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WASTE RESOURCE MANAGEMENT



DONNE & CATHERINE BAYNTON

1 SWANFIELD, LAWSHALL

BIODIVERSITY ASSESSMENT

FEBRUARY 2024

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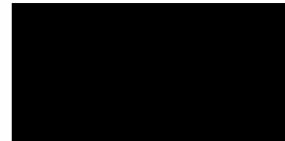
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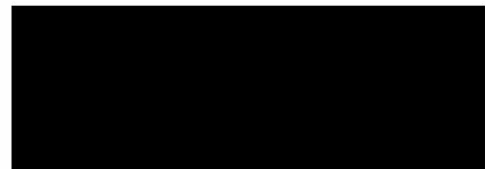
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## EXECUTIVE SUMMARY

Wardell Armstrong was commissioned by Donne and Catherine Baynton to undertake a great crested newt *Triturus cristatus* and biodiversity assessment of a proposed new garage at 1 Swanfield, Lawshall, Bury St Edmunds, IP29 4QB, centred on approximate National Grid Reference (NGR) TL 86879 54243, hereafter referred to as 'the Site'.

The assessment, conducted on the 15th February 2024, involved assessing nearby ponds for likelihood of supporting great crested newts using the Habitat Suitability Index, and checking areas of ground likely to be affected by the proposals for potential to support terrestrial refuges of great crested newts and common toads.

The nearby ponds were found to be of "poor" and "average" suitability for great crested newts using the Habitat Suitability Index and of low suitability for common toads.

The area that will be impacted by the proposed development was considered to have very little potential for great crested newts and common toads during their terrestrial phase, and too far from the ponds to potentially affect water voles if they were using the pond banks.

It was considered that with appropriate impact avoidance measures followed, the development could proceed with negligible impact on great crested newts, even if a high population was present in the nearby ponds, and hence no further survey would be required.

These measures are summarised as:

The concrete and gravel should be managed as it currently is (brick piles and other building materials raised above ground level), until ground works are undertaken to avoid creating potential refuges for amphibians that could attract the animals into harm's way.

To minimize the risk of creating temporary amphibian refuges during construction, any piles of loose materials/earth created during the newt active season (mid-February to mid-October), should be immediately removed off-site. Timbers, tiles and other construction materials should be kept off the ground on pallets (if present between mid-February to mid-October) to avoid attracting newts into harm's way.

With the impact avoidance measures undertaken, it should be possible for the proposed development to be undertaken with negligible risk of negative impact on great crested newts, other amphibians and water voles. If the proposed enhancements were undertaken, there would likely be a positive net gain for biodiversity on site.

## 1 INTRODUCTION

### 1.1 Background

1.1.1 Wardell Armstrong was commissioned by Donne and Catherine Baynton to undertake a great crested newt *Triturus cristatus*, and biodiversity assessment of a proposed new garage at 1 Swanfield, Lawshall, Bury St Edmunds, IP29 4QB, centred on approximate National Grid Reference (NGR) TL 86879 54243, hereafter referred to as ‘the Site’.

1.1.2 It is understood that an area of hardstanding within the site boundary will be developed in order to construct a new garage. The LPA have indicated that they consider the application invalid without biodiversity information from a suitably qualified ecologist for the following reason(s):

minor and householder proposals within 100m of pond/moat - great crested newts, water voles and amphibians.

## 2 METHODS

### 2.1 Site Survey

#### Habitats and Surroundings

2.1.1 The site was visited on the 15th of February 2024 to assess the risk of impact from the proposals on great crested newts, water voles and other amphibians. This included identifying the suitability of terrestrial habitats present on site for resting, foraging and dispersing great crested newts and other amphibians. Nearby ponds were also assessed for likelihood of supporting breeding great crested newts (see Appendix 1. for site location plan and nearby ponds within 100m).

#### Habitat Suitability Assessment for Great Crested Newts of Nearby Ponds

2.1.2 Two ponds were assessed for likelihood of presence of great crested newts by applying the Habitat Suitability Index (HSI), as developed by Oldham et al. (2000). The ponds located off site were within 100 metres of the proposed works (OS Maps, 2022) and were of varying suitability for breeding great crested newts.

2.1.3 The Habitat Suitability Index included assessing for example:

potential for excessive shading;

presence of fish;

suitability of pond vegetation;

pollution or other degradation;

local habitat context within the landscape.

2.1.4 The assessment was undertaken by Richard Sands MA (Oxon) MSc MCIEEM CEnv, an ecologist who holds a Natural England Level 1 Class Licence for great crested newts (2015-18941-CLS-CLS), and James Whiffen-Brown BSc (Hons), an ecologist.

## 2.2 Constraints

2.2.1 The survey was undertaken outside the peak breeding season for great crested newts, but close enough to the start of the breeding season for the pond habitats to likely be representative of their situation this coming spring.

## 3 RESULTS

### 3.1 Terrestrial Habitat on Site

3.1.1 The site of the proposed new garage consisted of an area of approximately 50m<sup>2</sup> of hardstanding concrete and gravel substrate. There was a pile of bricks, and several piles of other building materials and objects such as wood, tiles, and slate, elevated off ground level on pallets (see Photograph 1 & 2 in Appendix 2).

### 3.2 Surrounding Terrestrial Habitat & Connectivity

3.2.1 Residential houses and gardens were adjacent to the west boundary of the site. Adjacent to the east boundary was a development site that had started undergoing clearance of vegetation and was predominantly bare ground. The wider landscape consisted of more residential houses, arable with grass fields and a small pocket of woodland 200 metres to the east of the site (Google Earth, 2024).

### 3.3 Nearby Waterbodies Suitability

3.3.1 The nearest waterbody to the proposed development area was pond 1, which was located approximately 45m to the north-east of the proposed development area, across a main road. The pond was small, approximately 80m<sup>2</sup> in size. There was an inlet pipe with water flowing into the pond from a nearby stream, although this probably dries out during the drier months. The surrounding habitats consisted of grassland vegetation and scattered trees, with several fallen willow, *Salix* sp., trees within the pond (see photograph 3 in appendix 2). This habitat offered moderate

suitable foraging opportunities and few refuges for great crested newts. The banks of the pond were well vegetated with shrub and ground fauna. The HSI assessed this pond as having being “average” suitability to support breeding great crested newts.

3.3.2 The second water body, pond 2, was approximately 75m east of the proposed development, within the boundary of the neighbouring development adjacent to the Site. The lack of a flowing water source, as well as a lack of aquatic flora, and trees emerging out of the middle of the pond, indicated that the pond is usually dry during most months of the year and therefore very unlikely to be able to support populations of breeding great crested newts and other amphibians. The surrounding habitats consisted of scattered mature trees and well vegetated ground flora (see photograph 4 in appendix 2). This habitat offered several suitable foraging opportunities and numerous refuges for great crested newts. Overall, the result of the HSI assessment was considered “poor” suitability to support breeding great crested newts.

3.3.3 Detailed results of the HSI assessments for each waterbody can be found in Table 1 in Appendix 3.

## 4 LEGISLATION AND RISK ASSESSMENT

### 4.1 Legislation

#### Great Crested Newts

4.1.1 Great crested newts are protected under the Conservation of Habitats and Species Regulations 2017 (as amended), as well as the Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000. Offences likely to be relevant to development are to:

intentionally or deliberately capture or kill;

intentionally injure;

deliberately disturb, or intentionally or recklessly disturb in a place of shelter or protection;

damage or destroy a breeding site or resting place;

intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.

4.1.2 Great crested newts are also a NERC Act 2006 Section 41 species.

### Common Toad

- 4.1.3 Common toads are NERC Act 2006 Section 41 species. The local conservation of any Section 41 species is a material consideration for any planning application.

### Water Vole

- 4.1.4 Water voles are protected under the Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000. Offences likely to be relevant to development are to:

to intentionally kill, injure or take a water vole;

intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection or disturb water voles while they are using such a place.

## 4.2 Risk of Negative Impact from the Proposed Development

### Great Crested Newt

- 4.2.1 The concrete and gravel, on which the garage is proposed, had negligible potential refuge or foraging opportunities for great crested newts. A very small brick pile had very limited refuge opportunity on site, however this was checked for great crested newts, of which none was found, and dismantled by the licence holder ecologist.
- 4.2.2 There were however several barriers, such as a main road, other developments and fence lines, between the ponds and development site that will reduce the connectivity for great crested newts and other amphibians to be able to traverse onto the site.
- 4.2.3 The proposed development would not be expected to damage or destroy resting places of great crested newts, nor lead to loss of habitat likely to affect any nearby population. There would be a very low risk of harming or obstructing individual great crested newts during the construction process, which could be avoided by following the precautions detailed in the Recommendations section of this report.

### Common Toad

- 4.2.4 Given the low suitability of the nearby ponds for common toad, given their small size, and the very low number of potential amphibian refuges on site, the risk of the proposed development having a significant impact on any local population of common toad was considered to be negligible.



## Water Vole

- 4.2.5 Given the distance of the area to be impacted from the nearest significant waterbody (45m), which was also the other side of a road from the nearest waterbody, the potential for any water voles associated with the banks of the nearest waterbodies to be impacted by the proposed development was considered negligible.

## 5 RECOMMENDATIONS

### 5.1 Further Survey

- 5.1.1 No further surveys were considered necessary, however, the impact avoidance measures outlined below should be undertaken to reduce the potential risk of infringing great crested newt legislation to negligible.

### 5.2 Impact Avoidance

#### Habitat Management

- 5.2.1 The concrete and gravel should be managed as it currently is (brick piles and other building materials raised above ground level), until ground works are undertaken to avoid creating potential refuges for great crested newts that could attract the animals into harm's way.

#### Timing of Works

- 5.2.2 Temporary piles of earth and loose materials may be created, which could attract newts and other amphibians into harm's way if works are undertaken when newts are actively moving around on land.
- 5.2.3 To minimize the risk of inadvertently creating newt/amphibian refuges and harming newts/amphibians, soil and loose materials resulting from groundworks taking place between mid-February and mid-October, when great crested newts are active, should be moved to their permanent location immediately. Outside these months, temporary spoil heaps can be retained longer, but must be removed before newts become active in the spring (approximately mid-February, depending on night time temperatures).
- 5.2.4 Timbers, bricks, tiles and larger construction materials should be kept off the ground on pallets between mid-February to mid-October to avoid attracting newts into harm's way.

## 5.3 Biodiversity Enhancement

5.3.1 Biodiversity Net Gain (BNG) is not currently required for household applicants, however, the following biodiversity enhancements, as recommended by Babergh District Council (2023), should be considered to maintain and enhance local biodiversity within the site:

A single integrated bat tube, such as the Schwegler 1FR Bat Tube, is designed to be installed on the external walls of buildings, either flush or beneath a rendered surface, and is suitable for the types of bats that inhabit buildings. The 1FR bat tube requires no maintenance and there are no diseases known to be associated with bat droppings. The bat tube should be positioned close to the apex of the garage roof, away from external lighting, and where there is a clear path of flight to the boxes (see proposed location in appendix 4).

A single integrated bird box, such as the Vivara Pro WoodStone House Sparrow Nest Box, would benefit nesting House sparrows. The box should be installed above 2m, out of the reach of predatory cats, and should not be in direct sunlight, to avoid nestlings overheating and dying (see proposed location in appendix 4).

## 6 CONCLUSION

6.1.1 With the impact avoidance measures undertaken, it should be possible for the proposed development to be undertaken with negligible risk of negative impact on great crested newts, water voles and other amphibians. If the proposed enhancement was undertaken, there would likely be a positive net gain for biodiversity on site.

## 7 REFERENCES

Babergh District Council, 2023. Biodiversity Net Gain: Householder Applications. <https://www.babergh.gov.uk/web/babergh/w/biodiversity-net-gain>. Accessed February 2024.

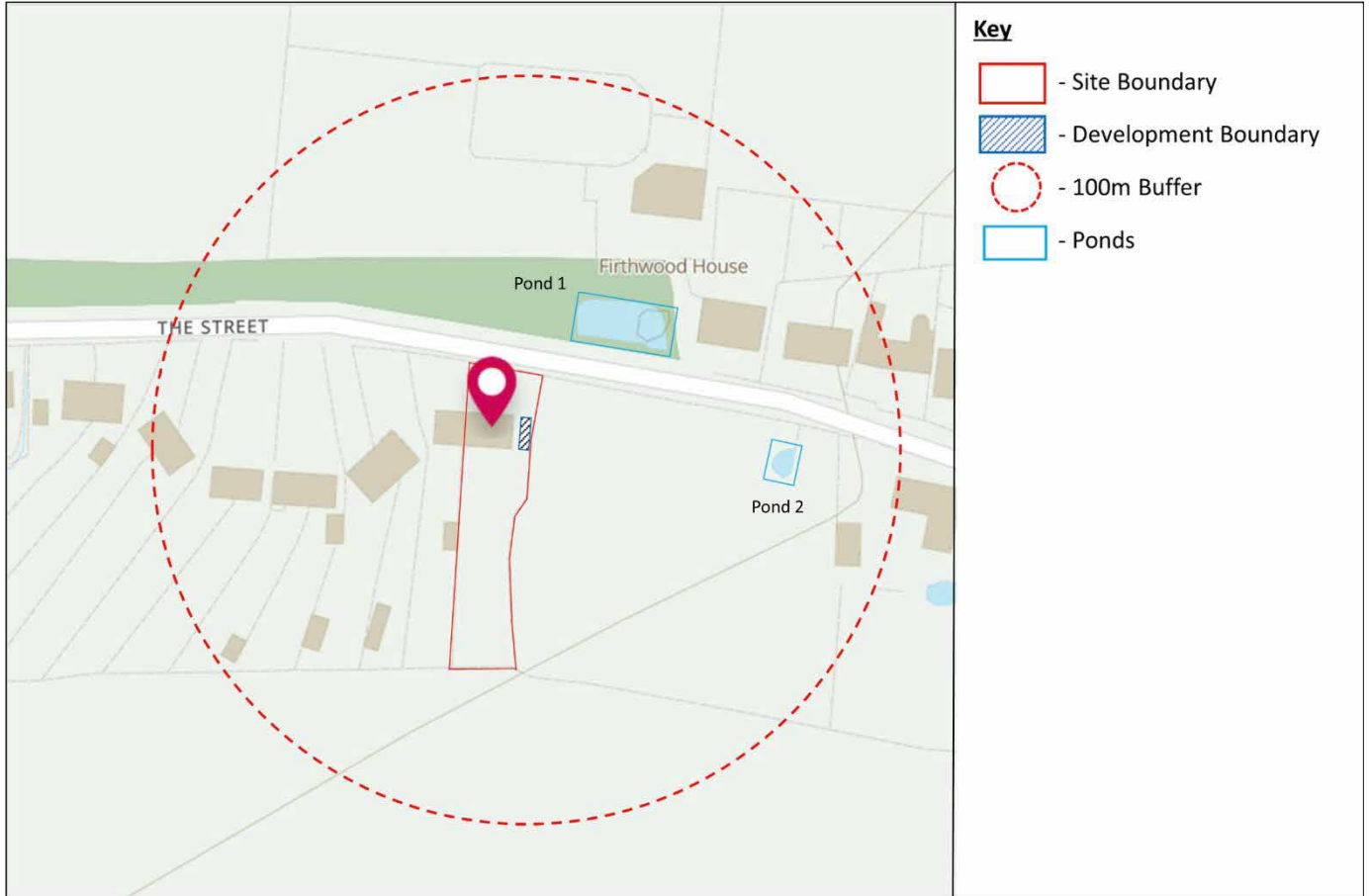
Google Earth, 2024. Aerial View of 1 Swanfield, Lawshall and Surroundings. Image dated September 2023.

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

OS Maps, 2022. Location View of 1 Swanfield, Lawshall Area. <https://osmaps.com/>. Accessed February 2024.

## APPENDICES

Appendix 1: Location of the Site and the Ponds Assessed for Great Crested Newt Suitability.



## Appendix 2: Site and Habitat Photographs

All Photographs taken by James Whiffen-Brown on the 15<sup>th</sup> February 2024.

Photograph 1: The Proposed Location of the Garage at 1 Swanfield, Lawshall.



Photograph 2: The Proposed Location of the Garage at 1 Swanfield, Lawshall.



Photograph 3: Pond 1 and Surrounding Habitats.



Photograph 4: Pond 2 and Surrounding Habitats.



### Appendix 3: Habitat Suitability Index Results

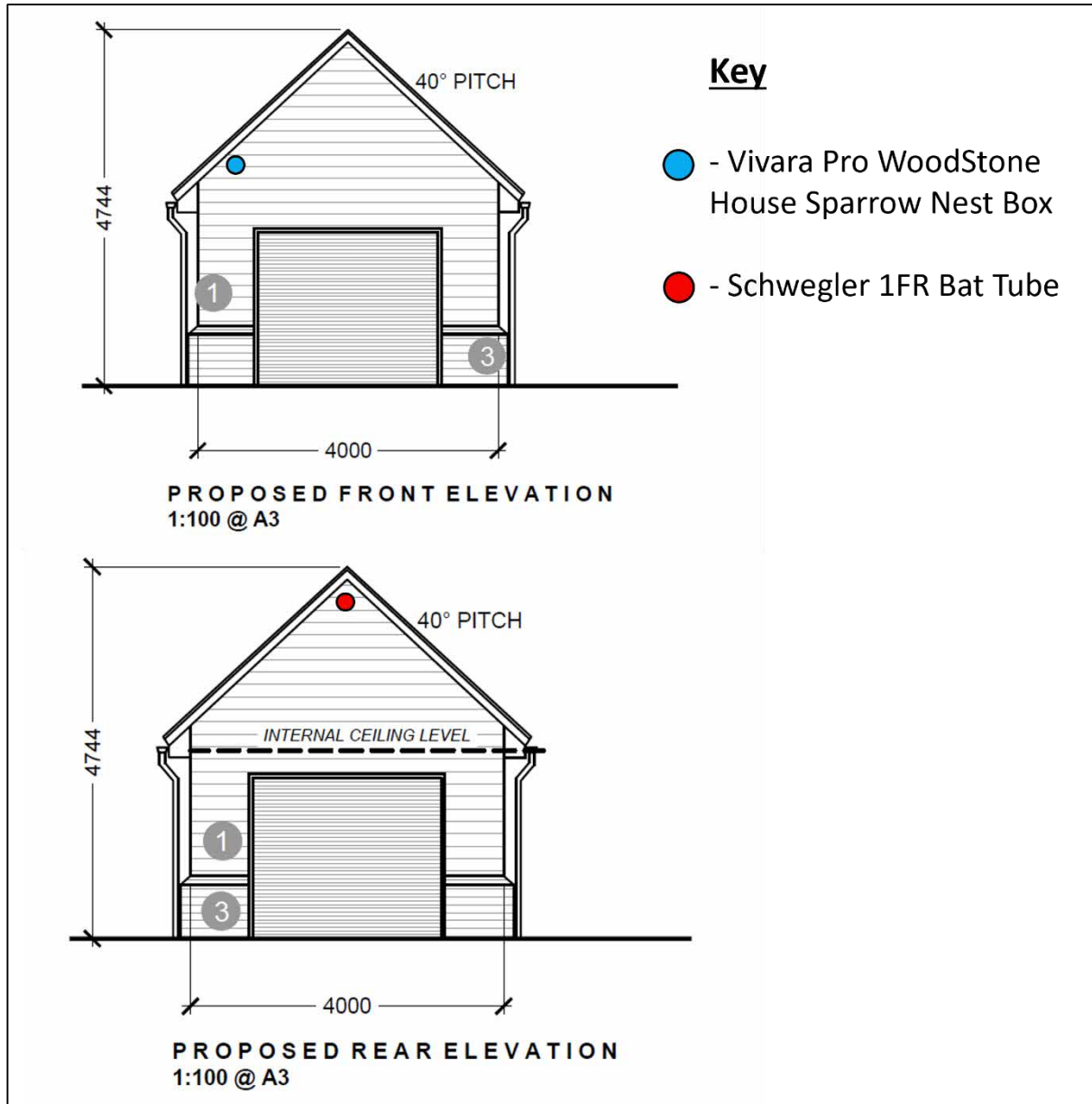
Table 1: Results of the HSI Assessments of the Waterbodies near 1 Swanfield, Lawshall on 15th February 2024.

Habitat Suitability Criteria	Pond 1	Pond 2
SI1 - Location	1.00	1.00
SI2 - Pond Area	0.10	0.10
SI3 - Desiccation Rate	1.00	0.10
SI4 - Water Quality	0.67	0.67
SI5 - Shade	1.00	0.40
SI6 - Waterfowl	1.00	1.00
SI7 - Fish	1.00	1.00
SI8 - Ponds within 1km	0.80	0.80
SI9 - Terrestrial Habitat Quality	0.67	1.00
SI10 - Macrophyte Cover	0.50	0.30
HSI Score	0.67 (Average)	0.48 (Poor)

<0.5 = poor; 0.5 – 0.59 = below average; 0.6 – 0.69 = average; 0.7 – 0.79 = good; >=0.8 = excellent



Appendix 4: Proposed Location Plan for Bat and Bird Boxes (Drawing Adapted from “AS PROPOSED - GARAGE”).



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