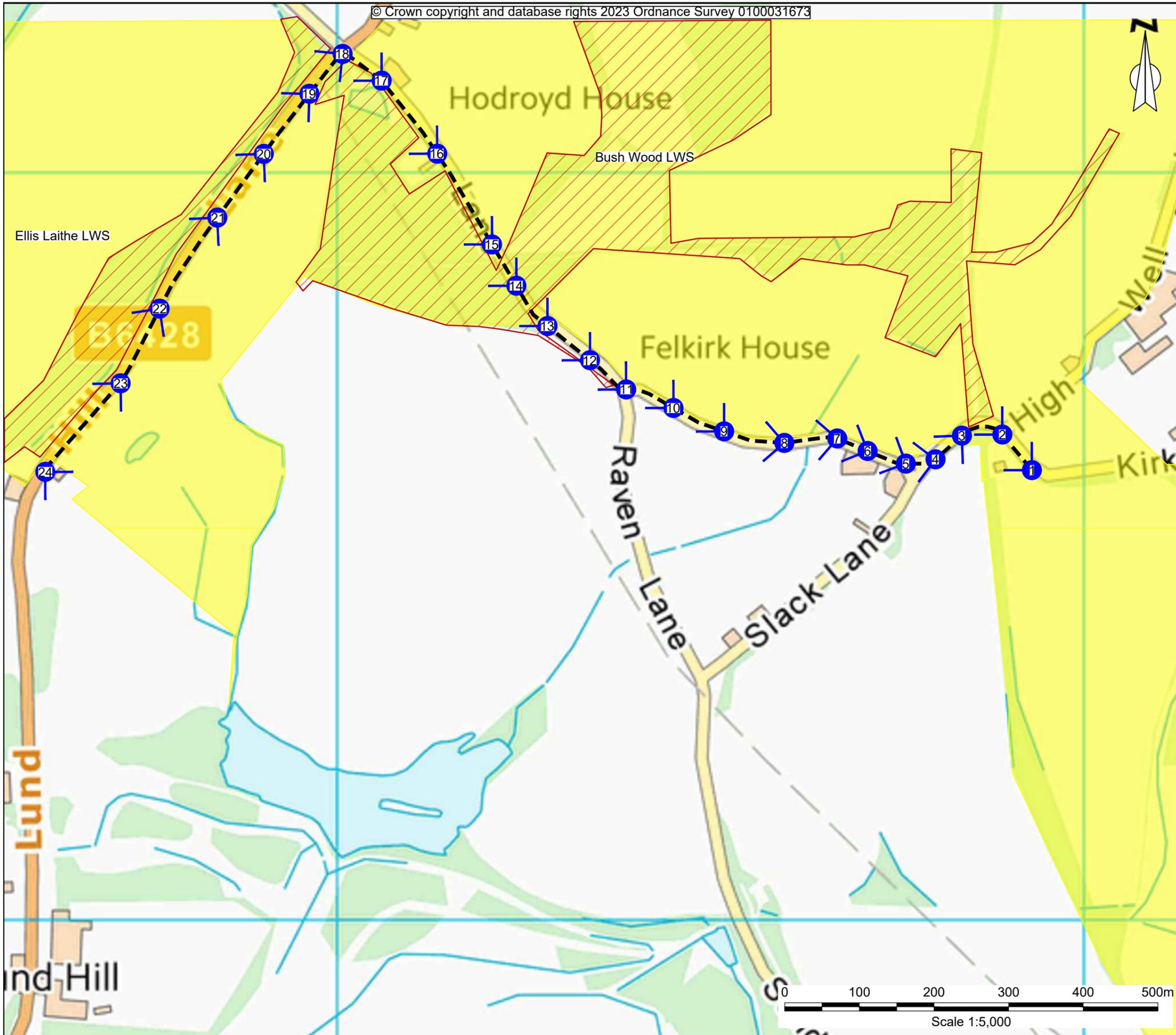
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Land at Kirkgate Lane, Felkirk  
EPD Ltd.



**Drawing MAN.3073.001.EC.D.001 – Ecological Features Plan**

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**KEY:**

- Survey Route
- Vantage Point
- Local Wildlife Site
- Wakefield Wildlife Habitat Network

Rev	Date	Description	DRA	CHK	APP
P01	14.12.23	Issued for comment / approval	LB	CS	CS

**Project**  
Kirkgate Lane Solar Cable

**Client**  
EPD Ltd

**Drawing Title**  
Photograph Location Plan

<b>Scale</b> 1:5,000 @ A3	<b>Date</b> 14.12.23	<b>Status</b> Preliminary
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<b>DWG No.</b> MAN3073001-ENZ-XX-XX-DR-Z-0001	<b>Revision</b> P01
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## Appendix A – Proposed Cable Route Plan

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**LEGEND**

-  Planing Boundary
-  Cable Route
-  0.367 Ha, 0.90 Acres
-  PV Area

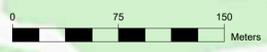
**B6428**

0	Initial			
	NB	PG	CT	02/10/23
REV	Description			
	DESIGNED	CHECKED	APPROVED	DATE

 **ethical power**  
 Development Limited  
 3110 Great Western Court  
 Bristol  
 BS34 5HP  
 www.ethical-power.com

Project Title: Kirkgate Lane  
 Description: Cable Route Plan  
 Location co-ord: N 53.60 W 1.408  
 Site address: South Hiendley  
 Barnsley  
 S72 9DH

Orig No: EPD-021-GA-CR-01  
 Scale: 1:2500@A1  
 Job No: 021  
 Drawn by: N.B.  
 Checked by: CT  
 Date: 02/10/23



## Appendix B – Table of Photographs

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## Appendix C - Legislation and National Planning Policy

Wildlife legislation and policy relevant (or potentially relevant pending further survey) to the proposed works, based on the findings of the desk study and field survey are set out below. This legal information is a summary only, and the original legal documents should be consulted for definitive information.

### Legislation Protection Afforded to Sites/Habitats that could Potentially be Affected by the Proposed Works

Designated Site/Habitat	Legal Status
Sites of Special Scientific Interest (SSSI)	SSSIs are the national suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs have been re-notified under the Wildlife and Countryside Act 1981 (as amended). Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000.

### Legislation Protection Afforded to Species that could Potentially be Affected by the Proposed Works

Species	Legal Status
<b>European Protected</b>	
Great Crested Newt	<p>These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to:</p> <ul style="list-style-type: none"> <li>• Deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs;</li> <li>• Deliberately disturb such an animal;</li> <li>• Damage or destroy a breeding site or resting place of such an animal.</li> </ul> <p>European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed:</p> <ul style="list-style-type: none"> <li>• The development is for reasons of overriding public interest;</li> <li>• There is no satisfactory alternative; and</li> <li>• The favourable conservation status of the species concerned will be maintained and/or enhanced.</li> </ul> <p>Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.</p>
<b>Nationally Protected</b>	
Great Crested Newt	<p>These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to:</p> <ul style="list-style-type: none"> <li>• Intentionally kill, injure or take any such animal;</li> <li>• Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and</li> <li>• Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.</li> </ul>

Species	Legal Status
Badger	The Protection of Badgers Act 1992 makes it illegal to wilfully kill or injure a Badger, or attempt to do so and also make it illegal to intentionally or recklessly interfere with a Badger sett. This includes damaging or destroying a sett, obstructing access to a sett and disturbing a Badger while it is occupying a sett. Licences can be granted to permit sett closure and/or disturbance between July and November inclusive.
Nesting Birds (general)	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: <ul style="list-style-type: none"> <li>• Intentionally kill, injure or take any wild bird;</li> <li>• Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.</li> </ul>
Wild Mammals	The Wild Mammals (Protection) Act 1996 makes it illegal to mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, drown, crush, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.
<b>Invasive Species</b>	
Invasive Flora (e.g. Japanese Knotweed)	The Wildlife and Countryside Act 1981 (as amended) contains measures for preventing the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of animals and planting of plants listed in Schedule 9 of the Act.

Section 40 of the Natural Environment and Rural Communities Act 2006 (the NERC Act) places a legal duty on public bodies, including planning authorities, to ‘have regard’ to the conservation of biodiversity when carrying out their normal functions, which includes consideration of planning applications.

In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the list of Habitats and Species of Principal Importance (HPI/SPI), of which there are 56 habitats and 943 species. The HPI/SPI list is used to guide planning authorities in implementing their duty under the NERC Act.

## National Planning Policy

The NPPF (2023) set out the Government’s planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development.

The NPPF states that:

‘Planning policies and decisions should contribute to and enhance the natural and local environment by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate

Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

To protect and enhance biodiversity and geodiversity, plans should:

- Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

When determining planning applications, local planning authorities should apply the following principles:

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

The following should be given the same protection as habitats sites:

- potential Special Protection Areas and possible Special Areas of Conservation;
- potential Special Protection Areas and possible Special Areas of Conservation; and
- sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.'



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