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NOOK FARM, CLEATOR

PRELIMINARY ECOLOGICAL APPRAISAL

Prepared for: Mr & Mrs N. Webb

Date: September 2025

Report Reference: JN00821/D01

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1. INTRODUCTION

Background

- 1.1 SK Environmental Solutions Limited was commissioned by Mr & Mrs N. Webb to undertake an Ecological Appraisal of a farm outside the village of Cleator, Cumbria. The site is located at an approximate central grid reference of NY 01728 12614 and nearest postcode of CA23 3EY.

Aims and Objectives

- 1.2 The purpose of the PEA is to identify:
- the major habitats present within the site and the immediate vicinity;
 - the potential for legally protected and / or notable species to be present; and
 - the need for additional specialist ecological surveys.
- 1.3 A PEA does not constitute a full survey for protected species to standard survey methodologies but is used as a tool to determine the potential of a site to support protected/notable species and whether any additional specialist species surveys are likely to be required to inform a mitigation strategy.
- 1.4 These results have been used to assess the nature conservation importance of the site and immediate surroundings, with regards to the habitats and species present.

Definition of Terms

- 1.5 For the purpose of this report, the term 'site' is used to describe the location of the proposed development, as denoted by the red line boundary on Figure 1, below.



Figure 1: Site Location.

Site Description

- 1.6 The site comprises the original farmhouse, the original barn and several agricultural outbuildings that make up Nook Farm and the associated access track, totalling an area of approximately 1.2 hectares (ha). The site is typically bordered by trees on all sides. A small area of grassland is located to the north of the site. The access track is bordered by hedgerows to the north and the small woodland block known as Nook Wood, which borders the site to the south. The surrounding area is predominantly made up of agricultural pastures bordered with hedgerows. The village of Cleator is located approximately 700m northwest of the site, on the far side the River Ehen which flows broadly southwards approximately 400m west of the site at its nearest point. Longland Lake Country Park is located approximately 260m west of the site at its nearest point.

Development Proposals

- 1.7 The current development proposals are for all buildings on site to be demolished, with a new farmhouse, horse arena and stabling/ implement shed to be constructed within the footprint of the original barn structures.

2. METHODOLOGY

Desk Study

2.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites and features of interest within and surrounding the proposed site, up to 2km from its red line boundary. Records for legally protected / notable species or habitats, were obtained from Cumbria Biodiversity Data Centre (CBDC). The baseline conditions are based on a review of the following:

- Multi-Agency Geographical Information for the Countryside (MAGIC) website - to identify statutory designated sites and Priority Habitats;
- Ordnance survey mapping (to identify potentially notable habitats);
- Aerial photography (to identify potentially notable habitats);
- Cumbria Biodiversity Action Plan (CBAP); and
- Cumbria Biodiversity Data Centre (CBDC).

UK Habitat Classification (UKHab) Survey

2.2 SK Environmental Solutions Limited undertook survey of the site and immediate surroundings on 20th August 2025 to inform the PEA; experienced ecologist Bridie Hamilton conducted the survey.

2.3 The UKHab is a habitat classification system for the UK that has been developed to provide a rapid system for recording and classifying habitats which can be used for field-based surveys. It is intended to assist ecologists to identify and map habitats in a consistent and unified way and has been designed to provide outputs that are suitable for ecological impact assessment, habitat metrics and better data integration and sharing between organisations. The field survey broadly followed the methodology as set out in Data Collection and Mapping, Chapter 3 of 'The UK Habitat Classification User Manual, Version 2.01' and The Chartered Institute of Ecology and Environmental Management's (CIEEM's) Guidelines for Preliminary Ecological Appraisal (2013). It provides information on the habitats within the survey area as well as identifying the actual or potential presence of legally protected or otherwise notable species in or immediately adjacent to the site.

2.4 Plant names follow 'New Flora of the British Isles' (Stace 2019). The common and scientific names of all botanical species identified are provided when first mentioned in the text, but only the common name is stated thereafter.

- 2.5 In addition to establishing the baseline ecological interest within the site, it was intended that the survey should identify areas where further surveys may be required during the appropriate season. Habitat potential for legally protected or national / local BAP species including, but not limited to, bats, badger, breeding birds, flora, amphibians, and reptiles was recorded.

Supporting Information

- 2.6 Target Notes were compiled as appropriate, with each being given an associated reference number. Target Notes can be found in Appendix 1 and are used to identify:

- Complex habitat mosaics or small habitats; and / or
- Features of ecological importance.

Limitations

- 2.7 Ecological surveys are limited by factors that affect presence of plants and animals such as time of year, weather, migration patterns and behaviour. The timing (August 2025) of the survey was considered to be a suitable time of year to carry out a UKHab survey. The aim of the UKHab survey is not to present an exhaustive list of vegetation present but to provide an indication of broad habitat types and whether there is the potential to support notable or protected species.

3. STATUTORY PROTECTION & POLICY

Legislative Framework

3.1 The following legislation and guidance documents have been used to underpin the ecological impact assessment reported in this Section:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019;
- Bern Convention (on the Conservation of European Wildlife & Natural Habitats; and on the Conservation of Migratory Species of Wild Animals) 1979;
- The Conservation of Habitats and Species Regulations 2010;
- The Birds Directive 2009;
- Wildlife & Countryside Act 1981 (and subsequent amendments);
- Countryside and Rights of Way Act 2000;
- Natural Environment and Rural Communities (NERC) Act 2006. Section 41 includes lists of habitats and species recognised as of 'principal importance' for the conservation of biodiversity. Section 40 of the NERC Act 2006 requires all public bodies to have regard for biodiversity conservation when carrying out their function. This is commonly referred to as the 'biodiversity duty';
- Protection of Badgers Act 1992;
- Environment Act 2021; and
- The Hedgerow Regulations 1997.

3.2 How the legislation relates to protected species is set out in Appendix 3.

Planning Policy

3.3 Chapter 2 of the National Planning Policy Framework (NPPF, 2023) describes the Government's objectives on achieving sustainable development. The environmental objective is "*to contribute to protecting and enhancing our natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste*

and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.”

3.4 The NPPF Chapter 15 sets out the Government’s objectives for planning in regard to the protection of habitats and biodiversity. The planning objectives in relation to biodiversity and the natural environment are laid out in paragraph 180 as follows:

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

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”

3.5 In April 2023, Allerdale Borough Council merged to form Cumberland Council with Carlisle City Council and Copeland Borough Council, along with Cumbria County Council, which was split between Cumberland Council and the other new merged authority, Westmorland and Furness Council. Until a new unified local plan is developed, the existing Allerdale Local Plan (Part 1), adopted 2014, continues to apply to the site and the surrounding area. The following policies from the local plan are considered relevant to ecology:

“Policy S35 – Protecting and Enhancing Biodiversity and Geodiversity.

“Conditions for biodiversity will be maintained and improved and important geodiversity assets will be protected. Nationally and internationally protected sites and species will be afforded the highest level of protection. A high priority is also given to the protection of locally identified biodiversity or ecologically valuable assets. The Council will seek positive improvements to the quality of the natural environmental through sustainable development resulting in net gains for biodiversity across the Plan Area.”

Developments, projects and activities will be expected to:

- a) Protect and enhance key ecological habitats and wildlife corridors and steppingstones including watercourses and wetlands;*
- b) Maintain, and where appropriate enhance, conditions for priority habitats and species identified in the Cumbria and UK Biodiversity Action Plan Priority Species and habitats or the Cumbria Biodiversity Data Centre at Tullie House;*
- c) Maintain and where appropriate enhance recognised geodiversity assets identified in the Local Geodiversity Action Plan for Cumbria;*
- d) Protect soil and water resources in line with Policy S36;*
- e) Contribute to Allerdale’s green infrastructure network in line with Policy S24;*
- f) Protect existing trees, hedgerows and woodland (including ancient trees and hedgerows) that are considered important to the local community, contribute positively to the character of the area and/or are of a nature conservation value.*

Development that presents significant economic or social benefits for the local community may be permitted where the Council, in consultation with relevant partner organisations are satisfied that any necessary impacts can be mitigated or compensated through appropriate habitat creation, restoration or enhancement on site or elsewhere secured via planning conditions, agreements or obligations. Where a development poses significant harm to an irreplaceable habitat which cannot be mitigated or compensated for, permission will be refused. ”

3.6 Specific legislation relating to protected species in England can be found at Appendix 2

4. DESK STUDY RESULTS

Aerial Photography and OS Maps

- 4.1 Aerial photography and Ordnance Survey (OS) maps were used to identify any waterbodies or watercourses within 500m of the site, shown in Figure 2, below.



Figure 2: Water features within 500 m of the site (scale as a guide only).

- 4.2 The following watercourses are mapped on Figure 2 within 500m of the site boundary:
- The River Ehen, which flows broadly southwards at this location, is situated approximately 440m northwest of the site boundary at its closest point. The Ehen supports the largest and healthiest population of freshwater pearl mussels *Margaritifera margaritifera* in England;
 - A partially-culverted innominate tributary of the Ehen which flows along the southern edge of Nook Wood and is located approximately 10m from the site boundary at its closest point;

- The network of Sunton Sike and its innominate tributaries, located approximately 270m south of the site boundary; and
- An innominate watercourse, situated approximately 450m northeast of the site at its closest point, flows broadly westwards to its confluence with the River Ehen.

4.3 Six waterbodies fall within the 500m buffer of the site.

- P1 is Longlands Lake. Extending to an area of approximately 5.3ha it forms part of the Longland Lake Country Park and drains into the River Ehen to the west;
- P2 is a small pond approximately 300m² in area which abuts the site access road to the north; and
- P3-P6 are a group of small ponds located approximately 300m southwest of the site boundary which form part of the River Ehen Ponds County Wildlife Site.

Statutory & Non-Statutory Designated Sites for Nature Conservation

Statutory Designated Sites

4.4 Natural England's Magic Map identified five statutory designated sites located within 2km of the site boundary. The statutory sites are shown in Figure 3, below.



Figure 3: Statutory sites within 2km of the site (scale as a guide only).

4.5 There are five statutory designations, four of which are Sites of Special Scientific Interest (SSSI) and one which is a Special Area of Conservation (SAC). Haile Great Wood SSSI does not fall within the 2km buffer and is not considered further in this assessment.

4.6 The statutory designated sites within 2km of the site are:

- River Ehen SAC and the associated River Ehen (Ennerdale Water to Keekle Confluence) SSSI are located approximately 430m northwest of the site boundary at its closest point. This section of the River Ehen holds the third largest population of freshwater mussel *Margaritifera margaritifera* in Britain, the largest known population in England. The population benefits from the extensive tree shading and nutrient-poor status of the river which reduces algal growth. Freshwater pearl mussel has a complex lifecycle, including a period as a juvenile when it survives within the gills of Atlantic salmon *Salmo salar* or brown trout *Salmo trutta*, healthy populations of which persist in the Ehen and its catchment;
- Clints Quarry SSSI located approximately 760m west of the site boundary at its closest point. The site is designated due to its botanical and geological interest. The site features

rich limestone flora, diverse grasslands including rare orchids, wetland communities, and a range of habitats from cliffs to woodlands;

- Black Moss SSSI located approximately 1.7km southwest of the site boundary at its closest point. The site is designated due to its status as a rare and largely intact lowland raised bog, notable for being England's most westerly example of this habitat. Its designation is based on several key reasons, including diverse habitats that transition naturally, specialized and rare flora like *Sphagnum* mosses and rare orchids, and its high conservation value as a well-preserved benchmark site; and
- Florence Mine SSSI located approximately 1.7km south of the site boundary at its closest point. The site is designated for its geological interest.

Non-Statutory Designated Sites

4.7 Cumbria Biodiversity Data Centre (CBDC) identified five non-statutory designated sites located within 2km of the site boundary:

- Longlands Lake County Wildlife Site (CWS) is located approximately 240m west of the site boundary at its nearest point. The site is a former mine which is now flooded and supports notable bird populations;
- River Ehen Ponds CWS located approximately 300m southwest of the site boundary at its nearest point. The site is designated due to its rich variety of tall fen vegetation such as bulrush *Typha latifolia*, bottle sedge *Carex rostrata*, angelica *Angelica archangelica*, meadowsweet *Filipendula ulmaria*, common valerian *Valeriana officinalis*, woundwort *Stachys sylvatica*, water pepper *Persicaria hydropiper*, water forget-me-not *Myosotis scorpioides*, water mint *Mentha aquatica*, marsh ragwort *Senecio aquaticus* and marsh marigold *Caltha palustris*;
- Clints Quarry is designated as Site of Invertebrate Significance (SoIS), with the boundary of the SoIS matching that of Clints Quarry SSSI. The eastern part of the site is also covered by a Local Geological Site (LGS) designation. Both are located approximately 760m west of the site boundary at its closest point; and
- Orebank House Quarry LGS, which is located approximately 1.1km west of the site boundary at its closest point.

- 4.8 A map of the non-statutory sites and any Ancient Woodland within 2 km can be found in Appendix 2.

Trees and Woodland

- 4.9 Natural England's Magic Map identified no areas of ancient woodland on, or adjacent to, the site.
- 4.10 The Woodland Trust's database of notable, veteran and ancient trees identified no such trees within, or adjacent to, the site.

Local Biodiversity Action Plan

- 4.11 The Cumbria Biodiversity Action Plan (CBAP) is relevant to the proposed development site. The CBAP lists action plans for the following habitats:
- Mesotrophic standing waters;
 - Rivers and streams;
 - Cities, towns and villages;
 - Coastal habitats;
 - Honeycomb worm reefs;
 - Ancient and/or species rich hedgerows;
 - Calcareous grassland;
 - Hay meadows and lowland pastures;
 - Limestone pavement;
 - Purple moor-grass and rush pasture;
 - Blanket bog;
 - Upland heathland;
 - Basin mire;
 - Lowland raised mire;

- Reedbed;
- Upland oak woodland;
- Upland mixed ashwood; and
- Wet woodland.

4.12 In 2009 the CBAP was updated to include all species listed in the UK BAP at the time (now S41 of the NERC act). The full list of species included within the CBAP can be found in Appendix 4.

Sites of Priority (BAP) Habitat

4.13 Natural England's Magic Map identified no areas of priority habitat within or adjacent to the site boundary. Areas of deciduous woodland and good quality semi-improved grassland are mapped within 500m of the site boundary.

Notable Species Records

4.14 Consultation with Cumbria Biodiversity Data Centre (CBDC) identified numerous records of protected and notable species within 2km of the site. For the purpose of this desk study, only records from the past ten years are considered relevant (i.e., 2015 to present). Protected and notable species records are summarised in **Error! Reference source not found..**

Table 1. Protected and Notable Species Records within 2 km of the site from the past 10 years.

Species	Number of Records	Most Recent Date	Distance and Direction of Closest Record	Notes
Badger	0	N/A	N/A	The closest historic record of a badger sett is located approximately 920m south of the site boundary.
<i>Bats</i>				
Daubenton's bat	2	26/04/2017	330m W	
Natterer's bat	2	29/04/2017	930m NW	
Noctule	1	09/05/2020	1.3km S	

Species	Number of Records	Most Recent Date	Distance and Direction of Closest Record	Notes
Soprano pipistrelle	2	26/04/2017	330m W	
Otter	2	12/02/2018	590m W	
Red squirrel	5	31/03/2021	650m N	
<i>Other Notable Mammals</i>				
West European hedgehog	28	13/08/2023	480m NW	
<i>Birds</i>				Only BoCC Red List, Wildlife and Countryside Act Schedule 1, NERC s41 or European Birds Directive Annex I species considered to have potential to be present within the habitats on, or immediately adjacent to, the site have been included in this table. Records of three species classified as 'sensitive' by CBDC, meeting the above criteria, were also returned.
Bullfinch	4	05/07/2023	310m W	
Crossbill	7	28/04/2020	1.4km NE	
Dunnock	4	19/07/2023	530m W	
Greenfinch	2	19/07/2023	1.9km E	
Herring gull	3	19/07/2023	460m W	
House martin	5	07/09/2023	460m W	
House sparrow	1	19/07/2023	1.9km NE	
Linnet	1	19/07/2023	1.9km E	
Mistle thrush	1	26/01/2017	390m W	
Redwing	1	27/11/2016	500m W	
Song thrush	3	12/05/2023	450m W	
Starling	2	19/07/2023	450m W	
Swift	20	19/07/2023	960m W	
Tree sparrow	4	22/01/2021	1.3km S	
<i>Reptiles</i>	0	N/A	N/A	
<i>Amphibians</i>	0	N/A	N/A	Several historic records of GCN from Clints Quarry and the River Ehen Ponds CWS, the most recent of which date to 2011.

Species	Number of Records	Most Recent Date	Distance and Direction of Closest Record	Notes
				MAGIC maps shows no GCN licence returns or positive pond survey data within 2km of the site.
<i>Fish</i>				
Atlantic salmon	2	06/09/2018	850m N	
Brown / sea trout	2	06/09/2018	850m N	
European eel	3	06/09/2018	850m N	
<i>Invertebrates</i>				
Cinnabar	4	16/08/2017	930m W	Only records of species listed under Schedule 5 of the Wildlife and Countryside Act, NERC s41 or the Cumbria BAP are included in the table.
Dingy skipper	39	23/04/2022	760m W	
Small heath	7	11/05/2020	760m W	
Wall	7	26/08/2016	840m W	
Invasive Non-native species				
Grey squirrel	10	25/10/2017	630m N	
Himalayan balsam	2	20/07/2015	800m NW	
Japanese knotweed	7	20/07/2015	570m NW	

5. SURVEY RESULTS

Field Survey

Habitats

Overview

5.1 The results of the UKHab survey are presented on JN00821/DW01. Habitats too small to be mapped have been mentioned in target notes. The main habitats recorded during the field survey include:

- Other neutral grassland (g3c);
- Modified grassland (g4);
- Native hedgerow (h2a);
- Line of trees (33);
- Developed land, sealed surface (u1b);
- Buildings (u1b5); and
- Artificial unvegetated unsealed surface (u1c).

Other Neutral Grassland

5.2 Other neutral grassland is present within the northern portion of the site directly north of the farmhouse (TN14). Lined by hedgerows and trees the grassland was long sward and comprised of cocksfoot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, timothy *Phleum pratense*, sweet vernal grass *Anthoxanthum odoratum*, wavy hair grass *Deschampsia flexuosa*, meadow buttercup *Ranunculus acris*, broad-leaved dock *Rumex obtusifolius* and intermittent areas of soft rush *Juncus effusus*. The eastern boundary of the grassland, which is bounded by a hedgerow, also has areas of nettle *Urtica dioica*.

Modified Grassland

5.3 Areas of modified grassland are present in a small section on the eastern boundary of the site (TN4) and also beneath the hedgerows that border the access track into the site (TN2). The area associated with TN4 is longer sward and dominated by perennial ryegrass *Lolium perenne*. Other species include cocksfoot, rosebay willowherb *Chamerion angustifolium*, dandelion *Taraxacum officinale* and lesser plantain *Plantago lanceolata*.

- 5.4 The modified grassland associated with the hedgerows lining the site comprised of perennial ryegrass, cocksfoot, bramble *Rubus fruticosus*, bracken *Pteridium aquilinum* and common hogweed *Heracleum sphondylium*. Within both lines areas of Himalayan balsam *Impatiens glandulifera* were present.

Native Hedgerow

- 5.5 Three hedgerows are located within the site, two of which are long sections of hedgerow that border the access track into the site (TN2). The hedgerow is unmanaged and consists of hawthorn *Crataegus monogyna*, goat willow *Salix caprea*, elder *Sambucus nigra*, field maple *Acer campestre*, dogrose *Rosa canina* and rosebay willowherb. European ash *Fraxinus excelsior* and sycamore trees *Acer pseudoplanus* are also present throughout the hedgerow.
- 5.6 The third hedgerow occurring within the site is located on the western boundary of the northern grassland (TN17). The hedgerow is unmanaged and consists of hazel *Corylus avellana*, field maple, elder, goat willow, rowan *Sorbus aucuparia*, bracken and bramble.

Line of Trees

- 5.7 Several lines of trees were recorded to the throughout the main area of the site. The species composition of each line of trees is summarised in Table 1.

Table 1: On-site lines of trees and their respective species composition.

Line of Trees Reference	Species Composition
L1 (TN6)	Black poplar <i>Populus nigra</i> , European ash, goat willow, birch <i>Betula pendula</i> and Douglas fir <i>Pseudotsuga menziesii</i>
L2 (TN9)	European beech <i>Fagus sylvatica</i> and black poplar
L3 (TN10)	European beech and black poplar
L4 (TN13)	European beech
L5 (TN15)	Black poplar and birch

Built Up Areas

- 5.8 Developed land; sealed surface is associated with hardstanding areas around the barns and farmhouse (TN5, TN11 & TN12). The remaining hardstanding areas of the site are developed land; artificial unvegetated unsealed surface in the form of gravel tracks and gravel areas that span the east, south and west of the site.

Protected and Notable Species

Badger

- 5.9 CBDC provided no records of badger within 2km of the site from the past 10 years. However, there are historic records of setts and roadkill individuals within 2km of the site.
- 5.10 The woodland located southeast and southwest of the site, and the open fields surrounding them are broadly suitable for badger use for both foraging and sett building. The areas were surveyed for any signs of badger use during the survey with none found.

Bats

Roosting Bats

- 5.11 CBDC provided 7 records of four known bat species within 2 km of the site from the past 10 years. None were known to be associated with bat roosts and were passing field records.
- 5.12 Four buildings are associated with the site: a residential farmhouse (TN12), a stone barn (TN5) and two corrugated barns (TN5 & TN11). It is considered that these buildings may have potential to support roosting bats.
- 5.13 All of the trees located within the site were assessed for any Potential Roosting Features (PRF's) during the site survey. Two trees (TN8 & TN16) were identified as having PRF's and have been classified as PRF-M.

Commuting and Foraging Bats

- 5.14 CBDC provided 7 records of four known bat species within 2 km of the site from the past 10 years. These records included daubenton's bat *Myotis daubentonii*, natterer's bat *Myotis nattereri*, noctule *Nyctalus noctula* and soprano pipistrelle *Pipistrellus pygmaeus*.
- 5.15 The site is considered to be of 'high' suitability for commuting and foraging bats due to the prevalence of suitable linear features such as hedges, woodland edges and lines of trees. The River Ehen is located 590m west of the site and is also considered suitable for foraging bats.

Otter

- 5.16 CBDC provided two records of otter *Lutra lutra* within 2 km of the site from the past 10 years. The records are associated with the River Ehen that is located 590m west of the site. The River Ehen has many tributaries, one of which is situated underground, beneath the site at its southern end. Where the beck is present at the surface on the southern edge of Nook Wood it is shallow

(<30cm), slow flowing and also has shallow banksides. The banksides are considered broadly unsuitable for both breeding holts and couches (resting places) as they are of an insufficient height for burrowing. Above ground couches and holts are also considered unlikely as the beck is of an insufficient depth and lacks deep pools for foraging.

Water Vole

- 5.17 CBDC provided no records of water vole *Arvicola amphibius* within 2 km of the site from the past 10 years, nor was any evidence of water vole (burrows, latrines, feeding signs) recorded during the field survey.
- 5.18 The River Ehen tributary is considered too shallow for water vole and lacks banks of a sufficient height for burrowing. On this basis, water vole have been scoped out of any further assessment.

Red Squirrel

- 5.19 CBDC provided 5 records of red squirrel *Sciurus vulgaris* within 2 km of the site from the past 10 years. The most recent record was from 2021 and was located 590 m west of the site. CBDC also provided 10 records of grey squirrel *Sciurus carolinensis*.
- 5.20 Red squirrel habitat comprises of both broadleaf and coniferous woodland, the woodland located to the south of the site at Nook Wood is broadly suitable for both foraging red squirrel and drey construction. However, the potential presence of grey squirrels reduces its overall suitability for red squirrels due to competition for food and the spread of squirrel pox virus. However, grey squirrel populations in the area are actively controlled by local red squirrel groups.
- 5.21 No dreys, or any other signs indicating the presence of squirrels, were noted during the site survey.

Birds

- 5.22 CBDC provided records of numerous bird species within 2km of the site from the past 10 years. Incidental records of birds recorded during the field survey comprised only common and widespread species such as robin *Erithacus rubecula*, wren *Troglodytes troglodytes*, blackbird *Turdus merula*, and great tit *Parus major*.
- 5.23 Onsite habitats, particularly trees and hedgerows, are considered broadly suitable for a range of tree and hedgerow nesting species.

- 5.24 During the site inspection a barn owl *Tyto alba* was seen on several occasions within the stone barn associated with TN5, suggesting the owl could utilise the barn for roosting.

Reptiles

- 5.25 CBDC provided no records of reptiles within 2 km of the site from the past 10 years and no reptiles were recorded during the field survey.
- 5.26 Reptiles prefer a dense vegetation sward, with open areas for basking, suggesting that the rough grassland habitats and areas of hardstanding and wall located within the site are broadly suitable for reptiles, particularly more common species such as common lizard *Zootoca vivipara* and slow worm *Anguis fragilis*.

Amphibians

- 5.27 CBDC provided no records of great crested newt *Triturus cristatus* (GCN) or any other amphibian within 2 km of the site from the past 10 years. However, there are several records of GCN from Clints Quarry and the River Ehen Ponds CWSs from as recently as 2011, one of which relates to P3 (as shown on the above waterbodies plan) approximately 320m west of the site boundary. The site is situated within a green zone on Cumbria's GCN District Level Licence Map.
- 5.28 Six waterbodies within 500m of the site boundary were identified during the desk study, one of which is situated adjacent to the eastern boundary of the site, referred to as P2.
- 5.29 The habitats present within the site boundary are not of high quality for GCN, however, some habitats are broadly suitable for GCN, particularly the longer areas of grassland or any piles of rubble or woody debris.

Terrestrial Invertebrates

- 5.30 CBDC provided records of four *Lepidoptera* species included within s41 of the NERC act, however, these species are considered to be relatively common and widespread. No notable invertebrates were recorded during the survey. The habitats on site are considered unlikely to support scarce or notable invertebrate species.

Invasive Non-Native Species

- 5.31 CBDC provided two records of Himalayan balsam located approximately 800m northwest of the site and seven records of Japanese knotweed located approximately 570m. Himalayan balsam is present within the hedgerows on either side of the access track.

Protected & Notable Flora

- 5.32 CBDC provided no records of notable flora from within 2km of the site and no flora of note was recorded during the survey.

6. DISCUSSION AND RECOMMENDATIONS

Ecological Constraints

Statutory Designated Sites

- 6.1 Five Statutory Designated Sites are situated within 2 km of the site boundary. Given that the existing watercourse is culverted beneath the site, it is not considered likely that potential pathways exist by which the proposals would deleteriously impact the qualifying features of any of the statutory designated sites.

Non-statutory Designated Sites

- 6.2 Five non-statutory designated sites are located within 2 km of the site boundary.
- 6.3 Given the distance between these non-statutory sites and the site itself, it is not considered likely that any of these designated areas would be impacted as a result of the proposed works.

Habitats

- 6.4 The current proposals for the site are planned to be completely contained within the developed areas of hardstanding and buildings, with no loss of other habitat planned. Within the site the habitats of most ecological value are the native hedgerows, trees and other neutral grassland.

Protected/Notable Species

Badger

- 6.5 No badger setts or field signs were found during the site survey. However, badgers may be occasionally present within the area. General mitigation measures, as summarised later in this chapter, are recommended in order to mitigate adverse impacts on individual badgers should they be encountered during the works.

Bats

Roosting Bats

- 6.6 It is understood that all the buildings on site will be demolished as part of the development plan. As such, it will be necessary to undertake a Preliminary Roost Assessment (PRA) to determine their potential to support roosting bats and identify the number of bat activity surveys that may be required on each.

- 6.7 Two trees have been identified within the site as having PRF's that have the potential to support roosting bats. Were either of these trees to be felled or pruned during works further endoscope surveys will be required to determine whether roosting bats are using the feature. Where possible, trees containing roosting features should be retained as part of the wider landscape plan.

Commuting and Foraging Bats

- 6.8 The site is considered of 'high' suitability for commuting and foraging bats due to the number of linear features present, such as hedgerows and lines of trees.
- 6.9 General mitigation measures, as summarised later in this chapter, are recommended in order to mitigate adverse impacts on commuting and foraging bats should they be encountered during the works.

Otter

- 6.10 The tributary of the River Ehen, where it flows close to the site, is considered unsuitable for otter with banks of insufficient height for breeding holts and couches, while above ground couches and holts are considered unlikely due to limited foraging potential for otter.
- 6.11 General mitigation measures, as summarised later in this chapter, are recommended in order to mitigate adverse impacts on commuting otter, should they be encountered during the works.

Red Squirrel

- 6.12 Red squirrel records were provided by CBDC and onsite woodland, particularly native woodland, is considered broadly suitable for red squirrel foraging and dreys. However, no such features were identified and all such habitat is to remain as part of the proposals. Impacts upon red squirrels are therefore considered to be unlikely.

Birds

- 6.13 Onsite habitats, including woodland, scrub and hedgerows, are considered suitable for a range of tree and hedgerow nesting bird species. These habitats are due to be retained as part of the proposals. In the event that any clearance of such habitats were to take place, impacts upon breeding birds would be avoided by completing such activity outside of the breeding bird season (March – August inclusive).
- 6.14 A barn owl was observed several times during the site survey and suggesting a fidelity for the site. The barns currently present do provide suitable roosting places for barn owl, however no pellets were located during the survey.

- 6.15 In the likely event that bat activity surveys are required on at least some of the buildings, these should be conducted in the awareness of the potential presence of barn owl, and should also seek to determine the likely extent of the usage of the existing buildings by the species.

Amphibians

It is considered that there is potential for GCN to present within the habitats on site. While this is primarily restricted to vegetated areas, any rubble piles or other suitable refugia that may be present elsewhere should be carefully manually deconstructed, in line with a Precautionary Method of Working, in order to avoid impacts on GCN or other amphibians. In the unlikely event that a GCN is identified during the works, they should cease immediately and a suitably qualified ecologist be contacted. A GCN licence from Natural England, or entry in Cumbria's District Level Licence would likely then be required.

Reptiles

- 6.16 The rough grassland and wall habitats within the site are considered broadly suitable for species such as common lizard and slow worm, but likely in low numbers. Presence of reptiles within the areas of the site to be impacted by the proposals is considered to be unlikely, however, should piles of rubble or any other suitable refugia need to be cleared as part of the works, this should be done in accordance with the amphibian PMW referenced above, in order to avoid impacts upon reptiles.

Invasive Plant Species

- 6.17 Several areas of Himalayan balsam were recorded throughout the hedgerows that line the access track to the site. While no impacts to these features are anticipated as part of the works, the targeted removal of balsam from the site would be beneficial.
- 6.18 The potential for regrowth in following seasons should be considered as part of balsam removal, with appropriate precautions adopted in the event of its continued presence.

General Mitigation Measures

- 6.19 The following good practice measures should be adhered to in order to avoid and mitigate adverse impacts:
- Any man-made excavations, trenches or pits relating to the development will either be securely fenced off or covered up overnight to avoid entrapment or, if left open, an egress point (e.g., mammal ladders or a roughened plank) will be placed within the excavation to form a ramp to allow animals to escape;
 - Any temporarily exposed open pipe system will be capped in such a way as to prevent animals gaining access as may happen when contractors are off site; and




- Any excavations will be inspected each morning to ensure no animals have become trapped overnight.




7. REFERENCES




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APPENDIX 1



**Appendix 1 –
Habitat Photographs**

DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
1 u1c – artificial unvegetated unsealed surface	A gravel track leads west from the main road to access the property.	
2 h2a – native hedgerow	Native hedgerows with trees line the access track to the site. Species comprise of European ash <i>Fraxinus excelsior</i> , sycamore <i>Acer pseudoplatanus</i> , white willow <i>Salix alba</i> , hawthorn <i>Crataegus monogyna</i> , elder <i>Sambucus nigra</i> and dogrose <i>Rosa canina</i> . Areas of Himalayan balsam <i>Impatiens glandulifera</i> were interspersed along both hedgerows.	 




DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
3 u1c – artificial unvegetated unsealed surface	<p>The access track leads to an area of unvegetated, unsealed land within the main site area.</p>	
4 g4 – modified grassland	<p>A small area of modified grassland is located within the east of the site at the end of the access track. Species comprise of perennial ryegrass <i>Lolium perenne</i>, cocksfoot <i>Dactylis glomerata</i>, broadleaved dock <i>Rumex obtusifolius</i>, rosebay willowherb <i>Chamaenerion angustifolium</i> and dandelion <i>Taraxacum officinale</i>.</p>	
5 u1b5 – buildings	<p>A large, corrugated barn is present within the site. The barn is in various states of disrepair. Attached to the northern aspect of the corrugated barn is one of the original farm buildings made of stone and rendering. The western gable within the original barn has completely collapsed and can be seen from the newer, corrugated barn.</p> <p>At the time of the survey a barn owl was seen within the collapsed gable area and throughout the survey was seen at various points around the barn.</p>	




DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
		<div></div> <div></div> <div></div>



DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
6 w1g6 – line of trees	A line of ash, black poplar <i>Populus nigra</i> , white willow and birch is present along the eastern boundary of the site. This then morphs straight into a line of Douglas fir <i>Pseudotsuga menziesii</i> trees.	 



DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
<p>7</p> <p>u1c, w1g6 – artificial unvegetated unsealed surface, line of trees</p>	<p>An area of unvegetated, unsealed ground is present within the southern corner of the site.</p>	
<p>8</p> <p>PRF:M Tree</p>	<p>An ash tree is present within the western area of the site. Upon inspection the tree had a large tear out on the main stem and various well decayed knot holes up the stem and limbs. From ground level the features appear to extend well into the tree and have therefor been given a PRF:M classification for bat roosting.</p>	


DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
		<div></div>

DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
9 w1g6 – line of trees	Directly north of the PRF:M ash tree lies a line of mature European beech <i>Fagus sylvatic</i> and black poplar trees.	
10 w1g6 – line of trees	A further line of European beech and poplar trees are located north of TN9.	
11 u1b5 – buildings	A further corrugated barn is located within the western area of the site.	

DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
12 u1b - buildings	A rendered stone farmhouse if located within the northern area of the site. The farmhouse is in a well-maintained condition and has been awarded a 'low' bat roosting potential with roosting area limited to the ridgeline and roof slates	
13 w1g6 – line of trees	A line of young, planted European beech are present along the western boundary of the grassland area that makes up the northern portion of the site.	
14 g3c – other neutral grassland	An area of other neutral grassland is located within the northern area of the site. Species include cocksfoot, Yorkshire fog <i>Holcus lanatus</i> , timothy <i>Phleum pratense</i> , sweet vernal grass <i>Anthoxanthum odoratum</i> , wavy hair grass <i>Deschampsia flexuosa</i> and soft rush <i>Juncus effusus</i> .	

DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
15 w1g6 – line of trees	<p>A line of trees is present along the northern boundary of the site. The treeline consisted of mature black poplar and birch <i>Betula pendula</i> trees.</p>	
16 PRF:I Tree	<p>A small birch is present within the TN15 treeline that had suitable PRF:I features in the form of small knot holes that could extend further into the main stem providing limited roosting for a small number of bats.</p>	

DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
		 

DRAWING REF	HABITAT DESCRIPTION	PHOTOGRAPH(S)
17 h2a – native hedgerow	<p>A native hedgerow is present along the western boundary of the northern grassland area. Species comprise of hazel <i>Corylus avellana</i>, field maple <i>Acer campestre</i>, elder, bramble and rowan <i>Sorbus aucuparia</i>.</p>	

APPENDIX 2



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

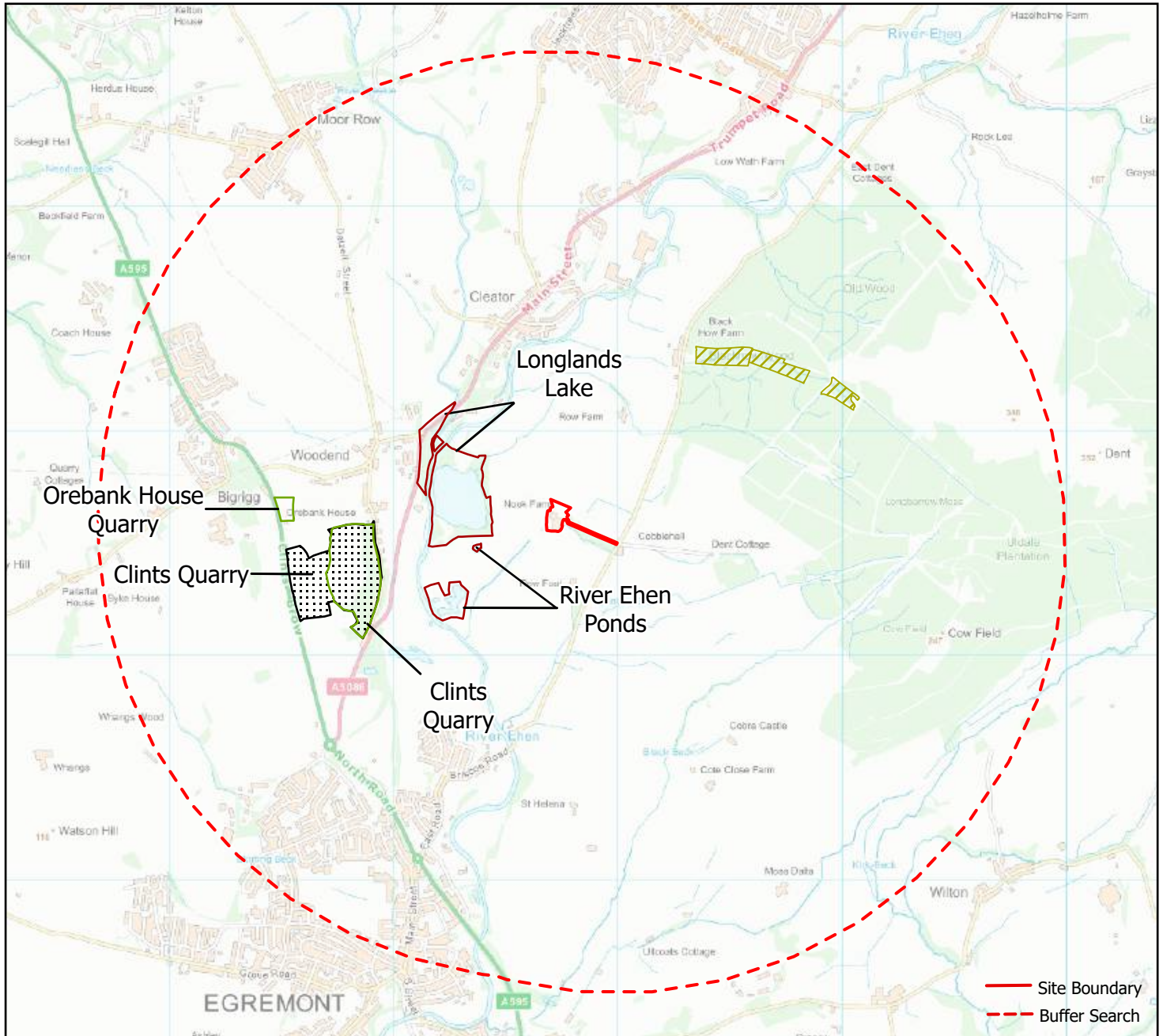
For: Bridie Hamilton at SK Environmental Solutions Ltd

Site Name: Nook Farm

Buffer: 2km

Search Date: 31/07/2025

N.B. Sites are displayed only if it intersects with the search area



Key

- County Wildlife Sites
- Local Geological Sites
- Sites of Invertebrates Significance
- Ancient Woodland

0 250 500 1,000 m



Any queries in the first instance contact:
Dr Moustafa Eweda
Cumbria Biodiversity Data Centre (CBDC)
E. datamanager@cbdc.org.uk

APPENDIX 3

Protected Species Legislation

Invertebrates

A number of UK invertebrates are protected by international and national legislation, including the EC Habitats Directive (1992) and the Wildlife and Countryside Act 1981 (as amended). In addition, numerous species are Priority Species.

Flora

All wild plants are protected against unauthorised removal or uprooting under Section 13 of the Wildlife and Countryside Act 1981 (as amended). Plants listed on Schedule 8 of the Act (e.g. stinking goosefoot, red helleborine, monkey orchid) are afforded additional protection against picking, uprooting, destruction and sale. Bluebell (*Hyacinthoides non-scripta*) is protected against sale only. Further species are also protected under the Conservation of Habitats and Species Regulations 2010 (as amended).

Notable plant species include those that are listed as:

- Nationally vulnerable – A taxon is Vulnerable when the best available evidence indicates that it meets any of the criteria A-E for Vulnerable, and is therefore considered to be facing a high risk of extinction in the wild (Cheffings C M & Farrell L (Eds) (2005) Species Status No. 7 – The Vascular Red Data List for Britain, JNCC (online).
- Nationally scarce – species recorded in 16-100 hectads in Great Britain
- Nationally rare – species occurring in 15 or fewer hectads in Great Britain

Section 14 of the Wildlife and Countryside Act 1981 (as amended) prohibits the planting of certain invasive plant species in the wild, or otherwise causing them to grow there. Prohibited plants are listed on Part 2 of Schedule 9 and include Japanese knotweed, Himalayan balsam and giant hogweed.

Badgers

Badger (*Meles meles*) is a widespread and common species. However, they are legally protected under The Protection of Badgers Act 1992, due to animal welfare concerns. Under this legislation it is illegal to:

- Wilfully kill, injure, take, or cruelly ill-treat a badger, or attempt to do so
- Intentionally or recklessly interfere with a sett by disturbing badgers whilst they are occupying a sett, damaging or destroying a sett, or obstructing access to it.

A badger sett is defined in the legislation as “*any structure or place, which displays signs indicating current use by a badger*”.

Bats

Bats are protected under Schedule 5 of the Wildlife & Countryside Act (1981, as amended) and are also listed under Section 41 of the Natural Environment and Rural Communities Act 2006 (NERC Act). They are protected by law against all of, but not limited to, the following:

- intentional or reckless killing, injuring, taking;
- damage to, destruction of, obstruction of access to any structure or place used by a scheduled animal for shelter or protection; and
- disturbance of animal occupying such a structure or place.

The conservation (Natural Habitats &c.) Regulations (1994) provide additional protection for the breeding sites and resting places of bats.

Great crested newt

There are seven native amphibian species present in Britain. These are afforded varying degrees of protection under national and European legislation. Great crested newts and their habitat are afforded full protection under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CRoW) Act 2000 and the Conservation of Habitats and Species Regulations 2010 (as amended). Together, this legislation makes it illegal to:

- Deliberately capture, injure or kill a great crested newt.
- Damage or destroy any place used for shelter or protection, including resting or breeding places; or intentionally or recklessly obstruct access to such a place.
- Deliberately, intentionally or recklessly disturb great crested newts.

Any works affecting the breeding or foraging habitat of the species is subject to a license from Natural England. A license is only granted where compliance with these tests is demonstrated.

Great crested newt and common toad are Priority Species

Breeding Birds

Under the Wildlife & Countryside Act (1981), a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds, however, are not included in this definition (except for limited parts of the Act). They are covered by the Games Acts, which fully protect them during the closed season.

All birds, their nests and eggs are protected by law and it is an offence, with certain exceptions, to;

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;
- intentionally take or destroy the egg of any wild bird;
- have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954;
- have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954;
- use traps or similar items to kill, injure or take wild birds;
- have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations;
- intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs of young, or disturb the dependent young of such a bird.

Rare species listed in Schedule 1 Part1 are given further protection, including special increased penalties under Subsection 1 (5) as amended by the Countryside and Rights of Way Act 2000. If any person intentionally or recklessly disturbs any wild bird included in Schedule 1 while it is building a nest or is in, or near containing eggs or young.

The British Trust for Ornithology (BTO) has a list of birds that are Species of Conservation Concern. These birds are not legally protected but where they are found on site they should be given planning consideration. The criteria for birds listed as amber (medium conservation concern) include:

- Historical population decline during 1800-1995, but recovering: population has more than doubled over last 25 years;
- Moderate (25-49%) decline in UK breeding population over last 25 years;
- Moderate (25-49%) contraction of UK breeding range over last 25 years;
- Moderate (25-49%) decline in UK non breeding population over last 25 years;
- Species with unfavourable conservation status in Europe (Species of conservation Concern);
- Five year mean of breeding pairs in the UK;
- $\geq 50\%$ of UK breeding population in 10 or fewer sites.
- $\geq 50\%$ of UK non breeding population in 10 or fewer sites;
- $\geq 20\%$ of European breeding population in UK;

- $\geq 20\%$ of NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non breeding populations in UK.

Water vole

Water voles in England have full protection under the Wildlife and Countryside Act 1981 (Variation of Schedule 5) (England) Order 2008). This means that it is an offence to intentionally or recklessly:

- Damage, destroy, or obstruct access to, a structure or place which is used by water voles for shelter or protection; or
- Disturb a water vole whilst it is occupying such a structure or place which it is using for that purpose.
- Intentionally kill, injure or take a water vole;
- Have in one's possession or control any live or dead water vole or derivatives; or
- Sell, or offer to sell a water vole, or to be found in possession of, or to transport, a water vole for the purpose of sale. This includes publishing any advertisement for the purchase or sale of water voles.

Water vole is also a Priority Species.

Otter

Otters are fully protected by their inclusion in Annex II of the Habitats Directive (92/43/EEC) and Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) and it is therefore subject to the provisions of Section 9, which makes it an offence to:

- intentionally kill, injure or take an otter [Section 9 (1)];
- possess or control any live or dead specimen or anything derived from an otter [Section 9(2)];
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by an otter [Section 9(4) (a)];
- intentionally or recklessly disturb an otter while it is occupying a structure or place which it uses for that purpose [Section 9 (4)(b)];
- sell, offer for sale, possess or transport for the purpose of sale or publish advertisements to buy or sell an otter.

A license is required from Natural England if the potential to commit an offence exists in order for the development to take place.

Otter is listed as a Priority Species.

Reptiles

Slow-worm, viviparous/common lizard, adder and grass snake are protected under the Wildlife and Countryside Act 1981 (as amended) against intentional killing and injuring.

These species are also Priority Species.

Common/Hazel dormouse

The common dormouse is fully protected under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CROW) Act 2000 and the Conservation of Habitats and Species Regulations 2010 (as amended). Together, this legislation makes it illegal to:

- Deliberately capture, injure or kill a dormouse.
- Damage or destroy any structure or place used for shelter or protection by a dormouse; or intentionally or recklessly obstruct access to such a place.
- Deliberately, intentionally or recklessly disturb a dormouse whilst it is occupying a structure or place which it uses for shelter or protection.

The common dormouse is a Priority Species.

APPENDIX 4

Appendix 4 – Cumbria Biodiversity Action Plan - Species List Updated 2009

Cumbria's Biodiversity Action Plan (CBAP) was designed to implement national biodiversity targets at a local level, but with a focus on local priorities. It has many functions, from seeking to raise awareness of the major issues facing nature conservation in Cumbria, guiding work of partners and promoting and protecting BAP species within Cumbria.

At its inception the CBAP species list contained 40 species/grouped species, 21 of which had dedicated action plans with a further 19, without action plans, included in a Phase 2 list. It was originally envisaged that work on producing a further species action plans would continue apace to ensure that full recognition is given to the wide range of priority species that inhabit Cumbria. At the time of writing this means that over 200 UK BAP species are not included within Cumbria's plan. The failure to link UK and Local plans in this way means that it is not possible for all UK BAP species, present in Cumbria, to be fully conserved.

This partial list, currently in place, also presents a number of other issues. Two lists can be confusing for those not directly involved with the BAP process, not only the general public but also planners and conservation practitioners, providing mixed messages about those species considered important in Cumbria.

This is also true of funding bodies, which may consider exclusion of a species from the Cumbria list, as an admission of its relative lack of importance. Thus, those not on the list may be effectively excluded from conservation action, at a local level, when need or opportunity arise.

To address the issues identified above, it is proposed that all of the UK BAP species, that are present in Cumbria, and not already included in the CBAP be added and a new single CBAP species list created. This would increase the CBAP species list from its current level of 40 species/grouped species to a total of 268. By extending the list, we can properly reflect the importance of the county for this wide variety of priority species, highlight their importance to all stakeholders and facilitate conservation measures to protect them.

Note 1: Those species that are not UK BAP species but were contained within the CBAP will be retained in the revised 2009 list as Local BAP species. This will reinforce the local nature of the CBAP.

Note 2: The original Cumbria BAP Phase 2 (no action plan) species list included a moss or liverwort however the exact species had not been decided at the CBAP's inception. This has therefore been omitted from the revised 2009 list.

Note 3: The 248 UK BAP species are those present on the Biodiversity Evidence Database's Cumbria Key Species Designations table under the heading UK Priority Species/ NERC Act S4. This table is maintained by Tullie House Museum and is accessible at www.lakelandwildlife.co.uk.

Common Name	Scientific Name	UK BAP Species Recorded in Cumbria	2009 Cumbria BAP Species Updated List
FUNGI & LICHENS			
Olive Earth-tongue	<i>Microglossum olivaceum</i>	X	X
River Jelly Lichen	<i>Collema dichotomum</i>	X	X
a lichen	<i>Usnea florida</i>	X	X
a lichen	<i>Lobaria amplissima</i>		X

Purple Spindles	<i>Clavaria purpurea</i>	X	X
Bearded Tooth (fungus)	<i>Heridium erinaceum</i>	X	X
Big Blue Pinkgill	<i>Entoloma bloxamii</i>	X	X
Pink Waxcap	<i>Hygrocybe calyptraeformis</i>		X
Date-coloured Waxcap	<i>Hygrocybe spadicea</i>	X	X
Scaly Stalkball	<i>Tulostoma melanocyclum</i>	X	X
Totals		8	10
STONEWORKS			
Lesser Bearded Stonewort	<i>Chara curta</i>	X	X
Totals		1	1
MOSESSES & LIVERWORKS			
Pitted Frillwort	<i>Fossombronina foveolata</i>	X	X
Veilwort	<i>Pallavicinia lyellii</i>	X	X
Waved Fork-moss	<i>Dicranum bergeri</i>	X	X
Brown Grimmia	<i>Grimmia elongata</i>	X	X
Carrion Moss	<i>Aplodon wormskjoldii</i>	X	X
Rugged Collar-moss	<i>Splachnum vasculosum</i>	X	X
Slender Thread-moss	<i>Orthodontium gracile</i>	X	X

Derbyshire Feather-moss	<i>Thamnobryum angustifolium</i>	X	X
Slender Green Feather-moss	<i>Hamatocaulis vernicosus</i>		X
Totals		8	9
VASCULAR PLANTS			
Marsh Clubmoss	<i>Lycopodiella inundata</i>	X	X
Pillwort	<i>Pilularia globulifera</i>	X	X
Oblong Woodsia	<i>Woodsia ilvensis</i>	X	X
Holly-fern	<i>Polystichum lonchitis</i>	X	X
Juniper	<i>Juniperus communis</i>	X	X
Corn Buttercup	<i>Ranunculus arvensis</i>	X	X
Upright Goosefoot	<i>Chenopodium urbicum</i>	X	X
Prickly Saltwort	<i>Salsola kali kali</i>	X	X
Marsh Stitchwort	<i>Stellaria palustris</i>	X	X
Annual Knawel	<i>Scleranthus annuus</i>	X	X
Small-flowered Catchfly	<i>Silene gallica</i>	X	X
Downy Willow	<i>Salix lapponum</i>	X	X
Yellow Bird's-nest	<i>Monotropa hypopitys</i> /ssp. <i>hypophegea</i>	X	X
Marsh Saxifrage	<i>Saxifraga hirculus</i>	X	X
a lady's mantle	<i>Alchemilla minima</i>	X	X

Tubular Water-dropwort	<i>Oenanthe fistulosa</i>	X	X
Caraway	<i>Carum carvi</i>	X	X
Field Gentian	<i>Gentianella campestris</i>	X	X
Pyramidal Bugle	<i>Ajuga pyramidalis</i>	X	X
Basil Thyme	<i>Clinopodium acinos</i>	X	X
an eyebright	<i>Euphrasia rostkoviana montana</i>	X	X
an eyebright	<i>Euphrasia rivularis</i>	X	X
an eyebright	<i>Euphrasia ostenfeldii</i>	X	X
Northern Hawk's-beard	<i>Crepis mollis</i>	X	X
a hawkweed	<i>Hieracium subgracilentipes</i>	X	X
Floating Water-plantain	<i>Luronium natans</i>	X	X
Slender Naiad	<i>Najas flexilis</i>	X	X
Flat-sedge	<i>Blysmus compressus</i>	X	X
Rare Spring-sedge	<i>Carex ericetorum</i>	X	X
Glaucous Meadow-grass	<i>Poa glauca</i>	X	X
Narrow-leaved Helleborine	<i>Cephalanthera longifolia</i>	X	X
Lesser Butterfly-orchid	<i>Platanthera bifolia</i>	X	X
Small White Orchid	<i>Pseudorchis albida</i>		X
Frog Orchid	<i>Coeloglossum viride</i>	X	X

Fly Orchid	<i>Ophrys insectifera</i>	X	X
Totals		33	34
MOLLUSCS			
Mud Snail	<i>Omphiscola glabra</i>	X	X
Sandbowl Snail	<i>Quickella arenaria</i>	X	X
a whorl snail	<i>Vertigo geyeri</i>	X	X
a whorl snail	<i>Vertigo genesii</i>	X	X
Freshwater Pearl Mussel	<i>Margaritifera margaritifera</i>	X	X
Totals		5	5
LEECHES			
Medicinal Leech	<i>Hirudo medicinalis</i>		X
Totals		0	1
MAYFLIES			
Iron Blue Mayfly	<i>Nigrobaetis niger</i>	X	X
Totals		1	1
DRAGONFLIES			
Variable Damselfly	<i>Coenagrion pulchellum</i>		X
White-faced Dragonfly	<i>Leucorrhinia dubia</i>		X
Totals		0	2

BEETLES			
Northern Dune Tiger Beetle	<i>Cicindela hybrida</i>	X	X
Lesser Searcher	<i>Calosoma inquisitor</i>	X	X
a ground beetle	<i>Dyschirius angustatus</i>		X
a ground beetle	<i>Bembidion testaceum</i>	X	X
St. Bees Seed-Eater	<i>Harpalus honestus</i>	X	X
Oxbow Diving Beetle	<i>Hydroporus rufifrons</i>	X	X
Hairy Click Beetle	<i>Synaptus filiformis</i>	X	X
Black Oil-beetle	<i>Meloe proscarabaeus</i>	X	X
Violet Oil-beetle	<i>Meloe violaceus</i>	X	X
Zircon Reed Beetle	<i>Donacia aquatica</i>	X	X
Totals		9	10
CADDISFLIES			
a caddisfly	<i>Glossosoma intermedium</i>	X	X
Totals		1	1
BUTTERFLIES & MOTHS			
Ghost Moth	<i>Hepialus humuli</i>	X	X
Currant Shoot Borer	<i>Lampronia capitella</i>	X	X
The Forester	<i>Adscita statices</i>	X	X

Greenweed Flat-body Moth	<i>Agonopterix atomella</i>	X	X
White-spotted Sable Moth	<i>Anania funebris</i>	X	X
Dingy Skipper	<i>Erynnis tages</i>	X	X
White Letter Hairstreak	<i>Satyrium w-album</i>	X	X
Small Blue	<i>Cupido minimus</i>	X	X
Northern Brown Argus	<i>Aricia artaxerxes</i>	X	X
Duke of Burgundy	<i>Hamearis lucina</i>	X	X
Small Pearl-bordered Fritillary	<i>Boloria selene</i>	X	X
Pearl Bordered Fritillary	<i>Boloria euphrosyne</i>	X	X
High Brown Fritillary	<i>Argynnis adippe</i>	X	X
Marsh Fritillary	<i>Eurodryas aurinia</i>	X	X
Wall	<i>Lasiommata megera</i>	X	X
Mountain Ringlet	<i>Erebia epiphron</i>	X	X
Grayling	<i>Hipparchia semele</i>	X	X
Small Heath	<i>Coenonympha pamphilus</i>	X	X
Large Heath	<i>Coenonympha tullia</i>	X	X
Pale Eggar	<i>Trichiura crataegi</i>	X	X
Oak Hook-tip	<i>Watsonalla binaria</i>	X	X
Oak Lutestring	<i>Cymatophorima diluta</i>	X	X

Small Emerald	<i>Hemistola chrysoprasaria</i>	X	X
Mullein Wave	<i>Scopula marginepunctata</i>	X	X
Oblique Carpet	<i>Orthonama vittata</i>	X	X
Red Carpet	<i>Xanthorhoe decoloraria</i>	X	X
Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	X	X
Shaded Broad-bar	<i>Scotopteryx chenopodiata</i>	X	X
Galium Carpet	<i>Epirrhoe galiata</i>	X	X
Grey Mountain Carpet	<i>Entephria caesiata</i>	X	X
Dark Spinach	<i>Pelurga comitata</i>	X	X
The Spinach	<i>Eulithis mellinata</i>	X	X
Small Phoenix	<i>Ecliptopera silaceata</i>	X	X
Netted Carpet	<i>Eustroma reticulata</i>	X	X
Pretty Chalk Carpet	<i>Melanthia procellata</i>	X	X
Argent and Sable	<i>Rheumaptera hastata</i>	X	X
Grass Rivulet	<i>Perizoma albulata albulata</i>	X	X
The Streak	<i>Chesias legatella</i>	X	X
Barred Tooth-striped	<i>Trichopteryx polycommata</i>	X	X
Latticed Heath	<i>Chiasmia clathrata</i>	X	X
V-moth	<i>Macaria wauaria</i>	X	X

August Thorn	<i>Ennomos quercinaria</i>	X	X
Dusky Thorn	<i>Ennomos fuscantaria</i>	X	X
September Thorn	<i>Ennomos erosaria</i>	X	X
Figure of Eight	<i>Diloba caeruleocephala</i>	X	X
Garden Tiger	<i>Arctia caja</i>	X	X
White Ermine	<i>Spilosoma lubricipeda</i>	X	X
Buff ermine	<i>Spilosoma luteum</i>	X	X
The Cinnabar	<i>Tyria jacobaeae</i>	X	X
Garden Dart	<i>Euxoa nigricans</i>	X	X
Double Dart	<i>Graphiphora augur</i>	X	X
Autumnal Rustic	<i>Eugnorisma glareosa</i>	X	X
Small Square-spot	<i>Diarsia rubi</i>	X	X
Northern Dart	<i>Xestia alpicola alpina</i>	X	X
Neglected Rustic	<i>Xestia castanea</i>	X	X
Heath Rustic	<i>Xestia agathina</i>	X	X
Dot Moth	<i>Melanchra persicariae</i>	X	X
Broom Moth	<i>Melanchra pisi</i>	X	X
Hedge Rustic	<i>Tholera cespitis</i>	X	X
Feathered Gothic	<i>Tholera decimalis</i>	X	X

Powdered Quaker	<i>Orthosia gracilis</i>	X	X
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Shoulder-striped Wainscot	<i>Mythimna comma</i>	X	X
Minor Shoulder-knott	<i>Brachylomia viminalis</i>	X	X
The Sprawler	<i>Asteroscopus sphinx</i>	X	X
Brindled Ochre	<i>Dasypolia templi</i>	X	X
Deep-brown Dart	<i>Aporophyla lutulenta</i>	X	X
Green-brindled Crescent	<i>Allophyes oxyacanthae</i>	X	X
Dark Brocade	<i>Blepharita adusta</i>	X	X
Flounced Chestnut	<i>Agrochola helvola</i>	X	X
Brown-spot Pinion	<i>Agrochola litura</i>	X	X
Beaded Chestnut	<i>Agrochola lychnidis</i>	X	X
Centre-barred Sallow	<i>Atethmia centrargo</i>	X	X
The Sallow	<i>Xanthia icteritia</i>	X	X
Dusky-lemon Sallow	<i>Xanthia gilvago</i>	X	X
Grey Dagger	<i>Acronicta psi</i>	X	X
Knott Grass	<i>Acronicta rumicis</i>	X	X
Mouse Moth	<i>Amphipyra tragopoginis</i>	X	X
Dusky Brocade	<i>Apamea remissa</i>	X	X

Rosy Minor	<i>Mesoligia literosa</i>	X	X
Least Minor	<i>Photedes captiuncula</i>		X
Ear Moth	<i>Amphipoea oculea</i>	X	X
Rosy Rustic	<i>Hydraecia micacea</i>	X	X
Haworth's Minor	<i>Celaena haworthii</i>	X	X
The Crescent	<i>Celaena leucostigma</i>	X	X
The Rustic	<i>Hoplodrina blanda</i>	X	X
Mottled Rustic	<i>Caradrina morpheus</i>	X	X
The Anomalous	<i>Stilbia anomala</i>	X	X
Totals		86	87
FLIES			
River-shore Crane-fly	<i>Rhabdomastix japonica</i>	X	X
Scottish Yellow Splinter	<i>Lipsothrix ecucullata</i>	X	X
Northern Yellow Splinter	<i>Lipsothrix errans</i>	X	X
Scarce Yellow Splinter	<i>Lipsothrix nigristigma</i>	X	X
Southern Silver Stiletto-fly	<i>Clorismia rustica</i>	X	X
Northern Silver Stiletto-fly	<i>Dyschirius angustatus</i>		X

Phantom Hoverfly	<i>Dorus profuges</i>		X
Totals		5	7
BEEES, WASPS & ANTS			
Shining Guest Ant	<i>Formicoxenus nitidulus</i>	X	X
Red Wood Ant	<i>Formica rufa</i>		X
The Northern Colletes	<i>Colletes floralis</i>	X	X
Tormentil Mining Bee	<i>Andrena tarsata</i>	X	X
Wall Mason Bee	<i>Osmia parietina</i>	X	X
Moss Carder-bee	<i>Bombus muscorum</i>	X	X
Totals		5	6
CRUSTACEANS			
Freshwater Crayfish	<i>Austropotamobius pallipes</i>	X	X
Totals		1	1
SPIDERS			
Sedge Jumper	<i>Sitticus caricis</i>	X	X
Broad Groove-head Spider	<i>Monocephalus castaneipes</i>	X	X
Cloud-living Spider	<i>Semljicola caliginosus</i>	X	X

Triangle Hammock-spider	<i>Saaristoa firma</i>	X	X
Totals		4	4
FISH			
Sea Lamprey	<i>Petromyzon marinus</i>	X	X
River Lamprey	<i>Lampetra fluviatilis</i>	X	X
Basking Shark	<i>Cetorhinus maximus</i>	X	X
Allis Shad	<i>Alosa alosa</i>	X	X
Twaite Shad	<i>Alosa fallax</i>	X	X
Atlantic Salmon	<i>Salmo salar</i>	X	X
Trout	<i>Salmo trutta</i>	X	X
Arctic Charr	<i>Salvelinus alpinus</i>	X	X
Schelly	<i>Coregonus lavaretus</i>	X	X
Vendace	<i>Coregonus albula</i>	X	X
Sparling (Smelt)	<i>Osmerus eperlanus</i>	X	X
Eel	<i>Anguilla anguilla</i>	X	X
Plaice	<i>Pleuronectes platessa</i>	X	X
Lesser Sand Eel	<i>Ammodytes marinus</i>		

Ling	<i>Molva molva</i>	X	X
Whiting	<i>Merlangius merlangus</i>	X	X
Cod	<i>Gadus morhua</i>	X	X
Herring	<i>Clupea harengus</i>	X	X
Sole	<i>Solea solea</i>	X	X
Totals		18	18
AMPHIBIANS			
Great Crested Newt	<i>Triturus cristatus</i>	X	X
Common Toad	<i>Bufo bufo</i>	X	X
Natterjack Toad	<i>Bufo calamita</i>	X	X
Totals		3	3
REPTILES			
Leatherback Turtle	<i>Dermochelys coriacea</i>	X	X
Loggerhead Turtle	<i>Caretta caretta</i>	X	X
Viviparous Lizard	<i>Zootoca vivipara</i>	X	X
Slow-worm	<i>Anguis fragilis</i>	X	X
Grass Snake	<i>Natrix natrix</i>	X	X

Adder	<i>Vipera berus</i>	X	X
Totals		6	6
BIRDS			
Black-throated Diver	<i>Gavia arctica</i>	X	X
Bittern	<i>Botaurus stellaris</i>	X	X
Tundra Swan	<i>Cygnus columbianus bewickii</i>	X	X
Greater Scaup	<i>Aythya marila</i>	X	X
Common Scoter	<i>Melanitta nigra</i>	X	X
Hen Harrier	<i>Circus cyaneus</i>	X	X
Red Grouse	<i>Lagopus lagopus</i>	X	X
Black Grouse	<i>Tetrao tetrix</i>	X	X
Grey Partridge	<i>Perdix perdix</i>	X	X
Northern Lapwing	<i>Vanellus vanellus</i>	X	X
Black-tailed Godwit	<i>Limosa limosa limosa</i>	X	X
Eurasian Curlew	<i>Numenius arquata</i>	X	X
Arctic Skua	<i>Stercorarius parasiticus</i>	X	X
Herring Gull	<i>Larus argentatus argenteus</i>	X	X
Common Cuckoo	<i>Cuculus canorus</i>	X	X

Barn Owl	<i>Tyto alba</i>		X
Nightjar	<i>Caprimulgus europaeus</i>	X	X
Lesser Spotted Woodpecker	<i>Dendrocopos minor</i>	X	X
Skylark	<i>Alauda arvensis</i>	X	X
Tree Pipit	<i>Anthus trivialis</i>	X	X
Yellow Wagtail	<i>Motacilla flava flavissima</i>	X	X
Hedge Accentor (Dunnock)	<i>Prunella modularis</i>	X	X
Ring Ouzel	<i>Turdus torquatus</i>	X	X
Song Thrush	<i>Turdus philomelos</i>	X	X
Grasshopper Warbler	<i>Locustella naevia</i>	X	X
Wood Warbler	<i>Phylloscopus sibilatrix</i>	X	X
Spotted Flycatcher	<i>Muscicapa striata</i>	X	X
Marsh Tit	<i>Parus palustris</i>	X	X
Willow Tit	<i>Parus montanus</i>	X	X
Common Starling	<i>Sturnus vulgaris</i>	X	X
House Sparrow	<i>Passer domesticus</i>	X	X
Tree Sparrow	<i>Passer montanus</i>	X	X
Linnet	<i>Carduelis cannabina</i>	X	X

Twite	<i>Carduelis flavirostris</i>	X	X
Lesser Redpoll	<i>Carduelis cabaret</i>	X	X
Bullfinch	<i>Pyrrhula pyrrhula</i>	X	X
Hawfinch	<i>Coccothraustes coccothraustes</i>	X	X
Yellowhammer	<i>Emberiza citrinella</i>	X	X
Reed Bunting	<i>Emberiza schoeniclus</i>	X	X
Corn Bunting	<i>Miliaria calandra</i>	X	X
Totals		39	40
MAMMALS			
Hedgehog	<i>Erinaceus europaeus</i>	X	X
Whiskered Bat	<i>Myotis mystacinus</i>		X
Brandt's Bat	<i>Myotis brandtii</i>		X
Natterer's Bat	<i>Myotis nattereri</i>		X
Daubenton's Bat	<i>Myotis daubentonii</i>		X
Noctule	<i>Nyctalus noctula</i>		X
Common Pipistrelle	<i>Pipistrellus pipistrellus</i>		X
Soprano Pipistrelle	<i>Pipistrellus pygmaeus</i>	X	X
Brown Long-eared Bat	<i>Plecotus auritus</i>		X

Brown Hare	<i>Lepus europaeus</i>	X	X
Red Squirrel	<i>Sciurus vulgaris</i>	X	X
Water Vole	<i>Arvicola terrestris</i>	X	X
Harvest Mouse	<i>Micromys minutus</i>	X	X
Hazel Dormouse	<i>Muscardinus avellanarius</i>	X	X
Bottle-nosed Dolphin	<i>Tursiops truncatus</i>	X	X
Common Dolphin	<i>Delphinus delphis</i>	X	X
Harbour Porpoise	<i>Phocoena phocoena</i>	X	X
Long-finned Pilot Whale	<i>Globicephala melas</i>	X	X
Polecat	<i>Mustela putorius</i>	X	X
Otter	<i>Lutra lutra</i>	X	X
Common Seal	<i>Phoca vitulina</i>	X	X
Totals		14	21
Overall Species Totals		248	268

Note: The original Cumbria BAP Phase II (no action plan) species list included a moss or liverwort however the exact species had not been decided at the time of writing. This has therefore been omitted from the revised 2009 list.

DRAWINGS


DRAWING TITLE: Habitat Plan

KEY:

 Red Line Boundary


 Target notes


UKHab


 g3c - other neutral grassland


 g4 - modified grassland

 u1b - developed land. sealed surface

 u1b5 - buildings

 u1c - artificial unvegetated unsealed surface

 w, 33 - line of trees

 h2a - native hedgerow

SITE: Nook Farm, Cleator
CLIENT: Mr & Mrs N. Webb
JOB NUMBER: JN00821
DRAWING NUMBER: JN00821_DW01
DATE: September 2025
DRAWN/CHECKED: BH / JW
SCALE: NTS