Ecological Impact Assessment

Unit 10 and 14, Bridge End Industrial Estate

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Comments

Comments

Comments

Revision		Status	
P*nn*	Preliminary (shared; non-contractual)	S1	Coordination
C*nn*	Contractual	S2	Information
		S3	Review & Comment
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Executive Summary

Waterman Infrastructure & Environment Ltd (Waterman IE) was commissioned by Architects Plus to carry out an Ecological Impact Assessment (EcIA) at Bridge End, Egremont to inform a planning application for a proposed new two-story link extension between link two existing commercial buildings Unit 10 and 14, Bridge End, Egremont (hereafter referred to as the 'Site').

This report presents the EcIA and includes details of the surveys undertaken to establish the baseline ecological condition, as well as an assessment of impacts arising from the proposal along with committed mitigation, in line with standard guidance.

This EcIA concludes that ecological features within the Zone of Influence (ZoI) include foraging and commuting bats and nesting birds (both of Site importance), and otters in the River Ehen (outside of the site boundary, assumed County importance). Although absent during surveys, the precautionary assumption has been made regarding the potential incidental presence of badger and red squirrel. The Site also hosts non-native invasive plant species.

No significant impacts to these ecological features are anticipated, as standard avoidance measures will effectively mitigate potential effects. These measures, to be detailed in a Construction Environmental Management Plan (CEMP), include pollution prevention, minimising habitat loss, avoiding vegetation clearance during the breeding bird season where possible, pre-works checks for protected species, and strategies to protect inquisitive mammals.

1. Introduction

1.1 Waterman Infrastructure & Environment Ltd (Waterman IE) was commissioned by Architects Plus to carry out an Ecological Impact Appraisal (EcIA) at Unit 10 and 14, Bridge End, Egremont (hereafter referred to as the 'Site'). This is to inform a planning application for a proposed new two-story link extension to link the two existing commercial buildings on-site which will extend across an area of existing grassland and associated ground works (hereafter referred to as the 'Proposed Development').

Site Context

1.2 The Site is approximately 0.8 hectares (ha) in size and centred on the Ordnance Survey Grid Reference (OS NGR) NY 01298 10093. The Site is situated south of Egremont in Cumbria. The Site is adjacent to the River Ehen, and 250m west from the A595. The wider area is predominantly agricultural land, with the exception of the town of Egremont to the north (see Figure 1).

1.3 The Site is locally situated within a business park and consists of two buildings, access roads and relevant parking which has been used to support commercial activities. Historic mapping shows this land use has been relatively consistent since at least 2003.

Development Proposals

1.4 The Proposed Development is that of a new two-story link extension to link two existing commercial buildings on-Site which will extend across an area of existing grassland and associated ground works.

1.5 Works on Site will include excavators and machinery for the external works, steel and cladding erection, and the use of impact drills etc. Some works have already commenced and completion of the project, subject to the receipt of planning consent, is expected in Spring 2025.

Objectives of this EcIA

1.6 This EcIA Report comprises a review of information gathered through an ecological data search and an 'Extended' UK Habitat Classification Survey (known as 'the Field Survey') and Preliminary Roost Assessment (PRA) of the buildings and trees for bats.

1.7 This EcIA provides a valuation of the importance of ecological features present within the Zone of Influence (ZoI) and assesses the potential effects that the Proposed Development may have on such features identified.

1.8 The purpose of this EcIA is to:

- Identify and Important Ecological Features (IEFs) present at the Site and ZoI.
- Provide an assessment of any significant ecological effects associated with the Proposed Development, both during construction and operation, upon those IEFs which have been identified.
- Set out environmental measures in line with the Mitigation Hierarchy required to comply with relevant legislation and planning policies (Appendix A), and to address any potentially significant ecological effects.
- Provide an assessment of the significance of any residual effects.

2. Methodology

Establishing Baseline Conditions

2.1 A Preliminary Ecological Appraisal (PEA) was undertaken on the 28th of August 2024 to establish the baseline conditions used to inform the EcIA. The methodology used in the PEA to establish baseline conditions is explained below.

IEF Assessment Scope

2.2 In line with current EcIA guidance[1] this assessment comprises a review of IEFs within the ZoI. The ZoI is the area(s) over which ecological features are anticipated to be impacted by the biophysical changes caused by a proposed development.

2.3 Based on the scale and nature of the Proposed Development at the Site (residential), the maximum potential ZoI arising from these works is considered to be:

- 10km for Statutory Designated Sites - International;
- 500m for Habitats of Principal Importance and waterbodies (for amphibians); and,
- 2km for all other IEFs.

2.4 These distances have been used to collect the information during the desk study.

Important Ecological Features

2.5 In this report, all IEFs from the scope of data gathering during the data search and Field Survey are assessed in accordance with the categories in Table 1. Further information relating to the policies and legislation which have informed this report are provided in greater detail in **Appendix A**. IEFs have been identified as those of being legally protected or of local level of importance or above.

2.6 Where features are unlikely to be affected by the Proposed Development, or where any effects that impact IEF are unlikely to be significant, for the reasons listed below, such features have been scoped out of the assessment and these features have not been evaluated in accordance with the geographical scale:

- No pathway of effect has been identified, for example the feature is sufficient distance from the Site or there is the presence of a significant barrier between its location and the Site; or
- The feature is of insufficient biodiversity conservation value within the ZoI, due to its quality, extent, or population size. Including a lack of legal implications if the feature were to be affected by the Proposed Development.

[1] CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland version 1.3 updated September 2024. ,. Chartered Institute of Ecology and Environmental Management, Winchester.

Table 1. Geographical Scale of Important Ecological Feature Categories

Geographical Level of Importance	Category
International	Statutory designated sites: Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites (including candidate SACs and proposed SACs, SPAs and Ramsar sites) within England. A viable area of a habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat essential to maintain the viability of a larger whole. Regularly occurring populations of a species, large enough in number to be of **international importance** where: The loss or degradation of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; or The population forms a critical part of a wider population at an international level; or The species is at a critical phase of its life cycle at this scale.
National	Statutory designated sites: Sites of Special Scientific Interest (SSSI) and National Nature Reserves (NNR). Ancient Woodland Inventory (depending on site specific parameters – also see County). A viable area of a Habitat of Principal Importance (HoPI) as listed on Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, or smaller areas of such habitat essential to maintain the viability of a larger whole. Resident, or regularly occurring, populations of species, significant at an **International**, **European**, **UK** or **National** level where: The loss of these populations would adversely affect the conservation status or distribution of the species at a **national** level; or The population forms a critical part of a wider population at this scale; or The species is at a critical phase of its life cycle at this scale.
Regional/County	Local Nature Reserves (LNR). Ancient Woodland (depending on site specific parameters – also see National). Habitat areas which meet the published selection criteria for county site designations, but which are not themselves designated as such. Species – as per National level but where the loss of these populations would negatively affect the conservation status or distribution of the species at a **regional/county** level and where populations/species are critical at the **regional/county** scale.
District/Borough	Non-statutory designated wildlife sites of district/borough value. Species – as per **Regional/County** level but where the loss of these populations would negatively affect the conservation status or distribution of the species at a **district** level and where populations/species are critical at the **district/ borough** scale. This may include locally significant populations of a species listed and areas of habitat in a District/Borough Biodiversity Action Plan (BAP) on account of its regional rarity or localisation i.e. the Cumbria Biodiversity Action Plan[2].
Local	Non statutory designated sites of local value. Local Wildlife Sites (LWS).

[2] Cumbria Biodiversity Action Plan Species List (updated 2009)

Geographical Level of Importance	Category
	Areas of habitat considered to appreciably enrich the habitat resource within the local context (e.g. species-rich hedgerows, ponds etc.). It may also include sites that retain other elements of semi-natural vegetation that due to their size, quality or the wide distribution of such habitats within the local area are not considered for local designations. Populations/assemblages of species that appreciably enrich the biodiversity resource within the local context. Populations of county level important species that are not threatened or rare in the county and are not integral to maintaining those populations.
Site	Habitats and/or species that are of limited ecological importance due to their size, species composition or other factors. Areas of heavily modified or managed vegetation of low species diversity. Low or moderate numbers of common and widespread species.
Legislation	Species included on Schedules II and V of The Conservation of Habitats and Species Regulations 2017 (as amended); Species included on Schedules 1, 5 and 8 of the Wildlife and Countryside Act 1981 (as amended), excluding species that are only protected in relation to their sale (Section 9[5] and 13[2]); and Badgers, which are protected under the Protection of Badgers Act 1992. Listed on Schedule 41 of the Natural Environment and Rural Communities Act (NERC) Act, 2006[3], including ecologically important hedgerows under the Hedgerow Regulations 1997; and Red List of Threatened Species (using IUCN criteria[4]) and nationally rare or scarce species and Birds of Conservation Concern (Red List[5]).

Desk Study

2.7 The desk study comprised a review of publicly available information and information provided by the Local Environmental Records Centre, to identify IEFs that may not be apparent during the Field Survey and to provide further contextual information relating to identified IEFs. Information sources included (but was not limited to):

- Cumbria Biodiversity Data Centre (RBRC) (supplied August 2024);
  - Records relating to all protected and priority species.
  - Records of local wildlife sites.
- Multi-Agency Geographic Information for the Countryside (MAGIC)[6]; and,
  - Statutory International sites of nature conservation.
  - SSSI Impact Risk Zones (to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites)
  - Species of Principal Importance (SoPI).
  - Habitats of Principal Importance (HoPI) mapped under the Priority Habitat Inventory.

3 DEFRA (2022) *Habitats and species of principal importance in England*, *GOV.UK*. Available at: https://www.gov.uk/government/publications/habitats-and-species-of-principal-importance-in-england
4 IUCN (2012) IUCN Red List categories and criteria. 2nd ed. Cambridge: Gland and Cambridge (3.1).
5 Birds of Conservation Concern 5 (2021) British Trust for Ornithology. Available at: https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf
6 DEFRA (2014) Magic Map. Available at: https://magic.defra.gov.uk/MagicMap.aspx

- Ancient Woodland.
- European Protected Species (EPS) licence applications.

- Aerial photography (www.google.com/maps[7])
  - Local environmental context (e.g. barriers to wildlife dispersal, ponds within 250m of the site and ecological connectivity pathways)

Field Survey

2.8 An 'Extended' UK Habitat Classification (UKHab)[8] survey (known as 'the Field Survey') was undertaken on 28th of August 2024 by Principal Consultant Ecologist Karl Harrison MCIEEM, Natural England Class Level 2 Bat Licence holder (2017-32750-CLS-CLS) and Consultant Ecologist Carney Burvill (qualifying member of CIEEM). The Field Survey was completed in accordance with methodology outlined in the UK Hab Classification User Guide 2.0[21] with the type and extent of each habitat present within the Site and immediately adjacent (where relevant) recorded. The Field Survey of the Site was conducted under conditions deemed appropriate for survey, with a temperature of 16C, with drizzle, low clouds and winds of 8mph northernly.

2.9 The Field Survey methodology was 'Extended' by undertaking an assessment of the Site to support protected and notable faunal and flora species noting evidence of presence or suitable supporting habitat using relevant best practice guidance. A fine scale Minimum Mapping Unit (MMU) was deemed an appropriate level for mapping habitats i.e. a habitat area was only mapped if the habitat was greater than 25m^2 (area habitats) or 20m in length / 5m width (linear habitats). Trees were only mapped whereby their stem diameter was >30cm.

2.10 Each habitat parcel was assigned a Primary Code of the Professional Edition of the UKHab Field Key using the Habitat Definitions for reference. Secondary Codes (SC) were then applied to provide additional context to the habitats.

2.11 All habitat types within the Site were mapped (see Figure 1 for UKHab mapping) using Geographical Information Systems (GIS) software, with target notes taken where appropriate. An assessment of the Site to support protected and notable fauna and flora species was also undertaken.

Daytime Bat Walkover and Preliminary Roost Assessment

2.12 As part of the Field Survey a Daytime Bat Walkover (DBW) was also undertaken to assess and record any habitats suitable for bats to roost, commute, and forage on Site and within the surrounding areas.

2.13 As part of the DBW, a Preliminary Roost Assessment of the buildings on Site, Ground-Level Tree Assessment (GLTA) of trees present on Site and immediately adjacent for their suitability to support roosting bats was also undertaken. Trees off-Site were not subject to a GLTA as access could not be granted.

2.14 The GLTA and PRA was based on the current best practice guidelines at the time of the survey (Collins, 2023) [9]. An assessment of each tree and building was made in terms of its suitability to support roosting bats using the criteria set out within Table 2 and Table 3 below. The survey consisted of a visual inspection (including the use of binoculars) of the exterior of each tree and building for evidence of bat use (e.g. droppings, scratch marks, staining and sightings). A number

[7] Google (2024) Google maps. Available at: https://www.google.com/maps
[8] UK Hab Ltd (2023). UK Habitat Classification Version 2.0 (at https://www.ukhab.org)
[9] Collins, J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn). The Bat Conservation Trust, London. ISBN 978-1-7395126-0-6

of factors were considered, including presence of features suitable for use by roosting bats, proximity to foraging habitats or cover and potential for disturbance. Notes were made relating to relevant characteristics of features providing potential access points and roosting opportunities for bats.

Table 2: Tree Suitability for Roosting Bats Guidelines (Collins, 2023)

Potential Suitability	Description
Potential Roosting Feature (**PRF**)	A tree with at least one PRF present.
FAR	Further Assessment Required to establish if PRFs are present in the tree.
NONE	Either no PRFs in the tree or highly unlikely to be any.

Table 3: Daytime Bat Walkover Criteria

Suitability	Roosting within Structures	Foraging and Commuting
None	No habitat features on Site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	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 shade/protection for flight-lines, shelter, or insect populations for foraging bats).
Negligible	No obvious habitat features on Site likely to be used by roosting bats; however, slight uncertainty.	No obvious habitat features on Site likely to be used as flight-paths or by foraging bats; however a small element of uncertainty still remains for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year, however, they do not provide factors to support large numbers of bats.	Habitats that could be used by a small number of bats as flight-paths or foraging locations such as gappy hedgerows or lone trees, respectively. However, these habitats are isolated from other suitable habitats.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only).	Continuous habitat with suitable connectivity to the wider habitat/landscape that supports foraging and flight-paths such as lines of trees, scrub, grasslands or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous high-quality habitat well connected to the wider landscape that supports foraging and flight-paths such as river valleys, woodland edged, grazed parklands or hedgerows.

Invasive Non-Native Plant Species

2.15 As part of the Field Survey, the Site was searched for the presence of common and readily identifiable invasive non-native plant species (INNS).

2.16 The list of INNS included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)[10] is extensive and such species are found in a range of different habitat types

Impact Assessment

2.17 The impact assessment has been carried out in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) industry standard guidance[11]. Where IEFs are identified that have the potential to be affected by the Proposed Development, their value has been assigned in accordance with the geographic frame of reference, outlined in Table 1. As outlined in Section 2.3, in instances where standard avoidance measures remove the potential for impact to an IEF, it is not considered an IEF and it has not been subject to the evaluation of importance.

2.18 Value judgements are based on various characteristics that can be used to identify IEFs. These include site designations (such as SSSIs), or for undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological feature. In terms of the latter, 'quality' can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

2.19 The potential effects of the Proposed Development are assessed within the ZoI. Effects can be positive, negative or insignificant. Negative effects can include:

- direct loss of habitats;
- fragmentation and isolation of habitats; and
- disturbance to habitats and species.

2.20 Negative and positive effects on nature conservation features have been characterised based on predicted changes as a result of the Proposed Development. In order to characterise the effects on each feature, the assessment takes account of the following parameters:

- extent;
- duration;
- timing;
- frequency; and
- reversibility.

Constraints and Limitations

2.1 The trees immediately outside of the Site boundary were not accessible during the survey and therefore not included in the GLTA. As such there is a chance PRFs are present on nearby trees. This has not prevented the EcIA from being undertaken as an avoidance measures will be implemented that limit the ZoI to the Site boundary.

[10] HMSO (1981) 'Wildlife and Countryside Act 1981 (as amended)
[11] CIEEM (2024) Guidelines for Ecological Impact Assessment in the UK and Ireland version 1.3 updated September 2024. ,. Chartered Institute of Ecology and Environmental Management, Winchester.

2.2 This River Ehen is located approximately 10m west of the Site and was not included in the Field Survey as this was outside of the Site boundary, access had not been permitted to survey or safety arrangements made associated with high and fast water levels. From a vantage point it was noted that the river at the time of survey was overflowing (see Photograph 13) with dense riparian habitats and steep banks. An assessment of the suitability of the Site for otter was made from a safe vantage point on the roadside. This has not affected the EcIA as suitable avoidance measures will be implemented to limit the ZoI of the Proposed Development on this habitat.

3. Baseline Ecological Conditions

3.1 In this section, the findings from the field survey and desk study are presented and discussed to establish the baseline ecological conditions. Each ecological feature identified is assessed to determine whether it is within the ZoI and/or qualifies as an Important Ecological Feature (IEF). Features identified as IEFs that are within the ZoI are carried forward to Section 4 for detailed impact assessment. Conversely, features that do not meet the criteria for IEFs are discussed and scoped out, with justification provided for why they do not require further assessment.

Designated Sites

Statutory Designated Sites

3.2 Seven statutory designated sites are located within the ZoI can be seen in Figure 2 and Figure 3 and are detailed in Table 4 below.

Table 4: Statutory Designated Sites

Site Name	Designation	Distance from Site (km)	Description[12]
Florence Mine	SSSI	0.69 East	This SSSI is designated for its Geological interest and is not considered further within this assessment.
Black Moss	SSSI	1.81 East	Black Moss lies 2 km to the east of Egremont in West Cumbria and occupies a natural depression in the boulder clay at an altitude of 90 m O.D. The site comprises a small lowland raised bog. Compared with these other sites Black Moss is unusual in that it still remains relatively intact and unmodified. Typical transitional communities at Black Moss include marginal fen and birch carr. In addition to the main bog communities Black Moss supports willow carr, peripheral woodland and scrub, acid marshy and semi-improved neutral grassland. This site has no habitat connectivity to the Site.
Clints Quarry	SSSI	2.0 North	Clints Quarry lies 1 km north of Egremont at an altitude of 70 m, on a belt of carboniferous limestone which runs in a north-south direction between Egremont and Cockermouth. The quarry has been closed for over fifty years, and in that time a rich limestone flora of a type rare in Cumbria has developed on the site. The floor is uneven with a fan of spoil heaps radiating out from the eastern side of the site, with a broken terrace around the perimeter. Species-rich neutral and calcareous grasslands, along with woodland and shrub communities have become established within the quarry. This site has no habitat connectivity to the Site.

[12] Descriptions taken from: https://designatedsites.naturalengland.org.uk/

Site Name	Designation	Distance from Site (km)	Description[12]
Haile Great Wood	SSSI	2.0 Southeast	Haile Great Wood, near Egremont, is an ancient woodland located in a steep-sided valley influenced by complex geology. The northern section, underlain by Skiddaw Slates and volcanic rocks, features hazel *Corylus avellana*, birch *Betula pendula*, and sessile oak *Quercus petraea* with a ground flora of bluebells *Hyacinthoides non-scripta*, wavy hair-grass *Deschampsia flexuosa,* and ferns like *Blechnum spicant*. In the southern, areas ash *Fraxinus excelsior* becomes more frequent and is found with species like wych elm *Ulmus glabra,* hawthorn *Crataegus monogyna*, hazel *Corylus avellana* and beech *Fagus sylvatica.* There is also rich flora, including dog's mercury *Mercurialis perennis* and wood anemone *Anemone nemorosa*. The valley floor features alder *Alnus glutinosa* and wetland plants. This site has no habitat connectivity to the Site.
River Ehen	SAC	2.76 North	The River Ehen site primarily consists of inland water bodies, alongside areas of broad-leaved deciduous and coniferous woodland. These water bodies are home to the largest population of freshwater pearl mussels *Margaritifera margaritifera* in England, with notably high densities observed. Additionally, the site supports populations of Atlantic salmon *Salmo salar*, another Annex II species, which, while not the primary conservation focus, is a qualifying feature of the site. The Site is located ~12m east of the River Ehen, however it is downstream from the designated section, and is therefore not considered to be hydrologically linked to the site.
Lake District High Fells	SAC	8.57 Northeast	This site features a diverse range of habitats, including upland tarns, blanket bogs, and alpine grasslands, with significant areas of wet and dry heath, juniper formations, and scree slopes. It hosts rare species such as the common whitefish *Coregonus lavaretus* and various arctic-alpine plants. The area represents some of the most southerly examples of alpine and boreal habitats in Britain, contributing to its ecological importance. This site has no habitat connectivity to the Site.
Solway Firth	SPA	8.75 Northwest	The Solway Firth is a critical habitat located on the border of England and Scotland, recognized for its importance to birdlife, particularly during migration and wintering periods. It supports populations of a number of Annex I species, as well as an array of migratory populations of European importance. This site has no habitat connectivity to the Site.

3.3 Given the distance from the Site, lack of habitat connectivity and scale of works associated with the Proposed Development, these statutory designated sites are not considered to be IEFs.

3.4 The Site does fall within four SSSI impact risk zones[13] and three statutory internationally designated site that trigger further assessment in the following development categories:

- Infrastructure: Airports, helipads and other aviation proposals.
- Minerals, Oil and Gas: Oil & gas exploration/extraction.

[13] The Impact Risk Zones (IRZs) are a GIS tool developed by Natural England to assess the potential risks posed by development proposals to Sites of Special Scientific Interest (SSSIs). The zones define areas around each SSSI that reflect the sensitivities of the features for which it is notified and indicate the types of development proposals that could have adverse impacts. Local planning authorities use the IRZs to determine whether a proposed development is likely to affect a SSSI and whether they need to consult Natural England for advice on how to avoid or mitigate potential impacts. The SSSI IRZs can also be used by developers, consultants, and the public to consider potential impacts and seek pre-application advice from Natural England. SSSI IRZ User Guidance MAGIC.pdf (defra.gov.uk)

- Air Pollution: Livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t.
- Combustion: General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
- Waste: Landfill. Including: inert landfill, non-hazardous landfill, hazardous landfill.
- Compost: Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Including: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.

3.5 As the Proposed Development is not associated with the development categories listed, the trigger for further consultation with Natural England on the Proposed Development relating to designated sites is not considered necessary.

Non-Statutory Sites

3.6 Four non-statutory designated sites for nature conservation are located within 2km of the Site. These are shown in Figure 3. **Table 5** below outlines information on non-statutory designated sites within 2km of the Site.

Table 5: County Wildlife Sites

Site Name	Designation	Distance from Site (km)	Description
Fish Hatcheries	CWS	0.5 Northeast	No citation provided, however, this appears to be two ponds on OS maps. This site has no habitat connectivity to the Site.
Oxenriggs Pond	CWS	0.8 East	No citation provided. This appears to be a pond within farmland. This site has no habitat connectivity to the Site.
Carletonmoor Wood	CWS	1.5 East	No citation provided. Carletonmoor wood appears to be an area of approximately 7.7ha of broadleaved woodland, which contains the Ragga beck watercourse running through it. This site has no habitat connectivity to the Site.
Clint's Quarry	Site of Invertebrate Significance	2.0 North	No citation provided. Clint's Quarry appears to be a historical quarry site, with areas of woodland, as well as large open areas from quarrying activities and contains some pools of water. This site has no habitat connectivity to the Site.

3.7 Given the distance from the Site, lack of habitat connectivity and scale of works associated with the Proposed Development, these non-statutory designated sites are not considered to be within the ZoI of the Proposed Development and therefore not IEFs.

Ancient Woodland

3.8 There are no areas of ancient woodland located within the Site. One record of ancient woodland is located 2km south of the Site. Given the distance from the Site, lack of habitat connectivity and scale of proposed works associated with the Proposed Development, this area of ancient woodland is not considered to be within the ZoI and is therefore not considered to be an IEF.

Priority Habitats

3.9 Deciduous woodland was the only priority habitat layer (sourced using Magic.gov.uk[14] and Cumbria Local Nature Reserve Habitats Basemap[15]) found to be present within the search area (see

[14] MAGIC https://magic.defra.gov.uk/
[15] Cumbria LNR Habitats Basemap https://cbdc.maps.arcgis.com/apps/webappviewer/index.html?id=ca3c4fb1bec24806a6eddc03d342aa49

3.10 **Figure** 3). Priority habitat layers can be a useful indicator of HoPIs present within 2km of the Site (subject to site-based verification).

3.11 Two areas of woodland listed on the priority habitat inventory are mapped 0.3km west and east of the Site respectively, these are not considered to be functionally linked to the woodland habitat on Site and is not considered to be in the ZoI and therefore not an IEF.

Field Survey

3.12 **Table 6** summarises the Primary and Secondary Codes used to categorise the habitats recorded during the field survey. The habitat descriptions given below should be read in conjunction with Error! Reference source not found.**4**, the photographs presented in **Appendix B,** and the C ondition Assessment (**Appendix C)**.

Table 6: Habitat Types Recorded During Field Survey

Level 2 Code / Label	Level 3 Code / Label	Level 4 Code / Label	Level 5 Code / Label and/ or Secondary Code (SC)
g / Grassland	g4 / Modified grassland		
u / Urban	u1 / Built-up areas and gardens	u1b / Developed Land; sealed surface	
u / Urban	u1 / Built-up areas and gardens	u1b / Developed Land; sealed surface	**u1b5 / Buildings**
u / Urban	u1 / Built-up areas and gardens	u1f / Sparsely vegetated land	
w / woodland and forest	w1 / broadleaved and mixed woodland	w1g / other broadleaved woodland mixed	
			847 / Introduced shrub
			32 / Scattered trees
			33 / Line of trees
			81 / Ruderals

Modified grassland (g4)

3.13 The Site contained four distinct parcels of modified grassland (MG1 – MG4) which were unmanaged at the time of survey, although MG1 and MG3 appear to have been subject to a mowing regime in in the 2024 growing season. All contained less than 9 species per sqm. The species included perennial rye-grass *Lolium perenne*, creeping buttercup *Ranunculus repens*, broad-leaved dock *Rumex obtusifolius*, cock's-foot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, spear thistle *Crisium vulgare*, creeping thistle *Cirsium arvense*, fumitory *Fumaria sp.* and selfheal *Prunella vulgaris.*

3.14 The MG4 parcel of modified grassland was dominated by tall herbs, notably willowherb *Epilobium* sp. and hogweed *Heracleum sphondylium*. It is marked with Secondary Code 81 'Ruderal Ephemeral' in Figure 4.

Urban; sparsely vegetated land (u1f)

3.15 Two small areas of sparsely vegetated land were present on-Site. These areas were predominantly bare ground which appeared to be as a result of recent minor earthworks, with some early successional plant species including; creeping buttercup, broad-leaved dock, cock's-foot, spear thistle, creeping thistle and selfheal.

Introduced shrub (SC847)

3.16 Five areas of introduced shrub were identified on Site (IS1 – IS5) which contained a range of ornamental non-native species. IS4 was dominated by the schedule 9 species Himalayan cotoneaster *Cotoneaster simonsii*. Himalayan cotoneaster was also present in large quantities amongst IS5.

Developed Land; sealed surface (u1b)

3.17 This comprised of tarmac hardstanding, car parks, access roads and pathways around the Site.

Developed Land; sealed surface; buildings (u1b5)

3.18 Three buildings were identified within the Site boundary. Two large industrial units (Unit 10 and 14), as well as a small electrical unit to the east of Unit 14.

Other woodland; broadleaved (w1g)

3.19 An area of broadleaved woodland is present along the west boundary, which comprised of mostly young and semi-mature ash *Fraxinus excelsior,* hornbeam *Carpinus betulus.* whitebeam *Sorbus* sp.*,* elder *Sambucus nigra,* birch *Betula pendula,* cherry *Prunus* sp.*,* sycamore *Acer pseudoplatanus* and alder *Alnus glutinosa* trees. The understory consisted of predominantly native shrub species including, blackthorn *Prunus spinosa*, dogwood, guelder rose *Viburnum opulus*, hazel *Corylus avellana*, hogweed, bramble *Rubus fruticosus* agg., and hawthorn *Crataegus monogyna.*

Scattered trees (SC32)

3.20 Six (1-6) urban individual trees were present within the Site, one young Scots pine *Pinus sylvestris* to the north of the Site amongst the mixed scrub, three young rowan *Sorbus aucuparia* and two alders which are present amongst other neutral grassland habitats.

Line of trees (SC33)

3.21 A line of semi-mature trees were present in the north of Site within amenity grassland and urban sparsely vegetated land. This tree lines consisted of hornbeam, alder, whitebeam, ash and white poplar *Tilia cordata.*

Protected, Priority and other Notable Fauna and Flora

3.22 An assessment is made below on the potential for the Site to support protected, priority and other Notable Fauna or Flora and therefore whether these are IEFs that require consideration in the Impact Assessment.

Flora (including INNS)

Desk Study

3.23 The CBDC data search returned no notable records of protected flora[16] within the Site or within 2km of the Site.

Field Survey

3.24 During the Field Survey no protected or priority flora was identified on Site. The Site was identified as being unsuitable to support notable flora communities due to its use as an industrial unit. Protected or priority flora is not considered an IEF.

3.25 Invasive Non-Native Species (INNS) Himalayan cotoneaster was recorded as present in two locations (TN 1 and TN 2) on Site. Himalayan balsam was also identified adjacent to the Site (~9m west) along the banks of the River Ehen (TN3). Whilst INNS are not considered an IEF, their presence is considered in the Impact Assessment as spread of these species can result in adverse impacts.

Amphibians

Desk Study

3.26 The MAGIC search identified one great crested newt *Triturus cristatus* EPSL licence return record of 'presence' within 2km, located within an housing estate 0.7km northwest, however there are no ponds at this location visible on aerials or OS mapping.

3.27 The CBDC returned six records of great crested newts, as well as, other amphibians such as palmate newt *Lissotriton helveticus,* common frog *Rana temporaria,* and common toad *Bufo bufo*. The nearest amphibian record was of common frog recorded in 2009 and located 0.4km from the Site. Five of the six great crested newt records relate to a cluster ~0.5km north-east of Site, associated with the Fish Hatcheries CWS, with the remaining record being ~2km west.

3.28 During the desk study, no suitable waterbodies were identified within 0.5km of the Site for amphibians. The River Ehen flows close to the Site; however, due to its fast-flowing nature this is unsuitable for breeding amphibians and would also provide a significant barrier to dispersal for amphibians trying to cross it.

Field Survey

3.29 Habitats within the Site, notably woodland, grassland and shrub, provide opportunities for amphibians during their terrestrial phase. However, due to absence of suitable breeding habitat (i.e waterbodies) within 0.5km, the barriers formed by River Ehen and the A595 busy single carriageway road, and the industrial conditions of the Site, the presence of great crested newt within the Site is not anticipated. Amphibians are not considered an IEF and therefore not discussed further.

[16] Legislation.gov.uk (2011) Wildlife and Countryside Act 1981, SCHEDULE 8 Plants which are Protected. Available at: https://www.legislation.gov.uk/ukpga/1981/69/schedule/8

Badger

Desk Study

3.30 The CBDC returned five records of badger *Meles meles* within 2km of the Site, with the nearest record being 1.2km away.

3.31 The desk study identified that the surrounding hedgerows, woodlands and field margins to the east, south and west of the Site provide suitable habitat for badgers.

Field Survey

3.32 The broadleaved woodland on Site provides suitability for badgers and has connectivity with further broadleaved woodland to the south. The mixed scrub, introduced shrub and grassland habitats on Site provides limited opportunities for badger.

3.33 During the Field Survey no field signs, such as pathways, snuffle holes, setts, latrines, or guard hairs were identified within the Site boundary. Whilst badger was considered to be absent during the survey, due to the suitability of habitats and connectivity with the Site, the future presence of badger within the Site cannot be ruled out. Badgers have not been assessed as an IEF however incidental presence of badger cannot be discounted.

Bats

Desk Study

3.34 MAGIC identified one granted European Protected Species (EPS) licence application for bats within 2km of the Site. The application was for destruction of a common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* day roost located north-west ~0.7km from Site in 2012.

3.35 Multiple bat records within 2km of the Site were provided by the CBDC, with the nearest record being of a myotis species located 400m from Site. The nearest record of a confirmed roost comprised a soprano pipistrelle maternity roost ~0.5km north of the Site.

3.36 The Site contains connectivity to suitable bat habitats including woodland edges, open fields, hedgerows and rivers. The River Ehen located ~10m west of the Site provides suitable commuting and foraging pathways for bats, providing connectivity to further suitable habitat locally.

Field Survey

3.37 Buildings on Site were assessed as being of negligible bat roost suitability with building descriptions described in the table below.

Table 7: Building Descriptions

Building	Description	Bat Roost Suitability
Unit 14	A tall gable-ended industrial building with a pitched roof elevation office block elevation (see photograph 3). It is constructed of metal beams with metal cladding walls and roof. Breeze block internal and external walls are present at the western pitched roof elevation, and the external walls are rendered. There are large shuttered doorways to access the main building, with uPVC windows and doors on the western elevation. A small gap is present between the metal soffit box of the guttering and the wall (see photograph 10), however this is considered to be too small for bats to access. Internally the building is open to the roof, with no sealed loft spaces/voids. The overall building was found to be in good condition, with features suitable for roosting bats.	Negligible
Unit 10	A large gable-ended industrial building. It has a metal clad roof and walls, with masonry/breeze block bases. Internally the building was being fitted out with two floors and internal partition walls. There was no internal loft space/void ((see photograph 14)The building is constructed of materials that are sub-optimal for roosting bats and limited access opportunities were observed.	Negligible
B1	This appears to be an electricity services building, it is constructed of metal with a hipped roof.	Negligible

3.38 All trees within the Site boundary were subject to a ground level tree assessment, and were confirmed to be of negligible bat roost suitability, they were noted as being of a young age-class and/or in good condition. Roosting bats are therefore not considered to be an IEF.

3.39 The majority of the Site comprises industrial/urban habitats which offer limited opportunities for foraging and commuting bats and are considered to be negligible suitability for foraging and commuting, however the woodland and established trees within the Site provide opportunities and are well-connected to suitable habitat locally. The Site is considered to be of Site Importance for foraging and commuting bats this is considered further in the impact assessment as the Proposed Development has potential to impact these.

Birds

Desk Study

3.40 The desk study identified 2349 bird records within 2km of the Site. The Solway Firth SPA, 8.75km km north west of the Site is a critical habitat, recognized for its importance to birdlife see Table 4.

Field Survey

3.41 Introduced shrub and woodland/tree habitats within the Site provides opportunities for nesting birds. The modified grassland and bare ground was considered unsuitable for ground-nesting birds due to the high levels of disturbance from commercial operations on Site. Habitats within the Site are not considered suitable to support a notable bird assemblage but are considered to provide nesting opportunities for a small number of common and widespread species. The Site is of Site Importance to breeding birds. Their presence is considered in the Impact Assessment as disturbance or destruction to a birds nest is a breach of wildlife legislation.

Invertebrates

Desk study

3.42 The desk study returned 44 records of invertebrates within 2km of the Site and identified Clints Quarry, a Site of Invertebrate Significance 2km north of the Site.

3.43 The species from the desk study were reviewed, however with consideration to the habitats on-Site and the Sites current use, these species were not considered further, and the details have not been provided within this report.

Field Survey

3.44 The habitats on Site are considered unlikely to support a diverse or notable assemblage of invertebrates which favour species and structurally diverse habitats. Invertebrates and not considered an IEF, and therefore invertebrates have not been considered further.

Reptiles

Desk Study

3.45 The desk study identified three species of reptiles, adder *Vipera berus*, common lizard *Zootoca vivipara* and slow worm *Anguis fragilis*, within 2km of the Site. The closest record was a common lizard *Zootoca vivipara* located within 0.57km east of Site.

3.46 Within the immediate vicinity of the Site is the industrial park and further residential areas to the north and east (see Figure 1). The A595 to the east provides a barrier between the Site and the wider landscape to the east.

3.47 The River Ehen, to the west provides connectivity to surrounding habitats for more hydrophilic species of reptiles such as adder and grass snake *Natrix helvetica* which can swim in rivers, however, this is likely to act as a barrier to other reptile species.

3.48 Further connectivity for reptiles along the riparian corridor and broadleaved woodland to the south is noted. Beyond this the surrounding habitats to the south is predominantly agricultural (with some areas of woodland, hedgerow and scrub), collectively suboptimal for reptile.

Field Survey

3.49 Whilst woodland and bare ground habitats within the Site provide conceivable potential opportunities for reptiles, given the context of the local agricultural surroundings and barriers for dispersion and relatively small size of the Site reptiles are not anticipated to be present within the Site. Reptiles are not considered an IEF, and therefore not considered further.

Otter

Desk Study

3.50 The desk study identified 13 records of Otter *Lutra lutra* within 2km of the Site. However, no records of otter have been recorded within the past 10 years. The nearest record of was recorded 0.4km from the Site in the River Ehen.

3.51 The River Ehen flows ~10m west of the Site which hosts suitability for otters and has previous records of otter presence. Vegetation and tree species can be seen along areas of the banks of this River hosting suitability for foraging or nesting otters.

Field Survey

3.52 No field signs of otter were noted on the Site during the Field Survey, although the survey did not include a detailed inspection of the riparian corridor. It was noted that dense vegetation was present along the steep banks of the river which could be suitable for otter resting. It is therefore assumed that otters are using the River Ehen adjacent to the Site for foraging and commuting and may use suitable features for resting within 50m of the Site (if such features are present).

3.53 It is noted that a linear strip of woodland provides natural screening between the Site and the River Ehen and it is considered that this is likely to act as natural visual and noise barrier, preventing the ZoI to extend onto the River Ehen. The Site is not considered to be of value for otters. As a precaution, and in the absence of survey data, it is assumed that the River Ehen is important to the local population of otter at County level.

Water Vole

Desk Study

3.54 The desk study returned no records water vole *Arvicola amphibius* within 2km of the Site. One record of the invasive predatory American mink *Neovison vison* was identified in 2006 1.6km from the Site.

3.55 The River Ehen ~10m to the west of the Site has the potential to host suitable habitat for water vole.

Field Survey

3.56 The Field Survey did not include the riparian corridor, as such it is assumed that water vole are present in this River. The Site itself is unsuitable for water vole and the Bridge End Road considered a suitable barrier for water vole. Water vole are not considered an IEF, and therefore not considered further.

Red Squirrel

Desk study

3.57 The desk study identified 50 records of red squirrel within 2km, with the records evenly distributed across this search radius, the nearest record (provided to a suitable level of accuracy) was located 0.5km east of Site.

Field Survey

3.58 The woodland habitats provide suitable foraging and nesting locations for red squirrel. No evidence of red squirrel was identified during the Field Survey. Red Squirrel have not been assessed as an IEF, however the potential future and//or incidental presence of this species should be considered.

4. Impact Assessment and Mitigation

4.1 Table 8 identifies the IEFs discussed in Section 3 along with their assigned importance, summary of potential impacts, avoidance/reduction and mitigation measures and whether there is a predicted residual impact. In some instances, whilst specific impacts have not been predicted, standard good practice measures have been incorporated into the Scheme or to provide further legal protection for a change in baseline

Table 8: Predicted Impacts to IEFs with committed mitigation.

Ecological Feature and Importance	Summary of potential impacts	Avoidance, reduction, mitigation	Residual Impact
Habitats (on Site) Site Importance	Habitat types are both nationally and locally common. As such, habitat loss arising from the Proposed Development are considered significant at a Site level	Standard good industry practice will be implemented to minimise losses of vegetation as far as practicable. The scheme is committed to deliver 10% Biodiversity Net Gain to compensate for habitat losses on Site. The BNG assessment will identify the details of permanent and temporary habitat losses, and subsequent gains through landscaping along with their units.	None
Bats – Foraging and Commuting Site Importance	Habitats on Site with consideration to their wider connectivity provide low suitability for foraging and commuting, considered important at a Site level. As such, no significant impacts are anticipated as a result of the Proposed Development.	Notwithstanding the low value of the Site for foraging and commuting bats, standard good industry lighting measures will be implemented during construction and operation to limit the spill of light pollution into the surrounding landscape[17], and vegetation removal limited as far as possible. The lighting strategy to be reviewed by an Ecologist to confirm no light spill onto the riparian corridor that could disturb commuting otter.	None

[17] Bat Conservation Trust (2023). GN08/23Bats and Artificial Lighting At Night. Available at: file:///C:/Users/MRTL/Downloads/41867-ILP-GN08-FINAL-1.pdf

Ecological Feature and Importance	Summary of potential impacts	Avoidance, reduction, mitigation	Residual Impact
Badger Not assessed (no evidence)	No badger signs were noted on Site however badgers are a highly mobile species and may occur incidentally on Site. In addition their future presence within the Site should be considered. Destruction of setts or disturbance of badger occupying setts would result in a breach of wildlife legislation.	Standard good industry practice measures will be implemented during construction activities detailed in a Construction Environmental Management Plan (CEMP). This will include pre-works checks to confirm ongoing absence of badgers on Site and advice on identifying a badger sett. Further measures to avoid harm to inquisitive mammals will be included. Suitable avoidance measures include: regular monitoring of the Site for signs of wildlife activity by site teams following a briefing and toolbox talk at the start of the works; ensuring that any ground excavations or trenches left overnight are either securely covered or include a shallow escape route (gradient no greater than 45 degrees) to allow mammals to exit; orienting machinery to direct exhaust fumes away from areas where fauna may be present; securely storing excavated materials or topsoil in a manner that prevents access by terrestrial mammals (e.g., covered with a durable material or stored in secure containers); and erecting and maintaining a visual and light screening barrier at sensitive areas (if required), to minimize light spill.	None

Ecological Feature and Importance	Summary of potential impacts	Avoidance, reduction, mitigation	Residual Impact
Breeding Birds Site Importance	Habitats on Site provide suitable nesting opportunities for small numbers of common breeding birds. Breeding birds may be harmed through vegetation loss (during the breading season), also resulting in a breach of wildlife legislation.	Loss of habitat supporting breeding birds will be minimised wherever possible. Should vegetation removal be necessary standard measures will be detailed in the CEMP. This includes avoiding vegetation removal as far as possible within the nesting season of March to August inclusive subject to seasonal variations. If this is not possible, a suitably experienced ecologist will inspect any vegetation to be removed for the presence of active birds' nests prior to removal. Any active nests will be protected from destruction with a suitable buffer until they are no longer in use. Where bird nesting is identified works should be delayed until nesting young have fledged and left the nest to avoid breach of wildlife legislation. Habitat compensation have been considered as part of the BNG assessment.	None
Invasive Non-Native Species Site Importance	Himalayan balsam is present across the road to the west of the Site. Himalayan cotoneaster which is a Schedule 9 species is present on Site in multiple locations. Himalayan balsam and cotoneaster are non-native Schedule 9 species. Which it is an offence to cause growth and spread of these plants in the wild.	If removal of Himalayan cotoneaster is required on-Site, a specialist contractor is required to remove this species and ensure that it does not spread. This will be detailed in the CEMP to avoid breaching wildlife legislation.	None

Ecological Feature and Importance	Summary of potential impacts	Avoidance, reduction, mitigation	Residual Impact
Otter No Value on-Site County Value, River Ehen	No evidence of otter was noted within the Site however otter presence (commuting, foraging, resting) is assumed on the River Ehen within 10m of the Site. Therefore this has been designated as County importance.	As there is currently no information regarding expected noise levels on the River Ehen arising from the construction activities, a precautionary approach is adopted and it is assumed that the River Ehen will be subject to secondary disturbance measures during construction which could result in disturbance to otter (if present). As such the following avoidance measures will be implemented: A pre-commencement survey will be undertaken to confirm presence or likely absence of otter and resting places within 50m of the works to be detailed in the CEMP. Should a potential resting feature for otter be identified, works would halt and this would be subject to assessment. Additional avoidance measures would be devised and incorporated to provide further screening between the Site and the River Ehen including a noise and visual barrier in consultation with the ecologist. Standard good practice avoidance measures to avoid injury to inquisitive mammals which may enter the construction area, to be detailed in the CEMP (as described for badger above). The lighting strategy to be reviewed by an Ecologist to confirm no light spill onto the riparian corridor that could disturb commuting otter.	None
Red Squirrel Not assessed (no evidence found)	Whilst no evidence of red squirrel was noted during survey, woodland habitat on Site, may support incidental red squirrel and/or nesting in the future.	Whilst no evidence of Red Squirrel was found during the field survey, the following avoidance measures will be implemented to account for incidental red squirrel to be present on features (i.e. woodland) within the Site. The extent of broadleaved woodland loss has been minimised. A pre-commencement survey will be undertaken to confirm their continued absence of red squirrel within the Site. This should be detailed in the CEMP or similar. If a drey is identified that could be subject to disturbance, work would halt immediately and further advice sought from an Ecologist.	None

Ecological Enhancement

4.2 Ecological input into landscaping has sought to maximise opportunities to deliver biodiversity units on Site. A separate BNG report[18] has been produced.

4.3 The following enhancement measures have been included in the design: Installation of bat and bird boxes within the retained woodland.

- Consideration of faunal enhancement as part of habitat creation/enhancement proposals, for example through inclusion of mosaic habitat, bare ground and basking areas and inclusion of species diverse nectar bearing plants with blossoming sequencing, providing further foraging for bats and birds.
- The Proposed Development is committed to the delivery of 10% Biodiversity Net Gain, which is presented in the BNG Assessment Report.

[18] WIE21010-101-R-3-1-1-BNG

5. Conclusions

5.1 Ecological features identified within the ZoI include, foraging and commuting bats (important at a Site level), nesting birds (important at a Site level), otter (assumed presence in the River Ehen, assumed to be County Importance). Additionally, although absent at the time of survey the incidental presence of badger and red squirrel on Site has been assumed as a precaution. Furthermore, the presence of non-native invasive species on Site has been confirmed.

5.2 No significant impacts to these IEFs is predicted, and standard avoidance measures are expected to result in no residual effects.

5.3 Ecological input will be provided in the production of a CEMP to avoid breaching wildlife legislation and implement standard avoidance measures. These will include:

- Standard pollution prevention measures to limit the ZoI of the construction works to the Site boundary.
- Limiting de-vegetation and habitat loss within the Site as far as possible.
- Limiting de-vegetation works to avoid the breeding bird season as far as possible.
- Pre commencement / vegetation clearance checks for breeding birds, badger, red squirrel and otter.
- Measures to notify an ecologist should any of these species be identified.
- Standard measures to avoid harm to inquisitive mammals on Site.
- The development of a lighting strategy to prevent light spill onto the River Ehen and outside of the Site.

5.4 Furthermore habitat re-instatement, creation and enhancement opportunities have been explored as part of a BNG Assessment[19].

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[19] WIE21010-101-R-3-1-1-BNG

Figures

Figure 1: Site Location Plan

Site Location

N

0 50 100 200 300 400 500 m

Project Details	WIE21010-100: Bridge End
Figure Title	Figure 1: Site Location Plan
Figure Ref	21010100-WAT-XX-XX-GS-N-750001
Date	December 2024
File Location	N:\Projects\WIE21010-100\9_GIS\21010100-WAT-XX-XX-GS-N-75

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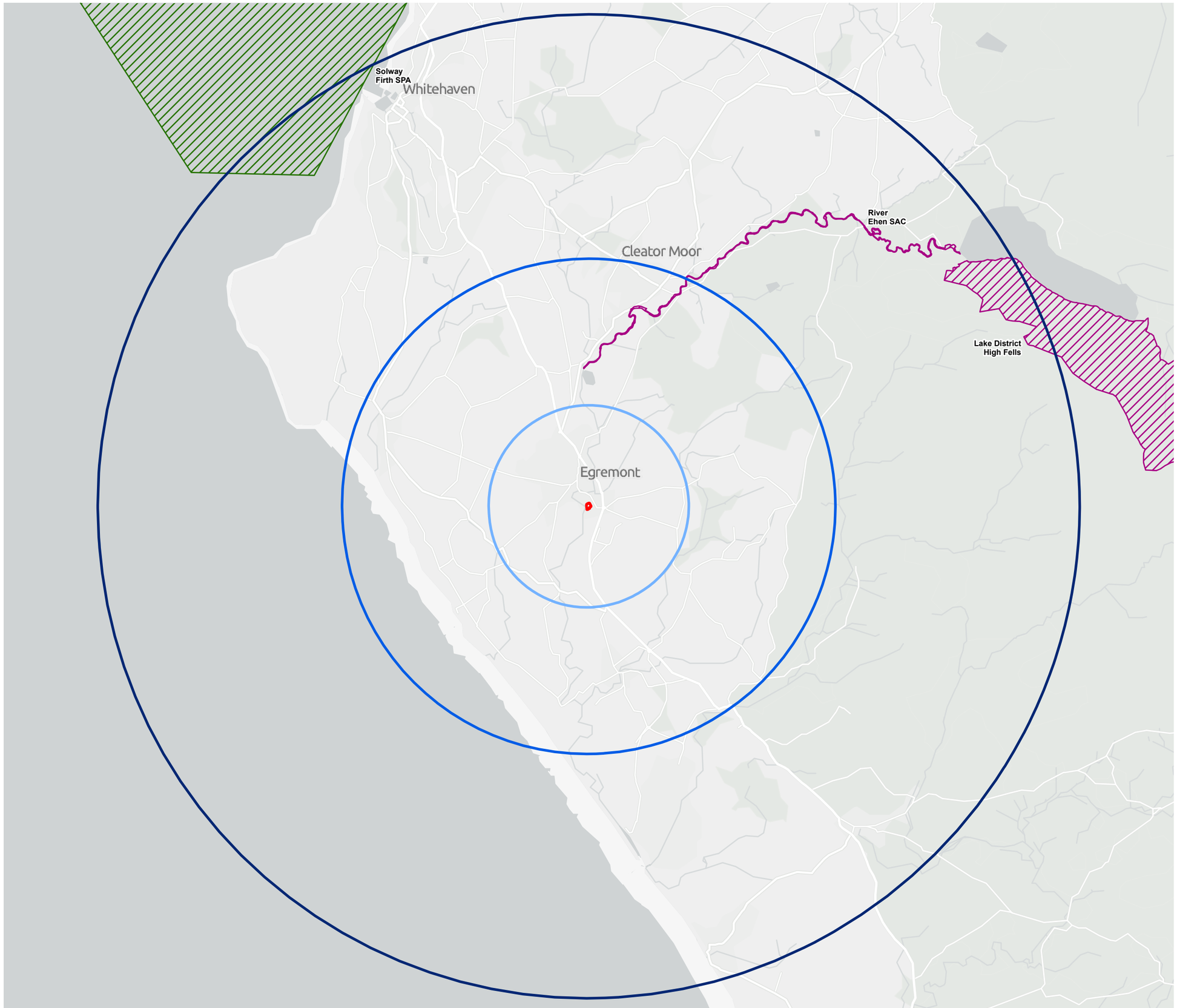
Figure 2: Statutory Designated Site (international within 10km



Site Boundary

2km Search Area

5km Search Area

10km Search Area

Statutory Designated Sites (International) within 10km

Special Protection Areas (SPA)

Special Areas of Conservation (SAC)

N

0 0.5 1 2 3 4 km

Project Details	WIE21010-100: Bridge End
Figure Title	Figure 2: Statutory Designated Sites (International) within 10km
Figure Ref	21010100-WAT-XX-XX-GS-N-750002
Date	October 2024
File Location	N:\Projects\WIE21010-100\9_GIS\21010100-WAT-XX-XX-GS-N-75

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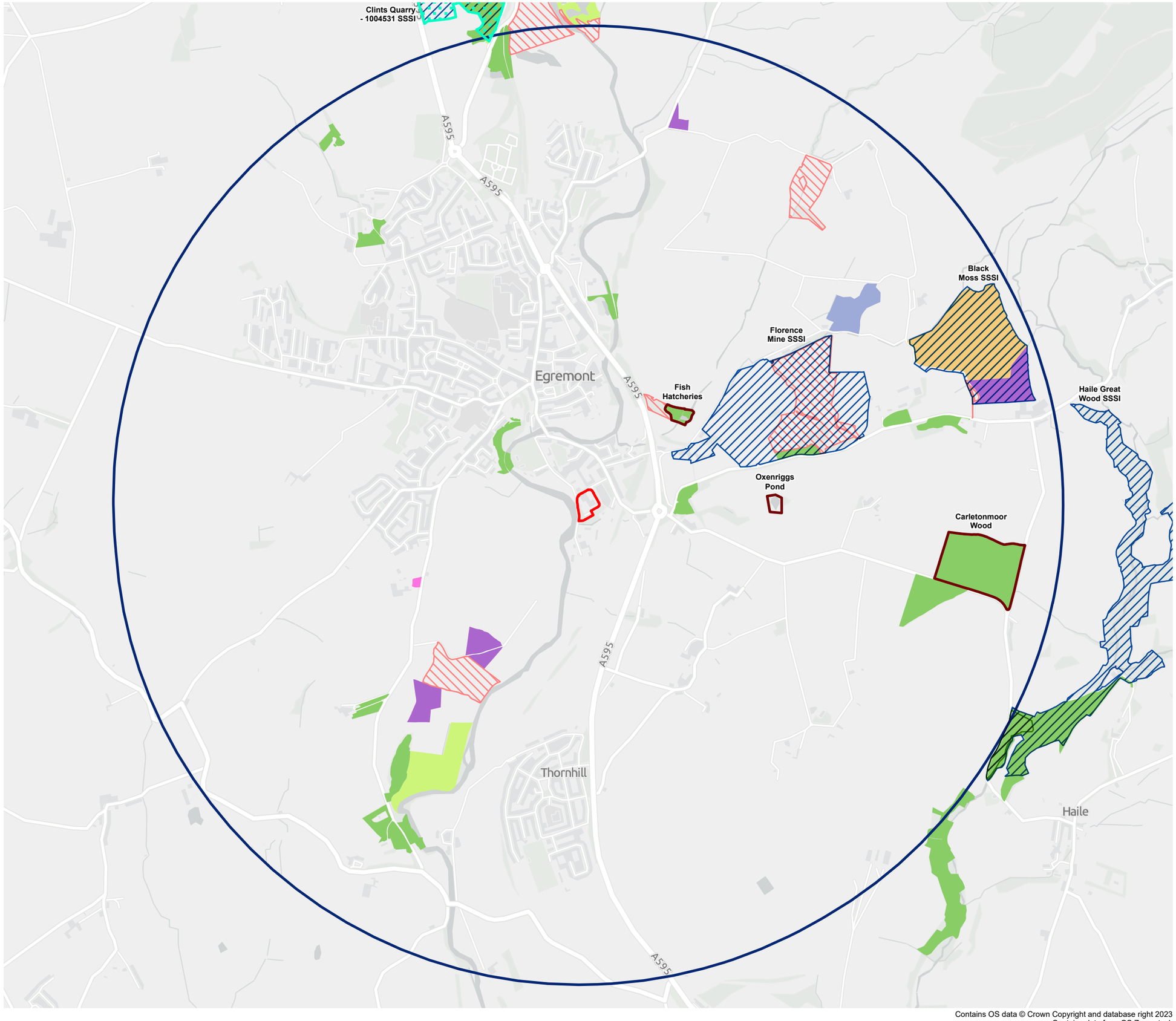
Figure 3: Designated Site and Notable Habitats within 2km



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waterman

Site Location

2km Search Area

Designated Sites

County Wildlife Site

Site of Invertibrate Significance

Sites of Special Scientific Interest (SSSI)

Priority Habitats within 2km of the Site

Deciduous woodland

Good quality semi improved grassland

Lowland fens

Lowland raised bog

No main habitat but additional habitats present

Purple moor grass and rush pastures

Traditional orchard

Ancient Woodland within 2km of the Site

Ancient & Semi-Natural Woodland

N

0 80 160 320 480 640 800 m

Project Details	WIE21010-100: Bridge End
Figure Title	Figure 3: Designated Sites and Notable Habitats within 2km
Figure Ref	21010100-WAT-XX-XX-GS-N-750003
Date	October 2024
File Location	N:\Projects\WIE21010-100\9_GIS\21010100-WAT-XX-XX-GS-N-75

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Figure 4: Habitat Features Plan

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- Site Boundary
- g4 - Modified grassland
- u1b - Developed land; sealed surface
- u1b5 - Buildings
- u1f - Sparsely vegetated land
- w1h5 - Other woodland; mixed; mainly broadleaved
- SC160 - Introduced Shrub
- w33 - Line of trees
- Urban Tree
- Target Note

N

0 5 10 20 30 m

Project Details	WIE21010-100: Bridge End
Figure Title	Figure 4: Habitat Features Plan
Figure Ref	21010100-WAT-XX-XX-GS-N-750004
Date	October 2024
File Location	N:\Projects\WIE21010-100\9_GIS\21010100-WAT-XX-XX-GS-N-75

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Figure 5: Baseline Habitats

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- Site Boundary (0.861Ha)
- g4 - Modified grassland (0.141Ha)
- u1b - Developed land; sealed surface (0.323Ha)
- u1b5 - Buildings (0.234Ha)
- u1f - Sparsely vegetated land (0.026Ha)
- w1h5 - Other woodland; mixed; mainly broadleaved (0.084Ha)
- SC160 - Introduced Shrub (0.053Ha)
- w33 - Line of trees (0.030km)
- Urban Tree (6 No.)

N

0 5 10 20 30 m

Project Details	WIE21010-100: Bridge End
Figure Title	Figure 5: Baseline Habitats
Figure Ref	21010100-WAT-XX-XX-GS-N-750005
Date	October 2024
File Location	N:\Projects\WIE21010-100\9_GIS\21010100-WAT-XX-XX-GS-N-75

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Figure 6: Post-Development Habitats

PLANT SCHEDULE

NATIVE TREES AND SHRUBS- WOODLAND MARGIN — 260 sq.m. — 130 — 0.5/ sq.m.

Plant name	Common name	% in mix	Number	Specification
Crataegus monogyna	Hawthorn	20%	26	40/60cm bare root
Corylus avellana	Hazel	20%	26	40/60cm bare root
Prunus spinosa	Blackthorn	10%	13	40/60cm bare root
Ilex aquifolium	Holly	10%	13	30/40cm in C2 container
Acer campestre	Field Maple	5%	7	40/60cm bare root
Sorbus aucuparia	Rowan	5%	7	40/60cm bare root
Prunus padus	Bird Cherry	5%	7	40/60cm bare root
Sambucus nigra	Elder	5%	7	40/60cm bare root
Viburnum opulus	Geulder Rose	5%	6	40/60cm bare root
Malus sylvestris	Crab Apple	5%	6	40/60cm bare root
Rosa canina	Dog Rose	5%	6	40/60cm bare root
Cytisus scoparius	Broom	5%	6	30/40cm in C2 container

NATIVE SCRUB- EDGE MIX — 700 sq.m. — 350 plants — 0.5/ sq.m.

Plant name	Common name	% in mix	Number	Specification
Corylus avellana	Hazel	40%	140	40/60cm bare root
Prunus spinosa	Blackthorn	25%	88	40/60cm bare root
Crataegus monogyna	Hawthorn	25%	87	40/60cm bare root
Salix caprea	Willow	10%	35	30/40cm in C2 container

NATIVE SHRUBS — 160 sq.m. — 80 plants — 0.5/ sq.m.

Plant name	Common name	% in mix	Number	Specification
Corylus avellana	Hazel	25%	20	40/60cm bare root
Cornus sanguinea	Dogwood	25%	20	40/60cm bare root
Viburnum opulus	Geulder Rose	25%	20	40/60cm bare root
Ilex aquifolium	Holly	25%	20	30/40cm in C2 container

NATIVE TREES			**Number**	
Alnus glutinosa	Alder	AG	3	2-2.5m bare root
Quercus petraea	Sessile Oak	QP	5	2-2.5m bare root
Betula pendula	Silver Birch	BP	3	8-10cm rootballed
Sorbus aucuparia	Rowan	SA	8	2-2.5m bare root
Pinus sylvestris	Scots Pine	PS	2	40-60cm C5
Crataegus monogyna	Hawthorn	CM	3	2-2.5m bare root
Prunus padus	Bird Cherry	PP	6	2-2.5m bare root
Prunus avium	Gean	PA	4	2-2.5m bare root
Acer campestre	Field Maple	AC	8	2-2.5m bare root
			42	

NATIVE HEDGE	**NBH**	53m	212 plants	4/ lin.m.
Crataegus monogyna	Hawthorn	55%	117	40/60cm bare root
Corylus avellana	Hazel (note extra 130 shrub layer)	10%	21	40/60cm bare root
Ilex aquifolium	Holly	10%	21	30/40cm in C2 container
Prunus spinosa	Blackthorn	5%	11	40/60cm bare root
Acer campestre	Field Maple	5%	11	40/60cm bare root
Sambucus nigra	Elder	5%	10	40/60cm bare root
Viburnum opulus	Geulder Rose	5%	10	40/60cm bare root
Rosa canina	Dog Rose	3%	6	40/60cm bare root
Lonicera periclymenum	Holly	2%	5	30/40cm in C2 container

TREES

Acer platanoides Drummondii	AD	1	8-10cm rootballed
Prunus subhirtella Autumnalis	PS	1	8-10cm rootballed
Prunus Pink Perfection	PP	1	8-10cm rootballed
Sorbus Asplenifolia	SA	3	8-10cm rootballed
Sorbus Embley	SE	3	8-10cm rootballed
TOTAL TREES		**9**	

SPECIMEN SHRUBS

Amelanchia lamarckii	AL	2	C10 80-90cm
Mahonia Charity	MC	1	C10 60-80cm
Phormium Sundowner	PS	2	C10 60-80cm
Photinia Red Robin	PR	1	C10 60-80cm
TOTAL SPECIMENS		**6**	

SHRUBS — 86 sq.m. — No/ sq.m.

Bergenia cordifolia	Bc	20-30cm	CG 2 litre	5
Cotoneaster Skogholm Coral Beauty	Cc	20-30cm	CG 2 litre	3
Euonymus Emerald Gaiety	Ee	20-30cm	CG 2 litre	3
Hebe Sutherlandii	Hs	20-30cm	CG 2 litre	4
Hebe Autumn Glory	Ha	20-30cm	CG 2 litre	3
Hebe Midsummer Beauty	Hm	20-30cm	CG 2 litre	3
Hypericum calicynum	Hc	20-30cm	CG 2 litre	4
Lonicera pileata Maigreen	Lm	30-45cm	CG 2 litre	2
Potentilla Elizabeth	Pe	20-30cm	CG 2 litre	3
Senecio Sunshine	Ss	20-30cm	CG 2 litre	3
Vinca minor	Vm	20-30cm	CG 2 litre	5

HEDGE — 12m — 48 plants — No/ lin.m.

Hebe Blue Gem	40-50cm in C5 container		4

BULBS — **Number**

Narcissus King Alfred or similar	N	700

TOPSOIL CULTIVATION In accordance with BS 3882. Apply glyphosate herbicide prior cultivation and allow the recommended period before further action. Ensure ground is free draining by breaking up subsoil and installation of land drainage as required. Do not work the soil in frozen or waterlogged condition. Remove any debris and stones greater than 50mm from surface and cultivate to suitable tilth for planting. Rake surface to achieve required level flush with adjacent paving for turf and 50mm below for planting to allow for mulch layer and smooth flowing contours for open space areas without hollows or soft areas. Topsoil depths to be minimum 150mm for grass and 450mm for planting and at least 300mm of suitable subsoil beneath the topsoil layer. Site topsoil to be supplemented with imported topsoil in accordance with BS 3882. Shrub beds in grass areas to be neatly cut to layout shown.

PLANTING Plant material shall conform to the National Plant Specification and be healthy, vigorous specimens, well rooted but not pot bound, free from pests and disease, hardy and undamaged by transport operations in accordance with HTA 'handling and establishing landscape plants'. Planting and turfing to be in accordance with BS 3936 and 4428. Plant species substitutes will be permitted to accommodate availability and to include stock of particular good quality in nursery provided these are of a similar habit, size, colour, value etc and that they are **approved in advance** by the Landscape Architect. Native species to be local provenance. Bare root and rootballed plants to be planted between November and March. Backfill of planting holes and tree pits to be excavated topsoil with 25% by volume tree and shrub planting compost. Shrub pits to be generally 300 x 300 x 300mm or 75mm wider and deeper than the root spread. Tree pits to be 900 x 900 x 600mm or 150mm wider than the root spread. Stakes to be two 75mm diameter pointed stakes driven until firm and trimmed to 900mm above G.L. with 50 x 100mm crossbar screwed to stakes. Rubber tree cushion nailed to crossbar and rubber tree belting nailed to secure tree. Single 75mm diameter stake for bare-rooted trees with rubber tree belting with spacer. Apply slow release fertiliser (16:10:10) at rate of 100g/ sq.m. to planting areas and 250g per tree. Thoroughly water planting.

PLANTING DENSITIES/ SETTING OUT Refer to the Planting Schedule for densities. Where a bed is indicated as mixed species on the plan, the area should be divided equally between the species shown and the relevant density for that species applied to that proportion of the bed. Taller species to the rear of the bed and smaller species to the front planted in bold groups of single species and not mixtures unless clearly requested on the plan annotations.

TREE RABBIT GUARDS If rabbit activity is noted in the area and guarding is authorised each bare-rooted native plant hedge plant to receive a 12/14 weight 900mm cane and 60cm clear spiral guard. Trees to receive 90cm spiral guard. If extensive rabbit activity is observed rabbit fencing to ornamental areas will be required as directed by the Landscape Architect.

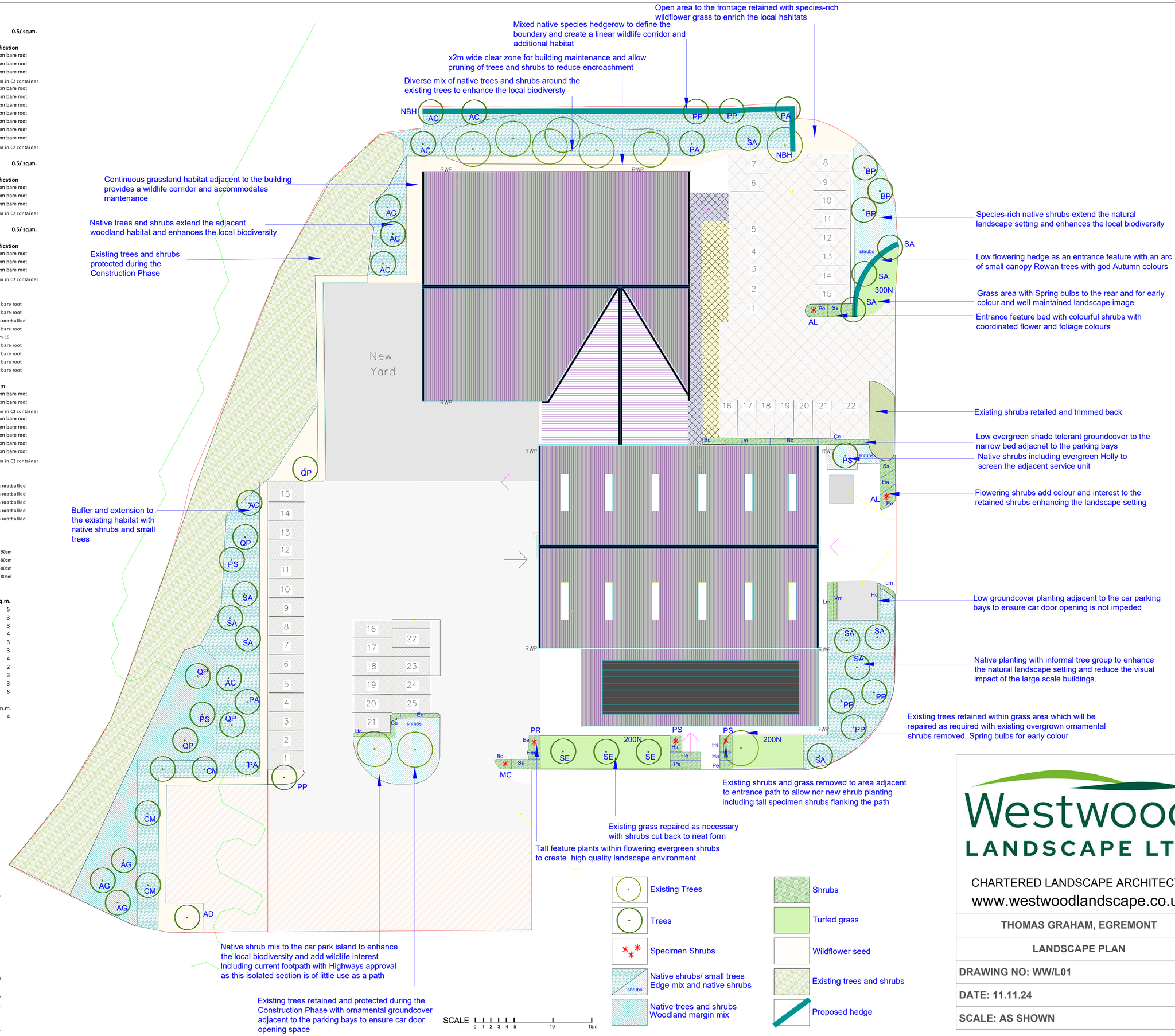
MULCH Spread 50mm layer of general purpose bark mulch, free from large sticks, and debris over all shrub areas, 800mm wide strips for hedging and 800mm diameter circles for tree pits in grass with neatly trimmed edge.

TURFING Following cultivation preparation specified above supply and lay Rolawn Hallstone turf or similar approved with staggered joints close butted to uniform levels to finish 25mm above adjacent paving levels once well tamped down. Use sharp sand spread on surface to achieve fine tuning of levels. Thoroughly soak turf on completion and ensure regular watering is arranged until the turf has rooted. Do not turf in waterlogged or frozen conditions.

SEEDING AMENITY GRASS Following cultivation preparation specified above apply Boston Seeds Low maintenance amenity mix or similar approved at a rate of 35gms/ sq.m. and roll with quad or hand drawn ballast grass roller. Apply water with sprinkler hose in dry conditions to ensure germination. Levels to be flush with adjacent paving following firming and settlement of topsoil. Further stone-picking, top-dressing and re-seeding of bare patches to ensure uniform, level grass is established. Re-roll as required at first cut stage.

SEEDING WILDFLOWER GRASS Prepare as for amenity grass and sow 3-5 g/ sq.m. of mix EM3 to the open aspect areas and mix EG9 to the shady areas beneath and close to trees supplied by Emorgate Seeds and applied in accordance with their recommendations.

LANDSCAPE MAINTENANCE. Any plants which fail within 5 years to be replaced in the season following failure to the original specification. Check and adjust stakes and ties every month, and remove stakes in year 5 when trees are suitably stable. Prune trees and shrubs once each year - formative prune to encourage good habit. Apply fertiliser once in Spring each year to grass 40gms/ sq.m. Apply fertiliser once in Spring each year to shrubs 20gms/ sq m - Osmocote slow release. Top up bark mulch to 50mm depth annually. Check for pests and diseases - treat as required. Water as required all landscape areas. Mow grass 18 times annually and remove arisings, trim edges. Apply selective herbicide and moss killer to grass as required. Re-seed, top dress and aerate lawns as required to maintain grass in good condition. Cut and rake off wildflower grass twice annually. Collect litter from all landscape areas monthly. Apply Glyphosate herbicide to hard paved areas as required.



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LANDSCAPE PLAN

DRAWING NO: WW/L01

DATE: 11.11.24

SCALE: AS SHOWN

Appendices

A. Legislation and Policy

Environment Act 2021

The Environment Bill was given Royal Assent in November 2021 and is now the Environment Act 2021. The Act includes a target to halt the decline of nature by 2030 and to strengthen the existing biodiversity duty through the introduction of a mandatory requirement to achieve at least 10% biodiversity net gain (BNG) for new developments in England. These requirements commenced on 12th February 2024. The BNG requirement is framed as a pre-commencement condition and that BNG information will need to be provided by the applicant as part of the planning application submission.

The act is supported by secondary legislation comprising six statutory instruments:

- The Biodiversity Gain (Town and Country Planning) (Consequential Amendments) Regulations 2024;
- The Biodiversity Gain Site Register (Financial Penalties and Fees) Regulations 2024;
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024;
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024;
- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024; and,
- The Biodiversity Gain Site Register Regulations 2024.

National Planning Policy

National Planning Policy Framework, 2023

The National Planning Policy Framework (NPPF) was published in 2012 and last updated December 2023[20]. Section 15 (outlined below) of the NPPF, 'Conserving and Enhancing the Natural Environment', is of relevance to this report. No significant changes to Section 15 are noted between the 2021[21] and 2023 update. The Government Circular 06/2005[22] - Biodiversity and Geological Conservation: Statutory Obligations and Their Impact within the Planning System, remains valid and is still referenced within the NPPF.

Of particular significance with respect to biodiversity in the NPPF revision, is the amendment to para 175(d) of the NPPF 2019 (now para 180(d) of the NPPF 2021), which now requires opportunities to incorporate biodiversity improvements in and around Proposed Development, rather than simply making it optional. This demonstrates further steps taken by the government towards achieving the 25 Year Environment Plan (2018). Otherwise, there have been no further changes to the wording of "Conserving and enhancing the natural environment" Chapter of the NPPF.

The NPPF encourages the planning system to contribute to and enhance the natural and local environment. This should be achieved by:

[20] Department for Levelling Up, Housing and Communities (2023): National Planning Policy Framework
[21] Ministry of Housing, Communities and Local Government (2021): National Planning Policy Framework
[22] Department of Communities and Local Government (2005): Circular 06/05: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.

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

The NPPF also stipulates that Local Planning Authorities (LPAs), when determining planning applications, should apply the following principles:

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

National Planning Practice Guidance, 2024

The Government's National Planning Practice Guidance[23] (NPPG) is intended to provide guidance to local planning authorities and developers on the implementation of the planning policies set out within the NPPF. The guidance of most relevance to ecology and biodiversity is the Natural Environment Chapter, which explains key issues in implementing policy to protect biodiversity, including local requirements. In addition, to the biodiversity net gain guidance [24] which requires development to have a positive impact

[23] Department for Communities and Local Government. (2024). *National Planning Practice Guidance*. *Available at: https://www.gov.uk/government/collections/planning-practice-guidance#full-publication-update-history*.

[24] Department for Communities and Local Government. (2024). *National Planning Practice Guidance*. *Available at: https://www.gov.uk/guidance/biodiversity-net-gain.*

('net gain') on biodiversity by delivering at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of the on-Site habitat.

Natural Environment and Rural Communities Act 2006

The majority of former Priority national (English) BAP habitats and species are now those as Habitats of Principal Importance (HoPI) and Species of Principal Importance (SoPI) in England listed under Section 41 (S41) of the NERC Act 2006. For the purpose of this report, habitats and species listed under S41 of the NERC Act are referred to as having superseded the UK BAP. All public bodies have a legal obligation or 'biodiversity duty' under Section 40 of the NERC Act 2006 to conserve biodiversity by having particular regard to those species and habitats listed under S41.

Local Planning Policy

Cumberland Council Planning Policy [25]

The policies relevant to this report are as follows:

Policy ST1 – Strategic Development Principles

Encourage development that minimises carbon emissions, maximises energy efficiency and helps us to adapt to the effects of climate change

Policy ER2 – Planning for the Renewable Energy Sector

The council will support new renewable energy generation proposals which best maximise renewable resources and minimise environmental and amenity impacts.

Policy ER3 – The Support Infrastructure for the Energy Coast

A Ensure that any new energy transmission infrastructure minimises potential impacts on the Borough's landscape and natural environment, and on the health and amenity of its residents and visitors

Policy SS5 – Provision and Access to Open Space and Green Infrastructure

Adequate provision and access to open space, and the development of the Borough's green infrastructure, will be promoted by:

A Protecting against the loss of designated open space (including playing fields, play areas and allotments) within settlements, and of the access routes or wildlife corridors which connect them, whilst ensuring also that they are well maintained. Where it is necessary to build on land covered by this policy, equivalent replacement provision should be mad

Policy ENV1 – Flood Risk and Risk Management

The Council will ensure that development in the Borough is not prejudiced by flood risk through:

C Ensuring that new development does not contribute to increased surface water run-off through measures such as Sustainable Drainage Systems, where these are practical. Where they are not this should be achieved by improvements to drainage capacity

[25] *Rotherham Metropolitan Borough Council (2014) Adopted Rotherham Core Strategy. Available at: https://www.rotherham.gov.uk/downloads/file/307/adopted-rotherham-core-strategy*

Policy ENV2 – Coastal Management

To reinforce the Coastal Zone's assets and opportunities the Council will:

D - Support energy generating developments that require a coastal location along the undeveloped coast, provided that the potential impacts on biodiversity, landscape and heritage assets are carefully assessed against the benefits. Where negative impacts are likely these must be mitigated against and compensated for.

Policy ENV3 – Biodiversity and Geodiversity

The Council will contribute to the implementation of the UK and Cumbria Biodiversity Action Plan within the plan area by seeking to:

A Improve the condition of internationally, nationally and locally designated sites

B Ensure that development incorporates measures to protect and enhance any biodiversity interest

C Enhance, extend and restore priority habitats and look for opportunities to create new habitat

D Protect and strengthen populations of priority or other protected species

E Boost the biodiversity value of existing wildlife corridors and create new corridors, and stepping stones that connect them, to develop a functional Ecological Network

F Restrict access and usage where appropriate and necessary in order to conserve an area's biodiversity value

The Core Strategy Copeland Local Plan 2013-2028: Adopted Core Strategy and Development Management Policies Page 71 Policy DM25 supports this policy, setting out the detailed approach towards managing development proposals that are likely to have an effect on nature conservation sites, habitats and protected species.

Local Plan 2021 – 2038 (Draft Publication)

Strategic Policy N1PU: Conserving and Enhancing Biodiversity and Geodiversity

The Council supports the identification and implementation of Local Nature Recovery Networks that extend beyond Copeland's boundaries, facilitating important wildlife linkages within and outside the borough. Development proposals that protect or enhance these networks will be supported in principle.

Strategic Policy N3PU: Biodiversity Net Gain

All developments, except those exempt under the Environment Act, must achieve a minimum of 10% biodiversity net gain above the existing site levels, following the mitigation hierarchy in Policy N1PU. Preference is given to delivering net gain on-site, but if this isn't possible, alternatives are:

1. Off-site within a Local Nature Recovery Network;
2. Off-site at another suitable location within the borough;
3. Purchasing national biodiversity units/credits.

A Biodiversity Gain Plan must accompany planning applications, detailing the biodiversity value before and after development, mitigation steps, and how gains will be achieved. Sites must be managed and monitored for 30 years, with annual reports submitted to the council. Deliberate habitat degradation will not reduce the site's ecological assessment, and historical ecological data will be used to evaluate proposals.

Strategic Policy N6PU: Landscape Protection

The policy protects and enhances the borough's landscapes by supporting appropriate development that conserves distinctive local characteristics. Developments near the Lake District National Park and Heritage Coast must conserve natural beauty and cultural heritage. A Landscape Appraisal or Impact Assessment is required for projects affecting landscape character. Proposals are evaluated on visual impact, scale, and local distinctiveness, considering cumulative effects, with mitigation required where harm occurs.

Strategic Policy N9PU: Green Infrastructure Summary

A high-quality green infrastructure network will be established through a Green Infrastructure Strategy, connecting towns, villages, rural areas, and the coastline. This network will include various types of green spaces like countryside, rivers, woodlands, and private gardens. Developers are encouraged to maximize green infrastructure, create new connections, expand networks, and enhance existing areas to support wildlife movement. Green infrastructure should be multi-functional and integrated from the beginning of the design process.

Policy N13PU: Woodlands, Trees, and Hedgerows Summary

Existing trees and hedgerows that enhance visual amenity and environmental value will be protected. Developers should incorporate tree planting and hedgerows in new projects. Development affecting trees must include an arboriculture assessment to determine if trees should be protected by a Tree Preservation Order and must replace any removed trees at a minimum 2:1 ratio using native species where possible. Tree works in conservation areas or involving protected trees require justification. Loss or damage to ancient woodland or veteran trees is only permitted for exceptional reasons with a compensation strategy in place.

Biodiversity Action Plans

UK Post-2010 Biodiversity Framework

The Environment Departments of all four governments in the UK work together through the Four Countries Biodiversity Group. Together they have agreed, and Ministers have signed, a framework of priorities for UK-level work for the Convention on Biological Diversity. Published on 17 July 2012, the 'UK Post-2010 Biodiversity Framework'[26] covers the period from 2011 to 2020. This now supersedes the UK Biodiversity Action Plan (UK BAP)[27]. However, many of the tools developed under UK BAP remain of use, for example, background information about the lists of priority habitats and species. The lists of priority species and habitats agreed under UK BAP still form the basis of much biodiversity work in the countries.

Although the UK Post-2010 Biodiversity Framework does not confer any statutory legal protection, in practice many of the species listed already receive statutory legal protection under UK and / or European legislation. In addition, the majority of Priority national (English) BAP habitats and species are now those listed as Habitats of Principal Importance (HoPI) and Species of Principal Importance (SoPI) in England listed under Section 41 (S41) of the NERC Act 2006. For the purpose of this report, habitats and species listed under S41 of the NERC Act are referred to as having superseded the UK BAP. All public bodies have a legal obligation or 'biodiversity duty' under Section 40 of the NERC Act 2006 to conserve biodiversity by having particular regard to those species and habitats listed under S41.

[26] JNCC and DEFRA (on behalf of the Four Countries' Biodiversity Group). (2012). UK Post-2010 Biodiversity Framework.

[27] HMSO. (1994) Biodiversity: The UK Action Plan.

Natural Environment and Rural Communities Act 2006

The majority of former Priority national (English) BAP habitats and species are now those as Habitats of Principal Importance (HoPI) and Species of Principal Importance (SoPI) in England listed under Section 41 (S41) of the NERC Act 2006. For the purpose of this report, habitats and species listed under S41 of the NERC Act are referred to as having superseded the UK BAP. All public bodies have a legal obligation or 'biodiversity duty' under Section 40 of the NERC Act 2006 to conserve biodiversity by having particular regard to those species and habitats listed under S41.

Local Biodiversity Action Plan

At a local level, the Site is covered by the Cumbria Biodiversity Action Plan 2001 (amended 2009).

This contained a Habitats Action Plan, which identified six broad habitat types, with 18 total habitats of focus. No habitats were relevant to the Site. The Cumbria Biodiversity Action Plan does not contain a specific document for habitats of principle importance. This document does include Species Action Plans, with reference to a number of species. Of species noted as potential to be impacted by the site, the only relevant species was bats. For these species, the relevant habitats mentioned in the habitat action plans includes no habitats which are present on site.

Guidance

BS 42020: 2013 Biodiversity: Code of Practice for Planning and Development

The UK commitment to halt overall loss of biodiversity by 2020 in line with the European Biodiversity Strategy and UN Aichi targets[28], is passed down to local authorities to implement, mainly through planning policy. To assist organizations affected by these commitments, BSI published BS 42020 which offers a coherent methodology for biodiversity management.

This British Standard sets out to assist those concerned with ecological issues as they arise through the planning process in matters relating to permitted development and activities involved in the management of land outside the scope of land use planning, which could have Site-specific ecological implications.

The standard has been produced with input from a number of organisations including the Chartered Institute of Ecology and Environmental Management (CIEEM) and the Association of Local Government Ecologists (ALGE) and provides:

Guidance on how to produce clear and concise ecological information to accompany planning applications;

recommendations on professional ethics, conduct, competence, and judgement to give confidence that proposals for biodiversity conservation, and consequent decisions/actions taken, are sound and appropriate; and

direction on effective decision-making in biodiversity management a framework to demonstrate how biodiversity has been managed during the development process to minimize impact.

-

CIEEM (2017) Guidelines for Preliminary Ecological Appraisal

This Preliminary Ecological Appraisal (PEA) adheres to the guidelines set forth by the Chartered Institute of Ecology and Environmental Management (CIEEM) in their 2017 publication, "Guidelines for Preliminary Ecological Appraisal, 2nd Edition." These guidelines provide a comprehensive framework for conducting ecological assessments and ensure a standardised approach to identifying and evaluating ecological

[28] Convention on Biological Diversity (2020) Aichi Biodiversity Targets *Available at: https://www.cbd.int/sp/targets/*

features within a proposed development area. By following these established guidelines, this report aims to contribute an informed decision-making process and which adheres to best practise and relevant legislation.

Legislation

Specific habitats and species receive legal protection in England under various pieces of legislation, including:

- The Conservation of Habitats and Species Regulations 2017 (as amended)29;
- The Wildlife and Countryside Act (WCA) 1981 (as amended)30;
- The Natural Environment and Rural Communities Act (NERC) 200631;
- The Hedgerow Regulations 199732;
- The Protection of Badgers Act 199233;
- Wild Mammals (Protection) Act 199634, and
- Environment Act 202135.

Further details of legislation in respect of legally protected and notable flora and fauna of relevance to the Site are provided below.

Badger

The Protection of Badgers Act, 1992 aims to protect badgers *Meles meles* from persecution, rather than being a response to an unfavourable conservation status. As well as protecting the animal itself, the 1992 Act makes the intentional or reckless destruction, damage, or obstruction of a badger sett an offence. A sett is defined as "*any structure or place which displays signs indicating current use by a badger*". In accordance with Natural England guidance, 'current use' is not synonymous with current occupation[36]. In addition, the intentional elimination of sufficient foraging area to support a known social group of badgers may, in certain circumstances, be construed as an offence by constituting 'cruel ill treatment'. Badgers are also protected under the WCA 1981 (as amended).

[29] HMSO (2017) The Conservation of Habitats and Species Regulations 2017 (as amended)'

[30] HMSO (1981) 'Wildlife and Countryside Act 1981 (as amended)'

[31] ODPM (2006) 'Natural Environment and Rural Communities Act (2006)'

[32] ODPM (1997) 'The Hedgerow Regulations'

[33] ODPM (1992) 'The Protection of Badgers Act'

[34] HMSO. (1996). Wild Mammals (Protection) Act.

[35] HMSO (2021). 'Environment Act'

[36] Natural England (2009): 'Guidance on 'Current Use' in the definition of a Badger Sett'. Natural England

Bats

In summary, all UK bat species are protected by the Conservation of Habitats and Species Regulations 2017 (as amended) and by the WCA 1981 (as amended). Taken together it is an offence to deliberately, intentionally, or recklessly:

- Kill, injure or capture a bat;
- Disturb bats in such a way as to be likely significant to affect:
  - (i) the ability of any significant group of bats to survive, breed, or rear / nurture their young; or
  - (ii) the local distribution of that species;
- Damage or destroy any breeding or resting place used by bats; or
- Obstruct access to any place used by bats for shelter or protection and disturbing bats while occupying such as place.

Birds

The level of protection afforded to birds under the law varies from species to species. A few game and pest species may lawfully be hunted and killed, usually under licence, whilst the rarest species are listed on Schedule 1 of the WCA 1981 and are protected by special penalties for offences.

All of the native bird species of Britain are additionally covered by the European Union (EU) Directive on the Conservation of Wild Birds 2009[37] ('The Birds Directive'). The Birds Directive applies to all wild birds, their eggs, nests, and habitats, and provides for the protection, management and control of all species of birds naturally occurring within each member state of the European Union. It requires the UK to take measures to ensure the preservation of sufficient diversity of habitats to maintain populations of all wild birds at ecologically and scientifically sustainable levels. The requirements of the Birds Directive are implemented in the UK primarily through the WCA 1981 (as amended) and Conservation of Habitats and Species Regulations 2017.

Statutory protection is given to all nesting birds in the UK under the WCA 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, take, damage, or destroy its nest whilst in use or being built, or take or destroy eggs. In addition to this, for species listed on Schedule 1 of the WCA 1981 (as amended), it is an offence to intentionally or recklessly disturb birds while they are nest building, or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

In addition to statutory protection, the bird species of Britain are also subject to various conservation designations intended to indicate their rarity, population status and conservation priority. These do not have statutory force but may be instrumental in determining local, regional, and national planning and development policy. The main categories of designation comprise the British Trust for Ornithology (BTO) 'Species Alert' lists, the Royal Society for the Protection of Birds (RSPB) 'Birds of Conservation Concern' lists and species listed under Section 41 of the NERC Act 2006 and local Biodiversity Action Plans (BAPs).

The BTO Conservation Alert System lists of 'Birds of Conservation Concern[38]' include a 'Red List' for birds of high conservation concern and an 'Amber List' for birds of medium conservation concern. Red List species are those that are globally threatened, and Amber List species are those with an

[37] Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds

[38] Stanbury et al (December 2021). '*Birds of Conservation Concern 5*. BTO, London

unfavourable conservation status in Europe, according to the International Union for Conservation of Nature (IUCN) criteria[39].

Invasive Non-native Plant Species

In accordance with those species listed on Schedule 9 of the WCA 1981 (as amended) it is an offence to:

- Plant in the wild (or release seeds);
- Allow their spread into the wild.

Otter

Otters (*Lutra lutra*) are afforded strict protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and the WCA 1981 (as amended). It is an offence to deliberately or recklessly:

- Capture, kill, or injure an otter;
- Disturb an otter in such a way that it is likely to significantly affect its ability to survive, breed, rear or nurture its young, or its local distribution;
- Damage or destroy a breeding or resting site used by otters; or
- Obstruct access to any structure or place used by otters for shelter or protection.

In addition, otters are listed as a Priority Species under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, which places a duty on public bodies to have regard to their conservation.

Red Squirrel

Red squirrels (*Sciurus vulgaris*) are protected under the WCA 1981 (as amended), which makes it an offence to intentionally or recklessly:

- Kill, injure, or capture a red squirrel;
- Damage, destroy, or obstruct access to any structure or place used by red squirrels for shelter or protection; or
- Disturb a red squirrel while it is occupying such a place.

Red squirrels are also a Priority Species under Section 41 of the NERC Act 2006. This designation emphasizes their conservation importance and highlights the need for measures to ensure their protection and recovery.

[39] IUCN (2000): 'The revised Categories and Criteria (IUCN Red List Categories and Criteria version 3.1)'.

B. Photographs

Photograph 1 - Taken from the car park area, facing south west towards introduced shrub (IS40 to the east of the Site.

Photograph 2 - Photograph taken facing south along the modified grassland (MG3) to south-east of Unit 14.

Photograph 3 - Photograph taken facing north west towards unit 14 building. This photo identifies the introduced shrub and young rowan tree found on south border of the Site.

Photograph 4 - West facing photograph taken showing the other neutral grassland (dominated by ruderals) habitat to the south of the Site.

Photograph 5 - Photograph taken from commercial yard facing northwest towards the two young rowan trees and introduced shrubs in the centre of the compound/yard.

Photograph 6 - rubble pile encroaching the southern area of sparsely vegetated ground photograph taken facing east.

Photograph 7 - Photograph taken facing south towards broadleaved woodland to south of Site.

Photograph 8 - Photograph taken outside, facing west towards the River Ehen showing the invasive non-native species of Himalayan balsam identified off-Site ~9m, west from the boundary.

Photograph 9 - Photograph taken facing south showing area of Urban, sparsely vegetated ground to the northwest of the Site, adjacent to Unit 10.

Photograph 10 - Picture taken facing the western side of Unit 14 highlighting good condition of joints amongst Unit 14 building and bindings as well as underside of guttering.

Photograph 11 - Photograph taken on east of the Site, facing north towards the introduced shrub (IS4) and showing B1 building to east of Unit 14.

Photograph 12 - Photograph taken along the north side of Unit 10 identifying the internal building structure of Unit 10 showing metal roofing being unsuitable for roosting bats and limited cavities in brickwork.

Photograph 13 - Photograph taken off-Site to the western boundary, showing overflowing River Ehen and flooded central island and nearby field.

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