

Leconfield Industrial Estate – Main Works

784-B065555

Ecological Appraisal

Morgan Sindall Construction

November 2024

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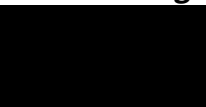
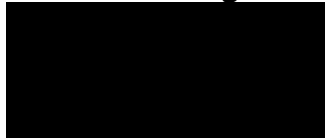


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EXECUTIVE SUMMARY

Contents	Summary
Site Location	The 'site' is located in Cleator Moor, Cumbria and is centred at Ordnance Survey National Grid Reference NY 01570 15529. The survey area is approximately 34.9 hectares in size and lies on the north side of Leconfield Street.
Proposals	Re-development of the industrial site with two new main buildings and associated hard and soft landscaping. The original red line boundary (now survey area) was used to inform the assessment. The red line was amended in November 2025 to incorporate Biodiversity Net Gain Assessment offsetting areas in the wider Leconfield Industrial Estate. The survey area boundary remains the area to be impacted by works and the appropriate assessment area.
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 UKHab 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 reports listed in Section 1.3. • Evaluate potential ecological receptors on site and within the Zoi; as development plans for the site are currently unknown, all mitigation and enhancement measures have been made general and will need re-assessing once a decision has been made on the proposals.
Results and Evaluation	Designated sites • The development proposals are considered to have a minor impact on the River Ehen SAC. • River Ehen (Ennerdale Water to Keekle Confluence) SSSI is 1.3 km south-east of the site. Habitats • The red line boundary comprises Open Mosaic on Previously Developed Land (OMoPDL), modified grassland, wet woodland, other broadleaved woodland, introduced shrub, built linear feature, developed land sealed surface, artificial unvegetated unsealed surface and standing open water. Protected species

Contents	Summary
	- The site has suitability for badger, commuting and foraging bats, breeding birds, common toad and common amphibians, reptiles, red squirrel, and hedgehog. - Eight invasive species were recorded including five cotoneaster species, giant hogweed, Japanese knotweed and rhododendron.
Recommendations	The amended red line boundary (in September 2025) has reduced the site area (which was previously assessed), therefore the ecological appraisal remains unaffected with ecological recommendations unchanged. Further Surveys / Assessment - Pre-works checks for badger and red squirrel dreys. - LPA Consultation with NE required regarding the likely impacts of the proposals on the River Ehen (Ennerdale Water to Keekle Confluence) SSSI. Avoidance Measures see Reasonable Avoidance Measures (RAMS) Report (Tetra Tech , 2024i) - Retain existing habitats where possible particularly woodland and OMoPDL habitats. - Retain or move existing refugia on site. - Pre-cautionary working methods for badger, red squirrel, reptiles and amphibians. - Good biosecurity and working practices for invasive species. Mitigation - Achieve 10% biodiversity net gain, using off-site offsetting as required. - Mitigation should also be put in place for the loss of high value habitats i.e. the wet woodland and OMoPDL. - Off-site offsetting will be required. - Construction Environmental Management Plan (CEMP) - Habitat Management and Monitoring Plan (HMMP) Compensation - Installation of bat and bird boxes for features lost. - Creation of wet woodland and OMoPDL, to replace habitats lost. Enhancements - Include native species-rich planting, including fruit and nut bearing species. - Include waterbodies within the proposed site designs. - A minimum of three new refugia should be created. Refugia such as log piles should be included in suitable areas such any retained woodland and scrub and along connecting features.

Contents	Summary
	• Seek opportunities to enhance connecting features such as the woodland along the C2C cycle route. • If possible, seed from the site should be used in post-development landscaping. The foodplants for existing invertebrates onsite should be included, such as bird's-foot trefoil, kidney-vetch and ragwort. • The development may offset loss of biodiversity units through the buying of off-site units from a habitat bank. The buying of biodiversity units from a 3rd party habitat bank will be secured by planning condition and S106 agreement. • Habitat management tasks are likely to be required and legally secured (e.g. through Conservation covenant or 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

Tetra Tech Limited (Tetra Tech) was commissioned by Morgan Sindall Construction in March 2024 to undertake an Ecological Appraisal (EA) of Leconfield Industrial Estate, Main Works site, hereafter referred to as “the site”.

This report has been prepared by Project Ecologist Elizebeth Ferrier BSc (Hons) MSc ACIEEM and updated by Associate Ecologist Candice CEcol MCIEEM the conditions pertinent to it are in Appendix A.

1.1 SITE LOCATION

The ‘site’ is located in Cleator Moor and is centred at Ordnance Survey National Grid Reference NY 0169 1545 – see Figure 1, which shows the survey area (original red line boundary) and the current red line boundary (amended November 2025, following the suite of ecological surveys undertaken in 2024).

The red line boundary change in November 2025 was requested by the Local Planning Authority (LPA) to incorporate Biodiversity Net Gain Assessment offsetting areas in the wider Leconfield Industrial Estate.

The site is an industrial estate largely comprising hardstanding and modified grassland. The eastern part of the site is brownfield with Open Mosaic on Previously Developed Land (OMoPDL) habitats i.e. a mosaic of ruderal / ephemeral vegetation, purple moor-grass and rush pastures, calcareous grassland, mixed and scattered scrub, wet woodland, broadleaved woodland, bare ground and wet ditches.

The surrounding land is a mixture of built-up areas and agricultural fields. Cleator Moor town centre is located approx. 300m southeast of the site.

1.2 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 Hub)
- **Phase 2** - Levelling Up Fund (LuF) Project which includes the ‘Main Works’, Unit 1 and Unit 1A boundaries.

The original red line boundary is referred to on figures as the ‘survey area’ and this informed the area that was surveyed and subject to assessment. The red line boundary was amended in November 2025 to incorporate biodiversity offsetting areas, as requested by the LPA and is shown on the figures. The changes to the red line boundary does not change the ecological impact assessment as the survey area remains to be the area directly impacted by the proposals (i.e. the footprint of the development).

Main Works Plots 9 & 12 site consisting of two main buildings classed as general industrial: Plot 9 Building 12 approx. 2041m² footprint with 4no. internal ‘grow on’ units and Plot 12 Building 14 approx. 2555m² footprint with 20no. ‘start up’ units. This is set within a mix of hard and soft landscaping to provide car parking and HGV access to the units as well as incorporating a shared cycle and pedestrian access route running east west at the south of the site that links with the exiting coast to coast path just beyond the eastern boundary of the estate. The updated development proposals are shown on the Landscape Site Plan (Appendix B; Drawing Reference: LUF-ONE-ZZ-XX-D-L-0001-P22_LandscapeSitePlan).

1.3 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;
- Summarise and present the results of ecological surveys / assessments completed for the Main Works site (listed below); 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 following accompanying reports completed for the Main Works site in 2024:

- (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) (unpublished at time of writing)
- (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 – Main Works – Biodiversity Net Gain Assessment (unpublished at time of writing)

1.4 QUALITY

Elizebeth Ferrier has Associate membership of the Chartered Institute of Ecology and Environmental Management (CIEEM), is a Field Identification Skills Certificate (FISC) 4 Level botanist and holds a Natural England Class 1 Great Crested Newt (GCN) License.

Our Ecologists follow CIEEM's Code of Professional Conduct (CIEEM, Code of Professional Conduct, 2022), with all surveys completed in accordance with Tetra Tech's Biosecurity Policy (Tetra Tech, 2023).

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.

1.5 VALIDITY

This report will be considered to remain valid for 18 months, until 1st January 2026, in accordance with (CIEEM, Advice note on the lifespan of ecological reports & surveys, 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, 2021a) Cleator Moor Innovation Quarter: Ecological Appraisal. On behalf of Copeland Borough Council. Ref: 784-B029668
- (Tetra Tech, 2021b) Cleator Moor Innovation Quarter: Invasive Non-Native Species Management Plan. On behalf of Copeland Borough Council. Ref: 784-B029668
- (Tetra Tech , 2021c) Leconfield plus extensions E6 – Site Inspection Report for Copeland Borough Council.
- (Tetra Tech, 2021d) Cleator Moor Innovation Quarter: Report to inform Habitats Regulations Assessment – Stage 1 Assessment of Likely Significant Effects and Stage 2 Appropriate Assessment.
- (Tetra Tech , 2021e) Cleator Moor Innovation Quarter: Breeding Bird Survey Report
- (Tetra Tech , 2021f) Cleator Moor Innovation Quarter: Bat Roost Assessment Report
- (Tetra Tech , 2021g) Cleator Moor Innovation Quarter: Biodiversity Net Gain (BNG) Assessment
- (Tetra Tech , 2021h) Cleator Moor Innovation Quarter: Great Crested Newt Report
- (Tetra Tech , 2021i) Cleator Moor Innovation Quarter: Invertebrate Report
- (Tetra Tech , 2021j) Cleator Moor Innovation Quarter: National Vegetation Classification
- (Tetra Tech , 2021k) Cleator Moor Innovation Quarter: Reptile Survey
- (WYG, 2020) Leconfield Industrial Estate: Ecological Appraisal Report.
- (Elliott Environmental Surveyors, 2014) Preliminary Environmental Risk Assessment for Leconfield Industrial Estate Cleator Moor Cumbria.

2.2 DESK STUDY

The desktop study comprised two elements:

- A data search obtained from Cumbria Biodiversity Data Centre (CBDC) in July 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. County Wildlife Sites (CWS));
 - 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;
- 1 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).

Only recent records from the last 10 years (to 2014) have been included in this assessment.

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 where accessible. Note that the survey area relates to the original red line boundary, which was amended in November 2025.

2.3.1 Habitats

An extended Habitat Classification Survey was undertaken on the site on 12th July 2024 by Tetra Tech Project Ecologist Elizebeth Ferrier BSc (Hons) MSc ACIEEM FISC Level 4. The weather conditions were 14°C, 60% cloud, with a light breeze and no rain.

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. For further information on survey methodologies please see the full survey reports as listed in Section 1.3.

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, Cresswell, & Jefferies, 1989), see (Tetra Tech, 2024b).

Bats

Roosting Bats – Trees

Any suitable trees on site were assessed from the ground for their suitability to support breeding, resting and hibernating bats using survey methods based on the BCT Good Practice Guidelines (Collins, Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition), 2023), hereafter referred to as the ‘BCT Guidelines’.

Categorisation of Trees

A preliminary assessment of trees was undertaken, and trees were categorised to highlight whether additional assessment is required referring to the categories in Table 1 below. Professional judgement was used to identify trees where features could be obscured by foliage or other branches. If a feature was identified on the tree the tree was categorised as PRF as the tree had at least one potential roost feature (PRF) present.

Table 1: Categorisation of Trees

Suitability	Description
None	Either no PRFs in the tree or highly unlikely to be any.
FAR	Further assessment required (FAR) to establish if PRFs are present in the tree.
PRF	A tree with at least one potential roost feature (PRF) present.

Foraging / Commuting Bats

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

The BCT Guidelines (Collins, 2023) use the criteria in Table 2 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 2: 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.
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 and foraging birds.

A Breeding Bird Survey was undertaken following the methodology set out in the Bird Survey Guidelines (Bird Survey & Assessment Steering Group, 2022) and involved six survey visits to the site during the breeding season, between March and early July. The full methodology and results of this survey are detailed in the Breeding Bird Survey Report (Tetra Tech , 2024c).

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, Beckett, & Foster, 2001). This appraisal also considered waterbodies within 500m of the site and their potential to be used for breeding newts. The waterbodies are shown on Figure 2 – Water body location Plan. Each pond was assessed using the Habitat Suitability Index (HSI) (Oldham, Keeble, Swan, & Jeffcote, 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 also conducted on site in accordance with the stringent survey methodologies defined within Natural England's accepted protocol (Biggs, 2014) - *WC1067 Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (Triturus cristatus) environmental DNA*. The results of this survey 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). A reptile presence and absence survey was also conducted onsite in accordance the Herpetofauna Workers' Manual (Gent & Gibson, 2003) and Advice Sheet 10 – Reptile Survey (Froglife, 1999) and comprised the use of two complementary methods – direct observation and artificial refuge checks. The full methodology and results of this survey are detailed in the Reptile Report (Tetra Tech, 2021k).

Invertebrates

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

In addition to the EA survey, three terrestrial invertebrate survey visits were undertaken to determine the presence of targeted invertebrates iterative of the 2021 invertebrate species comprising: dingy skipper and Cinnabar *Tyria jacobaeae* (Tetra Tech, 2024g). Notable invertebrate species identified during the survey were also noted recorded.

Suitable habitats or microhabitats were searched for species known; or considered likely to occur, within the site. Areas supporting the larval food plants for target invertebrates were specifically targeted with the location and abundance of these floral species mapped. Species included: common bird's-foot trefoil *Lotus corniculatus*, greater bird's-foot trefoil *Lotus pedunculatus*, and kidney vetch *Anthyllis vulneraria*.

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. The full methodology and results of this survey are detailed in the Invasive Non-Native Species Assessment and Management Plan (Tetra Tech, 2024f).

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 120m from site with no connecting habitat.

2.4 LIMITATIONS

The optimal period to undertake an extended UKHab survey is April-September, inclusive. The survey was undertaken in July which is within the optimal survey window. As such, this is not considered to be a limitation to the survey methodology as the dominant species of the respective vegetation types were visible and identifiable.

The majority of the site was accessible, including a 50m buffer except for a small area of fenced off yard in the west of the site (TN15, Figure 3), where there was active machinery. This is not considered a significant limitation as the area was viewed from the fence line and the dominant species were visible. There was no access to residential areas / gardens and third-party land surrounding the site; therefore, it was not possible to inspect these for signs of badgers.

For this report an up-to-date data search was requested from CBDC. In many cases no new records were available for the site or surrounding area. This could be for two reasons: no new records have been reported to CBDC, or new records have been submitted but are unverified and therefore have not been added to CBDC's database and supplied with commercial searches. 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.

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.

Although the red line boundary was amended in November 2025, this change was for the purposes of the Biodiversity Net Gain Assessment only, to incorporate offsetting areas within the wider industrial estate. The survey area is the footprint for the development proposals and therefore remains appropriate. As

such, this has not resulted in a limitation to the ecological appraisal and the impact assessment and recommendations, remain unaffected.

3.0 RESULTS & EVALUATION

3.1 PROTECTED SITES

European and National designated sites identified within 10 km of the proposed development are presented in Table 3 and Figure 4 with the designation, qualifying features and proximity from the development site also indicated. Details of local non-designated sites within 2 km and obtained from CBDC are also included and shown in Appendix E.

Table 3. Statutory and non-Statutory Designated Sites Identified During the Desk Study

Site Name	Designation	Distance and Direction from Site	Reasons for Designation
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.
River Ehen (Ennerdale Water to Keekle Confluence)	SSSI	1.3 km SE	A river that supports freshwater pearl mussel populations.
Rheda South Park	CWS	0.7 km NE	No information available.
Birkhouse Pond	CWS	0.9 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 Significance	0.5 km W	No information available.
Weddicar Hall	Site of Invertebrate Significance	1.4 km N	No information available.
Dub Beck	Site of Invertebrate Significance	1.7 km N	No information available.

Ancient Woodland and Priority Habitats

Ancient Woodland and Priority Habitats

The ancient woodland or priority habitats (Habitats of Principal importance (HPIs)) that have been identified via the MAGIC search within 1 km:

- There is an area of Open Mosaic on Previously Developed Land (OMoPDL) on site, this covers 1.2ha of habitat in the centre of the site (Figure 3);
- There are three areas of good quality semi-improved grassland, the closest being 0.45 km east of site;
- There is one area of purple moor grass and rush pasture 0.55 km north-west of the site; and
- There are five areas of Deciduous woodland, the closest being 0.2 km north-east of site.

3.2 HABITATS

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

Table 4. Habitats

Habitat (UKHab Code) (TN)	Result	Importance Assessment
g4 - Modified grassland	Modified grassland occurred in the verges (TN1) along the spine road and around some of the car parking areas in the west of the site. The grassland was short (<5cm) and frequently mown. The sward was grass dominated with abundant red fescue <i>Festuca rubra</i> and occasional Perennial rye-grass <i>Lolium perenne</i> and Yorkshire-fog <i>Holcus lanatus</i> with common herbs including frequent creeping buttercup, occasional dandelion <i>Taraxacum</i> agg. and Selfheal <i>Prunella vulgaris</i> .	Negligible importance
w1d – Wet woodland	Wet woodland occurred on the southern boundary of the site and extended beyond the site boundary (TN2). The woodland comprised a canopy of frequent goat willow <i>Salix caprea</i>, with frequent downy birch <i>Betula pubescens</i>, rowan <i>Sorbus aucuparia</i> and hawthorn <i>Crataegus monogyna</i>, with occasional alder <i>Alnus cordata</i> in the understory. The ground flora was damp under foot with a well-developed mire community with frequent hard rush <i>Juncus inflexus</i>, hairy sedge <i>Carex hirta</i> and marsh horsetail <i>Equisetum palustre</i> and an abundant moss component comprised of red feather moss <i>Pleurozium schreberi</i> and bog-mosses <i>Sphagnum</i> sp. Common spotted orchid and common twayblade	Wet woodland is a NERC HPI Semi-natural woodland is on the Cumbrian LBAP. The wet woodland qualifies as semi-natural as it is self-seeded and does not appear to have been planted. County Importance

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Habitat (UKHab Code) (TN)	Result	Importance Assessment
	<i>Listera ovata</i> were occasional. Ephemeral wet tracks were present throughout the woodland with marginal and aquatic vegetation present (TN11).	
w1g – Other broadleaved woodland	Broadleaved woodland was present on the eastern boundary of the site and occurred along cycle route extending beyond the site boundary (TN3). The woodland canopy had a height of c.10m and was mixed deciduous comprised of frequent oak <i>Quercus</i> sp., occasional ash <i>Fraxinus excelsior</i> and silver birch <i>Betula pendula</i> with rare alder, goat willow and grey poplar <i>Populus x canescens</i> and sycamore <i>Acer pseudoplatanus</i>. The shrub layer included frequent elder <i>Sambucus nigra</i>, hawthorn <i>Crataegus monogyna</i>, hazel <i>Corylus avellana</i>, bramble <i>Rubus fruticosus</i> agg and rarely dog rose <i>Rosa canina</i> agg. The ground flora was patchy with a large coverage of bare ground at the southern end and a grass-dominated understory comprised of Smooth meadow-grass <i>Poa pratensis</i> at the northern end.	Local Importance
u1 – Built up areas and gardens 847 – Introduced shrub	An area of introduced shrub planting was present in the north-east of the site (TN4). This comprised abundant barberry <i>Berberis</i> sp. With frequent invasive hollyberry cotoneaster and rare Italian alder trees <i>Alnus cordata</i> .	Negligible importance
u1b – Developed land; sealed surface	There were several areas of developed land; sealed surface on site. These included the main road through the industrial estate (TN5) and an area adjacent to BOC yard (TN6).	Negligible importance
u1b – Developed land; sealed surface 81 – Ruderal / Ephemeral	Other areas of hardstanding existed in a mosaic with ephemeral vegetation (TN7 and TN8). The ephemeral vegetation was present in cracks or on the edges and was species rich comprising abundant red fescue and herbs such as frequent rough hawkbit <i>Leontodon hispidus</i> occasional lesser burdock <i>Arctium minus</i> and rarely kidney vetch <i>Anthyllis vulneraria</i> and common bird's-foot trefoil <i>Lotus corniculatus</i> .	Local Importance
u1e – Developed land; sealed surface 10 – Scattered scrub	Scattered scrub was present along a chain-link fence in the west of the site (TN9). This comprised occasional downy birch and goat willow and rare ash <i>Fraxinus excelsior</i> and sycamore <i>Acer pseudoplatanus</i> .	Negligible importance
u1c – Artificial unvegetated, unsealed surface	Area of bare ground with laid gravel at rear of storage containers (TN10). Used for parking and storage. Scrub and grassland species were established on the	Negligible importance

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Habitat (UKHab Code) (TN)	Result	Importance Assessment
	margins of the site. Species present included frequent downy birch, with occasional bramble meadow foxtail <i>Alopecurus pratensis</i> and soft rush.	
u1f – Sparsely Vegetated Urban Land 80 – Open Mosaic habitats on previously developed land (OMoPDL)	Open mosaic habitat (TN11), including various habitat types including: Wetland – f2b Purple moor grass and rush pastures: The rush pastures existed in a mosaic with scrub including frequent goat willow <i>Salix caprea</i> scrub and occasional downy birch <i>Betula pubescens</i> scrub. The scrub was denser in the central area (up to 60% cover). The sward was species rich with up to 50 species present and was structurally diverse. The sward primarily comprised sedge and rush species including abundant compact rush <i>Juncus conglomeratus</i> and hard rush <i>Juncus inflexus</i>, frequent black sedge <i>Carex nigra</i> and rare sharp-flowered rush <i>Juncus acutiflorus</i> and false-fox sedge <i>Carex otrubae</i>. Herbs indicative associated with damp grassland such as meadowsweet <i>Filipendula ulmaria</i>, wild angelica <i>Angelica sylvestris</i>, ragged robin <i>Silene flos-cuculi</i> and valerian <i>Valeriana officinalis</i>. Particularly rich areas contained several species of orchid including common-spotted <i>Dactylorhiza fuchsia</i> and common twayblade <i>Listera ovata</i>. Scrub - H3d – Bramble scrub: Dense bramble scrub with abundant great willow herb with mixed scrub on edge Grassland – g2a - Lowland calcareous grassland mosaic with bareground: Lowland calcareous grassland was present centrally and occurred between the broadleaved woodland along the cycle route and the rush pasture / scrub habitat present to the north. The grassland occurred as a mosaic with bare ground (mine spoil) and scattered scrub. The sward varied in height from 2cm – 50cm and was most continuous adjacent to the woodland. The sward comprised fine grasses including dominant quaking-grass <i>Briza media</i>, which is a calcareous indicator and abundant creeping bent <i>Agrostis stolonifera</i>.	OMoPDL is on the Cumbrian LBAP County importance

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Habitat (UKHab Code) (TN)	Result	Importance Assessment
	The herb component was variable but included species indicative of unimproved situations and a calcareous pH such as frequent Common bird's-foot trefoil <i>Lotus corniculatus</i>, occasional Common knapweed <i>Centaurea nigra</i>, kidney vetch <i>Anthyllis vulneraria</i> and rare agrimony <i>Agrimonia eupatoria</i>, common centaury <i>Centaureum erythraea</i>, common spotted-orchid <i>Dactylorhiza fuchsia</i> and dyers greenweed <i>Genista tinctoria</i> (TN12), which is an indicator of calcareous grassland, rough pastures and old meadows, calcareous mires, is a key food plants for moths and other insects and is in decline. Ephemeral water bodies: The ephemeral ditches are present within vehicle tracks. The water was considered to be good quality. These may dry seasonally but many contained aquatic species such as bulrush <i>Typha latifolia</i>, lesser spearwort, floating sweet-grass <i>Glyceria fluitans</i> and pendulous sedge <i>Carex pendula</i>. The habitat was compared to the OMoPDL criteria (Table 5) and it was determined that it met the criteria to be categorised as OMoPDL priority habitat.	
r1g – Other standing water	Other standing water occurred as ephemeral ditches (TN11) within the wet woodland and OMoPDL and a concrete and brick water tank in the west of the site (TN13). The ephemeral ditches are present within vehicle tracks. The water was considered to be good quality. These may dry seasonally but many contained aquatic species such as bulrush <i>Typha latifolia</i>, lesser spearwort, floating sweet-grass <i>Glyceria fluitans</i> and pendulous sedge <i>Carex pendula</i>. The water tank had 5-10cm of water at the time of the survey and the surface was covered with algae.	Local Importance

A site should be regarded as OMoPDL if it fulfils all the criteria in the UK BAP definition (Mike J. Lush, 2013). As such the site has been compared to the criteria identified in the Open Mosaic Habitat Survey Handbook (Mike J. Lush, 2013), to determine whether it meets the criteria for OMoPDL priority habitat, see Table 5.

Table 5. Assessment of the site against the UK BAP OMoPDL priority habitat criterion.

Criterion number	BAP Criterion	Site	Criterion achieved
1	The area of open mosaic habitat is at least 0.25ha in size.	As per the boundary identified on MAGIC the habitat is 1.2ha. If the purple moor-grass and rush pasture to the north is included the site is 1.7ha.	Yes
2	Known history of disturbance at the site or evidence that soil has been removed or severely modified by previous use(s) of the site. Extraneous materials /substrates such as industrial spoil may have been added.	The site has a known history of disturbance: the site was previously used for mining and was used as a slag heap before it was built on in the 1960s and 1970s (Tetra Tech, 2021a).	Yes
3	The site contains some vegetation. This will comprise early successional communities consisting mainly of stress tolerant species (e.g. indicative of low nutrient status or drought). Early successional communities are composed of (a) annuals, or (b) mosses/ liverworts, or (c) lichens or (d) ruderals or (e) inundation species, or (f) open grassland, or (g) flower-rich grassland, or (h) heathland.	The Open Mosaic Habitat Survey Handbook lists 24 habitat types that considered (Mike J. Lush, 2013). Of these the following are found within the OMoPDL boundary identified on MAGIC: bare ground, sparse vegetation, calcareous grassland, tall herb, scrub, woodland, rush pastures and temporary pools / seasonally wet areas.	Yes
4	The site contains unvegetated, loose bare substrate and pools may be present.	There is loose bare substrate (see Table 4 Calcareous grassland description and TN1) and pools (standing open water, TN16).	Yes
5	The site shows spatial variation, forming a mosaic of one or more of the early successional communities (a) – (h) above (criterion 3) plus bare substrate, within 0.25 ha.	Viewed as a whole the area is a mosaic based on the habitats mentioned above, particularly the calcareous grassland and bare ground areas in the centre of the site.	Yes

OMoPDL is not defined as irreplaceable habitat on Schedule 7A of the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024.

3.3 PROTECTED AND NOTABLE SPECIES

Data purchased from CBDC confirmed the presence of a number of protected and notable species within 2 km of the site. Relevant data are discussed in Table 6 below.

Protected and notable species identified as a receptor for the site are detailed in Table 6 and on Figure 5. Further information on relevant species / environmental legislation and planning policy can be found in Appendix D.

Table 6. 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. Field Survey There were no badger setts or other signs of badgers recorded on site or within a 50m radius of the site boundary. The habitats within the survey area boundary appeared to suitable for badger foraging and sett creation and are likely to provide good connectivity to the wider environment and other suitable habitat and foraging features. The woodland, scrub and grassland habitats on site are considered to provide suitable features for foraging badger. The C2C cycle path with associated woodland and scrub that adjoins site to the east 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). All of these areas provide potential habitat for foraging and sett creation and suitable dispersal routes. Badgers may be a constraint for the proposed works – See Section 4.1.	N/A
Bats	Conservation of Habitats and Species Regulations 2017 (as amended) Schedule 2; Wildlife and Countryside Act 1981 (as amended) Schedules 5 & 6; Natural Environment and Rural	Desk Study One record of an unidentified bat 1.8 km N of the site, recorded in 2016. This was for two bats entering a roost in a mill wall. In addition, two common pipistrelle day roosts were identified in Buildings B1 and B6 in the wider site. Common and soprano pipistrelle were recorded using the wider site during surveys of Unit 1 (Tetra Tech, 2024k).	Local

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Species	Legal Protection	Result	Importance Assessment
	Communities 2006 Section 41.	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, 0.8 km west of the site. Field Survey There are no buildings or structures within the site boundary. The trees on site were subject to a ground level tree assessment and were categorised as NONE (Collins, 2023), and Section 2.3.2. The habitats onsite including OMoPDL, broadleaved woodland and wet woodland were considered suitable for foraging bats. 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 and scrub that adjoins site to the east provides connectivity to the network of fields with trees / hedges to the north. These were categorised per the BCT guidelines (Collins, 2023) noted in Table 2 Section 2.3.2. The site is therefore considered to be of moderate suitability for foraging and commuting bats due to the presence of the woodland along the eastern boundary. Bats are a constraint for the proposed works – see Section 4.1.	
Birds	Wildlife and Countryside Act 1981 (as amended).	Desk Study No post 2014 records were reported by CBDC 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). Field Survey (please refer to the Technical Report for the Breeding Bird Survey (Tetra Tech, 2024c)) A total of 31 bird species were recorded over the six 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;	Local

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Species	Legal Protection	Result	Importance Assessment																																													
		- 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><tr><td><i>Larus argentatus</i></td><td>Herring gull</td><td>NERC 41, BoCC Red</td><td>9</td><td>Confirmed</td></tr><tr><td><i>Passer domesticus</i></td><td>House sparrow</td><td>NERC 41, BoCC Red</td><td>1</td><td>Confirmed</td></tr><tr><td><i>Larus fuscus</i></td><td>Lesser black-backed gull</td><td>BoCC Amber</td><td>6</td><td>Confirmed</td></tr><tr><td><i>Linaria cannabina</i></td><td>Linnet</td><td>NERC 41, BoCC Red</td><td>1</td><td>Not breeding on site</td></tr><tr><td><i>Haematopus ostralegus</i></td><td>Oystercatcher</td><td>BoCC Amber</td><td>3</td><td>Confirmed</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	<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	
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																																												
<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																																												

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Species	Legal Protection	Result					Importance Assessment
		<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	
		<i>Troglodytes troglodytes</i>	Wren	BoCC Amber	9	Confirmed	
		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;	Desk Study No post 2014 records were available within a 2 km radius of the site. The latest records are from 2013. Smooth and palmate newt, common frog and common toad were recorded on site during the surveys in 2024 ((Tetra Tech, 2024e; Tetra Tech , 2024h) and 2021 (Tetra Tech, 2021a). Magic returned no records of GCN EPS licenses within a 2 km radius of the site. Field Survey (please refer to the Technical Report for the Great Crested Newt eDNA Survey (Tetra Tech, 2024e) All waterbodies surveyed for eDNA in 2024 (Tetra Tech, 2024e) as shown on Figure 2 had a result of negative for GCN eDNA.					GCN are considered likely absent from site

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Species	Legal Protection	Result	Importance Assessment
	Natural Environment and Rural Communities 2006 Section 41.	Waterbodies 5a, 5b, 6a and 6b received a HSI category of good and waterbody 4 was categorised as poor (Tetra Tech, 2024e). Suitable terrestrial habitat is present on site and the C2C cycle path with associated woodland and scrub that adjoins site to the east provides connectivity to the woodland and fields to the north. GCN are considered to be absent from the site and are not considered to be a constraint to the proposed works and are not considered further within the report. Common amphibians are a constraint for the proposed works – see Section 4.1.	
Reptiles	<i>Adder, grass snake, slow worm and common lizard:</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. Field Survey No reptiles were recorded during the 2024 surveys (Tetra Tech, 2024h). Common lizard was found on site during ECoW works in 2023 (E. Ferrier personal observation). Two observations of common lizard were also recorded during the 2021 surveys (Tetra Tech, 2021a), the closed record was 130m west of the site. Common lizard are considered to be present on site. Areas of suitable reptile habitat on site include OMoPDL, woodland and areas of bare ground. The mosaic of habitats on site are suitable for reptiles and habitat suitable for hibernation such as rubble, brash and log piles. The woodland margins surrounding the site are connected to the C2C cycle path with associated woodland and scrub connects the site to the wider environment. Reptiles are a constraint for the proposed works – see Section 4.1.	Local
Invertebrates	Some invertebrates are protected under Conservation of Habitats and Species Regulations 2017 (as amended) and	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.	Local

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Species	Legal Protection	Result	Importance Assessment
	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).	Field Survey (Please refer to the Invertebrate Survey Report for detailed results Tetra Tech 2024g) The following invertebrates were observed on site during the EA (TN14): • 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>; and • Green viewed white <i>Pieris napi</i> Two notable (NERC SPI and LBAP) species were recorded during the invertebrate surveys, including dingy skipper and cinnabar <i>Tyria jacobea</i>. The foodplants of these species include common bird's-foot trefoil, greater bird's-foot trefoil, and kidney vetch. Common bird's-foot trefoil was found in numerous locations on site, all of which were located in the calcareous grassland (within OMoPDL) to the southeast of the site. Greater bird's-foot trefoil was found within the OMoPDL and wet woodland areas. Kidney vetch was food in the ephemeral vegetation within the u1b areas. Invertebrates may pose a constraint to proposed works on site – see Section 4.1.	
Red squirrel	Wildlife and Countryside Act 1981 (as amended) Schedule 5; Section 41 of the Natural Environment and Rural Communities Act (2006); Bern Convention Appendix III. Cumbria LBAP.	There were 14 records of red squirrel returned in the desk study, the closest being one observation 1.1 km south at Moor Row in 2015. No signs of red squirrel dreys were observed within the woodlands on site. The woodlands offer suitability for foraging, commuting and drey-building and are connected to other suitable habitat in the wider environment. Red squirrel may pose a constraint to proposed works on site – see Section 4.1.	Local
Invasive species	Wildlife and Countryside Act 1981 (as amended) Schedule 9; The Invasive Alien Species (Enforcement and	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	N/A

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Species	Legal Protection	Result	Importance Assessment
	Permitting) Order 2019 (as amended); Environmental Protection Act 1990.	<i>Impatiens glandulifera</i>. These records were reported in Cleator Moor Innovation Quarter: Ecological Appraisal (Tetra Tech, 2021a), with no new records since 2018. Field Survey (Please refer to the INNS Management Plan Tetra Tech 2024f) Eight plant species listed on Schedule 9 of the W&CA were recorded within the Survey Area during the 2024 INNS survey: • 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 <i>Reynoutria (Fallopia) japonica</i>; and • Rhododendron <i>Rhododendron ponticum</i>.	

4.0 RECOMMENDATIONS

4.1 MITIGATION AND FURTHER SURVEY

All of the works outlined below in Table 7 should be assumed as likely requirements for the pre-planning stage to inform a planning application, unless otherwise stated.

Table 7. Mitigation and Further Survey / Assessment

Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
Designated sites	The site is within 1.3 km of River Ehen SAC and within SSSI impact zones associated with River Ehen (Ennerdale Water to Keekle Confluence) SSSI. The report to inform Habitats Regulations Assessment (HRA) produced by Tetra Tech in 2021 was updated in June 2025 (Tetra Tech, 2025) states: <i>‘The results from the Stage 1 Screening Assessment found the following impacts pathways to have risk of (adverse) significant effect on River Ehen SAC and associated Qualifying Features due to proposed development:</i> • <i>Pollution via surface water drainage (Construction and Operation)</i> • <i>Pollution via groundwater seepage (Construction only)</i> • <i>Spread of invasive species (Construction and Operation).</i> <i>The risks can be mitigated through:</i> • <i>Pollution prevention measures detailed within CEMP; and</i>	Mitigation required will following Appropriate Assessment (AA) as part of a Habitats Regulations Assessment (HRA): • Pollution prevention measures detailed within CEMP; and • Eradication and control of INNS through the INNS Management Plan. Standard measures to reduce noise, dust, etc to be included within a Construction Environmental Management Plan (CEMP) in accordance with British Standard BS42020:2013.	There is currently no Nature Recovery Plan for the area. However, the site has connectivity to two CWS 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 creation for basking reptiles and to improve invertebrate diversity.

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
	• <i>Eradication and control of INNS through the INNS Management Plan.</i> The site is not within Natural England's Nitrate Vulnerable Zone or within a Nutrient Neutrality Catchment. A Nutrient Neutrality Assessment is not required. 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 Wildlife Sites, no adverse effects are considered likely. No further assessment is required.		
Habitats	Trees The Arboricultural Impact Assessment (Tetra Tech , 2024a) stated that none of the trees on site are subject to statutory or non-statutory designations. To implement the proposed development, all of the tree groups recorded (G1-G4) are to be removed. Biodiversity Net Gain (BNG) The development will need to achieve a 10 % net gain in biodiversity for habitats and watercourses on site in line with NPPF (Paragraph 179).	Trees Mitigation planting has been provided as part of the landscaping plan (ref: LUF-ONE-ZZ-XX-D-L-0007-P10). Replacement planting should also be considered along the eastern boundary of the site & central area to re-strengthen the specimens lost and reestablish this connecting feature. BNG In the first instance it is recommended that site designs are reconsidered / redesigned to retain as much of the high value habitats as possible, in	Opportunities should be sought to use or incorporate existing habitats and species on site, such as the inclusion of green roofs seeded with seed from the existing site or created using material onsite. Landscaping should be native and as semi-natural as possible (these

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
	The habitats on site achieved a variety of distinctiveness values according to the Defra Biodiversity Metric (Defra, 2024a). Of these two habitats (OMoPDL and wet woodland) were identified as 'high' which requires replacement with the same habitat type and OMoPDL was identified as very high distinctiveness habitat. The Site Proposals Plan (LUF-ONE-ZZ-XX-D-L-0007-P10, Appendix B), shows that the majority of OMoPDL and wet woodland within the site boundary will be lost to the development.	accordance with the mitigation hierarchy (CIEEM, 2017). Loss of habitats on site will be mitigated for and compensated for through obtaining Biodiversity Net Gain either within or including area outside the site. Based on the current plans, it will not be possible to wholly offset biodiversity losses onsite. Options for achieving a net gain in biodiversity include avoidance of high value habitats, management of post development habitats for biodiversity value, aiming to create higher quality habitat than currently proposed; and offsite compensation of habitats which will require off-site land. The development may offset loss of biodiversity units through the buying of off-site units from a habitat bank. The financial payment will be calculated based on the amount of units required to meet 10% for this proposed development. The buying of biodiversity units from a 3rd party habitat bank will be secured by planning condition and S106 agreement. Habitat management tasks are likely to be required and legally secured (e.g. through Conservation covenant or 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. Habitat prescriptions should be captured within a Habitat Management and Monitoring Plan	enhancements will be quantified with the use of a BNG metric). Opportunities should be sought to increase connectivity between the site and the wider environment and to continue to allow species dispersal.

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		(https://www.gov.uk/guidance/creating-a-habitat-management-and-monitoring-plan-for-biodiversity-net-gain), to be prepared by an Ecologist.	
Badger	A pre-commencement walkout 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, ditched and holes dug on site should either be backfilled overnight, covered, or left with a suitable ramp in place 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	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.

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		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 No trees or structures within the site offered bat roosting potential. Foraging And Commuting The site was assessed as offering moderate foraging suitability largely due to the presence of the woodland habitat along the eastern boundary which is of highest value. The site lies within the Core Sustainance Zone of local bat populations of common pipistrelle, soprano pipistrelle and Myotis species. However, the loss of the small parcels of mosaic habitat across the majority of the site are not considered to significantly impact the CSZ of the local bat populations when considered the habitats in the wider area. The woodland corridor adjacent to the eastern boundary is considered a valuable habitat for foraging and commuting bats and therefore mitigation will be required to reduce indirect impacts of artificial lighting.	Foraging and Commuting Compensation of foraging habitat loss is required and to create habitats of high invertebrate diversity within the landscape plan. There are opportunities to include planting of linear features such as tree lines or hedgerows within the landscaping proposals on the western boundary of the site and between buildings. 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. LED warm lights will be used, which have no UV output, therefore attracting fewer insects with warmer colours reducing impacts on bats. 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	The inclusion of native nectar producing plants (to attract insects) within the final landscaping plans is recommended to provide opportunity for foraging and commuting bats. Four bat boxes could also be integrated into the design to provide additional roosting opportunity for bats, See appendix F.

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		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.	
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 following species were confirmed nesting on site: herring gull, house sparrow, lesser black-backed gull, oystercatcher, song thrush, willow warbler, and wren.	The current proposals show that the majority of the OMoPDL and wet woodland will be lost. The scrub habitat on site was identified as of the most value to breeding birds on site. Impacts could be mitigated by either partial or full habitat retention, sympathetic management, or the creation of similar habitats within, or in proximity to the site. Compensation for loss of bird breeding and foraging habitat is required. It is recommended that all ground clearance works are 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 48 hours prior to clearance works. Once complete, a 48-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 48h, a further inspection may be required.	Enhancements can be implemented on site by erecting four bird boxes on existing mature trees. These bird boxes should target species breeding on site such as house sparrow, bullfinch, song thrush, willow warbler and wren. Enhancement of the site through planting of native trees or hedgerow (in line with the BNG requirement) would provide further nesting opportunities, while grassland enhancement may increase the site’s value for ground nesting birds.

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		Should an active 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.	
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) and HSI assessments were carried out during the peak GCN breeding season (May-June 2024). Following the eDNA results, GCN are confirmed as likely absent from all ponds surveyed. Therefore, no further work is required in relation to GCN. In the unlikely event of GCN being recorded during works on site then works should be postponed and advice sought from a suitably qualified ecologist. Four other amphibian species: palmate newt, smooth newt, common frog and common toad were observed on site.	Given the extremely low risk of GCN being present, precautionary working methods are recommended during the construction phase to avoid harm to GCN and common amphibians. Measures recommended as outlines in the RAMS report (Tetra Tech , 2024i) include timing works to minimise any potential impacts pre- and during construction; site clearance (such as removal of brash piles or vegetation) should ideally be undertaken between April and October (or in temperatures above 5°C) when amphibians are active (bearing in mind that a nesting bird check will be required); any further 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, an ECoW should finger-tip search and check all of the refugia and sheltering places for animals. This will then be followed by the removal of the refugia under the supervision of the ECoW. 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	Opportunities should be sought to include waterbodies within the proposed site designs. Refugia such as log piles should be included in suitable areas such any retained woodland and scrub and along connecting features.

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		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, with a diameter of greater than 200mm should be inspected and covered or 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. Reptile surveys in 2024 did not record any reptiles, but common lizard are considered to be present on site, as identified from the 2021 surveys and ECoW in 2023. As the population of common lizard on site is small reptile translocation is not recommended but it is recommended that vegetation clearance is undertaken following reasonable avoidance measures 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 Ecological Clerk of Works (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.	Enhancing the site through additional native planting such as long grassland and scrub would provide increased connectivity and suitable habitat for reptiles. Currently a minimum of three new refugia must be created. These new refugia should include stacked dead wood piles, compost piles, rock / large boulder piles, as well as three areas of rubble (recycled, inert material from the site) to act as hibernacula / refugia. These should be

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		Precautionary working measures to safeguard any reptiles which should include; - a toolbox talk with details of reptile identification; - 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.	located within the retained woodland areas on the eastern boundary of site and/or areas where native trees are to be planted (in areas not likely to be inundated by water, nor lit or disturbed by human activity) to provide compensation in line with good practice guidance.
Invertebrates	As the site has potential to support cinnabar moth and dingy skipper, protected under NERC Act, 2006. The food plants for both species bird's foot trefoil <i>Lotus corniculatus</i> and ragwort <i>Jacobaea vulgaris</i> respectively, are present on site. Dingy skipper caterpillars are present from mid-August – end of March and cinnabar moth caterpillars are present from July – early September. The mosaic of habitats on site including woodland, scrub, grassland, ruderal habitats and bare ground on site are considered to be probably of local importance for invertebrates.	Provisions to compensate for the loss of these habitats should be included in the HLMP. Reasonable avoidance measures see RAMS report (Tetra Tech , 2024i) for dingy skipper and cinnabar moth caterpillars and 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. 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 caterpillars will 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	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,

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		(birds foot trefoil) and spread them to retained habitats in the wider site.	using few chemicals to encourage invertebrate diversity.
Red squirrel	There is the potential for red squirrel to be present on site based on their current range, suitable habitats on site and the presence of connecting features. A pre-commencement check for red squirrel dreys within suitable habitat is required three months prior to the works.	A pre-works check of woodland areas for squirrel dreys and feeding signs a minimum of three months before works commence see RAMS report (Tetra Tech , 2024i). If red squirrel are found on site, exclusion areas of 50m to drey sites will be applied. The CEMP should include appropriate precautionary working measures for red squirrel.	Installation of a red squirrel box (Appendix F) on a suitably located mature tree within any retained woodland (not along the cycleway boundary).
Invasive species	Eight plant species listed on Schedule 9 of the W&CA were recorded within the Survey Area during the 2024 INNS survey: • Bearberry cotoneaster; • Bullate cotoneaster; • Himalayan cotoneaster; • Hollyberry cotoneaster; • Wall cotoneaster; • Giant hogweed; • Japanese knotweed; and • Rhododendron. The locations of these species are detailed in the INNS report (Tetra Tech, 2024f), alongside control options.	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. See the INNS assessment and management plan (Tetra Tech, 2024f) and RAMS report (Tetra Tech , 2024i) for further details. 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. 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	Eradication of INNS is considered an enhancement.

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Ecological Receptor	Further Survey / Assessment	Mitigation Required	Opportunity for Enhancement
		with fencing, consider controlled waste disposal requirement. Invasive plants must not be disturbed. A minimum 3m around invasive species, using high visibility tape/netting (or similar) to demarcate the boundary and prevent any disturbance of plants or potentially contaminated soils prior to works. For Japanese knotweed this should be 7m.	
Other mammals (including European hedgehogs)	No further survey required.	To avoid harm to hedgehogs during the construction phase of the development, it is recommended that a search by hand for hedgehogs is carried out immediately prior to removing any dense vegetation and brash piles see RAMS report (Tetra Tech , 2024i).. This can be completed by site staff but is recommended to be restricted to periods where hedgehogs are likely to be active if possible (April- October). If any hedgehogs are found, they should be moved to a safe area away from the development works, or, if hibernating, taken to a local hedgehog rescue centre. 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.	The inclusion of native trees and shrubs with a diverse structure within the landscape design, and retention of cut vegetation in brash piles at the site's peripheries will contribute to the resource available to hedgehogs for sheltering and hibernation (operational phase, when risks of harm from construction activities have ceased).

5.0 CONCLUSIONS

The development proposals are considered to have a minor impact on the statutory designated sites due to the limited scope and duration of works. There is the potential for works to affect River Ehen SAC given its proximity and the presence of the Bowthorn Beck which acts as a potential hydrological link which may allow mobilised sediments and chemicals to be transported downstream and cause pollution. There is an existing HRA for the site, which has been updated with the current scope of works. Three impact pathways were taken through to Appropriate Assessment and the assessment concluded that with mitigation, a LSE both alone and in combination, could be ruled out for all pathways of effect. There will be no impact on the integrity of any Habitat Site. As such, it is considered that the 'Competent Authority' can permit the proposed development and does not require Stage 3 or Stage 4 assessments to be undertaken.

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 1,000m²) 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, red squirrel, breeding birds, notable invertebrates including dingy skipper and cinnabar moth and hedgehog. There are also several invasive plant species on site including five cotoneaster species, giant hogweed, Japanese knotweed and rhododendron, that will need to be considered under a biosecurity plan before works commence.

Key recommendations of the report are:

- High value habitats including the wet woodland and OMoPDL are recommended to be retained and protected where possible;
- Achieve 10% biodiversity net gain;
- The site will require a Habitat Management and Monitoring Plan;
- Works undertaken during the nesting bird season (usually considered to be March to September inclusive) risks disturbing bird nests. Vegetation clearance and groundwork should be preceded by a nesting bird check; if nesting birds are found, active nests must remain undisturbed in situ;
- Refugia on site including brash piles, log piles and debris (bricks, fence panels) are to be hand searched prior to clearance and sheltering wildlife such as hedgehogs and amphibians moved to a safe location away from the works area. It is recommended that clearance of refugia is undertaken at a time of year when hedgehogs and 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.

Provided the measures within this report for further survey can be adopted and bespoke mitigation is agreed for the loss of the OMoPDL (or avoidance) 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 – Water Body Location Plan

Figure 3 – UK Hab Habitat Classification Plan

Figure 4 – Statutory Designated sites within 2km

Figure 5 – Ecological Features and Constraints - Main Works



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Site Location Plan
Leconfield Industrial Estate – Main Works



- Legend**
-  Ownership boundary
 -  Main works boundary
 -  Survey area

Notes:

Drawn by: lily.dunwell
Checked by: Elizebeth Ferrier

Figure No. 1
Revision No. A
27 November 2025

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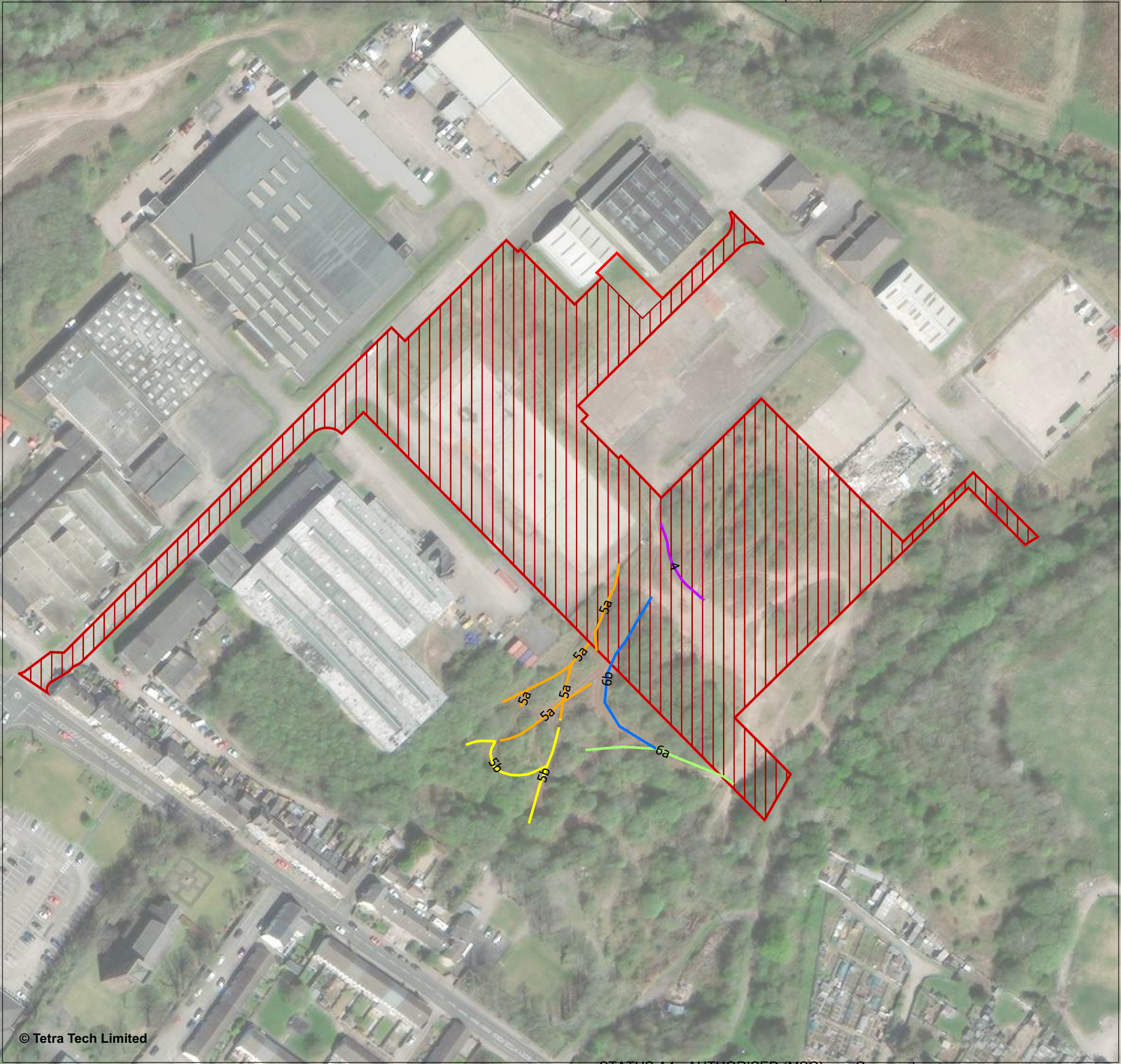
British National Grid
NGR: 301603E 515488N

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Waterbody Location Plan

Leconfield Industrial Estate – Main Works

Morgan Sindall Construction



Legend

- Site boundary
- 4
- 5a
- 5b
- 6a
- 6b
- Survey area

Notes:

Drawn by: lily.dunwell
Checked by: Candice Howe

Figure No. 2
Revision No. A
27 November 2025

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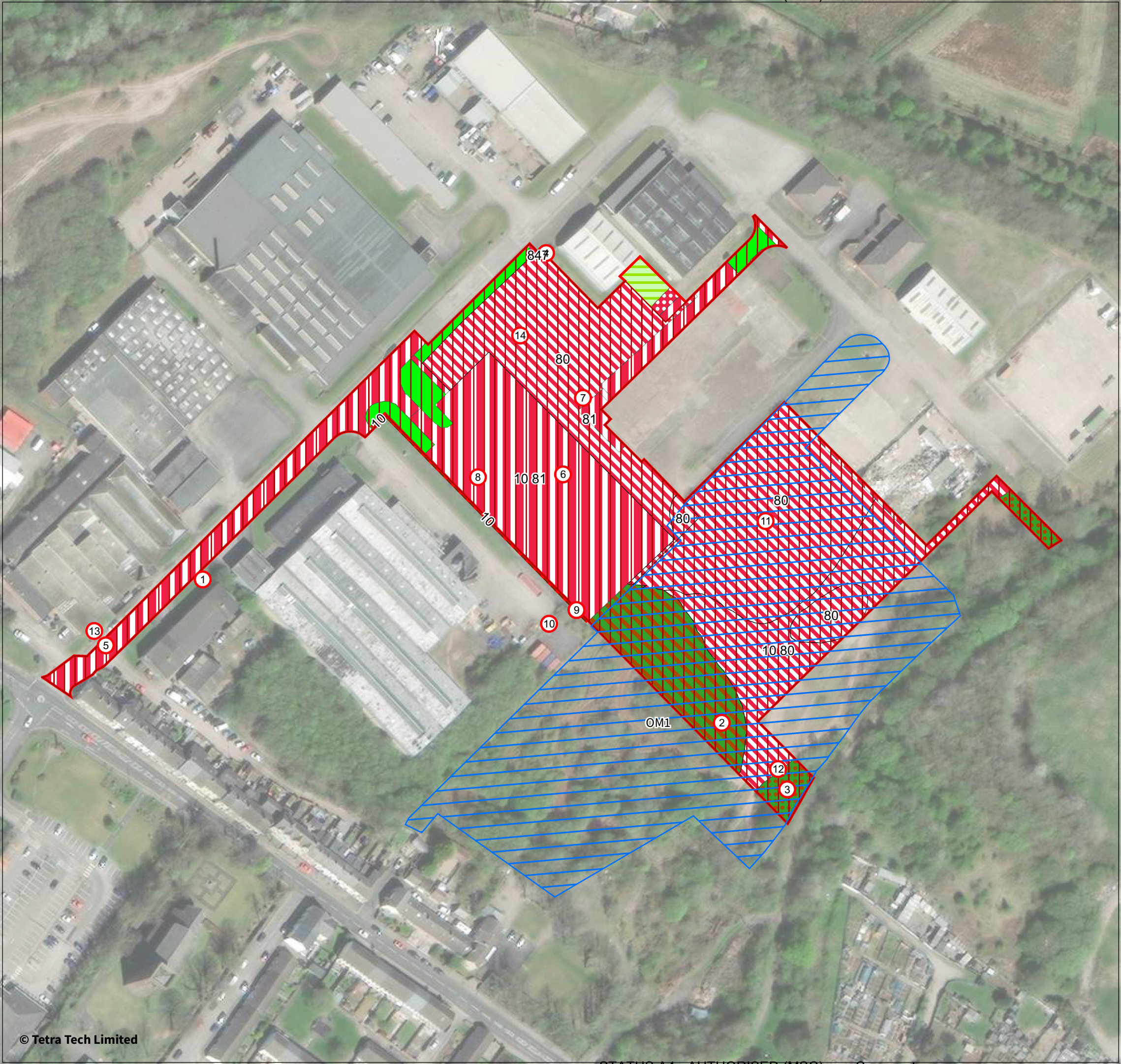
British National Grid
NGR: 301646E 515470N

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UK Hab Habitat Classification Plan

Leconfield Industrial Estate – Main Works



Morgan Sindall Construction

Legend

- Site boundary
- Survey area
- Open Mosaic Habitat
- g3c - Other neutral grassland
- g4 - Modified grassland
- u1 - Built-up areas and gardens
- u1b - Developed land, sealed surface
- u1c - Artificial unvegetated unsealed surface
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- w1g - Other woodland, broadleaved
- u1e - Built linear feature
- Target notes

Secondary Code:

- 10 - Scattered scrub
- 80 - Open mosaic habitats on previously developed land
- 81 - Ruderal or ephemeral
- 847 - Introduced shrub

Data Sources:

[Open Mosaic Habitats](#)

Notes: Symbology defined by UK Habs.

<https://ukhab.org/ukhab-documentation/>

Drawn by: lily.dunwell

Checked by: Candice Howe

Figure No. 3

Revision No. A

27 November 2025

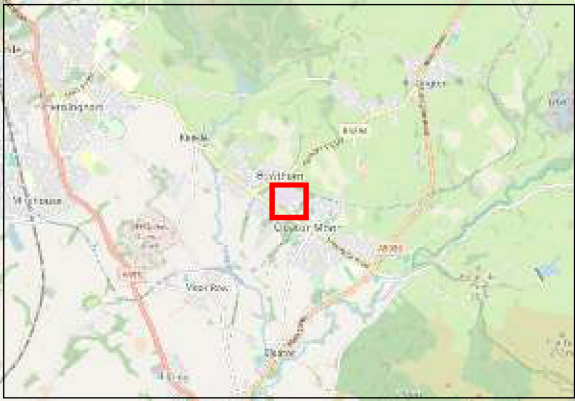
0 20 40 60 Meters

Scale 1:1,500 @A3

British National Grid

NGR: 301636E 515471N

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Statutory designated sites within 2km

Leconfield Industrial Estate – Main Works

Morgan Sindall Construction

Legend

- Site boundary
- Site boundary buffer (2km)
- Site boundary buffer (1km)
- Sites of Special Scientific Interest (SSSI)
- Ancient & Semi-Natural Woodland
- Ancient Replanted Woodland
- Open Mosaic Habitat
- 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:
Symbology similar to that used within the MAGIC Application

Drawn by: lily.dunwell
Checked by: Candice Howe

Figure No. 4
Revision No. A
27 November 2025

0 200 400 600 800 Meters
Scale 1:16,000 @A3

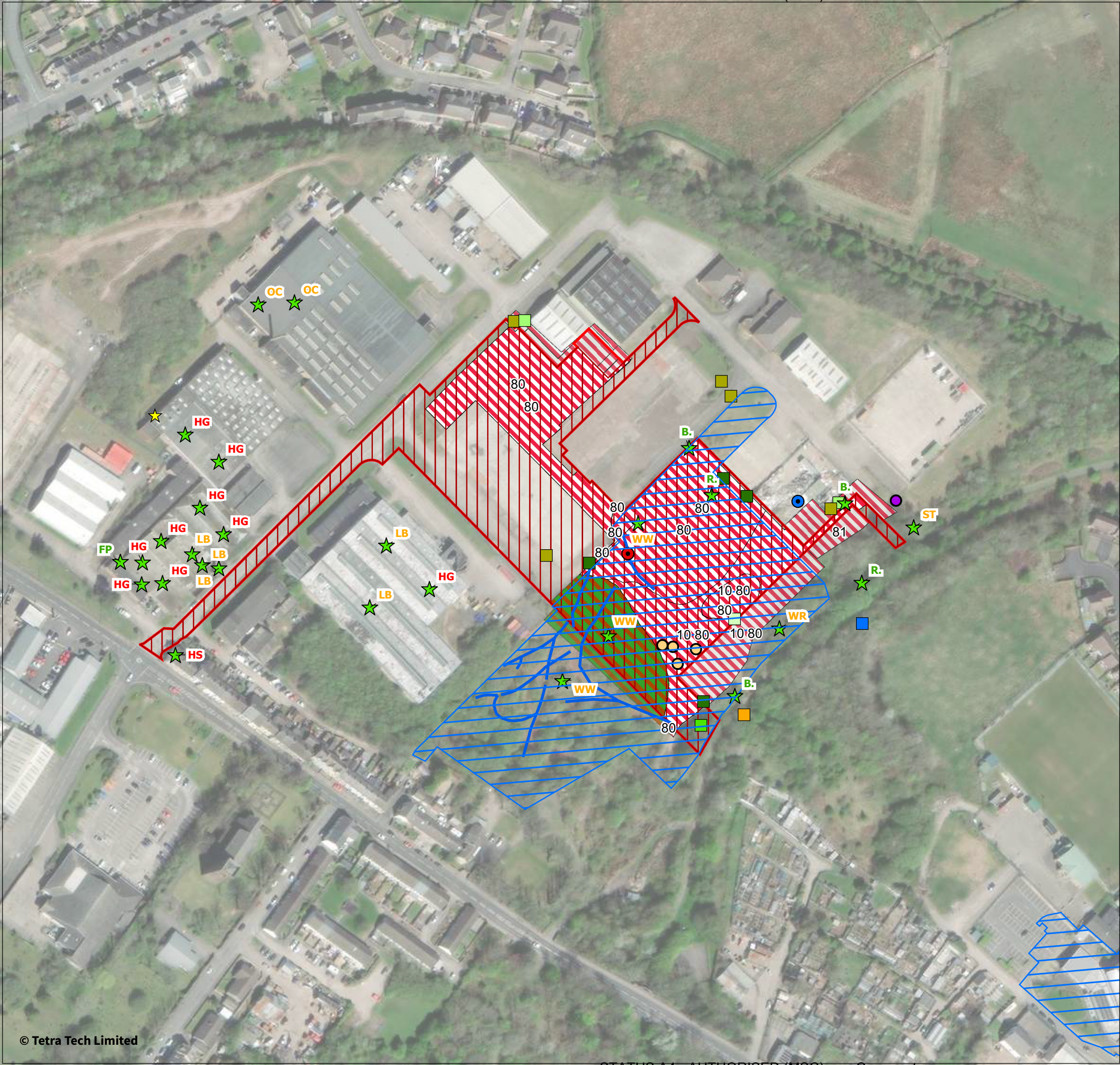
British National Grid
NGR: 301633E 515477N

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Ecological Features and Constraints – Main Works

Leconfield Industrial Estate – Main Works



Morgan Sindall Construction

Legend

- Main works boundary
- Survey area
- u1f - Sparsely vegetated urban land
- w1d - Wet woodland
- Open Mosaic Habitat
- Waterbodies
- Common pipistrelle roost location
- Common frog
- Smooth newt and palmate newt location
- Cinnabar Moth sightings
- Dingy Skipper sightings
- Wall cotoneaster *Cotoneaster horizontalis*
- Giant hogweed *Heracleum mantegazzianum*
- Japanese knotweed *Reynoutria japonica*
- Common pipistrelle roost location
- Breeding Status
- Confirmed breeding bird
- B. - Blackbird
- FP - Feral pigeon
- HG - Herring gull
- HS - House sparrow
- LB - Lesser black-backed gull
- OC - Oystercatcher
- R. - Robin
- ST - Song thrush
- WR - Wren
- WW - Willow warbler

Invasive Species 2024

Records

- Bearberry cotoneaster *Cotoneaster dammeri*
- Bullate cotoneaster *Cotoneaster rehderi*
- Himalayan cotoneaster *Cotoneaster simonsii*
- Hollyberry cotoneaster *Cotoneaster bullatus*

Notes:

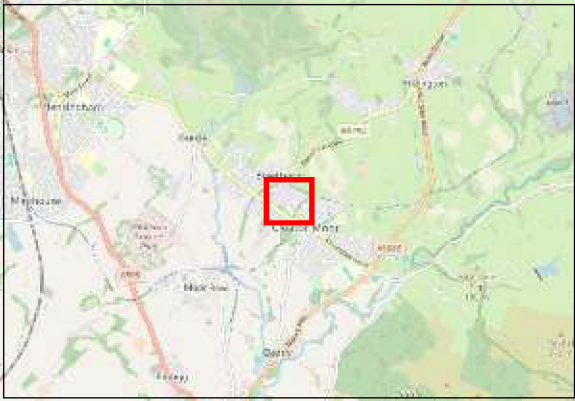
Drawn by: lily.dunwell
Checked by: Candice Howe

Figure No. 5
Revision No. A
27 November 2025

0 20 40 60 80 Meters
Scale 1:2,000 @A3

British National Grid
NGR: 301653E 515473N

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APPENDICES

APPENDIX A: REPORT CONDITIONS

This Report has been prepared using reasonable skill and care for the sole benefit of Morgan Sindall Construction (“the Client”) for the proposed uses stated in the report by Tetra Tech Limited (“Tetra Tech”). Tetra Tech exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder’s permission.

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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 MASTERPLAN (DRAWING REFERENCE: LUF-ONE-ZZ-XX-D-L-0001-P22_LANDSCAPESITEPLAN)

©One-Environments Ltd. This drawing is not to be scaled. All dimensions to be verified on site prior to commencement of works. Discrepancies, ambiguities and/or omissions between this drawing & information supplied by others must be reported immediately for clarification before proceeding

NOTES

- Redline Boundary
- Ornamental Planting
- Hedgerow
- Wildflower Meadow/ Species Rich Grassland
- Native Woodland Mix
- Pollinators Mix
- Existing Vegetation to be retained
- Proposed Trees
- Vehicular Grade Asphalt
- Pedestrian Grade Asphalt
- Building Edge Concrete Block Paving
- Gravel
- Concrete Hardstand
- Permeable Concrete Paving Type 1
- Permeable Concrete Paving Type 2
- Tactile Blister Paving
- Tactile Corduroy Paving
- 6no. Cycle Stands
- Door Guards
- EV Charger Kiosk
- Active EV Bays
- Passive EV Bays
- Street Lights
- Bin Store
- MCCB
- Substation
- Cycle Storage
- Edge of road works

REVISION | P22 DATE | 25.11.25 BY | KJ CHECKED | PA

Additional passive EV parking symbols to bays

REVISION | P21 DATE | 22.10.25 BY | KJ CHECKED | PA

Sub-stations and EV charging kiosks positions updated. Tree's repositioned to inline with drainage strategy. Gravel around buildings added.

REVISION | P20 DATE | 29.09.25 BY | KJ CHECKED | PA

Updated for Planning Issue

REVISION | P19 DATE | 24.06.25 BY | KJ CHECKED | JE

Plot 9 building updated

REVISION | P18 DATE | 09.06.25 BY | HAN CHECKED | JE

Red Line Boundary (Plot 09 only) updated

REVISION | P17 DATE | 09.04.25 BY | HAN CHECKED | PA

Soft landscape around Plot 09 relocated

CLIENT Cumberland County Council

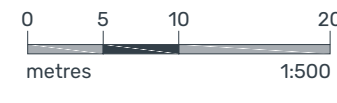
PROJECT **CMIQ Phase 2 LUF**

TITLE Landscape Site Plan

DWG No. LUF-ONE-ZZ-XX-D-L-0001 REV P22

STATUS PRELIMINARY

SCALE 1:500 @ A1 DATE 08.11.24 DRN BY HAN



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)

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by Ministers, are then designated as Special Protection Areas (SPAs) within six years. Public bodies must also help preserve, maintain and re-establish habitats for wild birds.

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 – Main Works

Ecological Appraisal

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.

Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024

The Biodiversity Gain Requirement (Irreplaceable Habitat) Regulations 2024 define what constitutes "irreplaceable habitat" for planning purposes and modify the application of Schedule 7A to the Town and Country Planning Act 1990 in relation to such habitat. These regulations require alternative bespoke compensation to be agreed between developers and local planning authorities for the loss of these valuable and difficult-to-recreate habitats, rather than a simple 10% net gain. The planning condition mandates at least 10% Biodiversity Net Gain (BNG) for new planning applications resulting in habitat loss or degradation, with limited exemptions and specific rules for small sites.

Hedgerow Regulations 1997

The Hedgerow Regulations were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

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.

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

Leconfield Industrial Estate – Main Works

Ecological Appraisal

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.

National Planning Policy Framework

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'.

Relevant policies in relation to planning application include Paragraphs:

"180. 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; 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.

185. To protect and enhance biodiversity and geodiversity, plans should: 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; wildlife corridors and stepping stones that connect them; and areas identified by national and

local partnerships for habitat management, enhancement, restoration or creation; 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.

186. 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 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." – see here for full details:

<https://www.gov.uk/guidance/national-planning-policy-framework>

Leconfield Industrial Estate – Main Works

Ecological Appraisal

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>
Lesser redpoll, <i>Acanthis cabaret</i>	White-letter hairstreak, <i>Satyrrium w-album</i>

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).

APPENDIX D: TARGET NOTES & SURVEY DATA

Project Number	784-B065555
Project Name	Leconfield Morgan Sindall
Date of Survey	12 July 2024
Surveyor	Elizebeth Ferrier
Temperature	14°C
Cloud Cover	60%
Wind	2 - Light breeze
Precipitation	No precipitation
General Notes	

Target Note	Description	Photos																																				
TN1	g4 Modified grassland Height: 5cm Cover: 100% Verges outside of buildings. Frequently mown. All verges similar. Species List: <table> <tr> <th>Common Name</th><th>Latin Name</th><th>Dafor</th></tr> <tr> <td>Red fescue</td><td><i>Festuca rubra</i></td><td>2 - Abundant</td></tr> <tr> <td>Creeping buttercup</td><td><i>Ranunculus repens</i></td><td>3 - Frequent</td></tr> <tr> <td>Dandelion</td><td><i>Taraxacum agg.</i></td><td>4 - Occasional</td></tr> <tr> <td>Perennial rye-grass</td><td><i>Lolium perenne</i></td><td>4 - Occasional</td></tr> <tr> <td>Selfheal</td><td><i>Prunella vulgaris</i></td><td>4 - Occasional</td></tr> <tr> <td>White clover</td><td><i>Trifolium repens</i></td><td>4 - Occasional</td></tr> <tr> <td>Yorkshire-fog</td><td><i>Holcus lanatus</i></td><td>4 - Occasional</td></tr> <tr> <td>Common ragwort</td><td><i>Jacobaea vulgaris</i></td><td>5 - Rare</td></tr> <tr> <td>Ribwort plantain</td><td><i>Plantago lanceolata</i></td><td>5 - Rare</td></tr> <tr> <td>Smooth sowthistle</td><td><i>Sonchus oleraceus</i></td><td>5 - Rare</td></tr> <tr> <td>Yarrow</td><td><i>Achillea millefolium</i></td><td>5 - Rare</td></tr> </table> British National Grid (m): 301492E, 515452N WGS84 (Lat/Long): 54.5248°N, -3.5235°E	Common Name	Latin Name	Dafor	Red fescue	<i>Festuca rubra</i>	2 - Abundant	Creeping buttercup	<i>Ranunculus repens</i>	3 - Frequent	Dandelion	<i>Taraxacum agg.</i>	4 - Occasional	Perennial rye-grass	<i>Lolium perenne</i>	4 - Occasional	Selfheal	<i>Prunella vulgaris</i>	4 - Occasional	White clover	<i>Trifolium repens</i>	4 - Occasional	Yorkshire-fog	<i>Holcus lanatus</i>	4 - Occasional	Common ragwort	<i>Jacobaea vulgaris</i>	5 - Rare	Ribwort plantain	<i>Plantago lanceolata</i>	5 - Rare	Smooth sowthistle	<i>Sonchus oleraceus</i>	5 - Rare	Yarrow	<i>Achillea millefolium</i>	5 - Rare	
Common Name	Latin Name	Dafor																																				
Red fescue	<i>Festuca rubra</i>	2 - Abundant																																				
Creeping buttercup	<i>Ranunculus repens</i>	3 - Frequent																																				
Dandelion	<i>Taraxacum agg.</i>	4 - Occasional																																				
Perennial rye-grass	<i>Lolium perenne</i>	4 - Occasional																																				
Selfheal	<i>Prunella vulgaris</i>	4 - Occasional																																				
White clover	<i>Trifolium repens</i>	4 - Occasional																																				
Yorkshire-fog	<i>Holcus lanatus</i>	4 - Occasional																																				
Common ragwort	<i>Jacobaea vulgaris</i>	5 - Rare																																				
Ribwort plantain	<i>Plantago lanceolata</i>	5 - Rare																																				
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Yarrow	<i>Achillea millefolium</i>	5 - Rare																																				

Leconfield Industrial Estate – Main Works
Ecological Appraisal

Target Note	Description	Photos																																																			
																																																					
TN2	wld wet woodland Canopy Height: c.7m Cover: 80% Understory Height: 2m Cover 30% understory of birch, rowan, hawthorn Ground flora Height: 50cm Cover: 70% Canopy of frequent willow, with birch, rowan and hawthorn in the understory. The ground flora is sedge and rush dominated with abundant feather moss. Damp underfoot. Occasional orchids. Ephemeral wet tracks through woodland with standing water. Species List: <table> <tr> <th>Common Name</th><th>Latin Name</th><th>Dafor</th></tr> <tr> <td>Red-stemmed feather-moss</td><td><i>Pleurozium schreberi</i></td><td>2 - Abundant</td></tr> <tr> <td>Dewberry</td><td><i>Rubus caesius</i></td><td>2 - Abundant</td></tr> <tr> <td>Bramble</td><td><i>Rubus fruticosus agg.</i></td><td>2 - Abundant</td></tr> <tr> <td>Black sedge</td><td><i>Carex nigra</i></td><td>3 - Frequent</td></tr> <tr> <td>Downy birch</td><td><i>Betula pubescens</i></td><td>3 - Frequent</td></tr> <tr> <td>Goat willow</td><td><i>Salix caprea</i></td><td>3 - Frequent</td></tr> <tr> <td>Hairy sedge</td><td><i>Carex hirta</i></td><td>3 - Frequent</td></tr> <tr> <td>Hard rush</td><td><i>Juncus inflexus</i></td><td>3 - Frequent</td></tr> <tr> <td>Hawthorn</td><td><i>Crataegus monogyna</i></td><td>3 - Frequent</td></tr> <tr> <td>Marsh horsetail</td><td><i>Equisetum palustre</i></td><td>3 - Frequent</td></tr> <tr> <td>Tufted hair-grass</td><td><i>Deschampsia cespitosa</i></td><td>3 - Frequent</td></tr> <tr> <td>Wild angelica</td><td><i>Angelica sylvestris</i></td><td>3 - Frequent</td></tr> <tr> <td>Common spotted-orchid</td><td><i>Dactylorhiza fuchsii</i></td><td>4 - Occasional</td></tr> <tr> <td>Italian alder</td><td><i>Alnus cordata</i></td><td>4 - Occasional</td></tr> <tr> <td>Lesser spearwort</td><td><i>Ranunculus flammula</i></td><td>4 - Occasional</td></tr> <tr> <td>Soft rush</td><td><i>Juncus effusus</i></td><td>4 - Occasional</td></tr> </table>	Common Name	Latin Name	Dafor	Red-stemmed feather-moss	<i>Pleurozium schreberi</i>	2 - Abundant	Dewberry	<i>Rubus caesius</i>	2 - Abundant	Bramble	<i>Rubus fruticosus agg.</i>	2 - Abundant	Black sedge	<i>Carex nigra</i>	3 - Frequent	Downy birch	<i>Betula pubescens</i>	3 - Frequent	Goat willow	<i>Salix caprea</i>	3 - Frequent	Hairy sedge	<i>Carex hirta</i>	3 - Frequent	Hard rush	<i>Juncus inflexus</i>	3 - Frequent	Hawthorn	<i>Crataegus monogyna</i>	3 - Frequent	Marsh horsetail	<i>Equisetum palustre</i>	3 - Frequent	Tufted hair-grass	<i>Deschampsia cespitosa</i>	3 - Frequent	Wild angelica	<i>Angelica sylvestris</i>	3 - Frequent	Common spotted-orchid	<i>Dactylorhiza fuchsii</i>	4 - Occasional	Italian alder	<i>Alnus cordata</i>	4 - Occasional	Lesser spearwort	<i>Ranunculus flammula</i>	4 - Occasional	Soft rush	<i>Juncus effusus</i>	4 - Occasional	
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Target Note	Description			Photos
	Common twayblade	Listera ovata	4 - Occasional	
	Guelder-rose	Viburnum opulus	5 - Rare	
	Ash	Fraxinus excelsior	5 - Rare	
	Compact rush	Juncus conglomeratus	5 - Rare	
	Creeping buttercup	Ranunculus repens	5 - Rare	
	Oak	Quercus sp.	5 - Rare	
	Bog-moss	Sphagnum sp.	Locally Frequent	
British National Grid (m): 301717E, 515393N				
WGS84 (Lat/Long): 54.5243°N, -3.52°E				
TN3	w1g Other broadleaved woodland			 
Canopy Height: c.10m Cover: 90%				
Shrub layer Height: 3m Cover: 30%				
Ground flora 15cm-1m Cover: 50%				
Species List:				
Common Name	Latin Name	Dafor		
Bramble	Rubus fruticosus agg.	3 - Frequent		
Elder	Sambucus nigra	3 - Frequent		
Hawthorn	Crataegus monogyna	3 - Frequent		
Hazel	Corylus avellana	3 - Frequent		
Oak	Quercus sp.	3 - Frequent		
Ash	Fraxinus excelsior	4 - Occasional		
Lords-and-ladies	Arum maculatum	4 - Occasional		
Selfheal	Prunella vulgaris	4 - Occasional		
Silver birch	Betula pendula	4 - Occasional		
Guelder-rose	Viburnum opulus	5 - Rare		
Common twayblade	Listera ovata	5 - Rare		
Cherry	Prunus sp.	5 - Rare		
Goat willow	Salix caprea	5 - Rare		
Grey poplar	Populus x canescens	5 - Rare		
Italian alder	Alnus cordata	5 - Rare		
Rose	Rosa sp.	5 - Rare		
Smooth meadow-grass agg.	Poa pratensis	5 - Rare		

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Target Note	Description	Photos												
	<table border="1"> <tr> <td>Sycamore</td><td><i>Acer pseudoplatanus</i></td><td>5 - Rare</td></tr> </table> British National Grid (m): 301728E, 515368N WGS84 (Lat/Long): 54.524°N, -3.5199°E	Sycamore	<i>Acer pseudoplatanus</i>	5 - Rare										
Sycamore	<i>Acer pseudoplatanus</i>	5 - Rare												
TN4	u1 Built up areas and gardens 874 introduced shrub Height: 2-4m Cover: 100% Species List: <table border="1"> <tr> <th>Common Name</th><th>Latin Name</th><th>Dafor</th></tr> <tr> <td>Barberry</td><td><i>Berberis sp.</i></td><td>2 - Abundant</td></tr> <tr> <td>Hollyberry cotoneaster</td><td><i>Cotoneaster bullatus</i></td><td>3 - Frequent</td></tr> <tr> <td>Italian alder</td><td><i>Alnus cordata</i></td><td>5 - Rare</td></tr> </table> British National Grid (m): 301631E, 515584N WGS84 (Lat/Long): 54.526°N, -3.5214°E	Common Name	Latin Name	Dafor	Barberry	<i>Berberis sp.</i>	2 - Abundant	Hollyberry cotoneaster	<i>Cotoneaster bullatus</i>	3 - Frequent	Italian alder	<i>Alnus cordata</i>	5 - Rare	
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Italian alder	<i>Alnus cordata</i>	5 - Rare												
TN5	u1b Developed land, sealed surface Main street through Industrial estate British National Grid (m): 301453E, 515426N WGS84 (Lat/Long): 54.5245°N, -3.5241°E													
TN6	u1b Developed land, sealed surface Hardstanding area opposite BOC yard British National Grid (m): 301638E, 515495N WGS84 (Lat/Long): 54.5252°N, -3.5213°E													
TN7	u1b Developed land, sealed surface 81 ruderal / ephemeral Developed land sealed surface, with a mixture of surfaces including concrete hardstanding, brick paving, tarmacked road, bricks, gravel and debris, ephemeral vegetation present in cracks in hardstanding areas. Species List:													

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Target Note	Description			Photos																																																												
	<table><tr><th>Common Name</th><th>Latin Name</th><th>Dafor</th></tr><tr><td>Red fescue</td><td><i>Festuca rubra</i></td><td>2 - Abundant</td></tr><tr><td>Rough hawkbit</td><td><i>Leontodon hispidus</i></td><td>3 - Frequent</td></tr><tr><td>Downy birch</td><td><i>Betula pubescens</i></td><td>4 - Occasional</td></tr><tr><td>Oxeye daisy</td><td><i>Leucanthemum vulgare</i></td><td>4 - Occasional</td></tr><tr><td>Lesser burdock</td><td><i>Arctium minus</i></td><td>4 - Occasional</td></tr><tr><td>Cock's-foot</td><td><i>Dactylis glomerata</i></td><td>5 - Rare</td></tr><tr><td>Common bird's-foot trefoil</td><td><i>Lotus corniculatus</i></td><td>5 - Rare</td></tr><tr><td>Common Eyebright</td><td><i>Euphrasia nemorosa</i></td><td>5 - Rare</td></tr><tr><td>Creeping cinquefoil</td><td><i>Potentilla reptans</i></td><td>5 - Rare</td></tr><tr><td>Hogweed</td><td><i>Heracleum sphondylium</i></td><td>5 - Rare</td></tr><tr><td>Hop trefoil</td><td><i>Trifolium campestre</i></td><td>5 - Rare</td></tr><tr><td>Kidney vetch</td><td><i>Anthyllis vulneraria</i></td><td>5 - Rare</td></tr><tr><td>Perennial rye-grass</td><td><i>Lolium perenne</i></td><td>5 - Rare</td></tr><tr><td>Red clover</td><td><i>Trifolium pratense</i></td><td>5 - Rare</td></tr><tr><td>Ribwort plantain</td><td><i>Plantago lanceolata</i></td><td>5 - Rare</td></tr><tr><td>Wild angelica</td><td><i>Angelica sylvestris</i></td><td>5 - Rare</td></tr><tr><td>Wild carrot</td><td><i>Daucus carota ssp. carota</i></td><td>5 - Rare</td></tr><tr><td>Yarrow</td><td><i>Achillea millefolium</i></td><td>5 - Rare</td></tr><tr><td>Yorkshire-fog</td><td><i>Holcus lanatus</i></td><td>5 - Rare</td></tr></table> British National Grid (m): 301647E, 515526N WGS84 (Lat/Long): 54.5254°N, -3.5212°E	Common Name	Latin Name	Dafor	Red fescue	<i>Festuca rubra</i>	2 - Abundant	Rough hawkbit	<i>Leontodon hispidus</i>	3 - Frequent	Downy birch	<i>Betula pubescens</i>	4 - Occasional	Oxeye daisy	<i>Leucanthemum vulgare</i>	4 - Occasional	Lesser burdock	<i>Arctium minus</i>	4 - Occasional	Cock's-foot	<i>Dactylis glomerata</i>	5 - Rare	Common bird's-foot trefoil	<i>Lotus corniculatus</i>	5 - Rare	Common Eyebright	<i>Euphrasia nemorosa</i>	5 - Rare	Creeping cinquefoil	<i>Potentilla reptans</i>	5 - Rare	Hogweed	<i>Heracleum sphondylium</i>	5 - Rare	Hop trefoil	<i>Trifolium campestre</i>	5 - Rare	Kidney vetch	<i>Anthyllis vulneraria</i>	5 - Rare	Perennial rye-grass	<i>Lolium perenne</i>	5 - Rare	Red clover	<i>Trifolium pratense</i>	5 - Rare	Ribwort plantain	<i>Plantago lanceolata</i>	5 - Rare	Wild angelica	<i>Angelica sylvestris</i>	5 - Rare	Wild carrot	<i>Daucus carota ssp. carota</i>	5 - Rare	Yarrow	<i>Achillea millefolium</i>	5 - Rare	Yorkshire-fog	<i>Holcus lanatus</i>	5 - Rare			
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TN8	u1b Developed land sealed surface 81 ruderal / ephemeral Height: 5-50cm Cover: 1-2% Species List: <table><tr><th>Common Name</th><th>Latin Name</th><th>Dafor</th></tr><tr><td>Red fescue</td><td><i>Festuca rubra</i></td><td>2 - Abundant</td></tr><tr><td>Rough hawkbit</td><td><i>Leontodon hispidus</i></td><td>3 - Frequent</td></tr><tr><td>Downy birch</td><td><i>Betula pubescens</i></td><td>4 - Occasional</td></tr><tr><td>False oat-grass</td><td><i>Arrhenatherum elatius</i></td><td>4 - Occasional</td></tr><tr><td>Oxeye daisy</td><td><i>Leucanthemum vulgare</i></td><td>4 - Occasional</td></tr><tr><td>Cock's-foot</td><td><i>Dactylis glomerata</i></td><td>5 - Rare</td></tr></table>			Common Name	Latin Name	Dafor	Red fescue	<i>Festuca rubra</i>	2 - Abundant	Rough hawkbit	<i>Leontodon hispidus</i>	3 - Frequent	Downy birch	<i>Betula pubescens</i>	4 - Occasional	False oat-grass	<i>Arrhenatherum elatius</i>	4 - Occasional	Oxeye daisy	<i>Leucanthemum vulgare</i>	4 - Occasional	Cock's-foot	<i>Dactylis glomerata</i>	5 - Rare																																								
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Target Note	Description			Photos															
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	Common Eyebright	<i>Euphrasia nemorosa</i>	5 - Rare																
	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 cinquefoil	<i>Potentilla reptans</i>	5 - Rare																
	Fairy flax	<i>Linum catharticum</i>	5 - Rare																
	Hairy tare	<i>Ervilia hirsuta</i>	5 - Rare																
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British National Grid (m): 301603E, 515494N																			
WGS84 (Lat/Long): 54.5251°N, -3.5218°E																			
TN9	u1e built linear feature 10 Scattered scrub Height: 2m Cover: 30% Scrub along fence separating yard and hardstanding area. Species List: <table><tr><th>Common Name</th><th>Latin Name</th><th>Dafor</th></tr><tr><td>Downy birch</td><td><i>Betula pubescens</i></td><td>4 - Occasional</td></tr><tr><td>Goat willow</td><td><i>Salix caprea</i></td><td>4 - Occasional</td></tr><tr><td>Ash</td><td><i>Fraxinus excelsior</i></td><td>5 - Rare</td></tr><tr><td>Sycamore</td><td><i>Acer pseudoplatanus</i></td><td>5 - Rare</td></tr></table> British National Grid (m): 301648E, 515441N			Common Name	Latin Name	Dafor	Downy birch	<i>Betula pubescens</i>	4 - Occasional	Goat willow	<i>Salix caprea</i>	4 - Occasional	Ash	<i>Fraxinus excelsior</i>	5 - Rare	Sycamore	<i>Acer pseudoplatanus</i>	5 - Rare	
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Target Note	Description	Photos																											
	WGS84 (Lat/Long): 54.5247°N, -3.5211°E																												
TN10	u1c Artificial unsealed surface 15-2m 10%. Area of bare ground with laid gravel at rear of storage containers. Used for parking and storage. Some vegetation on edge including shrubs. Area not entered, viewed from fence. Species List: <table><tr><th>Common Name</th><th>Latin Name</th><th>Dafor</th></tr><tr><td>Downy birch</td><td><i>Betula pubescens</i></td><td>3 - Frequent</td></tr><tr><td>Bramble</td><td><i>Rubus fruticosus agg.</i></td><td>4 - Occasional</td></tr><tr><td>Meadow foxtail</td><td><i>Bulrush</i></td><td>4 - Occasional</td></tr><tr><td>Soft rush</td><td><i>Juncus effusus</i></td><td>4 - Occasional</td></tr><tr><td>Common spotted-orchid</td><td><i>Dactylorhiza fuchsii</i></td><td>5 - Rare</td></tr><tr><td>Goat willow</td><td><i>Salix caprea</i></td><td>5 - Rare</td></tr><tr><td>Oak</td><td><i>Quercus sp.</i></td><td>5 - Rare</td></tr><tr><td>Oxeye daisy</td><td><i>Leucanthemu m vulgare</i></td><td>5 - Rare</td></tr></table> British National Grid (m): 301550E, 515528N WGS84 (Lat/Long): 54.5254°N, -3.5227°E	Common Name	Latin Name	Dafor	Downy birch	<i>Betula pubescens</i>	3 - Frequent	Bramble	<i>Rubus fruticosus agg.</i>	4 - Occasional	Meadow foxtail	<i>Bulrush</i>	4 - Occasional	Soft rush	<i>Juncus effusus</i>	4 - Occasional	Common spotted-orchid	<i>Dactylorhiza fuchsii</i>	5 - Rare	Goat willow	<i>Salix caprea</i>	5 - Rare	Oak	<i>Quercus sp.</i>	5 - Rare	Oxeye daisy	<i>Leucanthemu m vulgare</i>	5 - Rare	
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Oak	<i>Quercus sp.</i>	5 - Rare																											
Oxeye daisy	<i>Leucanthemu m vulgare</i>	5 - Rare																											
TN11	Open mosaic habitat, including various habitat types including: • g2a – Lowland calcareous grassland • f2b – Purple moor grass and rush pastures 10 – Scattered scrub • r1g – other standing water 50 – Ditch • H3d Bramble scrub 81 ruderal / ephemeral																												
	g2a lowland calcareous grassland 10 scattered scrub 510 bare ground Grassland Height: 2-50cm Cover: 70%																												

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Target Note	Description	Photos																																																																											
	Scrub Height: 3m Cover: 10% Mosaic grassland, to north on the boundary of the rush pasture and hardstanding the sward becomes more neutral but otherwise the sward is calcareous with the dominant grass quaking oat grass. Bare ground is present, with white gravel. Scattered scrub. Mosaic suitable for reptiles and invertebrates. Species List: <table> <tr> <th>Common Name</th><th>Latin Name</th><th>Dafor</th></tr> <tr> <td>Quaking-grass</td><td><i>Briza media</i></td><td>1 - Dominant</td></tr> <tr> <td>Creeping bent</td><td><i>Agrostis stolonifera</i></td><td>2 - Abundant</td></tr> <tr> <td>Black sedge</td><td><i>Carex nigra</i></td><td>3 - Frequent</td></tr> <tr> <td>Common bird's-foot trefoil</td><td><i>Lotus corniculatus</i></td><td>3 - Frequent</td></tr> <tr> <td>Creeping cinquefoil</td><td><i>Potentilla reptans</i></td><td>3 - Frequent</td></tr> <tr> <td>Rough hawkbit</td><td><i>Leontodon hispidus</i></td><td>3 - Frequent</td></tr> <tr> <td>Selfheal</td><td><i>Prunella vulgaris</i></td><td>3 - Frequent</td></tr> <tr> <td>A hawk's-beard</td><td><i>Crepis</i> sp.</td><td>4 - Occasional</td></tr> <tr> <td>Bramble</td><td><i>Rubus fruticosus</i> agg.</td><td>4 - Occasional</td></tr> <tr> <td>Cock's-foot</td><td><i>Dactylis glomerata</i></td><td>4 - Occasional</td></tr> <tr> <td>Common knapweed</td><td><i>Centaurea nigra</i></td><td>4 - Occasional</td></tr> <tr> <td>Hawthorn</td><td><i>Crataegus monogyna</i></td><td>4 - Occasional</td></tr> <tr> <td>Kidney vetch</td><td><i>Anthyllis vulneraria</i></td><td>4 - Occasional</td></tr> <tr> <td>Oxeye daisy</td><td><i>Leucanthemum vulgare</i></td><td>4 - Occasional</td></tr> <tr> <td>Tufted vetch</td><td><i>Vicia cracca</i></td><td>4 - Occasional</td></tr> <tr> <td>Dyer's greenweed</td><td><i>Genista tinctoria</i></td><td>5 - Rare</td></tr> <tr> <td>Agrimony</td><td><i>Agrimonia eupatoria</i></td><td>5 - Rare</td></tr> <tr> <td>Black medick</td><td><i>Medicago lupulina</i></td><td>5 - Rare</td></tr> <tr> <td>Common centaury</td><td><i>Centaureum erythraea</i></td><td>5 - Rare</td></tr> <tr> <td>Common spotted-orchid</td><td><i>Dactylorhiza fuchsii</i></td><td>5 - Rare</td></tr> <tr> <td>Creeping thistle</td><td><i>Cirsium arvense</i></td><td>5 - Rare</td></tr> <tr> <td>Crested dog's tail</td><td><i>Cynosurus cristatus</i></td><td>5 - Rare</td></tr> <tr> <td>Eyebright sp.</td><td><i>Euphrasia</i></td><td>5 - Rare</td></tr> <tr> <td>Fairy flax</td><td><i>Linum catharticum</i></td><td>5 - Rare</td></tr> </table>	Common Name	Latin Name	Dafor	Quaking-grass	<i>Briza media</i>	1 - Dominant	Creeping bent	<i>Agrostis stolonifera</i>	2 - Abundant	Black sedge	<i>Carex nigra</i>	3 - Frequent	Common bird's-foot trefoil	<i>Lotus corniculatus</i>	3 - Frequent	Creeping cinquefoil	<i>Potentilla reptans</i>	3 - Frequent	Rough hawkbit	<i>Leontodon hispidus</i>	3 - Frequent	Selfheal	<i>Prunella vulgaris</i>	3 - Frequent	A hawk's-beard	<i>Crepis</i> sp.	4 - Occasional	Bramble	<i>Rubus fruticosus</i> agg.	4 - Occasional	Cock's-foot	<i>Dactylis glomerata</i>	4 - Occasional	Common knapweed	<i>Centaurea nigra</i>	4 - Occasional	Hawthorn	<i>Crataegus monogyna</i>	4 - Occasional	Kidney vetch	<i>Anthyllis vulneraria</i>	4 - Occasional	Oxeye daisy	<i>Leucanthemum vulgare</i>	4 - Occasional	Tufted vetch	<i>Vicia cracca</i>	4 - Occasional	Dyer's greenweed	<i>Genista tinctoria</i>	5 - Rare	Agrimony	<i>Agrimonia eupatoria</i>	5 - Rare	Black medick	<i>Medicago lupulina</i>	5 - Rare	Common centaury	<i>Centaureum erythraea</i>	5 - Rare	Common spotted-orchid	<i>Dactylorhiza fuchsii</i>	5 - Rare	Creeping thistle	<i>Cirsium arvense</i>	5 - Rare	Crested dog's tail	<i>Cynosurus cristatus</i>	5 - Rare	Eyebright sp.	<i>Euphrasia</i>	5 - Rare	Fairy flax	<i>Linum catharticum</i>	5 - Rare	
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Leconfield Industrial Estate – Main Works
Ecological Appraisal

Target Note	Description			Photos
	False oat-grass	<i>Arrhenatherum elatius</i>	5 - Rare	
	Goat's-beard	<i>Tragopogon pratensis</i>	5 - Rare	
	Hairy tare	<i>Ervilia hirsuta</i>	5 - Rare	
	Hogweed	<i>Heracleum sphondylium</i>	5 - Rare	
	Hop trefoil	<i>Trifolium campestre</i>	5 - Rare	
	Horsetail	<i>Equisetum sp.</i>	5 - Rare	
	Italian alder	<i>Alnus cordata</i>	5 - Rare	
	Lesser hop-trefoil	<i>Trifolium dubium</i>	5 - Rare	
	Meadow buttercup	<i>Ranunculus acris</i>	5 - Rare	
	Mouse-ear-hawkweed	<i>Pilosella officinarum</i>	5 - Rare	
	Pignut	<i>Conopodium majus</i>	5 - Rare	
	Red clover	<i>Trifolium pratense</i>	5 - Rare	
	Rose	<i>Rosa sp.</i>	5 - Rare	
	Silverweed	<i>Potentilla anserina</i>	5 - Rare	
	St John's-wort	<i>Hypericum sp.</i>	5 - Rare	
	Timothy	<i>Phleum pratense</i>	5 - Rare	
	Yarrow	<i>Achillea millefolium</i>	5 - Rare	
	Yarrow	<i>Achillea millefolium</i>	5 - Rare	
	Yorkshire-fog	<i>Holcus lanatus</i>	5 - Rare	
	Zigzag clover	<i>Trifolium medium</i>	5 - Rare	
	Meadow vetchling	<i>Lathyrus pratensis</i>	7 - Locally frequent	
	British National Grid (m): 301763E, 515429N			
	WGS84 (Lat/Long): 54.5246°N, -3.5193°E			
	f2b Purple moor grass and rush pastures 10 Scattered scrub			
	Height 10cm - 2m Cover 100% Scrub Height: 4m			
	Species List:			
	Common Name	Latin Name	Dafor	
	Compact rush	<i>Juncus conglomeratus</i>	2 - Abundant	
	Hard rush	<i>Juncus inflexus</i>	2 - Abundant	
	Black sedge	<i>Carex nigra</i>	3 - Frequent	
	Goat willow	<i>Salix caprea</i>	3 - Frequent	
	Marsh thistle	<i>Cirsium palustre</i>	3 - Frequent	
	Wild angelica	<i>Angelica sylvestris</i>	3 - Frequent	
	Lesser pond sedge	<i>Carex acutiformis</i>	4 - Occasional	
	Bramble	<i>Rubus fruticosus agg.</i>	4 - Occasional	

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Target Note	Description			Photos
	Common spotted-orchid	<i>Dactylorhiza fuchsii</i>	4 - Occasional	
	Downy birch	<i>Betula pubescens</i>	4 - Occasional	
	False oat-grass	<i>Arrhenatherum elatius</i>	4 - Occasional	
	Hairy tare	<i>Ervilia hirsuta</i>	4 - Occasional	
	Hogweed	<i>Heracleum sphondylium</i>	4 - Occasional	
	Horsetail	<i>Equisetum sp.</i>	4 - Occasional	
	Marsh bird's-foot trefoil	<i>Lotus pedunculatus</i>	4 - Occasional	
	Oxeye daisy	<i>Leucanthemum vulgare</i>	4 - Occasional	
	Selfheal	<i>Prunella vulgaris</i>	4 - Occasional	
	Tufted hair-grass	<i>Deschampsia cespitosa</i>	4 - Occasional	
	Yellow-rattle	<i>Rhinanthus minor</i>	4 - Occasional	
	Yorkshire-fog	<i>Holcus lanatus</i>	4 - Occasional	
	Barberry	<i>Berberis sp.</i>	5 - Rare	
	Bulbous buttercup	<i>Ranunculus bulbosus</i>	5 - Rare	
	Common centaury	<i>Centaureum erythraea</i>	5 - Rare	
	False-fox sedge	<i>Carex otrubae</i>	5 - Rare	
	Common twayblade	<i>Listera ovata</i>	5 - Rare	
	Common figwort	<i>Scrophularia nodosa</i>	5 - Rare	
	Common knapweed	<i>Centaurea nigra</i>	5 - Rare	
	Common ragwort	<i>Jacobaea vulgaris</i>	5 - Rare	
	Common sorrel	<i>Rumex acetosa</i>	5 - Rare	
	Common valerian	<i>Valeriana officinalis</i>	5 - Rare	
	Creeping bent	<i>Agrostis stolonifera</i>	5 - Rare	
	Creeping buttercup	<i>Ranunculus repens</i>	5 - Rare	
	Creeping cinquefoil	<i>Potentilla reptans</i>	5 - Rare	
	Creeping thistle	<i>Cirsium arvense</i>	5 - Rare	
	Crested dog's tail	<i>Cynosurus cristatus</i>	5 - Rare	
	Curled dock	<i>Rumex crispus</i>	5 - Rare	
	Eyebright sp.	<i>Euphrasia</i>	5 - Rare	
	Fairy flax	<i>Linum catharticum</i>	5 - Rare	
	Forget-me-not	<i>Myosotis sp.</i>	5 - Rare	
	Garden lady's mantle	<i>Alchemilla mollis</i>	5 - Rare	
	Giant fescue	<i>Schedonorus giganteus</i>	5 - Rare	
	Hoary willowherb	<i>Epilobium parviflorum</i>	5 - Rare	
	Lesser spearwort	<i>Ranunculus flammula</i>	5 - Rare	

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Target Note	Description			Photos																																
	Marsh bedstraw	Galium palustre	5 - Rare																																	
	Meadow vetchling	Lathyrus pratensis	5 - Rare																																	
	Meadowsweet	Filipendula ulmaria	5 - Rare																																	
	Mint	Mentha sp.	5 - Rare																																	
	Red clover	Trifolium pratense	5 - Rare																																	
	Oak	Quercus sp.	5 - Rare																																	
	Pine	Pinus sp.	5 - Rare																																	
	Ribwort plantain	Plantago lanceolata	5 - Rare																																	
	Rough hawkbit	Leontodon hispidus	5 - Rare																																	
	Sharp-flowered rush	Juncus acutiflorus	5 - Rare																																	
	Silverweed	Potentilla anserina	5 - Rare																																	
	Soft rush	Juncus effusus	5 - Rare																																	
	Spear thistle	Cirsium vulgare	5 - Rare																																	
	Silverweed	Potentilla anserina	5 - Rare																																	
	St John's-wort	Hypericum sp.	5 - Rare																																	
	Ragged robin	Silene flos-cuculi	7 - Locally frequent																																	
	Reed canary-grass	Phalaris arundinacea	7 - Locally frequent																																	
	Tufted vetch	Vicia cracca	5 - Rare																																	
	Wild carrot	Daucus carota ssp. carota	5 - Rare																																	
	British National Grid (m): 301652E, 515528N																																			
WGS84 (Lat/Long): 54.5255°N, -3.5211°E																																				
H3d Bramble scrub 81 ruderal / ephemeral																																				
Height 2 -8m Cover: 100%																																				
Species List:																																				
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Target Note	Description	Photos																					
	<table> <tr> <td>Scaly male-fern</td><td><i>Dryopteris affinis sensu lato</i></td><td>5 - Rare</td></tr> <tr> <td>Wall cotoneaster</td><td><i>Cotoneaster horizontalis</i></td><td>5 - Rare</td></tr> <tr> <td>Guelder-rose</td><td><i>Viburnum opulus</i></td><td>5 - Rare</td></tr> </table> British National Grid (m): 301747E, 515430N WGS84 (Lat/Long): 54.5246°N, -3.5196°E	Scaly male-fern	<i>Dryopteris affinis sensu lato</i>	5 - Rare	Wall cotoneaster	<i>Cotoneaster horizontalis</i>	5 - Rare	Guelder-rose	<i>Viburnum opulus</i>	5 - Rare													
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	r1g – Other standing water 50 – Ditch Ephemeral ditches with a depth of up to 20cm Good water quality, clear. Marginal vegetation present. Species List: <table> <tr> <th>Common Name</th><th>Latin Name</th><th>Dafor</th></tr> <tr> <td>Hard rush</td><td><i>Juncus inflexus</i></td><td>3 - Frequent</td></tr> <tr> <td>Bulrush</td><td><i>Typha latifolia</i></td><td>4 - Occasional</td></tr> <tr> <td>Floating sweet-grass</td><td><i>Glyceria fluitans</i></td><td>4 - Occasional</td></tr> <tr> <td>Lesser spearwort</td><td><i>Ranunculus flammula</i></td><td>4 - Occasional</td></tr> <tr> <td>Soft rush</td><td><i>Juncus effusus</i></td><td>4 - Occasional</td></tr> <tr> <td>Pendulous sedge</td><td><i>Carex pendula</i></td><td>5 - Rare</td></tr> </table> British National Grid (m): 301679E, 515436N WGS84 (Lat/Long): 54.5246°N, -3.5206°E	Common Name	Latin Name	Dafor	Hard rush	<i>Juncus inflexus</i>	3 - Frequent	Bulrush	<i>Typha latifolia</i>	4 - Occasional	Floating sweet-grass	<i>Glyceria fluitans</i>	4 - Occasional	Lesser spearwort	<i>Ranunculus flammula</i>	4 - Occasional	Soft rush	<i>Juncus effusus</i>	4 - Occasional	Pendulous sedge	<i>Carex pendula</i>	5 - Rare	
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Pendulous sedge	<i>Carex pendula</i>	5 - Rare																					
TN12	Patch of dyers greenweed <i>Genista tinctoria</i> British National Grid (m): 301724E, 515376N WGS84 (Lat/Long): 54.5241°N, -3.5199°E																						
TN13	r1g - Other standing water																						

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Target Note	Description	Photos
	Concrete and brick water tank. 5-10cm of standing water in bottom. A lot of algae growth and litter. Enclosed within a wooden fence. British National Grid (m): 301448E, 515432N WGS84 (Lat/Long): 54.5246°N, -3.5242°E	
TN14	Butterfly and moth species observed within OMoPDL (TN7): 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 viewed white <i>Pieris napi</i>	No photos available

APPENDIX E: DESIGNATED SITES

Cumbria Biodiversity Data Centre (CBDC): Non-Statutory Sites

For: Mark Pritchard at Tetra Tech Europe

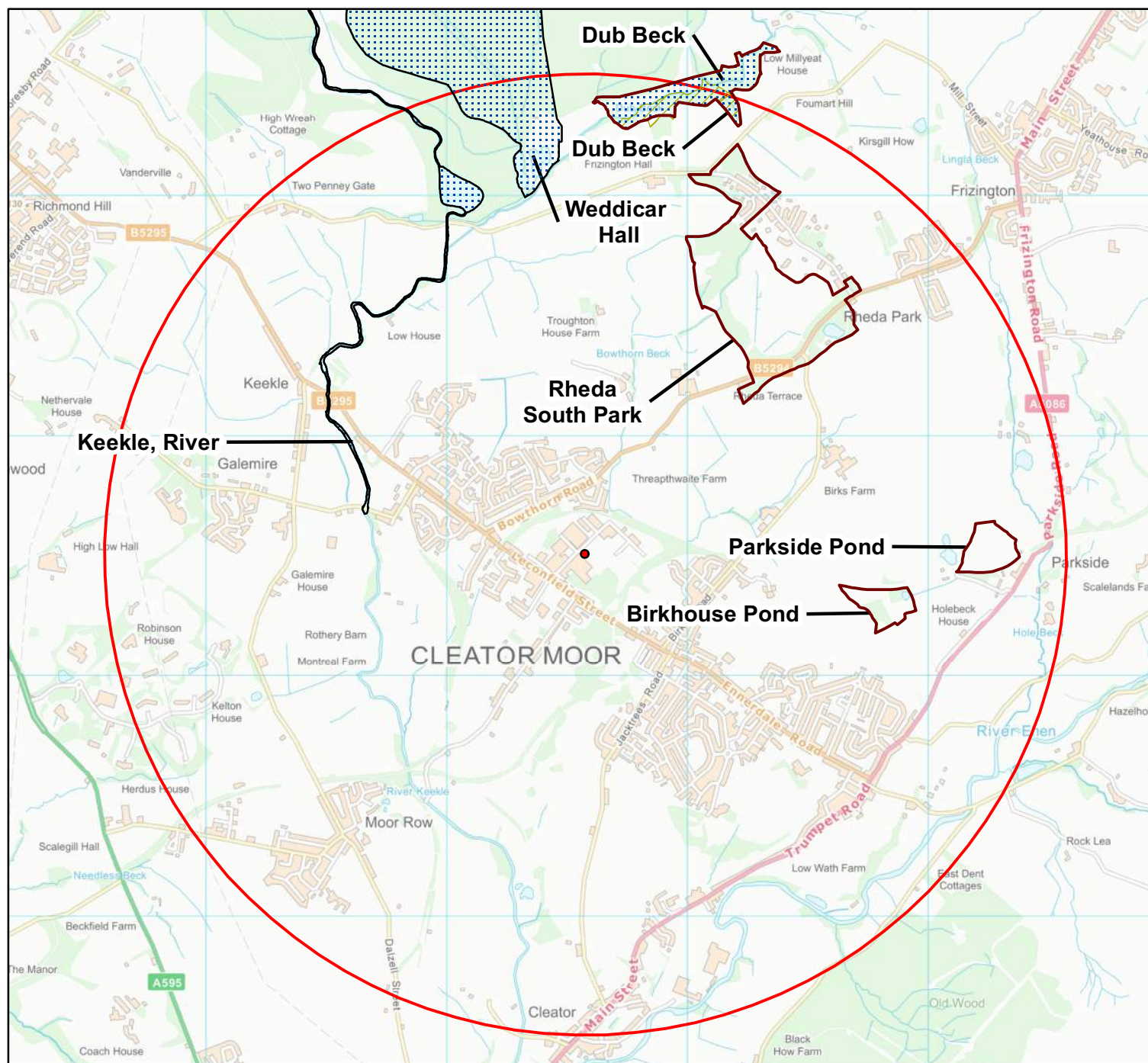
Centroid: NY 01571550

Site Name: Leconfield Industrial Estate

Buffer Search: 2km

Search Date: 27/06/2024

N.B. Sites are displayed only if they exist within the search area



Key

County Wildlife Sites

Site of Invertebrate Significance

Ancient Woodland

0 250 500 1,000 m



Any queries in the first instance contact:

Dr Moustafa Eweda
GIS and Data Manager
Cumbria Biodiversity Data Centre (CBDC)

E: datamanager@cbdc.org.uk

APPENDIX F: BAT AND SQUIRREL BOXES

Introduction

The information in this appendix relates to bat, bird and squirrel boxes that can be easily incorporated into building and landscape plans. The information provided is not exhaustive and provides examples of some of the types of boxes available.

Including bat boxes throughout the development site has a number of benefits:

Any roosting or resting places lost as a result of the work will be replaced;

The ecological value of the site will be enhanced;

Priority species within the UK and local Biodiversity Action Plans (BAPs) will be encouraged.

Bats

For Buildings

The inclusion of a variety of bat bricks, tubes and boxes for buildings is recommended to encourage a diversity of bat species. Bat bricks and tubes require no maintenance.

Built-in bat box
(can be faced to suit building design)



Bat tube
(can be bricked in or rendered over into the façade)



Bat access block to allow access into a cavity wall



For Buildings and Trees

The following box types are recommended.

Bat Box

The Schwegler 1FF bat box is made of woodcrete and is expected to last approximately 25 years. It has a narrow crevice-like internal space to attract Pipistrelle and Noctule bats. Woodcrete (75% wood sawdust, concrete and clay mixture). It can be mounted on buildings or trees.

Width: 27cm; Height: 43cm; Weight: 8.3kg.



The Harlech woodstone bat box is made from woodstone, the Harlech is a small cavity bat box that offers excellent insulation and minimum condensation for roosting bats. It can be mounted on buildings or trees.

Width: 15cm; Height: 27.5cm; Weight: 4kg.



The Beaumaris woodstone bat box comes in small and large versions and is suitable for mounting on buildings or trees.

Small –29 x 40 x 7cm

Large 38 x 50 x 7cm

Weight: 8kg.



The Vincent Pro bat box is a tried and tested design by the Vincent Wildlife Trust.

Width: 23.5cm; Height: 72cm; Weight: 6.9kg.



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Red squirrel nest box

Nestbox company [Red Squirrel Nest Box | The Nestbox Company](#)

Width: 15cm; Height: 50cm; Depth: 20cm

