

Preliminary Ecological Appraisal

Land off Archway Road, Huyton, Merseyside

A Report to: Genr8 Developments
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Quality Assurance

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Declaration of Compliance

This study has been undertaken in accordance with British Standard 42020:2013 “Biodiversity, Code of Practice for Planning and Development”. The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management’s Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide **opinions**.

Disclaimer

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Validity of Data

The findings of this study are valid for a period of 24 months from the date of survey. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

Non-Technical Summary

Project Background

In July 2023, Genr8 Developments commissioned Middlemarch to undertake a Preliminary Ecological Appraisal of the site of a proposed development at Land off Archway Road, Huyton. This assessment is required to inform a planning application associated with the re-development of the site.

Scope of Appraisal

An ecological desk study and a walkover survey (in accordance with Phase 1 Habitat Survey methodology) were undertaken. The survey was carried out on 19th July 2023 by Charlotte Richardson MSc, ACIEEM (Senior Ecological Consultant) and Amy Carter MSc (Ecological Project Officer). An initial review of the ecological data was subsequently carried out to determine the features of ecological importance on site as well as a preliminary assessment of the potential impacts the proposed development could have on these features.

Potential Impacts on Important Ecological Features

Important ecological features identified through the desk study and Phase 1 Habitat Survey include habitats (hedgerows and scattered trees/line of trees) and species (badgers, bats, birds, hedgehogs, and invasive plants). Based on Middlemarch's current understanding of the proposals, potential impacts which could occur as a result of the development include:

- The loss, fragmentation and physical damage of hedgerows and mature/semi-mature trees;
- Killing, injury or disturbance of protected species; and,
- Degradation of habitats due to inappropriate management.

Whilst the proposed development has the potential to adversely impact ecological features, it also presents opportunities to deliver new or enhanced habitats and benefits to biodiversity, please refer to Chapter 6 for full details.

Recommendations

In order to ensure compliance with wildlife legislation and relevant planning policy and to secure a net gain for biodiversity overall, the following recommendations are made (full details are provided in Chapter 7):

Further Work Required	Ecological Surveys – Further surveys for bats are required and are underway. The recommendations made in the Preliminary Bat Roost Assessment (RT-MME-161140-02) should be followed.
Scheme Design	The proposed development should be designed in accordance with the ecological mitigation hierarchy as set out in the National Planning Policy Framework (NPPF), and the National Planning Practice Guidance (NPPG) the proposed development should seek to avoid/minimise losses of important ecological features in the first instance and incorporate these features in the landscaping layout of the scheme accordingly. This includes mature scattered trees and hedgerows. In accordance with the principles of the Environment Act 2021 the development should also secure an overall net gain for biodiversity.
Management Plans and Strategies	Construction Ecological Management Plan (CEcMP) – A CEcMP should be produced for the site setting out the safeguards and appropriate working practices that will be employed to minimise adverse effects on biodiversity. Examples of such working practices are provided in Chapter 7. Landscape and Ecology Management Plan (LEMP) – A LEMP should be produced setting out the detailed establishment and management of all on site compensation and enhancement measures.

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1. Introduction

1.1. Project Background

In July 2023, Genr8 Developments commissioned Middlemarch to undertake a Preliminary Ecological Appraisal of the site of a proposed development at Land off Archway Road, Huyton. This assessment is required to inform a planning application associated with the redevelopment of the site.

The purpose of the Preliminary Ecological Appraisal is to identify the features of ecological importance on and surrounding the site and provide a preliminary assessment of the potential impacts the proposed development could have on these features. In addition, Middlemarch has been commissioned to undertake the following surveys:

- Preliminary Bat Roost Assessment (Report: RT-MME-161140-02); and
- Preliminary Arboricultural Assessment (Report: RT-MME-161140-03).

1.2 Site Description and Context

Table 1.1 provides a brief summary of the site and its surroundings.

Attribute	Description
Location	The site is set in an urban location to the south-east of Archway Road in Huyton, Merseyside.
National Grid Reference	SJ 44159 90826
Site Area (ha)	2.9 ha
Topography	Flat
Land Cover (on site)	The site is dominated by hardstanding car parking areas and associated buildings, with pockets of introduced shrub, amenity grassland and scattered trees/tree lines.
Land Cover (site surrounds)	The wider landscape is dominated by the built environment. To the north and west, residential properties and associated gardens dominated. To the south-west commercial units and a retirement village with associated car parking was present. To the east, Huyton Village Shopping Centre is present. A railway line is located approximately 70 m south of the survey boundary and beyond this, residential properties and gardens once again continue to dominate the surrounding landscape.

Table 1.1: Summary of Site and Surroundings

1.3 Documentation Provided

The conclusions and recommendations made in this report are based on information provided by the client regarding the scope of the project.

2. Methods

2.1 Desk study

An ecological desk study was undertaken to determine the presence of any designated nature conservation sites and protected species in proximity to the site. This involved contacting appropriate statutory and non-statutory organisations which hold ecological data relating to the survey area. Middlemarch then assimilated and reviewed the desk study data provided by these organisations.

The consultees for the desk study were:

- Natural England - MAGIC website for statutory conservation sites; and,
- Merseyside BioBank.

The desk study included a search for:

- Landscape Scale Conservation Initiatives;
- European statutory nature conservation sites in the UK (collectively the 'National Site Network') within a 10 km radius of the site;
- UK statutory sites within a 2 km radius; and,
- Non-statutory sites and protected/notable habitats and species records within a 1 km radius.

The data collected from the consultees are discussed in Chapter 3. In compliance with the terms and conditions relating to its commercial use, the full desk study data are not provided within this report.

The desk study also included a review of relevant local planning policy with regard to biodiversity and nature conservation (see Appendix 1).

2.2 Phase 1 Habitat Survey

A field survey was conducted following the Phase 1 Habitat Survey methodology of the Joint Nature Conservation Committee¹ and the Institute of Environmental Assessment². Phase 1 Habitat Survey is a standard technique for classifying and mapping British habitats. The aim is to provide a record of habitats that are present on site. During the survey, a Habitat Condition Assessment was carried out to determine the ecological status of each habitat recorded. The condition assessment was undertaken using criteria published by Natural England (2023)³, the details of which are presented in Section 8.

During the survey, the presence or potential presence of protected species was noted where observed. This included a review of suitable habitat opportunities or field signs of notable species

¹ Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey: A technique for environmental audit (reprint)*. Joint Nature Conservation Committee, Peterborough.

² Institute of Environmental Assessment. (1995). *Guidelines for Baseline Ecological Assessment*, Institute of Environmental Assessment. E&FN Spon, An Imprint of Chapman and Hall. London.

³Natural England (2023) *The Biodiversity Metric 4.0 – User Guide: Technical Annex 1 Condition Sheets and Methodology*. Natural England Joint Publication JP039. Available <http://publications.naturalengland.org.uk/publication/6049804846366720>

groups (amphibians, bats, birds, terrestrial and aquatic invertebrates, terrestrial and aquatic mammals, plants and reptiles).

The survey was carried out on 19th July 2023 by Charlotte Richardson MSc, ACIEEM (Senior Ecological Consultant) and Amy Carter MSc (Ecological Project Officer). Table 2.1 details the weather conditions at the time of the survey

Parameter	Condition
Temperature (°C)	18
Cloud (%)	70
Wind (Beaufort)	F3
Precipitation	Nil

Table 2.1: Weather Conditions During Field Survey

Field Survey Constraints and Limitations

No significant constraints were encountered during the field survey, and the site was able to be fully assessed.

2.3 Preliminary Evaluation

The Preliminary Evaluation is an initial review of the ecological data (desk study and Phase 1 Habitat Survey) to identify important ecological features in the context of the site. Important ecological features are those that by virtue of their legal status, their inclusion in any national policy or plan, or their rarity or contribution to local ecological networks, are worthy of further consideration in the planning system. This typically includes statutory or non-statutory nature conservation sites, species protected by law, Habitats and Species of Principal Importance in England as defined by the Natural Environment and Rural Communities (NERC) Act 2006 or other ecological corridors and Biodiversity Opportunity Areas outlined in local policy.

2.4 Preliminary Impact Assessment

An initial review of the proposals has been undertaken to identify possible impacts on important ecological features that could occur as a result of the development. This initial assessment of impacts is based on Middlemarch's current understanding of the project.

3. Desk Study

3.1 Landscape Initiatives

No landscape initiatives were found covering or within close proximity of the site.

3.2 Nature Conservation Sites

Statutory and non-statutory nature conservation sites located in proximity to the survey area are summarised in Table 3.1.

Site Name	Designation	Proximity to the Survey Area	Description
European Statutory Sites			
Mersey Estuary	Ramsar / SPA	8.1 km south-west	The Mersey Estuary is on the Irish Sea coast of north-west England. It encompasses parts of Mersey Estuary SSSI and New Ferry SSSI. It is a large, sheltered estuary which comprises large areas of saltmarsh and extensive intertidal sand and mudflats, with limited areas of brackish marsh, rocky shoreline and boulder clay cliffs, within a rural and industrial environment. The site provides feeding and roosting sites for large and internationally important populations of waterfowl. During the winter, the site is of major importance for ducks and waders. The site is also important during spring and autumn migration periods, particularly for wader populations moving along the west coast of Britain.
Non-statutory Sites			
Huyton Lane Wetland	LWS	470 m north-east	The habitats on site include unimproved neutral grassland, marshy grassland, unimproved acid grassland and the River Alt. Species present include velvet bent <i>Agrostis canina</i> , bearded couch <i>Elymus caninus</i> , corn spurrey <i>Spergula arvensis</i> and common valerian <i>Valeriana officinalis</i> .
Ten Acre Pits	LWS	700 m south-west	A mature broadleaved woodland with a dense canopy and shrub layer with an improving ground flora. There are also areas of neutral unimproved grassland.
Key: SPA: Special Protection Area Ramsar: Site listed on The Convention on Wetlands of International Importance (Ramsar Convention) LWS: Local Wildlife Site			

Table 3.1: Summary of Nature Conservation Sites

The study site falls within the SSSI Impact Risk Zone for Mersey Estuary (SSSI), which is located approximately 8.1 km south-west.

3.3 Habitats

Table 3.2 summarises known priority or notable habitats within a 1 km radius of the site.

Habitat Type	No. of Records	Location of Nearest Record
Open mosaic habitat	2	230 m south
Good quality semi-improved grassland	1	470 m north-east
Deciduous woodland	10	600 m south-west

Table 3.2: Summary of Priority/Notable Habitats

There are two ponds within 1 km of the site, the nearest of which is located 570 m south-west.

3.4 Protected / Notable Species

Table 3.3 and the following text provide a summary of protected and notable species records within a 1 km radius of the study area. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Survey Area	Species of Principal Importance?	Legislation / Conservation Status
Amphibians					
Common frog <i>Rana temporaria</i>	15	2020	270 m west	-	WCA 5 S9(5)
Great crested newt <i>Triturus cristatus</i>	1	2011	*	✓	ECH 2, ECH 4, WCA 5
Birds					
Barn owl <i>Tyto alba</i>	1	1998	**	-	WCA1i
Mammals - Bats					
Common pipistrelle <i>Pipistrellus pipistrellus</i>	21	2022	30 m north-west	-	ECH 4, WCA 5, WCA 6
Noctule <i>Nyctalus noctula</i>	2	2019	30 m north-west	✓	ECH 4, WCA 5, WCA 6
Unidentified bat <i>Vespertilionidae sp.</i>	6	2020	160 m west	#	ECH 2 #, ECH 4, WCA 5, WCA 6
Pipistrelle <i>Pipistrellus sp.</i>	1	2020	690 m south	#	ECH 4, WCA 5, WCA 6
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	3	2019	730 m south	✓	ECH 4, WCA 5, WCA 6

Brown long-eared bat <i>Plecotus auritus</i>	1	2002	*	✓	ECH 4, WCA 5, WCA 6
Mammals - Other					
Hedgehog <i>Erinaceus europaeus</i>	44	2022	70 m west	✓	WCA 6
Water vole <i>Arvicola amphibius</i>	3	2007	700 m north-west	✓	WCA 5
Brown hare <i>Lepus europeus</i>	1	1998	*	✓	-
Badger <i>Meles meles</i>	1	2015	†	-	WCA 6, PBA
Key: #: Dependent on species. †: Badger records are confidential and therefore proximity is not provided within the report. *: Potentially within a 1 km radius (grid reference provided was four figures only). **: Potentially within a 10 km radius (grid reference provided was two figures only). ECH 2: Annex II of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest whose conservation requires the designation of Special Areas of Conservation. ECH 4: Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest in need of strict protection. PBA: Protection of Badgers Act 1992. WCA 1i: Schedule 1 Part 1 of Wildlife and Countryside Act 1981 (as amended). Birds protected by special penalties at all times. WCA 5: Schedule 5 of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). WCA 5 S9(5): Schedule 5 Section 9(5) of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). Protection limited to selling, offering for sale, processing or transporting for purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from, such animal. WCA 6: Schedule 6 of Wildlife and Countryside Act 1981 (as amended). Animals which may not be killed or taken by certain methods. Species of Principal Importance: Species of Principal Importance for Nature Conservation in England.					

Table 3.3: Summary of Protected/Notable Species Records

Birds

The desk study returned 15 records of birds listed as Species of Principal Importance, including yellowhammer *Emberiza citronella*, tree sparrow *Passer montanus*, starling *Sturnus vulgaris* and spotted flycatcher *Muscicapa striata*.

Flora

The desk study returned records of cornflower *Centaurea cyanus*, which is a Species of Principal Importance.

Invertebrates

The desk study provided records of two moth Species of Principal Importance, these were buff ermine *Spilosoma luteum* and shoulder-striped wainscot *Leucania comma*.

3.5 Invasive Species

Table 3.4 provides a summary of invasive species records within a 1 km radius of the study area. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Survey Area	Legislation / Conservation Status
Japanese knotweed <i>Fallopia japonica</i>	19	2022	130 m north	WCA 9
Rhododendron <i>Rhododendron ponticum</i>	4	2019	510 m south-west	WCA 9
Himalayan balsam <i>Impatiens glandulifera</i>	2	2007	880 m east	WCA 9
Japanese rose <i>Rosa rugosa</i>	1	2021	*	WCA 9
New Zealand pigmyweed <i>Crassula helmsii</i>	1	1997	*	WCA 9
Key: *: Potentially within a 1 km radius. Grid reference given to four figures only. WCA 9: Schedule 9 of Wildlife and Countryside Act 1981 (as amended). Invasive, non-native, plants and animals.				

Table 3.4: Summary of Invasive Species Records

4. Survey Results

4.1 Introduction

A Phase 1 Habitat Survey Drawing (Drawing C161140-01-01), illustrating the location and extent of all habitat types recorded on site, is provided in Chapter 8. Detailed habitat descriptions and a summary of the condition assessment for each habitat type using criteria published by Natural England (2023)³ is also included in Chapter 8.

4.2 Habitats

Table 4.1 details the types, extent and ecological condition of the habitats which were recorded on site during the field survey visit. Photographs taken during the field survey are presented in Chapter 9.

Habitat	Area (ha) / Length (km)	Condition	Photo Reference
Amenity Grassland	0.423 ha	Poor	Plates 9.1 & 9.7
Bare Ground	0.058 ha	Poor	Plate 9.2
Buildings	0.378 ha	N/A	Plates 9.3, 9.4, 9.5 & 9.6
Dense Scrub	0.031 ha	Poor	-
Hardstanding	1.906 ha	N/A	Plate 9.1
Species-poor Hedgerows	0.370 km	Moderate to Good	Plate 9.7
Introduced Shrub	0.118 ha	N/A	Plate 9.7
Lines of Tree	0.059 km	Moderate	Plate 9.8
Scattered Trees	172 no.	Moderate to Good	Plates 9.1, 9.2, 9.7 & 9.9
Tall Ruderal Vegetation	0.027 ha	Moderate	Plate 9.9

Table 4.1: Summary of Habitats Recorded on Site

4.3 Protected / Notable Species

Table 4.2 summarises the suitability of the site for protected/notable species and any species/evidence of species that were recorded during the survey. The time of year at which the survey is undertaken will affect species or field signs directly recorded during the survey.

Species/Group	Description
Bats	Some of the buildings and trees on site are suitable for roosting bats, and the tree lines, scrub and introduced shrub may be used by bats for foraging and commuting. See the Preliminary Bat Roost Assessment (RT-MME-161140-02).
Birds	The introduced shrub, trees, scrub, hedgerows, and buildings are all suitable for birds to use for nesting.

Hedgehog	Hedgehogs may use the tree lines, scrub and introduced shrub for foraging and commuting.
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Table 4.2: Summary of Species/Species Evidence Recorded on Site

4.4 Invasive Species

Unidentified cotoneaster *Cotoneaster* sp. was located within an area of introduced shrub. Several species of cotoneaster are invasive, and as this plant could not be identified to species level it is precautionarily presumed to be an invasive species.

5. Preliminary Evaluation

5.1 Identification of Important Ecological Features

Table 5.1 identifies the important ecological features on and surrounding the site based on the findings of the desk study and field survey. A discussion of potential impacts on important ecological features identified is provided in Chapter 6.

Feature		Description of Importance
Designated Sites		
European Statutory Sites (Mersey Estuary Ramsar/SPA)		This is an internationally designated site that supports internationally important populations of waterfowl.
UK Statutory Sites (Mersey Estuary SSSI)		The site is located within an impact risk zone for Mersey Estuary (SSSI), which is located approximately 8.1 km south-west. SSSI's are statutory nature conservation sites of national importance.
Non-statutory Sites (Huyton Lane Wetland LWS and Ten Acre Pits LWS)		Local Wildlife Sites (LWS) are some of the most ecologically important sites in the county and often support rare or threatened species and habitats that are locally important and distinctive.
Habitats		
Priority habitats	Hedgerows	The hedgerows on site may meet with Habitat of Principal Importance criteria and they provide connectivity to habitats beyond the site boundary.
Non-priority notable habitats	Scattered trees/Line of trees	The mature and semi-mature trees have intrinsic ecological value and cannot be easily replaced in the short to medium term.
Protected/Notable Species		
Badger		The desk study returned a single record of badger. The site does not offer suitable habitat for badgers; however they may pass through the site while commuting between suitable habitats in the wider landscape. Badgers are protected by the Protection of Badgers Act 1992 and Schedule 6 of Wildlife and Countryside Act 1981 (as amended).
Bats		The desk study returned records of at least four bat species within a 1 km radius of the site. The site supports bat roosting features, and the trees and hedgerows may be used by foraging and commuting bats. Several bat species are Species of Principal Importance and are all afforded full protection under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). See the Preliminary Bat Roost Assessment (RT-MME-161140-02) for further details.

Table 5.1: Summary of Important Ecological Features (continues)

Feature	Description of Importance
Protected/Notable Species (continued)	
Birds	The desk study returned a record of barn owl; however the site is not suitable for this species. The desk study also returned records of notable bird species, some of which may breed on site. The habitats on site provide suitable nesting habitat for a range of notable and more common/generalist bird species. All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended).
Hedgehog	The desk study returned 44 records of hedgehog from within a 1 km radius of the site. Hedgehogs, which are a Species of Principal importance, may use the site for foraging and commuting.

Table 5.1: Summary of Important Ecological Features(continued)

Invasive Species

Unidentified cotoneaster was recorded on site during the survey. Several cotoneaster species are listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to cause these species to spread in the wild. Therefore, this unidentified species is precautionarily considered to belong to an invasive species.

5.2 Features Scoped Out

Table 5.2. details ecological features which have been scoped due to their low/negligible ecological value, the lack of desk study records or absence of suitable habitats within the development site and its surroundings. These features are not discussed further in this report.

Feature	Justification for Scoping Out
Habitats	
Buildings and hardstanding	These habitats are of negligible ecological importance.
Other habitats (amenity grassland, introduced shrub, tall ruderal, dense scrub, bare ground)	Although these habitats are not considered to be important and do not require further detailed consideration in the context of assessing impacts, they do hold some value and contribute to overall site biodiversity, which is recognised through the use of a biodiversity metric tool.
Protected/Notable Species	
Aquatic mammals	It is considered unlikely that aquatic mammals are present and using the site due to a lack of suitable aquatic habitat on or immediately adjacent to the site.
Amphibians	The desk study returned records of two amphibian species within a 1 km radius, including a record of great crested newt from potentially within 1 km of the site. Reference to Ordnance Survey data indicates that there are no ponds within a 500 m radius of the study site. The site itself offers small amounts of suitable terrestrial habitat for common amphibians, comprising largely of managed grassland. However, given the lack of suitable breeding opportunities within the surrounding landscape and as the site has limited connectivity to other suitable terrestrial habitat, it is considered highly unlikely that great crested newts or more common amphibians would be present on site.

Table 5.2: Summary of Features Scoped out of Further Assessment (continues)

Feature	Justification for Scoping Out
Protected/Notable Species (continued)	
Dormouse	The habitats on site are unsuitable for dormice, and there is no connectivity with suitable habitat.
Invertebrates	The site is dominated by the built environment and is unlikely to support any notable invertebrate species or assemblages.
Plants	The field survey did not record any rare or notable plant species on site.
Reptiles	The desk study provided no records of reptiles within a 1 km radius of the survey area. The site only offers very limited suitability for reptiles, with much of the site dominated by hardstanding. There is also limited connectivity to suitable habitat in the surrounding landscape due to the presence of roads and other built structures. Reptiles are therefore deemed highly unlikely to be present on site.

Table 5.2 (continued): Summary of Features Scoped out of Further Assessment

6. Preliminary Impact Assessment

6.1 Summary of Proposals

The proposals are for the redevelopment of the site including the removal of some of the existing buildings and their replacement with a new mixed-use development. This will include offices, a residential building, and a multi-story car park.

The proposed development has the potential to adversely impact ecological features, but also presents opportunities to deliver new or enhanced habitats and benefits to biodiversity.

Activities likely to be associated with the proposed development during the construction and operational phases are outlined below.

Construction Phase

- Site clearance and ground preparation;
- Use and movement of heavy goods vehicles and machinery;
- Storage of plant, materials and waste;
- Presence of and movement of site personnel; and,
- Creation of landscaping / delivery of new habitats.

Operational Phase

- Permanent siting of buildings, structures and roads;
- Frequent movement of heavy goods vehicle, cars and other forms of transportation;
- Use of lighting associated with roads and buildings;
- Presence of and movement of site personnel;
- Establishment of new habitats; and,
- Maintenance of landscaping.

6.2 Nature Conservation Sites

An initial review of the proposals (see Section 6.1) has been undertaken to determine whether the project has the potential to affect any nature conservation sites. The identified sites are listed in Table 6.1, and justification for scoping them in or out of further assessment is provided.

Nature Conservation Site	Summary of Potential Impacts
European Statutory Sites	
Mersey Estuary Ramsar/SPA	Mersey Estuary Ramsar/SPA is located 8.1 km south-west of the survey area at its closest point. Impacts on this European site as a result of the proposals are considered unlikely, due to the distance of this site from the survey area and the lack of connectivity between the development site and the estuary. Although the proposals will involve both residential and commercial development, additional recreational pressure is not likely to be significant as the estuary is predominantly offshore. The proposed development does not fall into any of the risk categories highlighted in the Impact Risk Zone for Mersey Estuary. As such, no further recommendations are made.

Table 6.1: Summary of Potential Impacts on Nature Conservation Sites (continues)

Nature Conservation Site		Summary of Potential Impacts
UK Statutory Sites		
Mersey Estuary SSSI	The site is within two impact risk zones of Mersey Estuary SSSI. Reference to Natural England's SSSI Impact Risk Tool indicates that development proposals relating to aviation, livestock and poultry units, waste, combustion processes, and other energy generation schemes pose a potential risk to this designated site. The development does not fall within any of these categories, therefore adverse impacts on this SSSI are not anticipated.	
Non-statutory Sites		
Huyton Lane Wetland LWS and Ten Acre Pits LWS	These non-statutory sites are located in excess of 470 m from the survey area and due to the built-up nature of the intervening habitats, the risk of significant harm or disturbance to these conservation sites is considered negligible.	

Table 6.1 (continued): Summary of Potential Impacts on Nature Conservation Sites

6.3 Habitats

Table 6.2 below summarises the potential impacts on habitat features that may occur as a result of the construction and operational activities of the proposed development (see Section 6.1), in the absence of mitigation.

Habitat Type	Summary of Potential Impacts
Hedgerows	- Loss of hedgerows. - Habitat damage or degradation during construction works, lighting or inappropriate post-construction landscape management.
Scattered trees/Line of trees	- Loss of trees. - Habitat damage or degradation during construction works, inappropriate post-construction landscape management.

Table 6.2: Summary of Potential Impacts on Habitats

Habitat Opportunities

The development presents the following opportunities for habitat enhancement and creation:

- Creation of new multifunctional green and blue infrastructure features, including attenuation ponds and distinctive green corridors comprising native planting.

6.4 Protected / Notable Species

Table 6.3 below summarises the potential impacts on species/species groups that may occur as a result of the construction and operational activities of the proposed development (see Section 6.1), in the absence of mitigation.

Species / Species Group	Summary of Potential Impacts
Bats	• Killing or injury of bats and/or damage, disturbance or fragmentation of a bat roost during the construction phase. • Physical loss or fragmentation of bat foraging/dispersal habitat. • Habitat fragmentation, degradation or displacement of foraging routes due to light spill.
Birds	• Loss of nesting and foraging habitat. • Killing or injury of nesting birds or damage/destruction of a bird's nest during construction phase or as a result of inappropriate post construction landscape management.
Terrestrial mammals (badger, hedgehog)	• Killing or injury of terrestrial mammals during construction phase.

Table 6.3: Summary of Potential Impacts on Protected/Notable Species

Opportunities for Species

The development presents opportunities to deliver habitats for the following species:

- Bats (bat boxes for roosting and linear scrub for foraging); and,
- Birds (scrub planting and bird boxes).

6.5 Invasive Plant Species

The proposed development could result in the disturbance or spread of cotoneaster during the construction phases or as a result of inappropriate post-construction landscape management. The spread of non-native invasive species can result in a reduction in biodiversity as native species are outcompeted.

7. Recommendations

All recommendations provided in this section are based on Middlemarch's current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

R1 Ecological Surveys: Further surveys for bats are required and are currently underway. The recommendations made in the Preliminary Bat Roost Assessment (RT-MME-161140-02) should be followed.

R2 Scheme Design: The proposed development should be designed in accordance with the ecological mitigation hierarchy as set out in the National Planning Policy Framework (NPPF), and the National Planning Practice Guidance (NPPG). The mitigation hierarchy requires all development schemes to apply the following principles:

- *Avoidance and Mitigation* – the proposed development should seek to avoid/minimise losses of trees and hedgerows, in the first instance and incorporate these features in the landscaping layout of the scheme accordingly. This will help to further avoid and minimise impacts to protected and notable species.
- *Compensation* – where unavoidable losses occur and mitigation cannot be provided, compensation for significant residual harm will be required as a last resort or planning permission could be refused. Compensation should include the remediation of lost habitats and/or connectivity, the creation of new habitats of ecological value and providing novel compensation solutions to minimise effects on protected or notable species to ensure compliance with UK wildlife legislation.
- *Enhancement* – where possible new ecological features should be provided 'over and above' those required to mitigate/compensate for an impact. The development provides the opportunity to create distinctive green corridors.

In accordance with the principles of the Environment Act 2021 the development should also secure an overall net gain for biodiversity. Biodiversity Net Gain is a planning process that aims to leave biodiversity on site in a better state than it was before, going beyond solely avoiding, mitigating and compensating adverse effect on biodiversity and actively seeking to enhance the site's biodiversity value overall. A Biodiversity Metric tool should be used to help guide and quantify the baseline and proposed value of the scheme.

R3 Construction Ecological Management Plan (CEcMP): A Construction Ecological Management Plan should be produced for the site setting out the safeguards and appropriate working practices that will be employed to minimise adverse effects on biodiversity and ensure compliance with UK Wildlife Legislation. The details of the CEcMP will be informed by the final site design and ongoing ecological survey works but should include as a minimum:

- Development standoffs and safeguards for all retained habitats,
- Construction timetables to avoid sensitive periods such as nesting bird season,
- Covering open excavations and pipework to prevent accidental entrapment of terrestrial mammals,
- Measures to avoid the spread of cotoneaster; and,
- Compliance with any specific mitigation measures that will be required to acquire a Development Licence for works affecting protected species.

The CEcMP should be submitted to the Local Planning Authority for Approval and implemented in full thereafter.

- R4 Landscape and Ecology Management Plan (LEMP):** A Landscape and Ecology Management Plan should be produced setting out the detailed establishment and management of all on site compensation and enhancement measures. In accordance with Biodiversity Net Gain Best Practice Principles, and the principles of the Environment Act 2021, the LEMP should cover a period of 30 years from the date of commencement with provisions for long-term monitoring and contingency actions linked to the Biodiversity Net Gain objectives of the project.

The LEMP should be submitted to the Local Planning Authority for approval (typically to discharge planning conditions) and should be implemented in full thereafter.

8. Drawings

Drawing C161140-01-01 – Phase 1 Habitat Map



C161140-01-01

Legend

Site boundary

Scattered shrub

Scattered tree

Fence

Line of trees

Species-poor intact hedgerow

Wall

Amenity grassland

Bare ground

Building

Dense scrub

Hardstanding

Introduced shrub

Tall ruderal

Target note (habitat)

Project

Land off Archway Road, Huyton

Drawing

Phase 1 Habitat Map

Client

Genr8 Developments

Drawing Number

C161140-01-01

Revision

00

Scale @ A3

1:1,000

Date

August 2023

Approved By

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The following tables include full habitat descriptions and summarise the condition assessment for habitats and hedgerows using criteria published by Natural England (2023)³.

Area Habitat				Condition Sheet Criteria Score															
Polygon / Line Ref.	Phase 1 Habitat Type	UK Hab Habitat Equivalent	Habitat Description	Condition Sheet Used	A	B	C	D	E	F	G	H	I	J	K	L	M	Total Score	Condition Assessment
TN1	Amenity Grassland	Modified Grassland (g4)	Amenity grassland areas were present around the car parking areas and adjacent to some of the buildings. This was mown throughout the site to approximately 2 cm and comprised perennial rye grass <i>Lolium perenne</i> , dandelion <i>Taraxacum officinale</i> , ribwort plantain <i>Plantago lanceolata</i> , clover species <i>Trifolium sp.</i> , black medic <i>Medicago lupulina</i> , bird’s-foot-trefoil <i>Lotus corniculatus</i> , daisy <i>Bellis perennis</i> and common knapweed <i>Centaurea nigra</i> .	Grassland Low (5)	F	F	P	P	P	P	P							5 / 7	Poor
TN2	Bare Ground	Bare Ground	Small bare ground pockets were noted around the car park areas, at the base of some of the scattered trees. These areas had very little vegetation growth.	Urban (22)	F	F	F											0 / 3	Poor
TN3	Buildings	Developed Land / Sealed Surface (u1b)	Four buildings were noted within the survey area. Brief descriptions of each are outlined below: Building B1 was the Huyton Library building. It was an irregular-shaped structure with stone block walls with some elevations comprising almost entirely of metal-framed windows. A walled entryway was present to the north-east, which was rendered on the eastern side. Building B2 was a small sub-station located in the south-east of the survey area. It was of red brick construction with a flat concrete roof and a fibreglass door to the east. Building B3 was a large single-storey structure with red brick walls and intact wooden/steel framed windows and doors. A 2 m wide metal canopy was present to all elevations of the building and this was supported by steel poles below. A line of metal-framed windows was present immediately below the wall tops to all elevations, below the canopy. Building B4 was the Knowsley Metropolitan Borough Council (KMBC) building and this was an L-shaped structure which comprised two distinct sections. The southern section was a two-storey brick structure with a pitched roof comprising green corrugated sheeting panels. The northern section was a seven-storey high-rise office block, which had brick walls and metal-framed windows. Concrete panels were present over the brickwork between 6th and 7th storeys, which had some gaps on the underside on the north-east and south-west elevations. A small flat-roofed single-storey area connected the two building sections. It is also worth noting that an offsite building, which immediately abutted the survey area to the east, had dense ivy coverage on this the western wall. Please refer to the Preliminary Bat Roost Assessment report (RT-MME-161140-02) for more detailed descriptions of the buildings on site.	N/A														-	N/A
TN4a	Dense Scrub	Gorse Scrub (h3e)	A small area of gorse <i>Ulex europaeus</i> scrub up to 0.75 m in height was identified in the north-west of the site. This had scatterings of false oat grass <i>Arrhenatherum elatius</i> and mugwort <i>Artemisia vulgaris</i> below.	Scrub (20)	F	F	P	F	F									1 / 5	Poor

Area Habitat				Condition Sheet Criteria Score																
Polygon / Line Ref.	Phase 1 Habitat Type	UK Hab Habitat Equivalent	Habitat Description	Condition Sheet Used	A	B	C	D	E	F	G	H	I	J	K	L	M	Total Score	Condition Assessment	
TN4b	Dense Scrub	Mixed Scrub (h3h)	A small area of scrub was present below some scattered trees in the north of the site. This was low-growing and comprised self-set hazel <i>Corylus avellana</i> , guelder rose <i>Viburnum opulus</i> , ash <i>Fraxinus excelsior</i> and white poplar <i>Populus alba</i> with scattered ornamental rose <i>Rosa sp.</i> , and willow-leaved cotoneaster <i>Cotoneaster salicifolius</i> .	Scrub (20)	P	F	P	F	F									2 / 5	Poor	
TN4c	Dense Scrub	Dense scrub (h3)	A small amount of dense yew <i>Taxus baccata</i> was present in the east of the survey area.	Scrub (20)	F	F	P	F	F									1 / 5	Poor	
TN4d	Dense Scrub	Dense scrub (h3)	An area of scrub was present in the west of the survey area which comprised a mix of bramble <i>Rubus fruticosus</i> and dogwood <i>Cornus sanguinea</i> which was up to 2 m in height. Some self-set ash was noted throughout.	Scrub (20)	F	F	P	F	F									1 / 5	Poor	
TN4e	Dense Scrub	Dense scrub (h3)	A small area of dense yew scrub with ivy <i>Hedera helix</i> was noted within amenity grassland to the north-east of Building B1.	Scrub (20)	F	F	P	F	F									1 / 5	Poor	
TN5	Hardstanding	Developed Land / Sealed Surface (u1b)	A large proportion of the site comprised concrete access roads and parking areas. Paving was also recorded in some areas around the buildings on site.	N/A														-	N/A	
TN6	Introduced Shrub	Introduced Shrub	Several areas of introduced shrub were noted throughout the site. These were predominantly located within the parking areas, but some was also identified at the site boundaries. The introduced shrub on site comprised planted spirea <i>Spiraea sp.</i> , cotoneaster species <i>Cotoneaster sp.</i> , laurel <i>Laurus sp.</i> , burnet rose <i>Rosa pimpinellifolia</i> , willow-leaved cotoneaster, spurge laurel <i>Daphne laureola</i> , barberry <i>Berberis sp.</i> , privet <i>Ligustrum sp.</i> , Chinese barberry <i>Berberis julianae</i> and cabbage palm <i>Cordyline australis</i> . As this is a non-native habitat. It does not require a condition assessment.	N/A														-	This habitat does not require a condition assessment within the metric.	
TN7a	Line of Trees	Line of Trees	A line of five young hornbeam <i>Carpinus betulus</i> trees with bare ground below was present towards the centre of the site, running parallel with one of the car park boundaries.	Line of Trees (16)	P	P	F	F	P									3 / 5	Moderate	
TN7b	Line of Trees	Line of Trees	A line of semi-mature and early mature Lombardy poplar <i>Populus nigra 'Italica'</i> was located along the southern boundary of one of the car parks towards the centre of the survey area.	Line of Trees (16)	F	P	P	F	P									3 / 5	Moderate	
TN8a	Scattered Trees	Trees	Two mature scattered trees were present in the west of the site, within an area of amenity grassland. These comprised pedunculate oak <i>Quercus robur</i> and beech <i>Fagus sylvatica</i> .	Individual Trees (9)	P	P	P	P	P	P								6 / 6	Good	
TN8b	Scattered Trees	Trees	A large number of scattered trees were recorded around the car park areas and site boundaries. The majority of these were young or semi-mature, but a small number of early mature trees were also noted. These comprised hornbeam <i>Carpinus betulus</i> , sycamore <i>Acer pseudoplatanus</i> , aspen <i>Populus tremula</i> , oak <i>Quercus sp.</i> , lime <i>Tilia sp.</i> , ash and silver birch <i>Betula pendula</i> .	Individual Trees (9)	P	P	F	P	F	P								4 / 6	Moderate	
TN9	Tall Ruderal Vegetation	Sparsely Vegetated Land – Tall Forbs	Two areas of tall ruderal vegetation were noted in the west and south-west of the survey area. These were overgrown to between 1 – 1.25 m high and contained broad-leaved dock <i>Rumex obtusifolius</i> , wood avens <i>Geum urbanum</i> , hemp agrimony <i>Eupatorium cannabinum</i> , cock's-foot <i>Dactylis glomerata</i> , nettle <i>Urtica dioica</i> , wall lettuce <i>Lactuca muralis</i> and	Urban (22)	F	P	P											2 / 3	Moderate	

Area Habitat				Condition Sheet Criteria Score																
Polygon / Line Ref.	Phase 1 Habitat Type	UK Hab Habitat Equivalent	Habitat Description	Condition Sheet Used	A	B	C	D	E	F	G	H	I	J	K	L	M	Total Score	Condition Assessment	
			creeping thistle <i>Cirsium arvense</i> . A small amount of self-set scrub was noted in these areas, which comprised bramble, immature ash, sycamore and dogwood.																	
Key: P – Criteria passed F – Criteria failed																				

Table 8.1: Habitat Descriptions and Condition Assessments

Hedgerows				Condition Sheet Criteria Score												Condition Assessment
Ref.	Phase 1 Habitat Type	UK Hab Habitat Equivalent	Description	A1	A2	B1	B2	C1	C2	D1	D2	E1*	E2*			Condition Assessment
H1	Ornamental hedgerow	Ornamental hedgerow	A privet <i>Ligustrum sp.</i> hedgerow located in the western corner of the survey area, which was approximately 1.5 m high and wide. Only a 10 m stretch of this hedgerow fell within the survey boundary, although it continued offsite to the north for a further 40 m.	P	P	P	P	P	P	F	P	-	-			Good
H2	Species-poor hedgerow	Native hedgerow	This was a beech hedgerow with some gorse and immature sycamore. It was defunct and up to 1.5 m in height and less than 1.5 m wide. Ivy <i>Hedera helix</i> was noted below.	P	F	F	P	F	P	P	P	-	-			Moderate
H3	Species-poor hedgerow	Native hedgerow	This was a beech and sycamore hedgerow which was up to 1.25 m high and 1.5 m wide. Some laurel was also noted.	F	P	P	P	P	P	F	P	-	-			Good
H4	Species-poor hedgerow	Native hedgerow with trees	This hedgerow ran parallel with Archway Road along the entirety of the north-west boundary of the survey area. Some breaks were noted to facilitate pedestrian access to the site, but none of these were over 5 m in width. This hedgerow comprised hawthorn predominantly with occasional beech and several small ornamental maple <i>Acer sp.</i> trees noted. It was over 1.5 m wide and approximately 1.5 m high.	P	P	P	P	F	P	P	P	F	F			Moderate
H5	Species-poor hedgerow	Native hedgerow	This was a yew dominated hedgerow with some immature ash, located towards the north-eastern edge of the survey area. It was up to 1.5 m high and 1 m wide.	P	F	P	P	F	P	P	P	-	-			Good
H6	Species-poor hedgerow	Native hedgerow	Yew hedgerow located to the north-west of Civic Way. It was approximately 1.5 m high and 1 m wide and was bounded to the north-west by introduced shrub.	P	F	P	P	P	P	P	P	-	-			Good
H7a	Species-poor hedgerow	Native hedgerow	Yew hedgerow with introduced shrub beyond, which ran parallel to H7b. This was located in the east of the survey area and was 1.5 m high and wide with some ivy present.	P	P	P	P	P	P	P	P	-	-			Good
H7b	Species-poor hedgerow	Native hedgerow	Yew hedgerow with introduced shrub beyond, which ran parallel to H7a. This was located in the east of the survey area and was 1.5 m high and wide with some ivy present.	P	P	P	P	P	P	P	P	-	-			Good
H8	Species-poor hedgerow	Native hedgerow	This was a beech dominated hedgerow located towards the far eastern corner of the site. It was approximately 1.5 m high but less than 1 m wide	P	P	P	P	F	P	P	P	-	-			Good

Hedgerows				Condition Sheet Criteria Score										Condition Assessment
Ref.	Phase 1 Habitat Type	UK Hab Habitat Equivalent	Description	A1	A2	B1	B2	C1	C2	D1	D2	E1*	E2*	
H9	Ornamental hedgerow	Ornamental hedgerow	This was a privet hedgerow located to the north-west of the Lombardy poplar tree line on site. It was approximately 1.5 m high and 1 m wide and was bounded to the south-east by introduced shrub.	P	F	P	P	P	P	F	P	-	-	Good
Key: *Applicable to hedgerows with trees only														

Table 8.2: Hedgerow Descriptions and Condition Assessments

9. Photographs



Plate 9.1: Amenity Grassland, Scattered Trees and Hardstanding.



Plate 9.2: Bare Ground with Scattered Trees.



Plate 9.3: Building B1.



Plate 9.4: Building B2.



Plate 9.5: Building B3.



Plate 9.6: Building B4.



Plate 9.7: Species-poor Hedgerow with Ornamental Shrub Beyond and Scattered Trees and Amenity Grassland Adjacent.



Plate 9.8: One of the Tree Lines (TN7a).



Plate 9.9: Tall Ruderal Vegetation with Scattered Trees Adjacent to Building B1.

Appendix 1

General Biodiversity Legislation and Policy

The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (the Habitats Regulations 2019)

The Habitats Regulations 2017 (as amended) transposed the land and marine aspects of the Habitats Directive (Council Directive 92/43/EEC) and certain elements of the Wild Birds Directive (Directive 2009/147/EC) (known as the Nature Directives) into English and Welsh law. Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1 January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales.

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

The obligations of a competent authority in the 2017 Regulations for the protection of sites or species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

The Habitats Regulations 2019 have created a 'National Site Network' on land and at sea, including both the inshore and offshore marine areas in the UK. The National Site Network includes:

- Existing Special Areas of Conservation (SACs), which are designated due to their importance to the habitats and species listed in Annexes I and II of the Habitats Directive;
- Existing Special Protection Areas (SPAs), which are designated due to their importance for wild birds in accordance with the Wild Birds Directive; and,
- New SACs and SPAs designated under these Regulations.

SACs and SPAs in the UK no longer form part of the European Union's Natura 2000 ecological network. Any references to Natura 2000 in the 2017 Regulations and in guidance now refers to the new National Site Network. However, guidance provided by Freeths (2020)⁴ recommends that SACs and SPAs can continue to be referred to as "European sites" / "European marine sites".

Designated Wetlands of International Importance (known as Ramsar sites) do not form part of the National Site Network. Many Ramsar sites overlap with SACs and SPAs and may be designated for the same or different species and habitats. All Ramsar sites remain protected in the same way as SACs and SPAs.

The 2019 Regulations establish management objectives for the National Site Network. The network objectives are to:

- Maintain or, where appropriate, restore habitats and species listed in Annexes I and II of the Habitats Directive to a favourable conservation status; and,

⁴ Freeths (2020). *The Habitats Regulations Assessment regime after 31 December 2020 – how will it look?*
Available: <https://www.freeths.co.uk/2020/10/22/the-habitats-regulations-assessment-regime-after-31-december-2020-how-will-it-look/?cmpredirect>

- Contribute to ensuring, in their area of distribution, the survival and reproduction of wild birds and securing compliance with the overarching aims of the Wild Birds Directive.

The appropriate authorities must also have regard to the:

- Importance of protected sites;
- Coherence of the National Site Network; and,
- Threats of degradation or destruction (including deterioration and disturbance of protected features) on SPAs and SACs.

The network objectives contribute to the conservation of UK habitats and species that are also of pan-European importance, and to the achievement of their favourable conservation status within the UK.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Habitat Regulations 2017 and the Habitats Regulations 2019, offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species.

The Countryside and Rights of Way (CROW) Act 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs. The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Section 102 of The Environment Act 2021 (Commencement No. 5 and Transitional Provisions) Regulations 2022 makes amendments to Section 40 of the NERC Act. The revisions strengthen the requirement for public authorities to assess how they can take action to conserve and enhance biodiversity, and then take these actions.

Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These lists superseded Section 74 of the CROW Act 2000.

The Hedgerow Regulations 1997

The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

Species and Habitats of Material Consideration for Planning in England

Previous planning policy (and some supporting guidance which is still current, e.g. ODPM Circular 06/2005, now under revision), refers to UK BAP habitats and species as being a material consideration in the planning process. Equally many local plans refer to BAP priority habitats and species. Both remain as material considerations in the planning process but such habitats and

species are now described as Species and Habitats of Principal Importance for Conservation in England, or simply priority habitats and priority species under the UK Post-2010 Biodiversity Framework. The list of habitats and species remains unchanged and is still derived from Section 41 list of the Natural Environment and Rural Communities (NERC) Act 2006. As was previously the case when it was a BAP priority species hen harrier continues to be regarded as a priority species although it does not appear on the Section 41 list.

National Planning Policy Framework and Practice Guidance

In July 2021, the National Planning Policy Framework (NPPF) was updated, replacing the previous framework published in 2012 and revised in 2018 and 2019. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives.

Chapter 15, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by:

- protecting and enhancing existing sites of biodiversity value;
- minimising impacts on and providing net gains for biodiversity; and,
- establishing coherent ecological networks.

If a proposed development would result in significant harm to the natural environment which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused. With respect to development on land within or outside of a Site of Special Scientific Interest (SSSI) which is likely to have an adverse effect (either alone or in-combination with other developments) would only be permitted where the benefits of the proposed development clearly outweigh the impacts on the SSSI itself, and the wider network of SSSIs. Development resulting in the loss of deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused unless there are wholly exceptional reasons for the development, and a suitable compensation strategy is provided.

Chapter 15 identifies that development whose primary objective is to conserve or enhance biodiversity should be supported and 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.

Chapter 11, making effective use of the land, sets out how the planning system should promote use of land in meeting the need for homes and other uses, while safeguarding and improving the environment and ensuring safe and healthy living conditions. Substantial weight should be given to the value of using suitable brownfield land within settlements for homes and other identified needs. Opportunities for achieving net environmental gains, including new habitat creation, are encouraged.

In March 2014 the Department for Communities and Local Government released guidance to support the National Planning Policy Framework (NPPF), known as the National Planning Practice Guidance (NPPG). This has been produced to provide guidance for planners and communities which will help deliver high quality development and sustainable growth in England.

The guidance includes a section entitled 'Natural Environment: Biodiversity, geodiversity and ecosystems and green infrastructure', which was updated in July 2019. This document sets out information with respect to the following:

- the statutory basis for seeking to conserve and enhance biodiversity;

- the local planning authority's requirements for planning for biodiversity;
- what local ecological networks are and how to identify and map them;
- how plan-making bodies identify and safeguard Local Wildlife Sites, including Standard Criteria for Local Wildlife Sites;
- the sources of ecological evidence;
- the legal obligations on local planning authorities and developers regarding statutory designated sites and protected species;
- definition of green infrastructure;
- where biodiversity should be taken into account in preparing a planning application;
- how policy should be applied to avoid, mitigate or compensate for significant harm to biodiversity and how mitigation and compensation measures can be ensured;
- definitions of biodiversity net gain including information on how it can be achieved and assessed; and,
- the consideration of ancient woodlands and veteran trees in planning decisions and how potential impacts can be assessed.

The NPPG July 2019 issue also includes a section entitled 'Appropriate assessment: Guidance on the use of Habitats Regulations Assessment' which provides information in relation to Habitats Regulations Assessment processes, contents and approaches in light of case law. This guidance will be relevant to those projects and plans which have the potential to impact on European Sites and European Offshore Marine Sites identified under the Conservation of Habitats and Species Regulations 2017 (as amended).

Local Planning Policy - Knowsley Council

Core Strategy

The Knowsley Local Plan Core Strategy was adopted in January 2016. It sets the strategic framework for the growth and development of Knowsley up to 2028 and beyond. The policies of relevance to ecology are:

Policy CS2 – Development Principles

(Note: only the environmental section of this policy is included here)

Principle 4: Recognise environmental limits, protect and enhance environmental assets, enhance local character and promote quality of place by:

- a) Understanding and respecting the character and distinctiveness of places and landscapes;
- b) Protecting and enhancing the historic environment;
- c) Promoting good quality design and ensuring that development respects its setting taking into account relevant design requirements, and best practice;
- d) Maximising opportunities for the regeneration of previously developed land, including derelict or unsightly areas to improve the image of Knowsley and use land resources efficiently;
- e) Mitigating potential negative impacts of traffic growth and road traffic on highway safety, air quality, noise and health;
- f) Supporting policies relating to Green Infrastructure and the greening of towns and cities;
- g) Maintaining or enhancing the tranquillity of open countryside and rural areas;

- h) Maintaining or enhancing the quantity and quality of biodiversity and habitats, including potential impacts on nationally and internationally important sites for biodiversity;
- i) Addressing any issues of unstable land, resulting from Knowsley's legacy of minerals extraction; and,
- j) Minimising negative impact upon flood risk, air quality, water quality, land quality, soil quality, and noise or vibration levels and ensuring any negative impacts are appropriately mitigated.

Development that will have an unacceptable impact upon any of the above will only be permitted where the benefits of the proposal clearly outweigh the harm.

Policy CS8 – Green Infrastructure

Maintenance and Enhancement of Knowsley's Existing Green Infrastructure

- 1) Knowsley's existing Green Infrastructure and its beneficial functions will be protected, managed and/or enhanced, primarily to:
 - a) Ensure more attractive and cleaner residential neighbourhoods;
 - b) Sustain and promote biodiversity (including designated sites, priority habitats and protected and endangered species) in accordance with importance and contribution to ecological networks;
 - c) Preserve the character and function of historic environments and valued landscapes;
 - d) Mitigate the effects of climate change and flood risk;
 - e) Mitigate air, water and noise pollution;
 - f) Provide local opportunities for sport, recreation and allotments; and
 - g) Provide sustainable transport linkages between residential neighbourhoods and easy access to employment and services.
- 2) To achieve the above, planning powers and other interventions will be used to:
 - a) Protect and enhance strategically important areas of greenspace;
 - b) Ensure an appropriate quantity and improved quality of locally important open spaces, including outdoor sports provision (and ancillary facilities of appropriate scale);
 - c) Promote effective movement of wildlife through a network of strategic green links, by protecting, maintaining and improving existing and new open spaces, water courses (including water quality) and biodiversity assets;
 - d) Protect, enhance and/or introduce biodiversity into existing areas of Green Infrastructure, through integration into the design of new development and public realm projects;
 - e) Improve accessibility for communities to greenspace offering leisure and recreation opportunities;
 - f) Protect and where possible improve green paths and cycleways linking residential areas, existing strategic areas of greenspace, employment locations, local community services and leisure facilities;
 - g) Work in partnership with other districts and relevant bodies at a landscape scale to minimise the impact of development upon Knowsley's existing biodiversity and geological assets, and sustain the protection afforded to internationally important sites, including supporting habitat, for biodiversity outside of the borough; and
 - h) Deliver new integrated and functional Green Infrastructure that helps to mitigate and adapt to climate change, such as sustainable drainage systems, carbon capture and storage, soft landscaping and green roofs.

- 3) Site allocations for greenspace will be identified in the Local Plan: Site Allocations and Development Policies document, with further guidance set out in the Developer Contributions Supplementary Planning Document or future Supplementary Planning Document as appropriate.

Strategic Green Links

- 4) Knowsley's strategically important green links are:
 - a) Alt Corridor (Huyton) – stretching from Huyton Village through South Alt Park, Alt Park, Alt Meadows and into Stockbridge Village;
 - b) Valley Corridor (Kirkby) – stretching through Valley Meadow, St. Chad's Park, Millbrook Park, Millennium Green and Mill Dam;
 - c) Whiston to Cronton Corridor – stretching through Cronton, Stadt Moers Park and Whiston Greenway;
 - d) Halewood Triangle – Halewood Park linkage with the Trans-Pennine Trail and to the national cycle network;
 - e) M57 Green Belt Corridor; and
 - f) Knowsley Hall Estate – including Knowsley Safari Park and Local Wildlife Sites.

Green Infrastructure within the Liverpool City Region

- 5) Knowsley Council will work with partners to help deliver local and sub-regional programmes, initiatives and strategies to enhance Green Infrastructure.

Approach to Green Infrastructure and New Development

- 6) New development must be served by Green Infrastructure to meet the needs of residents and the local environment, in a manner which will:
 - a) Contribute to the creation of a high-quality residential environment;
 - b) Provide access to high quality open space for leisure and recreational purposes;
 - c) Seek to protect, maintain and where possible enhance biodiversity within and around new developments according to their designation and significance to provide space for nature; and,
 - d) Provide adequate mitigation and/or, as a last resort, compensation for Green Infrastructure or biodiversity loss, in circumstances where harm resulting from the development is otherwise unavoidable.

Policy CS21 – Greenspaces and Trees Greenspace Protection

- 1) In supporting the wider Green Infrastructure functions of urban greenspace in accordance with Policy CS8, the Council will provide and maintain quantitative, qualitative and accessibility standards for different types of public open space.
- 2) New development which would result in the loss of urban greenspace, will not be permitted unless at least one of the following criteria are met:
 - a) A surplus of provision for all types of greenspace would be maintained relative to local standards;
 - b) The land is considered unsuitable in terms of size, location or character to prevent or address individual deficiencies of different types of greenspace relative to local standards;
 - c) Appropriate mitigation is provided through replacement facilities of at least an equal quantity, quality and accessibility;
 - d) The development is required to improve greenspace provision or for ancillary facilities to support sport or recreation; or,

- e) Where the proposal relates to the loss of indoor or outdoor sports provision, and there is no evidence of future or continuing need for sports use, or alternatively only land incapable of forming a playing pitch or sporting facility is affected and its release accords with either clause 2)a) or 2)b).
- 3) Irrespective of whether criteria in 2) are met, unless the benefits of a proposal clearly outweigh the loss of urban greenspace, development will be resisted where it would significantly harm any existing or potential special qualities of greenspace in the area in terms of:
 - a) Visual amenity;
 - b) Residential amenity;
 - c) Biodiversity and environmental benefits;
 - d) Historical, cultural or community value;
 - e) Recreational benefits; or,
 - f) Physical and/or visual linkages between adjoining urban greenspaces.

Local Greenspace Standards

- 4) The quantitative and accessibility standards for the provision of public open spaces within Substantial Residential Areas are set out in Table 9.1: Substantial Residential Area (SRA) Standards for Greenspace Quantity and Accessibility for the following greenspace typologies:
 - a) Park and Garden;
 - b) Amenity Greenspace;
 - c) Provision for Children and Young People; and
 - d) Allotments.
- 5) The Council's quantitative standards for Outdoor Sports Provision are set out in Table 9.2: Community Area Standards for Outdoor Sports Provision Quantity and Accessibility and seek to maintain an appropriate range of sites and address quantitative needs for individual sports at a Community Area level.
- 6) The Council will keep the standards of provision referred to above under review and if necessary publish revised standards in a future Local Plan document or Supplementary Planning Document.

Accessible and Quality Greenspaces

- 7) The Council will support improvements to existing and new areas of greenspace in accordance with best practice standards, to achieve the following requirements:
 - a) Accessible, safe and secure locations for all members of the community to use;
 - b) Clean and well maintained facilities, equipment and open spaces; and
 - c) Conservation of natural features, wildlife, fauna, landscapes, buildings and other structural features, as appropriate.
- 8) When considering proposals for new residential development, the Council will seek enhancements to greenspaces via on-site provision, new off-site provision or enhancement of existing off-site provision through developer contributions secured by legal agreement in accordance with Policy CS27: Planning and Paying for New Infrastructure, the Developer Contributions Supplementary Planning Document and/or a Community Infrastructure Levy Charging Schedule, as appropriate.

Local Green Spaces

- 9) Any Local Green Spaces Designations which are formally designated will be identified in the Local Plan: Site Allocations and Development Policies or future Neighbourhood Plans (if applicable). This designation will only be used where the greenspace concerned is:
- a) Reasonably close to the community it serves;
 - b) Demonstrably special to a local community and holds a particular local significance, for example because of its beauty, historic significance, recreational value (including as a playing field), tranquillity or richness of its wildlife; and,
 - c) Local in character and not an extensive tract of land.

Enhancement of Natural and Semi-Natural Greenspace and Tree Protection

- 10) The Council will encourage proposals for new development to incorporate:
- a) Retention of existing trees, woodland, vegetation and other habitat features which offer a positive contribution to the local environment in terms of visual amenity, recreation value or biodiversity/wildlife interest;
 - b) Appropriate planting of trees, other soft landscaping and installation of habitat features for the benefit of biodiversity; and,
 - c) Adequate replacement provision where tree loss is unavoidable, comprising two additional trees for every tree lost and taking account of species and size.

Unitary Development Plan

The Knowsley Replacement Unitary Development Plan was adopted in June 2006. Under the transitional arrangements for moving to the Local Plan system, 39 UDP policies were “saved” by the Secretary of State on 12 June 2009. The saved policies of relevance to ecology are:

Policy DQ4 – Trees and Development

All new development

- 1) Proposals for new development should include appropriate planting of trees or other soft landscaping, the location and details of which should be determined as an integral part of the development, and which shall have regard to the character of the surrounding area.

Developments affecting existing trees

- 2) Development proposals affecting existing trees, woodlands and other vegetation, which make a positive contribution to amenity, should make provision for their retention.
- 3) Applicants for planning permission will be required to provide a detailed survey of all existing trees on the site and the likely effects on them of the proposed development, as outlined in the Council’s technical advice note “Trees and Development”.
- 4) Where the Council accepts that tree loss will be unavoidable the applicant will be required to make adequate provision for their replacement, normally including two new trees for each tree lost. Replacement planting will take into account the number; size and species of trees lost and should contribute to the extension of tree and woodland cover across the Borough.

Links to the Mersey Forest Plan

- 5) All new development should be consistent with the aims and objectives of the Mersey Forest Plan.

Policy ENV3 – Light Pollution

- 1) Development requiring external lighting must satisfy the following criteria:

- a) The lighting scheme proposed is the minimum required for security and working purposes to undertake the task;
- b) There would be no unacceptable impact on visual amenity in the surrounding area;
- c) The scheme will not have an unacceptable effect on road safety;
- d) The scheme will not harm wildlife; and,
- e) There will be no unacceptable loss of residential amenity.

Appendix 2

Relevant Species Legislation

Bats

Bats and the places they use for shelter or protection (i.e. roosts) receive legal protection under the Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019 (Habitats Regulations 2019). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Changes have been made to parts of the Habitats Regulations 2017 so that they operate effectively from 1st January 2021. The changes are made by the Habitats Regulations 2019, which transfer functions from the European Commission to the appropriate authorities in England and Wales.

All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

The obligations of a competent authority in the 2017 Regulations for the protection of species do not change. A competent authority is a public body, statutory undertaker, minister or department of government, or anyone holding public office.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, or *obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CROW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The reader should refer to the original legislation for the definitive interpretation.

The following bat species are Species of Principal Importance for Nature Conservation in England: barbastelle bat *Barbastella barbastellus*, Bechstein's bat *Myotis bechsteinii*, noctule *Nyctalus noctula*, soprano pipistrelle *Pipistrellus pygmaeus*, brown long-eared bat *Plecotus auritus*, greater horseshoe bat *Rhinolophus ferrumequinum* and lesser horseshoe bat *Rhinolophus hipposideros*. Species of Principal Importance for Nature Conservation in England are material considerations in the planning process. The list of species is derived from Section 41 list of the Natural Environmental and Rural Communities (NERC) Act 2006.

Badger

Badgers and their setts are protected under the Protection of Badgers Act 1992. The Protection of Badgers Act 1992 is based primarily on the need to protect badgers from baiting and deliberate harm or injury, badgers are not protected for conservation reasons. The following are criminal offences:

- To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it.
- To wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so.

A badger sett is defined in the legislation as:

- 'Any structure or place that displays signs indicating current use by a badger'.

'Current use' is not synonymous with current occupation and a sett is defined as such (and thus protected) as long as signs of current usage are present. Therefore, a sett is protected until such a time as the field signs deteriorate to such an extent that they no longer indicate 'current usage'.

Badger sett interference can result from a multitude of operations including excavation and coring, even if there is no direct damage to the sett, such as through the disturbance of badgers whilst occupying the sett. Any intentional or reckless work that results in the interference of badger setts is illegal without a licence from Natural England. In England a licence must be obtained from Natural England before any interference with a badger sett occurs.

The reader should refer to the original legislation for the definitive interpretation.

Hedgehog

Hedgehogs receive some protection under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended); this section of the Act lists animals which may not be killed or taken by certain methods, namely traps and nets, poisons, automatic weapons, electrical devices, smokes/gases and various others. Humane trapping for research purposes requires a licence.

Hedgehogs are a Species of Principal Importance for Nature Conservation in England and are thus capable of being material considerations in the planning process.

Nesting Birds

The Conservation of Habitats and Species Regulations 2017, (Habitats Regulations 2017) and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019

(Habitats Regulations 2019) places a duty on public bodies to take measures to preserve, maintain and re-establish habitat for wild birds.

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended).

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Some species (listed in Schedule 1 of the WCA) are protected by special penalties. Subject to the provisions of the act, if any person intentionally or recklessly:

- disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird, he shall be guilty of an offence.

Several bird species are Species of Principal Importance for Nature Conservation in England, making them capable of being material considerations in the planning process.

Appendix 3

Survey Calendar

SPECIES SURVEY CALENDAR

This calendar helps identify the seasonal constraints associated with many ecological and protected species surveys.

Recommended survey time

Possible survey time

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Extended Phase 1 Habitat Survey												
Botanical Survey												
Bats (initial bat survey)												
Bats (activity survey)												
Bats (hibernation survey)												
Great Crested Newt (habitat assessment)												
Great Crested Newt (presence/absence survey)												
Reptiles												
Badger												
Water Vole												
Otter												
Birds (winter birds)												
Birds (nesting bird)												
Dormouse												
White Clawed Crayfish												



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