Appendix G

ECOLOGICAL APPRAISAL

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Landscape Architecture Masterplanning Ecology



LEYLAND GREEN ROAD

ECOLOGICAL APPRAISAL

Prepared for J Murphy and Sons Ltd

by

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1 INTRODUCTION

- 1.1 This report describes an Ecological Appraisal, including a Phase 1 bat scoping survey and Badger survey, of approximately 12.9ha of land at Leyland Green Road, Garswood, Ashton-in-Makerfield hereinafter referred to as 'the site'. The site centre is located by National Grid Reference SD 55156 00292. The study was commissioned by J Murphy and Sons Ltd in March 2021.
- 1.2 The site is located on the north-western edge of Garswood, St Helens and is dominated by arable farmland, bordered by unmanaged grass margins and hedgerows. The site is bordered to the north by Leyland Green Road beyond which lies arable farmland; to the east by recreational playing fields and residential development; to the south by Billinge Road beyond which lies agricultural fields; and to the west by residential housing fronting onto Garswood Road. The location and boundary of the site are shown in *Appendix B*.
- 1.3 The site is being promoted for inclusion within the Local Plan for the provision of residential development.

1.4 The aims of this study are:

- i. To assess the likely nature conservation importance of habitats within the site;
- ii. To assess the likely presence of protected species and Habitats and Species of Principal Importance identified under Section 41 of the 2006 NERC Act;
- iii. To identify any potential constraints to development due to the above;
- iv. To identify requirements for any additional ecological surveys in support of a planning application; and
- v. To identify measures to avoid and mitigate potential effects of development on identified features of ecological interest.

2 METHODOLOGY

2.1 Desk study

2.1.1 Existing ecological and nature conservation data relevant to the site was collated from various sources including the 'Multi Agency Geographic Information for the Countryside' (MAGIC) online database (magic.defra.gov.uk), Merseyside Biobank (MBB) and Greater Manchester Local Record Centre (GMLRC). Protected species records were obtained for an area of approximately 2km around the site and the check for statutory designated sites located within an area of up to 10km from the site boundary was carried out using the MAGIC database. The findings of the desk study are summarised in *Section 3* below and the full results are given in *Appendix A*.

2.2 Field survey

Extended Phase 1 habitat survey

2.2.1 The field survey comprised an extended Phase 1 habitat survey (JNCC, 2016), a Badger survey and a Phase 1 bat scoping survey carried out by Fiona Muir of HDA on 25th of March 2021. A total of five hours was spent carrying out the field survey. Weather conditions were bright and sunny.

Extended Phase 1 habitat survey

- 2.2.2 The Phase 1 habitat survey involved walking over the site, mapping the main habitat types and compiling detailed 'target notes'. Target notes record habitat features, and a list of vascular plant species noted, together with a qualitative assessment of relative abundance where appropriate. An initial assessment was also made of the potential for the site to support protected and notable species based on the character of habitats present.
- 2.2.3 The Phase 1 habitat survey was extended to an additional area of land located between the Down Brook and Leyland Green Road to the north of the site within the same land ownership. This area is referred to as the 'extended survey area'.
- 2.2.4 The full results of the Phase 1 habitat survey are given in *Appendix B*. Botanical names follow Stace (2019) for higher plants.

Phase 1 bat scoping survey

2.2.5 All trees and buildings within the site were assessed for their potential to support roosting and/or hibernating bats and classified accordingly.

Phase 1 building survey

- 2.2.6 All buildings within the site were inspected externally from ground level using binoculars and a powerful torch to identify and investigate any potential entry and exit points such as missing roof tiles, loose fascias and lifted lead flashing, and to look for evidence of entry/exit in the form of staining, discolouration and/or scratch marks.
- 2.2.7 Buildings were also searched internally where possible, to look for evidence of current or former occupation by bats. A powerful torch was used to investigate any accessible cavities, crevices and recesses in each building.
- 2.2.8 In view of the findings of the building inspections, the potential of the buildings to support roosting bats ('confirmed roost', 'high', 'moderate', 'low' or 'negligible') was assessed in accordance with current best practice guidelines (BCT, 2016). Assessment of bat roosting potential requires consideration of a number of criteria, including the design and construction of the building or structure, the size and location of potential features and

access points, the position of the building or structure, aspect, geographical location, surrounding land use and adjacent landscape linkages.

Phase 1 tree survey

- 2.2.9 All trees within and immediately adjacent to the site were inspected from ground-level with the aid of binoculars and a powerful torch to identify potential features suitable for use by roosting and/or hibernating bats. Potential features include splits, cracks and cavities, peeling bark, woodpecker holes, broken branches and a covering of Ivy where this is of a sufficient age to provide a suitable microclimate between the tree and Ivy stem(s).
- 2.2.10 In accordance with current best practice guidelines (BCT, 2016), trees were placed into one of five categories. Categorisation was based on the nature, size, location and quality of features present in each tree:
 - Negligible suitability Trees with no or negligible features for roosting bats;
 - Low suitability Trees of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential;
 - Moderate suitability Trees with one or more potential roost sites that could be used by bats but are unlikely to support roost types of high conservation status;
 - High suitability Trees 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; or Known or confirmed bat roost.

Badger survey

2.2.11 The Badger survey comprised a systematic search of the site and a 30m buffer around the edge of the site, where accessible, for Badger setts and evidence of Badger activity. For each confirmed Badger sett a recording card was completed detailing the type of sett, number of entrances and level of activity (from disused to active). Natural England's 2009 guidance was used to determine whether setts should be regarded as being in 'current use' (Natural England, 2009).

Other species

2.2.12 Observations on the presence, or potential presence, of other protected species were recorded as incidental information to the extended Phase 1 habitat survey and this information should not be relied on as a comprehensive assessment of the presence or otherwise of all protected species on the site. This is because there is a wide range of protected species, many of which can occur on one site and most require specialist expertise to locate them and/or season-critical survey techniques to confirm their presence, and this is outside the scope of the present report.

2.3 Evaluation criteria

- 2.3.1 The evaluation of the site, and the habitats within it, is based on the results of the field surveys described above, any designations pertaining to the site, and existing ecological information collected during the desk study.
- 2.3.2 Each ecological resource (site, habitat, species or feature) was assigned a value at the following geographic scales (CIEEM, 2018):
 - International
 - National
 - Regional
 - County / Metropolitan
 - District / Borough
 - Local / Parish
 - within immediate zone of influence only (Site / Negligible)
- 2.3.3 Assigning value is relatively straightforward in the case of designated sites, and undesignated sites meeting designation criteria. However, in most cases evaluation of ecological resources is not straightforward and requires a degree of knowledge, training, experience and professional judgement (Usher, 1986; Spellerberg, 1992). Evaluation of an ecological resource was based on a number of criteria (Ratcliffe, 1977; CIEEM, 2018). These are summarised in *Appendix D*.
- 2.3.4 The potential for protected species and Habitats and Species of Principal Importance identified under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act to be present within the site has been assessed on the basis of the habitats and features present and the results of the desk study.

2.4 Limitations

- 2.4.1 During the Badger survey, some areas of land outside the site but within 30m of the boundary, including the gardens of residential dwellings located to the north-east and west of the site, could not be accessed or viewed adequately to confirm the absence of Badger setts. It is considered unlikely however that these areas contained active Badger setts at the time of survey as they were either located within residential gardens and/ or no signs of Badger using these areas or immediately adjacent land was recorded during the survey.
- 2.4.2 With due regard to the above, the field survey and desk study are considered adequate to allow a robust assessment of the likely nature conservation significance of the site and its development, and to form the basis of the recommendations provided in *Sections* 7 and 8 of this report.

3 DESK STUDY

3.1 Introduction

3.1.1 The following section summarises the findings of the desk study. The original data is provided in *Appendix A*.

3.2 Designated Sites

Statutory designated areas

3.2.1 No statutory nature conservation designations pertain to the site or adjacent land. This is confirmed by information from the MAGIC online database, MBB and GMLRC.

Internationally designated areas

3.2.2 There are no internationally designated areas located within 10km of the site boundary. Notwithstanding this, in *Section 8* below consideration is given to the presence of the Mersey Estuary Special Protection Area (SPA) located 16.9 km to the south-east of the site at its closest point, to address comments made in the Habitats Regulations Assessment of the submission draft St Helens Borough Local Plan (Aecom, 2018).

Nationally designated areas

- 3.2.3 There are no National Nature Reserves (NNRs) within 5km of the site boundary.
- 3.2.4 Three Sites of Special Scientific Interest (SSSIs) are located within 5km of the site. These are:
 - Brynn Marsh and Ince Moss SSSI, located approximately 3.5km to the north-east of the site at its closest point. This 68.3ha SSSI makes up part of the Wigan Flashes wetland link comprising wetland, woodland and acidic and neutral grassland. The site is important for breeding and migrating birds as well as raptors. It is also an important habitat for invertebrate species including damsel and dragonflies, common butterfly and moth species.
 - Abram Flashes SSSI, located 4.9km north-east of the site at its closest point. This 39.62ha SSSI is also part of the Wigan Flashes wetland link and comprises of lowland open waters and wet grassland habitats. The SSSI is important for wintering and breeding birds.
 - Stanley Bank Meadow SSSI, located 3.2km south-west of the site at its closest point. This 14.9ha SSSI comprises species rich meadow supporting a large diversity of higher plants and grasses. The areas of woodland within the SSSI are important for breeding birds.
- 3.2.5 The site falls within the 3-5km Impact Risk Zone (IRZ) for the above three SSSIs, as identified from the MAGIC online database. Natural England uses IRZs to identify development activities in the vicinity of SSSIs, SPAs and Special Areas of Conservation

(SACs) which in the absence of mitigation and avoidance measures may adversely affect designated features, thereby requiring planning authorities to consult with Natural England where potentially damaging activities are proposed. The IRZs in which the site falls do not reference residential development as a type of development proposal that could have adverse impacts on these or any other designated sites. As such Natural England would not be expected to be consulted by the planning authority on proposals for residential development at the site in this regard.

3.2.6 There are no locally designated Local Nature Reserves (LNRs) within 2km of the site boundary.

Non-statutory designated areas

- 3.2.7 Four non-statutory Sites of Biological Interest (SBIs) are located within 2km of the site. These include:
 - Barton Clough SBI located approximately 530m north-west of the site boundary. This 4.7ha SBI comprises semi-natural woodland containing the only known Badger setts in St Helens. It also contains the Biodiversity Action Plan (BAP) priority habitat 'swamp tall fen vegetation', as well as three regionally important habitats.
 - Winstanley Hall Woods SBI located approximately 1.8km north of the site boundary. This 49.2ha SBI comprises mixed woodland of high ornithological value with many woodland birds.
 - Glead Wood & Tan Pit Slip SBI located approximately 1.5km north of the site boundary. This 8.5ha SBI comprises of a broadleaved woodland site, streams and a pond. It is an important wildlife corridor, providing cover across open arable fields.
 - Skitters Wood SBI located approximately 1.5km south-east of the site boundary. This
 6.8ha SBI comprises woodland located in the urban area of Ashton-in-Makerfield to the east of the motorway where semi-natural habitats are not common.
- 3.2.8 There are two non-statutory St Helens Local Wildlife Sites (LWS) located within 2km of the site. These include:
 - Goyt Hey Wood is located approximately 1.5km south-west of the site boundary. This 9.41ha LWS comprising ancient semi-natural woodland is an important site for breeding birds. It contains 2 regionally important habitats and 55 locally rare species.
 - Mine spoil, west of Weathercock Hill LWS is located approximately 550m south-west of the site boundary. This 7.91 ha disused mine tip has been re-colonised by plants and is a priority BAP habitat.

Other

3.2.9 No areas of woodland included in Natural England's Ancient Woodland Inventory are located within or adjacent to the site. Two areas of ancient semi-natural woodland are

located within 2km of the site. These are Barton Clough Woodland which is located approximately 530m to the north-west and Goyt Hey Wood located 1.5km south-west of the site boundary.

3.3 Biodiversity Action Plan (BAP) and NERC Act Habitats and Species of Principal Importance

- 3.3.1 The UK Biodiversity Action Plan (HMSO 1995, 1998, UKBP 2007) lists habitats and species which have undergone significant declines in recent years and for which conservation is a priority in order to preserve biodiversity in the UK. The BAPs provide a list of actions to be implemented to halt or reverse these declines.
- 3.3.2 These species and habitats are identified as Habitats and Species of Principal Importance for the conservation of biological diversity in England under Section 41 of the 2006 Natural Environment and Rural Communities (NERC) Act. Together with the 2019 National Planning Policy Framework (NPPF) and underpinning guidance (ODPM 2005), Section 40 of the 2006 NERC Act requires that these species are a material consideration in the planning process. Consideration to the presence, or potential presence, of Biodiversity Action Plan (BAP) and NERC Act Habitats and Species of Principal Importance at the site is given in *Sections 5* to 8 of this report.
- 3.3.3 The St Helen's Biodiversity Action Plan (BAP) published by St Helens Council in 2006 identifies a list of conservation targets to promote conservation action at both the national and local level. The targets relevant to the Leyland Green Road site are:
 - No net loss or damage to nationally and internationally designated sites.
 - No net loss of priority species and habitats from 2000.
 - To achieve a net gain in maintained hedgerows, walls and ponds.
 - To have natural greenspace within 300m of home, one 20ha site within 2km, one 100ha site within 5km and one 500ha site within 10km.
 - No net loss of landscape features important for maintaining the links between fragmented and isolated habitats and species populations.
- 3.3.4 The St Helen's BAP also contains a list of 15 Species Action Plans and 13 Habitat Action Plans, relevant to the St Helens area, that will help contribute to implementing the North Merseyside Biodiversity Action Plan published in 2001. Of the habitats included within these habitat action plans the site contains field margins. Where possible these should be considered in the design of any proposed development at the site, both in terms of impact avoidance and opportunities to enhance the site and contribute to the Biodiversity Action Plan.

- 3.3.5 Further information on habitats and species of relevance to the site and its surrounds is also provided by the North Merseyside Biodiversity Action Plan Field Boundaries¹ paper (2008). This identifies:
 - The importance of hedgerows within farmed landscape in providing shelter and food for farmland birds, insects and mammals as well as providing corridors.
 - The importance of ditches in creating habitat through undisturbed bank side and aquatic vegetation.
 - The importance in field margins in creating buffer strips. These create new habitats for small mammals, invertebrates and birds as well as protecting habitats from sprays, fertiliser and cultivation.

3.4 Protected species

3.4.1 No records of protected or notable species relating directly to the site were provided during the desk study. MBB and GMLRC did however provide records of protected and notable species occurring in the wider desk study area including bats, Water Vole, Great Crested Newt, birds, invertebrates and plants. Full details of protected and notable species records are provided in *Appendix A* and a summary of the records is given below.

3.4.2 Bats

- 3.4.2.1 Records of at least four bat species were provided for the desk study area. These included Common Pipistrelle, Brown Long-Eared, Soprano Pipistrelle and Noctules as well as 'unidentified' species. Three of these records are located on the southern site boundary with a further two on the western site boundary. A further record was provided for a location to the north of Leyland Green Road. Four records of bat roosts were also provided, the closest of which pertains to a location approximately 630m to the southeast of the site boundary.
- 3.4.2.2 All UK bat species are protected as European Protected Species (EPS) under the 2019 Conservation of Habitats and Species (EU Exit) (Amendment) Regulations. In relation to EPS, the 2019 Regulations make it an offence to:
 - Deliberately capture, injure or kill any wild animal of an EPS;
 - Deliberately disturb wild animals of any such species, in particular any disturbance which is likely to: (i) impair their ability to survive, to breed or reproduce, or to rear or nurture their young; or to hibernate or migrate; (ii) affect significantly the local distribution or abundance of the species to which they belong;
 - Damage or destroy a breeding site or resting place of such an animal; and/or

¹ Available from: <u>http://www.merseysidebiodiversity.org.uk/download/hap2008-field-boundaries/</u>

- To (a) be in possession of, or to control; (b) to transport any live or dead animal or any part of an animal; (c) to sell or exchange or (d) offer for sale or exchange any live or dead animal or part of an animal of an EPS.
- 3.4.2.3 In addition, all UK bats are protected under the 1981 Wildlife and Countryside Act (as amended). All species are listed on Schedule 5 of the Act and are subject to the provisions of Sections 9.4b and 9.4c, which make it an offence to:
 - Intentionally or recklessly disturb a bat while it is occupying a structure or place which it uses for shelter or protection; and/or
 - Intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a bat.
- 3.4.2.4 If works are planned that are likely to constitute an offence under the current legislation, then works should be carried out under an appropriate Natural England licence.
- 3.4.2.5 Seven species of bat (Barbastelle, Bechstein's, Noctule, Soprano Pipistrelle, Brown Longeared, Greater Horseshoe and Lesser Horseshoe) are also listed as Species of Principal Importance under Section 41 of the 2006 NERC Act. Section 40 of the Act requires planning authorities to regard these species as a material consideration in the planning process.

3.4.3 Hazel Dormice

- 3.4.3.1 No records of Dormice were provided for the area within 2km of the site boundary.
- 3.4.3.2 The Hazel Dormouse is protected through its inclusion on Schedule 5 of the 1981 Wildlife and Countryside Act (see *Section 3.4.2.3*) and as a European Protected Species through the 2019 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (see *Section 3.4.2.2*). It is also a Biodiversity Action Plan species for the UK and is listed as a Species of Principal Importance under Section 41 of the 2006 NERC Act.
- 3.4.4 Water Vole
- 3.4.4.1 Thirteen records of Water Vole were provided for the area within 2km of the site boundary. The closest record pertains to Down Brook and Barton Clough located approximately 250m north-west of the site and datis from 2000.
- 3.4.4.2 The Water Vole is protected through its inclusion on Schedule 5 of the 1981 Wildlife and Countryside Act (as amended). Unless permitted under a licence issued by Natural England this makes it an offence to:
 - Intentionally or recklessly kill, injure or take Water Voles;

- Possess or control live or dead specimens or anything derived from a Water Vole;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place which Water Voles use for shelter or protection; and/ or
- Intentionally or recklessly disturb Water Voles while they are using such a place.
- 3.4.4.3 The Water Vole is also a priority species on the UKBAP and is listed as a Species of Principal Importance under Section 41 of the 2006 NERC Act.

3.4.5 Badger

- 3.4.5.1 A Badger sett was recorded in 1990 in Barton Clough approximately 530m north-west of the site boundary. There is one other more modern record of Badgers within 2km of the site dating from 2006 relating to the 'south bank of the railway embankment'. There is no exact location recorded for this sett however the south bank of the railway embankment at its closest point is 885m from the site boundary.
- 3.4.5.2 Badgers and their setts are protected under the 1992 Protection of Badgers Act. Unless permitted under a licence issued by Natural England, this makes it an offence to:
 - Kill, injure or capture a Badger;
 - Damage, destroy or obstruct access to a Badger sett; and/or
 - Disturb Badgers while they are occupying a sett.

3.4.6 Birds

3.4.6.1 All nesting birds are afforded a basic level of protection under the 1981 Wildlife and Countryside Act (as amended). Species listed on Schedule 1 of the Act receive additional protection against disturbance when breeding. 27 notable species were recorded within the desk study area, however, none of the records pertain to the site. *Table 1* below details the specially protected and notable bird species recorded within 2km of the site: the closest record being of a Spotted Flycatcher 380m to the north.

Common Name	Scientific Name	Annex I ¹	WCA 1 ²	NERC 41 ³	BOCC4 (2015) ⁴
Skylark	Alauda arvensis				Red
Kingfisher	Alcedo atthis				Amber
Tree Pipit	Anthus trivialis				Red
Swift	Apus apus				Amber
Canada Goose	Branta canadensis				

Table 1: Specially protected and notable bird species recorded within desk study area

Lesser Redpoll	Carduelis cabaret		Red
Linnet	Carduelis cannabina		Red
Cuckoo	Cuculus canorus		Red
House Martin	Delichon urbicum		Amber
Corn Bunting	Emberiza calandra		Red
Yellowhammer	Emberiza citrinella		Red
Reed Bunting	Emberiza schoeniclus		Amber
Peregrine Falcon	Falco peregrinus		Green
Hobby	Falco subbuteo		Green
Grasshopper Warbler	Locustella naevia		Red
Yellow Wagtail	Motacilla flava		Red
Spotted Flycatcher	Muscicapa striata		Red
Curlew (Eurasian)	Numenius arquata		Red
Ruddy Duck	Oxyura jamaicensis		Green
House Sparrow	Passer domesticus		Red
Tree Sparrow	Passer montanus		Red
Grey Partridge	Perdix perdix		Red
Willow Tit	Poecile montanus/ montana		Red
Dunnock	Prunella modularis		Amber
Bullfinch	Pyrrhula pyrrhula		Amber
Starling	Sturnus vulgaris		Red
Song Thrush	Turdus philomelos		Red
Barn Owl	Tyto alba		Green
Lapwing	Vanellus vanellus		Red

3.4.6.2 A full list of the bird records received for the search area is provided in *Appendix A*.

3.4.7 Reptiles

- 3.4.7.1 There are no records of reptiles within 2km of the site boundary.
- 3.4.7.2 All native reptiles are protected against killing and injuring under the 1981 Wildlife and Countryside Act (as amended) and are listed as Species of Principal Importance under Section 41 of the 2006 NERC Act. Due to their rarity, Sand Lizards and Smooth Snakes have additional protection.

3.4.8 Great Crested Newt

- 3.4.8.1 Four Great Crested Newt records were provided within a 2km radius of the site however none of these were on or adjacent to the site. The closest record obtained was for a location approximately 1.5km to the south-east of the site.
- 3.4.8.2 The Great Crested Newt is protected through its inclusion on Schedule 5 of the 1981 Wildlife and Countryside Act (see Section 3.4.2.3) and is a European Protected Species through the 2019 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations (see Section 3.4.2.2). The Great Crested Newt is also listed as a priority species on the UKBAP and identified as a Species of Principal Importance under Section 41 of the 2006 NERC Act.

3.4.9 Invertebrates

- 3.4.9.1 Records were provided for notable invertebrates within 2km buffer of the site, however none of these records relate to the site or adjacent land. The records include:
 - Three 'Notable' species;
 - Two section 41 species, the Garden Dart moth and the White Letter Hairstreak; and
 - One 'Endangered' and red list species, *Gyrinus natator*, recorded in 1981.

3.4.10 Plants

- 3.4.10.1 Merseyside Biobank provided 17 records of Bluebell for the wider desk study area. Bluebells are protected under Schedule 8 of the Wildlife and Countryside Act 1981.
- 3.4.10.2 A full list of the plant records received for the search area is provided in *Appendix A*.

3.4.11 Invasive species

3.4.11.1 Records were provided of invasive species within 2km of the site, including one record from 2015 for Indian (Himalayan) Balsam located directly on the site and a further six records for Indian (Himalayan) Balsam and Japanese Knotweed located directly adjacent to the site.

- 3.4.12 Other species
- 3.4.12.1 Other notable species for which desk study records were provided for the desk study area include Common Toad, Brown Hare and Hedgehog which are identified as Species of Principal Importance under Section 41 of the 2006 NERC Act.

3.5 Planning Policies

3.5.1 Relevant policies from the St Helens Local Plan Core Strategy (October 2012) relating to the nature conservation and the environment include:

POLICY CQL 2: TREES AND WOODLANDS

'The multi-purpose value of trees, woodlands and hedgerows will be protected and enhanced by:

1. Requiring developers to plant new trees, woodlands and hedgerows on appropriate sites or contribute to off site provision and elsewhere support new planting;

2. Conserving, enhancing and managing existing trees, woodlands and hedgerows;

3. Requiring absolute protection for all ancient woodland within the Borough;

4. Ensuring that development does not damage or destroy any tree subjected to a Tree Preservation Order, any other protected tree, any other tree of value including veteran trees, or hedgerow unless it can be justified for good arboricultural reasons or there is a clearly demonstrated public benefit, which outweighs the value of the tree(s) and/or hedgerow(s). Where trees are justifiably lost the replacement of trees will be required on at least a 2 for 1 ratio;

5. Supporting proposals, which assist in the positive use of woodlands for green infrastructure purposes including recreation, education, health, biodiversity, geological conservation, tourism and economic regeneration; and

6. Implementing the Town in the Forest Initiative, Mersey Forest Plan and Bold Forest Park Area Action Plan.'

POLICY CQL 3: BIODIVERSITY AND GEOLOGICAL CONSERVATION

'The Council will protect and manage species and habitats, as well as enhancing and creating habitats and linkages between them by:

1. Identifying the location of sites of importance for biodiversity and geological

conservation differentiating between SSSIs, Local Nature Reserves, Ancient

Woodlands, Local Wildlife and Geological Sites through the Allocations DPD and AAPs and bringing sites into active conservation management;

2. Ensuring the creation, extension and better management of Biodiversity Action Plan priority habitats, including the further designation of Local Nature Reserves;

3. Requiring developers, where appropriate, to incorporate habitat features, which will contribute to the Borough's ecological and geological resource;

4. Requiring that, where harm to protected species or habitats is unavoidable, that developers ensure suitable mitigation measures are implemented to enhance or recreate the features, either on or off-site and bring sites into positive conservation management; 5. Reducing habitat and species fragmentation by developing a functioning ecological framework for the Borough;

6. Requiring all development proposals to be based on ecological assessments, where appropriate, including where sites are derelict, vacant or previously developed land. Surveys must be undertaken at appropriate times of year for the relevant habitats, species, flora and fauna; and

7. Ensuring that any development affecting nationally and locally important sites and protected species will only be acceptable if there is clear evidence that the development outweighs the nature conservation interest.'

4 PHASE 1 HABITAT SURVEY

4.1 General description

- 4.1.1 The results of the Phase 1 habitat survey are presented in map form with target notes (represented by numbered dots) in *Appendix B.* A brief non-technical description of the site's habitats and features is given below. Numbers in brackets refer to target notes.
- 4.1.2 In general terms the site comprises an arable field with rough grassland field margins. The field is bordered by hedgerows to the south and west.
- 4.1.3 The site is bordered to the north by Leyland Green Road beyond which lies arable farmland; to the east by recreational playing fields and residential development; to the south by Billinge Road beyond which lies agricultural fields; and to the west by residential housing fronting onto Garswood Road.

4.2 Arable

- 4.2.1 The majority of the site comprises an arable field (1). At the time of survey, the field was sown with winter Wheat. An uncultivated margin of 1-2m was present around the edge of the field.
- 4.2.2 Species occurring on the field margins (3, 5, 6, 9, 10) include Common Nettle, Cleavers, Common Dock, Perennial Ryegrass, Yorkshire Fog, Common Thistle, Dead Red Nettle, Daffodil, Daisy, Cow Parsley, Ribwort Plantain, Groundsel, Bulbous Buttercup, Chickweed, Willowherb seedlings, Dandelion, Thistle, Common Field Speedwell and mosses (*Hypnum* sp.).

4.3 Hedgerows

- 4.3.1 Hedgerows border the site to the south and west.
 - The hedgerow along the south boundary (9) is species-poor, defunct and heavily managed. Species present include Hawthorn, Holly and Ivy with a small section of mature Oak and multi-stemmed Ash trees with thin Ivy cover.
 - The western (10) boundary hedgerow is species-poor, outgrown and defunct with species present including Hawthorn and Common Ivy.

4.4 Tall ruderal vegetation

4.4.1 The section of the eastern boundary which divides the arable field from the recreational playing field (8) is composed of tall ruderal vegetation. The tall ruderal vegetation comprises patches of Cleavers, Common Nettle and Cow Parsley. Other species present include Perennial Ryegrass, Sweet Vernal-grass and Common Daisy.

4.5 Scrub

4.5.1 On the eastern boundary, where the field meets the recreational playing fields, there is an area of scrub (7) comprising of young Birch trees, tall ruderal vegetation and Bramble, with patches of Perennial Ryegrass, Cleavers and Hemlock.

4.6 Extended Survey Area

- 4.6.1 As discussed in *Section 2*, the Phase 1 habitat survey was extended to an additional area of land located between the Down Brook and Leyland Green Road to the north of the site within the same land ownership. This area comprises a grassland field bordered by Leyland Green Road to the north and Down Brook to the south. Habitats within this area include:
 - Grassland: The extended survey area is dominated by a field comprising agriculturally improved grassland (12), planted with Perennial Ryegrass. White Clover and Common Nettle are also present. The field margin comprises tall ruderal vegetation including Common Nettle, Cleavers and Cow Parsley.
 - Hedgerows: Hedgerows border the extended survey area to the south, east and north (13,14,15):
 - The hedgerow along the south boundary (13) is species-poor, intact and heavily managed. Species present include Hawthorn, Holly and Ivy.
 - The hedgerow along the east boundary (14) is species-poor, defunct and overgrown. Species present include Hawthorn and young Oak saplings.
 - The hedgerow along the north boundary (15) is species-poor, defunct and overgrown. Species present include Hawthorn, Holly and young Willow.
 - Scrub: To the east of the extended survey area, there is an area of scrub and tall ruderal vegetation (16) comprising cut brash, Bramble, young tree saplings and Daffodil.
 - Flowing water: The Down Brook flows in an westerly direction along the northern boundary of the extended survey area. The brook is approximately 50cm to 1m wide and has a slow flow. Water joining the brook from field run off drains causes the water to be murky with high levels of suspended sediment in parts.

5 PROTECTED AND NOTABLE SPECIES

5.1 Bats

Roosting bats

5.1.1 All buildings within the site were inspected during the Phase 1 bat scoping survey. The results of the Phase 1 building survey are summarised in *Table 2* below and the location of the buildings are shown in *Appendix C*.

Table 2: Phase 1 bat scoping building survey results

Building	Description	Findings	Bat roost potential
B1	Derelict, single skinned, brick building with no roof or windows.	Heavily Ivy clad. Brick work had numerous gaps and crevices that may be suitable roosts for a small number of bats. Suitable roost features may also have been present that were not visible.	' Moderate' bat roost potential

5.1.2 All trees within and immediately adjacent to the site were also inspected during the Phase 1 bat scoping survey. All trees identified as having potential to support roosting bats within the site are described in *Table 3* below and their locations are given in *Appendix C*.

Table 3: Phase 1 bat scoping tree survey results

Tree	Description	Findings	Bat roost potential
G1	Group of five, close together, multi-stemmed Ash trees approximately 14m in height.	Heavily Ivy-clad in parts. Suitable roost features may have been present that were not visible from ground level.	'Low' bat roost potential
T1	Ash tree approximately 14m in height.	Two small cavities located on branches on the north and east aspects. Trunk heavily lvy-clad in parts. Other suitable roost features may have been present that were not visible from ground level.	'Low' bat roost potential
T2	Oak tree approximately 13m in height.	Heavily Ivy-clad in parts. Suitable roost features may have been present that were not visible from ground level.	'Low' bat roost potential
G2	Group of two Ash trees approximately 12m in height.	Heavily Ivy-clad in parts. Suitable roost features may have been present that were not visible from ground level.	'Low' bat roost potential
тз	Oak tree approximately 18m in height.	1 small split in lower branch on the northern aspect.	'Low' bat roost potential

Foraging and commuting habitat

5.1.3 Opportunities for foraging and commuting bats are provided by the hedgerows and associated rough grassland/tall ruderal margins around the field edges. The open area of arable farmland dominating the site however provides very limited opportunities.

5.2 Dormouse

5.2.1 Notwithstanding the presence of limited areas of scrub and hedgerow habitat, the site has limited connectivity with substantial areas of high-quality Dormouse habitat in the wider area. In addition, no records for Dormouse were received for the area within 2km of the site during the desk study. In view of this it is considered unlikely that Dormice are present within the site.

5.3 Otter and Water Vole

5.3.1 There are no wetland habitats within or immediately adjacent to the site which are suitable for either Otter or Water Vole and it is considered highly unlikely these species that are present within the site.

5.4 Badgers

Badger setts

5.4.1 No Badger setts or any other evidence of Badger activity (e.g. paths, latrines or foraging signs) were recorded within or adjacent to the site.

Foraging habitat

5.4.2 The scrub, hedgerows and grassland field margins which border the site provide the highest quality Badger foraging habitat. However, the arable field also provides moderate quality foraging habitat for this species. No evidence of Badger foraging such as scratching or snuffle holes was recorded during the 2021 Badger survey and it is considered unlikely that the site is of importance to the local Badger population.

5.5 Birds

Breeding birds

5.5.1 The hedgerow, scrub and arable habitats within the site offer nesting and foraging opportunities for common and widespread bird species and it is likely that the site supports a number of breeding birds typical of farmland and garden habitats. Similar habitat is abundant in the wider area however and the site is unlikely to be of significant ornithological interest in a local context. Notwithstanding this, measures to maintain opportunities for birds within any development proposals for the site and to protect nesting birds during construction are provided in *Section 8* below.

5.6 Reptiles

5.6.1 Suitable habitat for common reptiles such as Common Lizard, Slow-worm and Grass Snake are provided by the limited areas of scrub, hedgerow bases and rough grassland located around the site margins. Notwithstanding this, in view of the limited extent of these habitats present at the site, it is unlikely that the site supports notable reptile populations in a local context. Consideration should however be given to the nature conservation legislation afforded to common and widespread reptile species and this is discussed further in *Section 8* below.

5.7 Great Crested Newts

- 5.7.1 There are no suitable waterbodies for Great Crested Newts within the site and this species is therefore not expected to breed within the site boundary. However, suitable terrestrial habitats for Great Crested Newts are present in the form of hedgerow bases, scrub, rough grassland and tall ruderal vegetation.
- 5.7.2 A routine maximum migratory range of 250m from breeding ponds has been identified for Great Crested Newts outside the breeding season (Cresswell and Whitworth, 2004) and a review of the OS 1:10,000 scale map and aerial photographs suggests that there are two ponds within 300m of the site, the closest of which is a pond located approximately 65m to the north-west of the site.
- 5.7.3 Although no records of Great Crested Newts were provided during the desk study it is still possible that Great Crested Newts are present within the site during terrestrial phases.

5.8 Plants

- 5.8.1 No protected or notable plant species were recorded during the Phase 1 habitat survey. The site is dominated by arable farmland, bordered by unmanaged grass margins and hedgerows of generally limited diversity and it is considered unlikely that scarce or threatened native plant species are present.
- 5.8.2 A record of Himalayan Balsam was provided for the site during the desk study and Rhododendron and Cotoneaster were recorded growing on the site boundary during the Phase 1 habitat survey. Himalayan Balsam (*Impatiens glandulifera*), Common Rhododendron *Rhododendron ponticum* (and hybrid species Rhododendron *ponticum x maximum*) and several Cotoneaster species (including Wall Cotoneaster *Cotoneaster horizontalis*, Entire-leaved Cotoneaster *Cotoneaster integrifolius*, Himalayan Cotoneaster *Cotoneaster simonsii*, Hollyberry Cotoneaster *Cotoneaster bullatus*, and Small-leaved Cotoneaster *Cotoneaster microphyllus*) are all non-native invasive species included on Schedule 9 of the 1981 Wildlife and Countryside Act (as amended), and it is an offence to

release, plant or cause to grow in the wild any plant included on this schedule of the Act. Management works within the site should include the control of Himalayan Balsam to prevent its spread within or outside of the site. Unless further survey confirms that only non-invasive forms of Rhododendron and Cotoneaster are present at the site, it is recommended that management is extended to also include control of Rhododendron and Cotoneaster. This is discussed further in *Section 8*.

6 NATURE CONSERVATION EVALUATION

6.1

The habitats within the site have been assessed against the findings of the Phase 1 habitat survey with consideration given to the criteria summarised in *Appendix D* of this report (Ratcliffe, 1977; CIEEM, 2018). A summary of the site habitat evaluation is given in *Table 4* below.

Value	Habitats present
International	None
National	None
Regional	None
District	None
Local	 High: None Moderate: None Low: Network of hedgerows with associated scrub and trees and connecting field margins (e.g. 3, 5, 6, 9, 10, 11) [in combination]
Site/ negligible	All other habitats recorded

Table 4: Site habitat evaluation

- 6.2 There are no habitats of International, National, Regional or District nature conservation value within or adjacent to the site.
- 6.3 Habitats of **low local value** within the site include the network of hedgerows, scattered trees, scrub and field margin habitats located around the site margins. Although these are of limited ecological interest individually and similar features are widespread in the surrounding landscape, together these provide habitat for a range of species and combine to form a network of semi-natural habitats across the site, providing habitat connectivity within the site and contributing towards that of the wider area.
- 6.4 The remaining habitats recorded within the site, including the arable field, are regarded as being of no more interest than at the 'site' level and are assessed as being of **negligible**

nature conservation value in a local context in their own right. Where appropriate, consideration of the potential presence of protected or notable species is given below.

7 ADDITIONAL DATA REQUIREMENTS

- 7.1 In the case of the Leyland Green Road site it is considered that the level of survey and assessment included in this report provides an appropriately robust level of information to allow consideration of its inclusion in the Local Plan.
- 7.2 Notwithstanding the above, it would be prudent to survey the site in advance of submitting a planning application for its development to identify any notable species and those protected under the 1981 Wildlife and Countryside Act (as amended) and 2019 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations that have been identified as possibly occurring within the site, and that could potentially be impacted by development proposals. Where necessary, this would inform mitigation and avoidance strategies to be included as part of the development proposals. The recommended surveys are listed below.

7.3 Bats

The Phase 1 bat scoping survey identified one building within the site that has 'moderate' potential to support roosting bats. Where buildings with potential to support roosting bats are potentially affected by development proposals, it is recommended that these are subject to Phase 2 emergence/re-entry surveys in accordance with current best practice guidelines (BCT, 2016) to establish the presence or likely absence of roosting bats and any mitigation and licensing requirements relating to the proposed work. Emergence/re-entry surveys can be carried out between May and September, but should include visits to each feature at the peak of the bat breeding season (May to August inclusive).

In addition, several of the trees present have 'low' potential to support roosting bats. In the event that retention of any tree identified as having BCT 'low' potential to support roosting bats is not possible within the proposed development, although further surveys would not be required in support of a planning application, the tree should be subject to appropriate further survey in advance of felling either in the form of a single emergence survey or a climbed inspection. This is discussed further in *Section 8* below.

Although the arable field dominating the site provides limited opportunities for foraging bats in isolation, opportunities for foraging and commuting bats are enhanced by the presence of hedgerows, trees and scrub along the field margins which also provide connective habitat to the wider area. In addition to meeting any survey requirement in relation to roosting bats, it is also recommended that the site is subject to three bat activity surveys in accordance with the BCT 2016 guidelines, to assess the importance of the site for foraging and commuting bats. This should take the form of three walked nocturnal transect surveys to be undertaken between April and early October. In addition, static detectors should be deployed for at least five consecutive nights on each occasion over this period.

7.4 Great Crested Newt

Suitable habitats for Great Crested Newts during terrestrial phases occur across the site in the form of hedgerow bases, scrub, tall ruderal vegetation and rough grassland habitats. Potential Great Crested Newt breeding habitat is provided within the wider area by off-site ponds located within 300m of the site boundary which are located within the routine maximum migratory range of Great Crested Newts during terrestrial phases. It is therefore recommended that a Great Crested Newt Habitat Suitability Index (HSI) and eDNA survey is carried out to determine the presence/likely absence of this species in waterbodies within the site surrounds, and inform an assessment as to whether newts are likely to be present within the site during terrestrial phases. The season for Great Crested Newt eDNA surveys runs from 15th April to 30th June inclusive, although a survey in mid-April usually allows for any follow up work (e.g. a population estimate survey) to be completed that year.

7.5 Consideration of other species

No further surveys for birds or reptiles are recommended in support of an application for development of the site. Although breeding birds are likely to occur at the site and there is potential for very low numbers of common and widespread species of reptile to occur, it is unlikely that locally significant populations would be affected by the proposed development. Nature conservation legislation relating to birds and reptiles would however still apply and this is discussed in *Section 8* below.

- 7.6 The 2006 NERC Act, Natural England Standing Advice and the National Planning Policy Framework (NPPF, 2019) require that ecology is a material consideration when making planning decisions and that any decision should be based on up-to-date information about the environmental characteristics of the site and the zone of influence of development proposals. It is therefore recommended that any additional data requirements are fulfilled at the application stage in order to avoid possible refusal due to a lack of survey data.
- 7.7 Measures to ensure compliance with nature conservation legislation with regard to common and widespread protected species, and to maintain the ecological interest of the site during the construction and operational phases of the proposed development, are given in Section 8 below.

8 **RECOMMENDATIONS**

8.1 This section provides a review of the possible implications of development proposals on identified features of ecological interest at the site and the surrounding area and outlines

recommended measures for the avoidance and mitigation of potential effects. In addition, opportunities are identified by which development of the site could enhance its current value for species of conservation concern in accordance with planning policy and the 2006 NERC Act.

8.2 Designated sites

- 8.2.1 No other statutory or non-statutory sites are expected to be adversely affected by the proposed development of the site in the absence of mitigation or avoidance measures, either alone or in combination with other plans or projects. This is due to a combination of the nature of the proposed development, the distance between the site and the designated areas, the limited ecological connectivity with the site and/or the character of the habitats and features for which the areas are designated.
- 8.2.2 Notwithstanding the above, it is noted that the *St Helens Borough Local Plan Submission Draft - Habitats Regulations Assessment* (Aecom, 2018) identifies that, due to the presence of arable land, the site² may potentially provide supportive habitats for Pink-footed Geese and other SPA-related non-breeding associated with the Mersey Estuary SPA and Ramsar, and may have an impact on the SPA either alone or in combination.
- 8.2.3 The Mersey Estuary SPA is designated under the 2019 Conservation of Habitats and Species (Amendment) (EU Exit) Regulations which requires decision making authorities to consider the potential effects of development on designated features both alone and in combination with other plans and projects. Any development proposals in the vicinity of the SPA therefore need to consider potential effects on the bird populations for which the SPA is designated and ensure that there are no overall adverse effects as a result of development, implementing avoidance and mitigation measures if appropriate. A full description of the constraints presented by the Mersey Estuary SPA is provided in the the *St Helens Borough Local Plan Submission Draft Habitats Regulations Assessment* (Aecom, 2018).
- 8.2.4 It is considered extremely unlikely that the site forms integral (if any) supportive habitat for the population of Pink-footed Geese or other non-breeding birds associated with the SPA in view of:
 - Distance from the SPA: The site is located approximately 16.9km from the SPA at its closest point. As noted in the HRA, most foraging Pink-footed Geese remain within 5-10km of the SPA. Given the distance of the site from the SPA and its relatively small size (see below) it is considered extremely unlikely that a significant

² Identified in the HRA as 1HS Land South of Leyland Green Road, North of Billinge Road and East of Garswood Road, Garswood

number, if any, Pink-footed Geese or any other non-breeding SPA-related bird species travel 16.9km to forage within the site.

- Availability of habitat: Arable farmland is abundant in the area, and substantial areas of farmland are present much closer to the SPA, including in its immediate vicinity, which is well within the foraging range of Pink-footed Geese described above. It is extremely unlikely that significant numbers of SPA-related bird species, if any, would therefore routinely travel from the SPA to the site for foraging.
- Disturbance from existing development: The site is located on the western edge of Garswood and is crossed by footpaths. The site is subject of disturbance, such as dog walking (which was observed during the field survey), which further reduces the likelihood of use by SPA-related bird species.
- Absence of records of SPA-related bird species for the site: The desk study carried out as part of this assessment included datasets from specialist ornithological recording groups (e.g. the British Trust for Ornithology and Lancashire and Cheshire Fauna Recording Society). No records of birds for which the SPA is designated were provided for the site, nor for land in the vicinity of the site.
- 8.2.5 In addition to the above, it is of note that the land promoted for development to the immediate south of the site, to the south of Billinge Road, was also assessed *St Helens Borough Local Plan Submission Draft Habitats Regulations Assessment*. Despite this land also comprising a single large arable field, this land was not described as potentially providing supportive habitats for Pink-footed Geese or other SPA-related non-breeding bird species associated with the Mersey Estuary SPA. Whilst this is considered to be correct, it is not clear as to why the site has been identified in this regard despite the similar land to the south being closer to the SPA.
- 8.2.6 With regard to the above, it is considered extremely unlikely that the Leyland Green Road site provides a significant area of supportive habitat to birds associated with the Mersey Estuary SPA and Ramsar, and loss of the arable land would not result in a likely significant effect on the SPA either alone or in combination with other plans or projects.

8.3 Habitats

8.3.1 The habitats of highest nature conservation interest within the site itself are the network of hedgerows, scrub and unmanaged field margins which are considered to be of low local value in combination. Although these features do not always represent particularly high-quality examples of their respective habitats, they provide opportunities for a range of wildlife, significantly enhance the overall ecological value of the site, and contribute to the network of habitats facilitating the movement of wildlife within the site and its surrounds. 'Hedgerows' are also identified as Habitats of Principal Importance under Section 41 of the 2006 NERC Act.

- 8.3.2 Development proposals should seek to retain and protect these habitats within and adjacent to the site. Where loss is unavoidable, measures should be taken to minimise effects on these habitats as a whole, such as by prioritizing loss of habitats of lowest interest, reducing effects of fragmentation, and/or re-creating these habitats elsewhere within the site, affording suitable buffers where required.
- 8.3.3 Retained vegetation should be protected during construction works, with works in the vicinity of retained trees, hedgerows and scrub carried out in accordance with '*BS5837 Trees in relation to construction*' unless otherwise agreed with a suitably qualified arboriculturalist.
- 8.3.4 The arable fields that dominate the site provide limited opportunities for wildlife being intensively farmed with only limited marginal habitats, and similar habitat is abundant in the wider area. Although it would not be practical to include arable habitats within any development scheme, where possible loss of opportunities for wildlife should be compensated through provision of higher value habitats within the site landscape scheme, such as woodland, scrub, rough and meadow grassland and wetland habitats.
- 8.3.5 The emerging development proposals (Concept Masterplan; Richard Hopkinson Architects, 2021) indicate that the above measures can be achieved within the proposed development through retention and strengthening of boundary vegetation and creation of high value habitats in association with areas on informal open space such as orchards, tree and scrub planting and creation of wetland habitats as part of the site surface water drainage scheme. These would provide new areas of ecological interest on land currently dominated by an intensively farmed arable field of limited ecological interest in its own right. In addition, the proposed allotments and gardens of the residential dwellings would be expected to provide new opportunities for wildlife as these mature.
- 8.3.6 In order to maximise the value of retained and newly created habitat for nocturnal wildlife, where lighting is proposed this should be of sensitive design, using the minimum lighting levels required for public safety, and avoiding light spill into non-target areas through use of measures such as low level, hooded and directional lighting as appropriate.
- 8.3.7 Subject to appropriate implementation of the above measures, it is considered that opportunities for wildlife can be maintained at the site following development together with maintenance of corridors for the movement of wildlife across the site and the wider area.
- 8.3.8 Development proposals should also seek to enhance the site to provide new opportunities for wildlife in accordance with national and local planning policy and guidance (NPPF, 2019;

ODPM, 2005) and the 2006 NERC Act. Recommendations as to how enhancements can be achieved are provided in *Section 8.5* below. These include opportunities to enhance the land to the north of the site within the same land ownership between Leyland Green Road and the Down Brook, thereby strengthening the riparian corridor through which the brook flows in addition to providing new areas of habitat of value to wildlife in its own right.

8.4 Protected and notable species

Further survey

- 8.4.1 Although it is considered that the level of survey carried out to date is appropriate for promotion of the site in the Local Plan, prior to determination of any planning application for development at the site it is recommended that the surveys recommended in *Section 7* above for bats and Great Crested Newts are carried out to establish their presence or absence in order to ensure compliance with planning policy and UK nature conservation legislation and where necessary identify measures to avoid or mitigate impacts on this species.
- 8.4.2 Recommendations with regard to other protected and notable species are given below.

Bats

8.4.3 In addition to the building with 'moderate' potential to support roosting bats for which further survey has been recommended, several of the trees present have 'low' potential to support roosting bats. In the event that retention of any tree identified as having BCT 'low' potential to support roosting bats is not possible within the proposed development, although further surveys would not be required in support of a planning application, the tree should be subject to appropriate further survey in advance of felling either in the form of a single emergence survey or a climbed inspection in accordance with current best practice guidance (BCT, 2016). Emergence/re-entry surveys can be carried out between May and September but should include visits to each feature at the peak of the bat breeding season (May to August inclusive). Climbing inspections can be carried out throughout the year but may require follow up emergence surveys where results are inconclusive. If this is not possible, the tree should be 'soft felled' which involves the progressive removal of features potentially supporting roosting bats under the supervision of a suitably qualified ecologist. Such features are gently lowered to the ground where they are inspected or left overnight prior to removal in order to allow any bats present to escape.

Badgers

8.4.4 Although no Badger setts or evidence of Badger activity was recorded during the survey,
 Badgers are a highly mobile species and new setts may be created and old setts abandoned over short periods of time. It is therefore recommended that the site is

resurveyed prior to commencement of development works to ensure that the status of Badgers has not changed.

8.4.5 In addition, in order to avoid entrapment of Badgers and other wildlife foraging and moving around the site during the construction phase, any steep sided holes left open overnight during the site preparation, earthworks and construction phases should be equipped with a mammal ladder (a reinforced plywood board >60cm wide set at an angle of no greater than 30° to the base of the pit) and temporarily open pipes with a diameter of >150mm plugged.

Breeding birds

8.4.6 Although breeding birds are likely to use the site, in view of its limited extent and the habitats present it is considered unlikely that the site supports an exceptional assemblage in a local context and therefore further survey for this group is not proposed. Notwithstanding the above, all wild birds, their nests and eggs are protected under the 1981 Wildlife and Countryside Act (as amended) and is it therefore recommended that any clearance of open ground or removal of trees, hedgerows, buildings and scrub should avoid the bird breeding season (generally taken as March to September inclusive). In the event that vegetation clearance is required during this period then a search for nesting birds should be undertaken by a suitably qualified ecologist immediately prior to works commencing. In the event that breeding birds are discovered, sufficient habitat will need to be retained to ensure birds are not disturbed until nesting activity has been completed and the nest vacated.

Reptiles

- 8.4.7 A full reptile survey of the site is not proposed due to the potential for only very small numbers of reptiles to be present and the existence of contiguous suitable reptile habitat adjacent to the site. It is however recommended that a precautionary approach is taken to clearance of any suitable reptile habitat affected during construction in order to ensure that reasonable measures to avoid contravention of legislation protecting common and widespread reptile species (i.e. protection against injury and killing) are employed. This would involve the displacement of any reptiles present into areas of contiguous habitat away from construction works using the following procedure:
 - Vegetation within affected areas should be removed from the centre outwards using hand-held tools, where appropriate, allowing any reptiles present to escape to contiguous areas of retained habitat;
 - Where any hedgerow bases are to be cleared, this should be carried out in two phases. The first cut should be to >100mm to decrease its suitability for reptiles and encourage any reptiles present to move to retained areas of habitat. Where potential for reptiles to be present remains, following a minimum period of seven days, a

second cut to ground level should be carried out in order to render the habitat unsuitable;

- Cleared areas should be maintained to prevent re-colonisation prior to works commencing; and
- Potential hibernacula or refugia such as loose stones, deadwood or discarded debris should be removed by hand.
- 8.4.8 Any ground level clearance works or removal of refugia or potential hibernacula should be carried out during suitable climatic conditions at a time of year when reptiles are active (generally late March to early October inclusive) under the supervision of an appropriately qualified ecologist who would relocate any reptiles encountered to an area of suitable retained habitat elsewhere within the site.

Invasive Plants

8.4.9 A record of Himalayan Balsam was provided for the site during the desk study and Rhododendron and Cotoneaster were recorded growing on the site boundary during the Phase 1 habitat survey. Himalayan Balsam (Impatiens glandulifera), Common Rhododendron *Rhododendron ponticum* (and hybrid species Rhododendron *ponticum x* maximum) and several Cotoneaster species (including Wall Cotoneaster Cotoneaster horizontalis, Entire-leaved Cotoneaster Cotoneaster integrifolius, Himalayan Cotoneaster Cotoneaster simonsii, Hollyberry Cotoneaster Cotoneaster bullatus, and Small-leaved Cotoneaster Cotoneaster microphyllus) are all non-native invasive species included on Schedule 9 of the 1981 Wildlife and Countryside Act (as amended), and it is an offence to release, plant or cause to grow in the wild any plant included on this schedule of the Act. Management works within the site should include the control of Himalayan Balsam to prevent its spread within or outside of the site. Unless further survey confirms that only non-invasive forms of Rhododendron and Cotoneaster are present at the site, it is recommended that management is extended to also include control of Rhododendron and Cotoneaster.

8.5 Opportunities for enhancement

- 8.5.1 Where appropriate, development proposals should seek to maintain and provide new opportunities for wildlife in accordance with national and local planning policy and guidance (NPPF, 2019; ODPM, 2005) and the 2006 NERC Act. A selection of measures is given below which could potentially increase the long-term nature conservation interest of the site and provide enhanced habitat for protected and notable species:
 - Tree/hedgerow enhancements, including:
 - Enhancement of the existing hedgerows through sensitive management, infilling of gaps and establishment of new standard trees using native species appropriate to the local area;

- Provision of new opportunities for movement of wildlife within and around the site through strengthening of existing treelines and hedgerow corridors and associated semi-natural habitats and/or provision of new linear habitats including hedgerow, tree and scrub planting. Where possible these should complement off-site areas of habitat; and
- Maintenance and enhancement of standing and fallen deadwood habitats where safe to do so, including use of management techniques such as veteranisation of selected retained mature trees to promote deadwood.
- Inclusion of other habitats of high nature conservation interest within areas of open space including rough and meadow grassland, orchard and native speciesrich scrub habitats, ideally in locations where they complement existing habitats and/or improve connectivity around the site and the wider area;
- Prioritising the use of native species typical of the local area in landscape planting where appropriate to do so and avoiding invasive species and cultivars. Where possible these should be sourced from stock of local provenance;
- Use of nectar and pollen-rich and fruit and nut-producing species within formal landscaping schemes to benefit species including birds, invertebrates, bats and foraging Badgers;
- Provision of bat roosting opportunities and bird boxes on new buildings and existing trees.
- Provision of log and brash piles around woodland edge, hedgerow and scrub edges to provide habitat for invertebrates, amphibians and reptiles;
- Provision of box-type compost bins within the site/gardens of the proposed development to provide habitat for invertebrates, amphibians and reptiles;
- Where appropriate, ensure presence of gaps in boundary fencing to allow movement of wildlife such as Hedgehogs around the site; and
- Sensitive use of lighting to avoid adverse effects on nocturnal wildlife (e.g. restrictions on lighting in public areas to the minimum levels required for safety, use of hooded and bollard lighting, low UV bulbs, presence detectors, timers etc.).
- 8.5.2 As discussed in *Section 8.3* above, the emerging development proposals shown on the Development Statement (Concept Masterplan; Richard Hopkinson Architects, 2021) indicate that the above measures can be achieved within the proposed development through retention and strengthening of boundary vegetation and creation of high value habitats in association with areas on informal open space such as orchards, tree and scrub planting, species rich grassland and creation of wetland habitats as part of the site surface water drainage scheme. In view of the current dominance of intensively farmed arable land, the emerging landscape proposals for the proposed development could in fact be expected to enhance the habitat resource of the site.

8.5.3 Furthermore, opportunities exist for the enhancement of land to the north of the site within the same land ownership between Leyland Green Road and the Down Brook, thereby strengthening the riparian corridor through which the brook flows in addition to providing new areas of habitat of value to wildlife in its own right.

9 CONCLUSION

- 9.1 The site is dominated by habitats of limited nature conservation interest in their own right and subject to the implementation of the recommended measures for habitat retention, protection, creation and enhancement, no reduction in the ecological interest of the site or its surrounds is likely to arise as a result of the proposed development. Development at the site could in fact provide opportunity to enhance its nature conservation interest for a number of species through incorporation of the measures outlined in *Section 8.5* above.
- 9.2 It is therefore concluded that, beyond the normal requirements to avoid impacts on protected species and maintain key elements of the habitat resource of the site, there appear to be no overriding nature conservation constraints that would preclude the proposed development of the site.

10 REFERENCES

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	Personnel	Position
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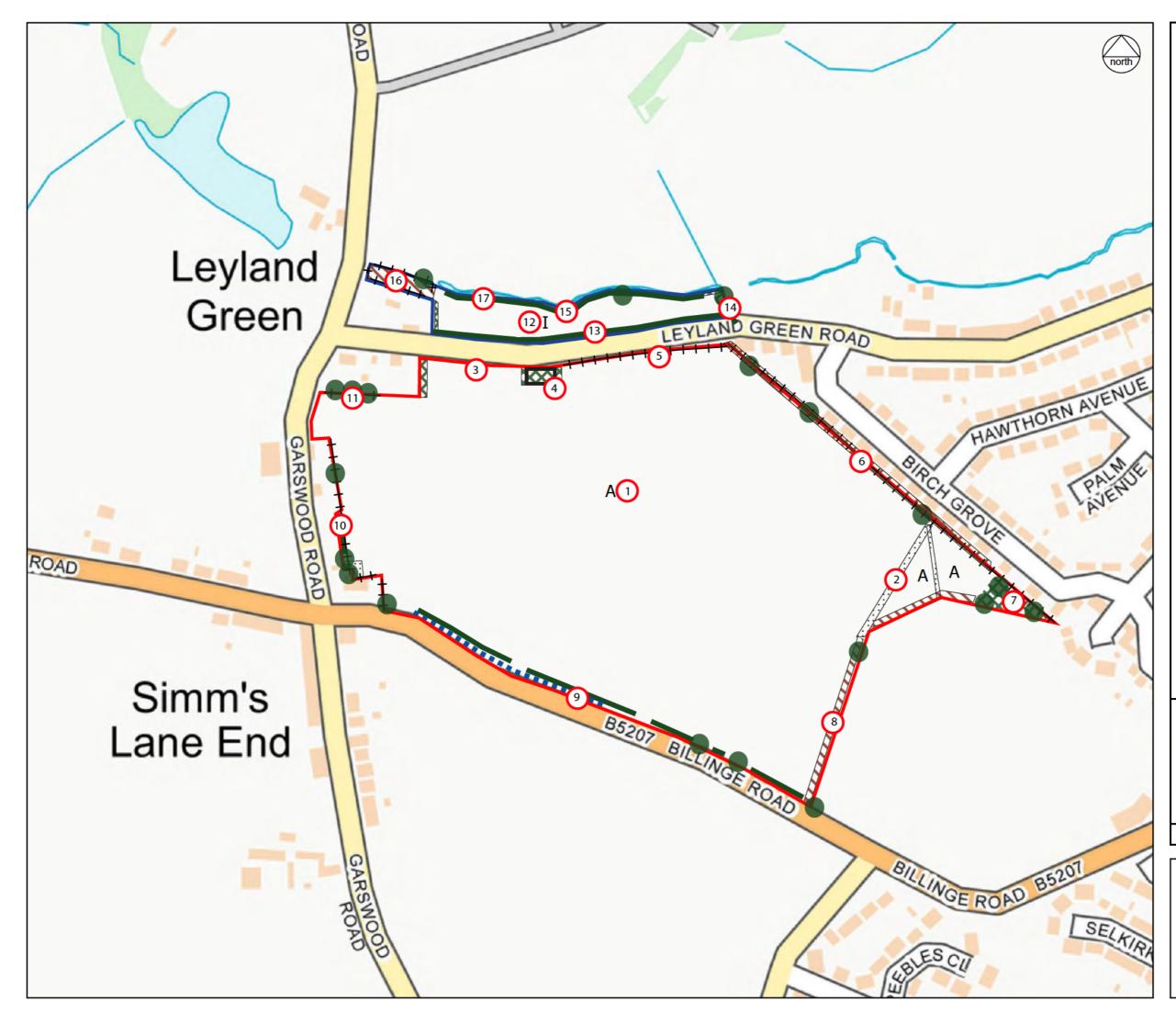
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APPENDIX B

Phase 1 Habitat Survey: Plan and Target Notes





CLIENT: J Murphy and Sons Ltd. PROJECT: Leyland Green Road TITLE: Phase 1 Habitat Survey Plan DATE: SCALE AT A3: Not to scale

March 2021

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Target Notes

- 1. The site is dominated by an arable field planted with winter Wheat (*Triticum sp.*) at the time of survey.
- 2. The easternmost part of the field is crossed by two bare earth footpaths approximately 50cm wide and bordered by grassy margins approximately 1-2m wide including Perennial Ryegrass (*Lolium perenne*) and Common Groundsel (*Senecio vulgaris*).
- 3. Grassy field margin approximately 0.5m wide. Species present include Perennial Ryegrass, Common Nettle (*Urtica dioica*), Cleavers (*Gallium aparine*), Broad-leaved Dock, (*Rumex obtusifolius*), Yorkshire Fog (*Holcus lanatus*), Common Thistle (*Cirsium vulgare*) and Prickly Sow Thistle (*Sonchus asper*).
- 4. 1m wide scrubby margin around a building comprising Bramble (*Rubus fruticosus*), Bracken (*Pteridium aquifolium*), Common Nettle (*Urtica dioica*), Common Ivy (*Hedera helix*), Cleavers and Cow Parsley (*Anthriscus sylvestris*). The building is covered in thick Common Ivy and the inside is full of scrub and young trees including Hazel (*Corylus avellana*) and Hawthorn (*Crataegus monogyna*). Other species present on the ground layer include Sweet Vernal-grass (*Anthoxanthum odoratum*) and the moss (*Hypnum cupressiforme*) as well as construction waste and rubble.
- 5. Tall ruderal and grass field margin with Curled Dock (*Rumex crispus*), Cleavers, Cow Parsley, Common Groundsel, Red Dead-Nettle (*Lamium purpureum*), Bramble, Dandelion (*Taraxacum officinale*) and Broad-Leaved Dock.
- 6. Row of residential properties bordering the site. A variety of shrubs is present beyond the fencing including Cotoneaster (*Cotoneaster sp.*), Rhododendron (*Rhododendron sp.*), Hawthorn and Cherry (*Prunus sp.*). On the site-side of the fence is a 1m grassy margin containing Groundsel, Cleavers, Dandelion, Red Dead Nettle, Common Nettle, Common Field Speedwell (*Veronica persica*), Bramble, Cotoneaster seedlings and Daffodil (*Narcissus sp.*) with some patches of bare ground.
- 7. An area of scrub and tall ruderal vegetation extending beyond the site boundary with young Birch trees, Bramble, Perennial Ryegrass, Cleavers and Hemlock (*Conium maculatum*). Discarded garden waste is present.
- 8. Narrow field margin, approximately 50cm wide, composed mainly of Perennial Ryegrass with some tall ruderal vegetation and patches of Bramble, Sweet Vernal-grass, Cleavers, Common Nettle, Cow Parsley and Common Daisy (*Bellis perennis*).
- 9. Defunct, well managed, species-poor hedgerow, approximately 1m wide and 1m in height. Contains native species including Holly (*Ilex aquifolium*) and Hawthorn. Oak and multi-stemmed mature Ash trees are present within the hedgerow and covered in Common Ivy. The ground flora was limited at the time of survey and dominated by Common Ivy. The 2m field margin leading from the hedge to the field consists of Cow Parsley, Chickweed (*Stellaria media*), Common Nettle, Cleavers, Curled Dock, and Broad-Leaved Dock. Gaps in the hedge for field access feature Common Daisy, Ribwort Plantain (*Plantago lanceolata*), Common Field Speedwell, Willowherb (*Epilobium* sp.) and Bulbous Buttercup (*Ranunculus bulbosus*). A dry drainage ditch runs along part of the south boundary and is covered in scrub.
- 10. Row of residential gardens bordering the site. Part of the field margin has been cleared to bare earth with garden species planted with remaining sections having high moss cover (*Hypnum*

cupressiforme). Directly adjacent to the site is a defunct, overgrown Hawthorn hedge, 10m high with a ground layer of Common Ivy.

- 11. Row of residential gardens bordering the site with trees overhanging the field margin. Species include Cypress (*Chamaecyparis lawsoniana*), young Oak and Hawthorn. The field margin below is an area of species-poor, close-cut, semi-improved grassland comprising mainly Perennial Ryegrass, Daisy, Dandelion, White Clover (*Trifolium repens*) and Ribwort Plantain.
- 12. Improved grassland field planted with Perennial Ryegrass with large quantities of White Clover and Common Nettle.
- 13. Intact, species-poor, well managed hedgerow, approximately 1m wide and 2m high comprised of native species including Hawthorn, Holly and Common Ivy. Little ground layer vegetation was present due to the high concentration of Ivy however some Common Nettle and Cleavers was recorded. A field margin, approximately 1m wide, is present including Cow Parsley.
- 14. Overgrown, defunct hedgerow of Hawthorn, with young Oak saplings throughout. Thick scrub is present along the field margin, approximately 2m wide, consisting of Brambles and Nettles.
- 15. Overgrown, defunct, Hawthorn hedge with some Holly and young Willow leading to a thick scrub embankment down to the Down Brook. The embankment mainly comprises Bramble with some open areas of Creeping Buttercup (*Ranunculus repens*), Cow Parsley and Common Nettle close to the water.
- 16. Scrub and tall ruderal area comprising cut brash, Bramble, young tree saplings and Daffodil.
- 17. The Down Brook flows in a westerly direction along the field margin. The brook at the time of survey was narrow, approximately 50cm wide, widening to 1m wide as it flowed west. It is a slow flowing brook with water joining it from field run off drains, causing the water to be murky and full of sediment in parts.

APPENDIX C

Phase 1 Bat Survey Plan



KEY
Site boundary
Extended survey area
BUILDINGS
Moderate bat roost potential
TREES
Low bat roost potential
Roosting 'categories' relate to bat roost potential in accordance with the BCT 2016 guidelines. All other trees within and immediatly adjacent to the site have been identifed as having negligible potential to support roosting bats.
CLIENT
J Murphy and Sons Ltd.
Phase 1 bat survey plan SCALE AT A3: DATE:
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APPENDIX D

Evaluation Criteria

Criteria used for the evaluation of ecological receptors (based on Ratcliffe, 1977; CIEEM, 2018)

Assigning value is relatively straightforward in the case of designated sites, and undesignated sites meeting designation criteria. However, in most cases evaluation of ecological resources is not straightforward and requires a degree of knowledge, experience and professional judgement (Usher, 1986; Spellerberg, 1992). Evaluation of an ecological receptor was based on a number of criteria (Ratcliffe, 1977; CIEEM, 2018) summarised below:

- Site designations; SPA, SAC, Ramsar, SSSI, NNR, LNR, SINC or equivalent.
- Site designation criteria; e.g. Guidelines for the Selection of Biological SSSIs, JNCC, 1989.
- Conservation status; whether a habitat or species is rare, declining or threatened at a given geographic scale.
- Geographic location; the value of a habitat or species may change depending on whether it is being assessed in the south of England or the north of Scotland.
- Distribution; habitats or species on the edge of their distribution, particularly where that distribution is changing as a result of global trends and climate change and endemic species or locally distinct sub-populations of a species are more valuable;
- Rarity; the presence of habitats, species, subspecies or varieties that are rare or uncommon at a given geographic scale.
- Diversity; of habitats, or species, particularly of vascular plants. Species-rich assemblages of plants or animals are likely to be important in terms of biodiversity;
- Naturalness; habitats least affected by human disturbance are normally of relatively higher importance.
- Size; larger areas are generally more valuable than lots of small ones. Notably large populations of animals or concentrations of animals considered uncommon or threatened in a wider context may be important.
- Fragility; sensitivity to, and probability of, human impact.
- Typicalness; a good example of the type, particularly plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities.
- Potential value (if restored to favourable conservation status).
- Secondary or supporting value; value of a receptor in supporting the integrity or conservation status of another valued receptor.
- Ability to be recreated; the more difficult a habitat is to re-create, were it to be destroyed, the greater the importance usually attached to it.