

Land at Millom School, Salthouse Road, Millom LA18 5AB

**ECOLOGICAL SURVEY AND ASSESSMENT
(Including a Licensed Bat Survey)**

February 2025

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Document Control

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Reporting	Personnel	Date
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SUMMARY

Introduction and Scope

- i. This ecological survey and assessment presents the ecological, biodiversity and nature conservation status of land at Millom School, Salthouse Road, Millom LA18 5AB. This updated assessment was requested in connection with proposals to demolish buildings at the site, construct a new building, namely Millom Health and Wellbeing Hub, with additional car parking space and additional playground area. This survey updates and expands upon *2023-044 Land at Millom School, Salthouse Road, Millom LA18 5AB: Ecological Survey and Assessment* (ERAP (Consultant Ecologists) Ltd, 2023), hereafter the '2023 report', to reflect the current conditions present at the site, and the additional areas of proposed development at the site.
- ii. This report presents the results of an updated desktop study, the 2023 data search, an updated extended Phase 1 Habitat Survey and a licensed bat survey carried out in September 2024. The scope of survey undertaken is appropriate to identify potential ecological constraints, the remit of mitigation required and opportunities for biodiversity associated with the development proposals.
- iii. The site is split into the areas to be affected by the proposals (refer to the appended **Figures 1 and 2**) and comprises two buildings with associated hard standing and areas of amenity grassland (the subject of the 2023 report), an additional area of amenity grassland at the southern end of the school grounds with a boundary hedgerow, and the janitor's bungalow building at the western end of the school site, with its associated overgrown garden habitat.

Results of Survey and Assessment

- iv. Standard measures must be adopted to ensure that impacts such as pollution incidents, dust and noise are avoided during the construction phase of the development. Such measures are outlined at Section 5.2 and should be adopted as part of a Construction Environmental Management Plan (CEMP). Provided such measures are adopted it is considered that the proposals will have no adverse direct or indirect effect on statutory or non-statutory designated sites for nature conservation.
- v. The site contains only common and widespread plant species. None of the habitats within the site are of significant interest in terms of their plant species composition. None of the habitats present are representative of semi-natural habitat. The NVC communities present are typical of the geographical area and conditions present. No irreplaceable habitats are present. Hedgerow 1 is a Priority Habitat, and will be retained by the proposed development. No other Priority Habitats are present. The hedgerow and trees are considered to be of 'site' importance in terms of their geographical context; no other habitat within the site is considered to be of any importance in terms of its geographical context. Measures to protect Hedgerow 1 and habitats adjacent to the site during the construction phase of the proposed development are presented at **Section 5.2**.
- vi. Montbretia, an invasive species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) was detected near the disused bungalow. It is an offence to cause the spread of this species in the wild. Guidance on the control and management of this species is described at **Section 5.2**.
- vii. None of the buildings support features suitable for use by roosting bats; the buildings are assessed to be of 'negligible' suitability for use by roosting bats. No further surveys are necessary to determine the status of roosting bats at the site. The habitats surrounding the site are suitable for use by foraging and commuting bats; measures to ensure the proposals do not impact negatively upon these features are presented at **Section 5.2**.

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- viii. Both buildings support features suitable for use by nesting birds; all wild birds are protected while they are nesting under the *Wildlife and Countryside Act 1981* (as amended). Measures for the protection of nesting birds are presented at **Section 5.2**. Ecological enhancements for nesting birds to be incorporated into the site design are presented at **Section 5.3**.
 - ix. The habitats surrounding the bungalow are suitable for use by foraging and sheltering hedgehog; measures for the protection of hedgehog during works are presented at **Section 5.2**. No other protected species have been detected.

Recommendations

- x. The recommendations in **Section 5.0** outline all the mandatory measures and additional actions to be applied to ensure compliance with wildlife legislation, the National Planning Policy Framework (NPPF) and best practice.
- xi. The proposals will secure an opportunity to implement beneficial measures such as habitat creation that will safeguard habitats for wildlife such as birds and bats, with the aim of providing a net gain in biodiversity in accordance with the principles of the NPPF.

Conclusion

- xii. It is concluded that the proposals are feasible and acceptable in accordance with ecological considerations and relevant planning policy. Redevelopment at the site will provide an opportunity to secure ecological enhancement for wildlife.

1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Cohesion Consult Ltd to carry out an ecological assessment of land at Millom School, Salthouse Road, Millom LA18 5AB (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the Millom School site is SD 17445 80567.
- 1.1.2 The assessment was requested in connection with a planning application proposing the redevelopment of areas within the Millom School site.
- 1.1.3 The proposals will occur at five areas within the Millom School site (three of which are adjoining). **Table 1.1** present the area and change of use proposed at each of the locations.

Table 1.1: Locations at Which Works are Proposed

Area Reference	Central OS Grid Reference	Change of Use Proposed
Change of Land Use A and E	SD 17393 80507	Demolition of existing building and removal of amenity grassland for new building with fenced service yard, footpaths, car parking and amenity grassland
Change of Land Use B	SD 17397 80395	Extended hard standing playground area and artificial playing field access
Change of Land Use C	SD 17270 80471	Demolition of disused building and grounds and provision of additional car parking
Site Compound Area	SD 17352 80570	Area of grassland to be used temporarily for a site compound during works before being revegetated
Additional Land 1	SD 17443 80522	Area of grassland to be enhanced to attain BNG as part of the proposed development.
Additional Land 2	SD 17406 80448	Area of grassland to be enhanced to attain BNG as part of the proposed development.
Additional Land 3	SD 17411 80434	Area of grassland to be enhanced to attain BNG as part of the proposed development.
Additional Land 4	SD 17357 80658	Area of grassland with urban trees to be enhanced to attain BNG as part of the proposed development.
Additional Land 5	SD 17352 80570	Area of grassland to be temporarily affected before being revegetated

1.2 Scope of Works

- 1.2.1 This report updates and expands upon *2023-044 Land at Millom School, Salthouse Road, Millom LA18 5AB: Ecological Survey and Assessment* (ERAP (Consultant Ecologists) Ltd, 2023). The scope of ecological works undertaken in September comprised:
- A desktop study for known ecological information at the site and the local area (data search information collated for the site in 2023 has been presented within this report for ease of reference);
 - An Extended Phase 1 Habitat Survey and assessment, and assessment of the habitats present at the site using the UK Habitats Classification;
 - Assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria, as presented in *A Nature Conservation Review* (Ratcliffe, 1977);

- d. Survey and assessment of all habitats for relevant statutorily protected species¹ and other wildlife including badger (*Meles meles*), barn owl (*Tyto alba*) bird species and reptiles;
- e. A daytime bat walkover survey for bats, which has comprised a licensed preliminary roost assessment of the buildings, a ground level tree assessment and an assessment of the suitability of the habitats within the site and the surrounding area for foraging and commuting bats;
- f. The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
- g. The identification of any further surveys or precautionary actions that may be required to inform the progression of the site through the planning process or prior to the commencement of any construction activities.

2.0 METHOD OF SURVEY

2.1 Desktop Study and Data Search

2.1.1 The following sources of information and ecological records were consulted:

- a. MAGiC Maps: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
- b. Ancient Tree Inventory (Woodland Trust, 2023): An online database of ancient and veteran trees;
- c. Cumbria Biodiversity Data Centre (CBDC)²;
- d. *Environment Agency Main River Map* (Environment Agency, 2024); and
- e. Cumbria Biodiversity Action Plan (BAP).

2.2 Vegetation and Habitats

- 2.2.1 An updated Extended Phase 1 Habitat Survey of the site was carried out by Brian Robinson on 19th September 2024. The weather was dry and sunny with a light air (Beaufort scale 1) and an air temperature of 20°C.
- 2.2.2 A habitat and vegetation map was produced for the site and the immediate surrounding area and is appended at **Figure 2**. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.
- 2.2.3 On site habitat mapping was assisted via use of GPS technology and QField on-site mapping software, using the 'Tree Constraints Plan' presented in *Millom School, Salthouse Road, Millom, Cumbria LA18 5AB*:

¹ In accordance with Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact on the Planning System (Ministry of Housing, Communities & Local Government, 2005) developers should not be required to undertake surveys for protected species unless there is reasonable likelihood of the species being present and affected by the development. In this instance (for example) there are no ponds within an unobstructed radius of 500 metres from the site, and no water bodies or water courses within or adjacent to the site; there has been no requirement to consider great crested newt (*Triturus cristatus*), water vole (*Arvicola amphibius*) or otter (*Lutra lutra*) as part of this assessment

² Data gathered for the 2023 report has been presented within this report for ease of reference.

Arboricultural Impact Assessment Ref BTC2691 (Bowland Tree Consultancy Ltd, 2023), hereafter the 'AIA report', and *ESRI World Imagery* as base plans.

- 2.2.4 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally used to describe the plant species distributions with greater precision.
- 2.2.5 Stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is a reliable framework for nature conservation and land-use planning.
- 2.2.6 Habitats within the site were assessed in accordance with *The UK Habitat Classification Version 2.0* (UKHab Ltd, 2023). The UK Habitat Classification, or 'UKHab' has been designed to function at two scales of minimum mappable unit (MMU): fine scale (25m² or 5 metres length) and large scale (400m² or 20 metres length). It has been considered for the purposes of this survey that the fine scale of 25m² or 5 metres length MMU is appropriate.
- 2.2.7 Hedgerows were assessed in accordance with *The Hedgerows Regulations 1997* wildlife and landscape criteria (H.M.S.O., 1997).
- 2.2.8 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature follows *New Flora of the British Isles 3rd Edition* (Stace, 2010).
- 2.2.9 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

2.3 Animal Life

Badger

- 2.3.1 The survey area for badger covered the site (as annotated on **Figures 1 and 2**) and extended to accessible land within a radius of 50 metres from the site boundary. Private gardens / land were excluded from the survey.
- 2.3.2 The survey was conducted in accordance with guidance presented within *Badgers and Development* (Natural England, 2007) and *Badgers: advice for making planning decisions* (Natural England, 2022).
- 2.3.3 The following signs of badger activity were searched for:
 - a. Setts entrances, e.g. entrances that are normally 25 to 35cm in diameter and shaped like a 'D' on its side;
 - b. Large spoil heaps outside sett entrances;
 - c. Bedding outside sett entrances;
 - d. Badger footprints;

- e. Badger paths;
- f. Latrines;
- g. Badger hairs on fences or bushes;
- h. Scratching posts; and
- i. Signs of digging for food.

2.3.4 Habitats within and surrounding the site were assessed in terms of their suitability for use by foraging and sheltering badger in accordance with their known habitat preferences as detailed in current guidance and *Badger* (Roper, 2010).

Bat Species

Daytime Bat Walkover Survey

Survey Personnel

2.3.5 The site was assessed for its suitability to support roosting bats by Brian Robinson, Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number 2015-13161-CLS-CLS. The surveyor's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).

Preliminary Roost Assessment of the Buildings

2.3.6 The surveys were carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3rd Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* (Collins, J. (ed), 2023).

2.3.7 An inspection of the external surfaces, walls and roofs of the buildings was carried out to find potential bat roosting habitat or accesses into internal areas where roosts may be present. Searches for evidence of bat presence in the form of droppings, urine stains, feeding signs, grease marks and other evidence were also carried out.

2.3.8 It was not considered necessary to update the internal inspections of Buildings 1 and 2, which were considered to be of 'negligible' suitability for use by roosting bats in 2023. An internal inspection was completed at Building 3, i.e. the disused former janitor's bungalow. The internal survey involved an examination of the accessible internal areas (including roof voids) to search for roosting bats or evidence of past use of the buildings by bats such as droppings and prey remains.

2.3.9 A list of equipment used is detailed in **Table 2.1**.

Table 2.1: Survey Equipment used during Daytime Bat Survey

Ladders
LED Lenser P14 torch
Olympus Tough TG-6
8x20 binoculars
Ridgid Micro Inspection Camera Borescope CA-100

2.3.10 The suitability of each building has been assessed in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* (Collins, J. (ed), 2023), taking into account any

presence of gaps suitable for access by bats, features suitable for use by roosting bats within the building (including crevice dwelling species and species which can roost in the open in roof voids), and the suitability of the surrounding habitats for use by foraging and commuting bats. The suitability of each building has been informed by the following categories as presented in **Table 2.2**.

Table 2.2: Suitability Categories for Roosting Habitats in Buildings

Suitability	Description
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices / suitable shelter at all ground / underground levels).
Negligible ^a	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^b and / or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats ^c).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^b and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^b and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool / stable hibernation site.
^a Negligible is defined as ‘so small or unimportant as to be not worth considering, insignificant’. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute). ^b For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance. ^c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten <i>et al.</i> , 2016 and Jansen <i>et al.</i> , 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.	

Ground Level Walkover Survey of the Trees

- 2.3.11 A preliminary assessment of the trees within the site was conducted to assess their suitability for use by roosting bats, and to inform whether further surveys or precautionary measures were required.
- 2.3.12 Trees were assessed from the ground using binoculars and a high-powered torch. Each tree was searched for the presence of the following features:
- 2.3.13 Woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed platey bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks

with included bark, gaps between overlapping stems or branches, partially detached Ivy (*Hedera helix*) with stem diameters in excess of 50mm and bat, bird or dormouse (*Muscardinus avellanarius*) boxes.

- 2.3.14 Terms used to describe any features present follow (where possible) those outlined and described in *Bat Tree Habitat Key, 2nd Edition* (Andrews, H (ed), 2013) and *Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-care and Ecology Professionals* (BTHK, 2018).
- 2.3.15 Trees have been assessed and described using the categories presented at Tables 4.2 and 6.2 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*, (Collins, J. (ed), 2023), as presented in **Table 2.3**.

Table 2.3: Definition of Terms and Suitability Categories Used in Tree Survey for Roosting Bats

Terms and Suitability Categories	Description
PRF	Potential Roost Feature
None	Either no PRFs in the tree(s) or highly unlikely to be any.
FAR	Further Assessment Required to establish if PRFs are present in the tree
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Habitat Assessment for Commuting / Foraging Bats

- 2.3.16 Habitats within and adjacent to the site were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* (Collins, J. (ed), 2023). Reference has been made to the categories, descriptions and examples presented in **Table 2.4**.

Table 2.4: Consideration of Suitability of Foraging and Commuting Habitat for Bats

Suitability	Potential Flight Paths and Foraging Habitats
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade / protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible ^a	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

^a Negligible is defined as ‘so small or unimportant as to be not worth considering, insignificant’. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

Bird Species

- 2.3.17 Bird species observed and heard during the survey were recorded.
- 2.3.18 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.

Reptile Species

- 2.3.19 The site and its surroundings were assessed in terms of their suitability for use by reptile species using the important characteristics for reptiles outlined in the draft document *Reptile Mitigation Guidelines* (Natural England, 2011), and the *Reptile Habitat Management Handbook* (Edgar, et al., 2010). These habitat characteristics are outlined in **Table 2.5**.

Table 2.5: Important Habitat Characteristics for Reptiles

1. Location (in relation to species range)	7. Connectivity to nearby good quality habitat
2. Vegetation Structure	8. Prey abundance
3. Insolation	9. Refuge opportunity
4. Aspect	10. Hibernation habitat potential
5. Topography	11. Disturbance regime
6. Surface geology	12. Egg-laying site potential

Other Wildlife

- 2.3.20 Evidence of other wildlife observed whilst on site, but for which specific surveys were not made, was recorded and has been included in this report where it is considered of relevance to the planning application. This includes Priority Species.
- 2.3.21 Habitats have been assessed for their suitability for Priority Species identified in the data search results where this is considered relevant to the application.

2.4 Survey and Reporting Limitations

- 2.4.1 The whole site was accessible and surveys were completed at a suitable time of year. No survey limitations were experienced.
- 2.4.2 All measurements within this report are approximate only, and have been either measured (using QField) or estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC Maps and Google Earth.

2.5 Evaluation Methods

- 2.5.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977) and *Guidelines for the Selection of Biological SSSIs* (Bainbridge, et al., 2013). These are size (extent), diversity, naturalness, rarity, fragility,

typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.

- 2.5.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present has been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018). Each habitat and individual trees have been assessed to determine whether they are ‘irreplaceable habitat’, defined in *National Planning Policy Framework* (Department for Levelling Up, Housing and Communities, 2023)³ as ‘Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen’. The further detail presented in *The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024* (GOV.UK, 2023) document has also been referred to.
- 2.5.3 Government advice on wildlife, as set out in the NPPF and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.
- 2.5.4 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of habitats and / or species listed by the Cumbria Biodiversity Action Plan has been taken into account in the evaluation of the site.

³Hereafter the NPPF

3.0 SURVEY RESULTS

3.1 Desktop Study and Data Search

Statutory Designated Sites for Nature Conservation and SSSI Impact Risk Zones

- 3.1.1 The site is not and does not form part of any statutory designated site for nature conservation.
- 3.1.2 The site lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone for the following overlapping statutory designated sites for nature conservation (hereafter the 'statutory designated sites'), all of which are located 85 metres to the east of the site (across a railway line):
- Duddon Estuary SSSI, designated for its sand dune systems and the diverse plant communities they support, a variety of nationally rare and scarce invertebrate species and for its importance to wintering wildfowl and waders as well as passage migrants. The SSSI is also of importance as one of a series of estuaries on the north-west coast where the majority of the British population of natterjack toads (*Bufo calamita*) occur.
 - Morecambe Bay and Duddon Estuary Special Protection Area (SPA), for its importance to wildfowl and passage migrant birds;
 - Duddon Estuary Ramsar Site, designated for its importance to wildfowl and passage migrant birds; and
 - Morecambe Bay Special Area of Conservation (SAC), designated for its estuarine Annex I habitats and the presence of great crested newt.
- 3.1.3 **Figure 1** shows the site's location in relation to the statutory designated sites.
- 3.1.4 The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Natural England, 2024):
- All Consultations: All planning applications (except householder applications) where the proposed development is outside or extends outside existing settlements / urban areas and will increase lighting levels or affect greenspace, farmland, semi natural habitats, trees / woodland, waterbodies, rural buildings / structures (manmade or natural) or linear landscape features such as hedgerows, streams and rivers through direct loss, fragmentation or change of use.
 - Infrastructure: Pipelines and underground cables, pylons and overhead cables (excluding upgrades and refurbishment of existing network). Any transport proposal including new or extended footways, cycleways, roads/car parks, railways and waterways (excluding routine maintenance). Airports, helipads and other aviation proposals.
 - Wind and Solar: Solar schemes with a footprint greater than 0.5 hectares, and all wind turbines.
 - Minerals, Oil and Gas: Planning applications for quarries, including: new proposals, Review of Minerals Permissions, extensions, variations to conditions etc. Oil and gas exploration / extraction.
 - Rural Non-Residential: Large non-residential developments outside of existing settlements / urban areas where the net additional gross internal floorspace is greater than 1,000m² or the footprint exceeds 0.2 hectares.
 - Residential: Residential development of 10 units or more.

- g. Rural Residential: Any residential developments outside of existing settlements / urban areas with a total net gain in residential units.
- h. Air Pollution: Any development that could cause air pollution or dust either in its construction or operation (including: industrial / commercial processes, livestock and poultry units and slurry lagoons / manure stores).
- i. Combustion: All general combustion processes. Includes energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis / gasification, anaerobic digestion, sewage treatment works and other incineration / combustion.
- j. Waste: Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste and other waste management.
- k. Compost: Any composting proposal. Includes open windrow composting, in-vessel composting, anaerobic digestion and other waste management.
- l. Discharge: Any discharge of water or liquid waste that is discharged to ground (i.e. to seep away) or to surface water, such as a beck or stream.

3.1.5 Potential impacts to the statutory designated sites present in the wider area as a consequence of the proposed development are considered further at **Section 4.2**.

Non-statutory Designated Sites for Nature Conservation

- 3.1.6 The site is not and does not form part of any non-statutory designated site for nature conservation.
- 3.1.7 Five non-statutory designated sites for nature conservation (hereafter the 'non-statutory sites') are located within a radius of 2 kilometres from the centre of the site, and are summarised at **Table 3.1**.

Table 3.1: Local Wildlife Sites Within a 2 Kilometre Radius from the Centre of the Site

Site Name	Distance and Direction from the Site
Millom Marsh County Wildlife Site	350 metres to the north-east
Butts Foot Wood County Wildlife Site and Ancient Woodland	1.38 kilometres to the north-west
Beck Wood (Millom) County Wildlife Site and Ancient Woodland	1.34 kilometres to the north-west
Hodbarrow Lagoon and RSPB Reserve Site of Invertebrate Significance	1.37 kilometres to the south
Hodbarrow Point Local Geological Site	1.98 kilometres to the south

- 3.1.8 The presence of these non-statutory designated sites is considered further at **Section 4.2**.

Main River Designation

- 3.1.9 In accordance with *Main River* Map (Environment Agency, 2024) the section of Salthouse Pool, located 34 metres to the north-east of the site, forms part of a Main River.

Priority Habitats Inventory

- 3.1.10 The Priority Habitats Inventory⁴ was checked via MAGiC Maps. No Priority Habitats are identified at the site by the inventory. In accordance with the inventory the amenity grassland at the northern end of the site (and the playing fields to the north of the site) form part of an area of Coastal and Floodplain Grazing

⁴ A spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

Marsh Priority Habitat. No further Priority Habitats are identified at the site by the inventory. The presence of Coastal and Floodplain Grazing Marsh Priority Habitat at the site is considered further at **Section 4.3**.

Ancient Tree Inventory

3.1.11 No ancient or veteran trees are identified at the site by the inventory.

Protected and Notable Species

3.1.12 CBDC hold no records of protected and notable species for the site.

3.1.13 Records of protected and notable species for a radius of 2 kilometres from the centre of the site are summarised at **Table 3.2**. Note that where distance from the site is not provided this is due to the locational data being provided with a less than 6 figure grid reference.

Table 3.2: Records of Protected Species Within a 2 Kilometre Radius from the Centre of the Site

Taxon Group	Species Name and Designations ¹ and Notes
Amphibians	Great crested newt (<i>Triturus cristatus</i>): EPS, WCAs5, PS & LBAP. 1 record from 1981.
	Natterjack toad (<i>Epidalea calamita</i>): EPS, WCAs5, PS & LBAP. 276 records, dated between 1980 and 2018. The closest record is 750 metres to the south-east and from 2011.
	Common toad (<i>Bufo bufo</i>): WCAs5, PS & LBAP. 79 records, dated between 1986 and 2016. The closest record is 325 metres to the south-east and from 2016.
	Common frog (<i>Rana temporaria</i>): WCAs5 (sale only). 64 records, dated between 1986 and 2016. The closest record is 750 metres to the south-east and from 2011.
	Smooth newt (<i>Lissotriton vulgaris</i>): WCAs5 (sale only). 44 records, dated between 1986 and 2017. The closest record is 750 metres to the south-east and from 2011.
Birds – WCAs1 Species	Scaup (<i>Aythya marila</i>): WCAs1, PS & LBAP. 27 records, dated between 2007 and 2013. The closest record is 1365 metres to the south and from 2007.
	Roseate tern (<i>Sterna dougallii</i>): WCAs1 & PS. 1 record from 2009.
	Sensitive species h: WCAs1 & LBAP. 7 records, dated between 2007 and 2010.
	Sensitive Species t: WCAs1 & LBAP. 13 records, dated between 1999 and 2011.
	Black tern (<i>Chlidonias niger</i>): WCAs1. 1 record from 2013.
	Garganey (<i>Spatula querquedula</i>): WCAs1. 5 records, dated between 2007 and 2008. The closest record is 2085 metres to the south and from 2007.
	Great northern diver (<i>Gavia immer</i>): WCAs1. 4 records, dated between 2009 and 2010.
	Green sandpiper (<i>Tringa ochropus</i>): WCAs1. 3 records, all from 2007. The closest record is 1325 metres to the south.
	Greenshank (<i>Tringa nebularia</i>): WCAs1. 5 records, dated between 2008 and 2011.
	Greylag goose (<i>Anser anser</i>): WCAs1. 77 records, dated between 1999 and 2013. The closest record is 2085 metres to the south and from 2007.
	Kingfisher (<i>Alcedo atthis</i>): WCAs1. 7 records, dated between 2008 and 2011.
	Little gull (<i>Hydrocoloeus minutus</i>): WCAs1. 42 records, dated between 2007 and 2013. The closest record is 1365 metres to the south and from 2007.
	Long-tailed duck (<i>Clangula hyemalis</i>): WCAs1. 16 records, all from 2007. The closest record is 1365 metres to the south.
	Mediterranean gull (<i>Ichthyophaga melanocephalus</i>): WCAs1. 26 records, dated between 1998 and 2011. The closest record is 1365 metres to the south and from 2007.
	Redwing (<i>Turdus iliacus</i>): WCAs1. 18 records, dated between 2009 and 2011.
	Slavonian grebe (<i>Podiceps auritus</i>): WCAs1. 5 records, dated between 2007 and 2013.
	Spoonbill (<i>Platalea leucorodia</i>): WCAs1. 4 records, all from 2009.
	Velvet scoter (<i>Melanitta fusca</i>): WCAs1. 1 record from 2011.

Taxon Group	Species Name and Designations ¹ and Notes
	<p>Whooper swan (<i>Cygnus cygnus</i>): WCAs1. 20 records, dated between 2007 and 2013. The closest record is 2065 metres to the south and from 2011.</p> <p>Sensitive Species a: WCAs1. 1 record from 2001.</p> <p>Sensitive Species c: WCAs1. 17 records, dated between 2007 and 2011.</p> <p>Sensitive Species cz: WCAs1. 2 records, dated 2011 and 2013.</p> <p>Sensitive Species d: WCAs1. 60 records, dated between 2007 and 2013. The closest record is 2085 metres to the south and from 2007.</p> <p>Sensitive Species k: WCAs1. 3 records, dated between 2007 and 2009. The closest record is 2085 metres to the south and from 2007.</p> <p>Sensitive Species l: WCAs1. 3 records, dated between 2007 and 2011.</p> <p>Sensitive Species n: WCAs1. 19 records, dated between 2000 and 2013. The closest record is 1580 metres to the south and from 2007.</p> <p>Sensitive Species p: WCAs1. 4 records, all from 2009.</p> <p>Sensitive Species q: WCAs1. 86 records, dated between 2007 and 2013. The closest record is 1365 metres to the south and from 2007.</p> <p>Sensitive Species s: WCAs1. 49 records, dated between 1999 and 2013. The closest record is 2085 metres to the south and from 2007.</p> <p>Sensitive Species w: WCAs1. 20 records, dated between 2008 and 2013.</p> <p>Sensitive Species y: WCAs1. 1 record from 2011.</p>
Birds – Priority and LBAP Species	<p>PS & LBAP:</p> <p>Lapwing (<i>Vanellus vanellus</i>), curlew (<i>Numenius arquata</i>), arctic skua (<i>Stercorarius parasiticus</i>), cuckoo (<i>Cuculus canorus</i>), grey partridge (<i>Perdix perdix</i>), skylark (<i>Alauda arvensis</i>), yellowhammer (<i>Emberiza citrinella</i>), reed bunting (<i>Emberiza schoeniclus</i>), lesser redpoll (<i>Acanthis cabaret</i>), bullfinch (<i>Pyrrhula pyrrhula</i>), grasshopper warbler (<i>Locustella naevia</i>), tree pipit (<i>Anthus trivialis</i>), spotted flycatcher (<i>Muscicapa striata</i>), house sparrow (<i>Passer domesticus</i>), tree sparrow (<i>Passer montanus</i>), wood warbler (<i>Phylloscopus sibilatrix</i>), dunnoek (<i>Prunella modularis</i>), linnet (<i>Linaria cannabina</i>), twite (<i>Linaria flavirostris</i>), starling (<i>Sturnus vulgaris</i>) and song thrush (<i>Turdus philomelos</i>).</p>
Ferns	<p>Pillwort (<i>Pilularia globulifera</i>): PS & LBAP. 4 records, dated between 1990 and 2006. The closest record is 1710 metres to the south and from 1990.</p>
Insects – Butterflies	<p>Northern brown argus (<i>Aricia artaxerxes artaxerxes</i>): WCAs5 & LBAP. 1 record from 2015.</p>
Insects – Butterflies – PS & LBAP Species	<p>PS & LBAP:</p> <p>Dingy skipper (<i>Erynnis tages</i>), small heath (<i>Coenonympha pamphilus</i>), wall (<i>Lasiommata megera</i>) and grayling (<i>Hipparchia semele</i>).</p> <p>LBAP Only:</p> <p>Dingy skipper (<i>Erynnis tages tages</i>), small heath (<i>Coenonympha pamphilus pamphilus</i>) and grayling (<i>Hipparchia semele semele</i>).</p>
Insects – Hymenoptera	<p>Northern colletes (<i>Colletes floralis</i>): PS & LBAP. 1 record from 2004.</p>
Insects – Moths	<p>PS & LBAP:</p> <p>Latticed heath (<i>Chiasmia clathrata</i>), small phoenix (<i>Ecliptopera silaceata</i>), spinach (<i>Eulithis mellinata</i>), oblique carpet (<i>Orthonama vittata</i>), shaded broad-bar (<i>Scotopteryx chenopodiata</i>), dark-barred twin-spot carpet (<i>Xanthorhoe ferrugata</i>), garden tiger (<i>Arctia caja</i>), white ermine (<i>Spilosoma lubricipeda</i>), cinnabar (<i>Tyria jacobaeae</i>), hedge rustic (<i>Tholera cespitis</i>), small square-spot (<i>Diarsia rubi</i>) and rosy rustic (<i>Hydraecia micacea</i>)</p> <p>LBAP Only:</p> <p>Rosy minor (<i>Litoligia literosa</i>) and sallow (<i>Cirrhia icteritia</i>).</p>
Marine Mammals	<p>Common dolphin (<i>Delphinus delphis</i>): EPS, WCAs5, PS & LBAP. 1 record from 1988.</p> <p>Common porpoise (<i>Phocoena phocoena</i>): EPS, WCAs5, PS & LBAP. 4 records, dated between 1985 and 2003. The closest record is 2535 metres to the south and from 2003.</p>

Taxon Group	Species Name and Designations ¹ and Notes
	Long-finned pilot whale (<i>Globicephala melas</i>): EPS, WCAs5, PS & LBAP. 1 record from 1985. Harbour seal (<i>Phoca vitulina</i>): PS & LBAP. 1 record from 1995.
Reptiles	Common lizard (<i>Zootoca vivipara</i>): WCAs5, PS & LBAP. 17 records, dated between 1993 and 2017. The closest record is 645 metres to the south-east and from 2011.
Terrestrial Mammals	Eurasian otter (<i>Lutra lutra</i>): EPS, WCAs5, PS & LBAP. 2 records, dated 2008 and 2016. The closest record is 90 metres to the east, and from 2008. Noctule bat (<i>Nyctalus noctula</i>): EPS, WCAs5, PS & LBAP. 1 record from 1998, located 955 metres to the north. Bat (Order <i>Chiroptera</i>): EPS, WCAs5 & LBAP. 2 records, dated 2004 and 2014. The closest record is 725 metres to the south-west, and from 2014. Common pipistrelle (<i>Pipistrellus pipistrellus</i>): EPS, WCAs5 & LBAP. 5 records, dated between 2002 and 2008. The closest record is 470 metres to the south and from 2007. Pipistrelle bat species (<i>Pipistrellus</i> sp.): EPS, WCAs5 & LBAP. 2 records, both from 2005. The closest record is 750 metres to the west. Eurasian red squirrel (<i>Sciurus vulgaris</i>): WCAs5, PS & LBAP. 4 records, dated between 2001 and 2010. The closest record is 160 metres to the north-west and from 2001. West European hedgehog (<i>Erinaceus europaeus</i>): PS & LBAP. 5 records, dated between 2002 and 2017. The closest record is 190 metres to the west and from 2016. Eurasian badger (<i>Meles meles</i>): PBA. 4 records, dated between 1997 and 2010. The closest record is over 1000 metres from the site.
¹ Key to Designation Codes: EPS = European Protected Species under <i>The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019</i> . WCAs1 = Species receives full protection under Schedule 1 of the <i>Wildlife and Countryside Act 1981</i> (as amended). WCAs5 = Species receives full protection under Schedule 5 of the <i>Wildlife and Countryside Act 1981</i> (as amended). PBA = Protection of Badger Act 1992. PS = Priority Species listed under Section 41 of the NERC Act 2006. LBAP = Species listed on the Cumbria Biodiversity Action Plan	

3.1.14 The presence of these protected and notable species within the wider area has been taken into account throughout this report.

3.2 Vegetation and Habitats

General Description

- 3.2.1 The approximately 1.13998 hectares school site is located at the north-eastern end of the town of Millom with housing to the west and south, a railway line to the east (beyond which lie coastal habitats associated with Duddon Sands) and playing fields to the north, beyond which lies Aggie's Lonnin and agricultural fields.
- 3.2.2 The proposed development areas comprise buildings, hard standing and amenity grassland, with overgrown garden habitats surrounding the disused former janitor's bungalow (Building 3) at the western end of the site and a hedgerow located at the southern boundary of the southern area of amenity grassland.
- 3.2.3 An area of unmanaged grassland, a hardstanding path and planted trees is located at the northern end of the site (Additional land 4).
- 3.2.4 The appended **Figure 2** can be referred to for all habitat descriptions. Photographs are appended in **Section 8.2**.

Overgrown Garden Surrounding Building 3

Bramble Scrub, Tall Forbs, Unmanaged Grassland and Ornamental Shrubs

- 3.2.5 Refer to **Photos 1 to 4**. The unmanaged gardens which surround Building 3 support Bramble (*Rubus fruticosus* agg.) scrub, areas of tall forbs and unmanaged grassland, with locally abundant non-native ornamental shrubs located at the southern end of the former garden.
- 3.2.6 The tall forbs are characterised by locally abundant Common Nettle (*Urtica dioica*) and Hedge Bindweed (*Calystegia sepium*) and are present to the south and east of a disused polytunnel.
- 3.2.7 The unmanaged grassland is characterised by constant, frequent and locally abundant Yorkshire-fog (*Holcus lanatus*) and Common Couch (*Elytrigia repens*), constant, occasional and locally abundant Common Nettle, occasional and locally abundant Great Willowherb (*Epilobium hirsutum*) and Bramble, occasional and locally frequent Creeping Thistle (*Cirsium arvense*) and Silverweed (*Potentilla anserina*) occasional Sycamore (*Acer pseudoplatanus*), Ribwort Plantain (*Plantago lanceolata*), Dandelion (*Taraxacum officinale* agg.), Common Ragwort (*Senecio jacobaea*), Goat Willow (*Salix caprea*) and False Oat-grass (*Arrhenatherum elatius*) and locally frequent Hedge Bindweed (*Calystegia sepium*), Red Clover (*Trifolium pratense*) and Creeping Bent (*Agrostis stolonifera*).
- 3.2.8 The Bramble scrub is typical of a W24 *Rubus fruticosus* agg. – *Holcus lanatus* underscrub (Rodwell, 1991) of the NVC, and the tall forbs hold characteristics of an OV24 *Urtica dioica* – *Galium aparine* tall-herb community (Rodwell, 2000). The unmanaged grassland holds characteristics of a developing MG1 *Arrhenatherum elatius* grassland (Rodwell, 1992) of the NVC.
- 3.2.9 The vegetation is described in Phase 1 Habitat Survey terminology as A2.1 Dense continuous scrub, C3.1 Other tall-herb and fern – tall ruderal tall forbs and B6 Poor semi-improved grassland, and is described by the UKHab as h3d Bramble scrub, g3 neutral grassland with the secondary code 16 tall forbs and g3c other neutral grassland with the secondary code 32 scattered trees. All three habitat types support the secondary code 518 neglected.

Vegetation Colonising Hardstanding

- 3.2.10 Refer to **Photo 5**. The vegetation colonising the compacted stone hardstanding to the east of Building 3 is characterised by occasional and locally abundant Bramble, occasional and locally frequent Silverweed and Yorkshire-fog, occasional Broad-leaved Dock (*Rumex obtusifolius*), Petty Spurge (*Euphorbia peplus*), Ribwort Plantain and Smooth Sow-thistle (*Sonchus oleraceus*), locally abundant Broad-leaved Willowherb (*Epilobium montanum*) and Redshank (*Persicaria maculosa*) and locally frequent Hedge Woundwort (*Stachys sylvatica*), Common Couch, Herb-Robert (*Geranium robertianum*) and Field Horsetail (*Equisetum arvense*).
- 3.2.11 The vegetation is not typical of any NVC community, is classified as J1.3 Cultivated/disturbed land – ephemeral/short perennial in Phase 1 Habitat Survey terminology and is described by the UKHab as u1b developed land; sealed surface with the secondary codes 81 ruderal or ephemeral, 82 vacant or derelict land and 518 neglected.

Trees within the Unmanaged Garden

- 3.2.12 Refer to **Photos 6 to 9**. Trees located within the garden habitat comprise T19, a Sycamore (*Acer pseudoplatanus*) with locally abundant Ivy, T20, a Rowan (*Sorbus aucuparia*) with locally abundant Ivy,

T21, a Wild Cherry (*Prunus avium*) growing on amenity grassland to the north of the garden (the amenity grassland is described below) and G11, a row of three Beech (*Fagus sylvatica*).

- 3.2.13 The trees are not typical of any Phase 1 Habitat classification or NVC community, and are described by the UKHab as the secondary code 200 tree.

Amenity Grassland

- 3.2.14 Refer to **Photos 10, 11 and 12**. The amenity grassland located near the artificial playing field and at the southern end of the site is short mown and regularly managed. The vegetation is characterised by constant, frequent and locally abundant Yorkshire-fog and Perennial Rye-grass (*Lolium perenne*), occasional and locally frequent Smooth Meadow-grass (*Poa pratensis*), Black Medick and Daisy (*Bellis perennis*), occasional Ribwort Plantain, Red Fescue (*Festuca rubra*), White Clover (*Trifolium repens*), Broad-leaved Dock and Common Mouse-ear (*Cerastium fontanum*) and very locally frequent Creeping Thistle and False Oat-grass.
- 3.2.15 The amenity grassland playing field located at the northern end of the site is characterised by constant and abundant Perennial Rye-grass, constant, occasional and locally frequent Creeping Buttercup, occasional Dandelion, Greater Plantain (*Plantago major*), Wavy Bitter-cress (*Cardamine flexuosa*) Yorkshire-fog, White Clover and very locally frequent Red Fescue.
- 3.2.16 Both areas are typical of an *MG7 Perennial Rye-grass leys and related grasslands* (Rodwell, 1992) of the NVC, and are classified as J1.2 Cultivated/disturbed land - amenity grassland in Phase 1 Habitat Survey terminology. The habitat is described by the UKHab as g4 modified grassland with the secondary code 108 frequently mown.

Hardstanding and Buildings

- 3.2.17 Refer to **Photo 13**. No significant plant assemblage is present at the remaining areas of hardstanding at the site, or at the buildings (the buildings are described in detail in relation to their suitability for use by roosting bats at **Section 3.3**).
- 3.2.18 Neither habitat is indicative of any NVC plant community. The hardstanding and buildings are classified as J4 Bare ground and J3.6 Buildings in Phase 1 Habitat terminology and are described as u1b6 other developed land and u1b5 buildings by the UKHab.

Hedgerow 1

- 3.2.19 Refer to **Photo 11**. Hedgerow 1 is located at the southern end of the site, and is 120 metres long, 3 metres tall by 2 metres wide. The hedgerow is characterised by constant, frequent and locally abundant Field Maple (*Acer campestre*) with locally abundant Hawthorn (*Crataegus monogyna*), occasional Hazel (*Corylus avellana*) and Blackthorn (*Prunus spinosa*) and locally abundant Hornbeam (*Carpinus betulus*) and Crack-willow (*Salix fragilis*) with a ground flora characterised by frequent Yorkshire-fog and Creeping Buttercup and occasional Common Nettle, Perennial Rye-grass and Common Bent (*Agrostis capillaris*).
- 3.2.20 The vegetation is not typical of any NVC plant community, and is classified as 'Hedgerow - Species-rich native hedgerow' in Phase 1 Habitat Survey terminology. The hedgerow is described by the UKHab as h2a5 species-rich native hedgerow with the secondary codes 116 flailed hedgerow and 516 active management.

- 3.2.21 The hedgerow is not 'important' in accordance with *The Hedgerows Regulations 1997* Wildlife and Landscape criteria as it does not support sufficient woody species on average, and does not support sufficient qualifying features. A full assessment of the hedgerow is appended at **Section 8.1**.

Unmanaged Grassland and Trees at Northern End of the Site

- 3.2.22 Refer to **Photos 13** and **14**. The unmanaged grassland at the northern end of the site is characterised by constant, frequent and locally abundant Yorkshire-fog and constant and frequent Common Couch with locally abundant False Oat-grass and locally frequent Soft-rush (*Juncus effusus*), Yellow Loosestrife (*Lysimachia vulgaris*) and Bramble.
- 3.2.23 The grassland is classified as B6 Poor semi-improved grassland in Phase 1 Habitat Survey terminology, and is described by the UKHab as h3d Bramble scrub, g3 neutral grassland with the secondary code 16 tall forbs and g3c other neutral grassland with the secondary code 32 scattered trees. All three habitat types support the secondary code 518 neglected.
- 3.2.24 The hardstanding track supports very locally frequent mosses, Annual Meadow-grass (*Poa annua*), Creeping Bent and Dandelion. The vegetation is not typical of any NVC community, is classified as J1.3 Cultivated/disturbed land – ephemeral/short perennial in Phase 1 Habitat Survey terminology and is described by the UKHab as u1b developed land; sealed surface with the secondary codes 81 ruderal or ephemeral, 82 vacant or derelict land and 518 neglected.
- 3.2.25 8 trees are located along the grass verge, and are characterised by frequent Lime species (*Tilia* sp.), locally frequent Sycamore and rare Willow species (*Salix* sp.) Silver Birch (*Betula pendula*) and Beech. The trees are not typical of any Phase 1 Habitat classification or NVC community, and are described by the UKHab as the secondary code 200 tree.

Invasive Plant Species

- 3.2.26 As illustrated on **Figure 2**, stands of Montbretia (*Crocsmia crocosmiiflora*) were detected in the unmanaged vegetation which surrounds Building 3. This species is listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended); it is an offence to spread or cause its spread in the wild. This is considered further at **Section 4.3**.

3.3 Animal Life

Badger

- 3.3.1 No badger or signs of badger were detected within the site or within the accessible 50 metres around the site. The presence of badger is reasonably discounted.

Bat Species

Daytime Survey: Buildings

- 3.3.2 Buildings 1 and 2 remain as described in the 2023 report; the description presented in the 2023 report is presented below for ease of reference. Photographs presented in this report have been taken from the 2023 report (photograph references have been updated in the descriptions below).

Building 1

- 3.3.3 Refer to **Photos 16 to 19**. Building 1 is a single-storey gymnasium constructed from walls of mortared brick which are partially rendered and which supports a flat roof of concrete. The building's plastic fascias appeared well sealed throughout and no gaps suitable for access by bats were noted at the exterior of the building.
- 3.3.4 Internally the building does not support any roof voids; the underside of the roofing is lined with timber planking.
- 3.3.5 No gaps suitable for access by bats were noted at the exterior of the building, and the building does not support features suitable for use by crevice dwelling species such as common pipistrelle (*Pipistrellus pipistrellus*) or species known to roost in the open in voids such as brown long-eared bats (*Plecotus auritus*). Building 1 is considered to be of 'negligible' suitability for use by roosting bats.

Building 2

- 3.3.6 Refer to **Photos 20 to 25**. Building 2 is a detached single-storey changing facility constructed from walls of mortared brick and which supports a pitched roof of unlined corrugated metal sheeting.
- 3.3.7 The building is well-sealed externally. Louvred ventilation panels are present, however these lead directly to the existing plant within the building and not to areas considered suitable for use by roosting bats.
- 3.3.8 Internally the building is largely open to the underside of the roof, although small voids are present above the changing facilities. The voids are well-sealed throughout with no gaps to the exterior of the building or the wall tops present within the voids.
- 3.3.9 No gaps suitable for access by bats were noted at the exterior of the building, and the building does not support features suitable for use by crevice dwelling species or species known to roost in the open in voids. Building 2 is considered to be of 'negligible' suitability for use by roosting bats.

Building 3

- 3.3.10 Refer to **Photos 26 to 31**. Building 3 is an unoccupied and disused detached single-storey bungalow construction from walls of mortared brick, which support a pitched roof of concrete tiles with clay ridge tiles. Well-sealed plastic soffits are present at the western and eastern roof line, and both gable ends are well mortared. A single-storey extension with a flat roof of bitumastic roofing felt is located at the southern end of the building. No gaps suitable for access by bats were detected at the external elevations of the building. The building supports a single roof void, which is 2 metres in height (i.e. from the ridgeline to the floor of the void). The roof tiles are supported on timber trusses and lined with a modern breathable roofing membrane. The floor of the void is lined with fibreglass insulation.
- 3.3.11 No bats or signs of bats were detected at the building. No gaps suitable for access by bats were noted at the exterior of the building; due to the well-sealed nature of the building it considered that the building is of 'negligible' suitability for use by roosting bats.

Polytunnel and Glasshouse

- 3.3.12 Refer to **Photo 4**. A polytunnel and glasshouse are present to the south of Building 3; due to their construction type and materials neither structure supports any features suitable for use by roosting bats. Both are considered to be of 'negligible' suitability for use by roosting bats.

Trees

- 3.3.13 Trees T19 and T20 support locally abundant dense Ivy, which may obscure further features suitable for use by roosting bats⁵. These trees are considered to conform to the PRF-I suitability category for use by roosting bats. No features were detected at the remaining trees within the site, which are assessed to conform to the suitability category 'None'.

Habitat Assessment for Commuting and Foraging Bats

- 3.3.14 The unmanaged garden habitat located near Building 3 and the amenity grassland within the site may be suitable for and contribute to the wider foraging area of low numbers of common species of edge-feeding foraging bats, such as common pipistrelle (*Pipistrellus pipistrellus*), and also low numbers of species known to forage over open habitats and over wide areas, such as noctule (*Nyctalus noctula*).
- 3.3.15 It is considered overall, however, that the site is unlikely to provide an abundance or diversity of invertebrate prey, and is therefore considered to be of low suitability for use by foraging bats.

Bird Species

- 3.3.16 Birds detected in the site in June 2023 and September 2024 are listed in **Table 3.3**.

Table 3.3: Bird species Detected on 7th June and / or 19th September 2024

Scientific Name	Common Name	BOCC Status ¹
<i>Columba palumbus</i>	Wood pigeon	Amber
<i>Corvus monedula</i>	Jackdaw	Green
<i>Erithacus rubecula</i>	Robin	Green
<i>Larus argentatus</i>	Herring gull	Red
<i>Larus ridibundus</i>	Black-headed gull	Amber
<i>Phylloscopus collybita</i>	Chiffchaff	Green
<i>Troglodytes troglodytes</i>	Wren	Green
¹ BOCC: Birds of Conservation Concern (Stanbury, et al., 2021). Priority Species are presented in bold .		

- 3.3.17 The trees, shrubs and hedgerow are all suitable for use by nesting passerine (i.e. perching) species, including those detected within the site during the survey. This is considered further at **Section 4.4**.
- 3.3.18 The regularly disturbed hard standing and amenity grassland is not suitable for any ground nesting birds, or wintering wildfowl. The herring gull are known to nest on the chimneys of nearby buildings within the school and the buildings may provide suitable habitat for nesting birds; the potential for birds to nest at the buildings is considered further at **Section 4.4**.

Reptiles

- 3.3.19 The regularly disturbed and heavily managed habitats within the site provide poor quality habitat for sheltering, basking and hibernating reptiles. There are no piles of garden waste or other suitable debris for use by sheltering or hibernating reptiles, and the site supports no favourable habitat for basking

⁵ It is recognised that Ivy is anecdotally thought to provide potential roosting habitat for low numbers / individual crevice dwelling bat species, however in accordance with *Bat Roosts in Trees - A Guide to Identification and Assessment for Tree-Care and Ecology Professionals* (BTHK, 2018) actual evidence of bat roosting behind Ivy is rare, with only two confirmed roosts known in the UK and suggests Ivy is not typically used by roosting bats.

reptiles. The species-poor habitats within the site are reasonably unlikely to support a large population or a variety of invertebrate prey. The site is not adjacent or linked to any areas of favourable habitat for reptile species.

- 3.3.20 The presence of reptiles within the site is reasonably discounted.

Other Wildlife

- 3.3.21 The habitats within the site are suitable for, and may contribute to, a wider foraging area for hedgehog (*Erinaceus europaeus*), a Priority Species. It is considered that the site is too small to provide core or important habitat for foraging hedgehog.
- 3.3.22 The suitability of the site for foraging hedgehog is considered further at **Section 4.4**.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 In accordance with *Millom Activity Centre: Proposed Site Plan Drawing No. 24015-2001 Revision P01* (Architects Plus, 2024) it is proposed to redevelopment areas within the Millom School site to demolish two existing buildings and construct a new Health and Wellbeing centre, with additional car parking and play area spaces.
- 4.1.2 **Section 4.2** provides an assessment of any impacts of the proposed development on the designated sites for nature conservation present in the wider area. The ecological value of habitats within the site is evaluated at **Section 4.3**, and protected and notable species are considered at **Section 4.4**.

4.2 Designated Sites for Nature Conservation

- 4.2.1 The site is located in close proximity (within 85 metres) of the overlapping Duddon Estuary SSSI, Morecambe Bay and Duddon Estuary SPA, Duddon Estuary Ramsar site and Morecambe Bay SAC, hereafter the statutory designated sites.
- 4.2.2 It is not considered, at this stage, that the proposals meet any of the criteria which would require further consultation with Natural England. The proposals seek to redevelop areas of already developed land within the curtilage of a school to create revised facilities for the school. The proposed development does not therefore extend outside existing urban areas.
- 4.2.3 It is recognised however that the site's proximity to the statutory designated sites and proximity to Salthouse Pool (located 34 metres to the north-east of the site and hydrologically connected to the statutory designated sites) is such that appropriate precautionary measures should be adopted during the construction phase of the proposed development to ensure that impacts associated with construction activities are avoided during the proposed works.
- 4.2.4 Such measures should form part of a Construction Environmental Management Plan (CEMP); an outline of measures to include within a CEMP are presented at **Section 5.2**.
- 4.2.5 Otherwise impacts to the statutory designated sites as a consequence of the proposals is reasonably discounted.

- 4.2.6 The site is not functionally linked to any of the statutory designated sites for nature conservation present in the wider area, and it is considered that the site is sufficiently small and distant from all non-statutory designated sites for nature conservation that the proposed development will have no adverse direct or indirect effect upon them.

4.3 Vegetation and Habitats

- 4.3.1 Only common and widespread plant species were found. None of the habitats present are representative of semi-natural habitat. The NVC communities present are typical of the geographical area and conditions present. No irreplaceable habitats are present. Hedgerow 1 is a Priority Habitat; no other habitats within the site are Priority Habitat, however.
- 4.3.2 In terms of each habitat's importance in a geographical context⁶, the hedgerow and trees are considered to be of 'site' importance. No other habitat within the site is considered to be of any importance in terms of its geographical context. Measures to protect Hedgerow 1 and habitats adjacent to the site during the construction phase of the proposed development are presented at **Section 5.2**. Features to include within the site design to compensate for losses of habitat associated with the proposals are presented at **Section 5.3**.
- 4.3.3 Montbretia, an invasive species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), has been detected within the site. It is considered that the proposals present an opportunity for the eradication of this species as part of the proposed development. Further guidance is presented at **Section 5.2**.

4.4 Protected Species and Other Wildlife

- 4.4.1 The buildings are of 'negligible' suitability for use by roosting bats; the presence of roosting bats is reasonably discounted at the buildings within the site and no further surveys are considered necessary.
- 4.4.2 Two trees are assessed to be of 'PRF-I' suitability for roosting bats; measures to ensure the protection of bats during the proposed removal of the trees are presented at **Section 5.2**.
- 4.4.3 Habitats within and adjacent to the site are considered to be of "low" suitability for foraging and commuting bats. Recommendations to ensure habitats remain suitable for use by foraging and commuting bats during the construction and operational phases of the proposed development are presented at **Section 5.2**. Features to incorporate into the site design to enhance habitats for roosting bats at the site are presented at **Section 5.3**.
- 4.4.4 The buildings, trees and scrub provide suitable habitat for use by nesting birds; all wild birds are protected while they are nesting under the *Wildlife and Countryside Act 1981* (as amended). Measures for the protection of nesting birds are presented at **Section 5.2** of this report.

⁶ Using the terms presented at Section 4.7 of *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), i.e. International and European, National, Regional, Local Authority-wide area, River Basin District, Estuarine system / Coastal cell or Local. The term 'site' value is additionally used to highlight ecological features considered to be of importance in the context of the wider site habitats, but which are of negligible value in the context of the local area.

- 4.4.5 Features to incorporate into the site design to enhance habitats for nesting birds at the site are presented at **Section 5.3**.
- 4.4.6 The habitats within the site are suitable for use by foraging hedgehog, a Priority Species. Measures to ensure the protection of hedgehog (and other wildlife) during the construction phase of the proposed development are presented at **Section 5.2**. Measures to ensure habitat connectivity across the site is maintained for hedgehog are presented at **Section 5.3**.
- 4.4.7 The presence of protected or notable species is otherwise reasonably discounted at the site.

5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

5.1 Introduction

- 5.1.1 These recommendations aim to ensure that the development is implemented in accordance with relevant wildlife legislation, Natural England guidance, the principles of the NPPF, local planning policy and best practice.
- 5.1.2 In accordance with Chapter 15, paragraph 186(d) of the NPPF:
'opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.
- 5.1.3 Where possible, opportunities to enhance the ecological interest and habitat connectivity and seek biodiversity gain through appropriate landscape planting and habitat creation have been identified.
- 5.1.4 All recommendations are appropriate to the geographical area, the habitats in the wider area, the wildlife present in the local area (and likely to use the site post-construction) and take into consideration the end use of the site.

5.2 Protection of Habitats and Wildlife

Provision of a CEMP

- 5.2.1 A CEMP will be required as part of the proposed development to ensure that impacts associated with construction are avoided at the statutory designated sites present within the wider area (i.e. 85 metres to the east of the site). The CEMP should include the following:
 - a. *Provision of demarcation fencing and identification of the construction zone.* Appropriate (e.g. heras) fencing will ensure that the construction zone is clearly defined and prevent (for example) storage of materials or movement of machinery in inappropriate areas;
 - b. *Biosecurity measures:* Plant and machinery to be brought to the site must be clean and clear of plant material and excessive mud and other materials. Contractors must not accept any hired plant or machinery onto the site that contains plant material or excessive mud / earth cover. This will help prevent impacts such as the spread of invasive plant species;
 - c. *Noise limitation.* All contractors and sub-contractors working on site have a general duty to take all possible measures to minimise nuisance from noise and vibration that may impact on wildlife in the

wider area. Measures such as appropriate selection of plant and appropriate operation and maintenance of plant will ensure that impacts associated with noise are minimised;

- d. *Control of dust and maintenance of air quality.* Air quality has the potential to be impacted by fumes from vehicles and plant, and the potential for dust created during periods of dry weather from the construction activities and the earthworks may adversely affect retained on site vegetation and habitats and off-site vegetation / habitats. The potential for the operations to produce dust will be minimised by implementing best practice measures such as dampening of exposed soil and material stockpiles using dowsing, sprinklers and hoses when necessary to prevent dust and particulate matter becoming mobile. Wheel washing facilities will be installed at all exits as well as procedures for effective cleaning and inspection of vehicles will aid with suppression of dust;
- e. *Good site practice.* To ensure no additional impacts to wildlife are created, such as wind-blown debris and attraction of vermin (for example), good site practice will be applied at all times, and will include keeping the working area in a clean, tidy condition, provision of adequate toilet facilities and removal of litter; and
- f. *Appropriate Use of Lighting.* As described below, artificial lighting should not shine from the site to the statutory designated sites.

Protection of Trees, Shrubs and Hedgerows

- 5.2.2 During the construction phase, temporary protective demarcation fencing will be used to protect the any trees or shrubs at the site boundaries, and Hedgerow 1, which is to be retained. The fencing must extend outside the canopy of the retained trees and must remain in position until all areas have been developed to ensure protection is provided throughout the construction phase.
- 5.2.3 The fencing will be in accordance with BS5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations (BSI, 2012).

Protection of Salthouse Pool Watercourse

- 5.2.4 The guidance presented at *Pollution prevention for businesses* (Defra and the Environment Agency, 2023) will be adhered to at any works near Salthouse Pool. Appropriate measures must be adopted to ensure the protection of the watercourse for the following:
 - a. Activities which involve pollution substances;
 - b. Activities which produce contaminated water;
 - c. Activities which use drains;
 - d. Storage of materials, products and waste;
 - e. Unloading and moving of potential pollutants;
 - f. Construction, inspection and maintenance activities near watercourses; and
 - g. Works in, over or near a river, stream, lake or pond.
- 5.2.5 Permission must be granted from the Environment Agency before works may start in, over or near a main river.

- 5.2.6 It is recommended that a pollution incident response plan is prepared prior to the commencement of works, and an environmental management system (EMS) is prepared to help avoid pollution and act to ensure appropriate actions are taken if an incident occurs.
- 5.2.7 These measures are additionally important as Salthouse Pool is hydrologically linked to the statutory designated sites present in the wider area.

Consideration of Lighting

- 5.2.8 Paragraph 185(c) in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:

'limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'

Construction Phase

- 5.2.9 Any lighting to be used at the site during construction should be directional and screened where possible, this specification should be included within the CEMP.

Development Lighting Design

- 5.2.10 The lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the wider area, as lighting overspill may deter use by wildlife such as foraging bats.
- 5.2.11 The lighting scheme will be designed with reference to current guidance, namely:
- Guidance Note 08/23: Bats and Artificial Lighting at Night* (Institution of Lighting Professionals & Bat Conservation Trust, 2023); and
 - Bats and lighting: Overview of current evidence and mitigation guidance* (Stone, 2014).

Protection of Bats During Felling of Trees T19 and T20: Reasonable Avoidance Measures to be Applied During Tree Felling

- 5.2.12 In accordance with *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* (Collins, J. (ed), 2023) it is essential that the following actions are applied during the felling of trees T19 and T20:
- Appropriate timing of works. The optimal time for tree removal is between September and late February inclusive.
 - The two trees must be section / soft felled under the supervision of a licensed bat surveyor.
 - The Ivy at both trees must be removed prior to a further inspection by the licensed bat surveyor. If additional features are discovered, then these will be inspected by the bat worker.
 - Careful section-felling of the trees must be undertaken, avoiding cutting through or close to any cavities. This is likely to involve climbing the tree.
 - Cut sections will be lowered to the ground with the use of ropes.
 - Once on the ground the cavity will be inspected by the licensed bat surveyor and guidance issued.

- g. All felled sections will be left to lie on the ground for 24 hours before removing Ivy and snedding (removing side branches).
- h. If at any time during the works a bat is discovered or suspected all contractors must withdraw from the area and ERAP (Consultant Ecologists) Ltd (01772 750502) or the Bat Conservation Trust must be contacted for further guidance.

5.2.13 All other trees scheduled for removal can be felled in accordance with general arboricultural practice and taking into consideration the protection afforded to nesting birds; recommendations for nesting birds is presented below.

Protection of Nesting Birds

- 5.2.14 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is advised that any works such as vegetation clearance that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive.
- 5.2.15 If breeding birds are detected the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

Reasonable Avoidance Measures for the Protection of Hedgehog and Other Wildlife

- 5.2.16 It is recommended that the following Reasonable Avoidance Measures (RAMs) are adopted during the construction phase of the proposed development. An identification guide to amphibian species is appended and a colour copy should be printed out and be made accessible in the site office (i.e. pinned to a site information board or similar within the site office):
 - a. All site personnel must be made aware of this RAMs, and the RAMs should be made part of the site induction for all personnel involved in soil strip, ground clearance, or other relevant activities;
 - b. Prior to any soil strip, vegetation will be strimmed to a height of no less than 0.15 metre and all arisings removed;
 - c. During construction, any holes, trenches or other pits which hedgehog (or other wildlife) could fall into will be covered overnight, or have sloped banks or ramps top allow escape;
 - d. The use of chemicals (such as fertilisers and herbicides) harmful to wildlife should be avoided wherever possible; and
 - e. In the unlikely event of the discovery of a hedgehog (or other wildlife species) is detected, it must be carefully picked up, placed in a clean bucket and moved to an area of suitable habitat beyond the development area.

Invasive Plant Species

- 5.2.17 It is an offence under the *Wildlife and Countryside Act 1981* (as amended) to cause the spread of *Montbretia* in the wild. It is concluded that the preparation of an Invasive Species Management Plan is not necessary in this case and these species can grubbed out by the roots during site clearance and disposed of either by burying on site or removal to a suitable tip.

5.3 Enhancements of Biodiversity

Proposed Site Layout

- 5.3.1 It is recommended that the proposals incorporate the following habitats to compensate for the losses of grassland, Bramble scrub and tall-herb habitat and the loss of trees associated with the proposals.

Tree Planting and Creation of Mixed Scrub

- 5.3.2 It is recommended that landscape planting within the site is composed from native species and species known to be of value for the attraction of wildlife, and both individual trees and an area of mixed scrub are created to compensate for the losses of Bramble scrub and individual trees associated with the proposals. It is recommended that trees which support blossom and fruit which will attract insects are incorporated into the landscape planting. Suitable species are presented in **Table 5.1**.

Table 5.1: Suitable Native Species for Tree and Shrub Planting

Scientific Name	Common Name	Scientific Name	Common Name
<i>Acer campestre</i>	Field Maple	<i>Prunus spinosa</i>	Blackthorn
<i>Corylus avellana</i>	Hazel	<i>Rosa arvensis</i>	Field Rose
<i>Crataegus monogyna</i>	Hawthorn	<i>Rosa canina</i>	Dog-rose
<i>Ilex aquifolium</i>	Holly	<i>Sambucus nigra</i>	Elder
<i>Malus sylvestris</i>	Crab Apple	<i>Sorbus aucuparia</i>	Rowan
<i>Prunus avium</i>	Wild Cherry	<i>Ulmus glabra</i>	Wych Elm
<i>Prunus padus</i>	Bird Cherry	<i>Viburnum opulus</i>	Guelder Rose

- 5.3.3 The understorey and ground cover planting design should be prepared to optimise the attraction of invertebrates such as feeding bumblebees and butterflies. Where possible the use of native species should be maximised but where necessary non-native species known to be attractive to invertebrates should be used.
- 5.3.4 Planting schemes that include flowering species such as *Viburnum*, *Ceanothus*, *Hebe*, *Lavandula*, *Lonicera*, *Potentilla*, *Rosmarinus* and *Vinca* can maximise opportunities for feeding invertebrates and for the attraction of foraging bats and birds.

Creation of Wildflower Grassland

- 5.3.5 Provision of wildflower grassland within the landscape design is also recommended, where feasible, to compensate for losses of amenity grassland and tall forbs habitat. Wildflower grassland mixtures such as Emorsgate Seeds EM5 Meadow Mixture for Loamy Soils⁷ or British Wildflower Seeds Special General Meadow Seed Mix⁸ should be considered as part of the landscape design.
- 5.3.6 It is recommended that the development incorporates the installation of one bat access panel at the new building.
- 5.3.7 The bat access panel should be sited at least 4 metres above ground level, ideally facing or close to areas of landscape planting or existing linear features. The access panels should not be positioned over windows or doorways where bat droppings may become a nuisance. Once the development layout has been

⁷<https://wildseed.co.uk/product/mixtures/complete-mixtures/meadow-mixtures-for-specific-soils/meadow-mixture-for-loamy-soils/>

⁸ <https://britishwildflowermeadowseeds.co.uk/collections/neutral-soils/products/special-general-meadow-seed-mix-44>

finalised, an ecologist should advise on appropriate positions for the bat access panels. Suitable bat access panels are available from NHBS Ecology (www.nhbs.com), Wild Care (www.wildcare.co.uk) and / or Greenwood's Ecohabitats (www.greenwoodsecohabitats.co.uk) and are presented at Error! Reference source not found., below:



Insert 1: Examples of integrated bat access panels and an externally mounted box⁹

Enhancing Habitats for Nesting Birds

House Sparrow

- 5.3.8 House sparrows are associated with suburban areas. Monitoring suggests a severe decline in the UK house sparrow population, estimated as halving in rural areas, and dropping by 60% in towns and cities since the mid-1970's (RSPB, 2018).
- 5.3.9 The installation of one house sparrow terrace nest box is recommended at the proposed new building. The box will not be positioned over windows or doorways where droppings may become a nuisance. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest.
- 5.3.10 Such bird boxes are available from the NHBS (www.nhbs.com) or Wild Care (www.wildcare.co.uk). ERAP (Consultant Ecologists) Ltd will advise on the siting of bird boxes.
- 5.3.11 An example of a suitable house sparrow bird box is given below at **Insert 2:**



Insert 2: Schwegler 1SP House Sparrow Nesting Terrace

⁹ Left to right: IBstock Enclosed Bat Box 'c' (left); Habibat Bat Access Panels (centre left and centre right) and Greenwood's Ecohabitats' two crevice bat box (right). Products with a brick face are illustrated, however the Habibat bat access panels can be supplied unfaced to enable the addition of matching material.

Swift

- 5.3.12 The swift (*Apus apus*) has recently been added to The Birds of Conservation Concern Red list (Stanbury, et al., 2021) owing to the recorded recent declines and its identified status as a high conservation priority.
- 5.3.13 The construction of the new building provides an opportunity for the installation of additional nesting opportunities for swift to assist their conservation. It is recommended that the building provides an opportunity for the provision of a single swift nest box. Suitable swift nest boxes are illustrated at **Insert 3** below.



Insert 3: Examples of swift nest boxes¹⁰

Maintenance of Habitat Connectivity Throughout the Developed Site

- 5.3.14 To ensure habitat connectivity is maintained as part of the development proposals, gaps within the proposed fencing to allow access by other wildlife (including hedgehog) should be incorporated across the site; example accesses are presented at **Insert 4**, as reproduced from *Hedgehogs and Development* (British Hedgehog Preservation Society / PTES, 2019). It is recommended that appropriate wildlife gaps (at least 0.1 metre tall and 0.15 metre wide) are installed at suitable intervals around the base of the proposed fencing.



Insert 4: Showing wildlife access gap within fencing

¹⁰ From left to right No. 17A Schwegler Swift Nest Box (Triple Cavity) Woodstone Swift Nest Box (centre), Manthorpe Swift Nesting Box (right) and Ibstock Eco-habitat for Swift (right), all available from www.NHBS.com and / or Wild Care (www.wildcare.co.uk).

6.0 CONCLUSION

- 6.1 This ecological assessment has demonstrated that the proposed development at the site is feasible and acceptable in accordance with ecological considerations and the NPPF.
- 6.2 It is possible to implement reasonable actions for the protection and long-term conservation of fauna such as nesting birds and commuting / foraging bats associated with the site. Measures to conserve the habitat connectivity through the site are entirely feasible.
- 6.3 Redevelopment at the site will provide an opportunity to secure ecological enhancement for wildlife.

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8.0 APPENDIX: TABLES, PHOTOGRAPHS AND FIGURES

8.1 Assessment of Hedgerow 1 under *The Hedgerows Regulations 1997* Wildlife and Landscape Criteria

Table 8.1: Hedgerow Description and Assessment in Accordance with *The Hedgerows Regulations 1997*

	Hedgerow Name	Hedgerow 1		
Description	Height x width (metres)	3 x 2		
	Length (metres)	120		
	Continuity	100%		
	Management	Flailed		
Woody Species	Section number ¹	1	2	3
	Qualifying woody species	3	3	N/A
	Average Number	3		
Number of Features Present	(a) Bank or wall along at least ½ length	No		
	(b) Gaps which in agg. do not exceed 10%	Yes		
	(c)-(e) 1 standard tree per 50m	No		
	(f) At least 3 woodland species within 1m	No		
	(g) Ditch along at least ½ its length	No		
	(h) Connections scoring 4 points or more	No		
	(i) Parallel hedge within 15m	No		
	Total Features	1		
Hedgerow Importance	Criteria for Hedgerow Importance 1	No		
	Criteria for Hedgerow Importance 2:	No		
	Criteria for Hedgerow Importance 3:	No		
Hedgerow Important Criteria	Criteria for Hedgerow Importance 1: Hedgerow contains species listed as: (1) Part 1 of Schedule 1, Schedule 5 or Schedule 8 of <i>Wildlife and Countryside Act 1981</i> (as amended); (2) Declining breeders in ‘Red Data Birds of Britain’; and / or (3) Categorised as ‘endangered’, ‘extinct’ or ‘vulnerable’			
	Criteria for Hedgerow Importance 2: Hedgerow includes (Number of woody species required reduced by one in Cumbria): (i) At least 7 woody species (on average); (ii) At least 6 woody species (on average) and at least 3 features; (iii) At least 6 woody species (on average), including one of: Black Poplar, Large-leaved Lime, Small-leaved Lime or Wild Service Tree; and / or; (iv) At least 5 woody species (on average), and has 4 features			
	Criteria for Hedgerow Importance 3: Is adjacent to is adjacent to a bridleway, footpath or byway and includes at least 4 woody species on average and 2 features from (a) to (g).			

¹Up to and including 100 metres length = 1 section required.
100 to 200 metres length = 2 sections required
Greater than 200 metres length = 3 sections required.

8.2 Photographs



Photo 1: Unmanaged grassland, tall forbs and Bramble scrub at unmanaged gardens of Building 3



Photo 2: Unmanaged grassland, tall forbs and Bramble scrub at unmanaged gardens of Building 3



Photo 3: Tall forbs at unmanaged garden of Building 3



Photo 4: Polytunnel and tall herb vegetation at unmanaged garden of Building 3



Photo 5: Vegetation colonising hard standing at unmanaged garden of Building 3



Photo 6: T19, Sycamore with Ivy



Photo 7: T20, Rowan with Ivy



Photo 8: T21, Wild Cherry over amenity grassland

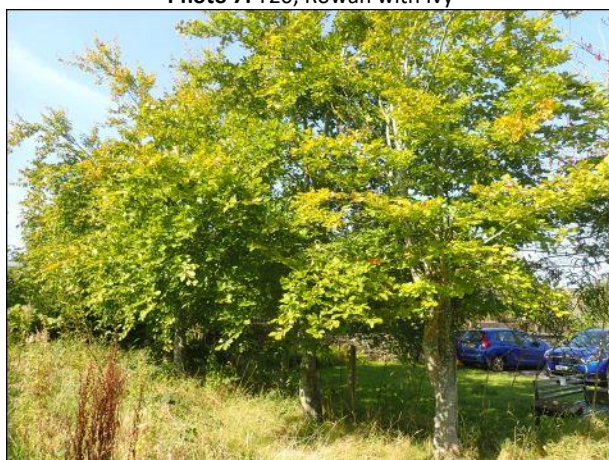


Photo 9: G11 in unmanaged garden



Photo 10: Amenity grassland near artificial playing field



Photo 11: Artificial grassland at the southern end of the site, and Hedgerow 1



Photo 12: Artificial grassland at playing field at the northern end of the site



Photo 13: Hardstanding track, unmanaged grassland verge and planted trees at northern end of the site



Photo 14: Hardstanding track and unmanaged grassland at the northern end of the site



Photo 15: Hardstanding within the site



Photo 16: Building 1, northern elevation



Photo 17: Building 1, eastern elevation



Photo 18: Building 1, southern elevation



Photo 19: Building 1, internal area



Photo 20: Building 2, western corner



Photo 21: Building 2, south-eastern elevation



Photo 22: Building 2, north-eastern elevation



Photo 23: Building 2, northern corner



Photo 24: Building 2, internal area

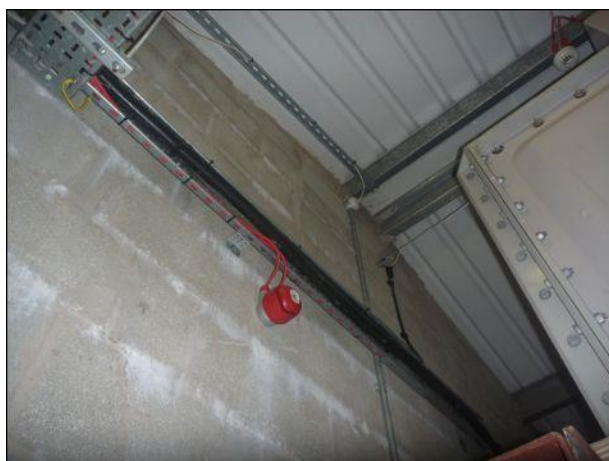


Photo 25: Building 2, internal gable end



Photo 26: Extension at southern end of Building 3



Photo 27: Building 3, southern and eastern elevations



Photo 28: Building 3, northern and western elevations



Photo 29: Building 3 well sealed soffits



Photo 30: Building 3 roof void, internal gable end



Photo 31: Building 3 roof void

8.3 Figures

Figure 1: Aerial Image of the Site and its Surroundings

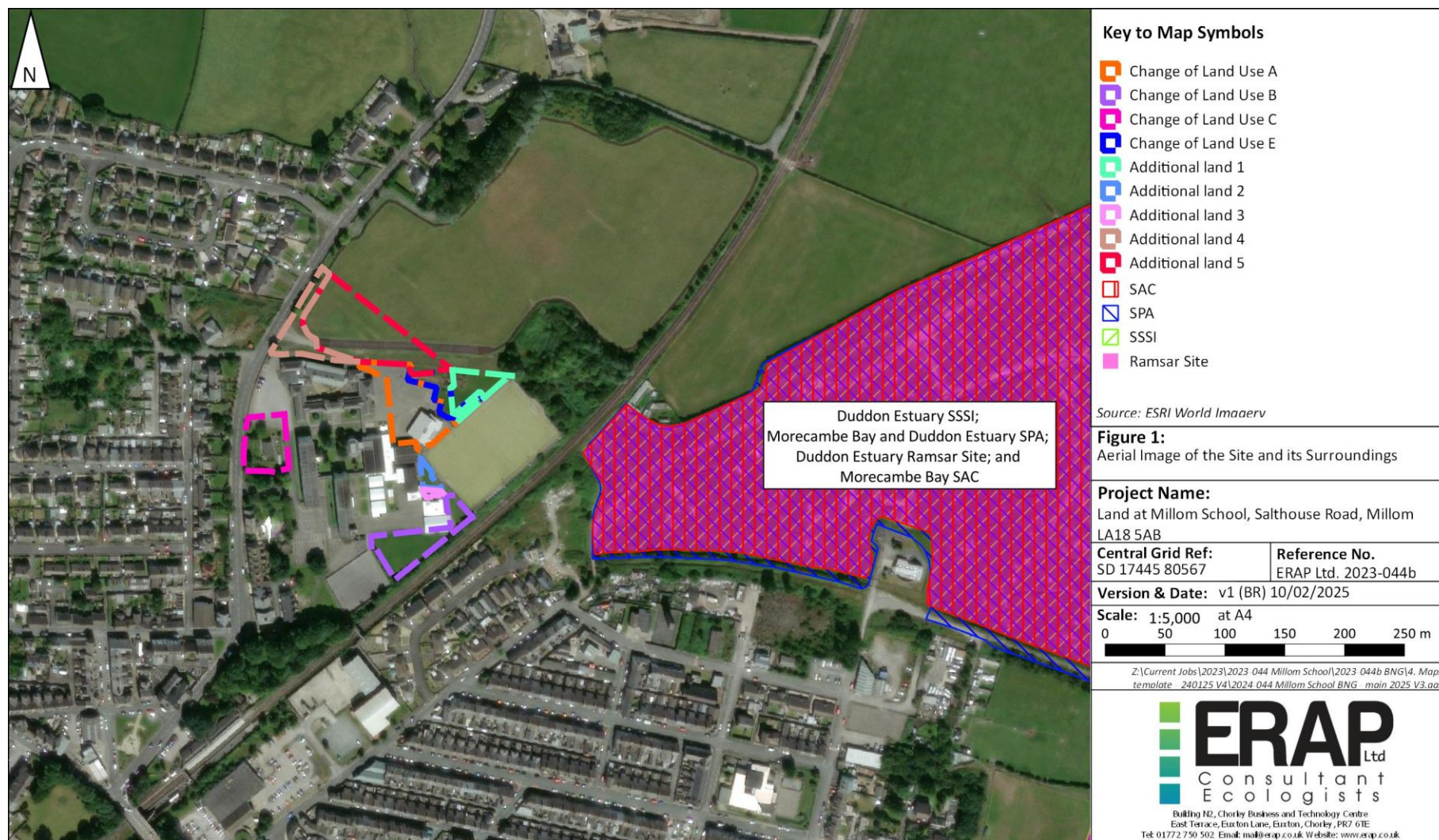


Figure 2: Phase 1 Habitat and Vegetation Map

