

# Wickhurst Green

## Ecological Assessment

April 2025



**T:** 0118 989 10 86  
**E:** [info@derekfinnie.com](mailto:info@derekfinnie.com)  
**W:** [www.derekfinnie.com](http://www.derekfinnie.com)

20 Soames Place, Mulberry Grove  
Wokingham, Berkshire RG40 5AT

**COMMISSIONED BY**

Vistry  
Linden House  
Guards Avenue  
Caterham  
Surrey  
CR3 5XL

# **Wickhurst Green**

## **Ecological Assessment**

**April 2025**

Report Ref: DFA25030

**Derek Finnie Associates Ltd**  
20 Soames Place  
Wokingham  
Berkshire  
RG40 5AT

[info@derekfinnie.com](mailto:info@derekfinnie.com)

## CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>1</b>
1.1	Background .....	1
<b>2</b>	<b>LEGISLATIVE FRAMEWORK .....</b>	<b>2</b>
2.1	National Policy and Guidance .....	2
<b>3</b>	<b>METHODOLOGY .....</b>	<b>4</b>
3.1	Data Search.....	4
3.2	Habitat Survey .....	4
3.6	Survey Constraints.....	7
<b>4</b>	<b>SITE DESCRIPTION .....</b>	<b>8</b>
4.1	Desk Study .....	8
4.2	Phase 1 Survey.....	8
4.3	Fauna .....	9
<b>5</b>	<b>EVALUATION.....</b>	<b>12</b>
5.1	Definition of ecological value.....	12
5.2	Site Evaluation.....	13
<b>6</b>	<b>PREDICTED IMPACTS, MITIGATION AND ENHANCEMENTS .....</b>	<b>15</b>
6.1	Predicted Impacts.....	15
6.2	Mitigation and Enhancements .....	15
	<b>REFERENCES.....</b>	<b>17</b>

## TABLES

Table 1.	Reptile Survey Dates and Conditions .....	5
Table 2.	Bat Activity Survey Dates.....	6
Table 3.	Static Detector Deployment Dates and Weather .....	6
Table 4.	Summary of Bat registrations during transect.....	10
Table 5.	Summary of Bat Registrations per Night.....	10
Table 6.	Ecological Evaluation Criteria.....	12

## FIGURES

Figure 1.	Phase 1 Habitat Map .....	18
-----------	---------------------------	----



## 1 INTRODUCTION

### 1.1 Background

- 1.1.1 Derek Finnie Associates was commissioned by Vistry to provide ecological advice in relation to an area of land to the south of Broadbridge Way, Broadbridge Heath, herein referred to as the 'Site'.
- 1.1.2 Vistry are preparing a full Planning Application for the erection of 89 residential dwellings comprising, creation of new vehicular access on to Sergent Way, provision of public open space, landscaping and drainage solutions. Therefore, there is a requirement under national and local policy to understand the potential ecological implications of any proposed scheme on the biodiversity receptors within, and immediately adjacent to the Site.
- 1.1.3 To this end, an initial ecological assessment of the Site, incorporating an Extended Phase 1 habitat survey in conjunction with a desk top data search, was undertaken in August 2023, with additional species specific survey undertaken throughout the summer of 2024; a verification site visit was conducted in March 2025. The following report outlines the methodology employed, describes the current ecological resource within the Site, evaluates the receptors identified and describes any ecological constraints and opportunities within the Site.

## 2 LEGISLATIVE FRAMEWORK

### 2.1 National Policy and Guidance

#### ***Legal Framework***

2.1.1 The legislative framework applicable to this assessment is summarised below and outlined in Appendix 1.

#### International Conventions and Directives

- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive);
- Council Directive 2009/147/EC on the Conservation of Wild Birds (Birds Directive);
- The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) 1979;
- The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) 1983; and
- Convention on Biological Diversity 1992.

#### National Legislation

- The Environment Act 2021
- The Wildlife and Countryside Act 1981 (WCA);
- The Conservation of Habitats and Species Regulations 2017;
- The Countryside and Rights of Way Act 2000 (CRoW);
- Natural Environment and Rural Communities Act 2006 (NERC);
- The Protection of Badgers Act 1992; and
- The Hedgerow Regulations 1997.

#### Statutorily Protected Sites

2.1.2 Local Nature Reserves (LNRs); National Nature Reserves (NNRs); Sites of Special Scientific Interest (SSSIs); Special Areas of Conservation (SAC); and Special Protection Areas (SPAs) contain examples of some of the most important natural and semi-natural ecosystems in Europe and receive strict protection under United Kingdom (UK) legislation. Although not strictly protected under legislation, Ramsar sites are given the same level of protection through policy.

#### Non-Statutory Sites

2.1.3 Non-statutory sites of county conservation value are designated by Local Planning Authorities (LPAs); these are known as Local Wildlife Sites (LWS). Such sites are afforded a measure of protection in local development plans.

#### Protected Species



2.1.4 Under UK legislation, a number of species, including bats *Chiroptera* sp. and great crested newts *Triturus cristatus* are strictly protected from death, injury or harm; whilst places used for their shelter or rest are protected from damage, disturbance and destruction. Certain species such as some reptiles and birds only receive partial protection under UK legislation, e.g. protection from killing / injuring only or protection at certain times of the year only.

#### Invasive Weeds

2.1.5 The WCA 1981 makes it an offence to plant or otherwise cause to grow in the wild numerous species including Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum*.

#### Non-Statutory Policies

2.1.6 The UK Biodiversity Action Plan (UK BAP) was established in response to the global Convention on Biological Diversity, 1992. Individual Action Plans define actions and measures to meet the conservation objectives defined in the strategy and specify measurable targets. They determine the broad habitats and species that are of value to the natural environment of the UK and identify actions and projects that could be undertaken to help protect or enhance the national biodiversity.

2.1.7 Local Biodiversity Action Plans (LBAPs) are implemented through planning policy, identifying habitats and species in need of conservation action at the local or regional level. BAPs in the UK have no statutory status but provide a framework for implementing conservation requirements.

#### **Planning Policy**

##### National Planning Policy

##### National Planning Policy Framework

2.1.8 The following objectives relating to biodiversity conservation are considered relevant to this assessment. The National Planning Policy Framework (NPPF) seeks to:

- Protect and enhance valued landscapes, geological conservation interests and soils;
- Recognise the wider benefits of ecosystem services;
- Minimise impacts on biodiversity and provide net gains in biodiversity, where possible, contribute to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- Prevent both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability;
- Remediate and mitigate despoiled, degraded, derelict, contaminated and unstable land, where appropriate; and
- Prevent the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss.



### 3 METHODOLOGY

### 3.1 Data Search

3.1.1 A review of the Government's MAGIC website was undertaken for the location and extent of statutory protected sites within 2km of the Site, extending to 10km in the case of Natura 2000 sites.

### 3.2 Habitat Survey

- 3.2.1 An ‘extended’ Phase 1 Habitat Survey was carried out on 17<sup>th</sup> August 2023 and 22<sup>nd</sup> May 2024, with a verification site visit undertaken on 11<sup>th</sup> March 2025; these followed the methodology presented by the JNCC (2010). The Phase 1 technique aims to classify each habitat into categories based on the assemblage of plant species present, with the dominant plant species for each habitat being noted. In some cases, sub-divisions or modifications of the standard categories can be made where this is useful in providing further detail.
- 3.2.2 An ‘extended’ form of the basic methodology was employed to determine whether any notable or protected species of fauna utilise the study area, in particular [REDACTED] bats, amphibians, reptiles and birds. In the absence of direct evidence of these species, an assessment was made on the potential for the site to support such species.
- 3.2.3 Additional data on certain vegetation parameters were also collected during the site survey to allow the Defra Biodiversity Net Gain metric to be completed.

3.3

1

For more information, contact the Office of the Vice President for Research and Economic Development at 505-272-2311 or [research@unm.edu](mailto:research@unm.edu).

1

Digitized by srujanika@gmail.com

1

© 2019 Pearson Education, Inc.

■ **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13** **14** **15** **16** **17** **18** **19** **20** **21** **22** **23** **24** **25** **26** **27** **28** **29** **30** **31** **32** **33** **34** **35** **36** **37** **38** **39** **40** **41** **42** **43** **44** **45** **46** **47** **48** **49** **50** **51** **52** **53** **54** **55** **56** **57** **58** **59** **60** **61** **62** **63** **64** **65** **66** **67** **68** **69** **70** **71** **72** **73** **74** **75** **76** **77** **78** **79** **80** **81** **82** **83** **84** **85** **86** **87** **88** **89** **90** **91** **92** **93** **94** **95** **96** **97** **98** **99** **100** **101** **102** **103** **104** **105** **106** **107** **108** **109** **110** **111** **112** **113** **114** **115** **116** **117** **118** **119** **120** **121** **122** **123** **124** **125** **126** **127** **128** **129** **130** **131** **132** **133** **134** **135** **136** **137** **138** **139** **140** **141** **142** **143** **144** **145** **146** **147** **148** **149** **150** **151** **152** **153** **154** **155** **156** **157** **158** **159** **160** **161** **162** **163** **164** **165** **166** **167** **168** **169** **170** **171** **172** **173** **174** **175** **176** **177** **178** **179** **180** **181** **182** **183** **184** **185** **186** **187** **188** **189** **190** **191** **192** **193** **194** **195** **196** **197** **198** **199** **200** **201** **202** **203** **204** **205** **206** **207** **208** **209** **210** **211** **212** **213** **214** **215** **216** **217** **218** **219** **220** **221** **222** **223** **224** **225** **226** **227** **228** **229** **230** **231** **232** **233** **234** **235** **236** **237** **238** **239** **240** **241** **242** **243** **244** **245** **246** **247** **248** **249** **250** **251** **252** **253** **254** **255** **256** **257** **258** **259** **260** **261** **262** **263** **264** **265** **266** **267** **268** **269** **270** **271** **272** **273** **274** **275** **276** **277** **278** **279** **280** **281** **282** **283** **284** **285** **286** **287** **288** **289** **290** **291** **292** **293** **294** **295** **296** **297** **298** **299** **300** **301** **302** **303** **304** **305** **306** **307** **308** **309** **310** **311** **312** **313** **314** **315** **316** **317** **318** **319** **320** **321** **322** **323** **324** **325** **326** **327** **328** **329** **330** **331** **332** **333** **334** **335** **336** **337** **338** **339** **340** **341** **342** **343** **344** **345** **346** **347** **348** **349** **350** **351** **352** **353** **354** **355** **356** **357** **358** **359** **360** **361** **362** **363** **364** **365** **366** **367** **368** **369** **370** **371** **372** **373** **374** **375** **376** **377** **378** **379** **380** **381** **382** **383** **384** **385** **386** **387** **388** **389** **390** **391** **392** **393** **394** **395** **396** **397** **398** **399** **400** **401** **402** **403** **404** **405** **406** **407** **408** **409** **410** **411** **412** **413** **414** **415** **416** **417** **418** **419** **420** **421** **422** **423** **424** **425** **426** **427** **428** **429** **430** **431** **432** **433** **434** **435** **436** **437** **438** **439** **440** **441** **442** **443** **444** **445** **446** **447** **448** **449** **450** **451** **452** **453** **454** **455** **456** **457** **458** **459** **460** **461** **462** **463** **464** **465** **466** **467** **468** **469** **470** **471** **472** **473** **474** **475** **476** **477** **478** **479** **480** **481** **482** **483** **484** **485** **486** **487** **488** **489** **490** **491** **492** **493** **494** **495** **496** **497** **498** **499** **500** **501** **502** **503** **504** **505** **506** **507** **508** **509** **510** **511** **512** **513** **514** **515** **516** **517** **518** **519** **520** **521** **522** **523** **524** **525** **526** **527** **528** **529** **530** **531** **532** **533** **534** **535** **536** **537** **538** **539** **540** **541** **542** **543** **544** **545** **546** **547** **548** **549** **550** **551** **552** **553** **554** **555** **556** **557** **558** **559** **560** **561** **562** **563** **564** **565** **566** **567** **568** **569** **570** **571** **572** **573** **574** **575** **576** **577** **578** **579** **580** **581** **582** **583** **584** **585** **586** **587** **588** **589** **590** **591** **592** **593** **594** **595** **596** **597** **598** **599** **600** **601** **602** **603** **604** **605** **606** **607** **608** **609** **610** **611** **612** **613** **614** **615** **616** **617** **618** **619** **620** **621** **622** **623** **624** **625** **626** **627** **628** **629** **630** **631** **632** **633** **634** **635** **636** **637** **638** **639** **640** **641** **642** **643** **644** **645** **646** **647** **648** **649** **650** **651** **652** **653** **654** **655** **656** **657** **658** **659** **660** **661** **662** **663** **664** **665** **666** **667** **668** **669** **670** **671** **672** **673** **674** **675** **676** **677** **678** **679** **680** **681** **682** **683** **684** **685** **686** **687** **688** **689** **690** **691** **692** **693** **694** **695** **696** **697** **698** **699** **700** **701** **702** **703** **704** **705** **706** **707** **708** **709** **710** **711** **712** **713** **714** **715** **716** **717** **718** **719** **720** **721** **722** **723** **724** **725** **726** **727** **728** **729** **730** **731** **732** **733** **734** **735** **736** **737** **738** **739** **740** **741** **742** **743** **744** **745** **746** **747** **748** **749** **750** **751** **752** **753** **754** **755** **756** **757** **758** **759** **760** **761** **762** **763** **764** **765** **766** **767** **768** **769** **770** **771** **772** **773** **774** **775** **776** **777** **778** **779** **780** **781** **782** **783** **784** **785** **786** **787** **788** **789** **790** **791** **792** **793** **794** **795** **796** **797** **798** **799** **800** **801** **802** **803** **804** **805** **806** **807** **808** **809** **8010** **8011** **8012** **8013** **8014** **8015** **8016** **8017** **8018** **8019** **8020** **8021** **8022** **8023** **8024** **8025** **8026** **8027** **8028** **8029** **8030** **8031** **8032** **8033** **8034** **8035** **8036** **8037** **8038** **8039** **8040** **8041** **8042** **8043** **8044** **8045** **8046** **8047** **8048** **8049** **8050** **8051** **8052** **8053** **8054** **8055** **8056** **8057** **8058** **8059** **8060** **8061** **8062** **8063** **8064** **8065** **8066** **8067** **8068** **8069** **8070** **8071** **8072** **8073** **8074** **8075** **8076** **8077** **8078** **8079** **8080** **8081** **8082** **8083** **8084** **8085** **8086** **8087** **8088** **8089** **8090** **8091** **8092** **8093** **8094** **8095** **8096** **8097** **8098** **8099** **80100** **80101** **80102** **80103** **80104** **80105** **80106** **80107** **80108** **80109** **80110** **80111** **80112** **80113** **80114** **80115** **80116** **80117** **80118** **80119** **80120** **80121** **80122** **80123** **80124** **80125** **80126** **80127** **80128** **80129** **80130** **80131** **80132** **80133** **80134** **80135** **80136** **80137** **80138** **80139** **80140** **80141** **80142** **80143** **80144** **80145** **80146** **80147** **80148** **80149** **80150** **80151** **80152** **80153** **80154** **80155** **80156** **80157** **80158** **80159** **80160** **80161** **80162** **80163** **80164** **80165** **80166** **80167** **80168** **80169** **80170** **80171** **80172** **80173** **80174** **80175** **80176** **80177** **80178** **80179** **80180** **80181** **80182** **80183** **80184** **80185** **80186** **80187** **80188** **80189** **80190** **80191** **80192** **80193** **80194** **80195** **80196** **80197** **80198** **80199** **80200** **80201** **80202** **80203** **80204** **80205** **80206** **80207** **80208** **80209** **80210** **80211** **80212** **80213** **80214** **80215** **80216** **80217** **80218** **80219** **80220** **80221** **80222** **80223** **80224** **80225** **80226** **80227** **80228** **80229** **80230** **80231** **80232** **80233** **80234** **80235** **80236** **80237** **80238** **80239** **80240** **80241** **80242** **80243** **80244** **80245** **80246** **80247** **80248** **80249** **80250** **80251** **80252** **80253** **80254** **80255** **80256** **80257** **80258** **80259** **80260** **80261** **80262** **80263** **80264** **80265** **80266** **80267** **80268** **80269** **80270** **80271** **80272** **80273** **80274** **80275** **80276** **80277** **80278** **80279** **80280** **80281** **80282** **80283** **80284** **80285** **80286** **80287** **80288** **80289** **80290** **80291** **80292** **80293** **80294** **80295** **80296** **80297** **80298** **80299** **80300** **80301** **80302** **80303** **80304** **80305** **80306** **80307** **80308** **80309** **80310** **80311** **80312** **80313** **80314** **80315** **80316** **80317** **80318** **80319** **80320** **80321** **80322** **80323** **80324** **80325** **80326** **80327** **80328** **80329** **80330** **80331** **80332** **80333** **80334** **80335** **80336** **80337** **80338** **80339** **80340** **80341** **80342** **80343** **80344** **80345** **80346** **80347** **80348** **80349** **80350** **80351** **80352** **80353** **80354** **80355** **80356** **80357** **80358** **80359** **80360** **80361** **80362** **80363** **80364** **80365** **80366** **80367** **80368** **80369** **80370** **80371** **80372** **80373** **80374** **80375** **80376** **80377** **80378** **80379** **80380** **80381** **80382** **80383** **80384** **80385** **80386** **80387** **80388** **80389** **80390** **80391** **80392** **80393** **80394** **80395** **80396** **80397** **80398** **80399** **80400** **80401** **80402** **80403** **80404** **80405** **80406** **80407** **80408** **80409** **80410** **80411** **80412** **80413** **80414** **80415** **80416** **80417** **80418** **80419** **80420** **80421** **80422** **80423** **80424** **80425** **80426** **80427** **80428** **80429** **80430** **80431** **80432** **80433** **80434** **80435** **80436** **80437** **80438** **80439** **80440** **80441** **80442** **80443** **80444** **80445** **80446** **80447** **80448** **80449** **80450** **80451** **80452** **80453** **80454** **80455** **80456** **80457** **80458** **80459** **80460** **80461** **80462** **80463** **80464** **80465** **80466** **80467** **80468** **80469** **80470** **80471** **80472** **80473** **80474** **80475** **80476** **80477** **80478** **80479** **80480** **80481** **80482** **80483** **80484** **80485** **80486** **80487** **80488**

■ [View Details](#) [Edit](#) [Delete](#)

For more information, contact the Office of the Vice President for Research and Economic Development at 319-273-2500 or [research@uiowa.edu](mailto:research@uiowa.edu).

3.4 Reptile survey

- 3.4.1 During the Phase 1 Habitat survey, potentially suitable reptile habitat was identified, hence it was deemed appropriate to undertake a species-specific survey of this taxon.
- 3.4.2 A total of 35 refugia, consisting of heavy-duty roofing felt approximately 0.5m<sup>2</sup>, were placed across the Site in line with best practice survey guidance. To maximise the efficiency of the survey the refugia were concentrated in areas which appeared to be more likely to support reptiles which was deemed to be the edges of the fields. The Site covers 2.4ha, hence the placement of 35 refugia results in a density slightly above that recommended by Froglife (1999) of 10ha<sup>-1</sup>; this allows for some loss or damage to the refugia during the course of the survey without affecting the results significantly.
- 3.4.3 The refugia generally heat up quicker than the surrounding environment, which makes them attractive to reptiles which need to attain a certain body temperature to hunt effectively. Thus, careful inspection of the refugia results in a more effective way to locate these often-elusive animals.
- 3.4.4 The refugia were placed on Site on the 21st May 2024 and allowed to 'bed in' for at 10 days before the survey proper began. The refugia were checked on seven occasions throughout the survey period, on suitable days, which are classified as sunny, or partially sunny days, with little or no wind and an air temperature between 8°C and 19°C, as summarised in Table 1.

**Table 1.**Reptile Survey Dates and Conditions

Visit No.	Date	Weather
1	01/06/24	13°C, sunny, no cloud
2	08/06/24	15°C, 2/8 cloud
3	16/06/24	14°C, 1/8 cloud, light wind
4	18/06/24	16°C, sunny, 4/8 cloud
5	21/06/24	13°C, sunny, 2/8cloud
6	01/07/24	14°C, sunny, no cloud
7	10/07/24	17°C, sunny, 1/8 cloud

3.5 Bat Survey

*Night Time Walkover Surveys (NTWS)*

- 3.5.1 The methodology for the activity surveys was based on that outlined within the Bat Conservation Trust guidelines (BCT 2023), modified to meet the specific site requirements. The aim of the survey was to provide an indication of the level of bat activity within the study area, the species present and their distribution.



3.5.2 Six NTWS have been undertaken across the Site on the dates shown in Table 2. The surveys commenced approximately 15 minutes prior to sunset and concluded one and half hours after sunset. On each survey event, the surveyor was positioned at the south of the central tree line, where bat activity was likely to be greatest. Forty-five minutes after sunset, when commuting appeared to have ceased, the surveyor walked a continuous transect along a predetermined route, noting bat activity enroute. The surveyor was equipped with an 'Echo Meter Touch Pro 2' bat detector and a pair of 'Hikmicro Habrok 4K HE25L' infra-red and thermal imaging binoculars. The Echo Meter Touch Pro 2 allows bat calls to be recorded in both full spectrum and heterodyne; any bat calls can then be analysed using specific software where necessary.

**Table 2.** Bat Activity Survey Dates

Date	Sunset	Start time	Temperature	Weather
21/05/24	20:30	20:15	13°C	Dry, light breeze
17/06/24	21:20	21:00	12°C	Clear, moderate breeze
12/07/24	21:09	20:55	14 °C	1/8 cloud, light wind
05/08/24	20:44	20:30	17 °C	2/8 cloud, light wind
23/08/24	19:58	19:35	12°C	No cloud, light wind
13/09/24	19:14	18:50	15°C	No cloud, light wind

### *Static Surveys*

3.5.3 In addition to the activity surveys, an Anabat Swift static detectors was placed within the branches of a suitable tree on four occasions as summarised in Table 3.

**Table 3.** Static Detector Deployment Dates and Weather

Dates	Min/Max overnight temp	Other comments
21/05 – 06/05/24	10°C /15°C	
12/06 – 17/06/24	8°C /14°C	Light precipitation on evening of 15/06
09/07 – 14/07/24	12°C /17°C	Light precipitation on evening of 10 & 11/07
03/08 – 08/08/24	12°C /16°C	

3.5.4 A 2m microphone extension lead was used to ensure the microphone was located within the optimum presumed flight path of any foraging bats.

3.5.5 The data from the detectors were analysed using Anabat Insight with *BatClassify UK AutoID*, with the ID Tag Certainty Threshold set at 80%. For the commoner species (common pipistrelle and soprano pipistrelle) one in every ten recordings was checked manually, with recordings being compared to those presented by Russ (2012); for the more uncommon species, every recording was checked manually.

3.5.6 Given the size of the Site and the habitats present, the level of bat survey was deemed sufficient.



### 3.6 Survey Constraints

- 3.6.1 Phase 1 survey can be undertaken at any time of the year with August and May being considered to be some of the more suitable months, hence, confidence in the results is high.
- 3.6.2 The assessment was undertaken in line with the latest sectoral guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM), as well as BS 42020: 2013 *Biodiversity – Code of Practice for Planning and Development*.
- 3.6.3 All survey work was undertaken by Derek Finnie MSc DipCons CEnv MIEnvSc MCIEEM, Director of Derek Finnie Associates who has over 30 years as a practicing ecologist.

## 4 SITE DESCRIPTION

### 4.1 Desk Study

#### ***Designated Sites***

4.1.1 No designated sites of nature conservation value occur within the site boundary; there are no other statutory designated sites within 2km of the Site.

### 4.2 Phase 1 Survey

4.2.1 The Site comprises two relatively small fields, separated by a line of semi-mature trees running more or less north to south. Both fields support species poor grassland with varying amount of tall ruderal habitat. From reviewing aerial photography, it is apparent the western field was used as a site compound during the construction of the wider Broadbridge Heath development and was bare soil until as late as June 2021.

4.2.2 The following Phase 1 habitats were identified within the Site:

- Linear belt of trees;
- Scrub;
- Semi-improved grassland; and
- Ruderal vegetation;

4.2.3 Each habitat is described in turn below and depicted on Figure 1.

#### ***Liner belt of trees***

4.2.4 A line of semi-mature trees runs more or less north to south through the centre of the Site. Here oak *Quercus* sp. and ash *Fraxinus excelsior* were noted, with both hawthorn *Crataegus monogyna*, blackthorn *Prunus spinosa* and holly *Ilex aquilinum* present as an understorey.

4.2.5 A wet ditch runs north to south down the centre of the tree line, with patches of pendulous sedge *Carex pendulous* noted.

4.2.6 This linear belt of tree appears on the 1880 OS maps a field boundary hedgerow with tree, suggesting it is least 150 years old.

#### ***Scrub***

4.2.7 There are several patches of scrub through both the western and eastern field, where bramble *Rubus fruticosus* agg., is the dominant species. Further, scattered scrub, comprising willow *Salix* saplings, with some ash also present along the north eastern boundary.

### **Species-poor, semi-improved grassland**

4.2.8 Semi-improved grassland is the most abundant habitat type within the Site, accounting of approximately 75% of the Site area.

4.2.9 Within the western field, species poor grassland in intermixed with tall ruderal habitat. Given that this part of the Site was bare ground until 2021, it is likely the current species assemblage represents a transition between a tall ruderal habitat and semi-improved grassland habitats. The components of the former habitat are described under the ruderal section below, whilst the latter habitat is represented by species such as perennial rye grass *Lolium perenne*, cock's-foot *Dactylis glomerata*, common bent *Agrostis capillaris* and fescue *Festuca* sp. Grassland forbs are moderately within the sward, and include creeping buttercup *Ranunculus repens*, common mouse ear *Cerastium fontanum*, white clover *Trifolium repens*, St John's wort *Hypericum perforatum*, tufted vetch *Vicia cracca*, and ribwort plantain *Plantago lanceolata*.

4.2.10 The eastern field displayed a lower level of tall ruderal species, being dominated by semi-improved grassland species such as false oat grass *Arrhenatherum elatius*, cock's-foot, creeping bent, dandelion *Taraxacum officinale* and creeping buttercup,

### **Ruderal**

4.2.11 Within the western field are numerous species associate with a tall ruderal habitat including mugwort *Artemisia vulgaris*, coltsfoot *Tussilago farfara*, ragwort *Senecio jacobaea*, prickly sow thistle *Sonchus asper*, common fleabane *Pulicaria dysenterica*, broad-leaved dock *Rumex obtusifolius* and creeping thistle *Cirsium repens*.

### **Ditches**

4.2.12 A dry ditch runs east to west through the northern section of the Site. Whilst a wet ditch runs north to south through the central linear belt of trees.

### **4.3 Fauna**

[REDACTED]

[REDACTED]

### **Amphibians**

4.3.2 There are no waterbodies within the Site and none in the wider area with direct habitat connectivity to the Site, hence the potential for terrestrial phase amphibians to be present is assessed to be negligible.

### **Reptiles**

4.3.3 No reptiles were encountered throughout the survey. Given that the site is relatively isolated by existing road and residential developments, this is not unexpected.

### **Bats**

4.3.4 There are no buildings within the Site or other structures within the Site that could support roosting bats. The semi-mature trees running through the centre of the Site possess some features that may be exploited by roosting bats. At least one tree was noted to contain a Schwegler 2FN bat box, whilst further bat boxes were noted on treed some 100m to the south. There were presumably installed as part of the ecological enhancements conducted as part of the wider development.

4.3.5 The NTWS realised a impoverished bat assemblage with only three species of bat being encountered, namely common pipistrelle, soprano pipistrelle, and noctule

4.3.6 Up to three common pipistrelle were noted foraging up and down the linear tree belt of from 15 -20 minutes after sunset, suggesting the roost is nearby, but unlikely to be within the Site given the timings of the bats first registrations after sunset. A single soprano pipistrelle was all noted in this area on three occasions.

4.3.7 A summary of bat registration encountered during the part of the surveys is present in Table 4.

**Table 4.** Summary of Bat registrations during transect.

Species	21/05/24	17/06/24	12/07/24	05/08/24	23/08/24	13/09/24
Common pipistrelle	8	11	6	4	9	12
Soprano pipistrelle	3	2	1	2	3	1
Noctule	1	-	-	2	1	3

4.3.8 The result of the static surveys mirror those of the NTWS, although *Myotis* sp. were also record as summarised in Tale 5.

**Table 5.** Summary of Bat Registrations per Night

Species	21/05 – 06/05/24	12/06 – 17/06/24	09/07 – 14/07/24	03/08 – 08/08/24
Common pipistrelle	182	69	131	196
Soprano pipistrelle	21	18	33	24
Noctule	6	12	5	17
<i>Myotis</i> sp.	1	1	-	2

### **Birds**

4.3.9 The Site may support a limited number of bird species associated with the urban environment.

***Other fauna***

4.3.10 No other specially protected species, or species of a raised conservation status were encountered throughout the Site survey.

## 5 EVALUATION

### 5.1 Definition of ecological value

5.1.1 A geographical scale of reference is used when evaluating ecological receptors within a Site, in line with the latest sectoral guidance presented by CIEEM (2018), as summarised in Table 5. The evaluation categories for each receptor have generally been reached by applying accepted criteria, such as naturalness, rarity, fragility and diversity, first proposed by Ratcliffe (1977) and commonly used in the assessment of both statutory and non-statutory sites.

5.1.2 Where sites have already been designated on ecological grounds, the assessment reflects the geographical context of the designations. For example, sites designated under international legislation or treaties are assessed to be of International value, whilst sites designated under UK legislation are of National value.

5.1.3 Consideration is also given to legal protection afforded to any ecological receptor within the Site, as are species or habitats identified as 'priorities' for biodiversity conservation in the UK. Local Planning Authorities will often have a duty to consider such species or habitats throughout the planning process, hence their presence within a site is a material consideration.

5.1.4 Further frames of reference for individual species are provided by the Red Data Book system, such as the Vascular Plant Red Data List for Great Britain (Cheffings and Farrell 2006) or for birds by reference to the Birds of Conservation Concern (Stanbury *et al.* 2021).

**Table 6. Ecological Evaluation Criteria**

Value/Importance	Criteria
International (European)	<p><b>Habitats</b> An internationally designated Site or candidate Site (Special Protection Area [SPA]), provisional SPA, Special Areas of Conservation (SAC), candidate SAC, Ramsar Site, Biogenetic / Biosphere Reserve, World Heritage Site or an area that would meet the published selection criteria for designation. A viable area of a habitat type listed in Annex I of the Habitats Directive, or smaller areas of such habitat, which are essential to maintain the viability of a larger whole.</p> <p><b>Species</b> Any regularly occurring population of internationally important species, threatened or rare in the UK (i.e. a UK Red Data Book species) or, of uncertain conservation status or, of global conservation concern. A regularly occurring, nationally significant population/number of an internationally important species.</p>
National (English)	<p><b>Habitats</b> A nationally designated Site (Site of Special Scientific Interest [SSSI], National Nature Reserve [NNR], Marine Nature Reserve [MNR] or a discrete area), which would meet the published selection criteria for national designation (e.g. SSSI selection guidelines).</p> <p><b>Species</b> A regularly occurring, regionally or county significant population/number of an internationally/nationally important species. Any regularly occurring population of a nationally important species, threatened or rare in the region or county.</p>
Regional	<b>Habitats</b>

Value/Importance	Criteria
(South east)	<p>Sites that exceed County-level designations but fall short of SSSI selection criteria.</p> <p><b>Species</b></p> <p>Any regularly occurring, locally significant population of a species listed as being nationally scarce, which occurs in 16 of 100 10km<sup>2</sup> squares in the UK. A regularly occurring, locally significant population / number of a regionally important species. Sites maintaining populations of internationally/nationally important species that are not threatened or rare in the region or county.</p>
Authority Area (e.g. County or District)	<p><b>Habitats</b></p> <p>Sites recognised by local authorities, e.g. Local Wildlife Sites (LWS). County/District Sites that the designating authority has determined meet the published ecological selection criteria for designation, including Local Nature Reserves (LNR). A diverse and/or ecologically valuable hedgerow network. Semi-natural ancient woodland greater than 0.25ha.</p> <p><b>Species</b></p> <p>Any regularly occurring, locally significant population of a considered regional rarity or localisation. Sites supporting populations of internationally/nationally/regionally important species that are not threatened or rare in the region or county, and not integral to maintaining those populations. Sites/features scarce in the County / District or that appreciably enrich the County/District habitat resource.</p>
Local (immediate local area or village importance)	<p><b>Habitats</b></p> <p>Areas of habitat that appreciably enrich the local habitat resource (e.g. species-rich hedgerows, ponds etc). Sites that retain other elements of semi-natural vegetation that due to their size, quality or the wide distribution within the local area are not considered for the above classifications. Semi-natural ancient woodland smaller than 0.25 ha.</p> <p><b>Species</b></p> <p>Populations/assemblages of species that appreciable enrich the biodiversity resource within the local context. Sites supporting populations of county/district important species that are not threatened or rare in the region or county and are not integral to maintaining those populations.</p>
Site level (Limited ecological importance)	Sites that retain habitats and/or species of limited ecological importance due to their size, species composition or other factors.

## 5.2 Site Evaluation

- 5.2.1 No part of the Site or the immediate surrounding area is covered by any form of designation on conservation grounds.
- 5.2.2 The Site is dominated by semi-improved grassland which displays a low species richness, and comprises common, widespread species which are likely to be frequent in the wider area. Thus, the grassland habitat has been assessed as being of **Negligible** ecological value.
- 5.2.3 The linear belt of tree through the centre of the Site offers some ecological value in its own right, improving the connectivity with the wider environment. Although the green corridor terminates more or less on the northern boundary of the Site being bisected by Broadbridge Way, and to the south by the A246. Hence, they would be assessed as being of **Site** value. The wet ditch that runs though the woodland belt also increase ecological permeability to would also be classed as being of **Site** value.



- 5.2.4 The scrub and tall ruderal have been assessed as being of **Negligible** value.
- 5.2.5 The bat assemblage within the Site would be assessed to be of **Local** value using the criteria presented by Wray et al (2010).

## 6 PREDICTED IMPACTS, MITIGATION AND ENHANCEMENTS

### 6.1 Predicted Impacts

- 6.1.1 The construction of the scheme would lead to the loss of the vast majority of the semi-improved grassland and much of the bramble scrub. As both of the habitats have been assessed to be of **Negligible** value, this would lead to a non-significant impact.
- 6.1.2 The scheme will also result in the removal of 25 individual trees and part of two groups of trees (See ACD's AIA for further details). The vast majority of these trees are immature, self-seeded specimens of little ecological value. Therefore, the partial loss of the tree component with the site, which has been evaluated as being of Site value, would result, in the absence of mitigation, in an **adverse** impact the lower end of the **Site** scale of significance.
- 6.1.3 No known roosts would be directly impacted as a result of the scheme. Light spill from the operation of the scheme has the potential to adversely impact foraging and commuting bats, which, in the absence of mitigation, could lead to a permanent, adverse impact at a **Site** level.
- 6.1.4 Although difficult to quantify, the potential for localised increased levels of predation by domestic pets on birds is anticipated. In the absence of mitigation, this may result in an adverse impact at a **Site** scale on breeding bird populations.

### 6.2 Mitigation and Enhancements

- 6.2.1 Habitat creation and ecological enhancements have been considered from the outset, with the landscape design being developed with input from the ecology team from the start.
- 6.2.2 The main features of ecological value within the application site boundary, namely the linear tree belts, will be retained and enhanced wherever possible.
- 6.2.3 The location and extent of each of the above habitats is indicatively shown on the Landscape Strategy drawing prepared by Finc Landscape Architects submitted with this application.
- 6.2.4 The tree planting will also provide new foraging and nesting opportunities for breeding birds. This will be supplemented by the installation of an appropriate number of nest boxes of varying designs in retained trees around the Site. As will additional bat roosting opportunities.
- 6.2.5 However, given the constraints within the Site it is not possible to provide an increase in the Biodiversity Value of the Site. The Defra Biodiversity metric submitted with the Application provides the baseline value of the Site. When the future scenario is considered, there is a significant reduction in the BNG value. Hence offsite options will be considered to ensure that a 10% increase in BNG is realised as a result of the scheme.

6.2.6 An Ecology Management Plan will be devised for the site to ensure that the maximum ecological benefits are realised on a long term, sustainable manner and that the predicted increase in the BNG of the site is delivered.

## REFERENCES

BCT. 2023. *Bat Surveys for Professional Ecologists: Good Practice Guidelines. Fourth Edition.* Bat Conservation Trust, London.

Bright, P., Morris, P. and Mitchell-Jones, T. 2006. *Dormouse Conservation Handbook. Second edition.* English Nature, Peterborough.

Charter Institute of Ecology and Environmental Management (CIEEM) 2018. *Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland. Third Edition.* CIEEM, Winchester.

Charter Institute of Ecology and Environmental Management (CIEEM) 2018. *On the Lifespan of Ecology Reports and Data: Advice Note.* CIEEM, Winchester.

Cheffings, C.M. & Farrell, L. (eds), 2005. *The Vascular Plant Red Data List for Great Britain.* Joint Nature Conservation Committee.

JNCC 2010. *Handbook for Phase 1 habitat survey - A technique for environmental audit.* Joint Nature Conservation Committee, Peterborough.

Oldham, R. S., Keeble, J., Swan, M.J.S and Jeffcote, M. 2000. Evaluating the suitability of Habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal.* **10:** 143 – 155.

Ratcliffe. D.R. 1977 *A Nature Conservation Review (Volumes 1 & 2).* Cambridge University Press.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* **114:** 723-747

