

# GREAT CRESTED NEWT SURVEY

## Durrants Lane, Berkhamsted, Hertfordshire

*Prepared by*

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*On behalf of*

**Taylor Wimpey UK Ltd, Hertfordshire County Council & Egerton Rothesay School**

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### 1.0 Introduction

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- 1.1 This report presents the findings of a great crested newt *Triturus cristatus* survey at six small ponds within the vicinity of a proposed development site at Durrants Lane, Berkhamsted, Hertfordshire. The central grid reference for the site is SP 975 078. It is understood the scheme includes redevelopment of the Egerton-Rothesay School, new leisure space and approximately 100 new dwellings. The following report describes the legislative framework protecting the species and assesses the results and implications of the survey.
- 1.2 The site is situated to the west of Berkhamsted and encompasses approximately 14 hectares of land which include the school and associated grounds with arable fields and woodland to the south and further woodland and rough grassland to the north. One waterbody is located within the site within the woodland to the north. In addition five waterbodies occur within 500m of the site. Should any of these ponds support great crested newts there is the potential that terrestrial habitat within the site may be used by this species.
- 1.3 This survey focuses on the ponds that are considered to be of most relevance to the site in terms of their location and habitat linkages, as discussed later in this report. The legislation concerning great crested newts and the implications of the survey results are also discussed.

### 2.0 Legislative Context

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- 2.1 As a result of its status throughout Europe, the great crested newt is listed on Annexe II and IV of the European Council's Conservation of Natural Habitats and Wild Fauna and Flora Directive (92/43/EEC), often referred to as the 'Habitats Directive'. The Directive is transposed into UK law by The Conservation (Natural Habitats &C.) Regulations 1994

(amended 2007) which affords strict protection (via Regulation 39) for species listed within Schedule 2, such as the great crested newt. The Wildlife and Countryside Act 1981 (as amended) transposes into UK law the Convention on the Conservation of European Wildlife and Natural Habitats. The 1981 act was amended by the Countryside and Rights of Way (CROW) Act 2000.

2.2 In combination the 1981 Act (as amended) and 1994 Regulations (as amended) make it an offence to:

- Deliberately capture, injure or kill great crested newts;
- Intentionally, deliberately or recklessly disturb great crested newts;
- Damage or destroy a breeding site or resting place; and
- Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.

The legislation covers all life stages of great crested newts and also includes restrictions on possession and sale of this species.

2.3 Natural England may grant a licence to permit activities that would otherwise be unlawful for several purposes including:

- Regulation 44(2)(e) - "*preserving public health or public safety or other imperative reasons of overriding public interest including those of social or economic nature and beneficial consequences of primary importance for the environment*".

Natural England must be satisfied of the following in order to grant a licence:

- Regulation 44(3)(a) – "*that there is no satisfactory alternative*"; and
- Regulation 44(3)(b) – "*that the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.*"

### **3.0 Methodology**

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3.1 The survey work was conducted by a number of ecologists including Natural England licensed great crested newt surveyors Aidan Marsh MIEEM (Licence No. 20073394) Kris Long MIEEM (Licence No. 20080347), Hayley Jack AIEEM (Licence No. 20080255) and Clare Caudwell AIEEM (Licence No. 20080267)

#### Pond assessment/selection

3.2 A total of six waterbodies were identified within 500m of the site, as shown on the Ponds Location Plan (CSa 1074\_122) to the rear of this report in Appendix A. As shown on the plan one pond is located within the site boundary, the other five ponds are located to the west within the Woodstock Hill House gardens. The majority of the waterbodies were assessed against a range of criteria that may have a role in determining the suitability of

ponds for great crested newts, as suggested by Oldham *et al.*<sup>1</sup> in their study of habitat suitability for this species. All of the off-site waterbodies are within 85m of the site. No other waterbodies were identified within the 500m radius of the site. With reference to OS maps and aerial photographs a further pond was identified c.160m south of the site although the pond assessment site visit revealed no pond exists in this location.

#### Presence/absence survey

- 3.3 Four survey visits were made to each waterbody between 14 April and 07 May 2008. On each visit a combination of bottle trapping, egg searching and torchlight searching was used, as recommended and described within the Great Crested Newt Mitigation Guidelines<sup>2</sup> and within the Great Crested Newt Conservation Handbook<sup>3</sup>.
- 3.4 On each of the survey visits bottle traps were set out at approximate 2m intervals around the pond just before dusk. These traps were then checked early the following morning (between 06.00 and 10.00) for the presence of great crested newts and the traps were subsequently removed. Bottle traps were set out at approximately two metre intervals along all accessible stretches of bank. During each survey, overnight maximum and minimum water temperatures were recorded within a waterbody at a depth of approximately 10cm.
- 3.5 Torchlight searches were carried out after dark on each survey visit at least one hour after dusk, with a one million candlepower Clulite™ torch. Any amphibians seen at every two-metre station were recorded. On each survey visit suitable aquatic vegetation within the waterbodies was searched for the presence of great crested newt eggs.

## **4.0 Results**

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- 4.1 Key features of each waterbody subject to great crested newt surveys and the results of each survey are presented within the summaries that follow (for numbering refer to Pond Location Plan at rear of report). The variables recorded within these summaries may have a role in determining the suitability of ponds for great crested newts, as suggested by Oldham *et al.*<sup>1</sup> in their study of habitat suitability for this species.
- 4.2 The minimum overnight air temperature across all four visits was 6°C and the maximum recorded was 15°C, therefore all visits were conducted within a suitable temperature range.
- 4.3 Pond 4 was netted over much of the surface therefore just one bottle trap was used in this small pond. Ponds 5 and 6 were considered to be too small to bottle trap so surveys at these waterbodies were limited to egg searches and torching survey methods.

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<sup>1</sup> Oldham *et al.* (2000) Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). Herpetological Journal 10: 143-155.

<sup>2</sup> English Nature (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough

<sup>3</sup> Langton, T.E.S. Beckett, C.L. & Foster, J.P. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

- 4.4 No great crested newts were observed within any of the ponds during the four survey visits. In addition, no great crested newt eggs were found. Smooth newt *Triturus vulgaris* was found in all surveyed ponds, with a maximum single count of 45 adults trapped within Pond 1 on 29/30 April 2008. Palmate newt *Triturus helveticus* were found in Pond 1 with a maximum count of 14 adults trapped on the 29/30 April 2008. Common frog *Rana temporaria* was found in Ponds 1, 4 and 5.

## POND 1

### General details

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O.S. Grid Ref: SP 976 080  
Location: Situated in wooded area in northeast of site.  
Description of site: A small pond with common reedmace *Typha latifolia* around the majority of the pond edges. The pond is on a raised area surrounded by brambles and nettles.

### Pond assessment

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Size of water body: Approx. 8m x 7m  
Distant to nearest pond/s: Approx 230m east of Pond 5  
Gradient to sides of pond: c. 10°  
Depth of pond at deepest point: c.1m  
Permanence of pond: Permanent  
Water quality (invertebrates, pollution): No pollution evident. Great diving beetle seen.  
Aspect / Tree cover: Not shaded  
Extent of aquatic plant communities: Emergent vegetation dominated by common reedmace (around 90%)  
Presence of egg-laying material: Yes, including encroaching common nettle *Urtica dioica*, bramble *Rubus fruticosus* agg. and grasses.  
Terrestrial habitat: Tall ruderals, woodland and scrub  
Presence of fish or other predators: Fish absent, great diving beetle present.  
Level of waterfowl activity: None seen

### Survey data

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Date	No. Newts Torched	No. Bottle Traps	No. Newts Trapped	No. Newt Eggs Found
14/15 April 2008	1 SN f	10	5 SN m 5 SN f	-
21/22 April 2008	-	10	2 SN m 1 SN f 1 PN m 1 PN m	-
29/30 April 2008	-	10	35 SN m 10 SN f 13 PN m 5 PN f	-
06/07 May 2008	-	10	28 SN m 10 SN f 2 PN m 3 PN f	-

Abbreviations: SN – smooth newt; PN – palmate newt; m – male; f – female

Other amphibians: Common frog adults & tadpoles

## POND 2

### General details

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O.S. Grid Ref: SJ 972 080  
Location: Within garden to west of Woodstock Hill House to east of development site  
Description of site: A medium sized old pond surrounded by trees

### Pond assessment

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Size of water body: Approx. 20m x 15m  
Distant to nearest pond/s: Approx 60m southwest of Pond 3  
Gradient to sides of pond: c. 45°  
Depth of pond at deepest point: Estimated over 1m deep  
Permanence of pond: Permanent  
Water quality (invertebrates, pollution): No pollution evident. Limited invertebrate fauna  
Aspect / Tree cover: Partially shaded around much of edges by surrounding trees  
Extent of aquatic plant communities: Very limited aquatic vegetation  
Presence of egg-laying material: Limited to small amount of leaf litter  
Terrestrial habitat: Woodland and rough grassland  
Presence of fish or other predators: None seen  
Level of waterfowl activity: None seen but considered likely

### Survey data

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Date	No. Newts Torched	No. Bottle Traps	No. Newts Trapped	No. Newt Eggs Found
23/24 April 2008	-	18	1 SN f	-
21/22 April 2008	-	18	2 SN m 1 SN f	-
29/30 April 2008	-	18	-	-
06/07 May 2008	-	18	1 SN m 2 SN f	-

Abbreviations: SN – smooth newt; m – male; f – female

## POND 3

### General details

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O.S. Grid Ref: SP 973 080  
Location: Within the garden of Woodstock Hill House to east of site  
Description of site: Small ornamental garden pond with stone walls surrounded by planted pond vegetation.

### Pond assessment

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Size of water body: Approx. 3.5m x 2.5m  
Distant to nearest pond/s: Approx 20m west of Pond 4  
Gradient to sides of pond: 90°  
Depth of pond at deepest point: c1m  
Permanence of pond: Permanent  
Water quality (invertebrates, pollution): Good. Lots of invertebrates present  
Aspect / Tree cover: Unshaded  
Extent of aquatic plant communities: At edges of pond includes marsh marigold *Caltha palustris* and yellow flag *Iris pseudacorus*. Also ornamental water-lillies on 10% of surface.  
Presence of egg-laying material: water lilies, some leaf litter  
Terrestrial habitat: Closely mown lawn  
Presence of fish or other predators: No fish present  
Level of waterfowl activity: None seen

### Survey data

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Date	No. Newts Torched	No. Bottle Traps	No. Newts Trapped	No. Newt Eggs Found
14/15 April 2008	-	10	2 SN m	-
21/22 April 2008	1 SN f	10	4 SN m 2 SN f	-
29/30 April 2008	-	10	10 SN m 6 SN f	-
06/07 May 2008	1 SN m	10	10 SN m 6 SN f	-

Abbreviations: SN – smooth newt; m – male; f – female

## POND 4

### General details

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O.S. Grid Ref: SJ 973 080  
Location: Within the garden of Woodstock Hill House to the west of the site.  
Description of site: A small ornamental garden pond with a fountain and a net covering the pond.

### Pond assessment

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Size of water body: Approx. 2m x 2m  
Distant to nearest pond/s: Approx 20m west of Pond 5  
Gradient to sides of pond: 90°  
Depth of pond at deepest point: c. 1-2m  
Permanence of pond: Permanent  
Water quality (invertebrates, pollution): No pollution evident. Water quality appears good but no invertebrates seen  
Aspect / Tree cover: Unshaded  
Extent of aquatic plant communities: Very little vegetation present due to netting  
Presence of egg-laying material: limited to dead leaves  
Terrestrial habitat: Closely mown lawn  
Presence of fish or other predators: No fish seen.  
Level of waterfowl activity: None seen

### Survey data

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Date	No. Newts Torched	No. Bottle Traps	No. Newts Trapped	No. Newt Eggs Found
14/15 April 2008	1 SN f	1	-	-
21/22 April 2008	2 SN m 2 SN f	1	1 SN m 2 SN f	-
29/30 April 2008	-	1	1 SN unid. 4 SN f	-
06/07 May 2008	4 SN f	1	1 SN m 1 SN f	-

Abbreviations: SN – smooth newt; m – male; f – female, unid – sex unconfirmed

Other amphibians: Common frog adults



## POND 5

### General details

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O.S. Grid Ref: SP 973 080  
Location: In garden of Woodstock Hill House close to outbuildings. To west of development site.  
Description of site: Small metal tank

### Pond assessment

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Size of water body: Approx. 1.5m x 0.5m  
Distant to nearest pond/s: Approx 20m north of Pond 6  
Gradient to sides of pond: 90°  
Depth of pond at deepest point: c.0.5m  
Permanence of pond: Permanent  
Water quality (invertebrates, pollution): No pollution evident. No invertebrates seen.  
Aspect / Tree cover: Unshaded  
Extent of aquatic plant communities: No plants present  
Presence of egg-laying material: Limited to dead leaves  
Terrestrial habitat: Closely mown lawn  
Presence of fish or other predators: None seen  
Level of waterfowl activity: None seen

### Survey data

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Date	No. Newts Torched	No. Bottle Traps	No. Newts Trapped	No. Newt Eggs Found
14/15 April 2008	-	0	N/A	-
21/22 April 2008	-	0	N/A	-
29/30 April 2008	-	0	N/A	-
06/07 May 2008	-	0	N/A	-

## POND 6

### General details

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O.S. Grid Ref: SP 973 080  
Location: Within garden of Woodstock Hill House to west of development site.  
Description of site: Stone trough

### Pond assessment

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Size of water body: Approx. 1.5m x 0.5m  
Distant to nearest pond/s: Approx 20m south of Pond 5  
Gradient to sides of pond: 90°  
Depth of pond at deepest point: c.0.5m  
Permanence of pond: Permanent  
Water quality (invertebrates, pollution): No pollution evident. Very few invertebrates present.  
Aspect / Tree cover: Unshaded  
Extent of aquatic plant communities: No aquatic vegetation  
Presence of egg-laying material: Leaf litter present  
Terrestrial habitat: Closely mown lawn  
Presence of fish or other predators: None seen  
Level of waterfowl activity: None seen, unlikely

### Survey data

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Date	No. Newts Torched	No. Bottle Traps	No. Newts Trapped	No. Newt Eggs Found
14/15 April 2008	4 SN m 7 SN f	0	N/A	-
21/22 April 2008	3 SN m 5 SN f	0	N/A	-
29/30 April 2008	4 SN m 5 SN f	0	N/A	-
06/07 May 2008	1 SN m 5 SN f	0	N/A	-

Abbreviations: SN – smooth newt; m – male; f – female

Other amphibians: Common frog present

## **5.0 Discussion**

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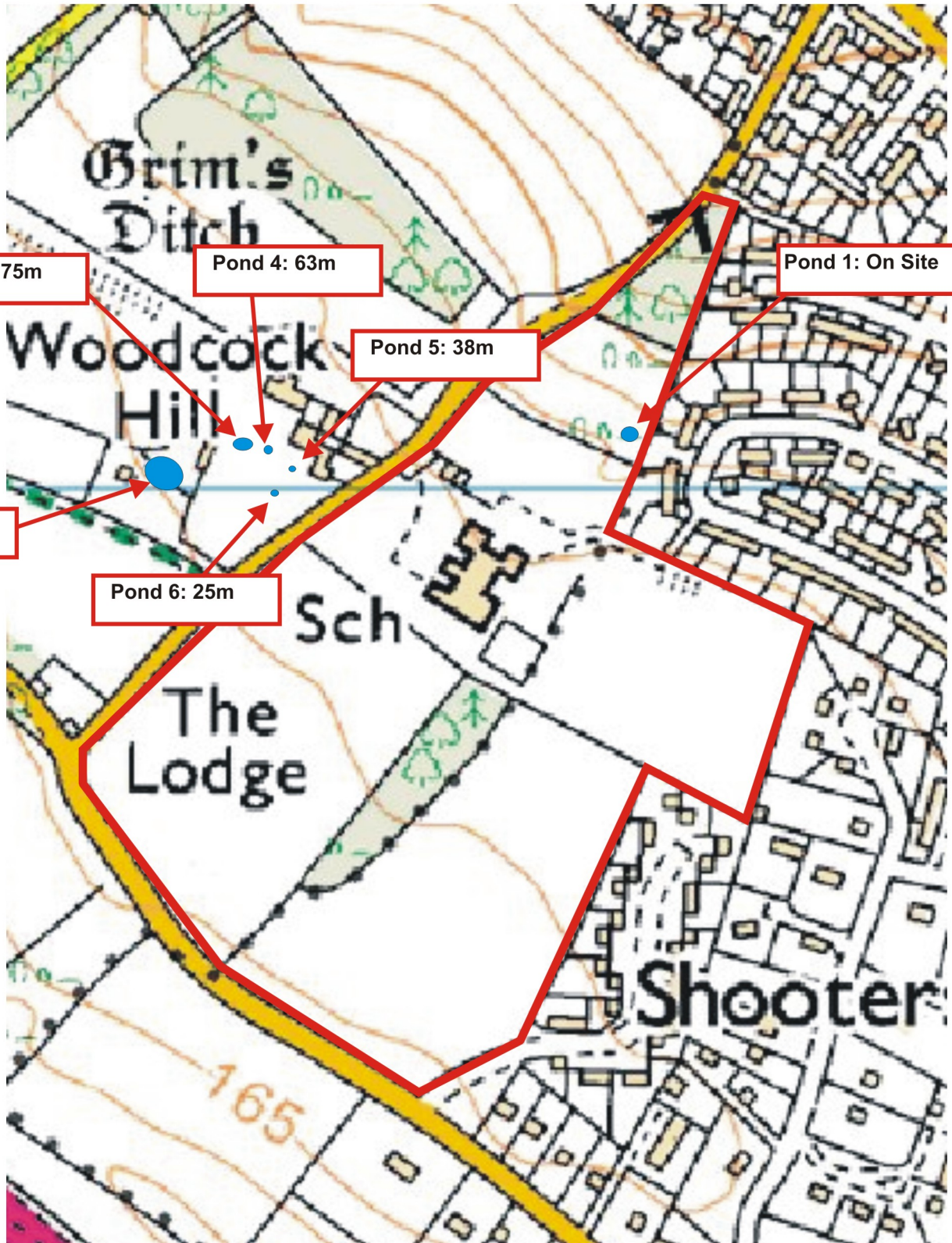
- 5.1 The survey visits were conducted within the recommended survey period and were undertaken during appropriate weather conditions. All potentially suitable water bodies within 500m of the site and any others directly linked to these were surveyed, using the techniques described in English Nature's Great Crested Newt Mitigation Guidelines<sup>2</sup>.
- 5.2 Whilst limitations regarding the unsuitable conditions for bottle trapping in Ponds 5 and 6 are recognised, these are not considered to compromise the findings of the survey. Three standard survey methodologies were followed on four separate occasions at the majority of the ponds within 500m of the site and this considerable survey effort is considered sufficient to determine the presence/absence of great crested newts.
- 5.3 Initial assessments identified that these ponds have potential to support great crested newts, however, no evidence of this species was found in any of the six waterbodies surveyed and it is considered that great crested newts are not using these ponds. The results suggest that a population of great crested newts is not present in the area surrounding the site.

## **6.0 Summary**

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- 6.1 Survey results indicate that great crested newts are absent from all of the surveyed ponds within the vicinity of the site. It is therefore concluded that great crested newts pose no constraint to the proposed development at Durrants Lane.

# Appendix A - Pond Location Plan



**Site Boundary**

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