

See a Difference.

Project No: 314256

Newburn: Preliminary Ecological Appraisal Report

Prepared for:

Hydrock

Merchants' House North Wapping Road Bristol, UK BS1 4RW

Contents Amendment Record

This report has been issued and amended as follows:

Revision	Description	Date	Signed
0.1	Draft	20 December 2023	
1.9	Final	21 December 2023	













Acknowledgement

This report has been prepared for the sole and exclusive use of Hydrock in accordance with the scope of work presented in Mabbett & Associates Ltd (Mabbett) Letter Agreement (314256/LA/EP/VS), dated 08 November 2023. This report is based on information and data collected by Mabbett. Should any of the information be incorrect, incomplete, or subject to change, Mabbett may wish to revise the report accordingly.

This report has been prepared by the following Mabbett personnel:

MABBETT & ASSOCIATES LTD



This report has been reviewed and approved by:



Executive Summary

Contents	Summary		
Site Location	The site is located in Newburn, a semi-rural parish of Newcastle-Upon-Tyne, Tyne and Wear, England and is located approximately 8 km west of Newcastle city centre. It is centred on Ordnance Survey (OS) Grid Reference: NZ 17061 65259.		
Proposals	It is understood that current proposals comprise the development of a battery storage unit and associated infrastructure.		
Survey Scope	 The objectives of the report are to carry out: A desk study, to obtain existing information on statutory and non-statutory sites of nature conservation interest and relevant records of protected/notable species within the site and its zone of influence; A Preliminary Ecological Appraisal of the site using UK Habitat Classification Methodology (UKHab Ltd, 2023) to map and record habitat types and dominant vegetation, including any invasive species, and an assessment for evidence of protected fauna or habitats capable of supporting such species; An assessment of the potential ecological features present, any constraints they pose to development of the site and any recommendations for further surveys, avoidance, mitigation, compensation or enhancement measures that are needed (as appropriate). 		
Results	Designated Sites: Ryton Willows SSSI, Hallow Hill SSSI, Shibdon Pond SSSI, Close House Riverside SSSI, Lower Derwent Meadows SSSI, Thornley Wood SSSI, Walbottle Brickworks LNR, Walbottle Dene LNR, Sugley Dene LNR, Heddon Common LNR and Clara Vale LNR. Non-Statutory Designated Sites: 23 non-statutory designated sites were located within 2 km of the site. This included 17 Local Wildlife Sites (LWS) and five Sites of Local Conservation Interest (SLCI). Habitats: The main habitats recorded within the site boundary during the field survey included: Mixed scrub (h3h); Developed land; sealed surface (u1b); Developed land; sealed surface (u1b5 – Buildings); and Other broadleaved woodland types (w1g7). Protected and Notable Species: No evidence of protected or notable species was recorded on site. The site provides suitable habitat for nesting and foraging birds, and there is low suitability for foraging and commuting bats. The habitat is considered unsuitable for badger, red squirrel. Water vole, otter and reptiles.		
Discussion/ Recommendations	It is considered unlikely that the proposed development would have a significant impact on the nearby statutory- and non-statutory designated sites. Care should be taken to ensure silt or other pollutants do not enter the nearby watercourse, during construction and operation of the site. Protected and notable species are considered unlikely to be adversely affected by the proposed development. Work should be timed to avoid the bird breeding season, and if this is not possible an ECoW should be present during works to ensure there is no damage to bird nests.		

Table of Contents

Secti	ion 1.0:	Introduction	5
1.1	Introdu	ction	5
1.2	Site Location		
1.3	Development Proposals		
1.4	Purpos	e of the Report	5
Secti	ion 2.0:	Methods	6
2.1		tudy Local Ecological Records Centre Online Resources	6 6 6
2.2	2.2.2	urvey Habitats and Flora Invasive Plant Species Protected and Notable Species	6 6 6
2.3	Limitat	ions	8
Secti	ion 3.0:	Baseline Conditions	10
3.1	Desk 9 3.1.1	•	10 10
3.2	Non-st	atutory Designated Sites	11
3.3	3.3.2 3.3.3	ts Mixed Scrub Developed Land; Sealed Surface Developed Land; Sealed Surface (Buildings) Other Broadleaved Woodland Types	12 12 12 13 13
3.4	Invasiv	e Plant Species	13
3.5	3.5.1 3.5.2 3.5.3 3.5.4 3.5.5 3.5.6 3.5.7 3.5.8 3.5.9 3.5.10 3.5.11 3.5.12	Invertebrates Great Crested Newt Reptiles Breeding Birds Bats Badger Red Squirrel Otter Water Vole West European Hedgehog	13 16 16 16 16 16 17 17 17 17 17
3.6		ance of Ecological Features	18
		Discussion and Recommendations	22
4.1		ry Designated Sites	22
4.2	, ,		
4.3	Habita		22
4.4	4.4.1 4.4.2	ted and Notable Species Breeding Birds Commuting and Foraging Bats	22 22 22
	ewburn: Preliminary Ecological Appraisal 314258 ECOr1915		
© 2023, Mabbett & Associates Ltd Page 3 (Page 3 of 25

	4.4.3 Badger 4.4.4 West European Hedgehog	23 23
4.5	Good Practice Mitigation	23
4.6	Proposed Enhancements	23
Sect	ion 5.0: Bibliography	25
Figu	res	26
Targ	et Notes	26
Appe	endix A: Overview of Relevant Planning Policy and Legislation	27

Section 1.0: Introduction

1.1 Introduction

Mabbett Ltd (Mabbett) was commissioned by Hydrock to carry out a Preliminary Ecological Assessment of the site known as Newburn, centred on Ordnance Survey (OS) Grid Reference: NZ 17061 65259 and is hereafter referred to as 'the site'.

This report has been prepared by Mabbett Consultant Ecologist Becca Campbell.

1.2 Site Location

The site is located in Newburn, a semi-rural parish of Newcastle-Upon-Tyne, Tyne and Wear, England and is located approximately 8 km west of Newcastle city centre. It comprises of approximately 0.6 ha of existing hardstanding, buildings, scrub and lines of trees.

Habitats within the wider landscape include broadleaved woodland, scrub, amenity grassland residential properties and industrial estates. The southernmost end of the site borders the A605 road and the River Tyne lies approximately 0.3 km to the south.

1.3 Development Proposals

It is understood that current proposals comprise the development of a battery storage unit and associated infrastructure.

1.4 Purpose of the Report

The objectives of the report are to carry out:

- A desk study, to obtain existing information on statutory and non-statutory sites of nature conservation interest and relevant records of protected/notable species within the site and its zone of influence;
- A Preliminary Ecological Appraisal of the site using UK Habitat Classification Methodology (UKHab Ltd, 2023) to map and record habitat types and dominant vegetation, including any invasive species, and an assessment for evidence of protected fauna or habitats capable of supporting such species;
- An assessment of the potential ecological features present, any constraints they pose to development
 of the site and any recommendations for further surveys, avoidance, mitigation, compensation or
 enhancement measures that are needed (as appropriate).

Section 2.0: Methods

2.1 Desk Study

2.1.1 Local Ecological Records Centre

Information was requested from Environmental Records Information Centre North East (ERIC) on the following:

- Non-statutory nature conservation sites i.e. Local Wildlife Sites (LWS);
- Legally protected plant and animal species;
- Notable species e.g. Species of Principal Importance (SPI); and
- Priority habitats and species listed within the Newcastle and North Tyneside Local Biodiversity Action Plan (LBAP).

2.1.2 Online Resources

The following web-based databases were also accessed:

 Department for Environment Food and Rural Affairs MAGIC (DEFRA, 2023), for information on statutory designated sites.

2.2 Field Survey

The Preliminary Ecological Survey was conducted on the 21st of November 2023 by Mabbett Senior Ecologist Douglas Kilpatrick The weather conditions were 8°C, 0 okta with a moderate north-westerly breeze/.

The following methodologies were used to inform the assessment of habitat types and protected and notable species during the Extended Phase 1 Habitat Survey.

2.2.1 Habitats and Flora

UK Habitat Classification (UKHab) is a comprehensive habitat classification system for the UK that has been developed to benefit from changes in habitat categorisation, recording and analysis in recent decades, and its principal aim is to provide a rapid system for recording and classifying habitats. Each of the main habitats within the survey area was described using Version 2.1 of the guidance (UKHab Ltd, 2023), including details on component plant species abundances.

2.2.2 Invasive Plant Species

The site was searched for invasive plant species, primarily those included on Schedule 9 Wildlife and Countryside Act 1981, such as Japanese knotweed Reynoutria japonica, Himalayan balsam Impatiens glandulifera, giant hogweed Heracleum mantegazzianum, wall cotoneaster Cotoneaster horizontalis and rhododendron Rhodendron ponticum.

2.2.3 Protected and Notable Species

The site was assessed for the possible presence of, and the likely importance of its habitats for, protected or notable species, especially those listed under the Schedule 2 of the Habitat Regulations 2017, Schedule 5 of the W&CA, the Countryside and Rights of Way (CRoW) Act 2000, those given extra protection under the Natural Environment and Rural Communities Act 2006, and species included in the Newcastle and North LBAP.

2.2.3.1 Great Crested Newt

The site was appraised for its suitability to support great crested newt (GCN). The assessment was based on Guidance outlined in the Herpetofauna Workers' Manual (Gent & Gibson, 2003) and the Great Crested Newt Conservation Handbook (Langton, et al., 2001).

Where ponds were present within the site, these were assessed for their suitability to support breeding GCN according to the Habitat Suitability Index (HSI), as outlined in Amphibian and Reptile Groups. (ARG) UK Advice Note 5: Great Crested Newt Habitat Suitability Index (Amphibian and Reptile Groups UK, 2010). The HSI score and pond suitability categories are shown in Table 1.

Table 1: HSI Score and Pond Suitability Categories

HSI	Pond Suitability
<0.5	Poor
0.5-0.59	Below average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

2.2.3.2 Reptiles

The site was appraised for its suitability to support reptiles, including common lizard Zootoca vivipara and slow worm Anguis fragilis. The assessment was based on Guidance outlined in the Herpetofauna Workers' Manual (Gent & Gibson, 2003).

2.2.3.3 Birds

Habitats on the site were appraised for their suitability to support breeding, migratory and wintering birds, with particular emphasis on species listed on Schedule 1 of the W&CA, SPI and bird species of conservation concern, as defined by Stanbury et al (2021).

2.2.3.4 Bats

Roosting Bats

Buildings, structures and trees on site were assessed from the ground for their suitability to support breeding, resting and hibernating bats, with reference to the methods outlined in Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed, 2023) (Collins, 2016); hereafter referred to as the 'BCT Guidelines'. The following system has therefore been used to categorise the bat roost suitability of any features found:

Table 2: Bat Roost Suitability Categories

Suitability	Description of Potential Roosting		
Negligible	Negligible habitat features on site likely to be used by roosting bats.		
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roost features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.		
Moderate	A structure or tree 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 — the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).		
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis & potentially for longer periods of time due to their size, shelter, protection, conditions & surrounding habitat.		

Foraging/Commuting Bats

In accordance with BCT Guidelines, the following criteria have been used to categorise the potential value of site habitats and features for use by foraging and commuting bats (Table 3).

Table 3: Bat Foraging Habitat Categories.

Suitability	Description of Foraging Habitats
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

2.2.3.6 Otter and Water Vole

The site was surveyed for its suitability for otter, based on guidance outlined in Monitoring the otter (Chanin, 2003). The site was surveyed for its suitability to support water vole *Arvicola amphibius* based on the guidance outlined in The Water Vole Mitigation Handbook (Dean, et al., 2016).

2.2.3.7 Other Species

The site was also appraised for its suitability to support other protected or notable fauna including mammals, amphibians, and invertebrates with regard to CIEEM's Guidelines for Preliminary Ecological Appraisal (Chartered Institute for Ecology and Environmental Management, 2017) and BS42020:2013 Biodiversity — Code of Practice for Planning and Development. Evidence of any current or historical presence of such species was recorded.

2.3 Limitations

The timing of the survey considered is not considered to be a limitation to the accurate assessment of the habitats and flora of the site as the dominant species of the respective vegetation types were visible and identifiable despite the survey timing.

To determine the presence, or likely absence, of notable flora and protected species usually requires multiple visits at suitable times of the year. This survey focuses on assessing the potential of the site to support such ecological features, particularly those given protection under European or UK wildlife legislation or which are considered to be of principal importance for the conservation of biodiversity. Where there are significant limitations to the assessment in respect of any ecological features then further ecological survey work is recommended.

The details of this report are considered to be valid for a period of **two years** from the date of the survey. After two years, the assessment should be reviewed to determine whether any further updates are necessary. The recommendations within this report should also be reviewed (and reassessed if necessary) should there be any changes to the development proposals available at the time of writing.

3.1 Desk Study

Site Name and

All relevant ecological data received following the data requests was reviewed and the results from these investigations are summarised below. The original desk study data is available upon request. A summary of planning policy and legislation relating to the species highlighted by the desk study and field survey is presented in Appendix A.

3.1.1 Statutory Designated Sites

Fifteen designated sites, including five Sites of Special Scientific Interest (SSSIs) and ten Local Nature Reserves (LNRs) were located within 5 km of the site, Table 4.

Direction to the Designated Features

Table 4: Statutory Designated Sites within 5 km of the site.

Proximity and

Designation	site	Designated realures
Hallow Hill SSSI	1 km north-west	Designated for flushed neutral grassland and fen habitats. Site is known to support several species of butterfly including small copper Lycaena phlaeas, wall brown Lasiommata megera, meadow brown Maniola jurtina, orange tip Anthocharis cardamines, green-veined white Pieris napi and common blue Polyommatus icarus.
Shibdon Pond SSSI	3 km south-east	Designated for a pond with fringing reedswamp, tall fen, willow scrub, damp grassland, dry grassland and hawthorn scrub. Pond is important for wintering waterfowl, including tufted duck Aythya fuligula, pochard Aythya ferina, mallard Anas platyrhynchos, teal Anas crecca, shoveler Anas clypeata and coot Fulica atra.
Close House Riverside SSSI	3.7 km west	Designated for an unusual community of metal-tolerant plants due to a history of heavy metal contamination from the upstream North Pennine Orefield.
Lower Derwent Meadows SSSI	4.2 km south- east	Designated for two meadows with diverse plant communities of unimproved acid-neutral grassland and associated flush, pond scrub and bankside vegetation. Traditional management for hay production followed by winter grazing has maintained a herb-rich sward.
Thornley Wood SSSI	4.2 km south	Designated for semi-natural woodland; of particular value as it is one of the few remaining areas of semi-natural woodland in the Lower Derwent Valley.
Walbottle Brickworks LNR	0.02 km east	Old quarry and brickworks designated for the natural colonisation of diverse, species-rich open habitats and the presence of a dingy skipper <i>Erynnis tages</i> colony.
Walbottle Dene LNR	0.9 km north	Designated for an area of semi-natural woodland with some ancient woodland indicator species and a varied bird assemblage.

Sugley Dene LNR	1.7 km east	Designated for an area of semi-natural ancient woodland running along the banks of a small burn.
Denton Dene LNR	2.3 km east	Designated for an area of woodland and amenity grassland; woodland is likely a remnant of semi-natural woodland.
Heddon Common LNR	4.2 km north- west	Designated for wildflowers and fungi.
Clara Vale LNR	3.8 km west	Site of former coal mine which was reclaimed by nature after the pit closure; site is of value to a variety of wintering birds, amphibians, wildflowers and butterflies.

3.2 Non-statutory Designated Sites

23 non-statutory designated sites were located within 2 km of the site. This included 17 Local Wildlife Sites (LWS) and five Sites of Local Conservation Interest (SLCI), Table 5.

Table 5: Non-statutory designated sites within 2 km of the site boundary

Site Name and Proximity and		Designated Features	
Designation	Direction to the Site		
Walbottle Brickworks LWS	0.02 km east	As for LNR designation; Old quarry and brickworks designated for the natural colonisation of diverse, species-rich open habitats and the presence of a dingy skipper colony.	
Percy Pit LWS	0.03 km east	Open grassland and plantation woodland habitats. Valuable habitat for invertebrates. Dingy skipper present.	
River Tyne Tidal Mud LWS	0.3 km south	Designated for national and local Biodiversity Action Plan habitats, namely rivers, intertidal mud flats, coastal saltmarsh, estuarine rocky habitats. Also designated for otter, harbour seal Phoca vitulina, salmon Salmo salar, sea trout Salmo trutta, eel Anguilla anguilla, river lamprey Lampretra fluviatillas and sea lamprey Petromyzon marinus. Bird designations comprise lapwing Vanellus vanellus, curlew Numenius arquata, dunlin Calidris alpine, redshank Tringa totanus, teal and golden plover Pluvialis apricaria.	
River Tyne Tidal Mud SNCI	0.3 km south	Designated for intertidal mudflats and associated populations of otter and wading birds.	
Rye Hill SLCI	0.6 km north-west	Important wildlife corridor linking together multiple Local Wildlife Sites.	
Throckley / Walbottle Dene LWS	0.9 km north	Area of semi-natural woodland with interesting plant populations. Diverse bird assemblage.	
Ryton Willows LWS	1 km south-west	Ryton Willows LWS comprises six areas adjacent and contiguous with Ryton Willows SSSI. Habitats comprise dry acidic grassland and substantial areas of gorse and broom scrub used by breeding birds.	
Newburn Haugh LWS	1 km south-east	Area of grassland with a dingy skipper population.	
Newburn Haugh Wetland SLCI	1 km south-east	Important wildlife corridor linking together multiple Local Wildlife Sites. Pond habitat is rare in this area.	
Hedgefield Quarry LWS	1.1 km south-west	Semi-natural woodland, scrub and mesotrophic grassland. Supports a diverse breeding bird population.	

Ryton Runhead LWS	1.1 south-west	Scrub with flushed mesotrophic grassland and a small area of semi-natural woodland. Considered of significant botanical and entomological interest.
Holburn Dene LWS	1.1 south-west	Semi-natural woodland, hedgerows and herb- rich meadow.
The Spreading Field LWS	1.2 km west	Species-rich grassland; history of tipped gravel has led to colonisation of interesting mix of herbaceous plants.
Reigh Burn and Engine Plant SNCI	1.3 km north-west	Important wildlife corridor linking together multiple Local Wildlife Sites.
Stella Lane Pasture SNCI	1.5 km south	Unimproved permanent pasture and marshland. Mesotrophic grassland.
Stella and Pathhead Woods LWS	1.6 km south-west	Ancient semi-natural and semi-natural woodland.
Crookhill Pasture LWS	1.6 km south-west	Herb-rich permanent pasture with locally flushed areas containing glaucous, common, oval, carnation and common yellow sedge.
Sugley Dene LWS	1.7 km east	As for LNR designation; Designated for an area of semi-natural ancient woodland running along the banks of a small burn.
Pathhead Quarry LWS	1.9 km south-west	Discussed sand and gravel quarry with developing grassland and scrub. Sandy ground supports a diverse and specialised variety of flora which in turn support a range of butterflies. Extensive area of scrub is of value to a range of nesting bird. Sand martins Riparia riparia are known to nest in a sand cliff on site.
Pathhead Meadow LWS	1.9 km south-east	Traditionally managed mesotrophic herb-rich grassland.
Stargate Ponds/Bewes Hills LWS	1.9 km south	Ponds, grassland and scrub in former quarry.
Blaydon Burn LWS	1.9 km south-east	Reclaimed industrial site with semi-natural woodland on steep valley sides. Large areas of species-rich grassland.
Image Hill SNCI	1.6 km south-west	Mesotrophic grassland showing both wet and dry types.

3.3 Habitats

The full results of the Ecological Appraisal and target notes are presented in Figure 3. Habitats too small to be mapped have been mentioned in target notes. The main habitats recorded within the site boundary during the field survey included:

- Mixed scrub (h3h):
- Developed land; sealed surface (u1b);
- Developed land; sealed surface (u1b5 Buildings); and
- Other broadleaved woodland types (w1g7).

3.3.1 Mixed Scrub

Mixed scrub was recorded to the north-east of the site and predominantly consisted of butterfly bush Buddleia davidii, with bramble Rubus fruticosus agg. and English ivy Hedera helix and other tall ruderal vegetation such as great mullein Verbascum thapsus and rosebay willowherb Chamerion angustifolium.

3.3.2 Developed Land; Sealed Surface

The majority of the site was recorded as developed land; sealed surface as the site comprised of an industrial yard used for storing machinery, car parking, skips and associated refuse (e.g. tires and wooden

pallets). Various 'waste ground' plants were recorded fringing the hardstanding tarmac/concrete around the site edges, such as common ragwort Senecio jacobaea, dandelion Taraxacum officinale agg., mallow Malva sylvestris and creeping buttercup Ranunculus repens.

3.3.3 Developed Land; Sealed Surface (Buildings)

A metal flat-roofed building was recorded within the site boundary to the south-east, currently used by North East Concrete.

3.3.4 Other Broadleaved Woodland Types

Other broadleaved woodland was recorded to the east of the site; species composition consisted of pussy willow Salix caprea, silver birch Betula pendula, sycamore Acer pseudoplatanus, rowan Sorbus aucuparia and white elm Ulmus laevis.

3.4 Invasive Plant Species

ERIC identified 12 records of five invasive plant species within 2 km of the site, Table 6. Invasive plant species recorded during the field survey included numerous butterfly bushes (TN 3), rhododendron Rhododendron ponticum and cherry laurel Prunus laurocerasus bordering a channelled stream to the south-west of the site boundary, TN 5.

Table 6: Invasive plant species records within 2 km of the site.

Species	No. of Records	Proximity to the Site
Himalayan cotoneaster Cotoneaster simonsii	2	Within 2 km
Hollyberry cotoneaster Cotoneaster bullatus	1	Within 2 km
Japanese knotweed Fallopia japonica	6	0.1 km south
Rhododendron Rhododendron ponticum	4	2 km north-west
Wall cotoneaster Cotoneaster horizontalis	3	Within 2 km

3.5 Protected and Notable Species

ERIC provided a total of 1,487 records of 179 species within 2 km of the site. Records of protected and notable species from the past 10 years are presented in Table 7.

Table 7: Protected and notable species records within 2 km of the site from the past 10 years.

Species	No. Of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance	Legislation /Conservation Status
Mammals					
Bat sp.	1	2013	Within 2 km		HabRegs2, WACA5
Common pipistrelle Pipistrellus	62	2022	0.4 km north-west		HabRegs2, WACA5
Eurasian otter Lutra lutra	7	2019	0.4 south-west	✓	HabRegs2, WACA5
Eurasian red squirrel Sciurus vulgaris	2	2014	0.6 km east		
Lesser noctule	1	2016	2 km south-west		

Newburn: Preliminary Ecological Appraisal

Species	No. Of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance	Legislation /Conservation Status
Nyctalus leisleri					
Noctule bat Nyctalus noctula	6	2014	1 km east		HabRegs2, WACA5
Pipistrelle sp. Pipistrellus	3	2014	0.9 north-west		HabRegs2, WACA5
Soprano pipistrelle Pipistrellus pygmaeus	17	2017	0.8 km north-west	√	HabRegs2, WACA5
West European hedgehog Erinaceus europaeus	65	2021	0.2 km north-west	·	WACA6
Whiskered / Brandt's bat Myotis mystacinus / brandtii	1	2016	2 km south-west		
Birds					
Blackbird Turdus merula	40	2022	0.2 km south-east		BoCC5 Amber
Black-headed gull Croicocephalus rindibundus	16	2021	0.6 km south-west		BoCC5 Amber
Bullfinch Pyrrhula pyrrhula	30	2022	0.1 km north-east	✓	BoCC5 Amber
Common gull Larus canus	5	2021	0.9 km west		BoCC5 Amber
Dunnock Prunella modularis	21	2022	0.2 km south-east	~	BoCC5 Amber
Fieldfare Turdus pilaris	2	2018	Within 2 km		WACA1, BoCC5 Red
Great black- backed gull Larus marinus	9	2021	Within 2 km		BoCC5 Amber
Greenfinch Carduelis chloris	14	2021	0.4 km south-west		BoCC5 Red
Herring gull Larus argentatus	18	2021	1 km south-east	✓	BoCC5 Red
House martin Delichon urbicum	5	2021	1.5 km north-west		Bocc5 Red
House sparrow Passer domesticus	14	2021	0.5 km south-west	✓	BoCC5 Red
Kestrel Falco tinnunculus	18	2021	0.2 km north-east		BoCC5 Amber
Kingfisher Alcedo atthis	9	2021	0.5 km north-west		Annex I, WACA1, BoCC5 Green

Species	No. Of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance	Legislation /Conservation Status
Lesser black- backed gull Larus fuscus	8	2021	Within 2 km		BoCC5 Amber
Lesser redpoll Acanths cabaret	1	2017	Within 2 km	✓	BoCC5 Red
Linnet Linaria cannabina	6	2021	1 km south-west	✓	BoCC5 Red
Mistle thrush Turdus viscivarus	10	2021	0.5 km south-east		BoCC5 Red
Red kite Milvus milvus	2	2013	Within 2 km		Annex I, WACA1, BoCC5 Green
Redstart Phoenicurus phoenicurus	1	2017	1.8 km southeast		BoCC5 Amber
Redwing Turdus iliacus	9	2021	0.8 km south-east		WACA1, BoCC4 Amber
Rook Corvus frugilegus	3	2019	1.7 km north-west		BoCC5 Amber
Song thrush Turdus philomelos	12	2021	0.6 km north-west	√	BoCC5 Amber
Sparrowhawk Accipiter nisus	7	2021	0.2 km south-east		BoCC5 Amber
Starling Sturnus vulgaris	14	2021	1.4 km north-west	✓	BoCC5 Red
Stock dove Columba oenas	1	2019	Within 2 km		BoCC5 Amber
Swift Apus apus	1	2013	Within 2 km		BoCC5 Red
Tawny owl Stric aluco	1	2018	1.5 km east		BoCC5 Amber
Tree sparrow Passer montanus	6	2019	Within 2 km	✓	BoCC5 Red
Whitethroat Sylvia communis	6	2021	1.3 km south-west		BoCC5 Amber
Willow tit Poecile montanus	8	2019	0.3 km east	✓	BoCC5 Red
Woodpigeon Columba palumbus	27	2021	1 km south-east		BoCC5 Amber
Wren Troglodytes troglodytes	39	2022	0.08 km north-east		BoCC5 Amber
Yellowhammer Emberiza citrinella	10	2021	0.8 km north-east	√	BoCC5 Red
Amphibians Common frog	1	2018	0.5 km north		

Species	No. Of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance	Legislation /Conservation Status
Rana					
temporaria					
Common toad Bufo bufo	7	2013	0.6 km south	✓	
Smooth newt Lissotriton vulgaris	3	2018	0.4 km north		

Kev

HabRegs2: Schedule 2 of the Habitats Regulations: European Protected Species. WACA1: Schedule 1 of the Wildlife and Countryside Act, 1981: Protected Birds.

WACA5: Schedule 5 of the Wildlife and Countryside Act, 1981; Protected animals (other than birds)*

WACA6: Schedule 8 of the Wildlife and Countryside Act, 1981; Animals protected from being killed or taken by certain methods.

BoCC5: Birds of Conservation Concern, Version 5, 2021 (Stanbury, et al., 2021)

*Protected from sale only.

3.5.1 Plants

ERIC provided 89 records of 29 plant species within 2 km of the site. Notable plant species records include bluebell *Hyacinthoides non-scripta*, bee orchid *Ophrys apifera*, common spotted orchid *Dactylorhiza fuchsii*, northern marsh orchid *Dactylorhiza purpurella* and wood sorrel *Oxalis acetosella*. No rare or notable plant species were recorded during the field survey although it should be noted that November is not the optimum time of year for rare plant detectability. With the exception of wood sorrel which may occur in the woodland to the east and within the wider landscape, none of the plant species (orchids) listed are considered likely to occur on site as it lacks suitable damp grassland habitats.

3.5.2 Fungi

ERIC provided no records of fungi within 2 km of the site nor were any fungi species recorded during the field survey. The hardstanding nature of the majority of the site makes it unsuitable for fungi but common species may occur in the broadleaved woodland habitats bordering the site to the east, particularly saprophytic fungi.

3.5.3 Invertebrates

ERIC provided 259 records of 68 invertebrate species within 2 km of the site. Due to the hardstanding nature of the majority of the site, it is considered broadly unsuitable for invertebrates, despite having some suitable native flowering species present, as these are limited in extent.

3.5.4 Great Crested Newt

ERIC provided no records of great crested newt within 2 km of the site, nor were any suitable standing waterbodies identified within the site boundary nor within a 500 m buffer. Records were provided for other amphibians, however, including common frog Rana temporaria, common toad Bufo bufo and smooth newt Lissotriton vulgaris. On this basis, great crested newt have been scoped out of any further assessment.

3.5.5 Reptiles

No records of reptiles were provided ERIC within 2 km of the site. Reptiles prefer dense vegetation sward with open areas for basking but are also known to use disused industrial/brownfield sites due to the prevalence of disturbed ground and uneven structures. Ongoing human disturbance likely reduces the overall site suitability for reptiles as it is an active site as opposed to disused. The A6085 main road to the south and the Walbottle Road to the east also act as a significant barrier to reptile movement, meaning the site is comparatively isolated from suitable reptile habitat within the wider landscape, particularly to the east. On this basis, reptiles have been scoped out of any further assessment.

3.5.6 Breeding Birds

ERIC provided 917 records of 96 bird species within 2 km of the site. Birds recorded during the field survey included blackbird *Turdus merula*, woodpigeon *Columba palumbus*, robin *Erithacus rubecula*, wren

Troglodytes troglodytes, blue tit Cyanistes caeruleus, long-tailed tit Aegithalos caudatus, rock dove Columba livia and ring-necked parakeet Psittacula krameria.

Woodland nesting birds are considered likely to nest in the areas of woodland that border the site to the east; old nests were recorded in trees during the field survey, TN 1 and TN 2. With the exception of ring-necked parakeet, all of the birds recorded during the field survey are considered likely to nest in the on-site woodland and within woodland within the wider landscape, particularly to the east.

3.5.7 Bats

3.5.7.1 Roosting Bats

ERIC provided 90 records of six bat species within 2 km of the site. Four of these records were associated with bat roosts; three common pipistrelle *Pipistrellus pipistrellus* and one soprano pipistrelle *Pipistrellus pygmaeus*.

None of the trees on site had potential roosting features for bats. Although it is understood that the North East Concrete building to the south of the site is to be retained, the building was nonetheless assessed as having 'Negligible' bat potential suitability due to the lack of a roof void (flat roof) and the fact the building was of mainly metal construction; offering little grip for bats to climb. Bats are considered more likely to roost in mature trees in woodland to the east of the site. Roosting bats have been scoped out of any further assessment.

3.5.7.2 Commuting and Foraging Bats

ERIC provided 90 records of six bat species within 2 km of the site; Eighty-six of these records were commuting and foraging bats, including common pipistrelle, lesser noctule Nyctalus leisleri, soprano pipistrelle, whiskered/Brandt's bat Myotis mystacinus/brandtii and two unidentified bat species.

The site itself is considered to have 'Low' potential suitability for commuting and foraging bats due to the overall lack of linear features such as hedgerows and the limited extent of woodland edges within the site itself. However, habitats within the immediate wider landscape, primarily broadleaved woodland to the north-west, east and south of the site are considered highly suitable for commuting and foraging bats and the site itself provides some connectivity between these areas of more suitable habitat.



3.5.9 Red Squirrel

ERIC provided two records of red squirrel within 2 km of the site and also provided nine records of grey squirrel *Sciurus carolinensis*. No evidence of red squirrel, including dreys or feeding remains, was recorded during the field survey. The woodland within and immediately adjacent to the site is considered too limited in extent and subjected to too much human disturbance for red squirrel; they are considered more likely to occur in areas of more continuous broadleaved woodland within the wider landscape. On this basis, red squirrel have been scoped out of any further assessment.

3.5.10 Otter

ERIC provided seven records of otter within 2 km of the site. Most of these records were associated with the River Tyne, approximately 0.5 km to the south. No otter signs, such as spraint, footprints, slides,

couches or holts was recorded during the field survey. A channelised watercourse was recorded approximately 60 m to the south-west of the site boundary, TN 5. Where the watercourse is channelised, it is considered broadly unsuitable for otter breeding otter as there are no opportunities for burrowing to create a holt. However, the watercourse is not channelised further downstream and has banks of a sufficient height for both holts and couches. Even in this more suitable area, however, the watercourse is still comparatively narrow and shallow, offering few opportunities for foraging due to the lack of deeper pools. It may be used by commuting otter due to its hydrological connection to the River Tyne, where otter records were found, although this watercourse offers little by way of habitat connectivity to suitable otter habitat elsewhere due to the urbanised nature of the area.



west of the site boundary. Unsuitable for either becomes more broadly suitable. otter or water vole.



Photo 1: Channelised watercourse to the south- Photo 2: Further downstream the watercourse

3.5.11 Water Vole

ERIC provided no records of water vole within 2 km of the site and no evidence of water vole, such as burrows, latrines or feeding signs, was recorded during the field survey. As with otter, the channelised watercourse to the south-west of the site is considered unsuitable for water vole as it offers no burrowing opportunities. As the channelisation stops, however, with distance downstream, the banks are of a sufficient height for burrowing water vole and there is some suitable riparian vegetation for foraging. Although the watercourse is considered of a sufficient size for water vole, its narrowness and thus fastflowing nature may make it unsuitable. As this watercourse is sub-optimal for water vole and as the more suitable section of watercourse lies beyond 50 m from the site boundary, water vole have been scoped out of any further assessment.

3.5.12 West European Hedgehog

ERIC provided 65 records of west European hedgehog within 2 km of the site. No evidence of hedgehog was recorded during the field survey. As the majority of the site consists of mainly existing hardstanding, it is considered unsuitable for foraging and hibernating hedgehog but they may use the woodland and lines of trees to the north, east and west of the site.

3.6 Importance of Ecological Features

In accordance with CIEEM Guidelines (Chartered Institute for Ecology and Environmental Management, 2016) and based on the above baseline information, each ecological feature recorded within the study area is considered to have the following importance (Table 7).

Table 8: Importance of Ecological Features

Feature	Importance	Rationale
Ryton Willows SSSI and LNR	National Importance	Designated for its wetland habitats.
Hallow Hill SSSI	National Importance	Designated for flushed neutral grassland and fen habitats.

Feature	Importance	Rationale
Shibdon Pond SSSI	National Importance	Designated for a pond with fringing reedswamp, tall fen, willow scrub, damp grassland, dry grassland and hawthorn scrub.
Close House Riverside SSSI	National Importance	Designated for an unusual community of metal-tolerant plants.
Lower Derwent Meadows SSSI	National Importance	Designated for two meadows with diverse plant communities of unimproved acid- neutral grassland and associated flush, pond scrub and bankside vegetation.
Thornley Wood SSSI	National Importance	Designated for semi-natural woodland; of particular value as it is one of the few remaining areas of semi-natural woodland in the Lower Derwent Valley.
Walbottle Brickworks LNR & LWS	Local Value	Designated for the natural colonisation of diverse, species-rich open habitats and the presence of a dingy skipper <i>Erynnis tages</i> colony.
Sugley Dene LNR & LWS	Local Value	Designated for an area of semi-natural ancient woodland running along the banks of a small burn.
Denton Dene LNR	Local Value	Designated for an area of woodland and amenity grassland; woodland is likely a remnant of semi-natural woodland.
Heddon Common LNR	Local Value	Designated for wildflowers and fungi.
Clara Vale LNR	Local Value	site is of value to a variety of wintering birds, amphibians, wildflowers and butterflies.
Percy Pit LWS	Local Value	Open grassland and plantation woodland habitats. Valuable habitat for invertebrates. Dingy skipper present.
River Tyne Tidal Mud LWS & SNCI	Local Value	Designated for intertidal mudflats and associated populations of otter and wading birds, seal and fish populations.
Rye Hill SLCI	Local Value	Important wildlife corridor linking together multiple Local Wildlife Sites
Throckley / Walbottle Dene LWS	Local Value	Area of semi-natural woodland with interesting plant populations. Diverse bird assemblage
Ryton Willows LWS	Local Value	Habitats comprise dry acidic grassland and substantial areas of gorse and broom scrub used by breeding birds.
Newburn Haugh LWS	Local Value	Area of grassland with a dingy skipper population.
Newburn Haugh Wetland SLCI	Local Value	Important wildlife corridor linking together multiple Local Wildlife Sites. Pond habitat is rare in this area.
Hedgefield Quarry LWS	Local Value	Semi-natural woodland, scrub and mesotrophic grassland. Supports a diverse breeding bird population.
Ryton Runhead LWS	Local Value	Scrub with flushed mesotrophic grassland and a small area of semi-natural woodland. Considered of significant botanical and entomological interest.
Holburn Dene LWS	Local Value	Semi-natural woodland, hedgerows and herb-rich meadow.

Feature	Importance	Rationale
The Spreading Field LWS	Local Value	Species-rich grassland; interesting mix of
Reigh Burn and Engine Plant	Local Value	herbaceous plants. Important wildlife corridor linking together
SNCI	Local value	multiple Local Wildlife Sites.
	Local Value	Unimproved permanent pasture and
Stella Lane Pasture SNCI		marshland. Mesotrophic grassland.
Stella and Pathhead Woods LWS	Local Value	Ancient semi-natural and semi-natural woodland.
	Local Value	Herb-rich permanent pasture with locally
Crookhill Pasture LWS		flushed areas containing glaucous, common, oval, carnation and common yellow sedge.
	Local Value	Sandy ground supports a diverse and
Pathhead Quarry LWS		specialised variety of flora which in turn
		support a range of butterflies. Extensive area
	Local Value	of scrub is of value to a range of nesting bird.
Pathhead Meadow LWS		Traditionally managed mesotrophic herb-rich grassland.
Stargate Ponds/Bewes Hills LWS	Local Value	Ponds, grassland and scrub in former quarry.
	Local Value	Reclaimed industrial site with semi-natural
Blaydon Burn LWS		woodland on steep valley sides. Large areas of species-rich grassland.
Image Hill SNCI	Local Value	Mesotrophic grassland showing both wet and dry types.
	Local Value	Scrub habitat can be rich in invertebrates.
Mixed Scrub		reptiles, amphibians, small mammals and
		birds, as it provides food and shelter.
Broadleaved Woodland	Local Value	Broadleaf woodland can support a range of bird, invertebrate and small mammal species.
Breeding Birds	Local Value	There is habitat on site suitable for supporting a number of nesting birds.
Plants	Negligible	The site is unlikely to support rare or notable
T laints		plant species.
	Negligible	The hardstanding nature of the majority of the
Fungi		site makes it unsuitable for fungi but common species may occur in the broadleaved
		woodland.
Invertebrates	Negligible	The habitat on site is considered broadly
mvertebrates		unsuitable for supporting invertebrates.
Reptiles	Negligible	The habitat on site is considered unsuitable for reptiles.
Roosting Bats	Negligible	The habitat on site is considered unsuitable
resouring Data	N 1: - 1: 1	for roosting bats.
Commuting and Foraging Bats	Negligible	The habitat on site is considered to be of low suitability for commuting or forraging bats.
Padgor	Negligible	The habitat on site is considered unsuitable
Badger		for badger.
Red Squirrel	Negligible	The habitat on site is considered unsuitable for red squirrel.
Otter	Negligible	The watercourse on site is considered unsuitable for otter.
Water Vole	Negligible	The watercourse on site is considered unsuitable for water vole.
	Negligible	The habitat on site is considered unsuitable
West European Hedgehog		for hibernating or foraging hedgehog.

Section 4.0: Discussion and Recommendations

4.1 Statutory Designated Sites

The closest statutory designated site to the site is Walbottle Brickworks LNR, which is designated for the natural colonisation of diverse, species-rich open habitats and the presence of a dingy skipper Erynnis tages colony. The LNR is across a road from the site. The habitats within the LNR differ from the site, and there is no connectivity. Whilst both the LNR and the site could be used by bird and bat species, it is unlikely that the site would be suitable for the colony of dingy skipper, and it is considered unlikely that the proposed development would adversely affect it.

All other statutory designated sites are considered to be sufficiently distant from the site, with no connectivity, such that it is unlikely that there would be any adverse impact from proposed development.

4.2 Non-statutory Designated Sites

The closest non-statutory designated sites are Walbottle Brickworks LWS (see above for discussion of the LNR on the same site), Percy Pit LWS, River Tyne Tidal Mud LWS and River Tyne Tidal Mud SNCI.

Percy Pit LWS provides valuable habitat for invertebrates, and also contains a dingy skipper colony. It is over a road from the site and contains different habitat. It is therefore considered unlikely that Percy Pit LWS would be adversely affected by the proposal.

River Tyne Tidal Mud LWS and SNCI are designated for intertidal mudflats and associated populations of otter and wading birds, seal and fish populations. The site itself is not directly hydrologically connected to the River Tyne; however, there is a channelised watercourse 60 m to the south-west of the site which flows into the Tyne. It appears from mapping that this watercourse (New Burn) flows underground under the developed land immediately to the west of the site, passing within approximately 2 m at its closest point. Any pollutants entering this watercourse have the potential to reach the LWS and SNCI and may have an adverse impact on the habitat and the wildlife populations within it.

All other non-statutory designated sites are considered to be sufficiently distant from the site, with no connectivity, such that it is unlikely that there would be any adverse impact from proposed development.

4.3 Habitats

The habitats within the site are not considered to be of particularly high value, although the scrub and woodland do offer foraging and nesting opportunities for birds.

4.4 Protected and Notable Species

4.4.1 Breeding Birds

Birds are likely to be using the scrub and woodland for foraging and nesting. No Schedule 1 bird species were noted on site.

If clearance of the scrub or woodland is expected as part of the development, it is recommended that this is done outside of the bird breeding season (i.e. it should be carried out between September and February). If this is not possible, all areas should be checked for nesting birds by an ECoW ahead of any vegetation clearance works and appropriate exclusion zones implemented if nests are found.

4.4.2 Commuting and Foraging Bats

The site is considered to be of low potential suitability for foraging and commuting bats, although there is some connectivity to good habitat in the surrounding area. Due to the poor suitability for the site to support roosting commuting and foraging bats the proposed works are considered to have a negligible impact on bats and further assessment has been scoped out for the purpose of this report.

4.4.3 Badger

As the habitat is not considered to be suitable for foraging badger, it is considered unlikely that the proposals will have an adverse impact on them.

4.4.4 West European Hedgehog

The habitat is not considered suitable for hibernating or foraging hedgehog; however, they may use the treelines for commuting. It is considered that the proposal would have a negligible impact on hedgehog.

4.5 Good Practice Mitigation

to prevent entrapment of mammals;

The following good practice measures should be adhered to in order to avoid and mitigate constructionphase impacts on fauna on site:

- Access ramps (plank of roughened wood) to be installed each night within any open trench or pit
- Daily checks of any excavations to be made prior to commencing work to ensure that no mammals have become trapped in the excavations. Should a trapped animal be found, a suitably experienced ecologist should be immediately contacted for advice;
- Any pipes with a diameter of greater than 200 mm which are stored or installed on site are to be covered or capped at night to reduce the risk of animals becoming trapped inside;
- Site lighting, whether temporary or permanent, should be minimal and directed away from trees, hedgerows and watercourses;
- No construction activities should take place on site from one hour before dusk up to one hour after dawn; and
- Any animals disturbed by site works should be allowed to disperse of their own accord and should not be caught or handled.

4.6 Proposed Enhancements

There are some suggested enhancements that, if undertaken as part of the proposed works, could help improve the site's intrinsic value and suitability for protected and/or notable species:

- The creation of vegetative habitats throughout the site (preferably in a way to create new, or enhance existing linear vegetative corridors). This could include but isn't limited to:
 - Planting of night scented flowers / native species along hedge rows and bases of scattered trees.
 Recommended species include evening primrose Oenothera spp., night-scented stock Matthiola longipetala, white campion Silene latifolia and tobacco plant Nicotiana spp.; these are attractive to moths and could therefore provide more prey for bats.
 - Wildflower beds: The following mixes are recommended for well-drained sites varying in size.
 These are also considered beneficial for dragonfly and butterfly as well as other invertebrates and birds:
 - Mavisbank Mix: https://www.scotiaseeds.co.uk/shop/mavisbank-mix/
 - Urban Pollinator Mix: Urban Pollinator Mix Scotia Seeds
- Ceasing the use, if any, of artificial pesticides and herbicides within the site, in order to encourage native biodiversity.
- Insect hotels can be incorporated to provide invertebrate habitat for a wide variety of species. These
 can be commercially purchased, or made from recycled wood and woody debris. These should be
 positioned to face south or south-east in order to provide adequate heat from the sun and should have
 waterproof roofs to prevent water damage.
- Underground bumble bee boxes¹ can be provided with minimal above-ground visibility as a safe shelter for these insects.
- Inclusion of bee posts to provide habitat for solitary mason bees. https://www.greenandblue.co.uk/products/beepost

https://www.arkwildlife.co.uk/product/schwegler-bumble-bee-box-underground/

- Bird boxes: A range of bird boxes could be installed in the woodland areas. These could provide
 increased nesting opportunities for small passerines, woodpeckers, and owls. Nest boxes do not
 necessarily need to be purchased but can be constructed from recycled wood waste on site.
- The installation of Hedgehog houses² can be provided to create shelter for this species. Wood should be avoided as a material due to limited lifespan with woodstone providing a weatherproof long-term shelter. The houses should be placed under scrub and in woodlands to provide additional protection for the animals.

Newburn: Preliminary Ecological Appraisal

https://www.nhbs.com/hedgehog-house-2?bkfno=238633&ca_id=1495&adlocale=uk&gclid=Cj0KCQjw7KqZBhCBARIsAI-fTKLWCzz24-6CT9pJG1bzbFssLjPlgT4jH5NWnyG1SuFYH606sEC2LJAaAtL-EALw_wcB

Section 5.0: Bibliography

Amphibian and Reptile Groups UK, 2010. ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index, s.l.: Amphibian and Reptile Groups of the United Kingdom.

Butcher, B. et al., 2020. The UK Habitat Classification User Manual Version 1.1. [Online]
Available at: consideration for Local Planning Authorities (LPAs) during the planning process.

Carlisle City Council, 2016. Carlisle District Local Plan 2015-2030. Carlisle: Carlisle City Council.

Chanin, P., 2003. Monitoring the Otter Lutra lutra: Conserving Natura 2000 Rivers Monitoring Series No. 10. Peterborough: JNCC.

Chartered Institute for Ecology and Environmental Management, 2016. Guidelines for Preliminary Ecological Appraisal, s.l.: CIEEM.

Chartered Institute for Ecology and Environmental Management, 2017. Guidelines for Preliminary Ecological Appraisal. s.l.:CIEEM.

Collins, J., 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). s.l.:Bat Conservation Trust.

Collins, J., 2023. Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition), s.l.: Bat Conservation Trust.

Dean, M. et al., 2016. The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series), London: The Mammal Society.

DEFRA, 2023. MAG/C. [Online] Available at: https://magic.defra.gov.uk/ [Accessed 24 March 2023].

Gent, T. & Gibson, S., 2003. Herpetofauna Workers' Manual. Peterborough: JNCC.

Gent, T. & Gibson, S., 2003. Herpetofauna Workers' Manual, Peterborough: JNCC.

Harris, S., Cresswell, P. & Jefferies, D., 1989. Surveying Badgers. Occasional Publication of the Mammal Society 9. London: Mammal Society.

Langton, T. E., Beckett, C. L. & Foster, J. P., 2001. Great Crested Newt Conservation Handbook, Halesworth: Froglife.

Stanbury, A. et al., 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of man and second IUCN Red List assessment of extinction risk for Great Britain.. *British Birds*, Volume 114, pp. 723-747.

UKHab Ltd, 2023. UK Habitat Classification. [Online] Available at: https://ukhab.org/

UKHab Ltd, 2023. UK Habitat Classification Version 2.0. [Online]

Available at: https://www.ukhab.org

Figures

Figure No.	Summary
Figure 1	Site Location
Figure 2	Statutory Designated Sites
Figure 3	UKHab Survey results

Target Notes

Target Note No.	Description
1	Old bird's nest
2	Old bird's nest
3	Buddleia
4	Stream
5	Rhododendron/Laurel

Appendix A: Overview of Relevant Planning Policy and Legislation

General Legislation

The following presents accounts present a summary of the legislation relevant to the site and proposals. It is recommended that the reader also refer to the original legislation for definitive interpretation.

The Wildlife and Countryside Act (WCA) 1981

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Conservation (Natural Habitats) Regulations 2017 (as amended), offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species. All relevant species-specific legislation is detailed later in this Appendix.

Wild Mammals Protection Act 1996

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

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

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

Specific Legislation

Herpetofauna (reptiles and amphibians)

All the UK's native reptiles and amphibians are protected by law, although their level of protection differs. The following species are European Protected Species and therefore have additional protection under the Habitats Regulations 2017 (as amended):

- Great crested newt Triturus cristatus.
- Pool frog Pelophylax lessonae.
- Natteriack toad Epidalea calamita.
- Sand lizard Lacerta agilis.
- Smooth snake Coronella austriaca.
- Sea turtles (Caretta caretta, Chelonia mydas, Dermochelys coriacea, Eretmochelys imbricata, Lepidochelys kempii).

The legal protection for these species is outlined in Section 43 of the Habitats Regulations 2017, and states that a person commits an offence if they:

- deliberately capture, injure or kill a protected species;
- deliberately disturb a protected species;
- deliberately take or destroy eggs of a protected species; or
- damage or destroy a protected species' breeding site or resting place.

This is a simplified description of the legislation. In particular, the offences mentioned here may be absolute, intentional, deliberate or reckless. Note that where it is predictable that reptiles are likely to be killed or injured by activities such as site clearance, this could legally constitute intentional killing or injuring.

Widespread reptile species are protected under part of Section 9(1) of the Wildlife & Countryside Act 1981 (as amended) against:

 intentional killing and injuring (note the provision in Section 9(1) of Wildlife & Countryside Act 1981 prohibiting "taking" does not apply to reptiles).

Both reptiles (adder, grass snake, common lizard, and slow worm) and amphibians (common frog, common toad, smooth newt, palmate newt) are protected via part of Section 9(5) of the Wildlife & Countryside Act 1981 (as amended) against:

- selling, offering or exposing for sale, or having in possession or transporting for the purpose of sale, any live or dead wild animal or any part of, or anything derived from, such an animal; or
- publishing or causing to be published any advertisement likely to be understood as conveying buying or selling, or in or selling, or intending to buy or sell, any of those things.

Birds

The Wildlife and Countryside Act (WCA) 1981, as amended, protects all breeding birds in the UK with a few exceptions (i.e., sporting birds listed in Schedule 2 and for certain specified purposes under licence). The WCA makes it an offence to intentionally or recklessly:

- kill, injure or take a wild bird;
- take, damage, destroy or interfere with the nest of any wild bird whilst it is in use or being built (or at any time for a nest habitually used by any listed in Schedule A I);
- obstruct or prevent any wild bird from using its nest;
- take or destroy an egg of any wild bird;
- disturb any wild bird listed on Schedule 1 whilst it is building a nest or is in, on, or near a nest containing eggs or young, or whilst lekking; or
- disturb the dependent young of any wild bird listed on Schedule 1.

Recklessly in this context is to be understood as pursuing a course of action while consciously disregarding the fact that the action gives rise to a substantial and unjustifiable risk.

Schedule 1 is a list of rare breeding species that are specially protected in the UK. Two additional Schedules (Schedule 1A and A1) have been created to afford further protection to some species included on Schedule 1. This additional protection makes it an offence to intentionally or recklessly:

- at any time, damage, destroy or interfere with any nest habitually used by any wild bird included in Schedule A1; or
- at any time harass any wild bird included in Schedule 1A.

Forty-nine bird species are listed as SPI in England within Section 41 of the NERC Act 2006. This makes them capable of being material considerations in the planning process.

Bats

Bats and the places they use for shelter or protection (i.e., roosts) receive European protection the Habitats Regulations 2017. They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017 (as amended), states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats: or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 (as amended) for any person to have in their possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to intentionally kill, injure or take any protected species;
- Section 9(4)(a) of the WCA makes it an offence to intentionally or recklessly damage or destroy, or obstruct access to, any structure or place which a protected species uses for shelter or protection; and
- Section 9(4)(b) of the WCA makes it an offence to intentionally or recklessly disturb any protected species while it is occupying a structure or place which it uses for shelter or protection.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

Seven bat species are listed as 'SPI' in England under Section 41 of the NERC Act 2006. These are:

- Barbastelle bat Barbastella barbastellus.
- Bechstein's bat Myotis bechsteinii.
- Noctule Nyctalus noctula.
- Soprano pipistrelle Pipistrellus pygmaeus.
- Brown long-eared bat Plecotus auritus.
- Greater horseshoe bat Rhinolophus ferrumequinum.
- Lesser horseshoe bat Rhinolophus hipposideros.

Badger

Badgers are protected in Britain by the Protection of Badgers Act 1992. The purpose of this Act is to protect the animals from deliberate cruelty and from the incidental effects of lawful activities which could cause them harm. Under this legislation it is an offence to:

- wilfully kill, injure or take a badger (or attempt to do so);
- cruelly ill-treat a badger;
- dig for a badger;
- intentionally or recklessly damage or destroy a badger sett, or obstruct access to it;
- cause a dog to enter a badger sett;
- disturb a badger when it is occupying a sett;
- have in their possession, or under their control, any dead badger or any part of, or anything derived from, a dead badger;
- use, for the purpose of killing or taking a badger, badger tongs or any firearm (see legislation for exceptions);
 - sell a live badger or offers one for sale or has a live badger in their possession or under their control;
- mark, or attaches any ring, tag or other marking device to, a badger (other than one which is lawfully in their possession by virtue of such a licence).

If any of the offences listed above resulted from a person being reckless, even if they had no intention, their action would still be considered an offence.

Otter

Otters are protected under sections 9 and 11 of the Wildlife and Countryside Act 1981 and also under the Habitats Regulations 2017, making then a European protected species. Under this legislation, it's an offence to:

- capture, kill, disturb or injure otters (on purpose or by not taking enough care);
- damage or destroy a breeding or resting place (deliberately or by not taking enough care);
- obstruct access to their resting or sheltering places (deliberately or by not taking enough care); or
- possess, sell, control or transport live or dead otters, or parts of otters.

Sites of Special Scientific Interest (SSSI)

SSSIs are nationally important sites in Scotland. They are highly protected to safeguard the range, quality and variety of habitats, species and geological features in all parts of Scotland. They are the cornerstones of conservation work, protecting the core of natural heritage.

















