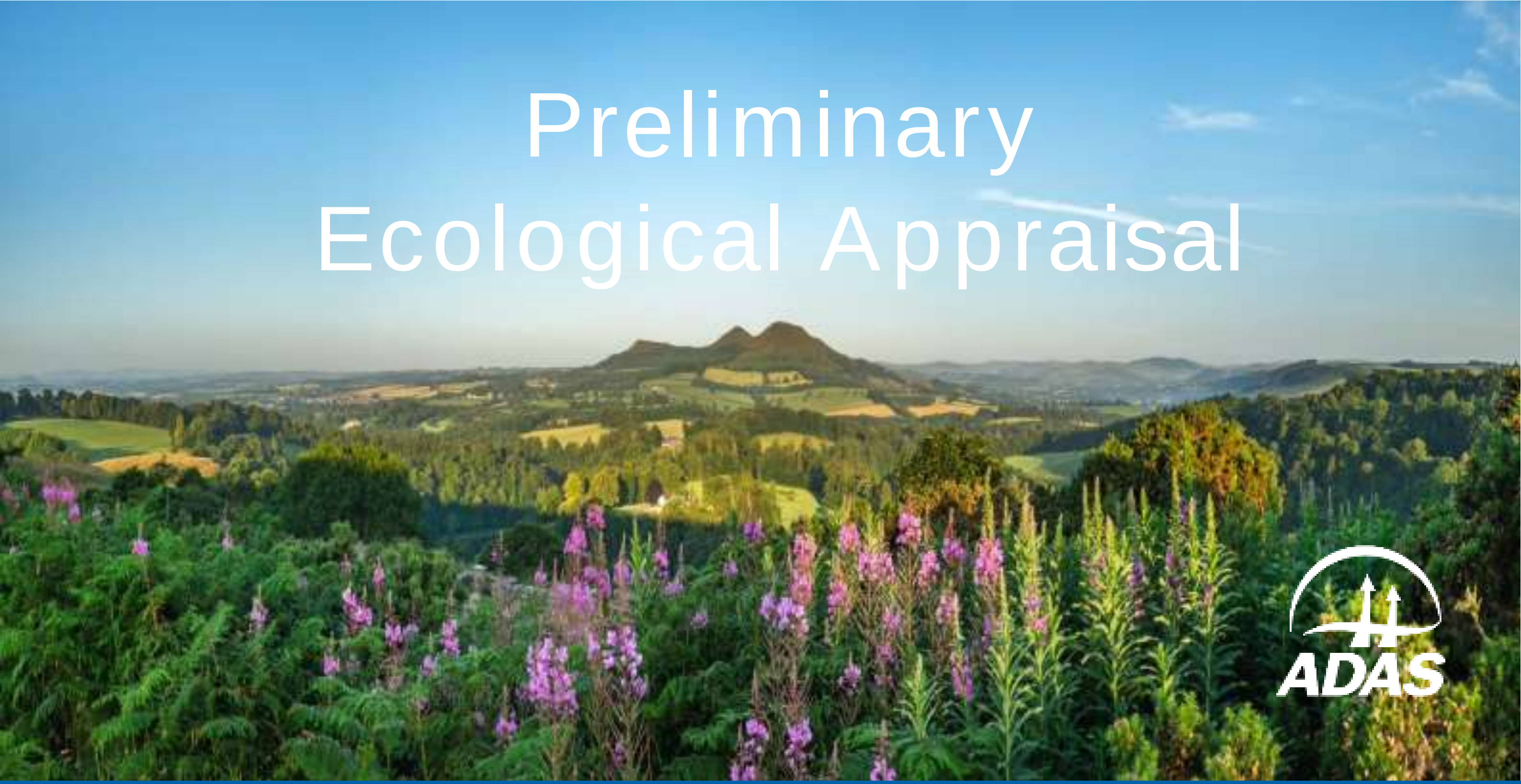
Preliminary Ecological Appraisal



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The information which ADAS has prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

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Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK ADAS Limited.

Contents

Appendices

Summary

ADAS was commissioned by Alistair Stuart on behalf of Europa Oil & Gas to undertake a preliminary ecological appraisal (PEA) in support of the construction of a single well pad and the drilling of an appraisal wellsite at Coastal Road, Burniston, North Yorkshire, England, YO13 0DB (Grid reference: TA 02072 92795).

A field survey was conducted in June 2024. The proposed development site comprises modified and other neutral grassland with hedgerows, line of trees and woodland boundaries with a large proportion of the site currently being used as a solar farm located towards the south of the site with numerous stretches of ground mounted solar photovoltaic panels.

A desk study was carried out in June 2024 using information obtained from Multi-Agency Geographic Information for the Countryside (MAGIC) relating to the location of statutory designated sites and priority habitats, and from North & East Yorkshire Ecological Data Centre (NEYEDC) relating to non-statutory designated sites of nature conservation importance and records of protected and other notable species.

Records of five statutory designated sites of nature conservation were returned within 5 km of the site. However, the proposed development is considered unlikely to impact any of these sites.

One non-statutory designated site, Burniston Beck, was located approximately 500 m west of the proposed primary working area; however, no impacts are anticipated.

The works are to take place predominantly within a small area of modified grassland and was considered of low ecological importance; however, the proximate habitats such as the stretches of hedgerow boundaries were considered of local ecological importance and classify as a habitat of principal importance under the Natural Environment and Rural Communities Act 2006. It is understood that these habitats are retained and protected as part of the proposed development.

The habitats on site provide some opportunities for common nesting bird species in the form of boundary hedgerows, mixed scrub, lines of trees and woodland. At the time of this report none of these habitats are anticipated to be directly impacted (e.g., removal, pruning) as part of proposed works. However, should these habitats be impacted, reasonable avoidance measures detailed in this report must be adhered too.

Given that the proposed works are limited to modified grassland, with other suitable habitats for notable species remaining unaffected and protected, no impacts to potential nesting birds, reptiles, Hedgehogs, bats, or their habitats are anticipated. However, if the scope of work changes and habitats considered suitable support reptiles, Hedgehog, nesting birds and commuting and foraging bats are impacted, ADAS should be consulted as additional surveys and / or reasonable avoidance measures regarding nesting

birds, bats, reptiles and Hedgehogs may be required to ensure the proposed works compliance with wildlife legislation.

While the majority of habitats on-site were considered of low value for foraging and commuting bats, the linear features, such as boundary hedgerows, woodland, and tree lines, have the potential to serve as important corridors for local bat populations. It therefore recommended that works be undertaken during daylight hours where practical.

Although the majority of works are expected to occur during daylight hours, certain activities (drilling) may require 24-hour operation, including work between dusk and dawn. In these cases, if artificial lighting is necessary, a sensitive lighting strategy should be implemented to minimise illumination of key boundary habitats, reducing potential disturbance to commuting and foraging bats.

Providing the recommendations detailed in this report are adhered to, it is considered likely that the proposed development will comply with relevant policies of both the Minerals and Waster Joint Plan and the Scarborough Borough Local Plan (2017) and National Planning Policy in relation to protected and notable species.

Summary of Further Survey or Actions

The table below provides information on further surveys, mitigation measures and enhancement measures to be undertaken on site.

Survey/Action	Rationale	When
Biodiversity Net Gain Assessment	To comply with the Environment Act 2021, evidence will need to be provided to show that the development will achieve a minimum of 10% net gain in biodiversity on site. ADAS is awaiting landscape plans, and the potential Biodiversity Net Gain (BNG) impact remains uncertain. Given the constraints of site size and location, achieving a net gain on-site will be challenging without substantial mitigation measures and habitat creation.	Design Phase.
Opportunities for biodiversity enhancement on site include installation of bird and bat boxes on mature trees along the boundaries of the site. Species rich grassland creation has been incorporated into current	To comply with local planning policy and provide positive enhancements for biodiversity.	Design, construction and operation.

Survey/Action	Rationale	When
proposed plans. A Biodiversity net gain assessment will inform any further enhancements required to meet the minimum 10% net gain requirements.		
Nesting bird checks	Habitat on site may support common species of breeding birds during the breeding bird season. None of which are anticipated to be impacted by the proposed works.	Design, construction and operation Pre-works checks of any vegetation clearance on site within the nesting season (March-August). ***Only required if the removal of suitable habitat (scrub, hedgerows, mature trees) is required.***
Bats – sensitive lighting strategy	While the majority of works (including drilling) will take place during daylight hours, there may be aspects of the operation, such as drilling, that may require around the clock (24hrs), including working between dusk and dawn. If any works are to take place between dusk and dawn and artificial lighting is required, it is recommended that the proposed development implement a sensitive lighting design to avoid illuminating bat foraging or commuting corridors during construction and operation.	Design, construction and operation – ***Only required if artificial lighting is required during the construction and operation phases of the proposed development.***
Further actions (survey and / or mitigation) in relation to reptiles, Hedgehog and bats.	Habitats on site was considered suitable to support reptiles, Hedgehogs and foraging / commuting bats. However, the proposed development will be confined to modified grassland, ensuring that any potential that these species / species group would unlikely be impacted by the works. *Should the scope of work change, please consult ADAS, as additional mitigation and surveys may be required.*	Construction phase - ***only required if the removal / impact of suitable habitat (scrub, hedgerows, woodland) is required.***

1 Introduction

1.1 Background and Survey Objectives

ADAS was commissioned by Alistair Stuart on behalf of Europa Oil & Gas to undertake a preliminary ecological appraisal (PEA) in support of the construction of a single well pad and the drilling of an appraisal wellsite at Coastal Road, Burniston, North Yorkshire, England, YO13 0DB (Grid reference: TA 02072 92795) hereafter referred to as the 'site'. At the time of this report, ADAS was awaiting the final landscape plans.

The aim of the preliminary ecological appraisal is to identify ecological constraints to the proposed works and make recommendations for mitigation or opportunities for enhancement that can be incorporated into the design. The preliminary ecological appraisal also makes recommendations for further surveys, as required.

The report has been prepared in accordance with guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM 2017) and the British Standard 42020:2013.

The objectives of this report are:

- *To identify designated nature conservation sites within the vicinity of the site;*
- *To identify any records and/or populations of protected, notable or scarce species in the vicinity of the site;*
- *To record habitats or features of ecological interest within or in immediate proximity to the site;*
- *To record the presence of, or potential for, protected or notable species;*
- *To make an ecological assessment and highlight potential ecological constraints;*
- *To outline any further survey work and potential protected species requirements if relevant; and*
- *To make suggestions for avoidance, mitigation compensation and enhancements in line with planning policies where appropriate.*

1.2 Site Description

The site, located off Coastal Road, Burniston, North Yorkshire, England, YO13 0DB (Grid Reference: TA 02072 92795), spans approximately four hectares. It primarily consisted of modified and neutral grassland, with a solar farm situated to the south. The boundaries of the site were marked by hedgerows, scrub, scattered and lines of trees, and woodland. Towards the northern portion of the site was approximately two hectares of modified grassland and would be the primary working area for the proposed development. This section primarily consisted of a large expanse of modified grassland, framed by mature Hawthorn (*Crataegus monogyna*) hedgerows with scattered trees along the northern and western boundaries, with a small patch of mixed deciduous woodland located along the eastern and southern boundaries of the site.

Towards the southern proportion of the site was an operational solar farm, comprising five arrays of ground-mounted photovoltaic panels, each approximately 80 m in length mounted off the ground surrounded by undisturbed neutral grassland. No ponds were identified on site at the time of the survey; however, located towards the south-east of the solar panels was a small area of scattered Soft Rush (*Juncus effusus*), (Grid Reference: TA 01960 92679). Despite the area being dry at the time of the survey, rushes are typically associated with areas of marshy grassland habitats and areas that could become waterlogged and may collect surface water during periods of heavy rainfall.

The landscape surrounding the site was predominantly composed of agricultural arable land, grazed farmland, and residential dwellings, interspersed with small sporadic patches of woodlands and green spaces.

A location plan with approximate site boundary and survey area is provided in Figure 1 below.

Figure 1. Site location and wider landscape. Coastal Road, Burniston, survey extent indicated by red line boundary. *Imagery taken from Bing Maps Imagery © 2024*

1.3 Description of the Proposed Development

The proposed development will include the construction of a single well pad, followed by the drilling and testing of an appraisal wellsite. The proposed works are to primarily take place within an area of modified grassland located toward the north of the site (Grid Reference: TA 02072 92795).

At the time of this report no trees, hedgerows, scrub, neutral grassland or woodland boundaries are to be impacted by the works (removal / pruning). Access to the site will be from the main road (Coastal Road - A165), through a large urban and industrial area currently occupied by businesses involved in storage, metalwork, and automotive services. The access route includes approximately 200 m of existing hardstanding before reaching the southwestern edge of the site, where a large open access route directly connects to the main site (Grid Reference: TA 01875 92685).

To facilitate the proposed works, an area of modified grassland will be temporarily lost due to well construction and necessary excavations. However, this habitat is to be fully restored to that of its original quality or better upon completion of the works. Currently, there are no plans to remove or prune any boundary features (trees, hedgerows or woodland) on or near the site, and these areas are expected to remain unaffected by the proposed works.

Upon completion, the well and any excavations will be 'plugged and abandoned' (P&A). All construction equipment will be removed, any areas or grassland damaged or lost during the works and access will be restored and, where possible, enhanced to improve overall biodiversity.

The well pad construction is estimated to take approximately four months, with drilling and testing expected to last approximately 30-60 days. The plugging and abandonment phase will take around five days, while full restoration is anticipated to require approximately 9 months, as outlined in the preliminary plans provided by the client (see Appendix 1 for details).

2 Methods

2.1 Desk Study

A desk study was carried out in June 2024 to identify statutory designated sites of nature conservation importance within a 5 km radius of the site and non-statutory designated sites of nature conservation importance, together with known records of protected and other notable species, within a 2 km radius of the proposed development.

Multi-Agency Geographic Information for the Countryside (MAGIC) was used to derive information relating to the location of statutory designated sites of nature conservation importance and priority habitats.

North & East Yorkshire Ecological Data Search (NEYEDC) provided details of non-statutory designated sites of nature conservation importance and records of protected and other notable species. *(Records received (10.07.24)*

It is important to note that most species are greatly under-recorded and therefore a lack of records for a location should not be taken as an absence of the species concerned. Furthermore, a record for a particular habitat or species does not necessarily confirm its current presence.

2.2 Field Survey

A habitat survey was conducted on the 17th of June 2024 by Holly Lindley BSc (Hons) based on the method described in The UK Habitat Classification (UKHab) User Manual (UKHab Ltd 2023), with plant species recorded following standard nomenclature (Stace 2019).

UKHab is based on a hierarchical primary habitat system with associated habitat codes. The primary habitat codes are followed by secondary codes. Secondary codes are designed to give information on the environment, management and origin of habitats, to identify habitat mosaics and complexes and identify specific features within primary habitats.

The UKHab methodology works on a basis of a minimum mapping unit (MMU). This is the smallest unit that habitats can be mapped to. This assessment is based on a MMU of 25m^2 in area and 5 m in length. Anything smaller will be presented via secondary codes, habitat description and/or shown as a target note where appropriate.

The field survey was extended to include notes on fauna and habitats which could potentially support protected species. The presence of, or potential for, protected species was noted on the field map during the survey. In addition, all ponds within 250 m of the proposed route were surveyed for their suitability to support Great Crested Newts (*Triturus cristatus*) through the calculation of a Habitat Suitability Index (HSI) (ARG 2010).

2.3 Assessment and Evaluation

The importance of identified ecological features on or likely to be on site was assessed and defined in a geographical context (see Appendix 2). The frame of reference for the habitat features in terms of their geographical importance is in line with guidance set out in CIEEM, 2018. Where ecological features have negligible importance, they are not considered further in the report.

Species and the potential for habitats to support them are assessed, where appropriate, against best practice guidelines.

As part of the evaluation further surveys may be recommended based on the suitability of habitats to support protected species, the habitats themselves and potential impacts posed by the proposed development and the legal protection afforded to both habitats and species.

2.4 Habitat Suitability index

A Habitat Suitability Index (HSI) assessment based on criteria developed by Oldham *et al*. (2000) was undertaken for all ponds/waterbodies (where access permitted) identified within 500m of the site which included a single pond located 300m west just out of the site's boundary. The location of any ponds identified within 500 m of the site can be found in Appendix 3.

The HSI assessment uses ten key habitat criteria and is based on the assumption that habitat quality determines Great Crested Newt population size (*Oldham et al. 2000*). The criteria are as follows:

- Sl1 = geographic location;
- Sl2 = pond area;
- Sl3 = pond permanence;
- Sl4 = water quality;
- Sl5 = pond shading;
- Sl6 = number of waterfowl;
- Sl7 = occurrence of fish;
- Sl8 = pond density;
- Sl9 = proportion of 'newt friendly' terrestrial habitat; and
- Sl10 = macrophyte (aquatic plant) content. The results of the HSI assessment have been compared to categorised HSI scores used by the National Amphibian and Reptile Recording Scheme (Oldham *et al.* 2000) to assess the probability of a pond supporting Great Crested Newt.

2.5 Zone of Influence

The assessment conducted for this report has considered the area in which ecological features could be subject to significant effects from the proposed development. The area of the potential effects is often wider than the actual perimeter of the development site and is known as the Zone of Influence.

The Zone of Influence varies for different impacts and each designated site, habitat and species has been considered in relation to their sensitivity to the proposed development. The study areas for some species can extend beyond the site boundary, where access is available.

- *Special Areas of Conservation (SAC), Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) – 5 km (10 km for sites designated for bats);*
- *Local Nature Reserves (LNR), County Wildlife Sites (CWS) - 2 km;*
- [redacted]
- *Otter (Lutra lutra) holt or couch 30m, Otter natal den 150m;*
- [redacted]
- *Notable birds – site and surrounding land;*
- *Bat roosts and Water Voles (Arvicola amphibius) – site and surrounding land; and*
- *Other protected and notable species / habitats – site level only.*

2.6 Mitigation Hierarchy

The main aim of the Preliminary Ecological Appraisal is to inform the client of the potential impacts on ecological features and what next steps are needed to manage these. In order to achieve this aim the mitigation hierarchy should be adopted so that the following applies:

- ***Avoidance*** *- Ecological features of importance should be avoided in the first instance through the design process by either designing around them, alternative design or even an alternative location.*
- ***Mitigation*** *– Adverse impacts that cannot be avoided should be adequately mitigated for to minimise negative impacts on the ecological features. Mitigation measures can either be implemented during the design process or construction phase.*
- ***Compensation*** *– This should only be used in exceptional circumstances or as a last resort, after all options for avoidance and mitigation have been fully considered. Compensation therefore can be applied to any residual impacts that cannot be avoided or mitigated.*
- ***Enhancements -*** *Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.*

2.7 Limitations

Full 'on foot' access was permitted while on site. As the assessment was carried out in June, this was within the optimal season (April – September) for the identification of plants allowing a full assessment of the habitats present and their conditions. Some habitats identified within the surrounding landscape could not be assessed at the time of this report due to access and time constraints. At the time of the survey the modified grassland located towards the north of the site had recently been mown however, sufficient regrowth of species allowed for identification of habitat.

3 Baseline Ecological Conditions

3.1 Desk Study

There were records of five statutory designated sites within 5 km of the site, the closest of which is Iron Scar and Hundale Point to Scalby Ness Site of Special Scientific Interest (SSSI) 800 m east of the site. An increased radius of 10 km for Special Areas of Conservation (SAC) where bats are a qualifying feature was searched, none of which were present. One non-statutory designated sites were found within 2 km of the site, the closest of which was the Burniston Beck Local Wildlife Site (LWS) located approximately 500 m west of the proposed primary working area. Summary descriptions of the designated sites, their designations and distance from the survey site are presented in Table 1.

Table 1: Statutory and non-statutory designated sites within 5km and 2km of the survey site

Site Name	Description	Distance and direction from site
Statutory Designated Sites		
Iron Scar and Hundale Point to Scalby Ness (SSSI)	Iron Scar and Hundale Point to Scalby Ness SSSI features a striking coastal landscape of rocky shores, cliffs, and marine habitats. The area is significant for its Jurassic geological formations and supports diverse coastal and marine ecosystems. These habitats are vital for various seabirds, marine invertebrates, and unique plant communities, all adapted to the dynamic coastal environment. The primary focus is on the site's geological features, including the important Jurassic rock exposures and related palaeobotanical interests. **Qualifying features** - Exposures of Jurassic formations from the Aalenian to Bajocian stages and the Bathonian stage, providing valuable insights into Mesozoic palaeobotany.	800 m East
North York Moors National Park (SAC, SPA, SSSI)	The park's landscape is defined by its expansive heather moorlands, deep valleys, and rugged coastline. The park is particularly noted for its Northern Atlantic wet heaths with Cross-leaved heath (*Erica tetralix*), European dry heaths and Blanket bog. These habitats are critical for the survival of a range of species, including the Golden Plover (*Pluvialis apricaria*) and the Merlin (*Falco columbarius*). The heaths and bogs provide essential	3.5 km Northwest

Site Name	Description	Distance and direction from site
	breeding and feeding grounds for these birds, making the park a vital refuge for them. **Qualifying features** – Northern Atlantic wet heaths with Cross-leaved heath, European dry heaths, blanket bog, breeding populations of Golden Plover, and Merlin.	
North Bay to South Toll House Cliff (SSSI)	North Bay to South Toll House Cliff SSSI is recognized for its significant coastal and cliff habitats along the Yorkshire coast. The main habitat of this SSSI is its dramatic cliff formations and associated rocky shores These habitats are crucial for their geological and ecological characteristics and provide habitat for specialized coastal seabirds and plant communities adapted to the harsh maritime environments. **Qualifying features** - Exposures geographical formations – Callovian period – Middle Jurassic.	3.5 km Southeast
Raincliffe & Forge Valley Woods (SSSI)	Raincliffe & Forge Valley Woods SSSI is characterized by its rich, diverse upland and ancient woodlands, which include a mix of broadleaved, mixed, and yew forests. The site is particularly noted for its *broadleaves, mixed and yew* woodlands. These habitats are crucial for supporting a wide range of plant and animal species such a Barn Owl (*Tyto alba*) and Wood Warbler (*Phylloscopus sibilatrix*), making the site a significant ecological area within the region. **Qualifying features** – English Oak (*Quercus robur*), Bracken *(Pteridium aquilinum)*, Bramble *(Rubus fruticosus)* Birch species *(Betula spp)*, Wavy-hair grass *(Deschampsia flexuosa)*, Black Alder *(Alnus glutinosa)*, Ash *(Fraxinus excelsior)* Yellow Pimpernel *(Lysimachia nemorum)*, Field Maple *(Acer campestre)* and Dog's Mercury *(Mercurialis perennis)* woodlands.	4 km Southwest

Site Name	Description	Distance and direction from site
Hayburn Wyke (SSSI)	Hayburn Wyke SSSI is notable for its ancient woodlands and important geological features. The site's main habitat is its rich English Oak, Bracken and Bramble woodland, which supports diverse flora and fauna. This woodland is complemented by significant geological exposures that provide valuable insights into Mesozoic palaeobotany. **Qualifying features** – Ancient Oak, Bracken, Bramble woodland and Mesozoic palaeobotany.	4 km North
Non-statutory Designated sites		
Burniston Beck (LWS)	Burniston Beck, a tributary of the River Derwent flows approximately 8 miles through North Yorkshire, flowing from its source near the village of Burniston to its confluence with the Derwent. The beck is characterized by its clear, fast-flowing water and diverse riparian habitats and fringed vegetation. Surrounding the beck are areas of woodland, meadows, and patches of scrubland. These habitats have potential to support a variety of wildlife, including aquatic invertebrates, amphibians, and birds.	500 m West

Table 2 presents the results of the biological records search.

Table 2: Records of selected protected or notable species within 2km of the site

Species	Designation	Date	Distance from site	Approx. location
Swift (*Apus apus*)	RL – EN, UKBR, WBR	2023	330m South	Burniston
House Sparrow (*Passer Domesticus*)	BAP, BDir 2.2, S41, UKBA, WBA	2020	480m West	Land off Hawthorne Close, Burniston
Song Thrush (*Turdus philomelos*)	BAP, BDir2.2, S41, UKBA, WBA	2023	480m West	Land off Hawthorne Close, Burniston
Common Goldeneye	BDir2.2, Bonn2,	2017	1.9km West	Town Farm

Species	Designation	Date	Distance from site	Approx. location
(*Bucephala clangula*)	RL-VU, UKBR, WCA1.2			Pond, Cloughton
Palmate Newt (*Lissotriton helveticus*)	Bern3, WCA5	2018	1.75km West	Pond/ditch in field, Burniston, Burniston
Smooth Newt *(Lissotriton vulgaris*)	Bern3, WCA5	2017	1.75 km West	Burniston. Burniston Lime Substation
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Common Frog (*Rana temporaria*)	Bern3	2018	1.75km West	Burniston. Burniston Lime Substation
Common Toad (*Bufo bufo*)	BAP, Bern3, S41, WCA5	2018	1.75km West	Burniston. Burniston Lime Substation
Common Pipistrelle (*Pipistrellus pipistrellus*)	Bonn2, CHS2, HDir4, WCA5	2023	870m West	Land west of Burniston, Burniston
Noctule *(Nyctalus noctule)*	BAP, Bern2, Bonn2, CHS2, HDir4, WCA5	2018	1.96km South	Barmoor Close
Soprano Pipistrelle (*Pipistrellus Pygmaeus*)	BAP, Bern2, Bonn2, CHS2, HDir4, S41, WCA5	2021	2km South	Barmoor Close

***RL – EN** = Red List – Endangered (IUCN Red List)*
***UKBR** = UK Biodiversity Action Plan Priority Species*
***WBR** = Wildlife and Biodiversity Resources*
***BAP** = Biodiversity Action Plan Priority Species*
***BDir 2.2** = Birds Directive Annex II, Section 2 (species that can be hunted)*
***S41** = Natural Environment and Rural Communities Act Section 41 species*
***UKBA** = UK Biodiversity Action Plan*
***WBA** = Wildlife and Biodiversity Action Plan*
***Bonn2** = Bonn Convention Appendix II (species that need international cooperation for conservation)*
***CHS2** = Convention on the Conservation of European Wildlife and Natural Habitats, Appendix II*
***HDir4** = Habitats Directive Annex IV (species requiring strict protection)*
***WCA5** = Wildlife and Countryside Act 1981 Schedule 5 (protected species)*

Bern3 *= Bern Convention Appendix III (species requiring conservation measures)*
HDir2 *= Habitats Directive Annex II (species requiring habitat protection)*
RL-VU *= Red List – Vulnerable (IUCN Red List)*
WCA1.2 *= Wildlife and Countryside Act 1981 Schedule 1 (protected bird species)*

3.2 Field Survey

The habitats identified during the habitat survey are listed and described below. All habitats are marked on the habitat map in Appendix 3, secondary habitat codes are listed in Appendix 4, Target Notes in Appendix 5 and each habitat type is illustrated with a photograph in Appendix 6.

On site:

The following habitats were found on the site:

- *Other woodland mixed (w1h, 10, 30, 81, 201, 202, 510)*
- *Other neutral grassland (g3c,14, 41,83, 500, 502)*
- *Modified grassland (g4, 81, 106, 108)*
- *Native hedgerow (h2a, 10, 11, 32, 206)*
- *Other standing water (r1g, 41, 47, 116, 510, 503, 521, 838)*

3.2.1 Habitats

3.2.1.1 Other woodland - mixed (w1h - 10, 30, 81, 201, 202, 510)

A small area of mixed woodland (approximately 1.3 ha) was found on site that stretched along the entirety of the southern and eastern boundaries, encroaching slightly towards the centre of the site (Appendix 6: photographs: 1, 2, 3, 4 & 5).

Species mix consisted predominantly of Sycamore (*Acer pseudoplatanus*), Silver Birch (*Betula pendula*), Crab Apple (*Malus sylvestris*), Wild Cherry (*Prunus avium*), Rowan (*Sorbus aucuparia*), Ash, Hawthorn, and Hazel (*Corylus avellana*) with occasional species including Common Holly (*Ilex aquifolium*) and Pedunculate Oak. These trees ranged from young to semi-mature in age and were all in good condition with no signs of disease/damage. Towards the southern boundary of the woodland were multiple Hazel trees. These were young trees, planted within an equal distance from one and other (secondary code: 201) with a bare ground field layer (secondary code: 510). These trees were in good condition. These trees form a small part of the overall semi-natural woodland (Secondary codes 30) with both young, planted trees (Secondary code: 201) and self-set trees (Secondary code: 202) (Appendix 6: photograph: 4).

This woodland does not qualify as a Habitat of Principal Importance (HPI) under UK Biodiversity Action Plan (UK BAP) as the woodland was predominantly composed of non-native species such as Sycamore and lacks the specific ecological characteristics required to qualify as a HPI such as the presence of ancient or semi-natural woodland types or priority species. Additionally, the woodland's relatively young age and the presence of planted trees further contribute to its exclusion from HPI status

The central field layer of the woodland was predominantly bare ground (Secondary code: 510) with minimal vegetation, consisting of sporadic patches of Perennial Ryegrass (*Lolium perenne*), Common Nettle (*Urtica dioica*) and Bramble (Secondary code: 10). (Appendix 6: photographs: 3 & 4). However, moving towards the woodland boundaries and closer to the centre of the site, ruderal species (Secondary code: 81) became more frequent and, in some areas, dominated the fieldlayer of the woodland. These included large amounts of Common Nettle, Common Sorrel (*Rumex acetosa*), Greater Horsetail (*Equisetum telmateia*), grasses and grass / herb species were limited to Perennial Ryegrass, Smooth Meadow-grass (*Poa pratensis*), Creeping Buttercup (*Ranunculus repens*), thistle (*Cirsium spp.*) with large amounts of Hogweed (*Heracleum sphondylium*) found throughout the boundary of the woodland particularly towards the northern boundary of the site (Appendix 6: photograph: 5).

This stretch of woodland was connected and extends to a similar patch of woodland just off-site, towards the southern boundary along the more industrial section of the access route. The woodland was isolated from similar patches of woodland within the wider areas separated by extensive landscape of agricultural land and residential dwellings.

3.2.1.2 Other neutral grassland (g3c - 14, 83, 500, 502)

Towards the southern portion of the site, an area of solar panels was installed, (Secondary code: 83) consisting of five rows, each approximately 80 m in length. The understorey beneath these panels predominantly consisted of other neutral grassland, covering about 0.7 hectares. (Appendix 6: photographs: 6). This grassland was dominated by grasses such as Perennial Ryegrass, Cocksfoot (*Dactylis glomerata*), and Meadow Foxtail (*Alopecurus pratensis*), with occasional floral species including Red Clover (*Trifolium pratense*), Creeping Buttercup, and Mouse-ear (*Cerastium spp.*). Additionally, sporadic patches of Common Sorrel, Ribwort Plantain (*Plantago lanceolata*), and Broad-leaved Dock (*Rumex obtusifolius*) were found toward the boundaries, where the grassland transitions into modified grassland in the northern part of the site.

Located to the south of the grassland and solar panels, OS imagery indicated the presence of a small pond (Grid Reference: TA 01960 92680). However, during the field survey, this area was completely dry, void of any water (Secondary code: 500) and dominated by grass and rush species. The scattered rush vegetation suggested that this area likely becomes waterlogged (Secondary code: 504) and is prone to seasonal flooding throughout the year (Secondary codes: 14 and 502). Species observed included large clusters of Soft Rush, Creeping Spike-rush (*Eleocharis palustris*), (Secondary code: 14) with sporadic species such as Common Sorrel, Broad-leaved Dock, Rosebay Willowherb (*Epilobium angustifolium*) and various moss species (*Moss spp.*) found towards the outer edges of the area. The feature was surrounded by large amounts of neutral grassland within close proximity to the eastern and southern woodland boundaries of the site (Appendix 6: photograph: 7).

3.2.1.3 Modified grassland (g4, 81, 106, 108)

Located in the northern portion of the site was a large area of modified grassland which covered approximately 1.4 hectares, occupying the majority of the site. This grassland had been recently mown at the time of the survey (Secondary codes: 106, 108) with species found predominantly consisting of Perennial Ryegrass and Creeping Buttercup, with occasional species such as Common Sorrel and Ribwort Plantain (Appendix 6: photographs: 8). Although, the modified grassland had recently been mown, sufficient regrowth of species allowed for identification of habitat.

Closer to the northern, eastern, and western boundaries of the grassland, where the grassland meets hedgerows and woodland, additional species such as Greater Horsetail, Cleavers (*Galium aparine*), Hogweed, and Common Nettle were observed (Secondary code: 81). The grassland is bordered and connected to the hedgerows, woodland and neutral grassland found on site.

This modified grassland area forms part of the main site of the proposed works, where the construction of a temporary well pad and well installation is set to take place within the centre. Although a portion of the grassland will be temporarily lost or damaged due to excavations related to the drilling and construction, the remainder of the site and surrounding habitats (Hedgerows, trees, woodland, neutral grassland) at to remain unaffected. Upon completion of the works, the grassland will be fully restored to its original state, or potentially enhanced.

3.2.1.4 Native Hedgerow (h2a, 10, 11, 32, 206)

Along the northern and western boundaries of the site were extensive stretches of mature Hawthorn hedgerows. The northern boundary (H1) featured a stretch of primarily mature Hawthorn and Blackthorn (*Prunus spinosa*) hedgerow, approximately 120 m in length and 2 m wide. The hedgerow was in good condition, with no obvious signs of damage or disease, no gaps within the hedgerow and connected to the woodland towards the north-eastern boundary of the site. The understory was heavily dominated by Common Nettle, Cleavers, Greater Horsetail, Creeping thistle (*Cirsium arvense*), and Hogweed. Grasses present included Cocksfoot and Meadow foxtail (Appendix 6: photograph: 9).

The second stretch of hedgerow (H2) was approximately 250 m in length and 2 m wide which ran along the western boundary of the site. This hedgerow was similar to H1, primarily consisting of mature Hawthorn and Blackthorn with similar understory consisting primarily of scrub (Secondary code: 10), and grass species. However, this hedgerow contained multiple gaps (approximately 10 m accumulatively) and included a small number of scattered trees, these included a mature Holly, Elder (*Sambucus nigra*), and Sycamore (Secondary codes: 11, 32) (Appendix 6: photograph: 10).

The mature Holly and Sycamore trees were in good condition, showing no obvious signs of disease or damage. In contrast, the mature Elder was severely damaged, seemingly by recent hedgerow trimming (Secondary code: 206) (Grid reference: TA 02046 92847), with dead or fallen sections of the tree having since been removed from the site (Appendix 5: Target note 2). The western hedgerow linked to a line of trees (Secondary code: 33) and area of dense ruderal understorey (Secondary code: 10) located towards the main entrance and proposed access route (Grid reference: TA 01875 92685). This stretch, of trees was approximately 80 m in length and consisted of a mixture of semi-mature and mature Sycamore and Ash trees, with an understorey dominated by tall ruderal species such as Common Nettle, Creeping Thistle, Rosebay Willowherb, Hogweed and grass species including Cocksfoot, Perennial Ryegrass, and Meadow Foxtail, were more prevalent were the tree line meets neutral grassland (Appendix 6: photographs: 12 & 13)

Both stretches of hedgerow are considered to be Habitats of Principal Importance (HPI) and has potential to be considered 'important' under the Hedgerow Regulations 1997 based on their ecological value, age, structure, condition, and contribution to local biodiversity. The hedgerows provide critical habitat for a variety of wildlife, including birds, invertebrates, reptiles, bats and other small mammals by offering food, shelter, and nesting sites. The mature hedgerows also serve as important corridors for wildlife, helping to maintain ecological connectivity across the landscape.

These habitats were bordered by extensive agricultural land and residential areas to the south. The hedgerows were connected to similar habitats within the broader landscape, including extensive hedgerows. However, the surrounding area was predominantly open agricultural land with occasional and scattered patches of woodland. At the time of this report, no trees or hedgerows are currently scheduled for removal or pruning, and the ruderal vegetation surrounding the understoreys of the trees and hedgerows is also to remain unaffected.

3.2.1.5 Other standing water r1g (41, 47, 116, 510, 503, 521, 817)

Located approximately 300 m west of the primary working area and approximately 100 m of the proposed access route (off-site) was a small fresh water (Secondary code: 47) pond (Secondary codes: 41) (approximately 0.4 ha) situated within an adjacent agricultural field (Grid Reference: TA 01711 92687). At the time of the survey, the pond was filled with water; however, the exact depth could not be determined (Secondary code: 503). The pond was heavily isolated, surrounded by extensive arable fields and hardstanding (Secondary code: 510), with limited connecting terrestrial habitats. A stretch of Hawthorn hedgerow was found within approximately 30 m south of the pond; however, this was in poor condition. Similarly to the pond, this hedgerow was heavily isolated, surrounded by extensive arable fields and hardstanding (Secondary code: 510) and industrial buildings (Secondary code: 817), with limited connecting terrestrial habitats

The pond itself was surrounded by unmanaged dense marginal vegetation (Secondary code: 521) heavily dominated by semi-aquatic species such as Common Reed (*Phragmites australis*) and Bulrush (*Typha latifolia*) and other occasional species including Greater Pond Sedge (*Carex riparia*) and Great Willowherb

(*Epilobium hirsutum)* which created a large amount of dense shaded areas around the pond. The pond was adversely affected by pollution, runoff from the surrounding field, with a high presence of breeding waterfowl (Appendix 5: Target note 1).

3.2.2 Species

3.2.2.1 Birds

The extensive Hawthorn hedgerow, scrub, ruderal, scattered trees and woodland boundaries on site have potential to support notable bird species of conservation concern in the UK during the breeding season (March – August inclusive) and during foraging. Several bird species were observed foraging or within proximity to the site during the walkover survey. These included Feral Pigeon (*Columba livia domestica*), Lapwing *(Vanellus vanellus*), Eurasian Robin (*Erithacus rubecula*), Wren (*Troglodytes troglodytes),* and Blackbird *(Turdus merula)*.

The site was generally considered unsuitable for ground-nesting birds due to the presence of solar panels in the southern part of the site and the adjacent boundary woodland to the west, which could serve as perches for predators, reducing the likelihood of ground-nesting birds choosing this location to nest and rear chicks. However, the site offers potential for foraging birds, as evidenced by the observation of a single adult Lapwing during the survey.

Other bird species listed as of principal importance under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 that might use modified grassland for foraging include Skylarks (*Alauda arvensis*), Meadow Pipits (*Anthus pratensis*), and Barn Owls. These species are known to forage in open grassy areas similar to the modified grassland present on the site.

A small pond, approximately 0.04 hectares in size, was identified off site during the walkover survey, located 300 m west of the proposed primary working area and within 100 m north of the proposed access route off the main A165 (Grid Reference: TA 01711 92687). The pond has potential to offer potential nesting and foraging opportunities for a range of common and ground nesting birds. During the survey, multiple Mallards (*Anas platyrhynchos*) and Coots (*Fulica atra*) with chicks were observed within the pond and the surrounding area. The pond was located off site and was considered to be far enough from the works and access route to remain unaffected by the proposed activities.

The site was deemed suitable to support common and widespread nesting birds but of low value for those listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended), which require specific habitat conditions for breeding. No nests were found during the comprehensive site walkover.

At the time of this report, works and access were restricted to areas of hardstanding and modified grassland only. Therefore, areas of scrub, neutral grassland, scattered rushes, boundary hedgerows, scattered trees, woodland features and pond habitat that have a higher potential to support potential ground or nesting bird species are to remain unaffected by the proposed works.

3.2.2.2 Bats

No potential roost features were identified within proximity to the site and works. The trees within proximity to the works included mature lines of trees, scattered trees along the boundaries of the site and small area of mixed woodland found to the east of the site. Trees were inspected from ground level, and no potential roosting features (e.g., splits, cracks, woodpecker holes, cavities within the trunk, loose bark, or heavy ivy cover) were found during the survey. Therefore, these trees were deemed to have negligible potential to support roosting bats.

The habitats on site have the potential to provide a valuable foraging and commuting resource for bats. This is particularly significant as the hedgerows surrounding the site connect to additional hedgerows and scattered trees within the wider landscape, enhancing their ecological value. However, the neutral grassland on site is considered suboptimal for supporting foraging bat species. This is due to its low floral diversity, which results in reduced insect availability, and the significant coverage of solar panels, which likely impacts invertebrate diversity further. Although the grassland is connected to more optimal habitats, such as the surrounding hedgerows and woodlands, the isolated nature of these areas limits the overall effectiveness of the grassland as a foraging resource for bats.

[redacted]

[redacted]

[redacted]

[redacted]

3.2.2.4 Hazel Dormouse

The habitat on-site with potential for Hazel Dormice (*Muscardinus avellanarius*) was limited to the boundary woodland, trees, hedgerows, and scrub habitat. Located along eastern boundaries of the site was a small patch of mixed deciduous woodland. This area was part of the eastern boundary woodland, which also included a mix of semi-mature and mature trees such as Sycamore, Silver Birch, Crab Apple, Wild Cherry, Rowan, Ash, Hawthorn, and occasional Common Holly and Oak. The site also featured patches of dense scrub and ruderal vegetation, particularly towards the woodland boundaries which also have potential to provide commuting and foraging opportunities for Hazel Dormice.

The woodland was connected to site boundary features such as hedgerows, scattered and lines of trees, however, it is important to note that the boundary features of the site were very isolated with little/poor connectivity to more optimal habitats such as the Whitby to Robin Hood's Bay hiking trail located approximately 400 m west of the works characterised by extensive hedgerows, scrub, treelines, and woodland, all of which offer a higher quality and more connected habitat that could support potential local Hazel dormice populations The site was situated in a heavily urbanised and industrial area, further isolating it and creating barriers for species movement. During the survey, no evidence of Hazel Dormice was found, and the site lies outside their known distribution range, making their presence unlikely. It is not anticipated that the proposed works will impact the habitats on site.

3.2.2.5 Otter and Water Vole

Burniston Beck was located within approximately 500 m west of the site (Grid Reference: TA 01545 92595). At the time of the survey this was inaccessible and unable to be assessed for its suitability to support species such as Water Vole or Otter. However, the site was separated from this watercourse by extensive areas of hardstanding, residential, and industrial dwellings. There were no suitable aquatic or terrestrial habitats between the site and Burniston Beck for Water Vole. Although the woodland on site could potentially support an Otter holt, no resting places or evidence of Otters were identified during the survey. Therefore, these species are not anticipated to be impacted by the proposed works and is considered absent from the site.

3.2.2.6 Other mammal species

The hedgerows, trees, and woodland boundaries, along with areas of scattered scrub and tall ruderal understorey vegetation on site has potential to provide some shelter, foraging, and commuting habitat suitable for notable mammals such as the Hedgehog (*Erinaceus europaeus*). However, the survey found no evidence of Hedgehog on the site (e.g., prints, burrows, or droppings).

3.2.2.7 Reptiles

The field survey identified various potentially suitable habitats on-site that could support reptiles, including areas of neutral grassland, scattered trees, woodland edges with scrub, tall ruderal vegetation, and unmanaged grassland. These features provide cover, basking spots, and foraging opportunities for common UK reptile species, such as the Common Lizard (*Zootoca vivipara*) and Slow Worm (*Anguis fragilis)*.

Although the boundary habitats connect well on-site, they are relatively isolated from more optimal habitats in the wider landscape. For example, the Whitby hiking trail, located approximately 400 m west of the site which offers more optimal habitats (e.g., hedgerows, scrub, tree lines, ponds, grassland and woodland) which were more suitable for supporting local reptile species. The site was surrounded by large areas of open arable fields and heavily urbanised with roads, residential dwellings, and landscaping to the south. These features present significant barriers to reptile movement and may limit access to more suitable habitats. Despite this isolation, the habitats identified on-site offer generally suitable conditions for supporting reptiles due to the variety of habitats available within its boundaries.

3.2.2.8 Amphibians

The site offers several habitats with the potential to support amphibians, including areas of unmanaged other neutral grassland, scrub, tall ruderal vegetation, hedgerows, tree lines, and woodland boundaries. Additionally, a small patch of scattered rushes was observed along the southern boundary within an area of other neutral grassland. Although this area was dry at the time of the survey, the presence of rushes suggests it may be prone to flooding or water retention during wetter months, potentially providing refuge and foraging opportunities for local amphibians.

No ponds were found within 250 m of the site. However, a small pond was located approximately 300 m west of the proposed works (offsite) and 100 m west of the proposed access route within an adjacent agricultural field.

A Habitat Suitability Index (HSI) assessment indicated that this pond is of very low quality, with minimal potential to support species like Great Crested Newts. The pond is adversely affected by pollution, runoff from the surrounding field, and the high presence of breeding waterfowl. While the pond's emergent and marginal vegetation could provide some refuge for common amphibians such as the Common Frog or Common Toad. Its isolation by large expanses of arable land and hardstanding associated with an industrial storage building and public walkways which create significant barriers to species such as amphibians’ movement. This along with the high levels of waterfowl activity identified during the field survey further reduces its attractiveness and accessibility for amphibians. A Habitat Suitability Index (HSI) assessment for Great Crested Newt was undertaken on ponds on site and within 500m of the proposed works, the results of which are detailed in Table 3 below.

Table 3: Details of ponds within 300 m of the proposed works and 100 m of the proposed route.

Pond Number	Habitat Suitability Index (HSI) Score	Distance	Description
1	0.27 - Poor	300m west	A small 0.01-hectare water body, located 300m west of the site, has good nearby terrestrial habitats but is isolated by poor-quality surroundings (arable fields, hardstanding). High waterfowl activity was confirmed (multiple species & chicks present)

Despite the presence of various terrestrial habitats on-site that could potentially support amphibians, the overall lack of high-quality ponds and the isolation of the habitats on site within a heavily urbanised environment significantly diminish the likelihood of amphibians being present.

3.2.2.9 Invertebrates

The site provides limited foraging opportunities for pollen and nectar-feeding invertebrates due to its low floral diversity. Habitats on site (hedgerows, trees, neutral grassland and scrub) are likely to support a range of common invertebrates. During the survey, invertebrates such as bumblebees (*Bombus spp*.) and Large White Butterfly *(Pieris brassicae)* were observed within the neutral grassland and modified grassland habitats on site. However, the site's more structural features, such as deadwood and wetland areas were sparse and of poor quality at the time of the survey. These elements are crucial for supporting a broader range of invertebrate species, particularly those reliant on such environments for breeding, shelter, or foraging. No notable invertebrates were identified during the field survey.

3.2.2.10 White-clawed Crayfish

Burniston Beck, located approximately 500 m west of the site, was inaccessible at the time of the survey and unable to be assessed for its suitability to support species such as White-clawed Crayfish. However, the site was separated from this watercourse by extensive areas of hardstanding, residential, and industrial dwellings. There were no suitable aquatic/terrestrial habitats between the site and Burniston Beck; therefore, these species are not anticipated to be impacted by the proposed works and considered to be absent from the site.

3.2.2.11 Non-native invasive plants

No non-native invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), were recorded on site.

4 Planning Policy and Legislation

4.1 Local Planning Policy

Table 4 details the policies within the North Yorkshire County Council Minerals and Waste Joint Plan (2022) and the Scarborough Borough Local Plan (2017) which are relevant to the ecological features on site.

Table 4: Summary of relevant local planning policy – (North Yorkshire County Council Minerals and Waste Joint Plan, 2022 & Scarborough Borough Council, 2017)

Policy	Description
Policy D01 – Presumption in favour of sustainable minerals and waste development	When considering development proposals, the Authorities will take a positive approach that reflects the presumption in favour of sustainable development contained in the NPPF. The Authorities will always work proactively with applicants to find solutions which mean that proposals can be approved wherever possible, and to secure development that improves the economic, social, and environmental conditions in the area. Planning applications that accord with the policies in this Local Plan (and, where relevant, with policies in neighbourhood plans) will be approved without delay, unless material considerations indicate otherwise. Where there are no policies relevant to the application or relevant policies are out of date, then the Authority will grant permission unless: ▪ Any adverse impacts of granting permission would significantly and demonstrably outweigh the benefits, when assessed against the policies in the NPPF taken as a whole; or ▪ Specific policies in the NPPF indicate that development should be restricted, such as policies relating to National Parks and AONBs. Where proposals constitute major development in the National Park and AONBs, they will be assessed against the requirements for major development in designated areas set out in Policy D04 of this Joint Plan.
Policy D07 – Biodiversity and Geodiversity	1. Proposals will be permitted where it can be demonstrated that, having taken into account any proposed mitigation measures, there will be no unacceptable impacts on biodiversity or geodiversity. The level of protection provided to international, national, and locally designated sites are outlined in parts 2) to 8) below. 2. A very high level of protection will be afforded to sites designated at an international level, including SPAs, SACs, and RAMSAR sites. Development which would have an unacceptable impact on these sites will not be permitted. 3. Development, whether inside or outside of a SSSI, which is likely to have an adverse effect on the notified special interest features of a SSSI or a broader impact on the national network of SSSIs will only be permitted where the benefits of the development at that location clearly outweigh the impact to the SSSI features and the broader SSSI network. The loss or deterioration of irreplaceable habitats, including ancient woodland or aged or veteran trees, will only be permitted where both the need for, and the benefits of, the development at the proposed location clearly outweigh the impact or loss. 4. Where development would be located within an Impact Risk Zone defined by Natural England for a SPA, SAC, RAMSAR site, or SSSI, or at any other location at which it could have an adverse impact on the SPA, SAC, RAMSAR site, or SSSI, and the development is of a type identified by Natural England as one which could potentially have an adverse impact on the designated site, proposals should be accompanied by a detailed assessment of the potential impacts and include proposals for mitigation and enhancement where relevant. 5. Locally important sites and assets include: i. Sites of Importance for Nature Conservation (including candidate sites); ii. Local Nature Reserves; iii. Local Geological Sites; and

Policy	Description
	iv. Habitats and species of principal importance or other sites of geological or geomorphological importance. Development will not be permitted that will result in an unacceptable impact on locally important sites and assets unless it can be demonstrated that: ▪ the benefits of development clearly outweigh the nature conservation value or scientific interest of the site and its contribution to wider biodiversity objectives and connectivity; and ▪ the proposed mitigation or compensatory measures are equivalent to the value of the site/asset. 6. Through the design of schemes, including any proposed mitigation and/or compensation measures, proposals should seek to contribute positively towards the delivery of agreed biodiversity and/or geodiversity objectives, including those set out in agreed local Biodiversity or Geodiversity Action Plans, or in line with agreed priorities of any relevant Local Nature Partnership, with the aim of achieving net gains for biodiversity or geodiversity and supporting the development of resilient ecological networks. 7. In exceptional circumstances, and where the development site giving rise to the requirement for offsetting is not located within a SPA, SAC, RAMSAR, or SSSI, the principle of biodiversity offsetting to fully compensate for any losses will be supported on a site-by-site basis and as a last resort in accordance with the mitigation hierarchy. These circumstances specifically include where: i. It has been demonstrated that it is not possible to fully avoid or mitigate against adverse impacts; and ii. The provision of compensatory habitat within the site would not be feasible; and iii. The need for, and the benefits of, the development in the proposed location outweigh the need to protect the site; and iv. Any compensatory gains would be delivered within the minerals or waste planning authority area in which the loss occurred, unless otherwise agreed by the planning authority. Compensatory gains outside of the planning authority area will only be deemed as acceptable where it is clearly demonstrable that the approach will lead to greater biodiversity and/or geodiversity benefits than alternative options within the planning authority area. 8. Proposals must consider the cumulative impacts as a result of a combination of individual impacts from the same development and/or through combinations of impacts in conjunction with other development. Proposals will only be permitted where it would not give rise to unacceptable cumulative impacts.
Policy D10 – Reclamation and after use	**Part 1:** Proposals that require restoration and afteruse elements will be permitted where it can be demonstrated that they would be carried out to a high standard and, where appropriate to the scale and location of the development, have demonstrably: i. Encouraged early discussions with local communities and stakeholders, reflecting their outcomes in the schemes where practicable. ii. Considered the location and context of the site, including implications of other significant development and affected environmental assets or infrastructure. iii. Acknowledged the potential positive and adverse impacts, including cumulative effects, while maximizing benefits and minimizing harm. iv. Considered potential impacts from and on climate change. v. Made the best use of on-site materials for reclamation, only importing waste when essential. vi. Provided for phased restoration when applicable, ensuring restoration at the earliest opportunity as per an agreed timescale. vii. Included long-term implementation and management plans for restoration and afteruse, except in cases of agriculture or forestry, where a statutory 5-year aftercare applies. **Part 2:** In addition to Part 1, proposals will be permitted which deliver a more targeted approach to minerals site restoration and afteruse by contributing towards objectives, appropriate to the nature, scale, and location of the site, including: i. Prioritizing the protection of soils and potential creation of areas of best and most versatile agricultural land. ii. Providing flood storage capacity to minimize upstream and downstream flooding, particularly in the Swale and Ure floodplains.

Policy	Description
	iii. Enhancing the special qualities of National Parks and AONBs or facilitating the enjoyment of those qualities. iv. Ensuring reclamation proposals respect airfield safeguarding constraints while maximizing restoration benefits. v. Protecting important heritage assets and, where practicable, enhancing their significance and opportunities for public enjoyment. vi. Reflecting locally agreed priorities for green infrastructure and ecosystem services in designated corridors. vii. Enhancing opportunities for public access and recreation near major settlements. viii. Achieving significant net gains for biodiversity, contributing to resilient ecological networks and delivering habitats important at a landscape scale (e.g., wet grasslands, species-rich grasslands). ix. Creating geodiversity benefits and contributing to priorities in any relevant Geodiversity Action Plan.
Policy D12: Protection of agricultural land and soils	Best and Most Versatile (BMV) agricultural land will be safeguarded against unnecessary and irreversible loss. Where development on BMV land is justified, proposals must prioritize soil protection and enhancement, ensuring the long-term potential to recreate BMV areas. Relevant developments will be subject to aftercare requirements to achieve a high standard of agricultural restoration. All development proposals must demonstrate that practicable steps will be taken to sustainably conserve and manage on-site soil resources. Development that may irreversibly damage blanket peat or other ecologically significant soils contributing to carbon storage will not be permitted.
Policy ENV 8 - Green Infrastructure	The value and strategic role of the following Green Infrastructure corridors within the Local Plan area will be protected and enhanced in line with the hierarchy below: a) Regional importance: 'Coast' and the 'River Derwent'; b) Sub-Regional importance: 'Esk'; and c) Locally important assets and corridors, including the 'Hertford' corridor. Proposals for the creation of new Green Infrastructure assets that improve connectivity and accessibility within the above corridors, or lead to the creation of new corridors, will be supported. Developments that will have an unacceptable impact on Green Infrastructure will be resisted unless other policy considerations within this Local Plan indicate otherwise. Proposals for all forms of development should investigate the potential to integrate with nearby existing Green Infrastructure assets by promoting accessibility from the proposed development to the relevant asset or assets. Equally, proposals will be supported where the provision of new green spaces and other Green Infrastructure assets within new development would be delivered as a connected network, both in terms of internal links and external connectivity with Green Infrastructure assets that are within walking distance to the development.

4.2 National Planning Policy Framework

The National Planning Policy Framework (NPPF) (Department for Levelling Up, Housing and Communities, 2024) is a policy framework document which provides a range of important principles. Paragraph 187 of the NPPF states that decisions should contribute to and enhance the natural local environment by:

'Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'

Paragraph 188 goes on to state:

'… 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.'

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles (paragraph 193):

'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.'

4.3 Relevant Legislation

4.3.1 National Legislation

4.3.1.1 The Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain.

4.3.1.2 Natural Environment & Rural Communities Act 2006

Section 40 of the NERC Act 2006 places a duty upon all local authorities in England to promote and enhance biodiversity in all of their functions. Section 41 lists habitats and species of principal importance to the conservation of biodiversity. Fifty-six habitats and 943 species of Principal Importance for Conservation are included on the Section 41 list and draws upon the UK BAP List of Priority Species and Habitats.

4.3.1.3 The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law and transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations provide for the designation and protection of a national site network including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), the protection of 'European protected species', and the adaptation of planning and other controls for the protection of other sites, such as Ramsars.

4.3.1.4 The Environment Act 2021

Para 2 (3) of Schedule 14 of The Environment Act 2021 makes it mandatory for all new developments (with some limited exceptions) to achieve a biodiversity net gain (BNG) of at least 10% by the time the development is completed compared to the pre-development biodiversity value of the onsite habitat. This percentage may be amended in the future by the Secretary of State. Please note that some Local Policies stipulate a higher target than this.

The Act allows three methods for securing biodiversity net gains:

1. enhancement of the biodiversity of land to which the planning permission relates;
2. the allocation of registered offsite biodiversity gain to any development for which the planning permission is granted; and
3. the purchase of biodiversity credits for any such development.

A biodiversity gain statement must set out whether, and if so how, the biodiversity gain objective applies in relation to development where the onsite habitat is irreplaceable, how the development will minimise any adverse effects to the onsite habitat, and what the evidence must be produced to show how the biodiversity net gain has been met upon completion of the development.

Biodiversity gains will need to be maintained for at least 30 years after the development is completed.

4.3.2 Species Specific Legislation

4.3.2.1 Birds

Breeding wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). Under the Wildlife and Countryside Act, a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds however are not included in this definition (except for limited parts of the Act). They are covered by the Game Acts, which fully protect them during the close season.

All birds, their nests and eggs are protected, and it is thus an offence, with certain exceptions to:

- *intentionally kill, injure or take any wild bird;*
- *intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;*
- *intentionally take or destroy the egg of any wild bird;*
- *have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954;*
- *have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954;*
- *use traps or similar items to kill, injure or take wild birds; and*
- *have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations.*

Additionally for some species listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) it is an offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young.

4.3.2.2 Bats

Bats are protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended). Under the Wildlife and Countryside Act 1981 it is illegal to:

- *kill or injure bats;*
- *cause disturbance at their resting places; or*
- *block access to, damage or destroy their roost sites.*

Under the Conservation of Habitats and Species Regulations 2017 (as amended). it is an offence to:

- *deliberately capture or kill a bat;*
- *damage or destroy a breeding site or resting place of any bat. (This is an absolute offence and intent or recklessness does not have to be proved); and*
- *deliberately disturb a bat (this applies anywhere, not just at its roost).*

4.3.2.3 Hazel Dormouse

Hazel Dormice are protected under the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended). Under the Wildlife and Countryside Act 1981 it is illegal to:

- *deliberately kill, injure, disturb or capture them;*
- *possess, control, transport (alive or dead)*
- *cause disturbance at their resting places; or*
- *block access to structures or places of shelter or protection.*

Under the Conservation of Habitats and Species Regulations 2017 (as amended). it is an offence to:

- *deliberately capture or kill a dormouse;*
- *damage or destroy a breeding site or resting place of any dormouse. (This is an absolute offence and intent or recklessness does not have to be proved); and*
- *deliberately disturb a dormouse while it's in a structure or place of shelter or protection.*

4.3.2.4 Reptiles

Adder (*Vipera berus*), slow-worm, grass snake (*Natrix helvetica*) and common lizard are protected under the Wildlife and Countryside Act 1981 (as amended). It is illegal to intentionally kill or injure them.

Smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) also receive legal protection under the Conservation of Habitats and Species Regulations 2017. The following is prohibited:

- *deliberate capturing, injuring or killing*
- *deliberate disturbance; Disturbance of animals includes in particular any disturbance which is likely- (i) to impair their ability to survive, to breed or reproduce or to rear or nurture their young; or (ii) to impair the ability of hibernating or migratory species, to hibernate or migrate; or (iii) to affect significantly the local distribution or abundance of the species to which they belong;*
- *deliberate taking or destroying the eggs of such an animal; or*
- *damaging or destroying a breeding site or resting place of such an animal and/or (ii) intentionally or recklessly - (a) disturbing any such animal while it is occupying a structure or place which it uses for shelter or protection; or (b) obstructing access to any structure or place which any such animal uses for shelter or protection.*

5 Evaluation of Ecological Features/Further Survey

Table 5 below provides an evaluation of the ecological features, identifying which are of sufficient importance to be taken forward. Any ecological feature that is identified as negligible importance will not be considered further. Where there is insufficient evidence further surveys will be recommended to be able to assess the ecological importance of that feature in relation to the site and the proposed development. In some instances, a level of site importance has been identified for features which have a very localised scale.

Table 5: Evaluation of ecological features on or likely to be on site

Ecological Feature	Justification	Level of Importance
Other woodland mixed	Located along the eastern boundary of the site was a small stetch of deciduous woodland. This is a common and widespread habitat and provides connectivity between the site's boundary habitats directly on site; however, is isolated and has poor connectivity to other similar / higher quality habitats within the local landscape and does not meet the criteria to qualify as a Habitat of Principal Importance (HPI). In addition, this habitat is referred to in Policy D07 in the North Yorkshire County Council Minerals and Waste Joint Plan (2022) and therefore is considered of local importance.	Local importance
Modified grassland	The site consisted largely of open modified grassland towards the north of the site. This habitat was species-poor and common in the local and wider area, with similar examples, including larger areas, present in the surrounding region. Its low floral diversity and frequent management limited its ecological value.	Negligible importance
Other neutral grassland	Located towards the southern section of the site was an area comprised of five rows of solar panels surrounded by un-managed neutral grassland. This type of habitat is relatively common and widespread both locally and in the surrounding area.	Site importance

Ecological Feature	Justification	Level of Importance
Native Hedgerow	Located along the northern and western boundary of the site were stretches of mature Hawthorn hedgerows (H1 & H2). At the time of this report both hedgerows one and two were in 'good' condition. This is a common and widespread habitat, typically associated with agricultural and urban areas. The site's hedgerows qualify as a Habitat of Principal Importance under the NERC Act 2006 and may also classify as 'important' under the Hedgerow Regulations 1997. Furthermore, they are referenced in Policy D07 in the North Yorkshire County Council Minerals and Waste Joint Plan (2022), underscoring their local significance.	Local importance
Scattered trees & Line of trees	A small number of scattered mature trees were found along the western boundary of the site within hedgerow three (H2. The majority of which were in good condition with one being significantly damaged the site. Additionally, a line of semi-mature and mature trees was found along the western boundary towards the proposed access to the site.	Site importance
Scattered Scrub	Patches of scattered mixed scrub were observed on site, particularly along the hedgerow and woodland boundaries. This habitat is frequently encountered both locally and more broadly.	Negligible importance
Bird assemblage	The dominant habitats on site (modified and neutral grassland) were considered unlikely to support notable species of ground nesting bird during the bird breeding season (March – August inclusive). The mature hedgerows, woodland, trees and scrub on site have potential to provide optimal nesting (March – August inclusive) and foraging (year-round) habitat for common birds and potentially notable species listed as species of principle importance under the NERC Act 2006. At the time of this report no trees are to be impacted by the works.	Unknown – further consideration required.

Ecological Feature	Justification	Level of Importance
Bat assemblage	Boundary hedgerows, mature trees and woodland on site have potential to provide a foraging and commuting resource for the local bat population. All trees on site or within close proximity to works were inspected from ground level and no potential roosting features were recorded during the survey. At the time of this report no trees are to be impacted by the works.	Unknown – further consideration required
[redacted]	[redacted] [redacted]	[redacted]
[redacted]	[redacted] [redacted]	[redacted]
Otter and Water Vole	No suitable habitat for Otter or Water Vole (Rivers, streams & steep dirt embankments) was identified on-site or within close proximity to the proposed works.	Negligible importance
Reptiles	Suitable habitat on site had potential to provide cover, basking spots, and foraging opportunities for common UK reptile species. However, these habitats are isolated from more optimal areas such as the Whitby hiking trail, located approximately 400 m west. The dominant habitat on site, modified grassland, is considered sub-optimal for reptiles. At the time of this report, no potential reptile habitats are expected to be affected by the works.	Site importance

Ecological Feature	Justification	Level of Importance
Hedgehog	Suitable habitat for Hedgehogs on site consisted of modified and neutral grassland, woodland and dense scrub, particularly along the hedgerow boundaries have potential to provide foraging and nesting opportunities for Hedgehogs on site.	Site importance
Hazel Dormice	The habitats on-site offered limited foraging and commuting opportunities to support potential Hazel Dormice and were also located outside the known distribution range for this species.	Negligible importance
Invertebrates	Minimal on-site habitat was available to support a significant diversity of invertebrates.	Negligible importance
Non-invasive species	At the time of the field survey no evidence of non-invasive plants was found on site or within close proximity.	Negligible importance

6 Ecological Constraints, Opportunities and Recommendations

6.1 Designated Sites

The desk study identified five statutory designated sites within 5 km radius of the proposed development site and one non-statutory sites. The closest designated site was the Iron Scar and Hundale Point to Scalby Ness SSSI located approximately 800 m east of the site and proposed works. The closest non-statutory site was the Burniston Beck located approximately 500 m west of the proposed primary working area.

The SSSI is characterised by a coastal landscape including rocky shores, cliffs, and marine habitats. The SSSI supports a diverse coastal and marine ecosystem, including habitats essential for various seabirds, marine invertebrates, and unique plant communities, all of which are well adapted to the dynamic coastal environment. Common species found in this area include Goshawks *(Accipter gentilis)*, Stone Curlew *(Burhinus oedicnemus)*, Otter, Common Seal *(Phoca vitulina)* and various species of bats.

The proposed development site is geographically separated from any designated sites. No hydrological connectivity nor any other impact pathways have been identified. Therefore, designated sites are not considered further in this appraisal.

This conclusion is based on the sufficient distance and lack of connecting habitats between the site and the statutory sites, which effectively eliminates the potential for impact.

6.2 Habitats

6.2.1 Other neutral grassland

Located towards the south of the site was five rows of installed solar panels, each approximately 80 m in length. The understorey beneath these panels predominantly consisted of other neutral grassland with boundary features such as hedgerows, scrub, trees, and woodland. These habitats are expected to remain unaffected by the proposed works.

Located to the south of the grassland and solar panels, OS imagery indicated the presence of a small pond (approximately 0.2 ha), (Grid Reference: TA 01960 92680). However, during the field survey, this area was completely dry, dominated by grass and rush species of vegetation suggesting the area is likely to become waterlogged and is prone to seasonal flooding throughout the year.

At the time of this report, the proposed works are set to take place within an area of modified grassland located towards the northern proportion of the site (considered of negligible ecological importance). It is understood that an area of modified grassland will be temporarily impacted by construction and excavation activities and will not result in long-term habitat loss.

The neutral grassland on site was considered of site importance, however, as works are to take place within areas of modified grassland only, this habitat is to remain un-affected by the proposed development.

Upon completion of the works, any impacted habitats should be compensated with replacements of equal or better quality. For instance, where grassland is lost, it could be replaced by the creation or expansion of natural grasslands or wildflower meadows to improve the overall floral biodiversity connectivity with similar / existing habitats on site. Additionally, to enhance biodiversity and habitat connectivity, the grassland on site could be managed to maintain and potentially increase its floral diversity. This could involve periodic mowing with the removal of cuttings to prevent nutrient enrichment and the dominance of aggressive species. Further improvements could be achieved by planting or encouraging the growth of native species, wildflowers, maintaining hedgerows, and controlling scrub encroachment in doing so could boost biodiversity, enhance habitat connectivity, and support local wildlife. At the time of this report, ADAS has been commissioned to prepare a comprehensive Biodiversity Net Gain (BNG) assessment and report *(separate document)*. This assessment will outline recommendations for all relevant habitats and species in more detail.

6.2.2 Other mixed woodland (inc. scrub and ruderal habitat)

Located along the eastern and southern boundaries of the site was a small area of mixed deciduous woodland (approximately 1.3ha). Species mix consisted of various species including Sycamore, Silver Birch, Crab Apple, Wild Cherry and Hazel. These trees ranged from young to semi-mature in age and were all in good condition with no signs of disease/damage. The understorey of the woodland was predominantly bare ground with minimal vegetation with dense areas of scrub and tall ruderal species located towards along the woodland boundaries.

The mature trees and woodland boundaries on site are considered of local importance. It is therefore recommended that these habitats be retained and protected in the proposed development plans. At the time of the report, it was understood that this habitat will remain unaffected by the proposed works, with no pruning or removal planned and therefore no impacts envisaged.

6.2.3 Native hedgerows (Inc. scattered, lines of trees & scrub habitat)

The site features extensive lines of native, mature Hawthorn hedgerows along the northern and western boundaries, these hedgerows were in good condition, considered to be habitats of principal importance (HPI). Additionally, a line of trees was also identified on site along the southern boundary of the site which featured multiple mature trees in good condition, free of disease or damage. Boundary hedgerows and mature trees on site are considered of local importance, therefore, it is recommended that these habitats be retained and protected in the proposed development plans.

At the time of this report, it was understood that all boundary features (hedgerow, mature trees, scrub, ruderal) will be unaffected by the proposed works. Habitat enhancement of these features could include filling any gaps within the current hedgerow boundary while maintaining their structure, this will help preserve and enhance their ecological functions, such as providing wildlife corridors and nesting sites. Furthermore, the surrounding trees could be improved by installing bird nest boxes, which would provide additional nesting opportunities and support avian species in the area.

6.2.4 Biodiversity Net Gain

In line with the Environment Act 2021 and policy D10 in the North Yorkshire County Council Minerals and Waste Joint Plan (2022). A biodiversity net gain assessment will be undertaken to support this application. ADAS has been commissioned to prepare a full BNG assessment and report (Separate report).

6.3 Species and Species Groups

6.3.1 Birds

The site was considered of low value to ground-nesting birds but had potential to support notable species of foraging birds within the local area. The area of grassland on the site was not deemed suitable for supporting significant assemblages of overwintering or migratory birds due to its size, the presence of solar panels and lack of key features that are typically required to support these species. The current proposed works and any potential temporary impacts are to be confined only to an area of modified grassland on site and will not result in the total loss of any potential foraging habitat for birds.

The site's hedgerows, tree cover, and scrub were likely to support common birds during nesting and potentially species listed as of principal importance under the NERC Act 2006. It is understood that these habitats are to remain unaffected and protected during the proposed works. As such, there will be no direct impact on nesting birds that utilise these woody vegetation types.

Following the finalisation of development and landscape plans, it was advised to consult an ecologist to review the need for any additional bird surveys. Should any 'woody' vegetation need to be cleared, it was strongly recommended that this be done outside the bird breeding season. If this was not possible, a pre-works check for active nests by a qualified ecologist should have been carried out. Any identified active nests should have been protected until the chicks had fledged.

6.3.2 Bats

While the dominant habitats on site were considered to be of low value for foraging and commuting bats, the linear features, including boundary hedgerows, woodland, and tree lines along the site perimeter, have the potential to serve as important foraging and commuting corridors for local bat populations.

Construction activities, such as excessive artificial lighting, particularly near foraging or commuting habitats (boundary hedgerows, woodland, & tree lines), pose risks that could disrupt bat movement and habitat use. While operations predominantly are to take place during daylight hours, certain activities, such as drilling, may continue on a 24-hour basis. To mitigate any potential risks, it is essential to implement a sensitive lighting design that avoids illuminating these corridors and to limit construction activities between dusk and dawn (ILP 2023) should artificial lighting be required.

As outlined in the Noise and Vibration Impact Assessment for the site (ARC Consulting 2025), impacts to sensitive receptors would be low. In addition, no roosting opportunities were identified on or adjacent to the site. Disturbance to roosting bats as a result of noise is therefore considered reasonably scoped out.

Optimal commuting and foraging habitat for bats was limited in the immediate area to a small area of woodland and hedgerow adjacent the site. Given the extent of these habitats, they are considered unlikely to be a vital resource for the local bat population and temporary noise disturbance will unlikely result in an impact to the conservation status of bat species which may be present in the area.

In addition, the site is located in close proximity of main roads and buildings and it is therefore likely that any local bat populations, if present, are accustomed to some level of noise disturbance.

In light of the above, potential impacts to commuting/foraging bats are considered low, and no further action regarding noise as an impact pathway is required.

It is recommended that all hedgerows and trees (inc. woodland) on site are retained and protected as part of the proposed development which is currently understood to be the case. If significant lengths of hedgerows or trees are proposed to be removed, bat activity surveys may be required to determine the importance of the site for foraging and commuting bats to inform an appropriate impact assessment and proportionate levels of mitigation and / or compensation, if required.

Enhancement opportunities involve creating or improving current linear features, such as the boundary hedgerows, to enhance connectivity across the broader site for commuting bats. Replanting of hedgerows and trees with a greater diversity of native species and sowing wildflowers can increase insect diversity and density, providing food for foraging bats

6.3.3 Reptiles

Habitats on site offer suitable refuge and basking opportunities for common species of reptile such as the Common Lizard and Slow Worm. Suitable habitats include areas of neutral grassland, hedgerow bases, dense scrub and woodland located along the eastern and southern boundaries of the site. It is recommended that, where possible, these habitats are retained and protected as part of the proposed development. At the time of this report, it is understood that the proposed works will not directly impact the identified potential reptile habitats on-site. Therefore, further reptile surveys are considered unnecessary. Nevertheless, common species of reptile are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill or injure a reptile.

As the works are confined to areas of modified grassland, which is considered sub-optimal habitat for reptiles, no further surveys are recommended at this time. However, should the scope of works expand to include areas of suitable reptile habitat, it is advised that an ecologist is consulted, as further mitigation may be required to ensure compliance with wildlife protection legislation.

6.3.4 Other mammals

Hedgehogs are listed as a Species of Principal Importance (SPI) under the Natural Environment and Rural Communities Act (NERC) 2006. No evidence of Hedgehog activity, including nests, prints or droppings, were identified on-site during the survey.

Given that the proposed works are limited to areas of modified grassland and will occur during daylight hours, no impacts to Hedgehogs or their habitats are anticipated. Should the scope of works change to include areas with suitable Hedgehog habitats, consultation with an ecologist is recommended to ensure compliance with wildlife protection legislation.

6.4 Enhancement Opportunities

In accordance with both the North Yorkshire County Council Minerals and Waste Joint Plan (2022) and the Scarborough Borough Council (2017) policies for Green Infrastructure and biodiversity, including policies D01, 7, 10, 12 and ENV 8, new developments are encouraged to integrate and enhance Green Infrastructure assets, contributing to the ecological network both within and surrounding the site. The proposed development should focus on safeguarding and improving habitats, ensuring that the project supports the connectivity and overall ecological value of the area.

As the works are temporary and confined to areas of modified grassland, enhancement opportunities should focus on practical, manageable improvements to promote biodiversity. This could include increasing the biodiversity of modified grassland through the creation of native wildflower meadows and closing gaps in existing hedgerows to improve habitat connectivity. Enhancing boundary features, such as hedgerows and scrub, can further support local wildlife without requiring extensive interventions. Additional enhancements, such as installing a small number of bird or bat boxes, would also provide benefits to the site's ecological value.

Increasing floral biodiversity surrounding wetland habitats and establishing species-rich wildflower grasslands on site will enhance foraging and sheltering opportunities for a variety of species including invertebrates, reptiles and amphibians on site. These efforts will improve foraging, nesting, and sheltering opportunities for a range of species, including ground-nesting birds, amphibians, and invertebrates. By adopting these measures, the development will not only protect existing biodiversity but also actively contribute to the ecological resilience of the wider landscape.

7 Conclusions

The preliminary ecological appraisal for the works regarding the construction of a single well pad, followed by the drilling and testing of an appraisal wellsite at the site at Coastal Road, Burniston, North Yorkshire, England, YO13 0DB (Grid Reference: TA 02072 9279) identified several ecological constraints and opportunities. The site contains several habitats, including modified and neutral grassland, boundary hedgerows, mature trees, and a small area of woodland along the eastern and southern boundaries, which have potential value for a variety of protected and notable species, such as foraging and commuting bats, reptiles, nesting birds, and terrestrial mammals.

At the time of the report, it was understood that to facilitate the proposed works, a large proportion of the modified grassland on site will be temporarily lost due to well construction and necessary excavations. It was also understood that the development would not directly impact any boundary features such as hedgerows, trees, scrub, neutral grassland (surrounding the solar panel farm) and woodland habitats on site as works will be restricted to areas of modified grassland. Upon completion, the well and any excavations will be ‘plugged and abandoned’ (P&A). All construction equipment will be removed, any areas or grassland damaged or lost during the works and access will be restored and, where possible, enhanced to improve overall ecological biodiversity.

Five statutory and one non-statutory designated sites of nature conservation were returned within 2 - 5km of the site. However, the proposed development is considered unlikely to impact any of these sites.

Habitat suitable to support nesting birds was present on site (hedgerows, woodland, trees); however, it is understood that this habitat will be fully retained. Should plans change and the removal of woody vegetation be required, it is recommended that works take place outside of nesting/breeding bird season (March to August inclusive). If this is not possible, a pre-works check for nesting birds by a qualified ecologist should be conducted of grassland habitats within 48 hours before works commencing. If active nests are found during any phase of works, a suitable exclusion zone (approximately 5 – 15 m depending on species) should be maintained until the young have fledged.

Foraging and commuting bats may utilise habitat on and adjacent to the site. It is recommended that works are undertaken during daylight hours as much as practical. If artificial lighting is required, it is recommended that a sensitive lighting design should be implemented during construction and operation phases to avoid illuminating suitable boundary habitat detailed within this report which may result in potential disturbance to commuting/foraging bats.

At the time of the report, it was understood that trees, hedgerows, scrub and woodland features on-site or within close proximity to the site are to be un-affected by the proposed works. However, if clearance is necessary, ADAS should be consulted as additional surveys and / or reasonable avoidance measures regarding nesting birds, bats, reptiles and Hedgehogs may be required to ensure the proposed works compliance with wildlife legislation.

Recommendations made in this report align with both the North Yorkshire County Council Minerals and Waste Joint Plan (2022) and the Scarborough Borough Council (2017) Policies D01, 7, 10, 12 and ENV 8 focusing on site enhancement and biodiversity within the site and surrounding landscape.

ADAS is currently awaiting landscape plans to finalise the Biodiversity Net Gain (BNG) assessment. Once received, a comprehensive BNG report will be prepared to include calculations and strategies for habitat enhancement and mitigation. This report will support the planning application and address any potential habitat losses.

By adhering to the recommendations in this report, the proposed development is expected to comply with relevant legislation and planning policies.

8 References

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Appendix 1: Proposed Plans

See following page.

Appendix 2: Frame of Reference for Geographical Context

Geographical context	Examples
International and European	Ramsar Sites, Special Protection Areas, Biosphere Reserves, Special Areas of Conservation. Sites supporting populations of internationally important species. Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP. A regularly occurring, nationally significant population/number of any internationally important species.
National	SSSIs or non-designated Sites meeting SSSI selection criteria, NNRs, Marine Nature Reserves, NCR Grade 1 Sites. Sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan. Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP). A regularly occurring, regionally or county significant population/number of any nationally important species.
Regional	Sites containing viable areas of threatened habitats listed in a Regional BAP (or some Natural Areas), comfortably exceeding SINC criteria, but not exceeding SSSI criteria. Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation; A regularly occurring, locally significant number of a regionally important species.
County / Metropolitan	Sites meeting the criteria for county or metropolitan designation (SINC, CWS, etc.). Ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/Natural Areas. Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan “red data book” or BAP on account of its regional rarity or localisation; A regularly occurring, locally significant number of a County/Metropolitan important species.
Local	Undesignated Sites or features considered to appreciably enrich the habitat resource in the District or Borough or within a zone of influence. A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation; A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.

Appendix 3: Habitat Map

See following page.

Appendix 4: Secondary Habitat Codes

Secondary Code	Description
10	Scattered scrub
11	Hedgerow with trees
14	Scattered rushes
30	Semi-natural woodland
32	Scattered trees
33	Line of trees
41	Pond (non-priority)
47	Freshwater natural
81	Ruderal or ephemeral
83	Solar panel array
106	Mown
108	Frequently mown
201	Young trees – planted
202	Young trees - self-set
206	Felled
500	Dry
502	Seasonally wet
503	Wet
510	Bare ground
521	Unmanaged
817	Industrial building

Appendix 5: Target Notes

	
Target Note 1: Image of pond, located approximately 300m west of the proposed works (off-site). Pond was urrounded by dense vegetation, arable fields, and hardstanding. It was assessed as being of 'poor' quality, unlikely to support breeding Great Crested Newts.	**Target Note 2:** The image shows a damaged Elder tree along the western hedgerow boundary. It was deemed negligible for bats. (Grid Ref: TA 02046 92847)

Appendix 6: Photographs

	
Photograph 1: Image of semi-mature trees and scrub understorey found towards the northern proportion of woodland.	**Photograph 2:** Image of young and semi-mature planted trees within the eastern boundary woodland, with an understorey predominantly consisting of perennial ryegrass.
	
Photograph 3: Image of young and semi-mature trees located within the eastern portion of the boundary woodland, with a predominantly bare ground understorey.	**Photograph 4:** Image of semi-mature Hazel trees with a bare ground understorey, located within the eastern boundary of the site.

Photograph 5: Image of dense scrub and tall ruderal vegetation forming the understorey along the eastern and southern woodland boundaries.

Photograph 6: Image of solar panels located towards the southern portion of the site, surrounded by extensive areas of neutral grassland and understorey.

Photograph 7: Image of scattered rush habitat located towards the southern boundary of the site, surrounded by areas of neutral grassland.

Photograph 8: Image of the extensive modified grassland area, surrounded by woodland, with solar panels - This is the primary area of works.

	
Photograph 9: Image of hawthorn hedgerow found along the northern boundary of the site.	**Photograph 10:** Image of modified grassland found towards the north proportion of the site and western hawthorn hedgerow.
	
Photograph 10: Image of line of line of trees with a ruderal and scrub understorey along the southern boundary of the site.	**Photograph 11:** View of the main entrance to the site, situated towards the southwest. The area is bordered by lines of trees, modified grassland, and woodland boundaries.