



Drew Purves

Preliminary Ecological Appraisal

Land to East of Downham Road and West of Mill Road

Watlington, Norfolk

Project number 546

Version 1

April 2019

South and South East

 0330 2233 806

 southeast@primeenvironment.co.uk

Midlands and North

 0330 2233 825

 central@primeenvironment.co.uk

Profile

Prime Environment was established in 2014 to provide environmental support to businesses.

We specialise in development projects across a range of sectors including education, health, residential, care, minerals, transport and energy.

Our two offices in Derbyshire and Cambridgeshire and network of associates allow us to lead projects across the UK.

We deliver surveys, reports, licences and mitigation for projects ranging in size from single dwelling to multi-phase, mixed use developments.

The principal disciplines in which we work are ecology and arboriculture.

To discuss how we can help you with your project, contact us on:

Midlands and North

central@primeenvironment.co.uk
Tel: 0330 2233825

South and South East

southeast@primeenvironment.co.uk
Tel: 0330 2233806



Document control

Project Information	
Client	Drew Purves
Project Name	Land to East of Downham Road and West of Mill Road
Project Number	546
Project Type	Preliminary Ecological Appraisal
Project Location	Watlington, Norfolk
Project Manager	Hayley Farnell
Principal Author	Hayley Farnell
Managing Office	Cambridge

Report Issue	Notes	Author	Date	Reviewer	Date
01	Original document to client.	Hayley Farnell	12/04/2019	Jo Pedder	24/04/2019
02					
03					
04					
05					

Copyright Prime Environment Limited. All rights reserved.

No part of this report may be copied or reproduced by any means without prior written permission from Prime Environment Limited.

This report has been prepared for the exclusive use of the commissioning party and, unless otherwise agreed in writing by Prime Environment Limited, no other party may use, make use of, or rely on the contents of the report. No liability is accepted by Prime Environment Limited for any use of this report, other than for the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of Prime Environment Limited using due skill, care and diligence in the preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Prime Environment Limited has been made.

Any legal information provided by Prime Environment Limited is an outline only, intended for general information and does not constitute legal advice. Consult the original legal documents and/or seek legal advice for definitive interpretation.

Non-technical summary

Non-Technical Summary
Background
In March 2019, Prime Environment Limited was instructed by Drew Purves to undertake a Preliminary Ecological Appraisal of Land to East of Downham Road and West of Mill Road, Watlington, Norfolk (Ordnance Survey (OS) Grid Reference TF 62145 10763).
Aims
Identify and map the habitats within the Site boundaries (where access was available). Identify the suitability of the habitats to support protected and important species. Identify the ecological opportunities and constraints that may arise including the WAT1 allocation in the local plan Assess whether the allocation of WAT1 for development is in line with Local and National Planning Policy.
Site Description
The Site is approximately 6.4 hectares and comprises grassland fields, scrub, tall ruderal and scattered trees.
Development Proposals
The borough of King's Lynn and West Norfolk are currently undertaking a review of their emerging local plan, in which Watlington has been identified as a growth key rural service centre. A consultation for local residents is currently being held between the 4th March and the 29th April 2019. The Client has commissioned Prime Environment to undertake a PEA at the Site to provide information regarding the ecology which they can submit as part of their consultation response. The Site is identified as WAT1 - Watlington - Land to East of Downham Road and West of Mill Road and is allocated for residential development of at least 115 dwellings in the emerging local plan.
Information used for the assessment
Desk study Extended Phase 1 habitat survey Local Plan Review Document – March 2019
Summary
The habitats are common and widespread however the matrix of habitats on the Site and strong green connections to the wider landscape make them suitable to support protected and priority species such as amphibians, reptiles, nesting birds, bats and hedgehogs. There are opportunities for the habitats to be improved and create an even more diverse space for wildlife and the local community whilst bringing it in line with aims of national and local policies. However, as it stands the allocation of WAT1 is unlikely to meet local and national planning policy.

Contents

1	INTRODUCTION	1
1.1	Terms of Reference	1
1.2	Aims and Objectives	1
2	METHODOLOGY	2
2.1	Personnel.....	2
2.2	PEA.....	2
2.3	Desk Study.....	3
2.4	Extended Phase 1 Habitat Survey	3
2.5	Great Crested Newt Pond HSI.....	4
2.6	Survey Constraints.....	4
3	BASELINE.....	5
3.1	Surrounding Area.....	5
3.2	Site's Habitats.....	8
3.3	Species Accounts.....	11
4	ASSESSMENT.....	15
4.1	Summary of constraints.....	15
4.2	Assessment of Allocation	15
4.3	Ecological Opportunities.....	16
4.4	Conclusion	16
	APPENDIX 1 LEGISLATION, POLICY AND BEST PRACTICE	17
	APPENDIX 2 STAFF SUMMARIES	24
	APPENDIX 3 PHOTOS	25
	APPENDIX 4 RESULTS / RAW DATA	27
	APPENDIX 5 TARGET NOTES AND PLANS	30
	Figures	
	Figure 1 – Site Location	5
	Tables	
	Table 1 - HSI scores and suitability of ponds for GCN	4
	Table 2 – Designated Wildlife Sites	6
	Table 3 – Species Scoping	11
	Table 4 - Trees with Features Suitable for use by Roosting Bats.....	14
	Table 5 - Summary of Primary Legislation in the UK.....	17
	Table 6 - Flora Recorded.....	27
	Table 7 – Habitat Suitability Index (HSI)	29
	Table 8 – Target Notes.....	30

1 Introduction

1.1 Terms of Reference

In March 2019, Prime Environment Limited (Prime Environment) was instructed by Drew Purves (the Client) to undertake a Preliminary Ecological Appraisal (PEA) of Land to East of Downham Road and West of Mill Road, Watlington, Norfolk (Ordnance Survey (OS) grid Reference TF 62145 10763) (The Site).

Preliminary Ecological Appraisal (PEA) is the term used to describe a rapid assessment of the ecological features present, or potentially present, within a site and its surrounding area (the zone(s) of influence in relation to a specific project (in this case a the project is the potential designation of the Site within the Planning Authorities Emerging Local Plan).

Information for the assessment was obtained from:

- Desk study
- Extended Phase 1 habitat survey
- Local Plan Review Document – March 2019

The Site is approximately 6.4 hectares and comprises grassland fields, scrub, tall ruderal and scattered trees.

The borough of King's Lynn and West Norfolk are currently undertaking a review of their emerging local plan¹, in which Watlington has been identified as a growth key rural service centre. A consultation for local residents is currently being held between the 4th March and the 29th April 2019. The Client has commissioned Prime Environment to undertake a PEA at the Site to provide information regarding the ecology which they can submit as part of their consultation response.

The Site is identified as WAT1 - Watlington - Land to East of Downham Road and West of Mill Road and is allocated for residential development of at least 115 dwellings in the emerging local plan.

1.2 Aims and Objectives

The aims of the study were to:

- Identify and map the habitats within the Site boundaries (where access was available).
- Identify the suitability of the habitats to support protected and important species.
- Identify the ecological opportunities and constraints that may arise including the WAT1 allocation in the local plan
- Assess whether the allocation of WAT1 for development is in line with Local and National Planning Policy.

¹ Borough Council of King's Lynn and Norfolk (2019) *Local Development Plan Review 2019*

2 Methodology

2.1 Personnel

This assessment has been led and reported by Hayley Farnell

Relevant staff CVs are provided in Appendix 2.

2.2 PEA

PEAs are undertaken following guidance set out by CIEEM.²

The process involves establishing a baseline, identifying constraints and identifying opportunities for enhancement. In line with best practice, the level of detail on constraints and opportunities in this report is proportionate to:

- The predicted degree of risk to biodiversity.
- The nature and scale of the project.
- The complexity of the ecological feature concerned.

2.2.1 Important ecological features

The term 'ecological features' is used to cover habitats, species and ecosystems. The following have been used to define 'important' ecological features for this assessment:

Designated Sites

- Statutory sites designated or classified under international conventions or European legislation, for example:
 - World Heritage Sites
 - Biosphere Reserves
 - Wetlands of International Importance (Ramsar Sites)
 - Special Areas of Conservation
 - Special Protection Areas
- Statutory sites designated under national legislation, for example:
 - Sites of Special Scientific Interest.
 - National Nature Reserves (UK).
 - Local Nature Reserves (UK).
- Locally designated wildlife sites.

Species Lists

- Species or habitats listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006: Habitats or Species of Principal Importance (HPI or SPI) are recognised in the National Planning Policy Framework and important at a national scale.
- Country and Local Biodiversity Lists.

² CIEEM (2017) Guidelines for Preliminary Ecological Appraisal Second Edition

- Species of conservation concern, Red Data Book (RDB) species³.
- Species listed under Schedule 1 (birds), Schedule 5 (animals) or Schedule 8 (plants) of the Wildlife and Countryside Act.
- Species listed under Schedule 2 (animals) or Schedule 5 (plants) of the Habitat Regulations 2010 (European Protected Species EPS).
- Birds of Conservation Concern 4⁴ (2015): provides guidance on the conservation status of UK bird species. Red status species are those species of highest conservation concern and green status species are those of low or no conservation concern. Amber status species are those species of some conservation concern.
- Nationally rare and nationally scarce species⁵.

2.2.2 Baseline

The designated nature conservation sites that are within 2 km are identified. An assessment is also made of the likely importance of the species and habitats present to determine (as far as possible within the constraints of the site visits undertaken) whether there are any important ecological features which could be affected if the Site is developed. For each habitat type, a qualitative condition statement is applied – low, medium or high this helps with the Biodiversity Calculation carried out as part of this assessment.

Where necessary, a list of further ecological surveys likely to be required to inform an EclA, together with their appropriate scope, methodology and timing is produced.

2.3 Desk Study

Norfolk Biodiversity Information Services (NBIS) was contacted for records of protected species and sites of nature conservation value within a 2 km search area, buffered from the Site boundary.

In addition, Ordnance Survey maps and online aerial photos were used to provide site context and the online Multi Agency Geographical Information Centre (MAGIC⁶) was used to identify any internationally protected areas within 5 km of the Site.

2.4 Extended Phase 1 Habitat Survey

A Phase 1 Habitat Survey was undertaken to identify and map the habitats present following published criteria⁷ on the 08/04/2019 and 09/04/2019.

In addition to basic Phase 1 Habitat mapping, the Site was assessed to identify whether it includes any Habitats of Principal Importance (HPI) or is suitable to support Species of Principal Importance (SPI)⁸, or other notable or legally protected species.

³ <http://jncc.defra.gov.uk/page-5335>

⁴ Eaton, MA, et al (2015) *Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man*. British Birds 108, 708–746

⁵ Nationally rare and nationally scarce species UK <http://jncc.defra.gov.uk/page-3425>

⁶ <http://magic.defra.gov.uk/> Checked on 05/04/2019

⁷ JNCC (2010) *Handbook for Phase 1 habitat survey - a technique for environmental audit*

⁸ HPI and SPI are habitats and species listed in Section 41 of the Natural Environment and Rural Communities Act 2006 and regarded as the highest conservation priorities in the UK. HPI and SPI are material consideration in planning.

2.5 Great Crested Newt Pond HSI

Great crested newts are a European Protected Species (EPS). The newts can travel some distance from their breeding pond. It is best practice to consider whether ponds within 500 m of a development site may support a breeding population of newts, to assess the likely risk of harm to newts if they occur on terrestrial habitat at the Site.

One pond within 500 m of the proposed Site, that could be accessed, was assessed for its suitability to support great crested newts. Using the data from the assessment, a Habitat Suitability Index (HSI) score was calculated. The calculated HSI for a pond provides a score between 0 and 1. The pond's HSI can then be compared to the ranges of pond suitability, as shown in Table 1. An inference can then be made between the HSI of the pond, and the likelihood of great crested newt presence.

Table 1 - HSI scores and suitability of ponds for GCN

HSI Score	Classification	Proportion of Ponds Occupied by Great Crested Newts
<0.5	Poor	0.03
0.5 – 0.59	Below average	0.20
0.6 – 0.69	Average	0.55
0.7 – 0.79	Good	0.79
> 0.8	Excellent	0.93

2.6 Survey Constraints

Any ecology assessment must be considered as a 'snapshot' of the site conditions at the time of the survey. Ecological constraints will change over time and therefore the findings of this report are considered to be valid for a period of one year, after which the report should be reviewed to assess whether the survey should be updated.

Access to the Site was via public footpaths and consent of the tenants with exception of a field and a private garden (TN8) in the north east corner of the Site which were not accessible during the survey. The private garden has been marked as woodland on OS mapping and looks to be a small block of woodland from the aerial photographs. The garden is enclosed by a tall fence and so the habitat couldn't be seen clearly but from what could be viewed it looks like a small group of trees with a scrub understorey.

There are four ponds shown on OS mapping within 500 m of the Site boundary. Only one of these ponds, located in the client's garden, was accessible to undertake a HSI assessment.

No constraints were such that they affect the overall conclusions and recommendations made herein.

3 Baseline

3.1 Surrounding Area

The Site is in the North West Norfolk National Character Area (NCA). The NCA has a very open, rolling topography which contrasts with the surrounding coastal, fenland and other lowland NCAs. This NCA is very important for agriculture with a large-scale arable and grassland landscape comprising extensive arable cropping and some areas of mixed farming – the dominant livestock type is pigs. Many of the villages are centred on greens or ponds and built from local vernacular materials.

The Site is located on the eastern edge of Watlington and is surrounded by residential properties to the east, south and west and grassland fields to the north. The wider landscape is predominantly arable land containing scattered trees, woodland blocks and tree lines. The Site is connected to the wider landscape via strong green links within and adjoining the Site.

Figure 1, an aerial photograph of the Site, shows the Site in context with the surrounding landscape.

Figure 1 – Site Location



There are six County Wildlife Sites (CWS) and one candidate County Geodiversity Site within 2 km of the Site. These are described in Table 2.

There are no other nationally or internationally designated sites for wildlife conservation with the search areas (2 km for national and 5 km for international).

Table 2 – Designated Wildlife Sites

Designation / Location	Ecological Feature
<p>County Wildlife Sites</p> <p>Runs Wood Meadow (CWS 378)</p>	<p>This is a small area of semi-improved neutral grassland which is wet in places. The grass is rank and ungrazed although it is cut once a year and the cuttings left in situ. The sward is dominated by grasses such as smooth meadow-grass <i>Poa pratensis</i>, yorkshire fog <i>Holcus lanatus</i>, false oat-grass <i>Arrhenatherum elatius</i> and sweet vernal-grass <i>Anthoxanthum odorata</i>. Other species present include sorrel <i>Rumex acetosa</i>, cock's-foot <i>Dactylis glomerata</i>, creeping buttercup <i>Ranunculus repens</i>, soft rush <i>Juncus effusus</i>, meadowsweet <i>Filipendula ulmaria</i> and tufted hair-grass <i>Deschampsia cespitosa</i>. There is a small stand of oak <i>Quercus robur</i> and hedgerows of hawthorn <i>Crataegus monogyna</i> and crack willow <i>Salix fragilis</i> surround the site.</p>
<p>Thieves' Bridge Meadow (CWS 381)</p>	<p>This site consists of a mixture of habitats situated on both sides of a flowing drain. The majority of the site is neutral grassland although to the northeast there is a large pond surrounded by woodland. Most of the grassland has a sward dominated by soft meadow-grass <i>Poa pratensis</i> with frequent false oat-grass <i>Arrhenatherum elatius</i>, yorkshire fog <i>Holcus lanatus</i> and sorrel <i>Rumex acetosa</i>. To the south of the drain is a strip of marshy grassland which supports species such as meadowsweet <i>Filipendula ulmaria</i>, creeping buttercup <i>Ranunculus repens</i>, yorkshire fog, false oat-grass, common fleabane <i>Pulicaria dysentrica</i> and silverweed <i>Potentilla anserina</i>. The drain has a limited aquatic vegetation of fool's water-cress <i>Apium nodiflorum</i>, brooklime <i>Veronica beccabunga</i> and water forget-me-not <i>Myosotis scorpioides</i>. Alder <i>Alnus glutinosa</i> and sallow <i>Salix cinerea</i> line the banks. The pond is surrounded by woodland with a canopy of oak <i>Quercus robur</i>, birch <i>Betula pendula</i>, sallow and goat willow <i>Salix caprea</i> over a ground flora dominated by bramble <i>Rubus fruticosus agg.</i>.</p>
<p>Tottenham Village Green (CWS 385)</p>	<p>This is an area of moderately species-rich neutral grassland containing three small ponds which are seasonally dry. The grassland is largely ungrazed and has a sward dominated by false oat-grass <i>Arrhenatherum elatius</i>, yorkshire fog <i>Holcus lanatus</i> and rough meadow-grass <i>Poa trivialis</i>. Hairy sedge <i>Carex hirta</i> is locally frequent. The three small ponds support a varied marginal vegetation of bulrush <i>Typha latifolia</i>, soft rush <i>Juncus effusus</i>, figwort <i>Scrophularia auriculata</i>, gipsywort <i>Lycopus europaeus</i> and great willowherb <i>Epilobium hirsutum</i>. Further from the edges is abundant willow <i>Salix cinerea</i>. The site is partly surrounded by a hedgerow of hawthorn <i>Crataegus monogyna</i> and elder <i>Sambucus nigra</i>.</p>
<p>Tottenham Row Common (CWS 387)</p>	<p>This is a complex area with various different habitat types. The majority of the site is neutral semi-improved grassland but contains two large ponds and to the southeast is extensive continuous bracken <i>Pteridium</i></p>

	<p><i>aquilinum</i>. The grassland is reasonably species-rich and is dominated by grasses such as yorkshire fog <i>Holcus lanatus</i>, sweet vernal-grass <i>Anthoxanthum odoratum</i>, false oat-grass <i>Arrhenatherum elatius</i> and red fescue <i>Festuca rubra</i>. Towards the centre of the site the grassland becomes more acidic with a sward containing abundant red fescue and sweet vernal-grass, common bent <i>Agrostis capillaris</i> and harebell <i>Campanula rotundifolia</i>. Near the acidic grassland is a large eutrophic pond which is fed from a small spring. The surface is covered with duckweed <i>Lemna minor</i> and the marginal vegetation is well developed and consists of bulrush <i>Typha latifolia</i> and bittersweet <i>Solanum dulcamara</i>. The pond is backed by a small wooded area of oak <i>Quercus robur</i>, hawthorn <i>Crataegus monogyna</i>, hazel <i>Corylus avellana</i> and elder <i>Sambucus nigra</i> over foxglove <i>Digitalis purpurea</i>, nettle <i>Urtica dioica</i>, bramble <i>Rubus fruticosus agg.</i> and broad buckler-fern <i>Dryopteris filix-mas</i>. To the east of the site is another large pond, mesotrophic in nature with a very good marginal and aquatic vegetation. Aquatic species include broad-leaved pondweed <i>Potamogeton natans</i>, greater duckweed <i>Lemna polyrhiza</i>, ivy-leaved duckweed <i>Lemna triscula</i> and rigid hornwort <i>Ceratophyllum demersum</i>. The marginal vegetation is similarly diverse with bulrush, common spike-rush <i>Eleocharis palustris</i>, tubular water-dropwort <i>Oenanthe tristula</i>, nodding bur-marigold <i>Bidens cernua</i>, lesser spearwort <i>Ranunculus flammula</i> and soft rush <i>Juncus effusus</i>. Bracken forms stands to the south of the site with abundant red fescue, creeping soft-grass <i>Holcus mollis</i> and sweet vernal-grass. Gorse <i>Ulex europaeus</i> and birch <i>Betula pendula</i> are scattered in places.</p>
<p>Watlington Railway Sidings (CWS 377)</p>	<p>This is a small area of improved grassland with an area of hawthorn <i>Crataegus monogyna</i> scrub to the east. The grassland has a sward dominated by yorkshire fog <i>Holcus lanatus</i>, common bent <i>Agrostis capillaris</i>, false oat-grass <i>Arrhenatherum elatius</i>, ribwort plantain <i>Plantago lanceolata</i>, rough hawkbit <i>Leontodon hispidus</i> and yellow rattle <i>Rhinanthus minor</i>. Species occurring less frequently include cock's-foot <i>Dactylis glomerata</i>, selfheal <i>Prunella vulgaris</i>, red bartsia <i>Odontites verna</i>, red clover <i>Trifolium pratense</i>, black knapweed <i>Centaurea nigra</i>, sweet vernal-grass <i>Anthoxanthum odoratum</i> and ragwort <i>Senecio jacobaea</i> which is being controlled. In areas of local enrichment are broad-leaved dock <i>Rumex obtusifolius</i> and nettle <i>Urtica dioica</i>. Within the grassland area is a small pond which is seasonally dry and surrounded by white willow <i>Salix alba</i>.</p>
<p>West of Tottenhill (CWS 384)</p>	<p>This site largely comprises ponds resulting from gravel extraction, surrounded by broadleaved woodland. Tree species present include oak <i>Quercus robur</i>, silver birch <i>Betula pendula</i>, and willows <i>Salix spp.</i>. Also present are hawthorn <i>Crataegus monogyna</i> and elder <i>Sambucus nigra</i>. Once part of a larger CWS, the other portion has been deleted. This present part remains</p>

	because access for re-survey to confirm status was not possible. (Based on the 1985 habitat survey (NWT))
candidate County Geodiversity Site ⁹	
Tottenhill Quarry	Important site for Pleistocene history of East Anglia, displaying Anglian glacial till beneath deposits of the Nar Valley Formation, comprising Hoxnian interglacial freshwater and marine sediments of the Nar Member (Nar Valley Freshwater Beds and Nar Val)

3.2 Site's Habitats

The Site is approximately 6.4 hectares and comprises grassland fields, scrub, tall ruderal and scattered trees.

The Site comprises of the following habitats:

Table 3 - Habitats

Habitat Type with JNCC code	Description	Quality Assessment	Habitat of Principal Importance
Grassland			
Improved grassland - B4	<p>The field in the western edge of the Site is grazed by two horses and is an improved grassland. The habitat is dominated by grasses which are more tolerant of disturbance, namely annual meadow-grass <i>Poa Annua</i> and cock's-foot <i>Dactyls glomerates</i>. Forb species include common plants such as lesser celandine <i>Ficaria verna</i>, cow parsley <i>Anthriscus sylvestris</i>, chickweed <i>Stellaria media</i> and cleavers <i>Galium aparine</i>.</p> <p>The sward has been grazed to a height of approximately 1 inch.</p>	low	No
Neutral grassland - semi-improved - B2.2	<p>The field which makes up the south east corner of the Site looks to be subject to cutting or grazing less frequently than the other fields and has become dominated by grasses. The grasses include meadow foxtail <i>Alopecurus pratensis</i>, creeping soft-grass <i>Holcus mollis</i> and common bent <i>Agrostis capillaris</i> which are indicative of a neutral grassland which is subject to some management and as such is species poor.</p> <p>Yarrow <i>Achillea millefolium</i> is the dominant forb species and there are frequent meadow buttercup <i>Ranunculus acris</i> and ribwort plantain <i>Plantago lanceolata</i> within the sward.</p>	low	No

⁹ Potential Local Wildlife Sites are sites that have been identified as having nature conservation interest, but where that interest has not been fully assessed against the Wildlife Site Selection Guidelines.

<p>Poor semi-improved grassland – B6</p>	<p>The field in the centre of the Site and two in the north west and north east corners are semi-improved grassland habitats.</p> <p>The central field has a public footpath running along the north boundary of the field which is used frequently by dog walkers. The path has become worn with little vegetative growth. The grass sward away from the path is fairly short and comprised of annual meadow grass, common bent, meadow buttercup and ribwort plantain.</p> <p>The semi-improved grassland field in the south west corner has the same vegetative composition of that found in the central field. This field however is less disturbed as it doesn't have a footpath going through it. The presence of a locked gate and animal water trough suggests this field is subject to grazing at times during the year.</p> <p>The field in the north east corner of the Site was not fully accessible but from the track at the entrance to the field the vegetation height and composition looked to be similar to those in the other semi-improved grassland fields.</p>	<p>Low</p>	<p>No</p>
<p>Scrub/Hedgerows</p>			
<p>Scrub - dense/continuous - A2.1 Defunct hedge - J2.2</p>	<p>Dense areas of scrub run along the boundaries between the central grassland field and those to the north and south. The scrub is comprised of bramble, hawthorn and elder and look to be out grown hedgerows which are not maintained.</p> <p>The scrub line along the southern boundary of the central semi-improved field contains gaps which are being filled by tall ruderal vegetation. If this scrub were maintained as a hedgerow it would be considered to be defunct.</p> <p>The west boundary of the improved grassland field in the south west corner of the Site, along Downham Road, is made up of a dense patch of bramble scrub.</p>	<p>Low</p>	<p>No</p>
<p>Scrub - scattered - A2.2</p>	<p>Less dense areas of bramble scrub are scattered around the edges of the neutral grassland field in the south of the Site. These patches are found in the corners and along the south and north boundaries of the field.</p>	<p>Low</p>	<p>No</p>
<p>Tall Ruderal</p>			
<p>Other tall herb and fern - ruderal - C3.1</p>	<p>Tall ruderal vegetation is found around the edges of the all the fields in the Site.</p> <p>The tall ruderal is mainly common nettles, cleavers and dock with some instances of chickweed and honesty.</p>	<p>Low</p>	<p>No</p>

	Tall ruderal has been able to grow vigorously around the north and east edge of the semi improved grassland field in the north of the Site behind a fence which prevents any livestock grazing it. This area of tall ruderal is becoming grown over with bramble and will become another area of scrub if not cut back.		
Trees			
Mixed Parkland/scattered trees - A3.3	<p>Trees within the Site are mainly found in the improved grassland field in the south west corner of the Site.</p> <p>The trees scattered around this field include ash, common lime, silver birch and Scot's pine.</p> <p>There is a line of seven mature lime trees along the north east corner of the improved field. This line is continued along the rear boundary of the garden of The Old Rectory at which point an ash and sycamore standard is also present in the line.</p> <p>Holly and field maple are found in the area of scrub along the southern boundary of the central field.</p>	Low	No

A list of all species recorded with their Latin names is included in Appendix 4 and a Phase 1 Habitat Plan in Appendix 5.

3.3 Species Accounts

Based on the habitats recorded within the Site, the desk study results and the ecologist's professional opinion, the following table presents the species groups which may be found on the Site. Presence of species cannot be fully determined without undertaking specific presence or absence surveys.

Table 4 – Species Scoping

Species / Group	Records in the data search?	Suitable habitat within the Site or zone of influence?
Rare plants, bryophytes, lichens and fungi	<input type="checkbox"/>	<input type="checkbox"/>
Invasive non-native plants	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Terrestrial invertebrates ¹¹	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Aquatic invertebrates ¹¹	<input type="checkbox"/>	<input type="checkbox"/>
White clawed crayfish	<input type="checkbox"/>	<input type="checkbox"/>
Amphibians (rare species – pool frog and natterjack toad)	<input type="checkbox"/>	<input type="checkbox"/>
Common toad	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Great crested newt	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Reptiles (common species – adder, grass snake, slow worm, common lizard)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Reptiles (rare species - sand lizard and smooth snake)	<input type="checkbox"/>	<input type="checkbox"/>
Birds	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Water vole	<input type="checkbox"/>	<input type="checkbox"/>
Otter	<input type="checkbox"/>	<input type="checkbox"/>
Hedgehog	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Brown hare	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Dormouse	<input type="checkbox"/>	<input type="checkbox"/>
Harvest mouse	<input type="checkbox"/>	<input type="checkbox"/>
Badger	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Bats	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

3.3.1 Invasive non-native plants

It is unlawful to cause the spread of certain non-native invasive plants (Schedule 9 species).

Three species of invasive plant was recorded within the data search. Records show New Zealand pigmyweed *Crassula helmsii*, Indian Balsam *Impatiens glandulifera* and Japanese Knotweed *Fallopia japonica* have been recorded within 2 km of the Site boundary. The first two species require aquatic habitats to spread and so are unlikely to be found within the Site, however Japanese Knotweed could grow within the habitats making up the Site. No Schedule 9 species were observed during the survey and if Japanese Knotweed was present old stems are likely to have been found alongside new shoots which start to grow in spring.

¹⁰ For the purpose of this table 'suitable habitat' also included the geographic range of the species.

¹¹ For these groups of species, they will be scoped out unless an important assemblage of common species or individual important species are reasonably likely to occur at the Site

3.3.2 Terrestrial Invertebrates

Approximately 400 species of terrestrial invertebrate species are of Principle Importance within the UK.

Ecological ranges and requirements can vary greatly for different invertebrates from a micro to macro scale. Habitats need to provide resources to support the entire lifecycle within a species range i.e. butterflies require a matrix of grasses and flowers for developing larvae and nectar filled flowers to feed the adults. Terrestrial invertebrates thrive in areas which contain ecotones which are defined as "a region of transition between two biological communities" i.e. a woodland edge or where a grassland meets a hedgerow.

The biological records contain seventeen records of terrestrial invertebrates made up of three species of beetle and three species of moth. All of the species recorded could be found on the Site.

During the survey five species of butterfly were observed feeding, basking or mating including peacock *Aglais io*, tortoiseshell *Aglais urticae*, brimstone *Gonepteryx rhamni*, cabbage white *Pieris rapae* and holly blue *Holarctic azures*. In addition, buff tailed bumblebees, honey bees and bee flies were seen foraging on the flora.

The matrix of habitats within the Site provide a number of ecotones and resources for terrestrial invertebrates. Therefore the of moderate to high suitability to support insects.

3.3.3 Amphibians

There are six native amphibians in the UK: common frog *Rana temporaria*, pool frog *Pelophylax lessonae* (extinct in 1999 until reintroductions into Norfolk from 2005), common toad *Bufo bufo*, natterjack toad *Epidalea calamita*, smooth newt *Lissotriton vulgaris*, palmate newt *Lissotriton helveticus* and great crested newt *Triturus cristatus*. Pool frog, great crested newt and natterjack toad are offered full protection by international and national legislation making it an offence to disturb, capture, kill or injury them. Their places of shelter and rest are also protected from destruction (even if they are not occupying them at the time). Pool frog, common toad, natterjack toad and great crested newt are species of principal importance.

Amphibians spend most of their time in terrestrial habitats, returning to waterbodies to breed in the Spring. Terrestrial habitats should allow amphibians to shelter from excessive heat, dryness and predators whilst foraging for prey species. Amphibians hibernate during the winter months underground or under a structure which protects against frost, flooding and predators; typically logs, vegetation piles, rocks/stone etc. Optimal habitats vary between species, but generally include grassland, scrub, woodland, hedgerows and waste-ground with some green connections to ponds, within approximately 500 m. Natterjack toad breeding pools are restricted to acid habitats such as heath and dune slacks and native pool frogs are found in only two sites in the UK in pools within open woodland habitats.

The data search returned no records of amphibians within the 2 km search radius from the Site boundary.

The Site's habitats are optimal to support amphibians during the terrestrial period of their lifecycle. The grassland, tall ruderal and scrub provides opportunities for commuting and foraging whilst providing a suitable refuge for shelter and hibernation.

There are seven ponds and eleven drains within 500m of the Site boundary. Of these, only one pond (P1) was accessible to undertake an HSI assessment. This is a former section of moat within The Old Rectory gardens located 90 m west of the Site. The pond is surrounded by good terrestrial habitat, possibly contains fish, has about 30% emergent vegetation and is 40% shaded by trees. The water quality is considered to be good and it is possible that some ducks may use it occasionally. The pond scores 0.88 (Excellent) in the HSI assessment.

The Site is considered to be of moderate to high suitability to support amphibians: common frog, common toad, smooth newt, palmate newt and great crested newt.

3.3.4 Reptiles

There are four relatively widespread native species of reptiles in Britain, namely adder *Vipera berus*, grass snake *Natrix natrix*, slow worm *Anguis fragilis* and common lizard *Zootoca vivipara*. All of these species are protected from intentional killing or injury (but their habitat is not specially protected).

The data search returned no records of reptiles within the 2 km search radius from the Site boundary.

The grassland, scrub and tall ruderal on the Site provide suitable habitat for reptiles. Surrounding habitat with grass fields, hedgerows and arable field boundaries also provide good wildlife corridors for this species group, increasing the likelihood of the reptiles to be present on site.

As such, the Site is considered to have moderate to high suitability of supporting reptiles.

3.3.5 Birds

All wild bird's nests, eggs and dependant young are protected from direct harm. Some rarer birds (Schedule 1 species) are also protected from disturbance whilst at the nest. Many species of bird are also SPI or recognised as red or amber-listed based on population trends.

The data search returned 804 records of birds made up of 130 species within the search area. Many of these birds have been recorded within local fen habitats and wetland areas within 2 km of the Site and are unlikely to be found within the Site's drier, more widespread habitats. Species from the data search which may also use habitats within the Site include bullfinch, buzzard, cuckoo, goldfinch, green woodpecker, house sparrow, kestrel, song thrush, spotted flycatcher, tree sparrow, treecreeper, turtle dove, yellowhammer. The Site is likely to support a range of birds common to the local area. This may include red-listed species and SPI typical of scrub habitats. Birds are likely to nest within scrub habitat within the Site and feed on invertebrates within the Site's habitats. Birds observed during the visit include rooks, robins, pheasants and great tits.

3.3.6 Bats

All British bats are protected from disturbance and harm. Their roosts are also protected from damage or destruction (whether or not the bats are present). Many species are also SPI.

The baseline data search returned 40 records of bats made up of 6 species and 12 records of bat roosts within 2 km of the Site.

There are numerous buildings, blocks of woodland and trees within the surrounding habitats in which bats are likely to roost. There are well connected to the Site by treelines, scrub and hedgerows.

In addition, there are four trees on the Site which have features that could be used by roosting bats. These are described in Table 5 and the codes are presented on the Phase 1 map in Appendix 5.

Table 5 - Trees with Features Suitable for use by Roosting Bats

Identification	Tree Species	Feature Description
BT1	Common lime <i>Tilia x europaea</i>	1 x east facing hole in scab tissue on stem of tree approximately 6 m high
BT2	Horse chestnut <i>Aesculus hippocastanum</i>	West facing hole in stem with great tit observed nesting inside located app. 2 m high. West facing hole in stem at 5 meters high.
BT3	Dead tree	Full of woodpecker holes
BT4	Horse chestnut <i>Aesculus hippocastanum</i>	Cavity in north facing limb at approximately 8 m high.

The habitats on the Site are unlit and the light spill from the residential areas to the east, west and south are unlikely to penetrate into the centre of the Site. The habitats provide foraging opportunities for bats which can commute to the Site via the fields located to the north. It is likely that more light tolerant species such as pipistrelle will also commute from the residential areas to the Site as part of their foraging range.

The Site is considered to have moderate suitability to support roosting and foraging bats.

3.3.7 Hedgehogs

Hedgehogs are a Species of Principal importance.

No direct observations of hedgehogs or their field signs (faeces or paw prints) were made during the survey, however the Site's habitats (grassland, scrub and tall ruderal) are suitable to support hedgehogs foraging and shelter. The Site is well connected to other suitable habitats and is likely to be part of their foraging and breeding habitat.

4 Assessment

4.1 Summary of constraints

The proposed WAT1 allocation includes habitats likely to support protected species and Species of Principal Importance. These includes the potential to support common toad, great crested newts, adder, grass snake, slow worm, common lizard, birds - various species, bats - various species and hedgehogs.

4.2 Assessment of Allocation

Relevant National Planning Policy and law is presented in Appendix 1; this also includes a summary of relevant environmental policies from the draft consultation.

Local and National Policies require the protection and enhancement of biodiversity. Specifically, the NPPF states that Plans should

- *"identify and safeguard components of wildlife-rich habitats and wider ecological networks and*
- *promote the conservation and enhancement of priority habitats and ecological networks and the protection and recovery of priority species "*

The WAT1 allocation is made up of two submitted sites: H464 and H465. The Housing and Economic Land Availability Assessment¹² states that both sites are 'green' for biodiversity issues in its traffic light system. Both assessments go on to state that:

"Development of the site would not have a detrimental impact on any designated site, protected species or ecological network"

Based on our initial survey, this statement is unlikely to be true – development of WAT1 could have a detrimental impact on protected species such as bats and great crested newts. The development of the allocation could also have impacts on ecological networks and priority species (species of principal importance) in contravention with the NPPF.

The Allocation Policy (Policy WAT1 Watlington - Land to East of Downham Road and West of Mill Road) states that an Environmental Statement would need to be submitted with any development proposal that satisfies Norfolk County Council on a number of technical issues. None of these points include reference to biodiversity or protection of habitats and species. As currently worded, WAT1 will not deliver sustainable development or protect and enhance biodiversity.

¹² Borough Council of King's and West Norfolk Local Plan Review (2016 – 2036): Housing and Economic Land Availability Assessment (HELAA)

4.3 Ecological Opportunities

The Sites habitats provide a matrix of areas which are likely to support a range of species included nationally and internationally protected animals. The Site also provides an open space which is used and enjoyed by the local community.

The Site provides a good baseline from which more diverse habitats can be created with a small level of effort and relatively low costs. The diversity of forb species in the grasslands can be improved by a regular mowing and/or grazing regime and setting wildflower seeds. These areas can still be enjoyed by the public by including mown paths through longer vegetation and areas in which dogs are kept on leads.

Tall ruderal vegetation and scrub vegetation can also be managed so that it doesn't completely encroach onto the grassland habitats but still provides shelter for amphibians and reptiles and nesting habitats for birds. The inclusion of bird boxes and hibernacula would enhance the Site even further providing new opportunities for these species.

This Site offers opportunities for enhancement and could be a suitable offsetting site for biodiversity net gain if there is future development in the area on habitat with a lower baseline ecological value than this Site. Gains in biodiversity would be in line with the aims of the National Planning Policy Framework (NPPF), the 25-year environment plan and the chancellors spring statement.

Improving this area for wildlife and the local community would also be in line with Policy LP23 in the emerging Local Plan which states:

"It is important to retain valued recreational and amenity open space in towns and villages. Parks, playing fields, ponds, woodlands, informal open spaces and allotments all provide opportunities for sport, recreation, leisure and biodiversity. It is important that people, particularly children and elderly people, should have access to open spaces close to where they live"

4.4 Conclusion

A Preliminary Ecological Appraisal completed in Watlington, Norfolk on the 08th and 09th April 2019 found that the Site is comprised of a mixture of grassland, scrub, tall ruderal and scattered trees.

The habitats are common and widespread however the matrix of habitats on the Site and strong green connections to the wider landscape make them suitable to support protected and priority species such as amphibians, reptiles, nesting birds, bats and hedgehogs.

There are opportunities for the habitats to be improved and create an even more diverse space for wildlife and the local community whilst bringing it in line with aims of national and local policies. However, as it stands the allocation of WAT1 is unlikely to meet local and national planning policy.

Appendix 1 Legislation, Policy and Best Practice

Legislation

There are many active pieces of legislation which are aimed at protecting wildlife and habitats within the UK. These are summarised in Table 6.

Table 6 - Summary of Primary Legislation in the UK

Legislation	Description
The Wildlife and Countryside Act (WCA) 1981	<p>The WCA is the primary piece of legislation relating to nature conservation in Great Britain. The Act is supplemented by provisions in the CRoW Act 2000 and the NERC Act 2006. It provides for the notification and confirmation of Sites of Special Scientific Interest by Natural England. It also sets out, in schedules, important and invasive species which are legally protected or require active management.</p> <p>The WCA consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain (NB Council Directive 79/409/EEC has now been replaced by Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (codified version)).</p>
The Conservation of Habitats and Species Regulations 2017	The Conservation of Habitats and Species Regulations 2017 consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales. The Regulations came into force on 30th November 2017, and extend to England and Wales (including the adjacent territorial sea) and to a limited extent in Scotland (reserved matters) and Northern Ireland (excepted matters).
The Countryside and Rights of Way (CRoW) Act 2000	The CRoW applies to England and Wales only, received Royal Assent on 30 November 2000, with the provisions it contains being brought into force in incremental steps over subsequent years. Containing five Parts and 16 Schedules, the Act provides for public access on foot to certain types of land, amends the law relating to public rights of way, increases measures for the management and protection for Sites of Special Scientific Interest (SSSI) and strengthens wildlife enforcement legislation, and provides for better management of Areas of Outstanding Natural Beauty (AONB). The Act is compliant with the provisions of the European Convention on Human Rights, requiring consultation where the rights of the individual may be affected by these measures.
Natural Environment & Rural Communities (NERC) Act 2006	<p>The NERC places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.</p> <p>The NERC Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list replaces the UK Biodiversity Action Plans (UKBAP) and has been drawn up in consultation with Natural England, as required by the Act.</p> <p>The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of NERC Act, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.</p> <p>Fifty-six habitats of principal importance (HPI) are included on the S41 list. These are all the habitats in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework. Of most</p>

	<p>relevance to the Site, they include ponds, open mosaic habitats on previously developed land and lowland heathland.</p> <p>There are 943 species of principal importance (SPI) included on the S41 list. These are the species found in England which were identified as requiring action under the UK BAP and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.</p>
--	---

Protected Species

Great Crested Newts

Great crested newts are 'European Protected Species (EPS) and are protected under the Conservation of Habitats and Species Regulations 2010, and the Wildlife and Countryside Act 1981, as amended by the Countryside & Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to great crested newts and their breeding ponds and terrestrial habitat, making it an offence to:

- Deliberately capture, injure or kill a great crested newt.
- Intentionally or recklessly disturb¹³ a great crested newt in a structure or place that they use for shelter or protection or deliberately disturb a group of a great crested newts.
- Damage or destroy a great crested newt resting place/shelter (even if they are not occupying it at the time).
- Possess or advertise/sell/exchange a great crested newt (dead or alive) or any part of a great crested newt (including eggs and all lifestages).
- Intentionally or recklessly obstruct access to a great crested newt resting place/shelter.

The Natural Environment & Rural Communities (NERC) Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

Common Reptiles

In Britain there are four relatively widespread native species of reptile - adder, grass snake, common lizard and slow worm. These species are protected via part of Section 9(1) of the Wildlife & Countryside Act 1981 (as amended) against:

- intentional killing and injuring
- selling, offering or exposing for sale.

The Natural Environment & Rural Communities (NERC) Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

Nesting Birds

All wild bird nests are protected under The Wildlife and Countryside Act 1981 (as amended), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions).

¹³ Disturbance, includes 'in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species'.

- Disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting.
- Nests of golden eagle, white-tailed eagle and osprey are protected year-round.

Bird Directive

Bird Directive Annex I lists species that shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.

Bats

All species of bat in Britain are 'European Protected Species' (EPS) and are protected under the Conservation of Habitats and Species Regulations 2010, and the Wildlife and Countryside Act 1981, as amended by the Countryside & Rights of Way Act 2000. These pieces of legislation combine to give substantial protection to EPS and their habitats, making it an offence to:

- Deliberately capture, injure or kill a bat.
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats.
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time).
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat.
- Intentionally or recklessly obstruct access to a bat roost.

The Natural Environment & Rural Communities (NERC) Act 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

Policy

National Planning Policy Framework (NPPF) (2018)

Chapter 15 of the National Planning Policy Framework (NPPF) aims at conserving and enhancing the natural environment and states that planning policies and decision should contribute to and enhance the natural and local environment. In terms of biodiversity this should be achieved by:

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils
- recognising the intrinsic character and beauty of the countryside, and wider benefits from natural capital and ecosystem services
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures

The NPPF states that to protect and enhanced biodiversity, [local] plans should:

- identify and safeguard components of wildlife-rich habitats and wider ecological networks
- promote the conservation and enhancement of priority habitats and ecological networks and the protection and recovery of priority species

The NPPF states that when determining planning applications, local planning authorities should refuse applications which:

- cause significant harm to biodiversity which can not be avoided, adequately mitigated or as a last resort, compensated for
- plan to develop on land within or outside of a Site of Special Scientific Interest (SSSI) and which is likely to have an adverse effect on it (either individually or in combination with other developments)
- result in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees), unless there are wholly exceptional reasons and where a suitable compensation strategy exists

The local planning authority should support developments whose primary objective is to conserve or enhance biodiversity, especially where this can secure measurable net gains in biodiversity.

HM Government – 25 Year Environment Plan

The 25-year plan to improve the environment sets out what the government intends to do to increase biodiversity, reduce climate change and secure ecosystem services. It aims to deliver cleaner air and water, protect threatened species and provide richer wildlife habitats.

King's Lynn and West Norfolk – Emerging Local Plan

King's Lynn and West Norfolk Local Planning authority area currently undertaken a review of their local plans to determine whether current policies need updating, which should include consideration of any changes to local circumstances and national policy.

Biodiversity

Biodiversity is considered under strategic policies LP17, LP32 and LP05. Policy LP17 indicates that it may be necessary to secure biodiversity needs through planning conditions / obligations. LP17 also highlights the crucial role of the historic and built environment in delivering environmental quality and well-being.

In addition to these strategic policies there are two supporting policies BIO1 and BIO2 which state:

BIO1: Appropriate weight should be attached to biodiversity, reflecting the need to protect biodiversity as a whole, taking account of the best available evidence including habitats and species that are protected or conservation concern in the East Marine Plan and adjacent areas (marine, terrestrial).

BIO2: Where appropriate, proposals for development should incorporate features that enhance biodiversity and geological interests

Leisure and Open Space

Policy LP32 indicates that the Borough Council will support proposals that protect, retain and/or enhance sports, leisure and recreation facilities and Policy LP05 sets out that obligations from developers will be sought through Section 106 legal agreements for allotments, indoor/outdoor sports facilities and green infrastructure.

Policy WAT1 Watlington - Land to East of Downham Road and West of Mill Road

Land of around 6.4 hectares, as shown on the Policies Map, is allocated for residential development of at least 115 dwellings.

Development will be subject to compliance with all of the following:

1. Submission of an Environmental Statement that satisfies Norfolk County Council that:
 - a. the applicant has carried out investigations to identify whether the resource is viable for mineral extraction and if the mineral resource is viable, that:
 - b. the applicant has considered whether it could be extracted economically prior to development taking place; and if the mineral resource can be extracted economically, whether (or not):
 - c. there are opportunities to use the onsite resource during the construction phases of the development;
 - d. the design scheme for the development of the site provides a road through the site which links Downham Road and Mill Road to the satisfaction of Norfolk County Council as the local Highway Authority;
 - e. Suitable improvements and integration of the Public Right of Way (Watlington Footpath 6) which crosses through the site;
2. The design and layout of the proposed scheme will demonstrate special regard to the character and setting of the heavily treed area (including the TPO area) to west of the site;
3. Submission of a Heritage Impact Statement that establishes that development would preserve the following heritage assets and their settings: Grade I Listed Church of St Paul and Peter, the Grade II Listed Manor House, and the Grade II Listed Watlington House. This should be accompanied by an Archaeological Field evaluation, if required;
4. Submission of details showing sustainable drainage measures will integrate with the design of the development and the drainage system will contribute to the amenity and biodiversity of the development. A suitable plan for future management and maintenance of the SUDS should be included with submission;

5. Development is subject to the demonstration of safe highway and pedestrian access onto both Downham Road and Mill Road. This should include improvements to the Mill Road / Thieves Bridge Road and the Mill Road / Lynn Road junctions in addition to upgrading Mill Road in the vicinity of the new access point. Details of this shall be submitted and agreed by Norfolk County Council as the Local Highway Authority as part of the planning application;
6. Provision of affordable housing in line with the current standards.

BCT Roost Assessment Criteria

Suitability	Description of Roosting Habitats	Commuting and Foraging Habitats
Negligible	Negligible habitat features on site likely to be used roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically.</p> <p>However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).</p> <p>A tree of sufficient size and age to contain PRFs but none seen from the ground or features seen with only very limited roosting potential.</p>	<p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by another habitat.</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat, but unlikely to support a roost of high conservation status ¹⁴ .	<p>Continuous habitat connected with the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>
High	<p>A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.</p> <p>A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.</p>	<p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p>

¹⁴ With respect to roost type only - the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed.

Appendix 2 Staff Summaries

Principal Ecologist Hayley Farnell

This survey and reporting were undertaken by Principal Ecologist Hayley Farnell MSc., BSc. hons. Hayley is a full member of the Chartered Institute of Ecology and Environmental Management and has over 14 years' professional experience within environmental consultancy. She holds a Class 2 survey licence for bats [Licence number: 2015-15896-CLS-CLS] and a survey licence for great crested newts [Licence number: 2017-27675-CLS-CLS].

Jo Pedder – Director

Jo Pedder BSc. hons MCIEEM is director of Prime Environment Ltd. He is an ecologist with over 15 years' experience in the environmental consulting sector. Jo holds survey licences for bats (level 2) and great crested newts (level 1) and development licences for bats and newts. Jo oversees many of Prime's projects from barn conversions to sites over 300 ha and has a range of experience in the minerals, housing and energy sectors.

Appendix 3 Photos



Photo 1 Improved Grassland Field



Photo 2 Line of Lime Trees



Photo 3 SI Grassland



Photo 4 Bramble Scrub



Photo 5 Neutral Grassland and Tall Ruderal



Photo 6 Pond



Photo 7 BT1



Photo 8 BT2



Photo 9 BT3



Photo 10 BT4

Appendix 4 Results / Raw Data

Table 7 - Flora Recorded

Scientific Name	Common Name	SI				
		Improved Grassland	Neutral Grassland	Semi Improved Grassland	Scrub	Trees
<i>Acer pseudoplatanus</i>	Sycamore					X
<i>Achillea millefolium</i>	Yarrow	F	D			
<i>Aesculus hippocastanum</i>	Horse chestnut					X
<i>Agrostis capillaris</i>	Common Bent	F	A	F		
<i>Alopecurus pratensis</i>	Meadow Foxtail		A			
<i>Anthriscus sylvestris</i>	Cow Parsley	R				
<i>Arum italicum</i>	Italian Lords-and-Ladies	R				
<i>Bellis perennis</i>	Daisy	F	F	F		
<i>Betula pendula</i>	Silver birch					X
<i>Bromus hordeaceus</i>	Soft-brome		A	F		
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	R				
<i>Carex nigra</i>	Common Sedge		O	O		
<i>Centaurea nigra</i>	Common Knapweed		O	O		
<i>Cerastium fontanum</i>	Common Mouse-ear		O	O		
<i>Cirsium eriophorum</i>	Woolly Thistle	R	R	R		
<i>Claytonia virginica</i>	Spring beauty	O				
<i>Crataegus monogyna</i>	Hawthorn				D	
<i>Dactylis glomerata</i>	Cock's-foot	A				
<i>Elytrigia repens</i>	Common Couch	O	O	F		
<i>Festuca rubra</i>	Red Fescue	O	F	F		
<i>Fraxinus excelsior</i>	Ash					X
<i>Galium aparine</i>	Cleavers	O	O	O	A	
<i>Geranium rotundifolium</i>	Round-leaved Crane's-bill	O				
<i>Glechoma hederacea</i>	Ground-ivy	O	O			
<i>Lamium album</i>	White Dead-nettle	O				
<i>Lamium purpureum</i>	Red Dead-nettle	O				
<i>Leontodon hispidus</i>	Rough Hawkbit	O		O		
<i>Pentaglottis sempervirens</i>	Green alkanet	R				
<i>Pinus sylvestris</i>	Scots pine					X
<i>Plantago lanceolata</i>	Ribwort Plantain	O	F	F		
<i>Poa annua</i>	Annual Meadow-grass	A		F		
<i>Poa trivialis</i>	Rough Meadow-grass	F				
<i>Primula vulgaris</i>	Primrose	R				
<i>Ranunculus acris</i>	Meadow Buttercup	O	F	F		
<i>Ranunculus ficaria</i>	Lesser Celandine	O				
<i>Rubus fruticosus agg.</i>	Bramble Raspberry				D	
<i>Rumex acetosa</i>	Common Sorrel			R		
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O		O		
<i>Narcissus</i>	Daffodil	R				
<i>Senecio jacobaea</i>	Common Ragwort	O		O		
<i>Senecio vulgaris</i>	Groundsel	R				
<i>Stellaria media</i>	Common Chickweed	O	O	O		
<i>Tanacetum parthenium</i>	Feverfew	R				
<i>Taraxacum officinale</i>	Dandelion	O		F		

APPENDICES

Scientific Name	Common Name	SI				
		Improved Grassland	Neutral Grassland	Semi Improved Grassland	Scrub	Trees
<i>Tilia x europaea</i>	Common lime					X
<i>Tussilago farfara</i>	Colt's-foot	R				
<i>Urtica dioica</i>	Common Nettle	O	O	O	A	
<i>Veronica chamaedrys</i>	Germander Speedwell	O				
<i>Veronica persica</i>	Common field speedwell	R	R	R		
		DAFOR Scale: Dominant (D), Abundant (A), Frequent (F), Occasional (O) and Rare (R – Locally) X = Trees present onsite				

Table 8 – Habitat Suitability Index (HSI)

Pond ref	Pond 1
SI1 - Location	1
SI2 - Pond area	1
SI3 - Pond drying	1
SI4 - Water quality	1
SI4 - Shade	1
SI6 - Fowl	0.67
SI7 - Fish	0.67
SI8 - Ponds	1
SI9 – Terrestrial habitat	1
SI10 - Macrophytes	0.61
HSI (Score)	0.88
Categorisation	Excellent

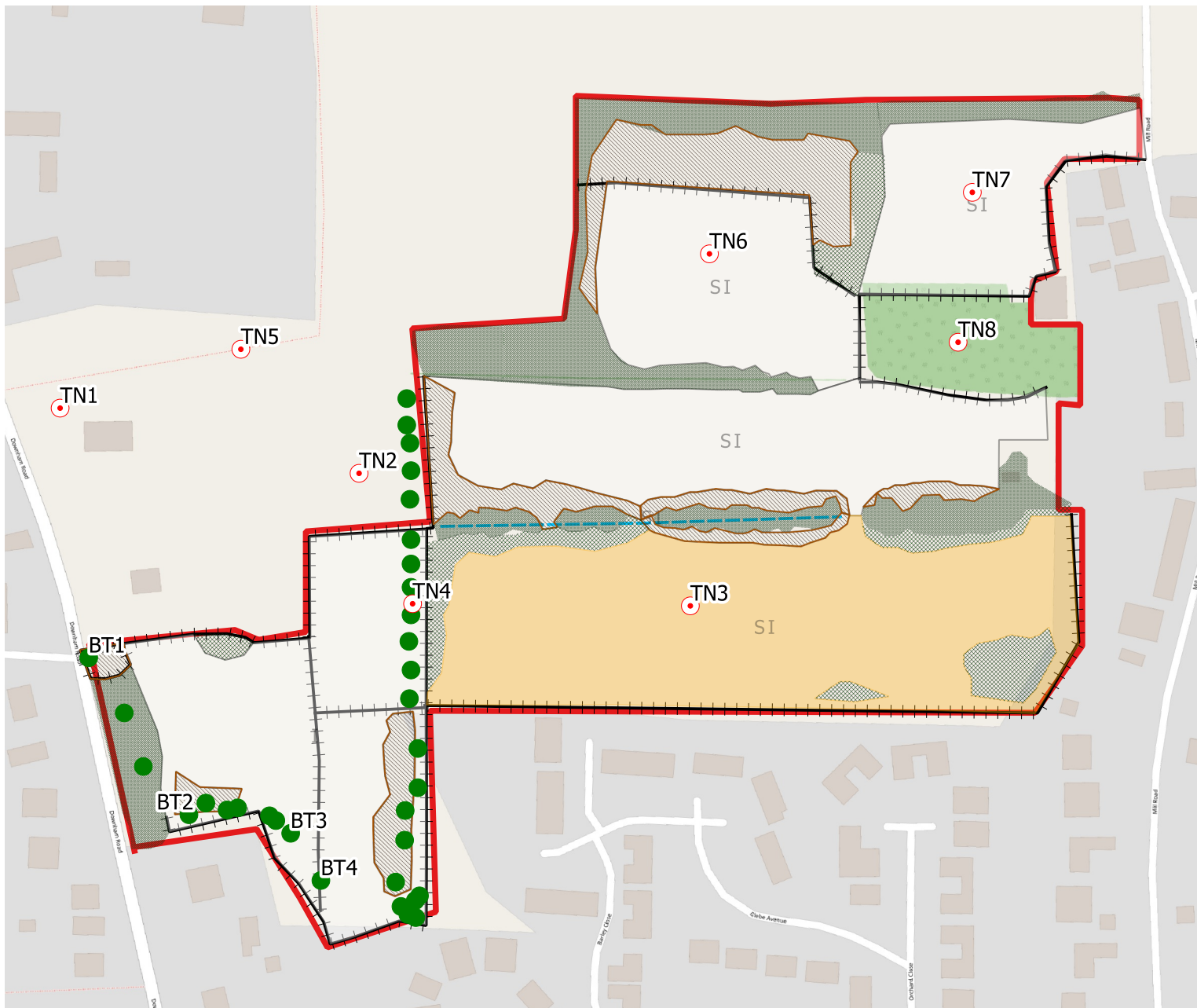
Appendix 5 Target Notes and Plans

Table 9 – Target Notes

Target Note ID	Description
TN1	Pond in the garden of the Old Rectory
TN2	Rectory Garden – Outside of the site. The garden has been mown so that areas of tall ruderal and rough grassland are left to grow.
TN3	Sem-improved neutral grassland becoming dominated by grasses. Not as frequently disturbed through grazing or mowing as the other fields.
TN4	Line of mature lime trees. Line of trees continue along the back edge of Rectory garden
TN5	Public footpath with tall ruderal and bramble scrub growing either side of the path. Four very large mature oak trees are growing here.
TN6	Presence of water trough and short SI grassland suggests that this field sometimes holds grazing livestock.
TN7	Field not completely accessible during the survey. Assessed from the track as the eastern access gate and appeared to be SI grassland.
TN8	Private garden – not accessible during the survey.

Land to the rear of the Old Rectory, Watlington Phase 1 Habitat Survey

Figure 1 - Habitat Plan



Legend

— Site Boundary

○ Target Note

Habitats

I Improved Grassland

SI Neutral Semi Improved Grassland

SI Semi Improved Grassland

Scrub

Bramble Scrub

Tall Ruderal

● Trees

--- Dry ditch

+++ Fence

Client: Drew Purves

Date: 12/04/2019

OpenStreetMap® is open data, licensed under the Open Data Commons Open Database License (ODbL) by the OpenStreetMap Foundation (OSMF).



0 25 50 75 100 m



Prime Environment

Company Number: 08407111

1 Barley Suite
Glebe Farm Campus
Bourne Road
Knapwell
Cambridgeshire
CB23 4GG

For the Midlands and North

central@primeenvironment.co.uk
Tel: 0330 2233825

For the South and South East

southeast@primeenvironment.co.uk
Tel: 0330 2233806

