

Leconfield Industrial Estate – iSH Hub

784-B076698

Preliminary Ecological Appraisal

Morgan Sindall Construction

09/04/2026

**Document prepared on behalf of Tetra Tech Limited. Registered in England number:
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EXECUTIVE SUMMARY

Contents	Summary
Site Location	The 'Leconfield iSH Hub' is located in Cleator Moor, Cumbria and is centred at Ordnance Survey National Grid Reference NY 01748 15539. The site is approximately 1.31 hectares (ha) and is located south of Leconfield Street. The iSH Hub ('the site') is immediately east of the Leconfield Main Works Site boundary.
Proposals	The development proposals consist of the erection of a mixed-use hub building with associated car parking.
Scope of this Survey(s)	The scope of this survey was to: • Undertake a desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest and relevant records of protected / notable species within the site and its Zone of Influence (ZoI). • Carry out an extended Habitat Classification Survey, involving a walkover of the site to record habitat types and dominant vegetation, including any invasive species, and evidence of protected fauna or habitats capable of supporting such species. • Summarise the findings of completed surveys and recommendations of historic ecological reports. • Evaluate potential ecological receptors on site and within the ZoI. The current development is for a mixed-use hub building with associated car parking and all mitigation and enhancement measures have been made in line with the current proposals.
Results and Evaluation	Designated Sites • Due to the proximity of the River Ehen Special Areas of Conservation (SAC) and a potential hydrological pathway, a likely significant effect cannot be ruled out. A Report to Inform Habitats Regulations Assessment (HRA) Screening is therefore recommended to support the competent authority's assessment. Habitats • The red line boundary comprises Open Mosaic Habitat on Previously Developed Land (OMHoPDL), modified grassland, other neutral grassland, developed land sealed surface, introduced shrub planting and ephemeral / ruderal vegetation. Protected Species • The site has suitability for commuting and foraging bats, breeding birds, great crested newt (GCN) <i>Triturus cristatus</i>, common amphibians, badger

Contents	Summary
	<i>Meles meles</i>, invertebrates, common lizard <i>Zootoca vivipara</i> and invasive non-native species (INNS).
Recommendations	Further Assessment - Local Planning Authority (LPA) consultation with Natural England required regarding the likely impacts of the proposals on the River Ehen (Ennerdale Water to Keekle Confluence) SSSI. - GCN eDNA surveys undertaken of the ditches within the wider site boundary in the spring prior to works commencing. - A pre-commencement walkover for badger is required on and within 50m of the site prior to the works. - Pre-commencement walkover for INNS. Avoidance Measures - Precautionary working methods for birds, badgers, reptiles, amphibians and mammals. - A sensitive lighting scheme that avoids light spill onto the adjacent woodland maintains it as a dark corridor. - Good biosecurity and working practices for invasive species. Mitigation - Achieve a minimum 10 % biodiversity net gain (BNG); - Follow post-development habitat creation measures as detailed in the BNG report (Tetra Tech, 2026a); - Construction Environmental Management Plan (CEMP) to minimise indirect impacts such as dust, runoff, noise and lighting to ecologically important features; 30 year Habitat Management and Monitoring Plan (HMMP). Compensation - Follow post-development habitat creation measures as detailed in the BNG report (Tetra Tech, 2026a). Enhancements - Achieve a minimum of 10% biodiversity net gain; - Include native species-rich planting, including fruit and nut bearing species; - Seek opportunities to enhance connecting features such as the woodland along the Coast to Coast (C2C) cycle route;

Contents	Summary
	• The foodplants for existing invertebrates onsite should be included, such as bird's-foot trefoil <i>Lotus corniculatus</i>, kidney-vetch <i>Anthyllis vulneraria</i> and common ragwort <i>Jacobaea vulgaris</i>; • The inclusion of an integral bat box within the new building; • Up to three bird boxes included in retained woodland habitat such as that present along the cycle route to the north and east; and • Habitat management tasks are likely to be required and legally secured (e.g. through S106 agreement, to be determined by the LPA) for up to 30 years post-development in order for retained and created habitats to reach and be maintained in target condition.
Conclusion	Provided the measures within this report for further survey can be adopted and the high-value habitats due to be lost can be appropriately compensated for, it is anticipated that a design could be brought forward for this site that would be compliant with current local and national biodiversity planning policy.

1.0 INTRODUCTION

1.1 BACKGROUND

Tetra Tech Limited (Tetra Tech) was commissioned by Morgan Sindall Construction in February 2026 to undertake a Preliminary Ecological Appraisal (PEA) of Leconfield Industrial Estate, Main Works site, hereafter referred to as “the site”.

This report has been prepared by Senior Ecologist Elizebeth Ferrier BSc (Hons) MSc ACIEEM and the conditions pertinent to it are in Appendix A.

1.2 SITE DESCRIPTION

The ‘Leconfield iSH Hub’ is located in Cleator Moor, Cumbria and is centred at Ordnance Survey National Grid Reference NY 01748 15539 (‘the site’ and its Red Line Boundary (RLB) and shown in Figure 1; see Appendix B for site plans).

The site lies within the wider Leconfield Industrial Estate ownership boundary (Blue Line Boundary (BLB), see Figure 1). The site comprises hardstanding and modified grassland road verges, with a small area of brownfield Open Mosaic Habitat on Previously Developed Land (OMHoPDL) present in the west of the site where it borders the Leconfield Main Site Main Works boundary (Purple Line Boundary (PLB), see Figure 1). Other neutral grassland is also present in the south of the site.

The planning application boundary (Figure 1) is the same as the iSH Hub boundary (RLB) and the offsetting for the development will occur within this boundary.

The land surrounding the BLB is a mixture of built-up areas and agricultural fields.

Cleator Moor town centre is located approx. 300 m south of the site.

1.3 DEVELOPMENT PROPOSALS

Cumberland Council seek to redevelop Leconfield Industrial Estate. This redevelopment is in two phases:

- **Phase 1** - Development of a new enterprise campus (the iSH Hub)
- **Phase 2** - Levelling Up Fund (LuF) Project which includes the ‘Main Works’ site, Unit 1 and Unit 1A boundaries.

This report relates to Phase 1 only, the development of a new enterprise campus (the Hub).

The development proposals consist of the erection of a mixed-use hub building with associated car parking.

The Hub building previously reached Stage 4, and the principles established are fed into the new Hub as the project develops for relocating to a new site. The new design aims to respond to changes in client feedback and developing a new concept that responds to the relocation of the project from its original site to the new setting.

The current Site Location Plan and Soft Landscape Plan for the development are included in Appendix B.

1.4 PURPOSE OF REPORT

The purpose of this report is to:

- Undertake a desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest and relevant records of protected / notable species within the site and its zone of influence;
- Present the results of an extended Habitat Classification Survey, involving a walkover of the site to record habitat types and dominant vegetation, including any invasive species, and; evidence of protected fauna or habitats capable of supporting such species; and
- Evaluate potential ecological receptors on site and within the zone of influence; identify any constraints to the site's development and make any recommendations for further surveys, mitigation or enhancement.

Scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

This report should be read in conjunction with the accompanying Biodiversity Net Gain Assessment (Tetra Tech, 2026a).

1.5 QUALITY

Elizebeth Ferrier is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and holds a GCN Class 1 licence (2022-10228-CL08-GCN) with Natural England and is Field Identification Skills Certificate (FISC) Level 4.

Our Ecologists follow CIEEM's Code of Professional Conduct (CIEEM, 2025), with all surveys completed in accordance with Tetra Tech's Biosecurity Policy (Tetra Tech, 2025).

All staff have completed Health and Safety training. Risk Assessment Method Statements have been completed and verified prior to the site visit, with Dynamic Risk Assessments completed by all site staff upon arrival at site.

1.6 VALIDITY

This report will be considered to remain valid for 18 months, until 23/08/2027 in accordance with (CIEEM, 2019). After this time, it may be appropriate to consult an Ecologist to confirm if an update assessment is required.

The recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the habitats present, red line boundary or development proposals upon which this report was based.

2.0 METHODOLOGY

2.1 HISTORIC SURVEYS

Previous reports relevant to the site have been reviewed for this report and discussed within Section 3.0 for the results. These reports include:

- (Tetra Tech, 2026a) Leconfield Industrial Estate – iSH The Hub: Biodiversity Net Gain Assessment.
- (Tetra Tech, 2026b) Leconfield Industrial Estate – Main Works: Report to Inform Habitats Regulations Assessment – Stage 1 and 2.
- (Tetra Tech, 2025a) Leconfield Industrial Estate – Main Works: Ecological Appraisal. On Behalf of Morgan Sindall Construction. Ref: 784-B065555.
- (Tetra Tech, 2025b) Leconfield Industrial Estate – Main Works – Biodiversity Net Gain Assessment.
- (Tetra Tech, 2024a) Leconfield Industrial Estate – Main Works - Arboricultural Impact Assessment.
- (Tetra Tech, 2024b) Leconfield Industrial Estate – Main Works - Badger Site Inspection Report.
- (Tetra Tech, 2024c) Leconfield Industrial Estate – Main Works - Breeding Bird Survey.
- (Tetra Tech, 2024d) Leconfield Industrial Estate – Main Works – Construction Environmental Management Plan (CEMP).
- (Tetra Tech, 2024e) Leconfield Industrial Estate – Main Works – Great Crested Newt eDNA Survey Report.
- (Tetra Tech, 2024f) Leconfield Industrial Estate – Main Works – Invasive Non-Native Species Assessment and Management Plan.
- (Tetra Tech, 2024g) Leconfield Industrial Estate – Main Works – Invertebrate Survey Report.
- (Tetra Tech, 2024h) Leconfield Industrial Estate – Main Works – Reptile Survey Report.
- (Tetra Tech, 2024i) Leconfield Industrial Estate – Main Works – Reasonable Avoidance Report .
- (Tetra Tech, 2024j) Leconfield Industrial Estate – Bat Roost Survey - Unit 1.
- (Tetra Tech, 2021a) Cleator Moor Innovation Quarter: Ecological Appraisal. On behalf of Copeland Borough Council. Ref: 784-B029668.

2.2 DESK STUDY

The desktop study comprised two elements:

- A data search obtained from the Cumbria Biodiversity Data Centre (CBDC) in January 2024.
- An online element including a search using : Magic, Defra’s interactive, web-based database for statutory designations (<https://magic.defra.gov.uk>) and Ordnance Survey (OS) and Aerial Imagery (<https://www.bing.com/maps>).

The geographical extent of the search area was related to the significance of sites and species and potential zones of influence. For this site the following search areas were considered appropriate:

- 10 km for sites of International Importance (e.g. Special Areas of Conservation (SAC), Special Protection Area (SPA), Ramsar sites);
- 2 km for sites of National or Regional Importance (e.g. Sites of Special Scientific Interest (SSSI), protected or otherwise notable species and non-statutory designated sites of County Importance (e.g. Local Wildlife Sites (LWS));
 - In addition, any Impact Risk Zones (for identifying likely impacts on SSSIs / SACs / SPAs & Ramsar sites) overlapping the site were identified.
- 2 km for biological records;
- 2 km for granted European Protected Species Licenses (EPSLs) for great crested newts and bats; and
- 2 km for ancient woodland and mapped priority habitats (those which have been deemed to be of principal importance for the purpose of conserving biodiversity, being listed in Natural Environment and Rural Communities (NERC) Act (2006) Section 41 habitats of principal importance).

The desk study data used to inform this report were obtained in January 2024 and was used to inform the reports produced for the Main Site in 2024. This report is informed by the same dataset (see Section 2.4). As such, the desk study includes records spanning the 10-year period preceding the data search (January 2014 to January 2024).

The data search did not cover Tree Preservation Orders (TPOs); or Conservation Areas designated for their special architectural and historic interest.

Further information on relevant species / environmental legislation and planning policy can be found in Appendix C.

2.3 FIELD SURVEYS

The following methodologies have been used to identify the ecological receptors present on or near the site and which are relevant to the proposed development. Survey extended beyond the site to a distance of 50 m for badger survey, 500 m for ponds and 20 m for trees / structures with bat roost potential, where accessible.

2.3.1 Habitats

An extended Habitat Classification Survey was undertaken on the site on 23rd February 2026 by Tetra Tech Senior Ecologist Elizebeth Ferrier, ACIEEM BSc (Hons) MSc. The weather conditions were 8 °C, 100 % cloud cover, a light breeze and no precipitation.

The habitats present on site were mapped in accordance with the UK Habitat Classification Professional Edition – Version 2.0 (UK Hab Ltd., 2023), hereafter referred to as ‘UKHab’.

The habitats have been classified to a minimum of ‘Level 3’ (in accordance with UKHab), to identify the presence of any Habitats of Principal Importance (HPIs) listed under the NERC Act 2006. Where habitats occur in multiple areas of the site or are of different condition, additional polygons of the same habitat have been mapped so that their condition may be assessed independently.

The minimum recording unit for habitat is 25 m² or 5 m length for linear habitats (such as hedgerows or watercourses). Dominant plant species were recorded for each habitat present using standard nomenclature (Stace, 2019). Lists of plants recorded on site are provided in Appendix D.

2.3.2 Protected and Notable Species

The site was inspected for evidence of, and its potential to support, protected or notable species, especially those listed under the Schedule 2 of the Habitat Regulations 2017 (as amended), Schedule 5 of the Wildlife and Countryside Act (W&CA) 1981 (as amended), the Countryside Rights of Way (CROW) Act 2000, those given extra protection under the Natural Environment and Rural Communities (NERC) Act 2006, and species included in the Cumbria Local Biodiversity Action Plan (LBAP).

The presence of some species was determined using standard best practice guidance and are listed below.

Badger

The site was surveyed for evidence of badger *Meles meles* setts or other badger activity such as paths, latrines or signs of foraging. Methodologies used and any setts recorded were classified according to published criteria (Harris, et al., 1989).

Bats

There are no buildings, structures or trees within the site boundary and thus the site has no suitability for roosting bats.

Foraging / Commuting Bats

Potential habitat for foraging and commuting bats was assessed on site according to the 2023 bat conservation Trust (BCT) Guidelines (Collins, 2023).

The BCT Guidelines (Collins, 2023) use the criteria in Table 1 below to categorise the potential value of habitats and features for use by foraging and commuting bats and these have been used to characterise the value of this site.

Table 1: Categories of Habitat Suitability (Collins, 2023)

Suitability	Typical Foraging & Commuting Features
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade / protection for flight-lines or generate / shelter insect populations available to foraging bats).
Negligible	No obvious habitat features on site likely to be used as flight-paths or by foraging bats however a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.

Suitability	Typical Foraging & Commuting Features
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Birds

Bird species identified at the time of survey were noted and nesting birds recorded as seen. An assessment of habitats was undertaken to determine the likely value to breeding, wintering and foraging birds.

Great Crested Newt & Common Amphibians

The site was appraised for its suitability to support great crested newt (GCN) *Triturus cristatus* based on guidance outlined in the Herpetofauna Workers' Manual (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, et al., 2001). This appraisal also considered waterbodies within 500 m of the site and their potential to be used for breeding newts.

The waterbodies are shown on Figure 2 – Water Body Location Plan.

The waterbodies were assessed using the Habitat Suitability Index (HSI) (Oldham, et al., 2000) which assigns a value to the pond calculated from 10 pre-identified features. The HSI value gives a correlation of likely use by GCN and below 0.46 the waterbody is considered to have less likelihood of GCN presence - however this metric is a guide and should be assessed on a site-by-site basis as waterbodies with low HSI have been known to support GCN.

eDNA sampling was conducted on the waterbodies within the PLB and BLB as identified on Figure 2, in 2024. The eDNA surveys were conducted in accordance with the stringent survey methodologies defined within Natural England's accepted protocol (Biggs, J., Ewald, N., Valentini, A., Gaboriaud, C., Griffiths, RA., Foster, J., Wilkinson, J., Arnett, A., Williams, P. and Dunn, F., 2014) - *WC1067 Appendix 5. Technical Advice Note for Field and Laboratory Sampling of Great Crested Newt (Triturus Cristatus) Environmental DNA*. The results of the eDNA surveys are detailed in the Great Crested Newt eDNA Survey Report (Tetra Tech, 2024e).

Habitat suitability and evidence of other common amphibians was recorded on site where relevant.

Reptiles

The site was appraised for its suitability to support reptiles using guidance outlined in the Herpetofauna Workers' Manual (Gent & Gibson, 2003).

Invertebrates

The site's habitats were appraised for suitability to support assemblages of invertebrates and commented on in the report as appropriate.

Other Species

The site was also appraised for its suitability to support other protected or notable fauna with regard to the Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) and BS42020:2013 Biodiversity – Code of Practice for Planning and Development (BSI, 2013). Evidence of any current or historical presence of such species was recorded.

Invasive Species

Evidence of species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), and the Invasive Alien Species (Enforcement and Permitting) Order 2019 (as amended) were recorded as seen.

Scoped Out

Hazel dormouse *Muscardinus avellanarius* have been scoped out as there are no known locally populations in the vicinity of the site and they are considered to be absent from west Cumbria.

Water voles have a very limited distribution in Cumbria with no known current (post 2000) populations in West Cumbria and the core distribution area is located in the North Pennines (Cumbria Biological Data Network, 2010).

Otter *Lutra lutra* have also been scoped out as the nearest watercourse is 120 m from site with no connecting habitat.

Red squirrel *Sciurus vulgaris* have been scoped out as although there are populations present in West Cumbria there was no suitable habitat within the site boundary to support them (hedgerows or woodland).

2.4 LIMITATIONS

Any absence of desk study records cannot be relied upon to infer absence of a species / habitat as the absence of records may be a result of under-recording within the given search area.

The desk study data included in this report is from 2024. This is the same data that was used within the 2024 Tetra Tech reports. The decision was made not to update the desk study data as the extensive surveys and reports completed on the site, provide an adequate snapshot of the wildlife on site.

The optimal period to undertake an extended UKHab survey is April-September, inclusive. The survey was undertaken in February, which is outside the optimal survey window, however the dominant species of the respective vegetation types were visible and identifiable at the time of the survey. Therefore, this is not considered to be a limitation. There is the possibility that as the survey was conducted out of season that annual invasive non-native species such as Himalayan Balsam *Impatiens glandulifera* may have been missed from the assessment. To compensate for this limitation it has been recommended that a pre-commencement walkover for INNS is conducted prior to works commencing. In addition, the site is included in the INNS Assessment and Management Plan (Tetra Tech, 2024f) and management and control of INNS on site commenced in 2025.

Access was possible to all areas of the site, including a 50 m buffer, with the exception of the Suspended Platform with Incremental Descent Developed by ADAPT (SPIDA) site which is a c.0.33 ha area of hard standing in the north of the site (Appendix D, Target Note (TN6)). This is fully fenced and no access was available to this part of the site. This area was viewed through the fenceline and comprised hardstanding.

To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. This survey focuses on assessing the potential of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to those given protection under UK or European wildlife legislation, from only a single visit. This report cannot, therefore, be considered a comprehensive assessment of the ecological interest of the site. However, it does provide an assessment of the ecological interest present on the day the site was visited and highlights areas where further survey work may be recommended.

3.0 RESULTS & EVALUATION

3.1 PROTECTED SITES

Internationally designated sites identified within 10 km of the proposed development are presented in Table 2 and on Figure 3a with the designation, qualifying features and proximity from the development site also indicated. Local and National Sites are presented in Table 2 and on Figure 3b. Details of local non-designated sites within 2 km were obtained from CBDC are also included in Table 2.

Table 2. Statutory and non-Statutory Designated Sites Identified During the Desk Study

Site Name	Designation	Distance and Direction from Site	Reasons for Designation
International Sites			
River Ehen	SAC	1.3 km SE	The designated stretch of the river, between Ennerdale Water and the confluence with the River Keekle at Cleator Moor, meanders across a narrow floodplain with areas of riparian woodland and trees. This stretch of the river supports outstanding populations of the freshwater pearl mussel <i>Margaritifera margaritifera</i> . In addition, the river supports Atlantic salmon <i>Salmo salar</i> , important for the ecology of the river.
Lake District High Fells	SAC	6.8km E	Lake District High Fells has many upland tarns throughout, representing the habitat type in the uplands of north-west England. Lake District High Fells is representative of heathland habitats including wet heath, European dry heaths and Alpine and Boreal heaths.
River Derwent & Bassenthwaite	SAC	6.9km NE	The site is designated for its oligotrophic to mesotrophic waters with specific vegetation and water courses with floating vegetation, and it hosts several qualifying species under the Directive 92/43/EEC. Annex II species that are a primary reason for selection of this site: - Marsh fritillary butterfly <i>Euphydryas</i> (<i>Eurodryas</i>, <i>Hypodryas</i>) <i>aurinia</i> - Sea lamprey <i>Petromyzon marinus</i> - Brook lamprey <i>Lampetra planeri</i> - River lamprey <i>Lampetra fluviatilis</i> - Atlantic salmon <i>Salmo salar</i> - Otter <i>Lutra lutra</i> - Floating water-plantain <i>Luronium natans</i>

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Site Name	Designation	Distance and Direction from Site	Reasons for Designation
Cumbria Coast Zone 1 and 2	Marine Conservation Zone (MCZ)	5.8km W	This comprises an 18 km ² area and is designated for the following habitat types: high energy intertidal rock, intertidal sand and muddy sand, intertidal biogenic reefs, moderate energy and infralittoral rock, intertidal underboulder communities, peat and clay exposures and Honeycomb worm (<i>Sabellaria alveolata</i>) reefs. This was designated in 2013.
Solway Firth	SPA	6km NW	Assemblage qualification: A large estuarine / marine site (1,393.39 km²) of international importance that includes existing Upper Solway Flats and Marshes SPA. This site qualifies under Article 4.1 of the Directive (79/409/EEC) by supporting populations of European importance of over-wintering species listed on Annex I of the Directive including red throated diver <i>Gavia stellata</i>, bar-tailed godwit <i>Limosa lapponica</i>, barnacle goose <i>Branta leucopsis</i>, golden plover <i>Pluvialis apricaria</i> and whooper swan <i>Cygnus cygnus</i>. The area qualifies under Article 4.2 of the Directive (79/409/EEC) by regularly supporting at least 20,000 waterfowl.

National Sites

River Ehen (Ennerdale Water to Keekle Confluence)	SSSI	1.3 km SE	A river that supports freshwater pearl mussel populations.
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Local Sites

Rheda South Park	County Wildlife Site (CWS)	0.7 km NE	No information available.
Birkhouse Pond	CWS	0.7 km SE	No information available.
Parkside Pond	CWS	1.2 km E	No information available.
Dub Beck	CWS	1.7 km N	No information available.
Keekle River	Site of Invertebrate	0.8 km W	No information available.

Site Name	Designation	Distance and Direction from Site	Reasons for Designation
	Significance (SIS)		
Weddicar Hall	SIS	1.4 km N	No information available.
Dub Beck	SIS	1.7 km N	No information available.

Ancient Woodland and Priority Habitats

The ancient woodland and priority habitats (Habitats of Principal importance (HPis)) that have been identified via the MAGIC search within 2 km are detailed below and are presented on Figure 3a:

- There is an area of Open Mosaic habitat on Previously Developed Land (OMHoPDL) on site and (as part of the same habitat block) immediately adjacent to the south. Within the site itself only, this OMHoPDL covers 0.02 ha of habitat in the centre of the site (Figure 4);
- There are five areas of good quality semi-improved grassland, the closest being 0.18 km north east of site;
- There are two areas of purple moor grass and rush pasture 0.55 km north-west of the site;
- There are eleven areas of deciduous woodland, the closest being 0.04 km north of sit and
- There is one area of lowland fen 1.1km north-west of the site;

3.2 HABITATS

The following habitats, as outlined in Table 3, have been identified through our field assessment, a UKHab map can be found in Figure 4, with detailed Target Notes (TN) and Photographic Plates included in Appendix D, as appropriate.

Importance is assessed in accordance with the CIEEM ‘Guidelines for Ecological Impact Assessment in the UK and Ireland’ (CIEEM, 2024) (hereafter referred to as the ‘CIEEM Guidelines’). Further information on the habitats present is contained in the Biodiversity Net Gain (BNG) Report (Tetra Tech, 2026a).

Table 3. Habitats

Habitat (UKHab Code) (TN)	Result	Importance Assessment
Other neutral grassland (g3c) (TN1)	Other neutral grassland is present in the south of the site (TN1). This was comprised of frequent to abundant glaucous sedge <i>Carex flacca</i> , frequent red fescue <i>Festuca rubra</i> with occasional neutral forbs such as ribwort plantain <i>Plantago lanceolata</i> and	Local importance

Habitat (UKHab Code) (TN)	Result	Importance Assessment
	common knapweed <i>Centaurea nigra</i> . Occasional patches of soft rush <i>Juncus effusus</i> were also present. Scrub was removed from this area during the 2025 / 2026 winter period and stumps and material chippings were present.	
Modified grassland (g4) TN2	Modified grassland is present within road verges along Leconfield Street (TN2). These comprised a short, uniform frequently mown sward with frequent perennial rye-grass <i>Lolium perenne</i> , red fescue and smooth meadow grass <i>Poa pratensis</i> . Common forbs such as creeping buttercup <i>Ranunculus repens</i> , daisy <i>Bellis perennis</i> and ribwort plantain were occasional.	Negligible importance
Modified grassland (g4) Introduced shrub (847) TN3	The road verge in the north-east of the site, contained managed introduced shrub planting.	Negligible importance
Developed land; sealed surface (u1b) TN4, TN5 and TN6	Developed land; sealed surface in the form of roads, hardstanding and pavements were present throughout the site (TN4, TN5 and TN6). Hardstanding in the south of the site was the foundation of a previous building, which was currently used for parking (TN4). Leconfield Street allows access to the site (TN5), there was also a hardstanding path connecting to the Coast 2 Coast (C2C) cycle path (TN5). The SPIDA site also comprised of hardstanding in the north of the site (TN6), this area was not accessed (Section 2.4).	Negligible importance
Sparsely Vegetated Land (u1f) Ruderal / ephemeral (81) TN7	Ruderal / Ephemeral vegetation was present centrally within the site (TN7). This comprised an area of bare ground with a stony substrate. This was the donor area for a section of OMHoPDL translocated in 2022 (Tetra Tech, 2022). The area was sparsely vegetated with frequent red fescue and occasional common bent <i>Agrostis capillaris</i> , common knapweed and daisy.	Local Importance

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Habitat (UKHab Code) (TN)	Result	Importance Assessment
Sparsely vegetated urban land (u1f) Open mosaic habitats on previously developed land (80) TN8	The OMHoPDL was present on the western boundary (TN8). This was comprised of a varied sward, which was structurally diverse and varied in height with ephemeral pools present. The sward composition was close to that of a UKHab code f2b purple moor-grass and rush pastures fen-type with abundant glaucous sedge and several types of rush including hard rush <i>Juncus inflexus</i>, soft rush and sharp-flowered rush <i>Juncus acutiflorus</i>. The OMHoPDL within the iSH Hub boundary is 0.02ha. This is smaller than the threshold of 0.25 ha described within the JNCC Priority habitat description (JNCC, 2010). However, this area is directly connected to the OMHoPDL within the Main Site boundary and together these areas have a size of 1.22 ha which is greater than then 0.25 ha threshold, hence it has been mapped as a discreet area.	OMHoPDL is on the Cumbrian LBAP County Importance

3.3 PROTECTED AND NOTABLE SPECIES

Data purchased from the Cumbria Biodiversity Data Centre confirmed the presence of a number of protected and notable species within 2 km of the site. Relevant data are discussed in Table 4 below.

Protected and notable species identified during the field survey as a receptor for the site are detailed in Table 4. Further information on relevant species / environmental legislation and planning policy can be found in Appendix C.

Table 4. Species

Species	Legal Protection	Result	Importance Assessment
Badger	Protection of Badgers Act 1992; Wildlife and Countryside Act 1981 (as amended) Schedule 6.	Desk Study One record of badger within a 2 km NW of the site, recorded in 2018. This was recorded as a four figure grid reference only. Field Survey There were no badger setts or other signs of badgers recorded on site or within a 50 m radius of the site boundary. The site was primarily comprised of hardstanding which is unsuitable for both sett creation and foraging badger. The other neutral grassland and OMHoPDL provided suitable foraging habitat for badger but make up a small component of the habitats on site. The C2C cycle path with associated woodland and scrub to the east of the site provides connectivity to the network of fields with trees / hedges to the north and woodland habitat to the south-east (through the underpass under Leconfield Street) - providing potential habitat for foraging and sett creation and suitable dispersal routes. Badgers may be a constraint for the proposed works – See Section 4.1.	Local
Bats	Conservation of Habitats and Species Regulations	Desk Study	Negligible

Species	Legal Protection	Result	Importance Assessment
	2017 (as amended) Schedule 2; Wildlife and Countryside Act 1981 (as amended) Schedules 5 & 6; Natural Environment and Rural Communities 2006 Section 41.	One record of an unidentified bat species 1.7 km north of the site was recorded in 2016. This was for two bats entering a roost in a mill wall. Magic returned one record of an EPS license within a 2 km radius of the site. This was for the destruction of a resting place for Whiskered <i>Myotis mystacinus</i>, Brandt's <i>Myotis brandti</i> and Natterer's <i>Myotis nattereri</i> bats in 2014, 0.9 km west of the site. Historic Surveys Two common pipistrelle <i>Pipistrellus pipistrellus</i> day roosts were identified in Buildings B1 and B6 in the wider site (BLB) (Tetra Tech, 2024j), outside of the RLB. Common and soprano pipistrelle <i>Pipistrellus pygmaeus</i> were recorded foraging in the wider site during surveys of Unit 1 (Tetra Tech, 2024j) outside of the RLB. Field Survey There are no buildings, structures or trees within the site boundary and it thus has no suitability for roosting bats. The habitats onsite including OMHoPDL and other neutral grassland were considered suitable for foraging bats. However, these habitats make up a small part of the site and the majority of the site comprises hardstanding. There are habitats in the wider environment with suitability for foraging bats included the woodland to the south and east. The C2C cycle path with associated woodland south of the site to the east provides connectivity to the network of fields with trees / hedges to the north. The habitats above were categorised per the BCT guidelines (Collins, 2023) noted in Table 1 Section 2.3.2. The site is therefore considered to be of 'low' suitability for foraging and commuting bats due to the presence of the adjoining OMHoPDL habitat within Main Works and the woodland south of the site. Bats are a constraint for the proposed works – see Section 4.1.	
Birds	Wildlife and Countryside Act 1981 (as amended).	Desk Study	Local

Species	Legal Protection	Result	Importance Assessment																				
		The data search included no bird records after 2014 within a 2 km radius of the site. The latest records are from 2013. A review of bird records older than 2013 is included in Cleator Moor Innovation Quarter: Ecological Appraisal (Tetra Tech, 2021a). A total of 31 bird species were recorded on the Main Works site (west of the site) over the six Breeding Bird Surveys (BBS) survey visits (Tetra Tech, 2024c) including: • Six NERC Species of Principle Importance (SPI) / LBAP species; • Six birds of Conservation Concern (BoCC) Red list species; • Eight BoCC Amber List Species The breeding status of each of the 31 recorded species are as follows: • Ten species were confirmed breeding; • Thirteen further species were considered probable breeders; • Four further species were considered possible breeders; and • Four species were overflying or non-breeders (not breeding on the site). The notable species recorded and legal status is shown in Table 6.1 below: Table 6.1. Notable Species Recorded <table><tr><th>Species Name</th><th>Common Name</th><th>NERC and BoCC Status</th><th>Number Territories</th><th>Breeding Status</th></tr><tr><td><i>Pyrrhula pyrrhula</i></td><td>Bullfinch</td><td>NERC 41, BoCC Amber</td><td>4</td><td>Probable</td></tr><tr><td><i>Locustella naevia</i></td><td>Grasshopper warbler</td><td>NERC 41, BoCC Red</td><td>1</td><td>Probable</td></tr><tr><td><i>Chloris chloris</i></td><td>Greenfinch</td><td>BoCC Red</td><td>1</td><td>Possible</td></tr></table>	Species Name	Common Name	NERC and BoCC Status	Number Territories	Breeding Status	<i>Pyrrhula pyrrhula</i>	Bullfinch	NERC 41, BoCC Amber	4	Probable	<i>Locustella naevia</i>	Grasshopper warbler	NERC 41, BoCC Red	1	Probable	<i>Chloris chloris</i>	Greenfinch	BoCC Red	1	Possible	
Species Name	Common Name	NERC and BoCC Status	Number Territories	Breeding Status																			
<i>Pyrrhula pyrrhula</i>	Bullfinch	NERC 41, BoCC Amber	4	Probable																			
<i>Locustella naevia</i>	Grasshopper warbler	NERC 41, BoCC Red	1	Probable																			
<i>Chloris chloris</i>	Greenfinch	BoCC Red	1	Possible																			

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Species	Legal Protection	Result					Importance Assessment
		<i>Larus argentatus</i>	Herring gull	NERC 41, BoCC Red	9	Confirmed	
		<i>Passer domesticus</i>	House sparrow	NERC 41, BoCC Red	1	Confirmed	
		<i>Larus fuscus</i>	Lesser black-backed gull	BoCC Amber	6	Confirmed	
		<i>Linaria cannabina</i>	Linnet	NERC 41, BoCC Red	1	Not breeding on site	
		<i>Haematopus ostralegus</i>	Oystercatcher	BoCC Amber	3	Confirmed	
		<i>Turdus philomelos</i>	Song thrush	NERC 41, BoCC Amber	3	Confirmed	
		<i>Apus apus</i>	Swift	BoCC Red	1	Not breeding on site	
		<i>Sylvia communis</i>	Whitethroat	BoCC Amber	1	Possible	
		<i>Phylloscopus trochilus</i>	Willow warbler	BoCC Amber	4	Confirmed	
		<i>Columba palumbus</i>	Woodpigeon	BoCC Amber	4	Probable	

Species	Legal Protection	Result					Importance Assessment
		<i>Troglodytes troglodytes</i>	Wren	BoCC Amber	9	Confirmed	
		The Main Works site was cleared of scrub and trees during the 2025 / 2026 winter period and is now not suitable for any breeding birds except ground nesting species (such as oyster catcher). Field Survey No birds were observed on site during the site visit. The site has limited suitability for nesting birds, with the introduced shrub planting offering the only suitable nesting habitat. Birds are a constraint for the proposed works – see Section 4.1.					
GCN and Common Amphibians	GCN: Conservation of Habitats and Species Regulations 2017 (as amended) Schedule 2; Wildlife and Countryside Act 1981 (as amended) Schedules 5; Natural Environment and Rural Communities 2006 Section 41. Other amphibians: Wildlife and Countryside Act 1981 (as amended) Schedules 5; Natural Environment and Rural Communities 2006 Section 41.	Desk Study No post 2014 records were available within a 2 km radius of the site. The latest records are from 2013. Smooth <i>Lissotriton vulgaris</i> and palmate newt <i>Lissotriton helveticus</i>, common frog <i>Rana temporaria</i> and common toad <i>Bufo bufo</i> were recorded on site during the surveys in 2024 (Tetra Tech, 2024e) and 2021 (Tetra Tech, 2021a). Magic returned no records of GCN EPS licenses within a 2 km radius of the site. There are 5 ditches and 1 pond within 500m as shown on Figure 2. All waterbodies within the wider Leconfield Industrial Estate were surveyed for eDNA in 2024 (Tetra Tech, 2024e) as shown on Figure 2 had a result of negative for GCN eDNA. Field Survey The Pond off Birks Road is approximately 0.43 km east of site. It was HSI assessed in 2026 and received a category of poor (Appendix D). The pond is separated from the site by Birks Road, which is a busy road and is considered a barrier to dispersal.					Local

Species	Legal Protection	Result	Importance Assessment
		Ditch 6a/b was HSI assessed in 2026 (Appendix D) and received a category of good. The HSI of ditches 4, 5a and 5b were not reassessed in 2026. The habitat around these ditches was assessed and is unchanged from the previous survey, the previous HSI assessment is therefore considered to still be valid (Appendix D) and (Tetra Tech, 2024e). The other neutral grassland and OMHoPDL are suitable for foraging and sheltering amphibians but otherwise there is limited suitable terrestrial habitat present on site. There is connectivity via the adjacent OMHoPDL on the Main Works site to the C2C cycle path with associated woodland and scrub that adjoins site to the south providing connectivity to the woodland and fields to the north. GCN are considered to be likely absent from the site, however the 2024 eDNA results may no longer reflect the current site status, as such, the presence of GCN on site cannot be completely ruled out. GCN and common amphibians are a constraint for the proposed works – see Section 4.1.	
Reptiles	<i>Adder Vipera berus</i>, grass snake <i>Natrix natrix</i>, slow worm <i>Anguis fragilis</i> and common lizard <i>Zootoca vivipara</i>: Wildlife and Countryside Act 1981 (as amended) Schedule 5; Natural Environment and Rural Communities 2006 Section 41.	Desk Study No post 2014 records were available within a 2 km radius of the site. No reptiles were recorded during the 2024 surveys (Tetra Tech, 2024h). Common lizard was found within the site during Ecological Clerk of Works (ECOW) site inspection in 2023 (E. Ferrier personal observation). Two observations of common lizard were also recorded during the 2021 surveys (Tetra Tech, 2021a), the closest record was 130 m west of the site. Common lizard are considered to be present on site. Field Survey Areas of suitable reptile habitat on site include OMHoPDL, other neutral grassland and ruderal / ephemeral habitat.	Local

Species	Legal Protection	Result	Importance Assessment
		The site is adjacent to the OMHoPDL on Main Works and via this area is connected to the C2C cycle path with associated woodland and scrub and the wider environment. Reptiles are a constraint for the proposed works – see Section 4.1.	
Invertebrates	Some invertebrates are protected under Conservation of Habitats and Species Regulations 2017 (as amended) and Wildlife and Countryside Act 1981 (as amended). Many invertebrates are also listed as rare and most threatened species under Section 41 of the Natural Environment and Rural Communities Act (2006).	Desk Study The desk study reported 35 records of invertebrates within a 2 km radius of the site recorded since 2014. These records were reported in Cleator Moor Innovation Quarter: Ecological Appraisal (Tetra Tech, 2021a), with no new records since 2018. The Invertebrate Survey conducted in 2024 (Tetra Tech, 2024g) observed the following invertebrates (all moths/butterflies: <i>Lepidoptera</i>) within the Main Works site: • Six spot burnett <i>Zygaena filipendulae</i> on selfheal <i>Prunella vulgaris</i>; • Meadow brown <i>Maniola jurtina</i>; • Dingy skipper <i>Erynnis tages</i>; • Green vined white <i>Pieris napi</i>; • Dingy skipper <i>Erynnis tages</i> (NERC, SPI and LBAP); and • Cinnabar <i>Tyria jacobaea</i> (NERC, SPI and LBAP) The foodplants of these species include common bird's-foot trefoil <i>Lotus corniculatus</i>, greater bird's-foot trefoil <i>Lotus pedunculatus</i>, kidney vetch <i>Anthyllis vulneraria</i> and common ragwort <i>Jacobaea vulgaris</i>. Field survey The food plants of the above species were found on site; common ragwort (within the other neutral grassland (TN1) and kidney vetch (in the ephemeral vegetation within the u1b areas (TN4)). The other food plant species listed above (common and greater bird's-foot trefoil) were not found within the site during this survey, but as the survey was conducted out of botanical survey season, their presence within the site boundary cannot be ruled out at this time. Invertebrates may pose a constraint to proposed works on site – see Section 4.1.	Local

Species	Legal Protection	Result	Importance Assessment
Invasive species	Wildlife and Countryside Act 1981 (as amended) Schedule 9; The Invasive Alien Species (Enforcement and Permitting) Order 2019 (as amended); Environmental Protection Act 1990.	Desk Study There were 19 records of five different invasive species within 2 km radius of the site, including two animals: American mink <i>Neovison vison</i> and grey squirrel <i>Sciurus carolinensis</i> and three plants: montbretia <i>Crocasmia pottsii x aurea</i> = <i>C. x crocosmiiflora</i>, Japanese knotweed <i>Reynoutria japonica</i> and Himalayan balsam. These records were reported in Cleator Moor Innovation Quarter: Ecological Appraisal (Tetra Tech, 2021a), with no new records since 2018. Eight plant species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded within the Main Works Survey Area during the 2024 INNS survey (Tetra Tech , 2024f): • Bearberry cotoneaster <i>Cotoneaster dammeri</i>; • Bullate cotoneaster <i>Cotoneaster rehderi</i>; • Himalayan cotoneaster <i>Cotoneaster simonsii</i>; • Hollyberry <i>Cotoneaster bullatus</i>; • Wall cotoneaster <i>Cotoneaster horizontalis</i>; • Giant hogweed <i>Heracleum mantegazzianum</i>; • Japanese knotweed; and • Rhododendron <i>Rhododendron ponticum</i>. Field Survey No INNS were observed on site during the visit. The INNS management plan (Tetra Tech , 2024f) includes the iSH boundary – hence, works to control and eradicate INNS from the site are already underway. However, as the survey was conducted out of season there is the possibility that species may have been missed (see Section 2.4).	N/A

4.0 RECOMMENDATIONS

4.1 MITIGATION AND FURTHER SURVEY

All of the works outlined below in Table 5 should be assumed as likely requirements for the pre-planning stage to inform a planning application, unless otherwise stated.

Table 5. Mitigation and Further Survey / Assessment

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
Designated sites	As the site lies within 1.3 km of the River Ehen SAC and a hydrological pathway may be present, a Report to Inform HRA Screening should be provided to support the LPA (as competent authority) to determine whether a Likely Significant Effect can be ruled out. If it cannot, the LPA will need to undertake an Appropriate Assessment. The site is within SSSI impact zones for River Ehen (Ennerdale Water to Keekle Confluence) SSSI and it is recommended that Natural England are consulted for all planning applications in this location. There are seven local wildlife sites within a 2 km radius of the site. The closest CWS site Rheda South Park is 0.7 km northeast from the site. As no designation information was available for each of the sites, it is difficult to assess impacts on the particular habitats and species that may be found on site. However, given the distance from the site to the Local	Any mitigation requirement will be detailed in the Appropriate Assessment (AA) as part of a Habitats Regulations Assessment (HRA). The LPA (Cumberland Council) will be the competent authority for the iSH Hub HRA.	The Local Nature Recovery Strategy (LNRS) (Westmoreland and Furness Council, 2025a) identifies the site with an action for enhancing the built environment. The detailed measures are described as ‘<i>manage brownfield sites to be wildlife-rich through long-term, site-specific, targeted management that maintains an appropriate balance of disturbance, and variety of vegetation species and structure, to benefit the species that they support.</i>’

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
	Wildlife Sites, no adverse effects are considered likely. No further assessment is required.		There are no plans to retain OMHoPDL within the site post-development (Tetra Tech, 2026a). However, post-development habitats will include alternative mosaics designed to emulate OMHoPDL's biodiversity value, with the same ecosystem functions. These enhancements are detailed in the BNG report (Tetra Tech, 2026a), in line with strategic Significance and habitat distinctiveness. The site has connectivity to two CWSs to the east of the site: Birkhouse Pond and Parkside Pond via the C2C Cycle route. The connectivity along the cycle route could be improved through additional tree and shrub planting or scrape

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
			creation for basking reptiles and to improve invertebrate diversity.
Habitats	The development will need to achieve a minimum of 10 % net gain in biodiversity in line with local and national planning policy. The habitats on site achieved a variety of distinctiveness values according to the Defra Biodiversity Metric (Defra, 2024a).. Of these, OMHoPDL, was identified as ‘high’ which requires replacement with the same habitat type. The Soft Landscape Plan (ISH-ONE-ZZ-ZZ-D-L-0003-P05_SoftLandscapeGA, Appendix B), shows that the majority of the habitats within the site boundary will be lost to the development. Landscape Plan P05 shows creation of OMHoPDL (species-rich neutral grassland, heathland mix, open calcareous grassland) as well as other neutral grassland (other neutral grassland) and amenity turf (modified grassland), plus ornamental shrub/hedgerow planting and proposed trees (Appendix B).	Loss of habitats on site will be mitigated for and compensated for through obtaining Biodiversity Net Gain within the site. It is proposed to create habitats on site that will emulate OMHoPDL’s biodiversity value (Tetra Tech, 2026a). The site currently achieves greater than 10 % net gain for biodiversity (Tetra Tech, 2026a). Therefore, the site losses can be offset on-site. Habitat management tasks are likely to be required and legally secured (e.g. through Conservation Covenant, S106 Agreement or Unilateral Agreement, to be determined by the LPA) for up to 30 years post-development in order for retained and created habitats to reach and be maintained in target condition. Habitat prescriptions should be captured within a Habitat Management and Monitoring Plan (HMMP)(https://www.gov.uk/guidance/creating-a-habitat-management-and-monitoring-plan-for-biodiversity-net-gain), to be prepared by an Ecologist.	Opportunities should be sought to use or incorporate existing species and materials on site, such as the inclusion of species that support notable invertebrate species (dingy skipper and cinnabar moth), such as kidney vetch, common bird’s-foot trefoil and common ragwort. Landscaping should be native and as semi-natural as possible (these enhancements will be quantified with the use of the BNG metric). Opportunities should be sought to increase connectivity between the site and the wider environment and to

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
			continue to allow species dispersal. Landscaping of the site post-development is detailed in the BNG report (Tetra Tech, 2026a). Recommendations for habitats on-site post-development are in line with the BNG Metric recommendations for strategic Significance and habitat distinctiveness.
Badger	A pre-commencement walkover for badger is required on and within 50m of the site prior to the works. Badger surveys can be undertaken at any time of year but vegetation can obscure evidence in the summer.	As the site contains areas of suitable habitat for foraging within woodland, grassland and sett creation within the wider habitats, it is recommended that precautionary working measures as outlined in the Reasonable Avoidance Measures (RAMS) report (Tetra Tech, 2024i) to avoid accidental harm to badgers and other mammals are followed during the construction phase: During construction, any trenches, ditches, and holes dug on site should either be backfilled overnight, covered, or left with a suitable ramp in place	The site should be enhanced by including native fruit and nut producing species within the landscaping to increase the food availability and protective cover for wildlife moving through the site.

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		when the site is un-occupied to allow any mammals to escape if they become trapped. - Any excavations should be checked every morning prior to commencing to works to confirm the absence of badgers. - Any pipes stored or being installed on site should be capped to reduce the risk of animals climbing into them. Should an active sett be identified during the pre-commencement survey, it should be retained under the final development plan and an appropriate buffer zone should be implemented whereby no construction works can take place. If this is not possible, appropriate mitigation would be required to enable the existing sett to be closed under a licence from Natural England. The standard licence period for badger sett closure is between 1st July to 30th November inclusive in any given year.	
Bats	Bats are fully protected under the Habitats Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Further assessment is required to inform the proposals and any licensing requirements. Roosting	Foraging and Commuting Compensation of foraging habitat loss is required. The site's Soft Landscape Plan (Appendix B) includes habitats of high invertebrate diversity and lines of street trees.	The inclusion of native nectar producing plants (to attract insects) within the final landscaping plans is recommended to provide opportunity for

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
	No trees or structures were present within the site and therefore offered no bat roosting potential. Foraging and Commuting The site primarily comprises hardstanding. However, it was assessed as offering low foraging suitability largely due to the presence of the OMHoPDL within the site and connected to the OMHoPDL west and south of the site. The site lies within the Core Sustenance Zone of local bat populations of common pipistrelle, soprano pipistrelle and Myotis species. However, the loss of the small parcel of OMHoPDL on site is not considered to significantly impact the Core Sustenance Zone (CSZ) of the local bat populations, when habitats in the wider area are considered. The woodland corridor south of the site is considered a valuable habitat for foraging and commuting bats and therefore mitigation will be required to reduce indirect impacts of artificial lighting. Further surveys for bats are not recommended. The site currently largely comprises hardstanding. This is being replaced with mosaic habitats (calcareous grassland, wildflower grassland and heathland which will support invertebrates (prey resource for bats)), with connection to the Main Works site landscaping.	Mitigation for foraging and commuting bats along the woodland boundary adjacent to the eastern boundary is to include a sensitive lighting scheme that avoids light spill in this area and maintains it as a dark corridor. Where external lighting is required, it will be designed to avoid lighting key bat habitats and commuting corridors, using warm spectrum, directional luminaires with appropriate shielding, dimming/timing controls, and minimised spill consistent with ILP Guidance Note GN08/23. During detailed design of the lighting plan, lux plots will be produced to show predicted lux level change across the site and demonstrate avoidance of external light spill on the woodland boundary. If used, flood lights will have a dimming feature working alongside the typical timeclock and photocell, in order to keep lux levels as low as possible during the active bat season (March to September inclusive) between dusk and dawn (when bats are emerging and re-entering roosts and during peak foraging times). Lighting column height will be kept as low as possible (<4m) in order to keep light directional and below the horizontal line; and any external lighting to be compliant with the Institute of Lighting Professionals (ILP, 2023) guidance.	foraging and commuting bats. It is also suggested that an integral bat box is included on the new building, to provide roosting opportunities.

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
Birds	Breeding birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended), while Schedule 1 species are further protected meaning it is an offence to disturb individuals of these species when they are 'at or near' an active nest. The majority of the site comprises hard standing and is unsuitable for nesting birds. The introduced shrub planting offers suitable nesting habitat. In addition, the Main Works site was cleared of scrub and trees during the 2025 / 2026 winter period and is now not suitable for any breeding birds except ground nesting species (such as oyster catcher).	It is recommended that clearance of the introduced shrub habitat is undertaken outside of the nesting bird season (generally accepted as March to September inclusive). If this is not possible, a nesting bird check undertaken by a suitably qualified ecologist will be required to take place 24 hours prior to clearance works. Once complete, a 24-hour window will allow for the area to be made unsuitable for nesting in the area checked. If these works in the checked area are not completed within 24h, a further inspection may be required. Should an active nest be identified all works within a suitable buffer of the nesting site must cease until the young have fledged / nesting ends. The size of the buffer will depend on the species of bird and will be confirmed by the ECoW.	Enhancement of the site through planting of native trees or hedgerow (in line with the BNG requirement) would provide further nesting opportunities. Up to three bird boxes could also be included in retained woodland habitat such as that present along the cycle route to the north and east.
GCN and Common Amphibians	GCN are fully protected under the Habitats Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Common toad is protected under the NERC Act as S41 SPI. Environmental DNA (eDNA) assessments were carried out on the Main Works site during the peak GCN breeding season (May-June 2024) (Tetra Tech, 2024e). However, as these surveys were conducted in 2024, this data is now out of date. The ditches within the	Precautionary working methods (PWMs) are recommended during the construction phase to avoid harm to common amphibians. Measures recommended include timing works to minimise any potential impacts pre- and during construction; site clearance should ideally be undertaken between April and October (or in temperatures above 5°C) when	Opportunities should be sought to include waterbodies within the proposed site designs. Currently the Site Landscape Plan (Appendix B), includes gabion baskets and cut concrete planks, which

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
	PLB and BLB (Figure 2) are considered to be suitable to support breeding GCN. The terrestrial habitat on site is considered to be largely unsuitable for GCN as the majority of the site is hardstanding. In order to confirm likely absence of GCN on site it is recommended that eDNA surveys are undertaken of the ditches within the PLB and RLB in the Spring season before works commence. Four other amphibian species: palmate newt, smooth newt, common frog and common toad were observed on site in past surveys.	amphibians are active (bearing in mind that a nesting bird check will be required); - any vegetation clearance is recommended to be undertaken under the supervision of an experienced ecologist (under a ECoW) who will give a detailed Toolbox Talk prior to the start of each working day. - Immediately prior to site clearance works the ECoW will conduct a walkover of the site and finger-tip search. - The methods of vegetation removal include a directional two-stage cut (working towards retained habitats on and beyond the site boundaries to maintain connectivity) where a fingertip search by the ecologist will be conducted prior to both cuts. The first cut should be to a height of approximately 15 cm with the second cut to take down to ground level. - Any existing soil / brash / log piles acting as potential hibernacula should be removed under supervision of the ecologist. - Any pipes stored, or installed on-site, should be inspected and covered or	will provide refugia opportunities and a variety of grassland types including other neutral and calcareous grassland.

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		capped at night to reduce the risk of animals becoming trapped inside. Precautionary measures should be captured within the site's CEMP.	
Reptiles	Reptiles are protected from killing and injuring under the Wildlife and Countryside Act 1981 (as amended), and listed in the NERC Act, 2006. Common lizard are considered to be present on site, as they were identified on site during ECoW in 2023. As the population of common lizard on site is likely to be small, reptile translocation is not recommended but it is recommended that vegetation clearance is undertaken following reasonable avoidance measures (RAMs)- see RAMS Report (Tetra Tech, 2024i) .	In order to reduce risk of harm to reptiles, it is recommended that vegetation clearance is undertaken following reasonable avoidance measures - see RAMS report (Tetra Tech, 2024i) . Where clearance of grassland is undertaken this should be preceded by a fingertip search, with ECoW undertaken by a suitable qualified Ecologist. During the works period. Contractors must adhere to precautionary methods such as storing materials off the ground and capping any open excavations and dismantling any piles of rubble by hand. This should be detailed within a CEMP. If any reptiles are found during the works period, they should be allowed to escape unharmed, and an ecologist contacted for advice. If numerous reptiles are found works should cease and methodology be re-evaluated. Precautionary working measures to safeguard any reptiles which should include; a toolbox talk with details of reptile identification;	Enhancing the site through native planting such as long grassland would provide connectivity and suitable habitat for reptiles. The current Site Landscape Plan (Appendix B), includes gabion baskets and cut concrete planks, which will provide refugia and basking opportunities for reptiles and a variety of grassland types including other neutral and open calcareous grassland.

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		- identification of any areas of higher suitability for reptiles; - working measures to be followed during activities with potential to harm reptiles e.g., vegetation clearance; and - appropriate actions to take should reptiles be identified during the works.	
Invertebrates	The site has potential to support cinnabar moth and dingy skipper, protected under NERC Act, 2006, additionally the food plants for both species (kidney vetch and ragwort respectively), are present on site. Dingy skipper caterpillars are present from mid-August – end of March (to include overwintering pupae attached to leaves) and cinnabar moth caterpillars are present from July – early September. The grassland, ruderal / ephemeral and OMHoPDL on site are considered to be of local importance for invertebrates. Further surveys of the site are not recommended as the habitat on site suitable to support invertebrates is small and the mitigation and avoidance measures recommended are considered suitable to mitigate any impacts.	Provisions to compensate for the loss of these habitats should be included in the Habitat Landscape Management Plan (HLMP). Reasonable avoidance measures (RAMS report (Tetra Tech, 2024i)) for dingy skipper and cinnabar moth caterpillars, and their foodplants that may be present in different areas of the site, are as follows: - A toolbox talk delivered by an ECoW will cover identification of the cinnabar moth and dingy skipper caterpillars and foodplants. - If site works are undertaken from April – September, prior to site clearance works, the ECoW will walk the site to identify any of the foodplants within the works area with caterpillars of dingy skipper or cinnabar moth present. These plants and any eggs or caterpillars will	Plants selected for inclusion in the final planting strategy, should be chosen to maximise the overall biodiversity value of the re-developed site, including nectar-rich species of local providence for butterflies and bees. If possible, seed from the site should be used. The foodplants for existing invertebrates onsite should be included, such as bird's-foot trefoil, kidney-vetch and ragwort. In addition, landscaping should be managed in a sympathetic manner, using few chemicals to

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		be translocated to a suitable receptor area determined by the ECoW. Prior to site clearance works, the ECoW will collect seed from the food plants of dingy skipper (birds foot trefoil) and spread them to retained habitats in the wider site. If works are undertaken in winter these actions are not required.	encourage invertebrate diversity.
Invasive species	No INNS were identified on site during the survey. This site is included in the INNS Assessment and Management Plan (Tetra Tech, 2024f) and management and control of INNS on site commenced in 2025.	General precautionary measures to prevent the introduction and spread of INNS should be undertaken (such as clean, check, dry policy for tools and machinery before entering site), as outlined in an associated CEMP. Toolbox talks should be conducted prior to works to ensure the contractors are aware of the potential for invasive species on site. Best working methods, including pollution prevention methods, should be outlined in the CEMP to limit the spread of invasive plant species. The ECoW should conduct a pre-commencement walkover to check for the presence of INNS, prior to works commencing. In the event an invasive species is identified at any point during the works, findings should be reported to a suitably licenced Ecologist. If present, recommend specialist contractor control / eradication plan, no work buffer zones	If INNS are present, eradication is considered an enhancement.

Leconfield Industrial Estate – iSH Hub
Preliminary Ecological Appraisal

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		with fencing, consider controlled waste disposal requirement.	
Other mammals	No additional survey required.	During construction, good practice working methods are recommended, including back-filling or coverage of excavations when not in use and checking the site / stored materials at the beginning of each day. Alternatively, means of escape (such as a wooden ramp) could be provided. Similarly open pipe works are recommended to be capped when not in use, to prevent entry of wildlife.	Enhancing the site through native planting such as long grassland would provide connectivity and opportunities for small mammals.

5.0 CONCLUSIONS

With embedded good practice pollution prevention and drainage controls, effects on statutory designated sites are anticipated to be low. However, given the proximity of the River Ehen SAC and a potential hydrological link via Bowthorn Beck, a Likely Significant Effect cannot be ruled out at this stage without further information. The LPA should therefore be provided with a Report to Inform HRA Screening to support its duties under the Conservation of Habitats and Species Regulations 2017 (as amended).

The site is in the Impact Risk Zone for River Ehen (Ennerdale Water to Keekle Confluence) SSSI, and as the development is for large infrastructure (warehousing / industry with an internal floorspace greater than 1,000 m²) this triggers the requirement for LPA consultation with Natural England.

The site has the potential to support a number of protected species including bats, badger, common lizard, common amphibians, breeding birds and notable invertebrates (including dingy skipper and cinnabar moth).

Key recommendations of the report are:

- Achieve a minimum of 10% biodiversity net gain;
- The site will require a Habitat Management and Monitoring Plan for 30 years;
- A pre-commencement walkover for badger is required on and within 50m of the site prior to the works;
- Update GCN eDNA surveys are undertaken of the ditches within the PLB and RLB in the Spring season before works commence;
- RAMS for invertebrates (cinnabar moth and dingy skipper) are recommended including: a toolbox talk delivered by an ECoW covering the identification of the cinnabar moth and dingy skipper caterpillars and foodplants, and a site walkover to identify foodplants and caterpillars within the works area;
- Prior to site clearance works, the ECoW will collect seed from the food plants of dingy skipper (birds foot trefoil) and spread them to retained habitats in the wider site;
- The ECoW should conduct a pre-commencement walkover to check for the presence of INNS, prior to works commencing;
- Works undertaken to the introduced shrub vegetation during the nesting bird season (usually considered to be March to September inclusive) risk disturbing bird nests. If works are conducted within the nesting bird season vegetation clearance of the introduced shrub vegetation should be preceded by a nesting bird check;
- If nesting birds are found, active nests must remain undisturbed in situ;
- It is recommended that vegetation clearance is undertaken at a time of year when amphibians and reptiles are most likely to be active, i.e. April to October;
- Good practice measures (such as covering excavations or providing means of escape) are recommended to prevent entrapment of wildlife;
- Site staff are to be vigilant for invasive species and report any findings immediately;
- A sensitive lighting scheme is required to mitigate for the impact on foraging and commuting bats using the woodland adjacent the eastern boundary see RAMS report (Tetra Tech, 2024i); and,

- A CEMP is recommended with the aim of minimising indirect impacts such as dust, runoff, noise and lighting to ecologically important features.

Recommended enhancements for the site include the following:

- Post-development habitat creation measures as detailed in the BNG report (Tetra Tech, 2026a);
- Site connectivity to the wider environment could be improved by additional tree and shrub planting or scrape creation along the C2C cycle route;
- Landscaping should be native and include species that support notable invertebrate species (dingy skipper and cinnabar moth);
- The inclusion of an integral bat box within the new building; and
- Up to three bird boxes could also be included in retained woodland habitat such as that present along the cycle route to the north and east.

Provided the measures within this report for further survey and mitigation can be adopted it is anticipated that a design could be brought forward for this site that would be compliant with current local and national biodiversity planning policy.

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FIGURES

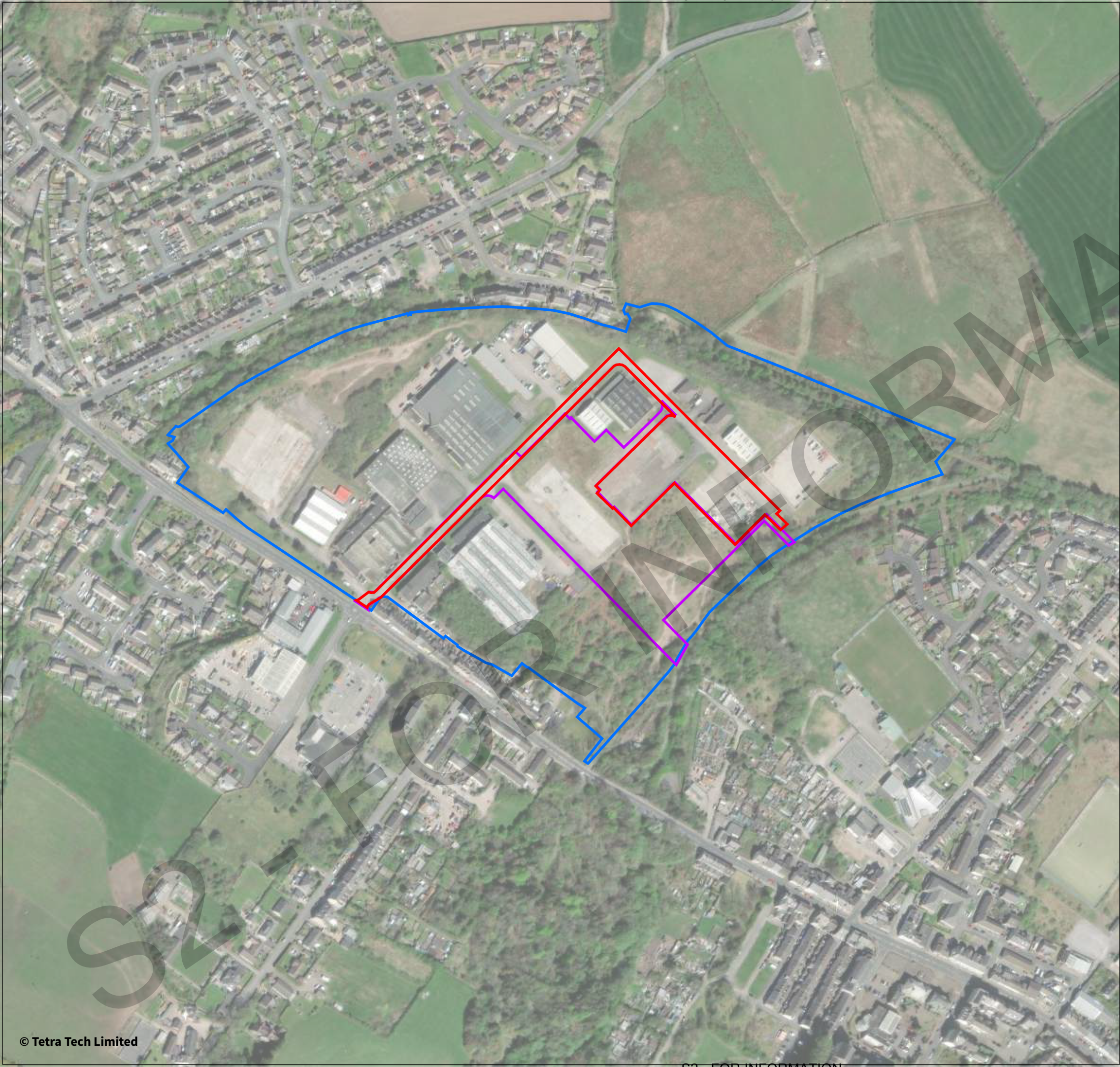
Figure 1 – Site Location Plan

Figure 2 – Waterbody Location Plan

Figure 3a - International Sites within 10km

Figure 3b – Local and National Sites within 2km

Figure 4 - Habitat Classification Plan



Site Location Plan

iSH Hub, Leconfield



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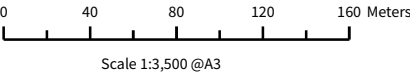
Legend

-  Phase 1 - iSH Hub site boundary
-  Phase 2 - Main Works site boundary
-  Wider Leconfield Industrial Estate boundary

Notes:

Drawn by: Chris.Dawe
Checked by: Elizebeth Ferrier

Figure No. 1
Revision No. A
17 March 2026



British National Grid
NGR: 301621E 515476N

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Waterbody Location Plan

iSH Hub, Leconfield

Morgan Sindall Construction

Legend

- Site boundary
- Additional land under council ownership
- Site boundary buffer (500m)
- Waterbody
- Ditch
- 4
- 5a
- 5b
- 6a
- 6b

Notes:

Drawn by: CHRIS.DAWE

Checked by: Elizebeth Ferrier

Figure No. 2

Revision No. A

18 March 2026

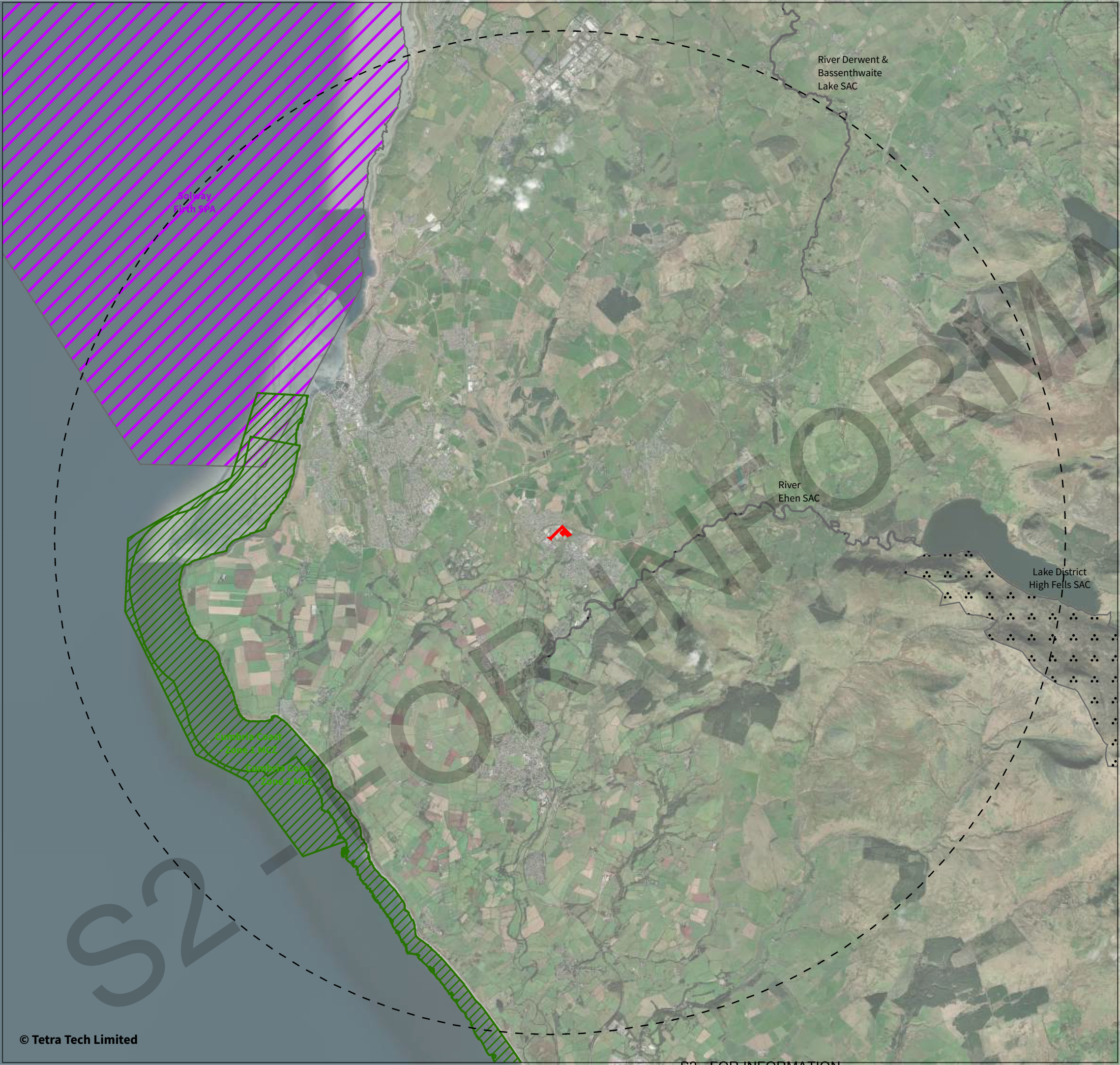
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NGR: 301631E 515528N

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International Sites Within 10 km

iSH Hub, Leconfield



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Legend

- Site boundary
- Site boundary buffer (10 km)
- Special Areas of Conservation (SAC)
- Special Protection Areas (SPA)
- Marine Conservation Zone

Data Sources:

[Marine Conservation Zones](#)
[Ramsar](#)
[Special Areas of Conservation](#)
[Special Protection Areas](#)

Notes:

Symbology similar to that used within the MAGIC Application

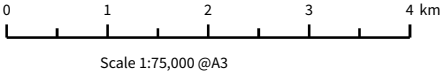
Drawn by: CHRIS.DAWE

Checked by: Elizebeth Ferrier

Figure No. 3a

Revision No. A

18 March 2026



British National Grid

NGR: 301631E 515528N

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Local and National Sites Within 2 km

iSH Hub, Leconfield



Morgan Sindall Construction Legend

- Site boundary
- Site boundary buffer (1km)
- Site boundary buffer (2km)
- Sites of Special Scientific Interest (SSSI)
- Open Mosaic Habitat Priority Habitat as mapped on Magic © Natural England
- Ancient Woodland © Natural England
- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland
- Priority Habitats Inventory (England)
- Deciduous woodland
- Good quality semi improved grassland
- Lowland fens
- Lowland raised bog
- Purple moor grass and rush pastures

Data Sources:
[Sites of Special Scientific Interest](#)
[Priority Habitats Inventory](#)
[Open Mosaic Habitats](#)

Notes:
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Figure No. 3b
Revision No. A
18 March 2026

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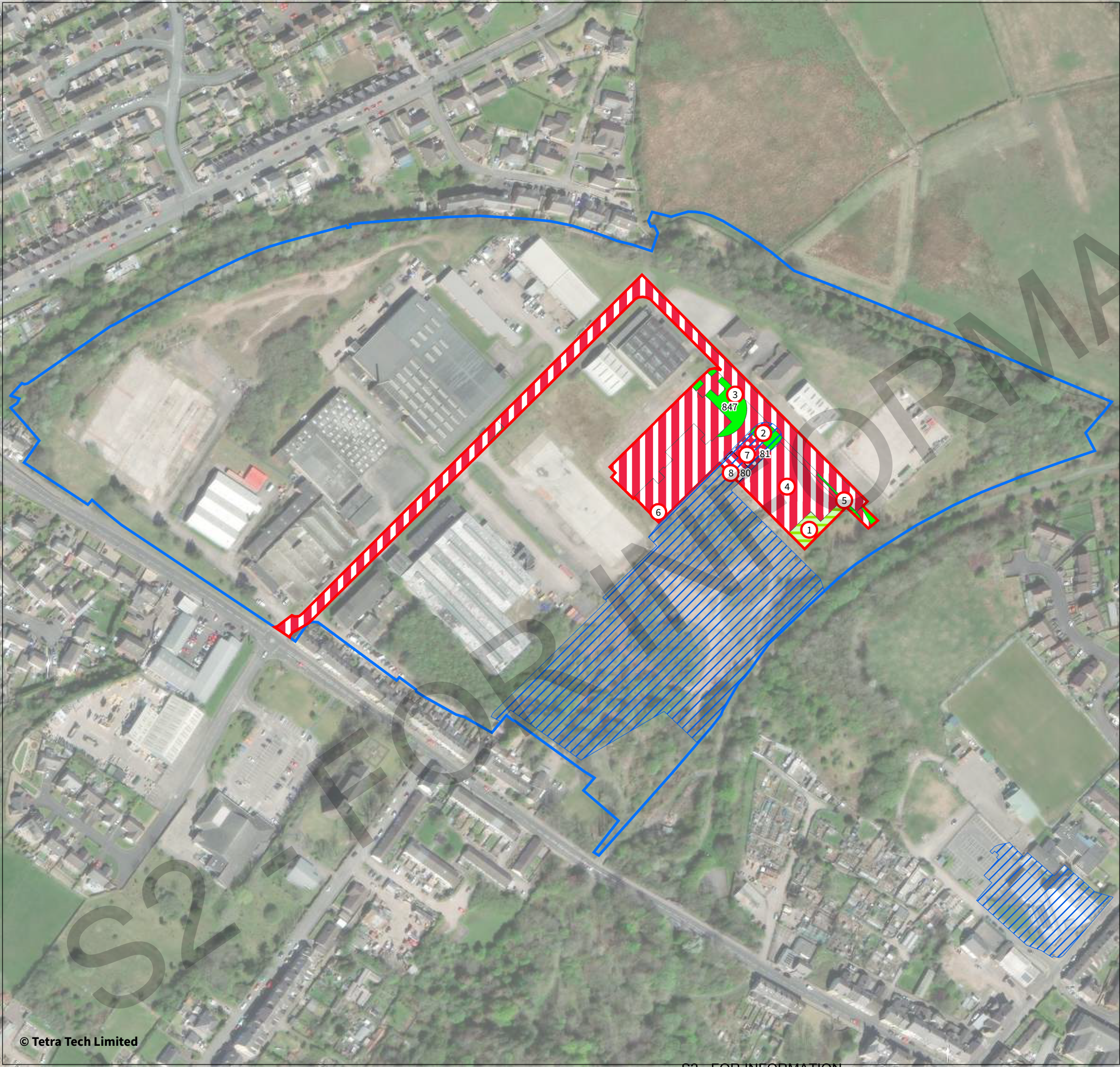
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NGR: 301631E 515528N

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Habitat Classification Plan

iSH Hub, Leconfield



Morgan Sindall Construction

Legend

- Site boundary
- Additional land under council ownership
- g3c - Other neutral grassland
- g4 - Modified grassland
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- u1f - Sparsely vegetated urban land
- Open Mosaic Habitat Priority Habitat as mapped on Magic © Natural England
- Target notes

Secondary codes:
80 - Open mosaic habitats on previously developed land
81 - Ruderal or ephemeral
847 - Introduced shrub

Symbology defined by UK Habs. <https://ukhab.org/ukhab-documentation/>
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Checked by: Elizebeth Ferrier

Figure No. 4

Revision No. A

18 March 2026

0 25 50 75 100 Meters
Scale 1:2,500 @A3

British National Grid

NGR: 301621E 515476N

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APPENDICES

APPENDIX A: REPORT CONDITIONS

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The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The “shelf life” of the Report will be determined by a number of factors including; its original purpose, the Client’s instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

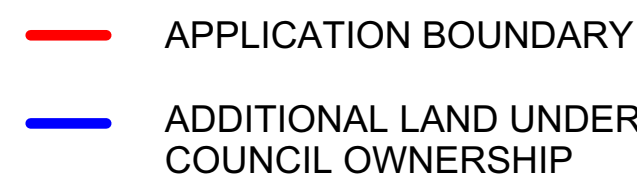
Tetra Tech reserves the right to share this Report and any related materials, surveys, drawings and/or documents at any time with the relevant Local Ecological Records Centre (LERC), any relevant statutory body or any equivalent organisation as Tetra Tech may reasonably require from time-to-time.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.

APPENDIX B: SITE PLANS

Site Location Plan: ISH-NOR-19-ZZ-D-A-90000-SITE LOCATION PLAN_P03

ISH-ONE-ZZ-ZZ-D-L-0003-P05_SoftLandscapeGA



Scale 1:1250

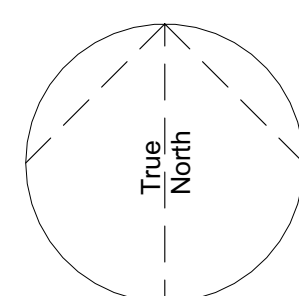


0 10 20 30 40 50 100 m

Constructors must only work to figured dimensions which are to be checked on site. Do not scale from hard copy drawings.

[illegible]

North Arrow



Percy House, 8th Floor Percy Street,
Newcastle NE1 4PW
England, UK
norr.com

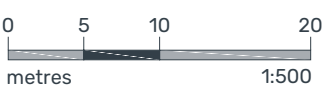


Project CUMBERLAND COUNCIL		Drawing Title SITE LOCATION PLAN	
Project CLEATOR MOOR INNOVATION QUARTER LECONFIELD SITE - HUB			
Drawn JS	Date 29.01.26	Sheet Status S3 - FOR REVIEW	
Checked PB	Date 29.01.26	Project No. SR3025-0139	
Scale As indicated @ A1		Drawing No. ISH-NOR-19- ZZ-D-A-90000	Rev. P03

NOTES

- Redline Boundary
- Ornamental Shrub Planting
- Ornamental Hedgerow
- Amenity Turf
- Proposed Trees
- Open Calcareous Grassland
- Species Rich Neutral Grassland
- Heathland Mix

REVISION	P05	DATE	31.03.26	BY	GS	CHECKED	PA
General update to comments							
REVISION	P04	DATE	20.03.26	BY	GS	CHECKED	PA
Updated to Site Plan							
REVISION	P03	DATE	10.03.26	BY	GS	CHECKED	PA
Plan revised to include EV ducts near carpark and MEP plant room							
REVISION	P02	DATE	24.02.26	BY	GS	CHECKED	PA
Updated to site plan							
REVISION	P01	DATE	17.02.26	BY	GS	CHECKED	PA
First issue							
CLIENT	Cumberland County Council						
PROJECT	CMIQ Hub						
TITLE	Soft Landscape GA						
DWG No.	ISH-ONE-ZZ-D-L-0003					REV	P05
STATUS	PRELIMINARY						
SCALE	1:500	@ A1	DATE	17.02.26	DRN BY	GS	



APPENDIX C: KEY LEGISLATION

Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales, and via the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Birds Directive

The EC Directive on the Conservation of Wild Birds (79/409/EEC) or 'Birds Directive' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Regulations place a duty on the Secretary of State to propose a list of sites which are important for habitats or species (listed in Annexes I or II of the Habitats Directive) to the European Commission. Once adopted, these are then designated as Special Areas of Conservation (SACs) in accordance with the Regulations. Special Protection Areas (SPAs) are classified under the Birds Directive.

The 2018 amendments mainly related to the impact of the *People Over Wind* decision and some implications arising for neighbourhood plan development and a range of other planning tools including Local Development Orders and Permission in Principle – see here for full details:

<https://www.legislation.gov.uk/uksi/2018/1307/note/made>

The 2019 amendments related to the EU exit. Most of these changes involved transferring functions from the European Commission to the appropriate authorities in England and Wales. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant. The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change – see here for full details:

<https://www.legislation.gov.uk/ukdsi/2019/9780111176573>

The Regulations make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5.

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' and the Birds Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use; or
- take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

- disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and
- The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to: intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant; unless an authorised person, intentionally uproot any wild plant not included in Schedule 8; or sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise cause to grow in the wild any plant which is listed in Part II of Schedule 9.

Leconfield Industrial Estate – iSH Hub
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It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

Environment Protection Act 1990

The Act imposes a classification of soil and other waste containing viable propagules of invasive non-native plant species as controlled waste. This has been applied to Japanese Knotweed *Reynoutria japonica*, with the result that waste containing this species must be disposed of in accordance with the duty of care set out in section 34 of the Act.

Protection of Badgers Act 1992

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett. The 1992 Act defines a badger sett as: “any structure or place which displays signs indicating current use by a badger”.

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

The Environment Act 2021

The Environment Act sets statutory targets biodiversity including a target to reverse the decline in species abundance by 2030. As well as confirming that public authorities have a duty to conserve and enhance biodiversity, and making provision for biodiversity gain to be a condition of planning permission in England.

National Planning Policy Framework (NPPF) – published 27 March 2012; revised 12 December 2024; amended 7 February 2025

National Planning Policy Framework (NPPF) is the top tier of planning policy. The Framework provides guidance to local authorities and other agencies on planning policy and the operation of the planning system. Section 15 relates to ‘Conserving and enhancing the natural environment’. Paragraph 187- 201

Relevant policies in relation to planning application include Paragraphs:

“187. Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

188. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework^[1]; 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

192. To protect and enhance biodiversity and geodiversity, plans should:

^[1] Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality

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(a) identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity [2]; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation [3]; and

(b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

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

(a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

(b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

(c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons [4] and a suitable compensation strategy exists; and

(d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

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

(a) potential Special Protection Areas and possible Special Areas of Conservation;

(b) listed or proposed Ramsar sites; and

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

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

^[1] Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality

^[2] Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system

^[3] Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them

^[4] For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat

^[5] Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar site

see here for full details: <https://www.gov.uk/guidance/national-planning-policy-framework>

The Invasive Alien Species (Enforcement and Permitting) Order 2019 (as amended)

This Order is concerned with the prevention and management of the introduction and spread of invasive alien species.

Birds of Conservation Concern

This is a review of the status of all birds occurring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

The latest report was produced in 2021 (Eaton *et al*, 2021) and identified 70 red list species, 103 amber species, and 72 green species. The criteria are complex, but generally:

Red list species are those that have shown a decline of the breeding population, non-breeding population or breeding range of more than 50% in the last 25 years.

^[2] Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system

^[3] Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them

^[4] For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat

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Amber list species are those that have shown a decline of the breeding population, non-breeding population or breeding range of between 25% and 50% in the last 25 years. Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population is localised in 10 sites or fewer and those whose 20% of the European population is found in the UK.

Green list species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed.

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories is complex, and consider several principles.

Local Biodiversity Action Plan (LBAP)

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision making process.

Wild Mammals (Protection) Act 1996

This Act offers protection to all wild species of mammals, irrespective of other legislation, and focussed on animal welfare, rather than conservation.

Unless covered by one of the exceptions, a person is guilty of an offence if he mutilates, kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering.

Its application is typically restricted to preventing deliberate harm to wildlife (in general) during construction works etc.

Local Biodiversity Action Plan (LBAP)

Local Biodiversity Action Plans (LBAPs) identify habitat and species conservation priorities at a local level (typically County by County) and are usually drawn up by a consortium of local Government organisations and conservation charities. Although they are no longer managed at a national level many are still reviewed and updated at a local level.

The Cumbria Biodiversity Action Plan (CBAP) was launched in 2001; SAPs were drawn up for 21 species and HAPs were drawn up for 19 habitats. Following the UKBAP review in 2007, the CBAP was reviewed in 2009 and it was decided to include all habitats and species which are listed as HPI and SPI under the NERC Act 2006. A list of all 268 SPI which occur in Cumbria is provided at:

<https://www.cumbriawildlifetrust.org.uk/sites/default/files/cumbria%20bap%20species%20updated%20list%202009%20web.pdf>

The original action plans for Cumbria were further reviewed as part of the Cumbria Biodiversity Evidence Base (CBEB) and detailed statements have been prepared for 11 species/species groups (Table 9) and 21 habitats (Table 10). For the purposes of this report, the species and habitats listed in the following tables are considered to represent the current CBAP:

LBAP SAPs

Species Action Plans	
Atlantic salmon, <i>Salmo salar</i>	Otter, <i>Lutra lutra</i>
Bats, <i>Chiroptera</i>	Red squirrel, <i>Sciurus vulgaris</i>
Brown hare, <i>Lepus europaeus</i>	Reptiles
Common toad, <i>Bufo bufo</i>	Small blue butterfly, <i>Philotiella speciosa</i>
Curlew, <i>Numenius arquata</i>	Small heath butterfly, <i>Coenonympha pamphilus</i>
European eel, <i>Anguilla anguilla</i>	Spotted flycatcher, <i>Muscicapa striata</i>
Great crested newt, <i>Triturus cristatus</i>	Wall butterfly, <i>Lasiommata megera</i>
Hedgehog, <i>Erinaceus europaeus</i>	Water vole, <i>Avicola amphibius</i>
House sparrow, <i>Passer domesticus</i>	White-clawed crayfish <i>Austropotamobius pallipes</i>

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Lesser redpoll, <i>Acanthis cabaret</i>	White-letter hairstreak, <i>Satyrrium w-album</i>
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LBAP HAPs	
Habitats Action Plans	
Bogs	Hedgerows
Calaminarian Grasslands	Lakes, Ponds and Tarns
Calcareous Grassland	Lowland Dry Acid Grassland
Coastal and Floodplain Grazing Marsh	Montane Habitats
Coastal Habitats Above High Water	Open Mosaic Habitats on Previously Developed Land
Coastal Intertidal Habitats	Rivers
Coastal Subtidal Habitats	Rock Habitats
Fen, Marsh and Swamp	Saline Lagoons
Hay Meadows and Pastures	Semi-Natural Woodland
Heathland	Traditional Orchards
Wood-Pasture and Parkland	-

It should be noted that the existence of a SAP or HAP does not always infer an elevated level importance for those features. These plans may be designed to encourage an increase in these habitats/species, rather than to protect a county-scarce feature (for example).

Copeland Local Plan 2021 – 2039	
Strategic Policy N1: Conserving and Enhancing Biodiversity and Geodiversity	The Council is committed to conserving Copeland's biodiversity and geodiversity including protected species and habitats. Potential harmful impacts of any development upon biodiversity and geodiversity must be identified and considered at the earliest stage. Proposals must demonstrate, to the satisfaction of the Council, that the following mitigation hierarchy must have been undertaken: Avoidance – Biodiversity and geodiversity must be considered when drafting up proposals and any potential harmful effects on biodiversity and geodiversity must be identified along with appropriate measures that will be taken to avoid these effects. Copeland Local Plan 2021-2039 202 Mitigation – Where harmful effects cannot be avoided, they must be appropriately mitigated in order to overcome or reduce negative impacts. Compensation – Where mitigation is not possible or viable or in cases where residual harm would remain following mitigation, harmful effects should be compensated for. Where this is in the form of compensatory habitat an area of equivalent or greater biodiversity value should be provided. Compensation is a last resort and will only be accepted in exceptional circumstances. Where harm remains to a National Site Network, Ramsar site, or functionally linked land, or Site of Special Scientific Interest, development will only be approved where it can be demonstrated that there are imperative reasons of overriding public interest. In such cases, compensatory measures must ensure the overall coherence of the network of European or National Sites as a whole is protected. Planning permission will be refused for any development if significant harm cannot be avoided, mitigated or compensated for. A Construction Environmental Management Plan should be submitted where appropriate and sustainable construction methods must be used where possible. Development proposals where the principal objective is to conserve or enhance biodiversity and geodiversity interests will be supported in principle.

APPENDIX D: TARGET NOTES & SURVEY DATA

LECONFIELD THE HUB - 23 FEBRUARY 2026

Target Note Survey Details	
Surveyor	Elizebeth Ferrier
Project Number	784-B076698
Project Name	Leconfield The Hub
General Notes	

Temperature (°C)	Cloud Cover	Wind	Precipitation
8°C	100%	2 - Light breeze	No precipitation

TN1																
Description	Photos															
UKHab Category: g3c Other neutral Grassland Average Sward Height: 10-40cm (of which 95% is vegetated) Notes: With recent scrub and tree removal: Cut willow stools present. With scrub and tree removal, stumps and chipped material present. Sward is variable with patches of rushes present. Sward has frequent – abundant glaucous sedge, with occasional neutral forbs such as ribwort plantain and ox-eye daisy present.																
<table><tr><th>Common Name</th><th>Latin Name</th><th>DAFOR¹</th></tr><tr><td>Glaucous sedge</td><td><i>Carex flacca</i></td><td>3 - Frequent</td></tr><tr><td>Bramble</td><td><i>Rubus fruticosus agg.</i></td><td>3 - Frequent</td></tr><tr><td>Red fescue</td><td><i>Festuca rubra</i></td><td>3 - Frequent</td></tr><tr><td>Yorkshire-fog</td><td><i>Holcus lanatus</i></td><td>3 - Frequent</td></tr></table>	Common Name	Latin Name	DAFOR ¹	Glaucous sedge	<i>Carex flacca</i>	3 - Frequent	Bramble	<i>Rubus fruticosus agg.</i>	3 - Frequent	Red fescue	<i>Festuca rubra</i>	3 - Frequent	Yorkshire-fog	<i>Holcus lanatus</i>	3 - Frequent	
Common Name	Latin Name	DAFOR ¹														
Glaucous sedge	<i>Carex flacca</i>	3 - Frequent														
Bramble	<i>Rubus fruticosus agg.</i>	3 - Frequent														
Red fescue	<i>Festuca rubra</i>	3 - Frequent														
Yorkshire-fog	<i>Holcus lanatus</i>	3 - Frequent														

¹ *The DAFOR scale is used for semi-quantitative sampling, to provide an estimate of the relative abundance of species cover in a given area.

D - Dominant > 75%,
A - Abundant 51 - 75%
F - Frequent 26 - 50%,
O - Occasional 11 - 25%,
R - Rare 1 - 10%

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Ribwort plantain	<i>Plantago lanceolata</i>	4 - Occasional
Soft rush	<i>Juncus effusus</i>	4 - Occasional
Common knapweed	<i>Centaurea nigra</i>	5 - Rare
Common mouse-ear	<i>Cerastium fontanum</i>	5 - Rare
Common ragwort	<i>Jacobaea vulgaris</i>	5 - Rare
Creeping buttercup	<i>Ranunculus repens</i>	5 - Rare
White clover	<i>Trifolium repens</i>	5 - Rare
Wild carrot	<i>Daucus carota</i> <i>ssp. carota</i>	5 - Rare

British National Grid (m): 301788E, 515479N

TN2

Description	Photos
UKHab Category: G4 – Modified grassland Average Sward Height: C.5 cm (of which 99% is vegetated) Notes: All verge areas considered together. Mown short. Uniform sward in road verges.	

Common Name	Latin Name	DAFOR
Perennial rye-grass	<i>Lolium perenne</i>	3 - Frequent
Red fescue	<i>Festuca rubra</i>	3 - Frequent
Smooth meadow-grass agg.	<i>Poa pratensis</i>	3 - Frequent
Creeping buttercup	<i>Ranunculus repens</i>	4 - Occasional
Daisy	<i>Bellis perennis</i>	4 - Occasional
Ribwort plantain	<i>Plantago lanceolata</i>	4 - Occasional

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Wild carrot	<i>Daucus carota</i> <i>ssp. carota</i>	4 - Occasional
Yorkshire-fog	<i>Holcus lanatus</i>	4 - Occasional
Common mouse-ear	<i>Cerastium</i> <i>fontanum</i>	5 - Rare
Common ragwort	<i>Jacobaea</i> <i>vulgaris</i>	5 - Rare
Common spotted-orchid	<i>Dactylorhiza</i> <i>fuchsii</i>	5 - Rare
Creeping thistle	<i>Cirsium</i> <i>arvense</i>	5 - Rare
Dandelion	<i>Taraxacum</i> <i>agg.</i>	5 - Rare
Prickly sowthistle	<i>Sonchus asper</i>	5 - Rare
White clover	<i>Trifolium</i> <i>repens</i>	5 - Rare



British National Grid (m): 301757E, 515544N

TN3

Description			Photos
UKHab Category: G4 – Modified grassland 847 - Introduced shrub			
Average Sward Height: 3 m (of which 5% is grassland)			
Common Name	Latin Name	DAFOR	
Laurestine	<i>Viburnum sp.</i>	4- Occasional	
Berberis	<i>Berberis sp.</i>	4- Occasional	
Willow	<i>Salix sp.</i>	4- Occasional	

British National Grid (m): 301773E, 515508N

TN4

Description	Photos
UKHab Category: U1b Notes: Hardstanding areas. Fenced off wood pile. No INNS observed. Mix of surfaces including concrete	

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platform, paving, road tarmac. Some ephemeral species including wild carrot, kidney vetch and knapweed.



British National Grid (m): 301811E, 515499N

TN5

Description	Photos
UKHab Category: U1b – Developed land sealed surface Notes: Roads and connection to C2C cycle route	

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British National Grid (m): 301686E, 515491N	
TN6	
Description	Photos
UKHab Category: U1b – Developed land, sealed surface Notes: SPIDA area not accessed. Hard standing	
British National Grid (m): 301746E, 515529N	
TN7	
Description	Photos
UKHab Category: U1f – Sparsely Vegetated Land 81 – Ruderal or Ephemeral Average Sward Height: 2-10 cm (of which 20% is vegetated)	

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Notes: Bare ground with stony substrate. Donor area of translocated grassland. Sparsely vegetated with species from adjacent area.

Common Name	Latin Name	DAFOR
Red fescue	<i>Festuca rubra</i>	3 - Frequent
Common bent	<i>Agrostis capillaris</i>	4 - Occasional
Common knapweed	<i>Centaurea nigra</i>	4 - Occasional
Daisy	<i>Bellis perennis</i>	4 - Occasional
Ribwort plantain	<i>Plantago lanceolata</i>	4 - Occasional
Black sedge	<i>Carex nigra</i>	5 - Rare
Bush vetch	<i>Vicia sepium</i>	5 - Rare
Mouse-ear-hawkweed	<i>Pilosella officinarum</i>	5 - Rare
Oxeye daisy	<i>Leucanthemum vulgare</i>	5 - Rare
Wild thyme	<i>Thymus drucei</i>	5 - Rare



British National Grid (m): 301735E, 515517N

TN8

Description	Photos
UKHab Category: U1f – Sparsely Vegetated Urban Land 80 – Open Mosaic habitats on Previously developed land Average Sward Height: 5-30 cm (of which 99% is vegetated) Notes: Part of wider open mosaic habitat on Leconfield main site. Mapped as priority open mosaic habitat on Magic. Sward varied in height with ephemeral pools. Close to a UKHab Category 'f2b Purple moor-grass and rush pastures fen-type with abundant glaucous sedge and several types of rush'.	

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Common Name	Latin Name	DAFOR
Glaucous sedge	<i>Carex flacca</i>	2 - Abundant
Hard rush	<i>Juncus inflexus</i>	3 - Frequent
Red fescue	<i>Festuca rubra</i>	3 - Frequent
Soft rush	<i>Juncus effusus</i>	3 - Frequent
Crested dog's tail	<i>Cynosurus cristatus</i>	4 - Occasional
Ribwort plantain	<i>Plantago lanceolata</i>	4 - Occasional
Tufted hair-grass	<i>Deschampsia cespitosa</i>	4 - Occasional
Common knapweed	<i>Centaurea nigra</i>	5 - Rare
Creeping buttercup	<i>Ranunculus repens</i>	5 - Rare
Creeping thistle	<i>Cirsium arvense</i>	5 - Rare
Lesser celandine	<i>Ficaria verna</i>	5 - Rare
Meadow buttercup	<i>Ranunculus acris</i>	5 - Rare
Oxeye daisy	<i>Leucanthemum vulgare</i>	5 - Rare
Selfheal	<i>Prunella vulgaris</i>	5 - Rare
Sharp-flowered rush	<i>Juncus acutiflorus</i>	5 - Rare
Wavy bitter-cress	<i>Cardamine flexuosa</i>	5 - Rare
White clover	<i>Trifolium repens</i>	5 - Rare
Wild carrot	<i>Daucus carota ssp. carota</i>	5 - Rare

HSI ASSESSMENT

LECONFIELD THE HUB

23 FEBRUARY 2026

Survey Details	
Surveyor	Elizabeth Ferrier
Project Number	784-B076698
Project Name	Leconfield the hub
General Notes	

Location Map



British National Grid (m): 301668E, 515414N

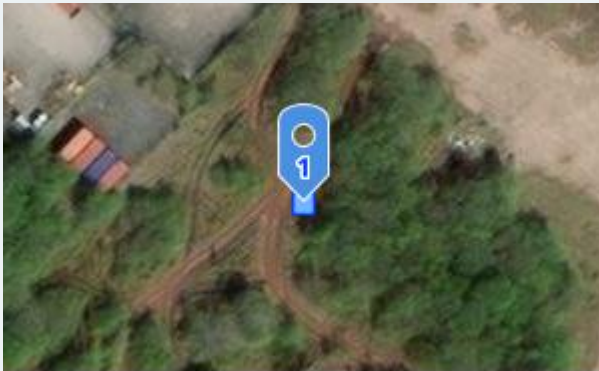
WGS84 (Lat/Long): 54.5244°N, -3.5208°E

Weather	
Cloud Cover	
Precipitation	No precipitation
Wind	1 - Light air
Temperature (°C)	8

Waterbody ID	Distance to Site (m)	HSI Score	HSI Category
1 - Present	231	0.78	Good

Ditch 6 - Present	
Location Map	Photo

HSI ASSESSMENT



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WGS84 (Lat/Long): 54.5244°N, -3.5208°E

Distance to site (m): 231

Notes:

Waterbody Assessment		
Criteria	Result	Score
1. Geographic Location	A	1
2. Permanence	Rarely	1
3. Shade (%)	20	1
4. Fish Population	Absent	1
5. Terrestrial habitat	Good	1
6. Pond Area (m ²)	243	0.49
7. Water Quality	Moderate	0.67
8. Waterfowl	Absent	1
9. Ponds within 1km	2	0.59
10. Macrophyte cover (%)	10	0.41
Notes: Water filled tracks fringed with juncus. Depth c10cm. Width 2-4m. Pondweed <i>Potamogeton</i> present.		
HSI Score: 0.78		
HSI Category: Good		

Water Body Survey Details	
Surveyor	Elizebeth Ferrier
Project Number	784-B076698
Project Name	Leconfield ISH The hub
General Notes	Pond off Birks Road
Location Map	

HSI ASSESSMENT



British National Grid (m): 302259E, 515399N

WGS84 (Lat/Long): 54.5244°N, -3.5117°E

Weather

Cloud Cover	100%
Precipitation	No precipitation
Wind	1 - Light air
Temperature (°C)	8

Waterbody ID	Distance to Site (m)	HSI Score	HSI Category
2 - Present	367	0.47	Poor

Waterbody 2 - Present

Location Map



Photo



HSI ASSESSMENT

WGS84 (Lat/Long): 54.5246°N, -3.5119°E



Distance to site (m): 367

Notes: Difficult to see over fence. No water visible. Likely a Sustainable Urban Drainage System (SUDS). Full of common reed *Phragmites australis*.

HSI Waterbody Assessment		
Criteria	Result	Score
1. Geographic Location	A	1
2. Permanence	Frequently	0.01
3. Shade (%)	0	1
4. Fish Population	Possible	0.67
5. Terrestrial habitat	Moderate	0.67
6. Pond Area (m ²)	181	0.36
7. Water Quality	Moderate	0.67
8. Waterfowl	Absent	1
9. Ponds within 1km	2	0.59
10. Macrophyte cover (%)	100	0.8
Notes: Fully dominated by common reed		
HSI Score: 0.47		
HSI Category: Poor		

HSI ASSESSMENT (Tetra Tech, 2024e)

Waterbody - 4
Survey time & date - 14 June 2024 12:38
Surveyor - Jordane Marsh
Waterbody Status - Present
HSI Category - Poor
HSI Score - 0.42
Provisional HSI Score - 0.39

Map location	A	Fish population	Absent
Surface area shape	Irregular	Terrestrial habitat	Good
Surface area size (m ²)	71	Shade (%)	10
Desiccation rate	Frequently	Macrophyte cover (%)	10
Water quality	Poor	Pond density	5
Waterfowl	Absent	Notes	Check pond density



Maxar, Microsoft

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Preliminary Ecological Appraisal

Waterbody - 5A
Survey time & date - 14 June 2024 13:44
Surveyor - Jordane Marsh
Waterbody Status - Present
HSI Category - Good
HSI Score - 0.71
Provisional HSI Score - 0.69

Map location	A	Fish population	Absent
Surface area shape	Irregular	Terrestrial habitat	Good
Surface area size (m ²)	139	Shade (%)	80
Desiccation rate	Sometimes	Macrophyte cover (%)	10
Water quality	Good	Pond density	5
Waterfowl	Absent	Notes	Check pond density



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Preliminary Ecological Appraisal

Waterbody - 5B
Survey time & date - 14 June 2024 13:42
Surveyor - Jordane Marsh
Waterbody Status - Present
HSI Category - Good
HSI Score - 0.73
Provisional HSI Score - 0.71

Map location	A	Fish population	Absent
Surface area shape	Irregular	Terrestrial habitat	Good
Surface area size (m ²)	200	Shade (%)	90
Desiccation rate	Rarely	Macrophyte cover (%)	10
Water quality	Moderate	Pond density	5
Waterfowl	Absent	Notes	Check pond density

