

## Ecological Report Hot to Trot School of Equitation, West Meadows, Low Road, Bunwell, NR16 1SD



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<b>Site address</b>	West Meadows, Low Road, Bunwell, NR16 1SD Grid reference: TM 13774 90899
<b>Survey scope</b>	Ecological Impact Assessment
<b>Survey date(s)</b>	03/11/2023
<b>Report date</b>	08/12/2023
<b>Report reference</b>	2023.176
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### Declaration of Compliance

This report has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct and British Standard Institution's (BSI) BS 42020:2013 *Biodiversity – Code of practice for planning and development*. We confirm that the opinions expressed within this document are our bona fide professional opinions.

The information which is being provided is a true representation of the survey methods used and the results assembled, with respect to the stated dates of survey and assessment. The future validity of this report is conditional on any changes which occur to the assessment site, and in any case will be limited by professionally accepted survey lifespans<sup>1,2</sup>.

### Third Party Disclaimer

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<sup>1</sup> <https://cieem.net/wp-content/uploads/2019/04/Advice-Note.pdf>

<sup>2</sup> Collins, J. (ed.) (2023) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edition). The Bat Conservation Trust, London. Section 2.6.16-20.

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## 1. Non-Technical Summary

Norfolk Wildlife Services was commissioned to complete an ecological impact assessment of a proposed new dwelling for the owners of Hot to Trot School of Equitation at West Meadows, Low Road, Bunwell, NR16 1SD.

The purpose of this report is to describe the current ecological baseline of the survey area and to detail a summary of potential impacts to ecological receptors.

The survey area was evaluated on 03/11/2023 by Ben Christie MCIEEM (Natural England Level 2 bat survey Class Licence registration 2019-43514-CLS-CLS and great crested newt survey Class Licence registration 2016-25528-CLS-CLS).

The proposed development will require no land-take of any designated nature conservation site, and the distance/screening from any designated site is sufficient that there is no credible potential for construction or operational impacts. The proposed development would primarily affect amenity land (an area of mown grass). A neutral impact on valued natural habitats is predicted.

There is no predicted impact to bat roosts. To mitigate the potential for negative impacts on bat foraging and commuting from the lighting of a new development, any new exterior lighting for the development should be unobtrusive and downcast/directional to prevent direct illumination of bat flight paths and foraging areas as best as possible. Exterior lighting should be PIR activated and on short timers ( $\leq 1$  minute).

There are no predicted impacts for nesting birds, reptiles or great crested newts.

There is a possibility of impacts to hedgehogs and other amphibians during the construction phase of the development, which will be mitigated by applying precautionary working methods.

Minor but proportionate wildlife enhancements for the new development are recommended by providing one bat roost box and two bird nest boxes.

## 2. Introduction

### 2.1. Description of the project

The survey area is located at West Meadows, Low Road, Bunwell, NR16 1SD, grid reference: TM 13774 90899 (shown in Figure 1).

The development site proposal is shown in Figure 2. It is proposed to construct a single residential dwelling within the existing Hot to Trot School of Equitation location, to provide on-site accommodation for the business owners.

### 2.2. Purpose

The purpose of this report is to:

- Describe the ecological baseline of the survey area (as shown in Figure 1);
- Evaluate the habitats within the survey area for their ecological value in a geographic context;
- Identify the requirement for further ecological surveys to fully inform the assessment of effects as a result of the proposal;
- Identify and describe all potentially significant ecological effects as a result of the proposal;
- Outline appropriate avoidance or mitigation measures for significant effects as a result of the proposal and how these could be secured;
- Clearly identify requirements to ensure compliance with nature conservation legislation;
- Identify potential ecological enhancement measures beyond avoidance or mitigation;
- Set out any requirement for post-development monitoring.

Figure 1: Site location (red star)

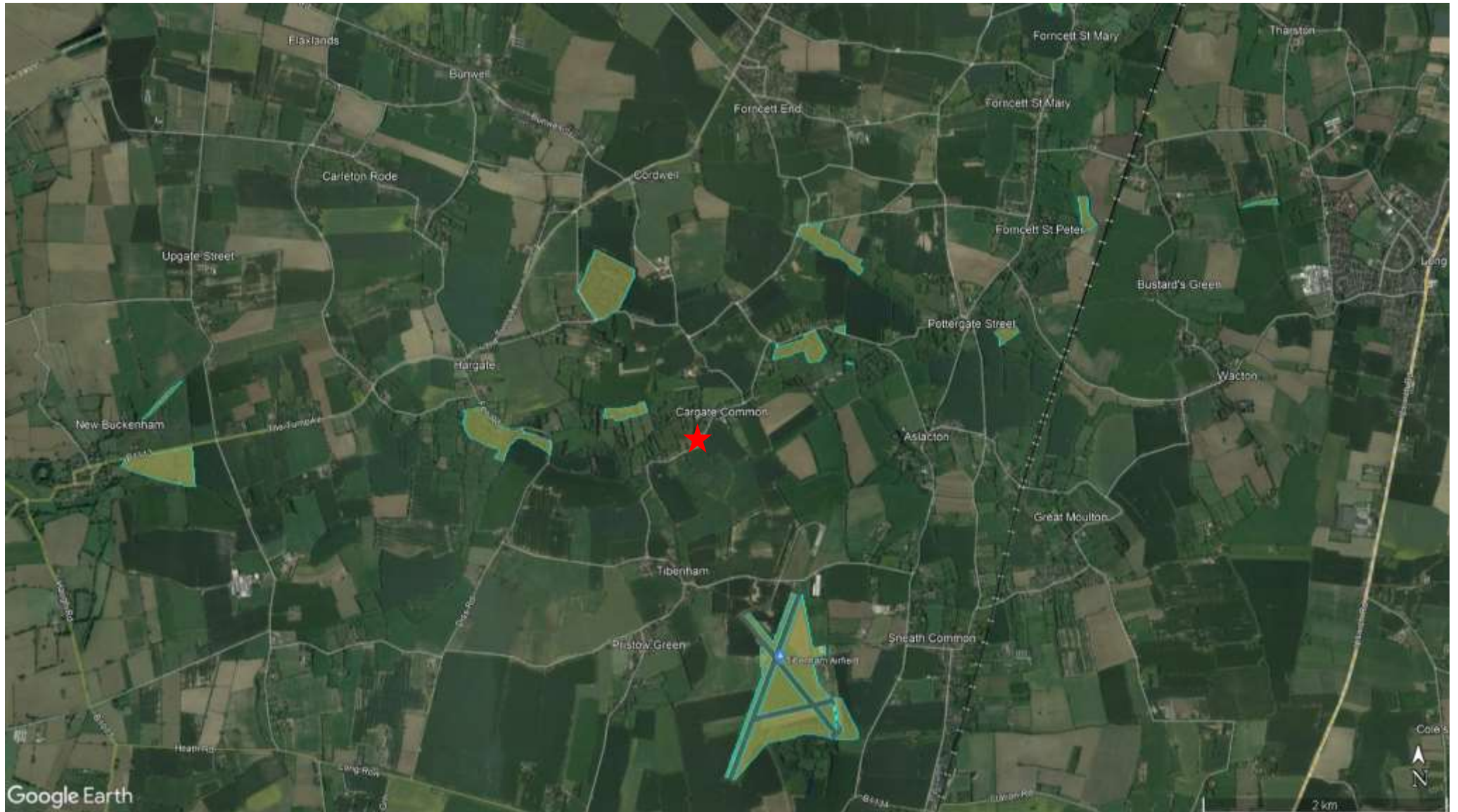
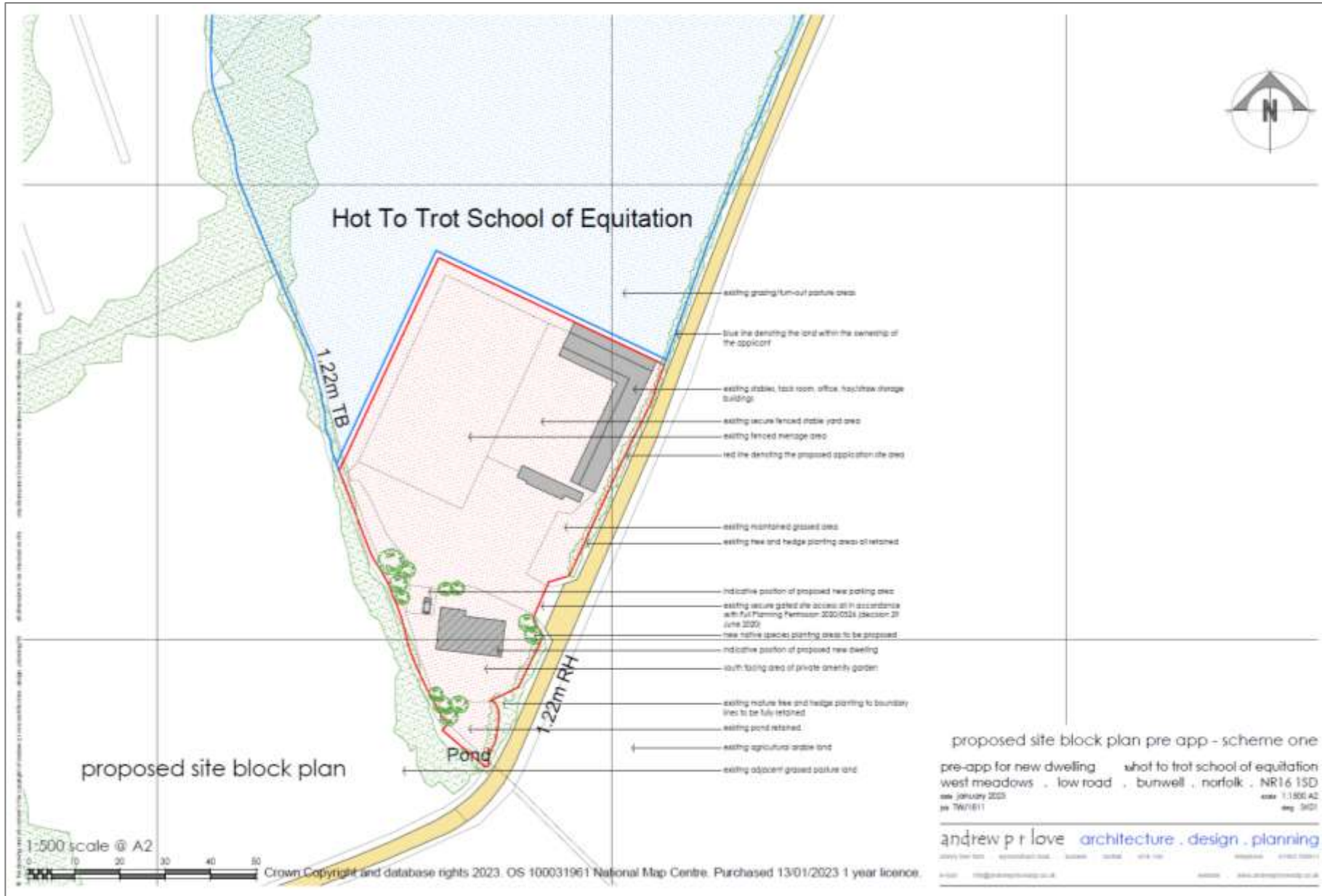


Figure 2: Proposed site layout plan



## 3. Methods

### 3.1. Zone of Influence

The Zone of influence (Zoi) is defined by the CIEEM Guidelines for Ecological Impact Assessment (2018) as: *“The areas/resources that may be affected by the biophysical changes caused by activities associated with a project”*.

The Zoi for this project considers multiple areas for the potential changes to ecological features as a result of the proposed development. The extents of these areas are:

- Within the application site boundary (Figure 1) and immediately adjacent habitats for direct impacts to valued ecological features (e.g. habitats and protected species).
- Within a 2km radius of the application site boundary for designated nature conservation sites which may be indirectly impacted as a result of the proposed development.
- Within 250m of the development site for water-bodies (potential great crested newt breeding sites), as based on the small-scale of the proposal.

### 3.2. Desktop study

A detailed desktop study was made of the survey area using the search criteria and sources described in the Table 1 below.

Table 1: Desktop study searches

Search	Sources
A 2km search radius for designated sites and features of interest	Natural England Magic Map Application ( <a href="http://www.magic.gov.uk">www.magic.gov.uk</a> )
A 2km radius for significant records of protected and priority species and European Protected Species mitigation licences	Natural England Magic Map Application ( <a href="http://www.magic.gov.uk">www.magic.gov.uk</a> )
A 250m radius for extant waterbodies	Natural England Magic Map Application ( <a href="http://www.magic.gov.uk">www.magic.gov.uk</a> ) Google Earth Pro Ordnance Survey maps (1:10,000)

### 3.3. Field survey and establishment of baseline ecological conditions

The survey area was evaluated on 03/11/2023 by Ben Christie MCIEEM (Natural England Level 2 bat survey Class Licence registration 2019-43514-CLS-CLS and great crested newt survey Class Licence registration 2016-25528-CLS-CLS).

Photographs of ecological features within the survey area are referenced within the Results Section and are shown in Appendix 2.

#### 3.3.1. Habitats

A Phase 1 habitat assessment of the survey area was conducted based on the UK Habitat Classification System (UKHab 2021) and the Phase 1 Habitat Survey methodology (JNCC 2010).

#### 3.3.2. Species

##### Mammals

The proposed development area and its adjacent surrounds was evaluated for its potential value for roosting bats and hedgehogs.



### Birds

An assessment was made of the features likely to support breeding birds and Schedule 1 birds within the survey area.

### Reptiles

An assessment was made of the features likely to support reptiles within the survey area.

### Great crested newts

A desktop search for ponds within 250m of the survey area was conducted using the Natural England Magic Map Application (Magic Maps) and Google Earth Pro, and an assessment was made of the features likely to support great crested newts within the survey area.

Accessible ponds were assessed, by way of a Habitat Suitability Index, for their potential to support breeding great crested newt (shown on Figure 4 in the Results Section).

## **3.4. Assessment of impact potential / risk**

Potential impacts on ecological features are characterized using the following criteria.

### Positive or Negative

The definition of a positive or negative impact/effect is as per CIEEM (2018):

- *“Positive – a change that improves the quality of the environment e.g. by increasing species diversity, extending habitat or improving water quality. This may also include halting or slowing an existing decline in the quality of the environment.*
- *Negative – a change which reduces the quality of the environment e.g. destruction of habitat, removal of foraging habitat, habitat fragmentation, pollution.”*

### Spatial Extent

The spatial extent of an impact’s predicted effects is estimated according to the following categories: international and European; national; regional / river basin district; county; local planning authority district; local (≈ parish); site (within the proposed development boundaries).

### Magnitude

- *Major* – an impact which is predicted to have a crucial effect (positive or negative) on a designated conservation site, habitat or species population within a specified spatial extent. Normally the effect will be considered either long-term (potentially reversible) or permanent.
- *Moderate* – an impact which is predicted to have a modest effect (positive or negative) on a designated conservation site, habitat or species population within a specified spatial extent. Normally the effect will be considered temporary in either the short- or medium-term, and reversible.
- *Minor* – an impact which is predicted to result in a slight but unimportant effect (positive or negative) on a designated conservation site, habitat or species population within a specified spatial extent. Normally the effect will be considered to be short-term and reversible.
- *Neutral* – a ‘non-impact’, with no appreciable effects on a designated conservation site, habitat or species population.

### Duration

The duration of an impact’s predicted effect may be quantified, or else broadly defined as either short-term, medium-term, long-term or permanent.

## 4. Results

### 4.1. Local context

The West Meadows site is situated on the north side of Low Road, to the north of Cargate Common.

The surrounding landscape is predominantly grassland/grazing marsh, with lesser areas of arable, broadleaved woodland and low-density rural development. The grassland fields are small with well-developed hedgerows along the boundaries. The River Tas flows 240m north of West Meadows at its closest point. OS maps show eight ponds within 250m, including one on-site (see Figure 4).

### 4.2. Desktop study results

No statutory designated nature conservation sites are located within 2km of the proposal site (the range considered for potential impacts). There are two County Wildlife Sites within 1km, the closest of which is Brick Kiln Lane, Bunwell Hill CWS (#2072) at 470m west. The CWS is a mosaic of grassland types with encroaching scrub, on a sloping river valley site north of the River Tas.

There is one record of great crested newt presence from Natural England Survey Licence returns from 2017, 1.9km northwest of the proposal site. No nearby issued European Protected Species mitigation licences or nearby developments with potential cumulative impacts were identified.

### 4.3. Field survey results

#### 4.3.1. Habitats

The site consists of short grassland (photo 1) adjacent to the existing horse-riding school business area. The site is often used for pitching marquee, which has led to an area of bare ground in the sward. The habitat is ascribed to modified grassland, which is classified via UKHabs as g4 106 510 516 'modified grassland, mown, active management, bare ground'. The grassland does not meet the criteria for any of the habitats listed in the Level 5 Habitat Hierarchy. The sward consists of *Dactylis glomerata*, *Geranium pratense*, *Holcus lanatus* and *Lolium perenne*. Average species richness is 3 per m<sup>2</sup>.

A recently planted native-species hedgerow (consisting of *Acer campestre*, *Acer pseudoplatanus*, *Crataegus monogyna*, and *Prunus spinosa*) with associated drainage ditch is present on the north boundary (photo 2). The hedgerow is classified as h2a 50 'Hedgerow: Priority Habitat, ditch'. The hedgerow does not meet the criteria for any of the hedgerows listed in the Level 5 Habitat Hierarchy. The ditch is narrow and shaded by adjacent vegetation, and contains water only during periods of heavy rainfall in winter (i.e. winterbourne; personal communication with Mr Tom Wright).

The drainage ditch associated with the hedgerow described above is enlarged next to the road (photo 3), and has been described as a pond on the site plan. The pond is small (4m by 5m), contains no emergent or floating macrophytes and is assessed as drying out annually. This feature is classified as r1a 41 'Eutrophic standing waters, pond (non-priority)'.

A linear group of mature native trees (photo 4) is bordering the southwest of the site, classified as w 33 'Woodland and Forest, line of trees'.

#### 4.3.2. Species

##### Bats

No habitat for bat roosting is present within the development area. Foraging and commuting bats are a possibility through the development site, with particular emphasis on the boundary trees.

A single *Fraxinus excelsior* tree (photo 5) within the adjacent group of mature trees is considered to have Low/PRF-I bat roost potential as per BCT guideline terminology (Collins, 2023). This is a single-

stem tree with a spreading crown from c.2m, <5 cracks and branch splits with some ivy growth (non-fluting).

### Hedgehogs

Transient hedgehogs passing through the area is a possibility, but hedgehogs refuging within the site is not.

### Birds

At present the site is not suitable for nesting birds, given the lack of suitable sward or any other features. Boundary features do have potential for tree nesting species, but this is outside of the development area. Schedule 1 species are not expected to frequent the site.

### Reptiles

The proposal site has negligible reptile potential.

### Amphibians

The nearest great crested newt presence record on Magic Map is 1.9km distant. Due to its drying out annually, poor water quality, fast flow during periods of high rainfall and because it contains no macrophytes, Pond 1 (Photo 3) has been assessed as 'Poor' for its suitability to be used by breeding great crested newts. Seven additional ponds have been identified within 250m. Pond 2 (200m north) was assessed as 'Below Average' due to sometimes drying and being heavily shaded with no macrophyte cover. The remaining off-site ponds (c.190-250m) were not accessed during the survey.

The proposal site is rated as unsuitable for great crested newts and other amphibians, being very small and of sparse mown grassland. Given that Pond 1 is unsuitable for breeding, plus the distances to the off-site ponds, the development site is not within the predicted core sustenance zone for any newts using these ponds (Jehle and Arntzen, 2000). The likelihood of the presence of terrestrial great crested newts within the proposed development area is concluded as being negligible, and for other amphibians such as common toad to be very low.

## **4.4. Limitations**

Access to the majority of off-site ponds within 250m of the proposed development site was not possible. Based on the scale of the proposed development, this is not considered to be a significant limitation, as there is a negligible risk to great crested newts even if the species is present within these ponds.

## **4.5. Further survey recommendations**

No further survey recommendations.

Figure 3: Map of survey results

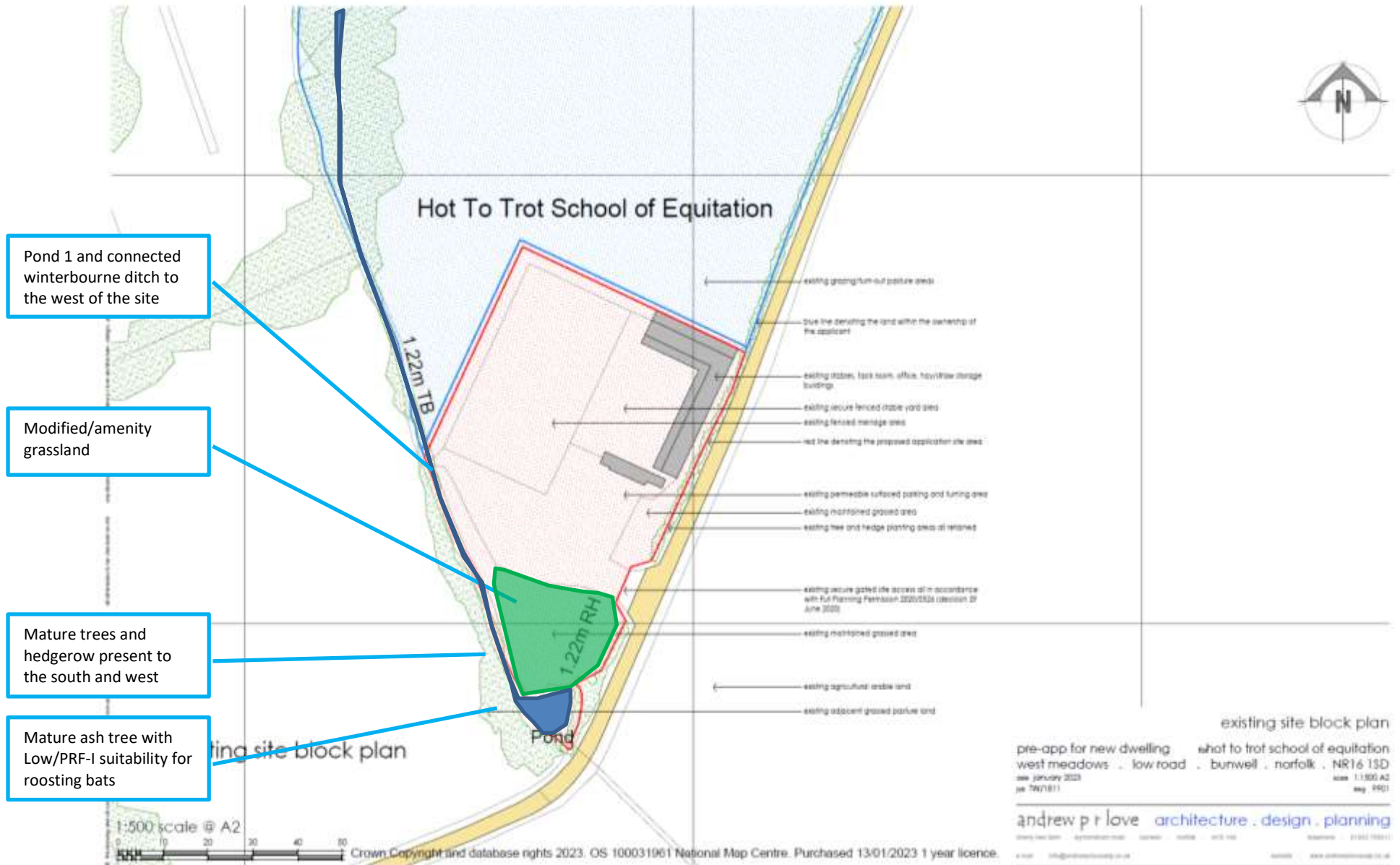


Figure 4: Pond assessment map



## 5. Ecological Impact Risk Assessment

### 5.1. Potential Impacts

#### 5.1.1. Designated nature conservation sites

There are no designated nature conservation sites within 2km. The small and confined extent of the proposed development presents no risk of impact to the nearest statutory and non-statutory designated sites. A *neutral* impact on designated nature conservation sites is predicted.

#### 5.1.2. Habitats

The habitats on the site are associated with regular amenity use, and the proposal is not considered to cause significant additional impacts beyond what they are currently exposed to from anthropogenic use; i.e. a *neutral* impact.

#### 5.1.3. Protected species

##### Mammals

The proposed development is predicted to have a *neutral* impact on local bat populations with regard to roost displacement. Foraging bats could be impacted as a result of potential illumination of the site boundaries, and this could be a permanent negative impact. Any impacts to the foraging behaviour of local bat populations are predicted to be no more than *minor negative* in magnitude, based on the activities associated with low density residential use.

There is a potential for *minor negative* impacts on a local hedgehog population by way of accidents occurring to transient hedgehogs during the site construction, but the long-term impact on hedgehogs from the new residence is expected to be *neutral*. Mitigation is advised.

##### Birds

Given an expected site absence, a *neutral* impact on nesting birds is predicted.

##### Reptiles

Given an expected site absence, a *neutral* impact on reptiles is predicted.

##### Amphibians

Given an expected absence, no impacts to breeding or core resting sites of great crested newt are predicted. Site preparation works, particularly ground works, could result in amphibian (i.e. common toad and common frog) mortality affecting a very small number of transient individuals. The impact is predicted as *minor negative* to local populations. Mitigation (avoidance) methods to reduce the impact risks to a negligible level are advised.

### 5.2. Cumulative effects

The proposal site is quite isolated from other developable areas, and itself presents only a risk of minor negative impacts to certain ecological receptors. No significant cumulative impacts are predicted.

## 5.3. Mitigation Measures

### 5.3.1. Habitats

The proposal is unlikely to cause damage to nearby mature trees and woodland habitats, but appropriate precautionary methods are advised to be implemented during construction to ensure this. Ensure adequate protection of nearby mature trees and hedgerows using exclusion fencing (Heras fencing or similar) to restrict construction works to the redline boundary only.

### 5.3.2. Protected species

#### Bats

To mitigate the potential for negative impacts on bat foraging and commuting from the lighting of a new development, any new exterior lighting for the development should be unobtrusive and downcast/directional to prevent direct illumination of bat flight paths and foraging areas as best as possible. Exterior lighting should be PIR activated and on short timers ( $\leq 1$  minute).

#### Hedgehog and amphibians

Construction impacts to hedgehogs are to be mitigated by barricading wet/drying concrete, fitting any open excavations with escape ramps and having precautionary methods of green waste and building material storage and movement.

Between March and November, any pit or trench that will be left open overnight will either be completely covered by weighted OSB sheeting (or similar), or alternatively will provide an escape route. A means of escape can be achieved by a graded slope or using boards in two locations to a maximum incline of 20° / 1:2.75 and no less than 20cm wide. Wet concrete must not be left exposed overnight.

All stored construction materials will be kept either on an area of hardstanding or raised off the ground (e.g. on pallets) to prevent them being used as temporary refugia (use as a refuge would increase the likelihood of injury or death to animals when the materials are used/moved). Storage areas, waste material and site compounds are best placed in areas not adjacent to suitable off-site or retained habitat which may act as a source of colonisation by newts. Mounds of soil can be compacted around the base to avoid creating refuges which newts could occupy.

## 5.4. Mitigation Licensing for European Protected Species

There are no European Protected Species mitigation licence requirements anticipated for the proposed development site.

## 5.5. Residual impact assessment

Table 2: Residual impact risk assessment

Receptor	Potential impact	Mitigation	Residual impact
Mature trees and hedgerows	Damage to tree roots/branches during construction phase	Site fencing around the redline boundary during construction phase to prevent damage to trees.	Neutral
Bats	Minor negative impact on local bat population foraging and commuting from new external lighting.	Follow an approved wildlife-sensitive lighting scheme. If tree works are required to the mature ash tree, standard precautionary measures apply in accordance with BCT guidance (2016).	Neutral
Hedgehog and amphibians	Minor negative impacts through entrapment in open trenches/excavations if left overnight	Cover all open excavations if left overnight or leave with shallow graded ends. Limiting ground works to Nov-Feb else covering pits and wet concrete overnight, storing materials away from boundaries and on hardstanding/pallets.	Neutral



## 6. Enhancements

### 6.1. Bat roost boxes

One bat roost box will be provisioned within the new development. The south elevation of the new dwelling is considered to offer the best location for a bat box.

The bat box may be an exterior-mounted model (e.g. 2FE Schwegler Wall-Mounted Bat Shelter, Beaumaris Woodstone Bat Box) or wall-integrated model (e.g. Ibstock Enclosed Bat Box 'C', Vivara Pro Build-in WoodStone Bat Box). Substitutes for the indicated box models may be used but must be justifiable on the basis of equivalent suitability for the target species (pipistrelles) and durability of materials.

Long-term maintenance of the described woodcrete/woodstone boxes should be minimal, as the materials are rot-resistant and self-cleansing of droppings, but the attachment to the building should be checked at least annually.

### 6.2. Bird nest boxes

Two bird nest boxes will be provided with the new development. The east and west elevations of the new dwelling are considered to offer the most suitable locations for nest boxes (one per elevation).

Recommend bird nest box models include:

- for house sparrows - Habibat Terraced Sparrow Box; 1SP Schwegler Sparrow Terrace; Vivara Pro WoodStone House Sparrow Nest Box, WoodStone Estella House Sparrow Nest Box.
- for spotted flycatcher, pied wagtail and robin - Vivara Pro Barcelona WoodStone Open Nest Box or any woodcrete/woodstone box with an extra-large opening.
- for a variety of songbirds - Vivara Pro Seville WoodStone Nest Box or any woodcrete/woodstone box with 28-32mm opening.

Substitutes for the indicated nest box models may be used if availability is an issue, but must be justifiable on the basis of equivalent suitability for the target species and durability of materials.

The described woodcrete/woodstone boxes are rot-resistant, but the attachment to the building should be checked at least annually. Bird nest boxes should be cleaned annually (Oct – Jan).

## 7. Conclusions

An ecological impact assessment of a proposed new dwelling at West Meadows, Low Road, Bunwell makes the following predictions:

- No impacts on designated nature conservation sites.
- No impacts on valued habitats.
- No impact to bat roosts. A potential minor negative impact to any on-site bat population via light disturbance, which is to be mitigated by adopting a wildlife-sensitive lighting scheme.
- A possibility of minor impacts to a local hedgehog population; to be mitigated by precautionary working methods during the construction phase.
- No impacts to great crested newts. A potential for a minor negative impact on other local amphibians, which can be mitigated by fitting any open excavations with escape ramps and having precautionary methods of material storage and movement.

There is potential for overall site biodiversity enhancement by providing a bat roost box and two bird nest boxes within the land holding.

## 8. Bibliography

Baker, J., Beebee, T., Buckley, J., Gent, A. & Orchard, D. (2011) Amphibian Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth, UK

Barn Owl Trust (2015), Barn Owls and Rural Planning Applications – a Guide. Available at: <https://www.barnowltrust.org.uk/wp-content/uploads/Barn-Owls-and-Rural-Planning-Applications-a-Guide-2015.pdf> (Accessed 19/06/2020)

Bat Conservation Trust (1997) Bats and Trees. The Bat Conservation Trust, UK. Available online at: [www.bats.org.uk](http://www.bats.org.uk)

British Standards Institute (2013). BS 42020: 2013 Biodiversity - Code of practice for planning and development.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester.

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London. Section 2.6.16-20.

Dean, M., Strachan, R., Gow, D. and Andrews, R. (2016) The water vole mitigation handbook (The Mammal Society Mitigation Guidance Series). Eds Fiona Matthews and Paul Chanin. The Mammal Society, London.

Draft Statutory Instrument (2019) The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. HMSO, UK

English Nature (2001) Great crested newt mitigation guidelines. English Nature, Peterborough, UK.

Ferguson, J., Fox, H. & Smith, N. (2018) Bats and artificial lighting in the UK. Bats and the Built Environment series, Guidance Note 08/18. Institution of Lighting Professionals and Bat Conservation Trust.

Froglife (2015) Surveying for reptiles: Tips, techniques and skills to help you survey for reptiles. Version 1.

Jehle R. and Arntzen, J. W. (2000) Post-breeding migrations of newts (*Triturus cristatus* and *T. marmoratus*) with contrasting ecological requirements. *Journal of Zoology*, Volume 251, Issue 3: July 2000, Pages 297-306.

Joint Nature Conservation Committee (2010) Handbook for Phase 1 habitat survey – a technique for environmental audit. JNCC, Peterborough, UK.

Langton, T. E. S, Beckett, C. L. & Foster, J. P. (2001) Great Crested Newt Conservation Handbook. Froglife, Halesworth, Suffolk, UK

Mitchell-Jones, A.J. & McLeish, A.P. (eds). (2004) Bat Worker's Manual, 3rd edition. Joint Nature Conservation Committee, UK.

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

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

Scottish Badgers (2018) Surveying for Badger: Good Practice Guidelines. Version 1.

Statutory Instrument (1983) Wildlife and Countryside Act 1981 (as amended). HMSO, UK

Statutory Instrument (1992) The Protection of Badgers Act (as amended). HMSO, UK.

Statutory Instrument (2000) Countryside and Rights of Way Act. HMSO, UK

Statutory Instrument (2017) Conservation of Habitats and Species Regulations 2017. HMSO, UK

Stone E.L., Jones G. & Harris S. (2012) Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats. *Global Change Biology*, 18, 2458-2465

Stone, E.L. (2013) Bats and lighting: Overview of current evidence and mitigation

UKHab V2.01 (2023) The UK Habitat Classification System. <https://ukhab.org/>

## Appendix 1: Relevant Legislation and Policy Guidance

### Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981, Section 9, states protections from intentional or reckless actions upon the certain animal species that are listed in Schedule 5 and the plant species listed in Schedule 8. The Schedule 5 listed species have different types of safeguards depending on whether they are protected by Section 9.1, 9.2, 9.4 and/or 9.5.

- Section 9.1 – protection from killing or injury; includes water vole, grass snake, common lizard, slow-worm and adder.
- Section 9.4a – protection from intentional damage or destruction to any structure or place used for shelter or protection; includes water vole.
- Section 9.4b – protection from intentional disturbance while occupying a structure or place used for shelter or protection; includes all bat species, hazel dormouse, otter, water vole and great crested newt.
- Section 9.4c – protection from access to any structure or place used for shelter or protection being obstructed; includes all bat species, hazel dormouse, otter, water vole, great crested newt and natterjack toad.

All wild birds are protected from destruction of their nests (with minor exceptions) under the Wildlife and Countryside Act 1981. A higher level of disturbance protection is extended to Schedule 1 species, such as barn owls, and their active nest sites.

Plants listed under Schedule 9 of the act are invasive and generally need controlling on a development site. It is an offence to “plant or otherwise cause to grow in the wild”, the invasive species listed on this schedule. Disposal of the plants or soil contaminated by them may need to be to a controlled waste site.

### Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017, as amended by the Conservation of Habitats and Species Amendment (EU Exit) Regulations 2019, broadly retains the habitat and species protections that are required under the European Habitats Directive (EC Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna) and the Birds Directive (Council Directive 2009/147/EC on the Conservation of Wild Birds). The statutory protection for European Protected Species and Natura 2000 sites (now referred to as ‘National Site Network’ sites) remains unchanged for now.

This legislation affords very strict protection to its Schedule 2 listed species, which includes all species of bats, hazel dormouse, otter, great crested newt and natterjack toad (Habitats Directive Annex IV species). Developments that are likely to have a significant impact upon any Schedule 2 listed species (e.g. bats and great crested newts) require a European Protected Species mitigation license from Natural England in order for the development to legally proceed.

### Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities Act 2006 (NERC) came into force on 1 October 2006. Under Section 40 of the Act, all public bodies (including planning authorities) now have a legal duty to consider biodiversity in their work (i.e. a material consideration for planning applications). As such, in order to increase the likely success of any planning application, consideration should be given to enhancing the biodiversity value of the site following redevelopment. Section 41 lists priority (Principal Importance) habitats and species which are to be particularly considered with respect to potential impacts, and may include species which are not otherwise protected by UK legislation.

## Appendix 2: Photographs



Photograph 1: Proposed development site



Photograph 2: Newly planted hedgerow with associated ditch



Photograph 3: Pond 1 – enlarged drainage ditch adjacent to Low Road, recent flash flooding



Photograph 4: Mature ash tree with Low/PRF-I potential for roosting bats adjacent to the site



Photograph 5: Pond 2 to the north



Photograph 6: River Tas to the north