

Preliminary Ecological Appraisal

Land at 93 Market Street, Millom

25th February 2022

Report 0222/5

Report commissioned by;

Erin Marlor
Fox Architectural Design

On behalf of Camilla Fallows
93 Market Street
Millom

Report prepared by;



South Lakes Ecology
Survey and Habitat Management

Tamsin Douglas MSc MCIEEM
13 Rydal Road
Ulverston LA12 9BU

EXECUTIVE SUMMARY

A habitat survey was carried out on and around the location of a proposed new house on land at 93 Market Street, Millom. It is proposed that part of the land is cleared (removal of trees, shrubs and small pond) to allow construction of the house.

The purpose of the survey was to identify protected and/or notable habitats and species which may be impacted by the proposed scheme, to determine the likelihood of these impacts and suggest whether further surveys are required to quantify these impacts or to propose mitigation to compensate for these impacts.

A desktop search for records and information, a field survey, and a protected species data search were undertaken to establish species and habitats present on and in the near vicinity of the property.

A total of 7 broad habitat types were recorded in the survey area, and these were mapped and described in their local context. Notable habitats included salt marsh, open mosaic habitat and ponds- but none are of consideration for this project as they are of low quality (pond) or distant from the site and unaffected by the proposals (salt marsh and open mosaic habitat).

Numerous records of notable and protected species were collected. Most notable of these within the context of this project were records of breeding amphibians (including natterjack toad) within 600m, foraging common lizard (200m from site) and numerous observations of singing garden birds from the property.

The features of ecological interest or concern which could be affected by the proposed works are:-

- **Nesting garden birds**
- **Foraging and resting terrestrial amphibians and reptiles**

After analysing records in the context of this project, it was concluded that habitat at 93 Market Street is unlikely to be used by amphibians and reptiles due to the free-ranging ducks and geese.

No further ecological surveys are required for these proposals.

Avoidance measures were outlined to ensure no impacts on breeding birds – as these are very likely to be present within trees and scrub on the property, and are protected under UK law whilst nesting.

Enhancement suggestions have been included to encourage a net gain to wildlife following completion of this project. These include installation of at least 3 bat or bird boxes, and provision of access and habitat for hedgehogs.

Contents

1. INTRODUCTION.....	4
1.1 The aim of the survey.....	4
1.2 Proposed works.....	4
1.3 The survey area.....	4
2. SURVEY METHOD.....	5
2.1 Desktop study.....	5
2.2 Habitat survey.....	5
2.3 Protected species survey.....	6
2.4 Invasive species survey.....	6
2.5 Survey constraints.....	6
3. BASELINE ECOLOGICAL CONDITIONS.....	7
3.1 Desktop survey results.....	7
3.2 Habitat survey results.....	9
3.3 Protected and notable species survey results.....	12
3.4 Invasive species survey results.....	13
4. SURVEY CONCLUSIONS.....	13
5. SURVEY RECOMMENDATIONS	14
5.1 Further Survey.....	14
5.2 Mitigation.....	14
5.3 Enhancements for net gain of biodiversity.....	14
6. REFERENCES.....	15
APPENDICES	
Figure 3: Habitat Map	17
Target notes.....	18
Legal context and descriptions.....	19
Photographs.....	21

1. INTRODUCTION

1.1 The aim of the survey

The aim of the survey was to identify any habitat or protected species issues or potential ecological constraints or concerns that would result from the construction of a house on land adjacent to 93 Market Street, Millom.

The survey was carried out following technical guidelines provided by CIEEM (Chartered Institute of Ecology and Environmental Management) and mapped following UK Habitat Classification guidance (see Appendices for full references).

1.2 Proposed works

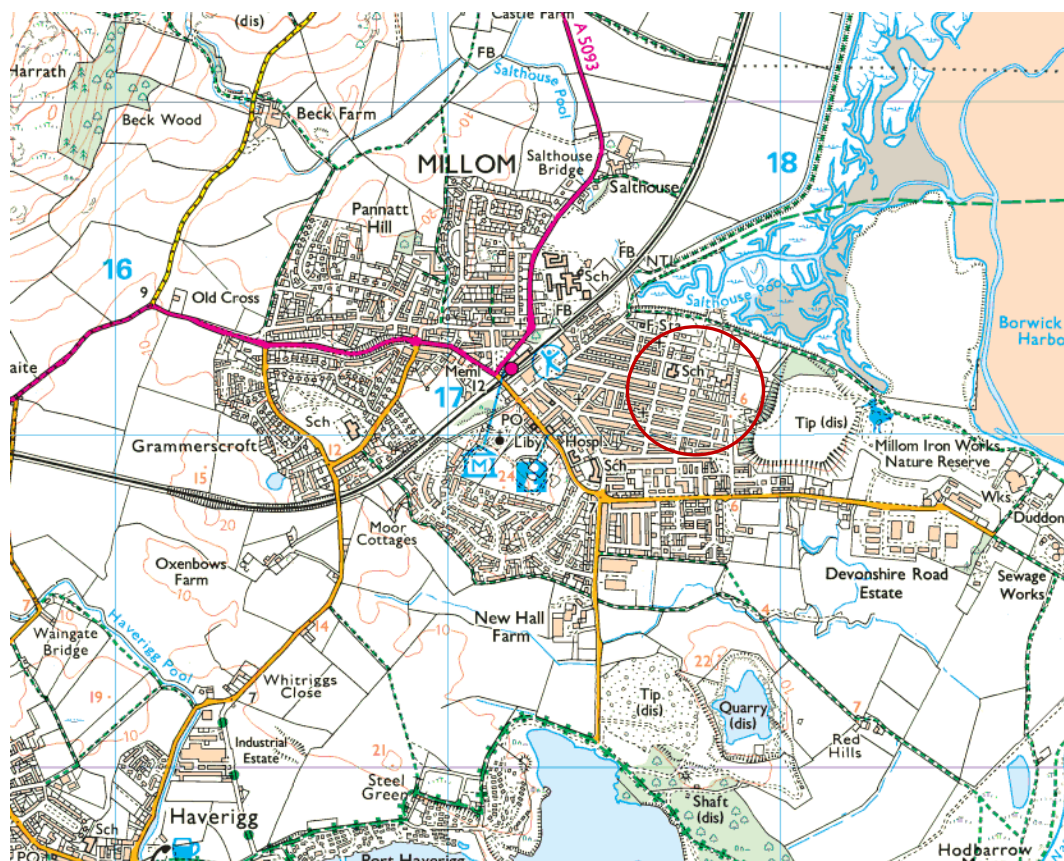
The proposed works involve clearance of the site, removal of some trees and scrub, and construction of a detached house.

No timescale has been confirmed yet.

1.3 The survey area/ zone of influence

The habitat survey was carried out on the proposed works area (site grid reference SD1779 8016) and, where possible, on all open land and field parcels defined in the buffer zone (approximately 250m from the proposed development). A zone extending to 250m from the development footprint was surveyed from public rights of way and access land to establish whether any ponds likely to support great crested newts or natterjack toads were present.

Figure 1: Location of proposed new house



OS Map copied under licence (No. 100055725)

Figure 2: Aerial photograph showing surrounding habitat



2. SURVEY METHOD

2.1 Desktop study

Aerial photographs (Google Earth) and Ordnance Survey maps were used to assess the likely habitat types in and around the site, and to search for waterbodies that could host protected species such as great crested newts and natterjack toads. Natural England and JNCC websites were used to obtain boundaries of any statutorily designated sites in the area.

Cumbria Biodiversity Data Centre was consulted and a data search requested for protected species within 2 km radius of the centre of the site.

2.2 Habitat survey

The habitat survey was carried out by Tamsin Douglas MCIEEM (South Lakes Ecology) on February 22nd 2022.

The area was walked over, and habitats within the study area were described and mapped using standard UK Habitats Classification methodology (UKHab 2020). The Professional edition of the UKHab guidance was followed, and habitats classed to level 5 of the hierarchy were applicable. Secondary codes were used with regard to land management, origin and habitat mosaics only. The minimum mappable unit was 25m², with target notes used to describe smaller features.

2.3 Protected species survey

Evidence of and potential for protected species was assessed on the site on 22nd February 2022. In particular, the potential for the following species/ animal groups was assessed:-

Birds

The site was assessed for its potential to support notable bird species, or important assemblages of wintering or passage birds. In particular the habitats on site were assessed for their potential and likelihood to support breeding birds, and any evidence/ sightings noted.

Reptiles

The site was assessed for its potential to support reptiles such as common lizard, slow-worm and adder, following guidance issued in the 'Herpetofauna Workers Manual'.

Amphibians

A search of the site was made to identify and assess any possible breeding ponds for amphibians, notably natterjack toad *Epidalea calamita* and great crested newt *Triturus cristatus*. Ponds within 500m of the proposed development were assessed for suitability to host great crested newt using methods detailed by Oldham *et al* (2000). An assessment was also made of the quality of the habitat for foraging and potential for hibernation sites. Survey was carried out following guidance published in the 'Herpetofauna Workers Manual'.

Bats

The site was assessed for its suitability for roosting, foraging and commuting bats. Trees, buildings and other structures were appraised for likelihood of hosting roosting and/or hibernating bats, and topographical features of interest to commuting bats were noted. Survey followed methods described in the Bat Workers Manual.

Terrestrial mammals

The potential of the site to support other protected terrestrial mammals, notably badger *Meles meles*, otter *Lutra lutra* and hedgehog *Erinaceus europaeus* was assessed. Evidence of activity such as badger setts/ otter holts, paths, latrines, droppings/ spraints and feeding signs were noted and appropriate guidance followed.

Other species

Presence of and potential for other protected and/ or notable species was recorded.

Potential of the site to support important invertebrate assemblages was assessed following the Invertebrate Habitat Potential (IHP) rapid assessment categories and interim guidance outlined by Dobson and Fairclough (2022, awaiting publication of full toolbox). Any invertebrate sightings were recorded.

2.4 Invasive species survey

The presence of any invasive species within the survey area was recorded and mapped.

2.5 Survey constraints

The weather (sunny, cool with light breeze) was suitable for signs or sightings of most diurnal wildlife that is active in colder months, including most mammals. Recent daytime temperatures had been typical for February, and therefore reptile sightings were unlikely, and amphibian activity was still limited.

The time of year was not ideal for assessing botanical quality of grasslands, as many plants have died back and species of interest are therefore harder to define.

The bird nesting season has not yet started, though some resident birds have started to set up breeding territories.

The likely presence of protected species described in 2.3 above was inferred from the potential of the habitat to support them, any incidental sightings or evidence, biological records from the data search and professional judgement of the ecologist carrying out the survey.

3. BASELINE ECOLOGICAL CONDITIONS

3.1 Desktop survey results

3.1.1 Protected and statutory sites search

There is a large area of protected land within 5km of the property, the vast majority of which is designated for its coastal and inter-tidal habitats and species.

Table 1: Protected sites within 5km of proposed development

Protected area/ site	Description of interest	Distance from property
Millom Ironworks Local Nature Reserve	Natterjack toads, reptiles and flora of interest	125m east
Duddon Estuary SSSI	Coastal and intertidal habitats and species, notably wetland birds, natterjacks toads and invertebrates	125m east
Morecambe Bay and Duddon Estuary Special Protection Area	Breeding and wintering bird assemblages of International and national importance	125m east
Morecambe Bay Special Area of Conservation	Coastal and intertidal habitats of European importance	170m north
Hodbarrow RSPB reserve	Notable birds, amphibians, reptiles, invertebrates, flora and coastal habitats	1.1km south
Sandscale Haws National Nature Reserve	Coastal and intertidal habitats, amphibian, bird and invertebrate populations, notable flora	4.5km south

3.1.2 Notable habitats data search

Seven notable habitats (listed under section 41 of the NERC Act 2006) were identified within 2km of the property. These were mostly coastal habitats within protected sites (SSSI, SAC and SPA), and included; Coastal saltmarsh, maritime cliffs and slopes, mudflats, saline lagoons, coastal & floodplain grazing marsh, deciduous woodland and ancient woodland. None of these habitats are inside the landholding, or within 100m of it.

3.1.3 Protected and notable species search

Online data searches for European protected species licenses and great crested nest records found only one record for natterjack toads 1.1km to the south.

The coastal area 1.2km to the south (coastal and floodplain grazing marsh) has been identified as an important plant area by Plantlife.

The data search from Cumbria Biodiversity Data Centre provided detailed records of protected, rare, scarce and alien species within 2km radius of the proposed new house. A total of over 7800 records were provided, of which approximately 6400 were of birds (most of which are records from Hodbarrow RSPB reserve or from the nearby protected wildlife sites).

A table of key species which are of notable consideration within the context of this project is shown in Table 2 below. Notable bird species have not been included in the table, unless they are of specific interest to this project, and/ or have further legislative protection, as all species of bird are protected whilst nesting. Notable invertebrate species have also only been noted below if relevant to the property, as there are many records within 2km which derive from nearby nature reserves and statutory sites.

Table 2: Species of conservation concern which have been recorded within 2km of the proposed site

Species	Priority species listed under s41 of NERC Act 2006*??	Wildlife and Countryside Act 1981 (as amended) Sch 1,5 or 8.	Proximity to site	Number of records (most recent)
Palmate newt		Yes	0.6km	7 (2016)
Smooth newt		Yes	0.6km	44 (2017)
Natterjack toad	Yes	Yes	0.6km	300 (2018)
Common toad	Yes	Yes	0.2km	80 (2016)
Common frog		Yes	0.6km	74 (2016)
Common lizard	Yes	Yes	0.2km	16 (2017)
Red squirrel	Yes	Yes	0.4km	4 (2005)
Otter	Yes	Yes	0.4km	1 (2008)
Hedgehog	Yes		0.8km	4 (2017)
Bats (2 named species)	Yes (UK & local)	Yes	0.5km	10 (2014)
Tree sparrow	Yes		1.4km	9 (2012)

*Previously BAP (Biodiversity Action Plan) priority species

Tree sparrow is red listed on the latest 'Birds of Conservation Concern' report (2021), meaning its' population is still in significant decline.

The nearby record of common toad was of several adults, the nearest breeding record was 600m away (as for all the other amphibian species).

3.2 Habitat survey results

The habitats were mapped, following UKHab methodology (see methods section and references), as shown in Figure 3 in the appendices. Descriptions of the major habitats are given in section 3.2.2 below, and detailed target notes on habitats or species of interest included as appendices to this report.

Photographs of the area of the proposed works are provided at the end of the report.

3.2.1 Habitats recorded within survey area

- h3h Dense scrub, no dominant species
- g4 Improved pasture
- u1 Urban (residential)
- u1a Open mosaic habitat (disturbed ground)
- u1d Urban mosaic developed/ natural surface
- t2a Salt marsh

3.2.2 Habitat descriptions

h3h - Dense scrub, no dominant species

This category includes all locally native low growing (usually under 5m) shrubs as well as bramble and gorse. Dense scrub can be very important for nesting and feeding birds and, depending on the species present, it can also be of value for invertebrates.

There are two main areas of this habitat- one to the north-west of the proposed new house, and an extensive area of scrub along the western boundary of Millom Ironworks LNR (also Duddon Estuary SSSI and Morecambe Bay & Duddon Estuary SPA).

The small area to the north west comprises hawthorn and willows in particular, and is waterlogged in places. It provides a buffer between the residential areas of Millom and the mosaic of smallholdings and sheds (habitat u1d below).

The boundary area alongside Millom Ironworks LNR comprises a mixture of species, and is dense in places along the bank, but more scattered where the soil is poorer.

None of this habitat will be directly affected by the proposals.

g4 – Modified grassland

This is grassland that is regularly and intensively managed – such as lowland grazing pasture, silage fields, or amenity grassland. Typically these grasslands are subject to frequent fertiliser and pesticide application, and have been seeded - supporting a limited diversity of widespread agricultural or amenity species. Modified grasslands such as these are usually of very limited value to wildlife, though surrounding good habitat, including hedgerows, can increase their value.

Two sports/ playing fields are present to the east of the landholding. They are likely to be used by feeding coastal birds (especially gulls and oystercatchers) when not in use for sports. They are also broadly suitable for foraging natterjack toad, though any toads would have to return to shelter under scrub or refugia through the day as the playing fields are completely open with limited scope for burrowing.

This habitat will not be directly affected by the proposals.

r1 – Standing open water

This is the small duck pond on the site (too small to map on the habitat map). It will be lost to the development.

The pond is unsuitable for use by amphibians due to the regular presence of ducks and geese which wander freely through the property. No aquatic plants or invertebrates were seen in it.

u1 – Built up areas & gardens (residential)

The majority of the habitat surrounding the proposed new house is residential – comprising houses and gardens (as well as some commercial and community properties). Domestic and commercial properties can support notable wildlife species such as nesting birds and bats. Depending on their management, gardens can provide excellent habitat for small birds, bats, hedgehogs, amphibians, reptiles and invertebrates.

Records of hedgehog and red squirrel from the data search came from gardens within 400 to 800m of the property.

The proposed development is partially within the garden curtilage of number 93 Market Street. This garden area comprises grassland, a shelter belt of small trees/ shrubs and a small pond. The grassland has some diversity, and appears not to have been managed other than by mowing and grazing by the resident domestic ducks and geese. The pond has been created for use by the ducks and geese and is not suitable for use by amphibians. There were good numbers of singing and foraging garden birds in and around the trees and shrubs.

Aside from the area marked as the development boundary, no other gardens or any surrounding properties will be directly affected by these proposals.

u1a - Open mosaic habitat (disturbed ground)

This is vegetation establishing on recently disturbed ground, such as spoil, gravels and tipped material. Millom Ironworks LNR is a post-industrial brownfield nature reserve with bare ground, sparse vegetation, sparse scrub, thick scrub and unimproved grassland. Much of the habitat present is open mosaic habitat.

The uneven terrain, mixed vegetation and rubble provide very good reptile habitat, and the ephemeral ponds on the nature reserve are used by breeding amphibians including natterjack toads. The nearby record of common lizard come from this nature reserve.

Areas such as this can also be very important for invertebrates, such as mining bee and wasp species.

None of this habitat will be directly impacted by these proposals.

u1d – Suburban mosaic of developed and natural land

Much of the peripheral land between the residential areas and the protected land around the coast and Millom Ironworks is a mosaic of scrub, grassland, small-holdings, sheds and workshops. The buildings are in a variable state of repair and stature. Many are suitable for nesting garden birds, but no buildings were noted as being of value for roosting bats. The scruffier corners of some of the small holdings could be used by resting and foraging amphibians and reptiles.

Part of the proposed development (the southern half) is on land in this habitat category, comprising stored material and vehicles, a small store and grassland. The domestic

geese and ducks also range over this area, making it unlikely to be used by reptiles and amphibians – and no evidence of these species was seen.

Other than the area within the development boundary, no other areas of this habitat will be directly affected by the proposals.

t2a – Salt marsh

Within the 250m survey buffer is a large area of upper salt marsh, which is part of the nearby Duddon Estuary SSSI and associated Natura sites.

This is grazed by sheep and is currently listed as being in favourable condition on DEFRA's Magic website.

This habitat is likely to be used by foraging amphibians. There are no records of breeding natterjack toads from this location.

This habitat is 170m north of the project footprint, and is very unlikely to be impacted by it.

A summary table of the habitats described above and their importance in the context of British conservation and the legal framework is shown below (Table 4).

Table 4: Habitats of conservation concern

Habitat	Priority habitat listed under s41 of NERC Act 2006?*	Is habitat a notable consideration?
Dense scrub		
Improved grassland		
Standing water (pond)	Yes	No, habitat on site does not reach NERC criteria
Urban areas (residential)		
Open mosaic habitat	Yes	No, distant from works and will not be impacted
Suburban mosaic		
Salt marsh	Yes	No, distant from works and will not be impacted

* Previously UK Biodiversity Action Plan (BAP) habitat

3.2.3 Ponds within 250m of the proposed development

Online aerial images and OS maps were used to identify any potential great crested newt or natterjack toad breeding ponds within 250m of the proposals. None were found, and none seen during the walkover survey other than the small duck pond described above (within the property boundary). No HSI was carried out on this pond as it is isolated, and unsuitable for breeding great crested newt.

The closest breeding amphibian records were 600m away within Millom Ironworks LND and around Redhills quarry to the south. These were of common frog, common toad, natterjack toad, palmate newt and smooth newt. No records of great crested newt were found at all. The online search found a negative (absence) survey result for great crested newt 4.5km away from the property.

3.3 Protected and notable species survey results

3.3.1 Birds

Nesting birds are very likely within scrub and individual trees on the site. Tree sparrows could use the site, though there is no evidence of them being present. Singing blue tit, dunnock, blackbird, great tit, house sparrow and chaffinch were heard during the visit. Robin, wood pigeon, goldfinch and collared dove were also seen.

3.3.2 Reptiles

The habitat is not especially suitable for reptiles. Slow worm could use the refugia on the site, but they are unlikely to be present due to the free-ranging domestic ducks and geese on the property.

3.3.3 Amphibians

There is a small pond on the property, which is used by the resident domestic ducks and geese. It is highly unlikely that amphibians would attempt to use the pond to breed as any spawn or tadpoles/ efts would be eaten by the ducks. Amphibians could use the refugia on site to rest but, as for the reptiles, they are unlikely to do so because of the presence of the ducks and geese.

The closest record of natterjack toad is 600m away on the Millom Ironworks LNR.

3.3.4 Bats

There are no suitable features on site for roosting bats. They are very likely to forage over the garden and around the buildings in suitable conditions, but the site is unlikely to be of key importance due to its size and lack of features of interest.

3.3.5 Terrestrial mammals

No signs of terrestrial mammals were seen. It is possible that the site is used by hedgehogs (known to be active in the local area) and small mammals such as voles.

3.3.6 Other species

Presence of and potential for other protected and/ or notable species was recorded. There are some small habitat features on site (the pond, windbreak of scrub and bare earth) that are of value to invertebrates, but these are all of minor grade and unlikely to support notable species.

3.3.7 Protected and notable species summary

Within 50m of the proposed development :

The following signs or sightings of protected or notable species were seen during the survey within 50m of the site footprint.

- Singing garden bird species, likely to nest in or around the property: high

The potential for protected and notable species identified during the survey within 50m of the site was:-

- Potential for foraging and/or resting amphibians and reptiles: low

Within the broader survey area:

No other signs or sightings of protected species were found in the broader survey area. There is a record of common lizard within 200m of the property (within the survey buffer zone), though it is considered unlikely that this species would be encountered on site.

3.4 Invasive species survey results

No notable invasive species were seen or recorded during the survey.

The data search provided records of grey squirrel within 500m of the property, but no invasive plant species.

4. SURVEY CONCLUSIONS

The features of ecological interest or concern which could affect, or be affected by the proposed works are:-

- **Nesting birds**

Widespread garden bird species are highly likely to breed in scrub and trees on the site, and in adjacent buildings.

Once birds have started the nesting process they are protected under UK law, and cannot be displaced. Any active nests need to be left undisturbed until the chicks have fledged.

Potential nesting sites should be removed prior to the nesting season, or alternatively works to clear the site should not start until August when the bird nesting season has ended.

- **Terrestrial amphibians and foraging reptiles**

There is a slight chance of encountering terrestrial amphibians (including natterjack toad) and foraging reptiles in and around the property. This risk is greatly reduced as a result of the presence of the free-ranging ducks and geese at the property, and is not considered to be a significant concern for the project.

5. RECOMMENDATIONS

5.1 Recommendations for further survey

No further surveys are required for the project.

5.2 Recommended mitigation for ecological impacts not requiring further survey

Breeding birds

If any clearance works take place between March and August, a pre-works check should be carried out by a qualified ecologist to ensure there are no nesting birds present.

General

- Ensure that no dangers are left for wildlife overnight/weekends during the works (such as holes that could trap and potentially kill small mammals and hedgehogs).
- Ensure areas of importance to nocturnal animals are not disturbed by light – turn off all lighting overnight/ when works are not active.

5.3 Recommended enhancements to encourage net biodiversity gains

Following local planning guidance, measures to encourage a net gain of biodiversity should be included for all new developments.

Further enhancements to the site are recommended, including installation of boxes for birds and bats, and creation of access and suitable habitat for hedgehogs.

A minimum of three bat or bird boxes should be installed. External bat boxes could be installed on the south or west elevations at a height of above 3m. Bird nesting boxes (such as a sparrow terrace, robin box or tit box) could be installed on the north or east elevations between 2 and 4m high on the external walls. As an alternative these boxes could also be installed on mature trees within the landholding. All boxes should be installed in areas where they will not be exposed to predators such as cats.

Boxes can be bought or built from scratch. Full guidance can be found on Bat Conservation Trust website <https://www.bats.org.uk/our-work/buildings-planning-and-development/bat-boxes> or RSPB website <https://www.rspb.org.uk/fun-and-learning/for-families/family-wild-challenge/activities/build-a-birdbox/>.

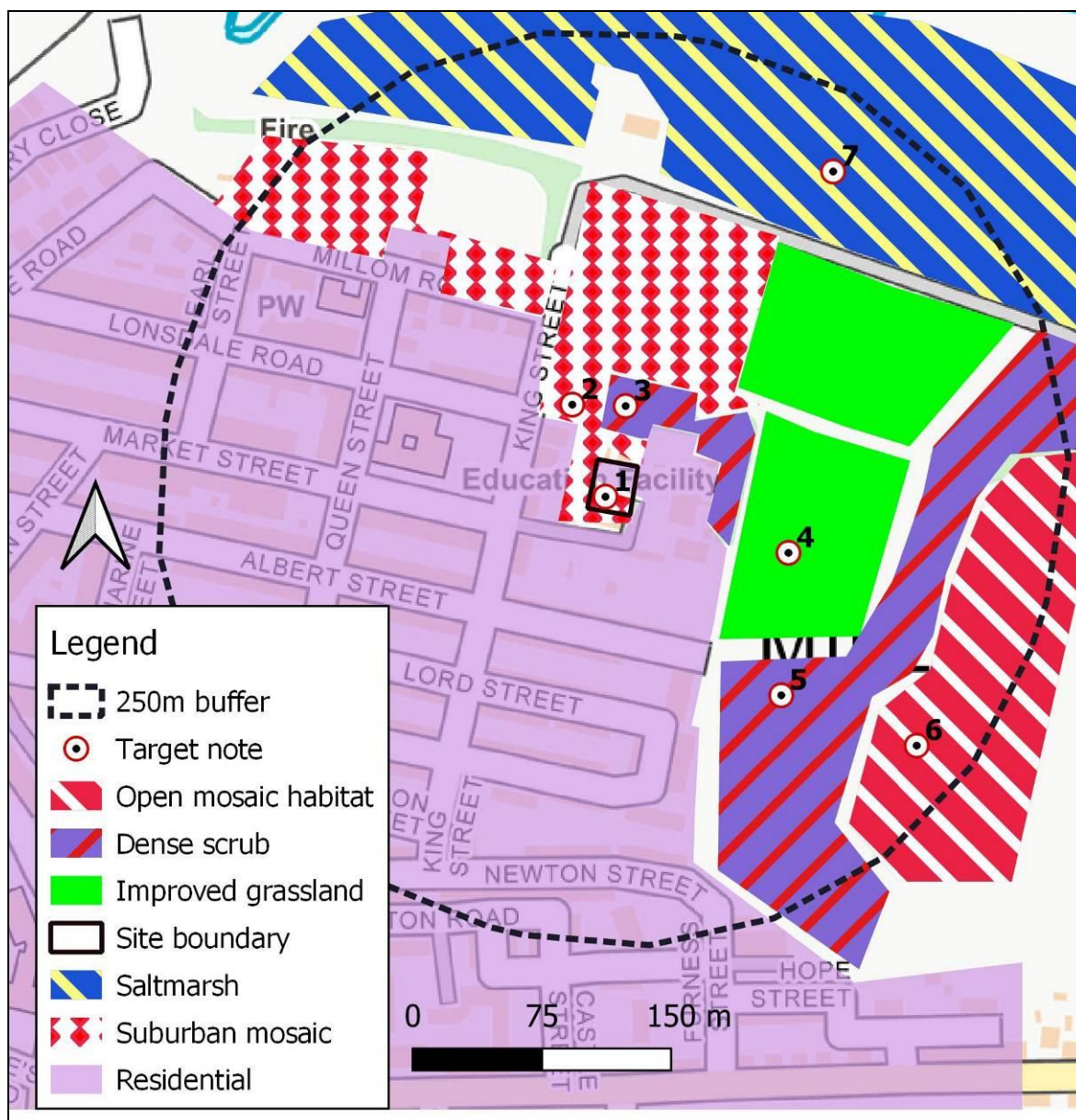
Some habitat should also be created for hedgehogs. Hedgehogs have suffered a significant decline in range and numbers over recent years, in part due to habitat loss and also from roadkill. Any new boundary fence or wall should permit easy access by hedgehogs to/ from the garden. Creating a small gap at the base of the fence (preferably near to other good habitat rather than the roadside) would allow access to the garden by hedgehogs. The gap only needs to be 10cm x 10cm at ground level (about the size of a CD case). In a discrete corner of the garden of the new house or existing property a hedgehog box should be installed, or an area of rough habitat created that will provide suitable cover for hedgehogs through the day- this can be dense shrubs, a log pile or compost heap. Further guidance, advice and ideas can be found on <https://www.rspb.org.uk/birds-and-wildlife/advice/gardening-for-wildlife/homes-for-hedgehogs/>.

6. REFERENCES

- Beebee T. (2013) *Amphibians and Reptiles* Pelagic Publishing
- BTO (2021) *Birds of Conservation Concern 5* summary report
<https://www.bto.org/sites/default/files/publications/bocc-5-a5-4pp-single-pages.pdf>
- Butcher B., Carey P., Edmonds R., Norton L. and Treweek J. (2020) The UK Habitat Classification User Manual version 1.1 www.ukhab.org
- Cumbria Biodiversity Data Centre <https://www.cbdc.org.uk/data-services/cumbria-biodiversity-evidence-base/cbeb-interactive-map/>
- DEFRA (2007) *Hedgerow Survey Handbook*
- Dobson J & Fairclough J (2022) *Rapid Assessments for the Potential Value of Invertebrate Habitats*. CIEEM In Practice magazine 112 p44-48.
- Gent A.H & Gibson S.D. eds (2003) *Herpetofauna Workers Manual* JNCC
- Harris S. & Yalden D.W. (eds.) (2008) *The Handbook of British Mammals*, third edition Blackwell Scientific Publications, Oxford
- Halliday G. (1997) *A Flora of Cumbria* University of Lancaster
- Institute of Ecology and Environmental Management, Professional Guidance Series (CIEEM www.cieem.net) [Members only]
- Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines* English Nature, Peterborough
- Mitchell-Jones, A.J. & McLeish A.P. (2004) *The Bat Workers' Manual* 3rd Edition. JNCC, Peterborough.
- NCC (1990) *Handbook for Phase 1 Habitat Survey* JNCC Peterborough
- Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt* (*Triturus cristatus*). Herpetological Journal 10 (4), 143-155
- Preston C.D., Pearman D.A. & Dines T.D. (2002) *New Atlas of the British and Irish Flora* Oxford University Press
- Stace C.(2010) *New Flora of the British Isles* 3rd edition Cambridge University Press
- Stott, M. et al (2002) *The Breeding Birds of Cumbria: a tetrad atlas 1997-2001*. Cumbria Bird Club
- www.magic.gov.uk (Information on priority habitats, species and protected sites)
- www.jncc.defra.gov.uk (Information on legal framework, BAP species and habitats)
- Natural England Species Information Note SIN006 (2011) *Otter- European Protected Species* www.publications.naturalengland.org.uk

APPENDICES

Figure 3: Habitat map



Contains Ordnance Survey data © Crown copyright and database right [2013]

Survey target notes

Refer to figure 3 for locations of target notes.

No.	Description
1	<p>Footprint of proposed new house and garden. This comprises two habitats at present- suburban mosaic to the south where there is a mixture of stored materials, vehicles and equipment, small sheds and grassland. To the north there is a lawned area with small duck pond. The two areas are split by a line of young trees/ shrubs including holly, cherry, ash , buddleia, pine and bramble.</p> <p>There are three more mature trees to the north of the site footprint including ash, willow and a conifer. None of these had scope for use by roosting bats.</p> <p>Lots nesting bird potential and many birds seen and heard in and around the garden.</p> <p>Grass grazed by ducks/ geese. Lots of moss, fescue grass, daisy, plantain, as well as some selfheal, dock and nettle at the edges.</p>
2	<p>Surrounding mixed land use – some pockets of scrub and grassland, with small holdings, allotments, sheds and outbuildings of various size and quality.</p> <p>Scope for nesting birds, and possibly for foraging amphibians and reptiles (depending on land use). No buildings likely to host bats.</p>
3	<p>Dense area of scrub between housing and allotments/ sports fields. Predominantly willows and hawthorn. Standing water present under willows in places. Lots of debris and rubbish.</p>
4	<p>Sports/ playing fields. Amenity grassland regular mowing. Possibly used by feeding shorebirds and gulls. Could be used by foraging natterjacks, but regular disturbance and grassland not suitable for burrowing toads.</p>
5	<p>Dense scrub on banks forming boundary buffer to Millom Ironworks LNR (part of Duddon Estuary SSSI). Hawthorn, blackthorn, birch and willows as well as other species.</p> <p>Of value to nesting birds and invertebrates.</p>
6	<p>Open mosaic habitat of patchy scrub, spoil and post-industrial waste of Millom Ironworks LNR. Of value to invertebrates, nesting birds, foraging reptiles and amphibians. Some breeding ponds present, but beyond buffer of this survey.</p>
7	<p>Upper salt marsh habitat. Part of Duddon Estuary SSSI and associated Natura sites. Sheep grazed. No records of breeding ponds for natterjack toads within the survey buffer.</p>

Description of Wildlife Law and Legislation referred to in this document

National Planning Policy Framework (2018)

Current guidance recommends that planners ensure that all new developments:

- minimise impacts on biodiversity and protected sites
- result in a local net gain in biodiversity
- safeguard wildlife-rich habitat and wider ecological networks
- promote conservation/ restoration and enhancement of priority habitats and ecological networks
- promote protection/ recovery of priority species

Nesting birds

Under Section 1 of the Wildlife and Countryside Act 1981 (as amended), wild birds are protected from being killed, injured or captured. Under this legislation their nests and eggs are also protected from being damaged, destroyed or taken (this includes nests in the process of being built as well as those with eggs and/or chicks in).

Birds which are listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are protected by special penalties at all times. Further enforcement has been provided by The Countryside and Rights of Way Act 2000.

Bats

Bats have declined in numbers dramatically across the UK and Western Europe in recent decades. Key factors linked to their decline are loss of roosting places due to building works and woodland destruction. Other factors implicated in their decline are changes in the countryside resulting in habitat loss and greater fragmentation of foraging habitats, and severing of commuting flightlines due to transport developments and hedgerow destruction.

As a consequence of these significant declines, bats and their roosts are protected under British and European law.

All bats are listed under Annexe IV of the EU Habitats Directive, and some under Annexe II. This law is transposed into English law into the Conservation of Habitats and Species Regulations (2010). Bats are also protected in the UK under the Wildlife and Countryside Act 1981 (as amended).

As a result of the above legislation it is an offence to;

- Deliberately capture, injure or kill a bat,
- Disturb a bat such that their survival, reproductive capacity, or the well being of the local population is affected
- Intentionally or recklessly disturb a roosting bat, or block access to its roost.

Reptiles

The four widespread species of reptile (common lizard, slow-worm, grass snake and adder) receive partial protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) in respect of Section 9(5). It is an offence to intentionally kill, injure, sell, or to advertise for sale, any of these species without an appropriate licence. Further enforcement has been provided by The Countryside and Rights of Way Act 2000.

Amphibians

The four widespread species of amphibian (common frog, common toad, smooth newt and palmate newt) receive partial protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) in respect of Section 9(5). It is an offence to sell or possess (dead or

alive) these species. Further enforcement has been provided by The Countryside and Rights of Way Act 2000.

Great crested newts and natterjack toads are both European Protected Species, and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species Regulations 2010 and Section 9 of the Wildlife and Countryside Act 1981.

It is an offence for anyone intentionally to kill, injure or disturb a great crested newt or natterjack toad, to possess one (whether live or dead), or sell or offer for sale without a licence. It is also an offence to damage, destroy or obstruct access to any place used by great crested newt for shelter.

Biodiversity Action Plans – Species and Habitats

The UK Biodiversity Action Plan (UK BAP) was published 1994, in response to the Convention on Biological Diversity (CBD), which the UK signed up to in 1992 in Rio de Janeiro. National and Local action plans were developed for the most threatened species and habitats.

The plans, and species and habitats to which they related are reviewed and updated regularly. The current lists can be found on the JNCC website. These have now been succeeded by NERC Act 2006 (see below) but are still commonly used for guidance.

Natural Environment and Rural Communities (NERC) Act 2006

Section 41 of the NERC Act 2006 requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England, as required by the Act. This purpose of this list is to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

56 habitats of principal importance are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. There are 943 species of principal importance included on the S41 list. As above, these are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

Photographs



Photo 1.
Looking from south
along access road to
93 Market Street.
Proposed
development to take
place to the left of the
track as shown.



Photo 2.
Southern half of the
plot with stored
machinery,
equipment and
vehicles.



Photo 3.
Windbreak of young
trees and shrubs
between the two
sections of the plot.

Very likely to be used
by nesting birds.



Photo 4.
Looking from the access road across the proposed site, with windbreak in the foreground. The large shed in the rear of the image is not affected by the proposals. Ducks and geese wander freely over this area.



Photo 5.
Upper half of the plot, looking east toward the existing house at 93 Market Street.

Mature trees to the left of the image have no bat roost potential, but could be used by birds.



Photo 6.
Small duck pond in the northern half of the plot. No aquatic plants or invertebrates seen. Unlikely to be used by amphibians due to regular use by ducks and geese.



Photo 7.
Northern half of the
plot showing mature
trees.



Photo 8.
Nearby scrub and
mixed allotment/
smallholdings
(suburban mosaic
habitat) along public
footpath to the north
of the property.



Photo 9.
Playing fields and
scrub to the east of
the property (image
looking south).