

52a New Cut Lane, Halsall, Southport PR8 3DW

ECOLOGICAL SURVEY AND ASSESSMENT

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SUMMARY

Introduction and Scope

- i. This ecological survey and assessment presents the ecological, biodiversity and nature conservation status of the land at 52a New Cut Lane, Halsall, Southport PR8 3DW. The assessment was requested in connection with proposals to construct residential properties with associated hard standing and gardens on the existing garden curtilage of 52a New Cut Lane.
- ii. This report presents the results of an updated Phase 1 Habitat Survey carried out in September 2022. 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 comprises a residential property (52a New Cut Lane) and associated hard-standing and garden with areas of bramble scrub, amenity grassland and ornamental vegetation bordered by existing residential gardens. A drain lies adjacent to the north-western boundary of the site.

Results of Survey and Assessment

- iv. The proposals will have no direct adverse effect on statutory or non-statutory designated sites for nature conservation. Consideration of potential indirect effects on the nearby statutory designated sites¹ and functionally-linked land as a result of site clearance / construction related disturbance and an increased risk of recreational disturbance is provided at **Section 4.2** and at **Appendix 2**. Based on the assessment it is advised, in the presence of mitigation measures, namely the preparation and distribution of a Homeowner's Pack (see **Section 5.2**) and appropriate construction timings, that a Habitats Regulations Assessment (HRA), if needed, can conclude that a significant adverse effect on European designated sites and their features of special interests will be avoided.
- v. The site contains only common and widespread plant species. The beech hedgerow is a Priority Habitat, no further Priority Habitats are present. The ephemeral drain adjacent to the site is of local value as a minor wildlife corridor. The drain will not be directly affected by the proposals, and measures to protect the drain during the construction phase are described at **Section 5.3**.
- vi. Rhododendron and Indian Balsam, invasive species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), were detected during the survey. It is an offence to cause the spread of these species in the wild. Further guidance is provided at **Section 5.4**.
- vii. Habitats within the site are suitable for use by foraging and commuting bats and nesting birds. Actions and recommendations relating to retention of features suitable for use by fauna, and the creation of features to enhance the habitats for biodiversity associated with residential developments are described in **Section 5.0**.
- viii. Appropriate survey effort and / or assessment in accordance with standard guidance has been carried out to discount adverse effects on relevant protected species, namely badger, water vole, otter, roosting bats, great crested newt and reptile species. No further survey is necessary to inform the planning application and decision.

Recommendations

- ix. 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.

¹ Sefton Coast Site of Special Scientific Interest and overlapping Special Area of Conservation, Ribble and Alt Estuaries Ramsar site and Special Protection Area, and Ainsdale and Birkdale Hills Local Nature Reserve.

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- x. 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

- xi. 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 associated with residential development.

1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by Switch Property Group to carry out an ecological assessment of the land at 52a New Cut Lane, Halsall, Southport PR8 3DW (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 33390 13480. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).
- 1.1.2 The assessment was requested in connection with a planning application to construct residential properties with associated hard standing and gardens on the existing garden curtilage of the 52a New Cut Lane property.

1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken in September 2022 comprised:
- A desktop study for known ecological information at the site and the local area;
 - An updated Extended Phase 1 Habitat Survey and assessment;
 - 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);
 - Updated survey and assessment of all habitats for relevant statutorily protected species² and other wildlife including badger (*Meles meles*), great crested newt (*Triturus cristatus*), water vole (*Arvicola amphibius*), otter (*Lutra lutra*), bird species and reptiles;
 - A preliminary assessment of the trees for suitability for use by roosting bats;
 - 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
 - The identification of any further surveys or precautionary actions that may be required prior to the commencement of any construction activities.

2.0 METHOD OF SURVEY

2.1 Desktop Study

- 2.1.1 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, was consulted.
- 2.1.2 The results of a data search provided by Lancashire Environment Record Network (LERN) in 2020 are presented for completeness.

² 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.

2.2 Vegetation and Habitats

- 2.2.1 An Extended Phase 1 Habitat Survey of the site was carried out by Amy Sharples B.Sc. (Hons) M.Sc. ACIEEM on 30th September 2022. The weather was rain with a light breeze (Beaufort scale 2) and an air temperature of 14°C.
- 2.2.2 A habitat and vegetation map was produced for the site and the immediate surrounding area (refer to **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 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.
- 2.2.4 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.
- 2.2.5 Habitats within the site were assessed in accordance with the UK Habitats Classification / UKHab (Butcher, et al., 2020). The UKHab has been designed to function at two scales: 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 is appropriate.
- 2.2.6 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).
- 2.2.7 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: surveys and mitigation for development projects* (Natural England, 2015).
- 2.3.3 The following signs of badger activity were searched for:
- Sett entrances, e.g. entrances that are normally 25 to 35cm in diameter and shaped like a 'D' on its side;
 - Large spoil heaps outside sett entrances;
 - Bedding outside sett entrances;
 - Badger footprints;
 - 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

Daylight Survey: Trees

2.3.5 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.

2.3.6 Trees were assessed from the ground using binoculars and a high-powered torch. Each tree was searched for the presence of the following features:

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.

2.3.7 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).

2.3.8 The requirement for further presence / absence surveys at each tree was then considered.

Habitat Assessment for Commuting / Foraging Bats

2.3.9 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 (3rd edn)*, (Collins, J. (ed), 2016). Reference has been made to the categories and descriptions / examples, presented at **Table 2.1**, below.

Table 2.1: Consideration of Suitability of Foraging and Commuting Habitat for Bats

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

Bird Species

- 2.3.10 Bird species observed and heard during the survey were recorded.
- 2.3.11 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.

Great Crested Newt and Amphibians

Desktop Search for Ponds

- 2.3.12 In accordance with current Natural England guidance (Natural England, 2020) all ponds within an unobstructed 500 metres of a site should be considered for their suitability to support breeding great crested newts. The potential of the proposed development to impact upon any great crested newt population(s) whose breeding ponds are within 500 metres must be considered.
- 2.3.13 Consultation of OS maps presented on MAGiC indicated there are no ponds within an unobstructed 500 metres radius from the site boundary. The walkover survey confirmed the presence of one ornamental pond located 4 metres from the site boundary in the neighbouring garden (**Pond 1** on **Figure 2**).

Habitat Suitability Index Assessment

- 2.3.14 Pond 1 was assessed using the Habitat Suitability Index (HSI) (Oldham, et al., 2000). The pond was examined with reference to the ten HSI scoring criteria, which are: **SI₁**: Geographical location; **SI₂**: Pond area; **SI₃**: Pond drying; **SI₄**: Water quality (as indicated by the diversity of aquatic plants and invertebrates); **SI₅**: Shade; **SI₆**: Waterfowl; **SI₇**: Fish; **SI₈**: Abundance of other ponds within a one kilometre radius; **SI₉**: Quality of terrestrial habitat; and **SI₁₀**: Macrophyte cover (i.e. aquatic and emergent plants). The survey was conducted in accordance with *ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index. Amphibian and Reptile Groups of the United Kingdom* (ARG UK, 2010).
- 2.3.15 The assessment followed guidance in relation to interpreting HSI scores, following the categorical scale shown at **Table 2.2**, below.

Table 2.2: Pond Habitat Suitability Index Categories

HSI Score	Pond Suitability for Great Crested Newt
<0.5	Poor
0.5 – 0.59	Below average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

Assessment of Terrestrial Habitat

- 2.3.16 An assessment of the terrestrial habitat within the site for great crested newts was conducted, as informed by the *Great Crested Newt Mitigation Guidelines* (English Nature / Natural England, 2001) and the *Great Crested Newt Conservation Handbook* (Langton, et al., 2001).
- 2.3.17 Habitats present within the site were assessed for their value to support foraging, sheltering and hibernating great crested newt. Favourable habitats can comprise rough grassland, scrubland, woodland and sites with underground crevices or cracks, such as mammal holes, voids in tree stumps or banks, and refugia such as rock piles or dead wood.

Consideration of Requirement for Further Survey

- 2.3.18 The requirement for further survey at Pond 1 was assessed, with consideration of the HSI score, the presence of dispersal barriers to great crested newt movement between the pond and the site, and the suitability of the terrestrial habitat in the site for use by great crested newt.

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 2.3**, below.

Table 2.3: 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

Water Vole and Otter

- 2.3.20 A drain lies along the north-west boundary of the site, and flows into Fine Jane’s Brook which lies 175 metres to the south-east, refer to **Figure 2**. The drain corridor adjacent to the site boundary and a length of 58 metres to the south where the drain meets a perpendicular drain (a total length of 169 metres) was examined for evidence of use by water vole and otter. The drain was assessed in accordance with the following methods to determine any field signs of water vole and otter and their suitability for water vole and otter.
- 2.3.21 The survey methods detailed in *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)* Eds. Fiona Mathews and Paul Chanin (Dean, et al., 2016), *Ecology of the European Otter. Conserving Natura 2000 Rivers, Ecology Series 10* (Chanin, 2003) and searches were made for signs of otter in accordance with *Monitoring the Otter Lutra lutra. Conserving Natura 2000 Rivers Monitoring Series No 10* (Chanin, 2003) and current Natural England guidance (Natural England, 2014) were applied and the drain and associated banks were searched for water vole burrows, latrines, feeding remains, runs, feeding lawns, nests and footprints and otter dung (spraints), tracks (footprints), feeding remains, otter

slides (into water), holts (underground dens) and couches (above ground sites where otters rest during the day).

Other Wildlife

- 2.3.22 Evidence of other wildlife (including Priority Species) 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.

2.4 Survey and Reporting Limitations

- 2.4.1 The area of dense Bramble scrub along the western margin of the site is fenced off and was not fully accessible. This area was viewed at intervals from over the fence; despite this access restriction it is considered that a thorough examination of this relatively small and enclosed area of the site was possible.
- 2.4.2 All measurements within this report are approximate only, and have been 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).
- 2.5.3 Government advice on wildlife, as set out in the *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, 2021) 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 Lancashire BAP Provisional Long List has been taken into account in the evaluation of the site.

3.0 SURVEY RESULTS

3.1 Desktop Study

Statutory Designated Sites for Nature Conservation and SSSI Impact Risk Zones

- 3.1.1 The site has no statutory designations for nature conservation.
- 3.1.2 The site lies 0.98 kilometres to the east of Sefton Coast Special Area of Conservation (SAC) and overlapping Sefton Coast Site of Special Scientific Interest (SSSI). Sefton Coast SSSI and SAC are

designated for its intertidal mud and sandflats, its variety of sand dune habitats and saltmarsh. The site is of special interest for its populations of internationally important wintering wildfowl and waders, and its populations of sand lizard (*Lacerta agilis*), natterjack toad (*Bufo calamita*), Petalwort (*Petalophyllum ralfsii*) and great crested newt (*Triturus cristatus*).

- 3.1.3 The Ribble and Alt Estuaries Ramsar site lies 1.9 kilometres to the west of the site, and the overlapping Ribble and Alt Estuaries Special Protection Area (SPA) lies 2.9 kilometres west of the site; central OS grid reference: SD 375 240. The Ribble and Alt Estuaries SPA and Ramsar site are designated for its international importance for passage and wintering waterfowl and it has extensive intertidal sand-silt flats with one of the largest areas of grazed marsh in Britain.
- 3.1.4 Liverpool Bay SPA is 5 kilometres to the west of the site (central grid reference SD 060 135), and is designated for its red throated divers, common scoters and its water bird assemblage.
- 3.1.5 Ainsdale and Birkdale Hills Local Nature Reserve (LNR) lies 1.9 kilometres to the west of the site; central OS grid reference: SD 303 132. Ainsdale and Birkdale Hills LNR is designated as it is one of the largest areas of wild dunes left in Britain.
- 3.1.6 The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Ordnance Survey, 2023):

<i>All Planning Applications</i>	<i>All planning applications (except householder) outside or extending outside existing settlements / urban areas affecting greenspace, farmland, semi natural habitats or landscape features such as trees, hedges, streams, rural buildings / structures.</i>
<i>Infrastructure</i>	<i>Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.</i>
<i>Wind and Solar Energy</i>	<i>Solar schemes with footprint greater than 0.5 hectares, all wind turbines.</i>
<i>Minerals, Oil and Gas</i>	<i>Planning applications for quarries, including: new proposals, Review of Minerals Permissions, extensions, variations to conditions etc. Oil and gas exploration / extraction.</i>
<i>Rural Non Residential</i>	<i>Large non-residential developments outside existing settlements / urban areas where net additional gross internal floorspace is greater than 1000m² or footprint exceeds 0.2 hectares.</i>
<i>Residential</i>	<i>Residential development of 10 units or more.</i>
<i>Rural Residential</i>	<i>Any residential developments outside of existing settlements / urban areas with a total net gain in residential units.</i>
<i>Air pollution</i>	<i>Any industrial / agricultural development that could cause air pollution, including industrial processes, livestock and poultry units with floorspace greater than 500m², slurry lagoons greater than 200m² and manure stores greater 250 tonnes.</i>
<i>Combustion</i>	<i>General combustion processes greater than 20 megawatts energy input. Including energy from waste incineration, other incineration landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration / combustion.</i>
<i>Waste</i>	<i>Landfill. Including inert landfill, non-hazardous landfill and hazardous landfill.</i>
<i>Composting</i>	<i>Any composting proposal with more than 500 tonnes maximum annual operational throughput. Including open windrow composting, in-vessel composting, anaerobic digestion, other waste management.</i>
<i>Discharges</i>	<i>Any discharge of water or liquid waste of more than 2m³ per day to ground (i.e. to seep away) or to surface water, such as a beck or stream (N.B. This does not include discharges to mains sewer which are unlikely to pose a risk at this location).</i>
<i>Water Supply</i>	<i>Large infrastructure such as warehousing / industry where net additional gross internal floorspace is greater than 1,000m² or any development needing its own water supply.</i>

- 3.1.7 The SSSI Impact Risk Zone notes also state that “*new residential developments in the area must consider recreational disturbance impacts on the coastal designated sites. This issue should be considered in the HRA screening*”.
- 3.1.8 The proposals at the site do not meet any categories for the LPA to consult Natural England on likely risks of the development on the SSSI and its conservation objectives.

Non-statutory Designated Sites for Nature Conservation

- 3.1.9 The site lies within 2 kilometres of two Biological Heritage Sites (BHS), non-statutory designations for nature conservation.
- 3.1.10 Halsall and Plex Mosses BHS is 184 metres to the south-east of the site at OS grid reference SD 340 114. Halsall and Plex Mosses BHS is designated for its ornithological importance as a winter feeding ground for flocks of pink-footed geese (*Anser brachyrhynchus*) with bird numbers exceeding 0.5% of the British wintering population. The site is also regularly used as a hunting ground by barn owls (*Tyto alba*).
- 3.1.11 King’s Covert BHS lies 560 metres to the south-east of the site, OS grid reference: SD 337 129. King’s Covert is designated for its area of woodland, dominated by Birch (*Betula* species), which supports a Heronry.

Priority Habitats Inventory

- 3.1.12 The Priority Habitats Inventory³ was checked via MAGiC Maps. No Priority Habitats are identified within or adjacent to the site.

2020 Data Search

Protected and Notable Species

- 3.1.13 LERN hold no records of protected and notable species for the site.
- 3.1.14 Records of protected and notable species for a 2 kilometre radius of the site are summarised below.

Table 3.1: Records of Protected Species Within a 2 Kilometre Radius of the Site

Taxon Group	Species Name and Designations ¹ and Notes
Amphibians	Common toad (<i>Bufo bufo</i>): PS & LBAP. 1 record dated 2010, 1430m from the site.
Birds	Whooper swan (<i>Cygnus cygnus</i>): WCAs1 & LBAP. 4 records, dated between 2015 and 2018, the closest of which is 1040m from the site.
	Barn owl (<i>Tyto alba</i>): WCAs1. 3 records, dated between 1997 and 2016, the closest of which is 140m from the site.
	Kingfisher (<i>Alcedo atthis</i>): WCAs1. 1 record, dated 2000, 560m from the site.
	Quail (<i>Coturnix coturnix</i>): WCAs1. 1 record, dated 1997, 560m from the site.
PS and LBAP	Grey partridge (<i>Perdix perdix</i>), house sparrow (<i>Passer domesticus</i>), lapwing (<i>Vanellus vanellus</i>), reed bunting (<i>Emberiza schoeniclus</i>), tree sparrow (<i>Passer montanus</i>), yellowhammer (<i>Emberiza citrinella</i>), corn bunting (<i>Emberiza calandra</i>), dunnoek (<i>Prunella modularis</i>), skylark (<i>Alauda arvensis</i>), song thrush (<i>Turdus philomelos</i>), starling (<i>Sturnus vulgaris</i>) and yellow wagtail (<i>Motacilla flava</i>).
	LBAP Grey heron (<i>Ardea cinerea</i>), kestrel (<i>Falco tinnunculus</i>), meadow pipit (<i>Anthus pratensis</i>), oystercatcher (<i>Haematopus ostralegus</i>), pink-footed goose (<i>Anser brachyrhynchus</i>), shelduck (<i>Tadorna tadorna</i>), snipe (<i>Gallinago gallinago</i>), swift (<i>Apus apus</i>) and willow warbler (<i>Phylloscopus trochilus</i>).
Flowering plants	Purple Ramping-fumitory (<i>Fumaria purpurea</i>): PS & LBAP
	Cornflower (<i>Centaurea cyanus</i>): PS

³ A spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

Taxon Group	Species Name and Designations ¹ and Notes
Terrestrial mammals	Whorl-grass (<i>Catabrosa aquatica</i>): LBAP
	Brown long-eared bat (<i>Plecotus auritus</i>): EPS, WCAs5, PS & LBAP. 1 record, dated 2015, 40m from the site.
	Noctule bat (<i>Nyctalus noctula</i>): EPS, WCAs5, PS & LBAP. 3 records, dated between 2015 and 2015, the closest of which is 40m from the site.
	Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>): EPS, WCAs5, PS & LBAP. 2 records, dated between 2015 and 2015, the closest of which is 40m from the site.
	Unidentified bat (<i>Myotis</i>): EPS, WCAs5 & LBAP. 1 record, dated 2015, 40m from the site.
	Daubenton's bat (<i>Myotis daubentonii</i>): EPS, WCAs5 & LBAP. 1 record, dated 2015, 40m from the site.
	Natterer's bat (<i>Myotis nattereri</i>): EPS, WCAs5 & LBAP. 1 record, dated 2015, 40m from the site.
	Common pipistrelle (<i>Pipistrellus pipistrellus</i>): EPS, WCAs5 & LBAP. 11 records, dated between 1988 and 2015, the closest of which is 40m from the site.
	Eurasian red squirrel (<i>Sciurus vulgaris</i>): WCAs5, PS & LBAP. 6 records, dated between 1990 and 2002, the closest of which is 940m from the site.
	European water vole (<i>Arvicola amphibius</i>): WCAs5 & LBAP. 7 records, dated between 2000 and 2016, the closest of which is 40m from the site.
Brown hare (<i>Lepus europaeus</i>): PS & LBAP. 7 records, dated between 1981 and 2010, the closest of which is 90m from the site.	
European hedgehog (<i>Erinaceus europaeus</i>): PS & LBAP. 2 records, dated between 2007 and 2008, the closest of which is 1410m from the site.	
<p>¹Key to Designation Codes: EPS = European Protected Species under the <i>Conservation of Habitats and Species Regulations 2017</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). PS = Priority Species listed under Section 41 of the NERC Act 2006. LBAP = Species listed on the Lancashire Biodiversity Action Plan Provisional Long List.</p>	

3.1.15 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 0.27 hectare site is in a rural location and comprises a residential property (52a New Cut Lane) and associated hard-standing and garden with areas of bramble scrub, amenity grassland and ornamental vegetation. The on-site building (52a New Cut Lane residential property) will not be affected by the proposals.

3.2.2 The north-western boundary is defined by a timber post and panel fence, beyond which lies an ephemeral drain and a field of scrub vegetation, New Cut Lane, neighbouring houses and a garden fence form the boundary to the north. The south-eastern boundary is defined by garden fence and hedgerows of Garden Privet (*Ligustrum ovalifolium*) and Beech (*Fagus sylvatica*), beyond which are residential properties, gardens and a wooded copse. The southern-most boundary is defined by a garden fence, beyond which lies semi-improved grassland, scrub, and further, arable fields and Halsall Plex Mosses BHS.

3.2.3 A Phase 1 Habitat Survey map is appended at **Figure 2**. Photographs are appended at **Section 8.3**.

Bramble Scrub

3.2.4 An enclosed area (485m²) bordered by fencing of dense unmanaged bramble scrub with scattered self-seeded shrubs is present at the north-western margin. The vegetation is characterised by constant and abundant Bramble (*Rubus fruticosus* agg.) and occasional and locally frequent hedge bindweed (*Calystegia sepium*), Great Willowherb (*Epilobium hirsutum*), Pendulous Sedge (*Carex pendula*), Silver Birch (*Betula pendula*) and Cyprus Cedar (*Cedrus brevifolia*). A plant species list is appended at **Table 8.1**, refer to **Photo 1**.

- 3.2.5 This habitat type is characteristic of the W24 *Rubus fruticosus-Holcus lanatus* underscrub community of the NVC (Rodwell, 1991) and is described by the UKHab as h3d Bramble scrub with the secondary code 77 neglected (unmanaged for 3 to 10 years).

Amenity Grassland

- 3.2.6 The residential property has front and rear gardens, of which the majority comprises close mown amenity grassland, refer to **Photos 2** and **3**.
- 3.2.7 The vegetation is characterised by constant and abundant moss species and Red Fescue (*Festuca rubra*), frequent Perennial Rye-grass (*Lolium perenne*) and Common Bent (*Agrostis capillaris*), occasional and locally abundant Common Mouse-ear (*Cerastium fontanum*) and Creeping Buttercup (*Ranunculus repens*) and very locally abundant Annual Meadow-grass (*Poa annua*). A plant species list is appended at **Table 8.2**.
- 3.2.8 This habitat has similarities with the MG7 *Lolium perenne* leys and related grasslands community of the NVC (Rodwell, 1992) and is described by the UKHab as g4 modified grassland with the secondary codes 64 mown, 75 active management and 230 garden.

Ornamental Vegetation

- 3.2.9 The ornamental vegetation in the shrub and herbaceous borders of the amenity grassland is characterised by occasional and locally frequent shrubs of ornamental plants, including variants of Heather, Rose, Geranium and Magnolia species, Holly (*Ilex aquifolium*), Spotted-laurel (*Aucuba japonica*), Butterfly-bush (*Buddleja davidii*) and Lavender (*Lavandula* sp.). Occasional and locally abundant young and semi-mature trees and shrubs of Beech, Cherry (*Prunus* sp.) and Elder (*Sambucus nigra*) are also present, refer to **Photos 4** and **5**. A plant species list is appended at **Table 8.3**.
- 3.2.10 The ornamental vegetation is not characteristic of an NVC community and is described by the UKHab as h3h with the secondary code 48 non-native.

Hard-standing and Gravel Driveway

- 3.2.11 The gravel driveway provides the only access onto the site, from New Cut Lane. Hard standing is present surrounding the existing residential property on the site. No species have colonised this habitat, refer to **Photos 4** to **6**.
- 3.2.12 The hard-standing and gravel driveway is described by the UKHab as u1b developed land; sealed surface.

Garden Hedgerows

- 3.2.13 Managed ornamental hedgerows of Garden Privet and Beech form lengths of the south-eastern boundary of the site.
- 3.2.14 The hedgerows are not characteristic of an NVC community and are described by the UKHab as h2b other hedgerows.

Invasive Plant Species

- 3.2.15 No Japanese Knotweed is present at the site.
- 3.2.16 As illustrated on **Figure 2**, individual Rhododendron shrubs are present on site in the ornamental vegetation at the south-eastern boundary and Indian Balsam was detected throughout the area of Bramble scrub adjacent to the north-western boundary, off-site.
- 3.2.17 These species are listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended); it is an offence to spread or cause their spread in the wild. This is considered further at **Section 4.3** below.

3.3 Animal Life

Badger

3.3.1 No badger activity was found within the survey area. The presence of badger and adverse effects on badger as a result of the proposals are reasonably discounted.

Bat Species

Trees

3.3.2 No trees support any features suitable for use by roosting bats, such as knot-holes or cavities. In accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn), (Collins, J. (ed), 2016), all trees are assessed to be of negligible suitability for use by roosting bats.

Habitat Assessment for Commuting and Foraging Bats

3.3.3 The trees and shrubs along the site margins and the drain corridor are suitable for use by foraging bats, particularly edge-feeding species such as pipistrelle species.

Bird Species

3.3.4 Birds detected in the site in September 2022 are listed in **Table 3.2**, below.

Table 3.2: Bird species Detected on 30th September 2022

Scientific Name	Common Name	BOCC Status ¹
<i>Erithacus rubecula</i>	Robin	Green
<i>Parus caeruleus</i>	Blue tit	Green
<i>Pica pica</i>	Magpie	Green
<i>Turdus merula</i>	Blackbird	Green
¹ BOCC: Birds of Conservation Concern (Stanbury, et al., 2021). Priority Species are presented in bold .		

3.3.5 The birds were typically observed in the trees and shrubs around the site margins. The trees, shrubs (including the ornamental species) and the dense Bramble scrub provide opportunities for use by nesting and foraging passerine birds including dunnock, a Priority Species.

3.3.6 Arable fields are located a minimum of 80 metres to the south of the site which are suitable for use by wintering birds. The fields are separated from the site by defunct hedgerows and the enclosed garden habitats within the site are not suitable for use by wintering bird species such as pink-footed geese (*Anser brachyrhynchus*).

3.3.7 The close mown grassland habitats within the site do not provide opportunities for hunting barn owl; no opportunities for nesting or roosting barn owl were detected within the site.

Great Crested Newt and other Amphibians

3.3.8 The HSI score for Pond 1 (off-site) is presented below.

Table 3.3: HSI Score for Pond 1

Criteria	Description	Pond 1	Score
SI1	Location	Optimal	1
SI2	Pond area	<50m ²	0.05
SI3	Pond drying	Never dries	0.9
SI4	Water quality	Poor	0.33
SI4	Shoreline shade	0%	1
SI6	Fowl	Absent	1
SI7	Fish	Possible	0.67
SI8	Pond count**	0	0.01
SI9	Terrestrial habitat	Poor	0.33
SI1	Macrophytes	50%	0.8
Assessment Result:		Poor	0.44
*Calculated by (SI1 x SI2 x SI3 x SI4 x SI5 x SI6 x SI7 x SI8 x SI9 x SI10)/10			
**The number of ponds within an unobstructed one kilometre radius is divided by 3.14.			

- 3.3.9 Pond 1 is assessed to be of poor suitability for breeding great crested newt.
- 3.3.10 The hard-standing and close mown amenity grassland that occupies the majority of the site are sub-optimal habitats for use by foraging and sheltering amphibian species, including great crested newt.
- 3.3.11 The gravel driveway of the site is raised 30cm above the neighbouring garden in which Pond 1 is situated. 30cm-tall vertical concrete slabs / gravel boards lie between the driveway and the garden and form a significant dispersal barrier for direct movement of amphibians, including great crested newt, between Pond 1 and the site, refer to **Photo 6**.
- 3.3.12 In consideration of the poor suitability of Pond 1 for great crested newt, the poor suitability of the terrestrial habitats at the site for sheltering amphibians, the presence of physical amphibian dispersal barriers between Pond 1 and the site, the absence of any known records of great crested newt in the local area (as reported by the data search) and the absence of other permanent ponds within a 500 metre radius of the site, adverse effects on great crested newt (if present) are reasonably discounted and no further survey is necessary to inform the planning decision.

Reptiles

- 3.3.13 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.
- 3.3.14 The site is not adjacent or linked to any areas of favourable habitat for reptile species, and there are no known records of reptile species for the site or the wider area. The presence of reptiles within the site is reasonably discounted.

Water Vole and Otter

- 3.3.15 The off-site drain channel beyond the north-western site boundary is between 1 to 1.5 metres wide with banks of 0.2 to 0.5 metres depth, set at 45 degrees. The drain bed is mud with brown earthy soils banks. The ephemeral drain supported shallow (0.3 metre), still, poor-quality water on the survey date.
- 3.3.16 The drain is heavily shaded by marginal Willow scrub along its length, and does not support any aquatic or emergent vegetation.
- 3.3.17 No field signs or evidence of use of the drain by water vole or otter were detected. A detailed assessment of the water vole and otter survey and habitat assessment is appended at **Table 8.4**.

Other Wildlife

- 3.3.18 The habitats within the site are suitable for use by foraging and sheltering hedgehog (*Erinaceus europaeus*), a Priority Species. The suitability of the site for hedgehog is considered at **Section 4.4**.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 It is proposed to build residential dwellings with associated gardens and hard-standing in addition to the existing residential property on the site, refer to *52a New Cut Lane, Proposed Site Plan, Drawing Number: 0207 760 Rev B* (RAL Architects, 2019).
- 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 In accordance with the Impact Risk Zone guidance on MAGiC, the likely impacts on the statutory designated sites⁴ present in the wider area must be considered.
- 4.2.2 In relation to the European designated sites and for completeness, **Appendix 2** has been prepared to provide a preliminary assessment of likely significant effect (LSE) / Appropriate Assessment to inform the Habitats Regulations Assessment process that may be required to be completed by the competent authority (the local planning authority and their ecological advisors).
- 4.2.3 The assessment of LSE is the first stage of a HRA and is intended to be a simple exercise to address the question "is the project, either alone or in combination with other relevant projects, likely to result in a significant [adverse] effect on the conservation objectives and integrity of the European sites".
- 4.2.4 To address this question, it is necessary to identify and consider the pathways / mechanisms by which the development proposal may lead to an effect on the European designated site(s).
- 4.2.5 The identified potential pathways⁵ of impact comprise:
- a. Direct loss of habitat at the designated site;
 - b. Loss of supporting habitat functionally linked land;
 - c. Mechanical / abrasive damage and nutrient enrichments;
 - d. Atmospheric pollution: local;
 - e. Water resources;
 - f. Water quality / pollution incidents;
 - g. Disturbance of birds using the designated site habitats during the construction phase;
 - h. Disturbance of birds using nearby functionally linked land during the construction phase; and
 - i. Disturbance and recreational pressure including active leisure pursuits, car parking, dog walking, events, walking and water-based sites once the residential site is operational.

⁴ i.e. the overlapping Sefton Coast SSSI and SAC, the Ribble and Alt Estuaries Ramsar and SPA and Liverpool Bay SPA located between 1 to 5 kilometres to the west, and designated for their importance for wintering wildfowl and wading birds.

⁵ Routes by which a change in activity within the project scope could lead to an effect on the European designated site which is not directly connected with or necessary to the management of the European site.

Scoped Out Pathways

- 4.2.6 At this stage, as the site is almost 1 kilometre (0.98 kilometres) from the nearest European designated site, the assessment does not involve any activities directly in the designated site, does not involve actions such as combustion, or a direct source of atmospheric pollution and the site does not provide supporting habitat / functionally linked land for use by the bird species present at the designated sites, it is concluded that pathways a. to f. can be reasonably scoped out of the assessment.

Scoped In Pathways

- 4.2.7 As recognised in the Impact Risk Zone guidance, it is considered that an increased risk of an adverse effect as a result of recreational activities is the main potential pathway of impact that will need to be assessed.
- 4.2.8 The assessment also considers the potential risk of disturbance of bird species using the designated sites and surrounding functionally-linked land, particularly during the construction period.
- 4.2.9 **Table 9.1** at **Appendix 2** provides an assessment of LSE (when the project is considered alone) of each of the scoped in potential pathways and describes the essential features that have been incorporated into the site design and also, if necessary, the measures proposed as mitigation / preventative measures designed to protect the European sites. Where necessary, further details of the mitigation / preventative measures are described at **Section 5.0**.

Draft Assessment

- 4.2.10 The information presented at **Table 9.1** indicates that, when considered alone, the proposals will not have a likely significant effect on the integrity or conservation objectives of the designated sites.
- 4.2.11 It is considered that no further survey, assessment or mitigation measures (other than those described at **Section 5.0** and **Appendix 2**) are necessary to support this conclusion.

Non-statutory Designated Sites for Nature Conservation

- 4.2.12 The site lies 184 metres north-west of Halsall and Plex Mosses BHS, designated for its importance as a wintering ground for pink-footed geese (and functionally-linked land supporting the coastal designated sites). The site has no similar habitats or direct connectivity to Halsall and Plex Mosses BHS.
- 4.2.13 The assessment of the proposals in relation to the non-statutory sites for nature conservation are similar to that outlined **Table 9.1** at **Appendix 2** and summarised as:
- a. The proposed new properties will be enclosed by existing properties. The new properties will be of a similar height to the surrounding buildings. As such, the proposals will not create any significant obstruction to the flight paths of pink-footed geese using the BHS or nearby habitats;
 - b. The proposals will not create vehicular or pedestrian access from the site to the BHS, therefore, there will be no facilitated risk of recreational pressure from the public at the BHS, such as by ramblers or dog-walkers, which may disturb the geese;
 - c. The proposals are of a small-scale and short construction period, and will not add significant adverse effects on the BHS, such as increased traffic, light or noise pollution during the construction phase or operational phase; and
 - d. The existing property will act as a physical barrier between the construction area and the BHS, and screen any activities that may disturb the BHS, through the construction and operation phases.
- 4.2.14 Adverse effects of the proposals on the BHS and its features of interest are reasonably discounted.

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.
- 4.3.2 The Beech hedgerow on the eastern boundary is Priority Habitat. No other Priority Habitats are present at the site.
- 4.3.3 The value of the adjacent drain as a local wildlife corridor with connectivity to the habitats in the wider area for use by wildlife is recognised. Measures to protect the drain and secure the conservation value of the corridor in the presence of the residential development are outlined in **Section 5.3**.
- 4.3.4 In terms of each habitat's importance in a geographical context⁶, trees, shrubs and hedgerows are of 'site' value as they add structural diversity and are suitable for use by nesting birds.
- 4.3.5 The presence of Rhododendron within the site and Indian Balsam at the site margins, both invasive species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), has been detected. It is considered that the proposals present an opportunity for the eradication and control of these species as part of the proposed development. Further guidance is presented at **Section 5.4** of this report.

4.4 Protected Species and Other Wildlife

Bats

- 4.4.1 Habitats within and adjacent to the site are suitable for foraging and commuting bats. Recommendations relating the retention and creation of features suitable for use by foraging and commuting bats, the avoidance of adverse effects as a result of inappropriate lighting and features to enhance habitats for roosting bats at the site are presented at **Section 5.5**.

Birds

- 4.4.2 The trees and shrubs provide favourable foraging and nesting habitat for the species of birds detected within the site and the wider area via the records search (including dunnock, a Priority Species). Consideration of birds (including protection of breeding birds and recommended enhancements for Priority Species) are presented at **Section 5.6** of this report.

Amphibians

- 4.4.3 In accordance with best practice a Reasonable Avoidance Measures Method Statement (RAMMS) has been prepared to be applied prior to and during the site preparation and construction period, this is presented in **Section 5.7**.

Other Protected Species

- 4.4.4 Appropriate survey effort and / or assessment in accordance with standard guidance has been carried out to discount adverse effects on other relevant protected species namely badger, great crested newt, roosting bats, water vole, otter and reptile species. No further survey is necessary to inform the planning submission and a planning decision.
- 4.4.5 The site supports suitable habitat for hedgehog, a Priority Species. Hedgehog have the potential to be harmed during the site strip and construction phases of the development; measures for the protection of

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.

hedgehog (and other wildlife) during works are presented at **Section 5.7**. Appropriate measures to ensure hedgehog can access the garden habitats within the developed site are presented at **Section 5.8**.

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 National Planning Policy Framework (NPPF), local planning policy and best practice.

5.1.2 The recommendations address the potential impacts identified in **Section 4.0** and are appropriate and proportionate.

5.1.3 In accordance with Chapter 15, paragraph 180(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'.

5.1.4 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.

5.1.5 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 as a residential development.

5.2 Homeowner's Pack

5.2.1 To address the potential risk of increased recreational pressure on the relevant statutory and non-statutory designated sites for nature conservation and functionally-linked land in the wider area, and to comply with the assessment at **Table 9.1**, it is recommended that an advisory leaflet is distributed in the sale pack of the properties. The leaflet will provide the following guidance:

Advise that the properties and site are within proximity to the European designated sites and Halsall and Plex Mosses BHS but clearly set out the value, importance and sensitivity of the areas, identify the potentially damaging operations and also outline a 'responsible use code' such as advising the need to keep dogs on leads and keeping to the footpaths, for example; and

Identify other areas for recreation / dog walking, away from the sensitive areas with maps and walking distances as needed.

5.3 Protection of Existing Vegetation and Off-site Habitats

Protection of Trees and Shrubs

5.3.1 During the construction phase, temporary protective demarcation fencing will be used to protect the trees, shrubs and hedgerows 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.

5.3.2 The fencing will be in accordance with BS5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations* (BSI, 2012).

Protection of Off-site Drain Channel

- 5.3.3 In the absence of updated guidance, the following Pollution Prevention Guidelines (PPG) will be adhered to at any works near the adjacent drain:
- a. PPG1: Basic good environmental practices (Environment Agency, 2013);
 - b. PPG5: Works in, near or over watercourses (Environment Agency, 2014);
 - c. PPG6: Construction and demolition sites (Environment Agency, 2012); and
 - d. PPG7: Operating refuelling sites (Environment Agency, 2011).

Construction / Site Preparation Timings

- 5.3.4 Subject to the assessment of the competent authority (the LPA) and guidance from Natural England and based on the assessment at **Table 9.1**, to avoid the risk of disturbance to pink-footed geese using the neighbouring fields, it may be necessary to restrict the operation of larger machinery required to carry out the initial site clearance and preparation works to outside the critical period (i.e. avoid November to February inclusive). Based on the presence of the existing house that provides screening it is considered that other construction operations can be carried out at any time of year.

5.4 Invasive Plant Species

- 5.4.1 It is an offence under the *Wildlife and Countryside Act 1981* (as amended) to cause the spread of Rhododendron and Indian Balsam in the wild. In accordance with best practice, it is recommended that all contractors are advised of the presence of these invasive plant species. It may be necessary to prepare and implement an Invasive Plant Species Strategy as part of the works.

5.5 Bats

Lighting

- 5.5.1 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

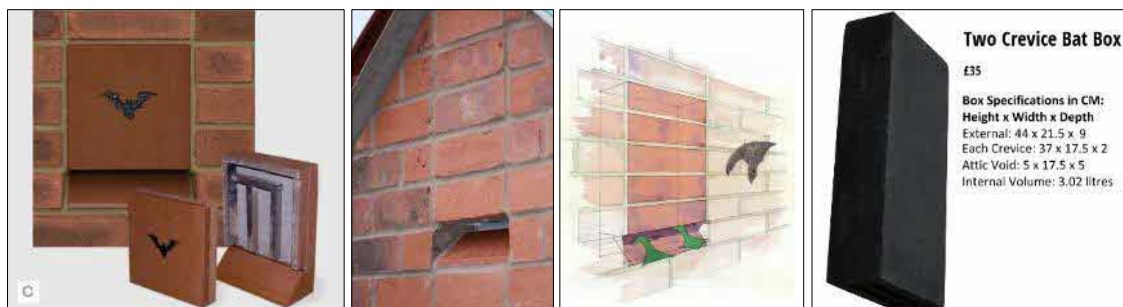
- 5.5.2 Any lighting to be used at the site during construction should be directional and screened where possible, this specification should be included within a Construction Environment Management Plan (CEMP), or similar.

Development Lighting Design

- 5.5.3 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 boundary trees and shrubs, the off-site drain areas of ecological enhancement and any landscape planting, as lighting overspill may deter use by wildlife such as foraging bats.
- 5.5.4 The lighting scheme will be designed with reference to current guidance, namely:
- a. *Guidance Note 8: Bats and Artificial Lighting in the UK* (Institution of Lighting Professionals & Bat Conservation Trust, 2018); and
 - b. *Bats and lighting: Overview of current evidence and mitigation guidance* (Stone, 2014).

Enhancing Habitats for Roosting Bats

- 5.5.5 To enhance the opportunities for roosting bats as part of the proposals, it is recommended that bat access panels are installed at the new buildings.
- 5.5.6 The bat access panels should be sited at least four 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 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) or Wild Care (www.wildcare.co.uk) and Greenwood's Ecohabitats (www.greenwoodsecohabitats.co.uk) and are presented at **Insert 1**.



Insert 1: Examples of integrated bat access panels and an externally mounted box⁷

5.6 Birds

Protection

- 5.6.1 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 (Natural England, 2015).
- 5.6.2 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.

Enhancing Habitats for Nesting Birds

Swift

- 5.6.3 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.
- 5.6.4 To provide opportunities for nesting swift, it is recommended that swift nest boxes are installed at the new buildings. The boxes will not be positioned over windows or doorways where droppings may become a nuisance. The boxes should be placed beneath the eaves at least 4 metres from the ground. Once the development layout has been finalised, an ecologist should advise on appropriate positions for the swift nest boxes. Examples of suitable products are illustrated at **Insert 2**.

⁷ Left to right: IBstock Enclosed Bat Box 'c' (left); Habitat 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 Habitat bat access panels can be supplied unfaced to enable the addition of matching material.



Insert 2: Examples of swift nest boxes⁸

5.7 Reasonable Avoidance Measures for the Protection of Amphibians and Other Species

5.7.1 In accordance with best practice, and owing to the proximity of the site to Pond 1, it is advised that the Reasonable Avoidance Measures Method Statement (RAMMS) outlined below is applied prior to and during the site preparation and construction period:

- a. It is strongly recommended that from the current time to the point of commencement of soil stripping and site preparation works that the grassland is maintained as a short sward and therefore less favourable for the attraction of sheltering amphibians;
- b. All site personnel must be made aware of this RAMMS;
- c. During construction, any holes, trenches or other pits which amphibians (or other wildlife) could fall into will be covered overnight, or have sloped banks or ramps to allow escape;
- d. The use of chemicals (such as fertilisers and herbicides) harmful to amphibians should be avoided wherever possible;
- e. In the unlikely event of the discovery of a great crested newt whilst any site clearance or construction operations are in progress then all works in the area must cease and ERAP (Consultant Ecologists) Ltd (01772 750502) must be contacted immediately for further assistance;
- f. No site contractors must handle a great crested newt;
- g. Care should be taken during the removal of the dilapidated timber sheds in the area of Bramble to search for amphibians and other species such as hedgehog; and
- h. If any other amphibian species (such as common toad, common frog, palmate newt or smooth newt) or hedgehog is detected, it must be carefully picked up, placed in a clean bucket and moved to an area of suitable habitat beyond the construction area.

5.8 Habitat Connectivity and Landscape Planting

Maintenance of Habitat Connectivity Throughout the Developed Site

5.8.1 To ensure habitat connectivity is maintained as part of the development proposals, gaps within the proposed fencing (see **Insert 3**, as reproduced from *Hedgehogs and Development* (British Hedgehog Preservation Society / PTES, 2019)) to allow access by other wildlife (including hedgehog) should be incorporated across the site. It is recommended that suitable 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.

⁸ From left to right No. 17A Schwegler Swift Nest Box (Triple Cavity) as installation (left), Manthorpe Swift Nesting Box (centre) and Ibstock Eco-habitat for Swift (right), all available from www.NHBS.com



Insert 3: Showing wildlife access gap within fencing

Landscape Planting

- 5.8.2 It is recommended that the landscape planting within the residential site is composed from native species and species known to be of value for the attraction of wildlife.
- 5.8.3 It is recommended that trees which support blossom and fruit which will attract insects are incorporated into the landscape planting. Suitable species are presented at **Table 5.1**, below.

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

- 5.8.4 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.
- 5.8.5 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.
- 5.8.6 For further plants suitable for the attraction of pollinators please refer to the *Perfect for Pollinators Plant List* (Royal Horticultural Society, 2012). It is recommended that the selection of plant species at the site ensures that a variety of flowering species are available throughout the year.

6.0 CONCLUSION

- 6.1 The development proposals at 52a New Cut Lane, Halsall, can be achieved with no direct adverse effect on designated sites for nature conservation. Appropriate and proportionate mitigation for the avoidance of significant adverse indirect effects on designated sites as a result of the recreational pressures and construction / site preparation related disturbance is feasible and can be secure through a planning condition.
- 6.2 Adverse effects on species-rich habitats and Priority Habitat will be avoided.
- 6.3 Appropriate survey effort and / or assessment in accordance with standard guidance has been carried out to discount adverse effects on relevant protected species. No further survey is necessary to inform the planning submission and planning decision. Measures for the protection and long-term conservation of nesting birds and foraging bats at the site will be achieved.

- 6.4 The recommendations in **Section 5.0** provide guidance and actions to be applied to ensure compliance with wildlife legislation, the National Planning Policy Framework (NPPF) and best practice.

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8.0 APPENDIX 1: TABLES AND FIGURES

8.1 Species Lists

Table 8.1: Plant Species List for Dense Bramble Scrub

Scientific Name	Common Name	DAFOR ¹	Cover
Woody Species			
<i>Betula pendula</i>	Silver Birch	O	5%
<i>Cedrus brevifolia</i>	Cyprus Cedar	O	2%
Herb Species			
<i>Calystegia sepium</i>	Hedge Bindweed	O/LA	5%
<i>Carex pendula</i>	Pendulous Sedge	O/LA	1%
<i>Epilobium hirsutum</i>	Great Willowherb	O/LA	1%
<i>Rubus fruticosus</i> agg.	Bramble	A/LD*	90%
¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

Table 8.2: Plant Species List for Amenity Grassland

Scientific Name	Common Name	DAFOR ¹	Cover
	Mosses	A*	50%
<i>Agrostis capillaris</i>	Common Bent	F	10%
<i>Aphanes arvensis</i>	Parsley-piert	LA	5%
<i>Cerastium fontanum</i>	Common Mouse-ear	O/LA	2%
<i>Festuca rubra</i>	Red Fescue	A*	50%
<i>Geranium molle</i>	Dove's-foot Crane's-bill	F/LA	5%
<i>Lolium perenne</i>	Perennial Rye-grass	F	20%
<i>Medicago lupulina</i>	Black Medick	O	<1%
<i>Poa annua</i>	Annual Meadow-grass	LA	1%
<i>Ranunculus repens</i>	Creeping Buttercup	O/LA	2%
<i>Senecio jacobaea</i>	Common Ragwort	O	<1%
<i>Taraxacum officinale</i> agg.	Dandelion	O	<1%
¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

Table 8.3: Plant Species List for Ornamental Vegetation

Scientific Name	Common Name	DAFOR ¹	Cover
	Ornamentals (other)	O/LA	10%
<i>Aucuba japonica</i>	Spotted-laurel	O/LA	2%
<i>Buddleja davidii</i>	Butterfly-bush	O/LA	2%
<i>Carex pendula</i>	Pendulous Sedge	O/LA	2%
<i>Choisya</i> sp.	Choisya sp.	O/LA	2%
<i>Cypress</i> sp.	Cypress species	O/LA	2%
<i>Calluna</i> sp.	Heather species	O/LA	2%
<i>Fagus sylvatica</i>	Beech	O/LA	5%
<i>Geranium</i> sp.	Geranium species	O/LA	2%
<i>Hydrangea</i> sp.	Hydrangea	O/LA	2%
<i>Ilex aquifolium</i>	Holly	O/LA	2%
<i>Ligustrum ovalifolium</i>	Garden Privet	O/LA	10%
<i>Magnolia</i> sp.	Magnolia	O/LA	2%
<i>Rhododendron</i>	Rhododendron	O/LA	2%
<i>Rosa</i> sp.	Rose species.	O/LA	2%
<i>Sambucus nigra</i>	Elder	O/LA	1%
¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

8.2 Habitat Assessment for Water Vole and Otter

Table 8.4: Drain Habitat Assessment for Water Vole and Otter

Channel	
Length (m)	169
Width (m)	1 - 1.5
Water depth (m)	0.3
Silt depth (m)	0.1
Water quality	Poor
Permanence	Seasonally flooded
Flow rate	None
Water level changes	None
Shading	80%
Bank substrate	Brown earthy soil
Bank height (m)	0.5
Angle of bank	45°
Vegetation (using DAFOR system to describe frequency)	
Aquatic vegetation	None
Emergent vegetation	None
Bankside vegetation (DAFOR)	Common Nettle (<i>Urtica dioica</i>) (LA), Goat Willow (<i>Salix caprea</i>) (VLA), Crack Willow (<i>Salix fragilis</i>) (VLA), Great Willowherb (<i>Epilobium hirsutum</i>) (O/LA), Indian Balsam (<i>Impatiens glandulifera</i>) (VLA) and Male-fern (<i>Dryopteris filix-mas</i>) (O).
Further information	
Disturbance	No disturbance
Presence of other mammals/animals	No burrows, feeding stations or latrines found.
Water Vole Presence / Absence Information	
Survey evidence (burrow, feeding station, above ground nest, chewed length of vegetation, latrine etc.)	None
Water vole presence	None
Population estimate	N/A
Suitability for water vole	Negligible owing to absence of emergent vegetation, shallow sloping banks and close proximity to residential properties and gardens.
Otter Presence / Absence Information	
Survey evidence (holt, spraints, couch, prey remains etc.)	None
Otter presence	None
Population estimate	N/A
Suitability for otter	Unsuitable for use as a holt owing to absence of suitable banks and habitats. Negligible for feeding owing to absence of large fish.
Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, L=Local, V=Very and *=a constant species	

8.3 Photographs



Photo 1: Bramble scrub



Photo 2: Amenity grassland (to front of property at 52a New Cut Lane)



Photo 3: Amenity grassland, ornamental vegetation and hard-standing (to rear of property at 52a New Cut Lane)



Photo 4: Gravel driveway, amenity grassland and ornamental vegetation (to front of property)

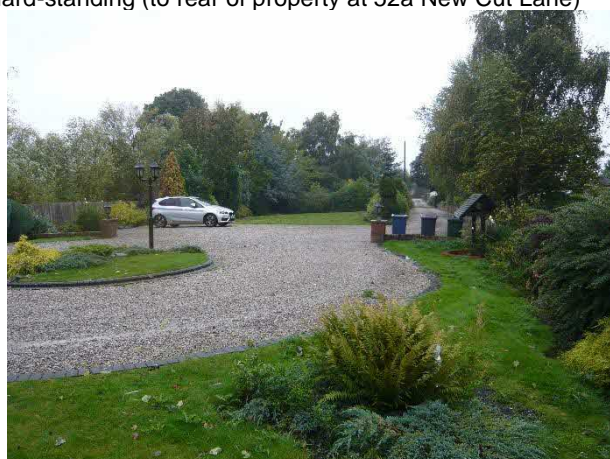


Photo 5: Gravel driveway, amenity grassland and ornamental vegetation (to front of property)



Photo 6: Gravel driveway leading to New Cut Lane. Showing significant dispersal barrier (buried vertical concrete gravel board at base of timber fence) between site (left of fence) and neighbouring garden with Pond 1 (right of fence)

8.4 Figures

Figure 1: Aerial Image of the Site and its Surroundings

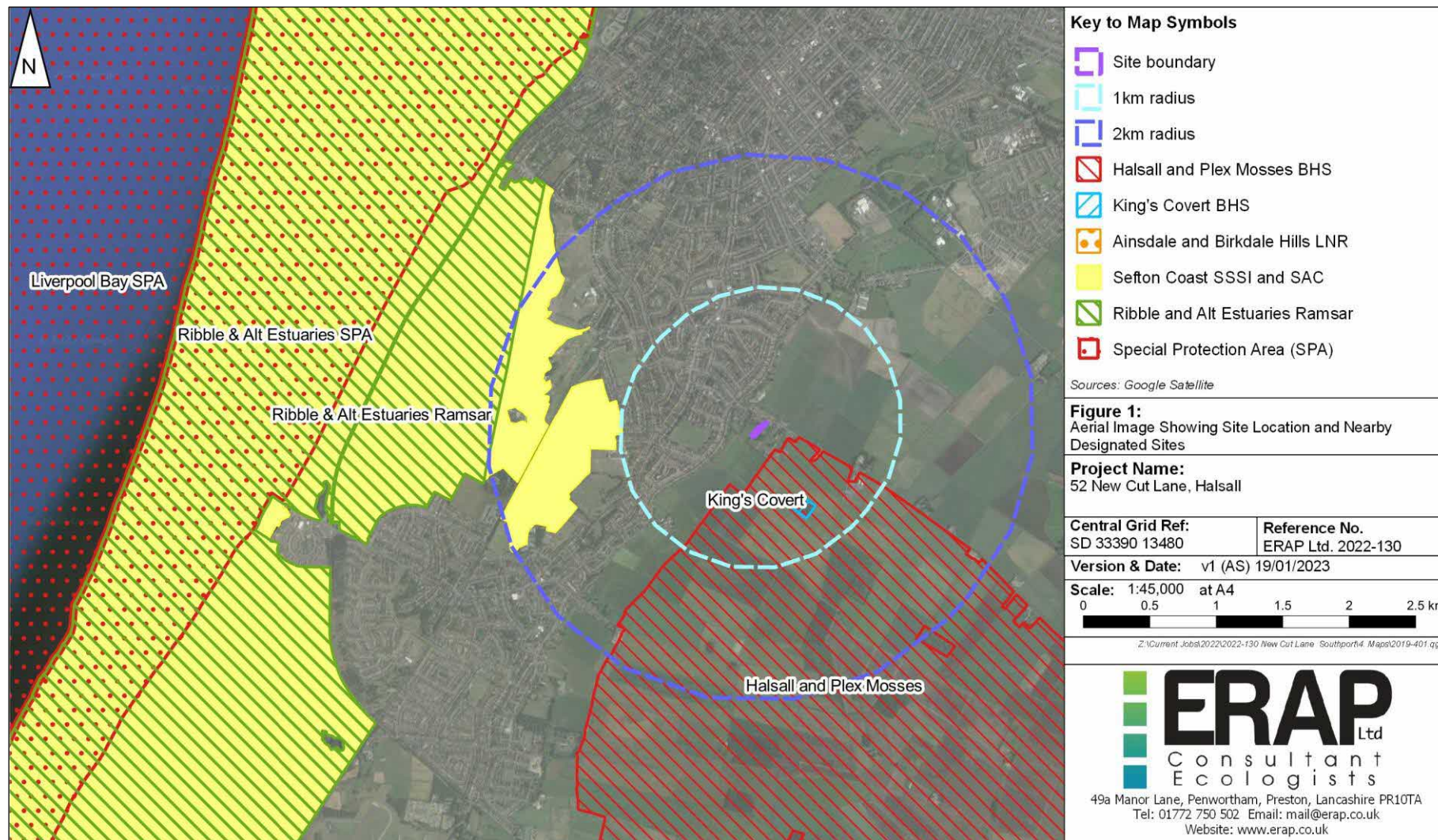
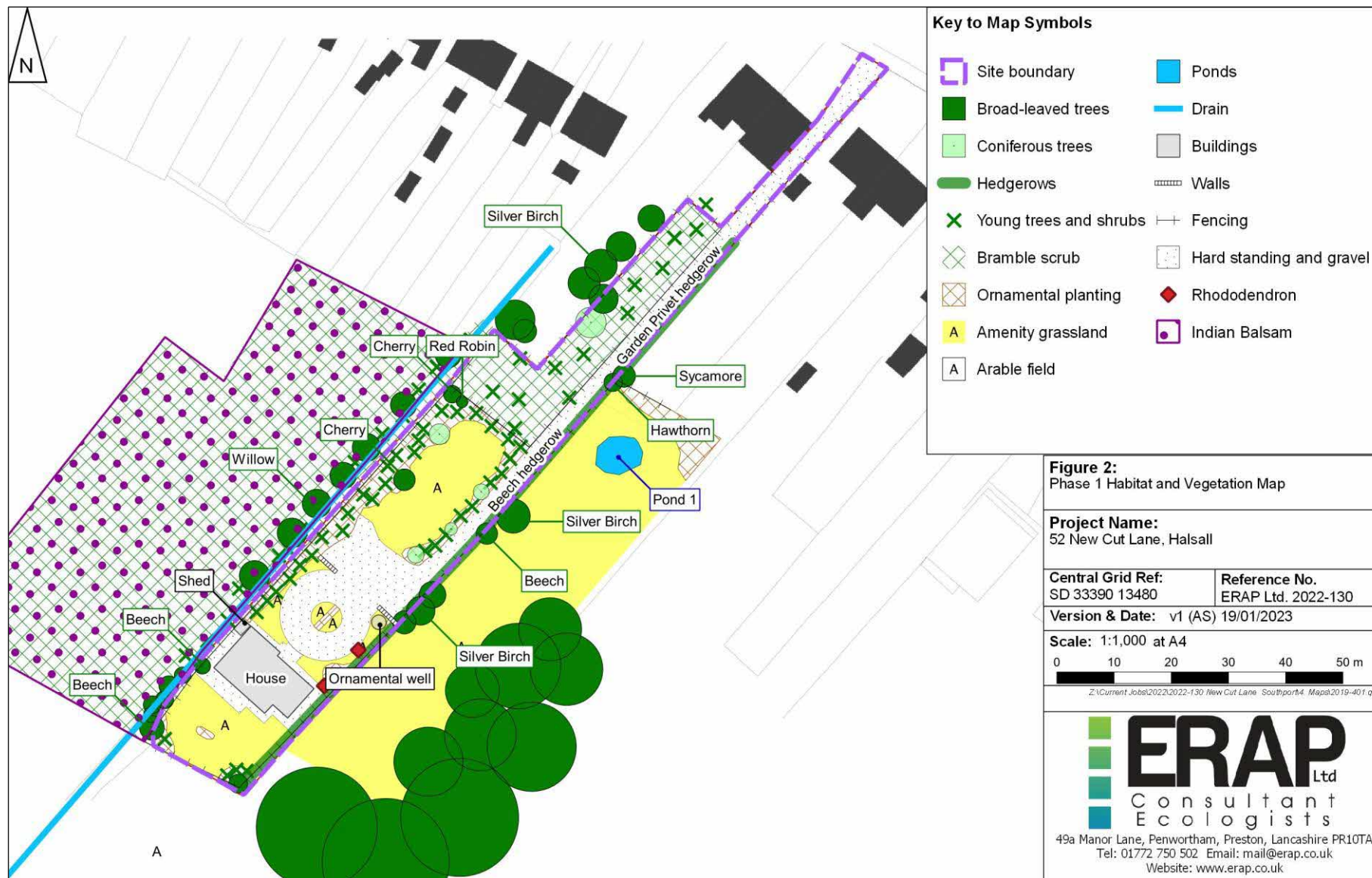


Figure 2: Phase 1 Habitat and Vegetation Map



9.0 APPENDIX 2: ASSESSMENT OF LIKELY SIGNIFICANT EFFECT

9.1 Introduction

9.1.1 **Table 9.1** provides an assessment of likely significant effect (LSE) for each of the scoped in potential pathways on the relevant European designated sites when the project is considered alone. The assessment describes the essential features that have been incorporated into the site design and also, if necessary, the measures proposed as mitigation / preventative measures designed to protect the European sites. Where necessary, further details of the mitigation / preventative measures are presented at **Section 5.0**.

9.1.2 It is the intention that **Table 9.1** provides a preliminary assessment of the likely significant effect (LSE) to inform the Habitats Regulations Assessment process that may be required to be completed by the competent authority (the local planning authority and their ecological advisors).

9.2 Links to SAC, Ramsar and SPA Designations and Conservation Advice Packages

Sefton Coast SAC

<https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=UK0013076&SiteName=sefton%20coast&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAAra=>

Ribble and Alt Estuaries Ramsar

<https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=UK11057&SiteName=sefton%20coast&countyCode=&responsiblePerson=&unitId=&SeaArea=&IFCAAra=>

Ribble and Alt Estuaries SPA

<https://designatedsites.naturalengland.org.uk/SiteGeneralDetail.aspx?SiteCode=UK9005103&SiteName=RIBBLE&countyCode=&responsiblePerson=&SeaArea=&IFCAAra=>

9.3 Assessment of Likely Significant Effect

Table 9.1: Evaluation of Likely Significant Effects / Appropriate Assessment of the Proposed Development When Considered Alone

Aspect of Development Scheme Assessment	Scoped in Potential Pathways of Impact ⁹	Description of Impact and Assessment	Initial Assessment of LSE in the Absence of Any Mitigation	Embedded Mitigation / Measures Incorporated into the Scheme Design	Appropriate Assessment in the Presence of Embedded Mitigation	Additional Mitigation / Preventative Measures	Appropriate Assessment of Likely Significant Effect in the Absence of Additional Mitigation
Ribble and Alt Estuaries SPA and Ramsar site							
Site preparation works and construction	Disturbance of relevant SPA qualifying species at the designated sites.	<p>The site is located approximately 1 kilometre from the nearest boundary of the closest designated site, Sefton Coast SAC (and SSSI) which incorporates the Ribble and Alt Estuaries SPA and Ramsar site.</p> <p>Existing residential developments separate (and screen) the site from the statutory designated sites.</p> <p>The operations involved in the construction of the residential site will not impede bird flight paths nor cause physical obstructions to the ability for birds to fly over the site.</p>	No LSE	<p>The distance of the site from the designated sites and the presence of the residential properties and other land uses protects the designated sites from the risk of additional significant disturbances during construction.</p>	No LSE	None required	<p>No LSE on the integrity or conservation objectives of the designated sites.</p> <p>It is suggested that this potential pathway of impact can be scoped out at this stage.</p>
	Disturbance of relevant SPA qualifying species using nearby functionally-linked land.	<p>The surrounding land is suitable for use by the designated sites' qualifying species and is recognised as supporting functionally-linked land.</p> <p>Construction operations at the site between October and March (particularly operation of loud machinery during site preparation and earthworks) may temporarily displace birds from using the nearby fields of functionally-linked land.</p>	LSE	<p>The construction works will be of a small scale and a short timescale.</p> <p>The construction operations will be separated and screened from the fields of functionally linked land in the wider area by the existing property at 52a New Cut Lane.</p> <p>Conversely, no existing screens will be removed to facilitate the construction operations.</p>	No LSE	<p>None required.</p> <p>If considered necessary in accordance with best practice the site clearance and earthworks at the commencement of works could avoid the critical period (i.e. November to February).</p> <p>With this restriction the consideration of removal of vegetation outside bird nesting season will be necessary (refer to Section 5.6).</p>	<p>No LSE on the integrity or conservation objectives of the designated sites.</p> <p>It is suggested that this potential pathway of impact can be scoped out at this stage.</p>
Sefton Coast SAC / Ribble and Alt Estuaries SPA and Ramsar site							
Operational phase of proposed development as a residential development	Disturbance / damage of species and habitats relevant to the designated sites via risk of increased recreational activities	<p>The objective of the scheme is to provide residential accommodation on a small scale (three houses).</p> <p>There will be no significant increase in the local population from the construction of three houses. Therefore, there will likely be no increased risk of adverse effects on the designated sites' qualifying features as a result of disturbances such as dog walking and recreational activities at the SPA, Ramsar and SAC and at functionally-linked land.</p>	No LSE	<p>The small scale of the proposals ensures no significant increase in the local population and therefore no increased risk of adverse effects on the designated sites through recreational activities.</p>	No LSE	<p>In accordance with good practice an advisory leaflet / Homeowner's Pack will be prepared, and distributed within the sales packs of the properties which will identify other areas for recreation / dog walking which will include details of a 'responsible user code' for visitors to the European sites and fields in the area which provide functionally linked land and direct recreational activities away from these sensitive areas (Section 5.2).</p> <p>The preparation of the advisory leaflet / Homeowner's Pack can be secured by planning condition.</p>	<p>No LSE on the integrity or conservation objectives of the designated sites.</p>

⁹ Other pathways listed at paragraph 4.2.5, such as effects as a result of loss of functionally-linked land, atmospheric pollution, mechanical damage and nutrient enrichment and effects on water resources, have been reasonably scoped out of the assessment owing to the distance of the development proposal from the designated sites and the type / scale of development proposed.